22. PETITIONS FOR REGULATION CHANGE (WILDLIFE, INLAND FISHERIES, AND MARINE)

Today's Item Information \square Action \boxtimes

This is a standing agenda item for the Commission to receive new regulation change petitions and act on regulation change petitions received from the public at previous meetings. For this meeting:

- (A) Receive new petitions for regulation change
- (B) Act on previously received regulation change petitions

Summary of Previous/Future Actions

(A) New Petitions for Regulation Change – Receipt

• Today receive new petitions December 13-14, 2023

Potentially act on new petitions
 February 14-15, 2024

(B) Petitions for Regulation Change – Scheduled for Action

Received Petition 2021-028 December 15-16, 2021
 Referred Petition 2021-028 to the Department February 16-17, 2021
 Received petitions 2023-10, 2023-11, 2023-12 October 11-12, 2023

• Today potentially act on petitions December 13-14, 2023

Background

(A) Receive New Petitions for Regulation Change

Pursuant to Section 662, any person requesting that the Commission adopt, amend, or repeal a regulation must complete and submit form FGC 1. Regulation change petition forms submitted by the public are "received" at this Commission meeting under (A) if they are delivered by the public comment or supplemental comment deadlines or delivered in person to the Commission meeting.

Under the Bagley-Keene Open Meeting Act, the Commission cannot discuss or act on any matter not included on the agenda, other than to determine whether to schedule issues raised by the public for consideration at future meetings. Thus, petitions for regulation change generally follow a two-meeting cycle of receipt and decision. The Commission will determine the outcome of petitions received at today's meeting at the next regularly scheduled Commission meeting (currently February 14-15, 2024) under (B), following staff evaluation, unless the petition is rejected under 10-day staff review as prescribed in subsection 662(b).

Wildlife and Inland Fisheries Petitions

The Commission received two wildlife and inland fisheries petitions (exhibits A2 and A3).

Marine Petitions

At its October 2023 meeting, the Commission identified the December meeting comment deadline, November 30, as the preferred deadline for receiving petitions for changes to the MPA network, one of the adaptive management recommendations from the first MPA decadal management review. Twenty marine petitions were received by November 30 (exhibits A4 through A23), all related to MPAs. Petition exhibits contain the petition itself and may include additional materials to support the petition, including letters of support and additional background. A summary of all wildlife and marine petitions received by November 30 is included as Exhibit A1.

(B) Act on Previously-Received Regulation Change Petitions

Petitions received at the previous meeting are scheduled for Commission consideration at the next regularly scheduled business meeting under (B). A petition may be (1) denied, (2) granted, or (3) referred to a committee, staff or the Department for further evaluation or information-gathering. Referred petitions are scheduled for action once the evaluation is completed and a recommendation made.

Today, there are four petitions scheduled for action and summarized in Exhibit B1:

- I. Petition 2021-028: Request to add spearfishing as an allowable method of take for American shad (Exhibit B2)
- II. Petition 2023-10: Allow recreational anglers to donate fish to non-profits under a sport-caught fish exchange permit (Exhibit B4)
- III. Petition 2023-11: Authorize recreational take of groundfish inside 50 fathoms using non-motorized vessels or watercraft (≤19 ft) with mandatory descending devices (Exhibit B5)
- IV. Petition 2023-12: Require anglers to possess and use descending device capable of returning rockfish to the depth taken when fishing for or possessing groundfish (Exhibit B6)

Significant Public Comments (N/A)

Recommendation

Commission staff: Grant petition 2021-028 in concept; the Department plans to incorporate elements of this request in an upcoming inland fishing rulemaking proposal. Refer petitions 2023-10, 2023-11 and 2023-12 to the Department for review and recommendation.

Exhibits

- A1. Summary of new petitions for regulation change received through November 30, 2023
- A2. Petition 2023-13, received November 8, 2023
- A3. Petition 2023-17, received November 27, 2023
- A4. Petition 2023-14MPA, received November 13, 2023
- A5. Petition 2023-15MPA, received November 22, 2023

A6.	Petition 2023-16MPA, received November 22, 2023
A7.	Petition 2023-18MPA, received November 28, 2023
A8.	Petition 2023-19MPA, received November 29, 2023
A9.	Petition 2023-20MPA, received November 29, 2023
A10.	Petition 2023-21MPA, received November 29, 2023
A11.	Petition 2023-22MPA, received November 29, 2023
A12.	Petition 2023-23MPA, received November 29, 2023
A13.	Petition 2023-24MPA, received November 29, 2023
A14.	Petition 2023-25MPA, received November 30, 2023
A15.	Petition 2023-26MPA, received November 30, 2023
A16.	Petition 2023-27MPA, received November 30, 2023
A17.	Petition 2023-28MPA, received November 30, 2023
A18.	Petition 2023-29MPA, received November 30, 2023
A19.	Petition 2023-30MPA, received November 30, 2023
A20.	Petition 2023-31MPA, received November 30, 2023
A21.	Petition 2023-32MPA, received November 30, 2023
A22.	Petition 2023-33MPA, received November 30, 2023
A23.	Petition 2023-34MPA, received November 30, 2023
B1.	Summary of petitions for regulation change scheduled for action
B2.	Petition 2021-028, received December 10, 2021
B3.	Department memo regarding Petition 2021-028, received July 6, 2023
B4.	Petition 2023-10, received August 24, 2023
B5.	Petition 2023-11, received September 5, 2023
B6.	Petition 2023-12, received September 15, 2023
Motion	
concept	y and seconded by that the Commission grants in petition 2021-028 and refers petitions 2023-10, 2023-11, and 2023-12 to the ent for review and recommendation.
	OR
following	y and seconded by that the Commission adopts the actions for petition 2021-028 ; petition 2023-10;; petition 2023-11 ; and petition 2023-12:

CALIFORNIA FISH AND GAME COMMISSION

NEW PETITIONS FOR REGULATION CHANGE: RECEIVED BY 5:00 PM ON November 30, 2023

FGC - California Fish and Game Commission DFW - California Department of Fish and Wildlife WRC - Wildlife Resources Committee MRC - Marine Resources Committee

Tracking No.	Date Received	Name of Petitioner	Subject of Request	FGC Receipt Scheduled	FGC Action Scheduled
2023-13	11/8/2023	Rebecca Dmytryk	Furbearing mammals: use of traps	12/13-14/2023	2/14-15/2024
2023- 14MPA	11/13/2023	David Goldenberg, California Sea Urchin Commission	Sea urchins in state marine conservation areas	12/13-14/2023	2/14-15/2024
2023- 15MPA	11/22/2023	Blake Hermann	Footprint, Gull Island, and Santa Barbara Island state marine reserves	12/13-14/2023	2/14-15/2024
2023- 16MPA	11/22/2023	Richard Ogg, Pacific Coast Federation of Fishermen's Associations	Stewarts Point and Bodega Head state marine reserves	12/13-14/2023	2/14-15/2024
2023-17	11/27/2023	Los Osos Equestrian Community	Horses on Morro Dunes Ecological Reserve	12/13-14/2023	2/14-15/2024
2023- 18MPA	11/28/2023	Greg Helms, Santa Barbara Channel MPA Collaborative	Santa Barbara Channel marine protected areas	12/13-14/2023	2/14-15/2024
2023- 19MPA	11/29/2023	Sam Cohen, Santa Ynez Band of Chumash Indians	Chitqawi State Marine Conservation Area	12/13-14/2023	2/14-15/2024

2023- 20MPA	11/29/2023	Sam Cohen, Santa Ynez Band of Chumash Indians	Point Buchon State Marine Conservation Area and Point Buchon State Marine Reserve	12/13-14/2023	2/14-15/2024
2023- 21MPA	11/29/2023	Rosa Laucci, Tolowa Dee-ni' Nation	Pyramid Point State Marine Conservation Area	12/13-14/2023	2/14-15/2024
2023- 22MPA	11/29/2023	Wendy Berube, Orange County Coastkeeper	Bolsa Chica, Laguna Beach, Crystal Cove, and Dana Point marine protected areas	12/13-14/2023	2/14-15/2024
2023- 23MPA	11/29/2023	Keith Rootsaert, Giant Giant Kelp Restoration Project	Edward F. Ricketts, Pacific Grove Gardens, and Carmel Bay marine protected areas, and Tanker's Reef	12/13-14/2023	2/14-15/2024
2023- 24MPA	11/29/2023	Mike Beanen, Laguna Bluebelt Coalition	Laguna Beach State Marine Conservation Area	12/13-14/2023	2/14-15/2024
2023- 25MPA	11/30/2023	Burton Miller, Catalina MPA Collaborative	Catalina Island marine protected areas	12/13-14/2023	2/14-15/2023
2023- 26MPA	11/30/2023	Lisa Gilfillan, WILDCOAST	San Diego County marine protected areas	12/13-14/2023	2/14-15/2023
2023- 27MPA	11/30/2023	Azsha Hudson, Environmental Defense Center	Anacapa State Marine Conservation Area	12/13-14/2023	2/14-15/2023

2023- 28MPA	11/30/2023	Lisa Suatoni, National Resources Defense Council	Point Sal State Marine Reserve	12/13-14/2023	2/14-15/2023
2023- 29MPA	11/30/2023	Lisa Suatoni, National Resources Defense Council	Mishopshno State Marine Conservation Area	12/13-14/2023	2/14-15/2023
2023- 30MPA	11/30/2023	Robert Jamgochian	Take of crabs in Big River State Marine Conservation Area	12/13-14/2023	2/14-15/2023
2023- 31MPA	11/30/2023	Ashley Eagle-Gibbs, Environmental Action Committee of West Marin	Drakes Estero State Marine Conservation Area	12/13-14/2023	2/14-15/2023
2023- 32MPA	11/30/2023	Ashley Eagle-Gibbs, Environmental Action Committee of West Marin	Duxbury Reef State Marine Conservation Area	12/13-14/2023	2/14-15/2023
2023- 33MPA	11/30/2023	Laura Deehan, Environment California Research and Policy Center and Azul	Marine protected areas for kelp forests	12/13-14/2023	2/14-15/2023
2023- 34MPA	11/30/2023	Laura Deehan, Environment California Research and Policy Center and Azul	Enhanced protections for marine protected areas and enforcement streamlining	12/13-14/2023	2/14-15/2023

Tracking Number: (2023-13)

SECTION I: Required Information.

1. Person or organization requesting the change (Required)

Name of primary contact person: Rebecca Dmy t	ryk
Address:	
Telephone number:	
Email address:	

- 2. Rulemaking Authority (Required) Reference to the statutory or constitutional authority of the Commission to take the action requested: Sections 200, 203, 219, 265, 3003.1, 4005 and 4009.5, Fish and Game Code. Reference: Sections 110, 200, 203, 203.1, 265, 3003.1, 4004, 4005, 4009.5, 4152 and 4180, Fish and Game Code.
- **3. Overview** (Required) Summarize the proposed changes to regulations:

Petitioner seeks to have section §465.5 amended to comply with Fish and Game Code, specifically sections 4180 and 4152, and to clarify certain sections that are somewhat ambiguous. Please see the suggested changes being proposed:

1) § 465.5 Use of Traps (c) Prohibition on Trapping for the Purposes of Recreation or Commerce in Fur. It is unlawful for any person to trap for the purposes of recreation or commerce in fur any furbearing mammal or nongame mammal with any body-gripping trap. A body-gripping trap is one that grips the mammal's body or body part, including, but not limited to, steel-jawed leg-hold traps, padded-jaw leg-hold traps, conibear traps, and snares. Cage and box traps, nets, suitcase-type live beaver traps, and common rat and mouse traps shall not be considered body-gripping traps and may be used to trap for the purposes of recreation or commerce in fur any furbearing or nongame mammal.

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- 2) § 465.5 Use of Traps (d) Prohibition on Exchange of Raw Fur. It is unlawful for any person to buy, sell, barter, or otherwise exchange for profit, or to offer to buy, sell, barter, or otherwise exchange for profit, the raw fur, as defined by Section 4005 of the Fish and Game Code, of any furbearing mammal or nongame mammal that was trapped in this state, with a body-gripping trap as described in subsection (c) above.
- 3) § 465.5 Use of Traps (f) Use of Non-Body-Gripping Traps for Purposes of Recreation or Commerce in Fur. Any person who utilizes non-body-gripping traps for the take of furbearing mammals and nongame mammals for purposes of recreation or commerce in fur must comply with the provisions of subsections (g)(1) through (3) below.
- 4) § 465.5 Use of Traps (g) Use of Conibear Traps, Snares, Cage and Box Traps, Nets, Suitcase-type Live Beaver Traps and Common Rat and Mouse Traps for Purposes
 Unrelated to Recreation or Commerce in Fur. Conibear traps, snares, cage and box traps, nets, suitcase-type live beaver traps and common rat and mouse traps may be used by individuals to take authorized mammals for purposes unrelated to recreation or commerce in fur, including, but not limited to, the protection of property, in accordance with subsections (1) through (5) below. Except for common rat and mouse traps, all traps used pursuant to this subsection must be numbered as required by subsection (f)(1) above. The prohibitions of subsections (c) and (d) above shall apply to any furbearing or nongame mammal taken by a conibear trap or snare pursuant to this subsection (g). (f) Use of Traps for Purposes Unrelated to Recreation or Commerce in Fur. Any person who utilizes non-body-gripping traps, cage or box traps, nets, suitcase-type live beaver traps, conibear traps, snares, or traps authorized under 465.5 (e)(1), to take authorized mammals for purposes unrelated to recreation or

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commerce in fur, including, but not limited to, the protection of property as granted under FGC § 4152 and FGC § 4180, must comply with each of the following provisions.

- (1) Trap Number Requirement. (...)
- (2) Immediate Dispatch or Release (...)
- (3) Trap Visitation Requirement .(...)
- (4) Trap Placement Requirement. (...)
- (5) Placement of Conibear Traps. (...)
- (6) Zones Prohibited to the Use of Conibear-type Traps and Snares. (...)

465.5 (g) Statutory Penalty for Violation of Provisions. (...)

- 5) §465.5 Use of Traps (g)(1) (f)(2) Immediate Dispatch or Release. All furbearing and nongame mammals that are legal to trap must be immediately killed or released on site. (...)
- 6) §465.5 Use of Traps (g)(3) (f)(4) Trap Placement Requirement. Traps may not be set within 150 yards of any structure used as a permanent or temporary residence, unless such traps are set by a person controlling such property or by a person who has and is carrying with him written consent of the landowner to so place the trap or traps. a habitable dwelling without the written consent of the property owner(s) of those dwellings. The person setting the trap(s) must carry with them the written consent of those property owners. This requirement shall not apply to a person setting a trap for wildlife within an enclosed space that has been sufficiently sealed to prevent other animals from gaining entry and access to the trap.

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- **4. Rationale** (Required) Describe the problem and the reason for the proposed change:
 - # 1. Commercial and recreational fur trapping was outlawed years ago, yet §465.5 (c) states "Cage and box traps, nets, suitcase-type live beaver traps (...) may be used to trap for the purposes of recreation or commerce in fur any furbearing or nongame mammal," and therefore should be amended to conform with current law.
 - # 2. We are suggesting removal of the last statement "with a body gripping trap as described in subsection (c) above," as this implies if animals are trapped by other means, their pelts <u>could</u> be exchanged for profit.
 - # 3. Instead of simply striking references to recreation and commerce in fur in this section, we believe it makes more sense to remove it and ass the trap number provision to the subsequent section, which would actually be reassigned "f".
 - #4. Consolidating the provisions for use of traps under one heading rather than having (f)(1) separate, will make it less confusing. We also believe it's important to reaffirm that these regulations apply to anyone utilizing a trap for wildlife.
 - # 5. §465.5 (g)(1) Immediate Dispatch or Release, states "All furbearing and nongame mammals that are legal to trap must be immediately killed or released," which leaves room for interpretation and has led to wildlife officers not being able to act on potentially unlawful acts due to the ambiguous language. It should state clearly that animals are to be immediately released on site or euthanized on site.

Additionally, it may be valuable to also refer to the regulation that states that wildlife may not be relocated without authorization from the Department.

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6. As it currently reads, §465.5 (g)(3) is awkward, leaving much room for interpretation, which, for decades, has led to confusion - even among law enforcement officers, resulting in officers being unable to act on potentially unlawful acts due to the way this subsection is written.

We also recommend additional language to exempt persons from this requirement so they may set a trap for an animal within an enclosed space, like an attic or basement, where no other animals are able to gain access.

SECTION II: Optional Information

5. Date of Petition: 10-13-23

6. Category of Proposed Change

- □ Sport Fishing
- □ Commercial Fishing
- □ Hunting
- ✓ Other, please specify: General trapping regulations.
- **7.** The proposal is to:
 - ✓ Amend Title 14 Section(s): § 465.5.
 - □ Add New Title 14 Section(s):
 - □ Repeal Title 14 Section(s):
- **8.** If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition. **Not applicable.**

	Tracking Number: ()
9.	Effective date: If applicable, identify the desired effective date of the regulation.
	If the proposed change requires immediate implementation, explain the nature of the emergency: Not applicable.
10	Supporting documentation: Identify and attach to the petition any information
	supporting the proposal including data, reports and other documents:
11	Economic or Fiscal Impacts: Identify any known impacts of the proposed regulation
	change on revenues to the California Department of Fish and Wildlife, individuals,
	businesses, jobs, other state agencies, local agencies, schools, or housing:
12	. Forms: If applicable, list any forms to be created, amended or repealed:
SE	CTION 3: FGC Staff Only
Da	ite received: Nov 8, 2023
FG	iC staff action:
X	Accept - complete
	Reject - incomplete
	Reject - outside scope of FGC authority
Da	te petitioner was notified of receipt of petition and pending action:
Me	eeting date for FGC consideration:
FG	iC action:
	Denied by FGC
	Denied - same as petition

 $\hfill\Box$ Granted for consideration of regulation change

Tracking Number: __2023-17_)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

 Person or organization requesting the change (Required)
 Name of primary contact person: Los Osos Equestrian Community Address:

Telephone number:

Email address: losososequestriancommunity@gmail.com

- 2. Rulemaking Authority (Required) Reference to the statutory or constitutional authority of the Commission to take the action requested: Fish and Game Code Section 1580 ["The commission may adopt regulations for the occupation, utilization, operation, protection, enhancement, maintenance, and administration of ecological reserves."] Title 14 Section §630, Ecological Reserves
 - 3. Overview (Required) Summarize the proposed changes to regulations: Add the use of horses on designated trails in the Bayview Unit of the Morro Dunes Ecological Reserves. Remove: All use of horses on the Bayview Unit will remain prohibited. Amend 14 CCR § Section 630, Additional Visitor Use Regulations on Department Lands Designated as Ecological Reserves: (g)(11): The proposed changes allow the use of horses on designated trails on the Pecho Unit and the Bayview Unit of the Morro Dunes Ecological Reserve.
 - 4. Rationale (Required) Describe the problem and the reason for the proposed change: The establishment of the Morro Dunes Ecological Reserve in August 2000 raises concerns about the Fish and Game Commission's commitment to countering historic exclusions and ensuring transparency and community participation. There have been inconsistencies in regulation, and sworn accounts by a Senior Agent of the Fish & Game Organization, Debra Townsend, regarding recreational activities in the Bayview Unit, leading to the appropriation of government funding for the reserve's purchase.

Despite the creation of the Ecological Reserve in 2000, there was no funding allocated for enforcement or property remediation. Recreational activities persisted, and adjacent equestrian stables and properties were not notified of the reserve status. Equestrian use continued as it had for decades, as nobody was informed otherwise.

Historically, the property was used for cattle ranching since the 1930s, and it has always been surrounded by agricultural supporting industries, equestrian facilities, and residential developments. However, farming practices and disking led to erosion features and the dominance of invasive weeds in certain areas. Cattle and horses roamed the property during this period as well.

The existence of established horse trails within the nearby Pecho Unit is documented by prescriptive right. It is acknowledged that the Morro Dunes Ecological Reserve is an environmentally sensitive habitat area (ESHA) that must be protected. Limited equestrian use is not the sole or leading cause of species and habitat loss; factors like climate change and species migration must be acknowledged as the dominant impactors. This is basic conservation biology. Despite this, serious remediation efforts and enforcement have been lacking. Unpermitted motorcycles and bicycles also damage sensitive habitat, yet there have been no regulatory changes addressing this issue. In fact, we have witnessed Fish & Wildlife agents high five bicyclists leaving the Bayview Unit area despite it being prohibited. There has never been fencing on this property or signage even prior to it being a Reserve.

The majority of the Los Osos community is constructed on ancient dunes, forming a unique coastal ecosystem. The Coastal Commission, in partnership with the Fish & Game Commission, applied similar arguments for the Los Osos Wastewater Treatment Plant (WWTP) in 2010, considering ESHA disturbance for such projects as the least environmentally damaging feasible alternative. After over ten to twelve years since the MDER was established, Fish & Game was trying to establish a funding mechanism for remediation activities. It is 2023 and it has been 23 years since this property was purchased and there is still not an active funding source in place. It is dependent on the approval of the Coastal Commission confirming there is water in Los Osos and allowing building in the community again. This may take another decade. During this time, one of the dominant species that led to this property being designated an Ecological Reserve was reclassified as Threatened instead of Endangered as "the species' status has improved such that it is not currently in danger of extinction throughout all or a significant portion of its range". Additionally, the Morro Bay Kangaroo Rat was declared functionally extinct. These occurred during the time that no remediation efforts were occurring and equestrian use was occurring in the Bay View unit. Equestrians ride on trails that avoid the vegetation species that are endangered and threatened and the horses do not consume these. We walked by foot trails we used to ride to determine if they were surrounded by coastal sage scrub. dune scrub, Morro manzanita and maritime chaparral. We prefer to ride trails that are horizontal that do not cause erosion and avoid trails that are showing signs of erosion.

However, the confusion surrounding the Bayview Unit property persists due to the lack of remediation activities, enforcement, signs, or acknowledgment of its status as an Ecological Reserve. The Coastal Commission's involvement in mitigation further complicates the situation, with delays in implementing mitigation and conservation measures. On the request of Dave Hacker of Fish & Game, Los Osos equestrians temporarily stopped riding the area to demonstrate a willingness to work



together to come to a solution on the trails and he advised applying to the Commission to clear up the history regarding the property.

He, and the current commission, may not be aware that property evaluation leading to the establishment of the Morro Dunes Ecological Reserve was based on an Implied Dedication Study by Senior Land Agent Debra Townsend, who failed to acknowledge the continuous and uninterrupted equestrian use of the property. Townsend was aware of this recreational use, as evidenced by photographs of her riding in the area. She is a current equestrian and a long term Fish & Game Senior agent employee who retired recently. She rode with members of our community in the Ecological Reserve before this property was a reserve and was aware of the significant, historical equestrian use in this area. The lack of accurate representation during the property evaluation has led to the ongoing issues and disputes concerning the reserve's status and usage.

SEC	TION II: Optional Information
5.	Date of Petition: November 15, 2023
6.	Category of Proposed Change Sport Fishing Commercial Fishing Hunting X Other, please specify: Ecological Reserves
7.	The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs) X Amend Title 14 Section(s):630 Add New Title 14 Section(s): Click here to enter text.

8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition Click here to enter text. Or X Not applicable.

☐ Repeal Title 14 Section(s): Click here to enter text.

9. Effective date: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: This petition urgently calls for immediate action because equestrian use predates the creation of the Ecological Reserves. Furthermore, contracting irregularities, lack of transparency, and a failure in due diligence have unjustly denied equestrians their prescribed rights for the past two decades. The upcoming review of the Los Osos Community Plan by the Fish & Game Commission and Coastal Commission, as part of the Los Osos Habitat Conservation Plan (LOHCP), demands urgent attention. Despite the well-known fact that land use, development, and habitat loss significantly contribute to the decline of endangered species, including those in the Morro Dunes Ecological Reserve (MDER), the Fish & Game Commission points fingers at equestrian land disturbances while permitting residential, commercial, and industrial development. The MDER is currently being used as mitigation to

develop vacant residential and commercial properties in Los Osos, where endangered species are thriving under the Fish & Game Commission's Incidental Take Permit program. Allowing construction activities on these covered species, as proposed by the County in the LOHCP conservation program, will further endanger these species. The Commission's decision to permit such activities could lead to the extinction of these species, as they will be threatened by the construction, undermining the very purpose of the conservation program. It is essential to emphasize that equestrian recreation activities do not have the same impact on the environment as large-scale land use development projects. Immediate action is imperative to rectify these issues and protect the endangered species in the Morro Dunes Ecological Reserve.

- **10. Supporting documentation:** Identify and attach to the petition any information supporting the proposal including data, reports and other documents:
 - Images of America: Los Osos/Bay Wood Park: Lynette Tornatsky depicts history of the Los Osos/Baywood community and mentions "the Broderson area...is land crisscrossed with hiking and horse trails" (105).
 - Endangered and Threatened Wildlife and Plants; Reclassification of Morro Shoulderband Snail From Endangered to Threatened With Section 4(d) Rule Species Assessment Report: Ventura Fish and Wildlife Office U.S. Fish and Wildlife Service: "At the time of listing, we thought Helminthoglypta walkeriana morroensis (currently, Chorro shoulderband snail, CSS) was extinct and speculated that there may have been as few as several hundred individuals of H. walkeriana (currently, Morro shoulderband snail, MSS) extant. Within a few years of listing, CSS was rediscovered near the northern limit of Morro Bay. Since the time of listing, living CSS individuals have been documented at other locations from northern Morro Bay south and inland through the City of San Luis Obispo and we now know MSS numbers far exceed what was thought at that time. As part of the listing rule, we identified urban development and other anthropogenic activities such as recreation, grazing, and utility construction as threats to the banded dune snail (Service 1994: 66401). Currently, the most common threats to both species are those associated with land use practices that eliminate, reduce, fragment, and/or modify habitat used by the species. We expect that climate change will likely exacerbate the severity of these threats.
 - <u>Determining Extinction for Small Cryptic Species: The Morro Bay Kangaroo Rat</u>
 Biological Sciences Department, California Polytechnic State University, San Luis
 Obispo, CA 93407, USA
 - <u>California Fish and Game Commission Justice</u>, <u>Equity</u>, <u>Diversity and Inclusion Policy</u>:
 The Department's Lands Program, assisted by others throughout the Department, will begin taking steps to acknowledge historical connections and usages at many of the Department's lands
 - Baywood Park Training Area
 - https://documents.coastal.ca.gov/reports/2010/6/Th7b-6-2010.pdf

Bayview Ecological Reserve (Morro Palisades) San Luis Obispo County

IMPLIED DEDICATION STUDY

The undersigned has inspected the above noted property which is presently owned by Morro Palisades Co., a General Partnership. It is likely that the general public may have from time to time trespassed upon the property; however, there is no evidence of any systematic, regular or organized trespassers. Therefore, it is doubtful that a case for public prescriptive rights on the property could be perfected using the "open and notorious" definition which is generally a requirement in prescriptive rights cases. It should also be noted that most of the comparable sale properties in the appraisal report have similar capabilities of trespassing.

Debra Townsend Senior Land Agent

Date // N. 20, 2007



State of California – Fish and Game Commission PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 6 of 49

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LOS OSOS EQUESTRIAN COMMUNITY

PROPOSAL: Re-establishment of Equestrian Trails in MDEP Bayview Unit



Prepared for: County of San Luis Obispo, California Department of Fish and Wildlife Prepared by: Los Osos Equestrian Community March 4, 2021

Proposal response to Los Osos Habitat Conservation Plan/Morro Dunes Ecological Preserve Decision

PROPOSAL BRIEF

BACKGROUND

The Los Osos Equestrian Community (LOEC) is an informal group formed from six sub-communities within Los Osos, Baywood and Clark Valley. The LOEC has utilized an extensive network of equestrian trails located on county, state parks, and private-easement lands for decades. The LOEC numbers over 285 equestrian horses that use these trails on a daily basis, not including a large number of equestrians visiting from out of the area.

These trails have included areas located within the California Department of Fish and Wildlife-designated Morro Dunes Ecological Preserve (MDEP) Bayview and Pecho units. Within the past decade, the MDEP plan was incorporated into the larger Los Osos Habitat Conservation Plan (LOHCP).

In February of 2021, the final Environmental Impact Report for the LOHCP was accepted and the Memorandum of Understanding was signed by the County of San Luis Obispo and California Department of Fish and Wildlife (DFW). This report included the closure of several trails within the Bayview Unit of the MDEP. These trails were utilized by equestrians and hikers.

Additionally in this decision, a loop and ridge trail was established within the Bayview Unit that was designated for hiker access only. This action closed the Bayview Unit to all equestrian use. (Equestrian trails in the MDEP Pecho Unit were unchanged and equestrian use is still allowed.)

The closure of the trails in the Bayview Unit effectively locked out several of the LOEC's sub-communities from trail access to Montana de Oro (MDO) State Park. The closure of these trails will force an increased use of trailering of horses to one of three already over-crowded access points at MDO: the horse camp, horse camp entrance and the Hazard Reef/Dune Trail Parking Lot. (See "Equestrian Access Points" in Appendix Figure 1: Los Osos Equestrian Community Trail Map.)

The closure will force an increase of equestrian crossings at three high-traffic locations on county-maintained Pecho Road. (See "Pecho Road Crossings" in Appendix Figure 1: Los Osos Equestrian Community Trail Map.)

OBJECTIVE

The LOEC seeks to re-establish and restore a very limited section of equestrian trail within the Bayview preserve, limited to the perimeter of the preserve only. The LOEC also seeks to use as example the successful utilization of mixed-use access of protected public land as found in other equestrian communities, such as Ojai and Nipomo.

GOALS

Through assessment of the habitat conservation and public access in the Bayview Preserve, the LOEC seeks to work with the County of SLO and CA DFW to find a balance that still provides essential habitat conservation and protection for the at-risk species as listed in the LOHCP/MDEP while also providing limited access to the equestrian community of Los Osos.

SOLUTION

- 1) The re-establishment of an equestrian trail on the extreme western boundary of the preserve that would provide for a mixed-use trail system, closing a gap in the larger network of equestrian trails. This trail would utilize an existing wide trail already designated for hiker use, easily able to transition to a mixed-use trail.
- 2) The restoration of an equestrian trail on the extreme northern and eastern boundary that would re-open access to three sub-communities (approximately 100 equestrian riders) that are to the east of MDO State Park and the Bayview Preserve. This re-development of a trail would be within the designated and required 100-foot firebreak along the northern and eastern boundary of the preserve where it interacts with public use (homes and country road). See Figure 20: Fuel Break within the Bayview Unit in the "LOHCP Interim Adaptive Management and Monitoring Plan"
- 3) Alternative solution for protection of equestrian riders at the high-traffic public road crossings on county-maintained Pecho Road, to include equestrian rider-activated flashing lights at the marked crossings to alert drivers. This is similar to the pedestrian crossings (not found at intersections) on high traffic volume roads.

PROPOSAL OUTLINE

The LOEC proposal for the re-establishment and restoration has three separate yet connected solutions revolving around structured access, habitat conservation and erosion control, efficient mixed-use application and equestrian safety.

EQUESTRIAN TRAIL ALONG BRODERSON/LOOP TRAIL ON WEST BOUNDARY

Equestrians and hikers have long used the wide, abandoned Broderson Road south of Highland Drive for many years. The section south of the county access road is now designated as closed to equestrian use, despite being a primary trail for over 200 equestrians. (Reference "Existing/Proposed Mixed-Use Trail in Bayview Preserve" in Appendix Figure 1: Los Osos Equestrian Community Trail Map.)

This section of trail that continues south from the county access road for approximately .3 mile to a point that the trail turns south-east for .1 mile is designated as hiker only. The LOEC is requesting that this portion of the trail (.4-mile in length) become a mixed-use trail for both hiker and equestrian use.

The existing trail from this juncture continues south-west for .1 mile to the western boundary of the Bayview Preserve. This section has been designated closed in the LOHCP and is a section that the LOEC

requests become an equestrian-only trail so as to re-connect with the main equestrian trail directly over the preserve boundary.

The LOEC seeks to create a mixed-use environment similar to the equestrian trails created in the community of Ojai, where equestrians and hikers are separated by a fence (as seen in the photo at right).

For the Bayview Preserve western boundary, the equestrian use enters and departs only on the west side of the trail while the hiker use enters and departs from the east side of the trail. This creates a natural pathway that both ensures hiker and equestrian safety through separation of the trail along a center line fencing.



The habitat impact is insignificant as the existing wide trail would remain in use along with the existing side trail to the boundary perimeter that connects with the main trail outside the preserve.

This section of trail has a slope that is identified in the LOHCP as an area of erosion control and the LOEC would provide trail maintenance and erosion controls as detailed by the CAL DFW to ensure insignificant erosion impacts due to equestrian use.

The fencing to separate the mixed-use section of the trail between equestrians and hikers could be the recommended wire rope fencing to be utilized throughout the Bayview Preserve to contain the Loop and Ridge trails and close the smaller secondary trails that criss-cross the preserve. (The above split-rail fencing image from the Ojai community is an example of the separation of the mixed-use trail for equestrian and hiker safety.)

EQUESTRIAN TRAIL IN FIRE BREAK PARALLEL TO HIGHLAND RD. & BAYVIEW HEIGHTS DR.

The LOHCP requires a 100-ft. firebreak be created along the north and east boundary of the Bayview Preserve

The closure of the Bayview Preserve to all equestrian use has effectively blocked a significant portion of the LOEC from accessing the extensive public horse trail network that exists on county and state parks. Closure of the Bayview Preserve would force these equestrian stakeholders to trailer their horses to the already over-crowded equestrian access points in MDO State Park at the three locations marked on the LOEC Trail Map. (See "Equestrian Access Points" in Appendix Figure 1: Los Osos Equestrian Community Trail.Map.)

In addition, forcing Bayview Preserve equestrians to MDO State Park would greatly increase the number of horse crossings at three key high-traffic locations on Pecho Road marked on the LOEC Trail Map. (See "Pecho Road Crossings" in Appendix Figure 1: Los Osos Equestrian Community Trail Map.)

The LOEC proposes an equestrian trail that would exist within the 100-ft wide firebreak that would run parallel to Highland Road and Bayview Heights Drive. This trail would be on the north and east boundary, starting from the Broderson Road entrance to the preserve, running east along the residential fence line to the junction with Bayview Heights Drive. The equestrian trail would continue in a south-east direction within the 100-ft wide firebreak along Bayview Heights Drive to the junction with Calle Cordoniz, outside the Bayview Preserve, and an existing equestrian trail.

By restoring this extension of the equestrian trail within the firebreak, it would allow for the equestrian stakeholders in the sub-communities of Bayview Heights, LOVE Farm and the Central Coast Polo Club Boarding (approximately 100+ horses) access to the trail network east of the Bayview Preserve and northwest of MDO State Park. In addition, the intersection of Bayview Heights Drive and Calle Cordoniz is a popular horse trailering spot for both satellite LOEC sub-communities and visitors to the area.

Currently, due to the trail closures in the Bayview Preserve, all of these stakeholders are completely cutoff and isolated.

The habitat impact is insignificant as brush clearing (non-protected California Sagebrush-Black Sage) would be required due to the necessity of the firebreak, and the species impact would be insignificant as noted in the LOHCP in this specific zone.

EQUESTRIAN SAFETY AT HIGH TRAFFIC CROSSINGS ALONG PECHO ROAD

Outside of the LOHCP and MDEP areas, the equestrian trail network has three crossings on Pecho Road. (See "Pecho Road Crossings" in Appendix Figure 1: Los Osos Equestrian Community Trail Map.) These crossing already are heavily impacted by equestrian usage and are protected only by "Horse Crossing" signs in the vicinity of the crossings.

In addition, traffic volume on this section of Pecho Road is at already at high volumes with an expected increase in traffic following the buildout of Los Osos as per the LOHCP. See Figures 15-18: Proposed Community Plan Buildout Peak Hour Traffic Volumes at Intersections in Plan Area in the "LOHCP Final Environmental Impact Report, 2020"

The closure of any portion of the Bayview Preserve will force trailering of horses to one of the three trailering locations along Pecho road at the edge of MDO State Park. (See "Equestrian Access Points" in Appendix Figure 1: Los Osos Equestrian Community Trail Map.) This increased demand on these access points will also increase usage of the three crossings along Pecho Road.

The LOEC proposes an equestrian crossing alert system, similar to a pedestrian-activated flashing light warning sign, at these three high traffic volume crossings that pose a significant safety risk to equestrians. Even if the above-proposed trails within the Bayview Preserve are restored to equestrian use, these three crossings still remain as a safety issue that the LOEC believes needs to be addressed.

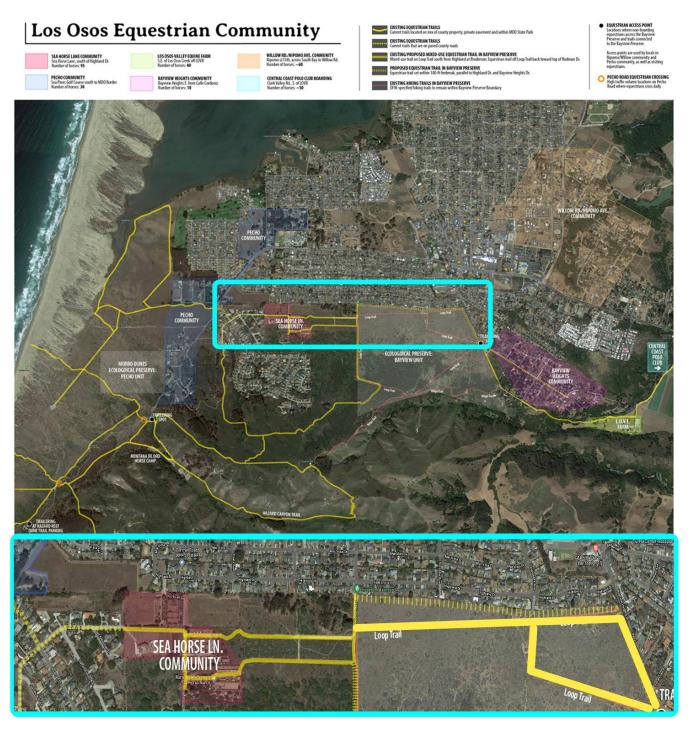
CONCLUSION

Equestrian safety, habitat conservation and preservation of the vast equestrian trail network in the Los Osos and Baywood community can be accommodated through mutual agreements and solutions, commitment from stakeholders in trail maintenance and erosion control, and an attention to the details in the Bayview Preserve.

Los Osos and MDO State Park are considered one of the top equestrian riding areas in the state. It is in the best interests of the County of San Luis Obispo, the CA Department of Fish and Wildlife and the local equestrian community to do everything in their ability to preserve the interests of all stakeholders, including all agencies, residents and visitors.

The LOEC seeks to take a more active role in the trail maintenance of the horse trail network within the Bayview Preserve to ensure that habitat preservation and conservation is at the recommended levels in the LOHCP and the MDEP reports.

LOEC members welcome and look forward to a positive and continued discussion in the proposal of limited trail along the Bayview Preserve perimeter that would benefit all involved.



Corridor allows E to W access. It has always been a multi-use trail.

San Luis Obispo County FY 2021-22 General Plan Progress Report

Tier I Priority Projects in Progress as of FY 22-23

The following Tier I Priority Projects are in progress as of FY 22-23.

Table 5: Tier I Priority Projects (In Progress as of FY 22-23)

	Los Osos Community Plan LRP2011-00016			
Summary	The Los Osos Community Plan allows new development and establishes a vision and framework for the future orderly development of Los Osos that is in line with available resources and protects the unique and sensitive habitats within the community. The Community Plan and related amendments will put in place the goals, policies, programs, standards, and zoning needed to guide future land use, transportation, and development for sustainable growth in the community over the next 20 years.			
Status	On December 15, 2020, the Board adopted the LOCP update and Final Environmental Impact Report (EIR) and tentatively adopted amendments to the Growth Management Ordinance that would establish a residential growth rate for the Los Osos urban area. The LOCP policies are subject to change based on CCC review. A hearing date with the CCC has not yet been scheduled. Staff continues to coordinate with CCC staff to address their comments.			
	abitat Conservation Plan			
LRP2013-00				
Summary	As required by one of the Conditions of Approval of the Los Osos Wastewater Project Coastal Development Permit, the County prepared a community-wide Habitat Conservation Plan for the community of Los Osos. A Habitat Conservation Plan is a required part of an application for an Incidental Take Permit, a permit issued under the United States Endangered Species Act to private entities undertaking projects that might result in the destruction of an endangered or threatened species. The covered species include two animal species and two plant species: Morro shoulderband snail, Morro Bay kangaroo rat, Morro manzanita, and Indian Knob mountainbalm.			
Status	On December 15, 2020, the Board approved a Memorandum of Understanding with the California Department of Fish and Wildlife (CDFW) to allow for habitat management, restoration, and monitoring activities on CDFW lands; approved to form the LOHCP and IAMMP; delegated authority to the Department Director to execute final documents and accept final LOHCP amendments and incidental take permit terms and conditions required by the U.S. Fish and Wildlife Service; and certified the Final EIR for the LOHCP. Staff continues to coordinate with the U.S. Fish and Wildlife Service for issuance of the incidental take permit.			



State of California – Fish and Game Commission

PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE

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population of several different endangered species. Western snowy plovers and White-faced Ibis, both Species of Special Concern, inhabit the wetlands. It is also likely that the Owens Valley vole, a Federal and State Species of Concern, Owens Valley checkerbloom, a State Endangered plant species, and the Owens tul chub will be found on this site as these species have been documented on the wetlands and spring site on an adjoining property. Acquisition of this site would also further the goals of the Owens Basin Wetland and Aquatic Species Recovery Plan which identifies the preservation of spring discharge and protection of wetlands as priorities for the Southern Owens Conservation Area which includes this site.

The market value of the subject property, as determined by an appraisal approved by the Department of General Services (DGS), is \$937,000.00. The owner has agreed to sell the property at the appraised value. The acquisition includes 218 acres of land improved with an artesian well, small metal building and chain link fencing around the well. An additional \$20,000.00 will be needed for the DGS' appraisal review costs, appraisal costs, environmental inspection costs, escrow costs and title insurance expense. An additional \$1,000.00 will be needed for start-up costs including a survey for endangered species, signs and training for the operation of the well.

This proposed acquisition is exempt from CEQA under Class 13 of Categorical Exemptions as acquisitions of land for wildlife conservation purposes and under class 25 as the transfer of ownership interests in land to preserve open space. A Notice of Exemption will be filed upon approval by the Wildlife Conservation

Mr. Wright reported that the Board received a letter of concern from the County Administrator on behalf of the Inyo County Board of Supervisors. Mr. Wright read a portion of that letter which expressed concern regarding the large percentage of publicly owned land, the loss of tax revenues and the need to have a balanced and reasonable approach that minimizes the economic and social impact on the local jurisdictions.

Mr. Wright stated that the Board received letters of support from Eastern Sierra Land Trust, Sierra Nevada Alliance, Kerncrest Audubon Society, Audubon Cailfornia, Toujabe Chapter Sierra Club, Cailfornia, Poudada Regional Conservation Desert Committee, Mono Lake Committee, Mojave Group of the Sierra Club, International Shorebird Survey, Eastern Sierra Audubon Society, The Owens Valley Committee, Sierra Foothills Audubon Society and letters from several other citizens.

Mr. Flores asked if there were any comments or questions. There were none.

Mr. Wright, referring to the letter from the County, stated that the Board is very cognizant of the impacts to these rural counties with significant acreages of

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public land already in place. He stated that this property is unique because of the water resources on it and because of that the Board recommends proceeding with the acquisition.

Mr. Klass asked if the water is present all year. Mr. Gallup stated that the water is seepage from the artesian well, appears all year and flows into the lakebed

Staff recommended that the Board approve this acquisition as proposed; allocate \$958,000.00 from Water Security, Clean Drinking Water, Coastal and Beach Protection Fund of 2002 (Prop. 50), Section 79565, for the acquisition and related expenses; authorize staff to enter into agreements as necessary to carry out this acquisition as described; and authorize staff and the Department of Fish and Game to proceed substantially as planned.

It was moved by Mr. Fred Klass that the Board approve this acquisition as proposed; allocate \$958,000.00 from Water Security, Clean Drinking Water, Coastal and Beach Protection Fund of 2002 (Prop. 50), Section 79565, for the acquisition and related expenses; authorize staff to enter into agreements as necessary to carry out this acquisition as described; and authorize staff and the Department of Fish and Game to proceed substantially as planned. Motion carried.

 Los Osos Dunes and Wetlands, Montana De Oro Unit, San Luis Obispo County

\$1,555,000.00

Mr. Wright reported that this was a proposal to consider the allocation of a grant to the State Department of Parks and Recreation (DPR) for the cooperative acquisition with the State Coastal Conservancy (SCC) and the Bay Foundation of 42± acres of land for protection of maritime chaparral, coastal dune habitat and threatened and endangered species. The property is located in Los Osos, south of the Morro Bay Estuary, west of Pecho Road and abuting the Montana De Oro State Park in San Luis Obispo County. Mr. Dave Means briefly described the project and its location.

The subject property contains two separate parcels. The main parcel is 41 \pm acres in size and is unimproved. The second parcel is a 1 \pm acre site located approximately 1½ mile north of the main parcel. The site is improved with a water well and storage tank. The "well" site was developed to provide water for the main parcel in anticipation of future development.

The main parcel is surrounded on three sides by State owned property. To the north and west is the DPR's Montana De Oro State Park; to the south is the 26± acre Department of Fish and Game's (DFG) Morro Dunes Ecological Reserve. If the property were ever developed it would create a significant visual and physical intrusion into these protected areas. The property is also a vital part and situated

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in what is the beginning of a planned greenbelt corridor that extends around the community of Los Osos and the southern portions of the Morro Bay estuary.

The establishment of the greenbelt is the result of a large coalition of local community participants, community groups, foundations, non-profit organizations and local, State and federal agencies, focused on preserving open space and coastal habitats around the southern portions of the Morro Bay Estuary. The greenbelt begins at the subject property, rurs west along the lower slopes of the Irish Hills, to the Los Osos Oaks State Preserve and then heads north along Los Osos Creek to the Morro Bay State Pres.

Within the corridor there have been a number of recent acquisitions of note, some of which have been presented to and approved by the Wildlife Conservation Board (WCB). These projects include the 30± acre Elfin Forest Preserve, acquired by the DPR, as an expansion to the Morro Bay State Park; the 15± acre Powell I property, acquired by the DPR as an expansion to the Morro Bay State Park; the 40± acre Powell II property acquired by the DPR and funded in part by a grant approved by the WCB, August 22, 2002; the 205± acre Bayview Ecological Preserve, a cooperative project acquired by the DFG and approved by the WCB August 10, 2000; the 32± acre Morro Dunes Ecological Reserve, account Date of the WCB August 13, 2003; the 26± acre Morro Dunes Ecological Reserve mentioned above; and the 18± acre Los Osos Dunes and Wellands Reserve, acquired by the BB y Foundation and funded in part by a grant approved by the WCB February 27, 2002.

The types of habitats found within the greenbelt include, fresh and saltwater wetlands, riparian, coastal dune scrub and maritime chaparral. These habitats support a wide range of wildlife species, including over 100 different bird species, 40 mammals and 20 repities. Included within these species are a number of federal and State, threatened, endangered and special status species, including the Morro mazanita, Indian Knob mountainbalm, Monterve spineflower, Peregrin falcon, Morro shoulderband snail, the black legless lizard and the coast homed lizard. This area of the greenbelt, including the subject property, is also located within an area designated for the protection and recovery of the Morro Bay kangaroo rat, a listed species.

The habitats and vegetation found on the subject property consist of coastal sage scrub with some maritime chaparral. Located on the southern part of the property is a small grove of eucalyptus trees that provides roosting for raptors. Animal species found on the property are consistent with those found throughout this area of the greenbelt, as mentioned above.

The topography of the property is gently sloping with coastal dunes, offering views of both the Pacific Ocean and Morro Bay estuary. The present zoning of the property is recreation. The owner has pursued development of a small resort

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facility on the property, which is consistent with the zoning. The highest and best use of the property has been determined to be development of a resort with some residential development.

The Bay Foundation, a partner on this transaction, has negotiated with the owner to acquire the property based on its appraised fair market value, \$3,300,000.0 a value approved by the Department of General Services (DGS). Once acquired the property will be transferred to the DPR and managed as an expansion to the Montana De Oro State Park. Currently running east to west through the property is a foot trail that connects from Pecho Road to the Montana De Oro State Park. The property owner appears to have permitted this use and it is reasonable to assume some prescriptive trail rights would be extended to the public if the property were ever developed.

To fund this cooperative project the proposed participation from the WCB is \$1,550,000.00. The remaining balance will be provided from grants from the SCC and DPR.

The funding breakdown is shown below:

In addition to the purchase allocation, \$5,000.00 is estimated to be needed for project related administrative costs, for a total allocation of \$1,555,000.00.

There is a possibility \$50,000.00 in U.S. Fish and Wildlife Service; Section 6 funds will become available subsequent to Board approval for this acquisition. If these funds do arrive prior to the close of escrow, they will be applied against the WCB portion of the purchase price and reduce WCB's participation from \$1,550,000.00 to \$1,550,000.00.01 fit he funds do not arrive in time, the DFG will look to reallocate these funds to another similar project.

The proposed acquisition is exempt from CEQA requirements under Section 15313, Class 13 as the acquisition of land for wildlife conservation purposes and under Section 15325, Class 25 as the transfer of ownership in land to preserve open space, habitat or historical resources. Subject to approval by the Board, the appropriate Notice of Exemption will be filled with the State Cleaninghous.

Mr. Means reported that Mr. Rob Kane from the Department of Parks and Recreation and Mr. Jim Swanson from the Department of Fish and Game in the audience should there be any questions.

Mr. Flores asked if there were any other comments or questions.





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Mr. Klass, acknowledging current and future budget concerns, requested clarification on DPR's plan to handle staffing this additional park area. Mr. Kane reported that he primarily deals with the acquisitions, but as with other property acquisitions, staff is spread thin, and like other State agencies, DPR is waiting to see what will happen in the future. Mr. Kane reported the budget office is aware of this acquisition and will be providing a budget estimate to the Department of Finance as they take it to the Public Works Board early next year.

Staff recommended that the Board approve this project as proposed; allocate \$1,555,000.00 from the Water Security, Clean Drinking Water, Coastal and Beach Protection Fund of 2002 (Prop. 50), Section 79565, for the acquisition and related costs; authorize acceptance directly into secrow \$50,000.00 under a U.S. Fish and Wildliffe Service Section 6 grant if available; authorize staff to enter into appropriate agreements as necessary to accomplish this project; and authorize staff and the Department of Fish and Game to proceed substantially as planned.

It was moved by Mr. Fred Klass that the Board approve this project as proposed; allocate \$1,555,000.00 from the Water Security, Clean Drinking Water, Coastal and Beach Protection Fund of 2002 (Prop. 50), Section 79565, for the acquisition and related costs; authorize acceptance directly into escrow \$50,000.00 under a U.S. Fish and Wildlife Service Section 6 grant if available; authorize staff to enter into appropriate agreements as necessary to accomplish this project; and authorize staff and the Department of Fish and Game to proceed substantially as planned. Motion carried.

17. Watsonville Slough (Buena Vista Unit), Santa Cruz County \$2,288,000.00

Mr. Wright reported that this was a proposal to consider a cooperative project with the Trust for Public Land (TPL), the California Department of Transportation (Caltrans), the State Coastal Conservancy (SCC), the U.S. Fish and Wildlife Service (USFWS) and U.S. National Park Service (USNPS), Department of Fish and Game (DFG) and the Board to acquire 299:a cres of land for protection of coastal wetlands and threatened and endangered species. This proposal is also to consider the acceptance of grant funds, directly into secrow totaling 44.427.215.00 from the above named entities. The property is located west of Watsonville, just south of and west of State Highway 1, within the Watsonville Stough watershed, in Santa Cruz County. Mr. Dave Means briefly described the project and its location.

The property is located in what is referred to as the Watsonville Slough Complex (WSC). The WSC begins near Pajaro River where it enters the Pacific Ocean, and consists of six major, inter-linked sloughs that spread out across the coastal plains, west of Watsonville. It has been described as some of the last remaining examples of an undisturbed coastal wetland/upland ecosystem along the central coast. The entire Watsonville slough area including surrounding upland portions

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encompasses approximately 5.400 \pm acres of property. The subject property encompasses the majority of the upper watershed area for Galighan Slough, one of the major sloughs and tributaries within the WSC.

Within the WSC, the DFG owns 290± acres of protected wetlands and adjoining uplands. These properties encompass portions of the Galighan Slough, Harkins Slough and West Struve Slough, Located just south and to the east of the subject property are the DFG's Santa Cruz Long-toed Salamander Ecological Reserve and the USFWS' Ellicott Station National Wildlife Refuge. These two properties are managed cooperatively by the DFG and USFWS.

The WSC contains a variety of coastal habitats including freshwater and saltwater wellands, native grasslands, martime chaparral, coastal sh shrub, riparian areas and oak woodlands. The complex provides an important resting area for migratory waterfowl and a wintering area for a number of different raptors species. The area also contains rare and sensitive species, such as the redlegged frog, fricolored blackbird, Santa Cruz long-loed salamander, California tiger salamander, the Santa Cruz tarplant, Hooker's manzanita and Monterey spineflower.

There are a number of public and private groups involved in the effort to protect conservation values within the WSC. They include the City of Watsonwille, the County of Santa Cruz, the Open Space Alliance of Santa Cruz County, the Land Trust of Santa Cruz County, Santa Cruz County, Resource Conservation District, Pajaro Valley Water Management Agency, TPL, SCC, the USFWS and the DFG.

The subject property is essentially undeveloped open space, comprised mostly of forested upland areas. There is one home site on the property Besides the single family residence on the property, there is no history of the property ever being developed or disturbed. The property represents one of the largest unfarmed and undeveloped ownerships along the coast in Santa Cruz County, Habitat types found on the property include coastal live oak woodland, maritime chaparral, coastal scrub, conifers and welfands. A number of rare and sensitive species inhabit the property including the Santa Cruz long-tode salamander. California red-legged frog, northern harrier, Hooker's manzanita, California bottle-brush grass and the robust spineflower. Of special note and interest is a large pond on the property inhabited by the California tiger salamander ar federally listed endangered species. The pond and salamander are currently part of an ongoing USFWS research and monitoring program.

If the property is not acquired, under the current zoning the property could be subdivided into ten, twenty-five acre residential estate lots. This type of use is consistent with the general economics of the areas and can be found throughout Santa Cruz County. The owners have demonstrated an interest in more intensive development of the property, having previously pursued plans for report

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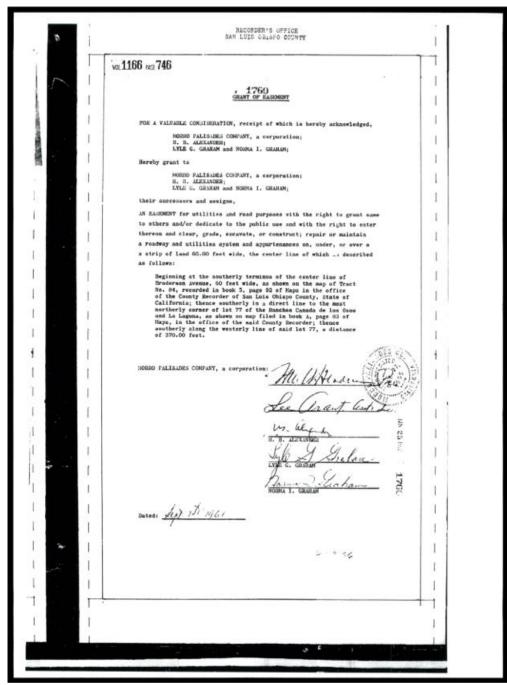


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State of California – Fish and Game Commission PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 18 of 49



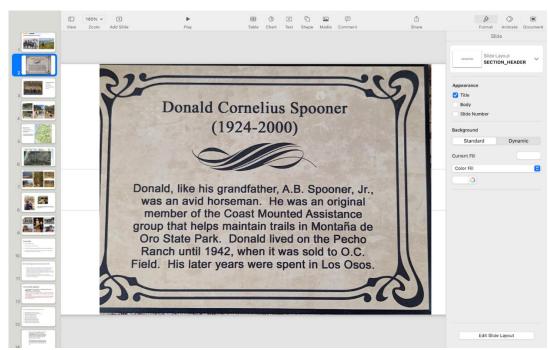
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State of California – Fish and Game Commission

PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 19 of 49



Property

Montana De Oro

61 miles of Equestrian Trails

Horse Camp – Brings in visitors from all over California

LOEC is concerned over the loss of use of our long time existing corridor That allowed access to these trails



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HISTORY OF USE OF ACCESS TRAIL TO MDO AND LOS OSOS









LOS OSOS EQUESTRIAN COMMUNITY — APPENDIX Figure 1: Los Osos Equestrian Community Trail Map





Coastal Mounted Assistance

Trail Repair Work
Search and Rescue
Fund Raising for Horse Camp
Park Patrol

Pecho /Rodman Intersection







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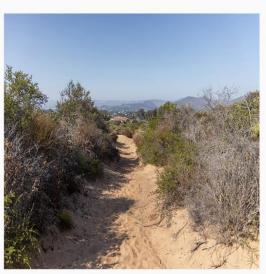




Recent photos of the exsiting multi-use corridor on the south east edge of the Morro Dunes Ecological Reserve



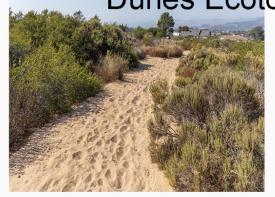






Recent photos of the exsiting multi-use corridor on the south east edge of the Morro

Dunes Ecological Reserve

















Recent photos of the exsiting multi-use corridor on the south east edge of the Morro Dunes Ecological Reserve





PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE

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Going to School



Connecting to Montana de Oro



For more that 50 years equestrians have been using This trail to connect to downtown Los Osos and to Montana De Oro state park.

To whom it may concern,

I have grown up in the small Los Osos community, riding horses, since I was a very small child. My mom used to ride me to Sunnyside elementary school on horseback in the 80s and 90s through this beautiful reserve.

It has been one of the greatest joys of my life being able to share in this awesome community, my love and passion for horses, and the beautiful trails that we have always been allowed to access. I have always been kind, and considerate to passing people on the trails and up until recently I have always been warmly welcomed with a smile and wave by people in the community, walking their dogs or hiking with family.

Signs have been posted now that are stating that NO horses are allowed in the Morro Dunes Ecological Reserve. I have felt intense discrimination and hostility since those have been put up, and it is very sad to witness the divide that it is causing in our community. I believe in supporting equality among people and animals, and it feels important to be kind to one another in our shared spaces. I do believe in preserving our environment, and want to do my part in helping to protect and enjoy the land for many generations to come. I have children that have also loved trail riding with me through this whole area and are also devastated by having no access. I am requesting a compromise where horses and their riders are allowed a perimeter trail and a coastal access corridor, as I have loved, and cared for for the past 41 years. We request coastal access that allows people to get to the beach safely throughout the community. We had not been previously notified of any issues or closures specifically to horses.

I appreciate your consideration by sustaining our access to the corridor trail.

All my best, Chelsea Mcl aughlin

Commisioners,

I have been a full time resident of Los Osos since 1972, and a frequent visitor to the area to see family and friends since 1955. I am an equestrian, in addition to my livelihood as an Agricultural Engineer and Project Manager. I and my family live adjacent to the property now known as the 'Morro Dunes Ecological Reserve, Bayview Unit'. We have frequently used the multi-use trail corridors thru this area (south of Highland Drive) when riding horseback or hiking from the east side of town to the west, and to the coast, as well as into Montana de Oro State Park. These long used multi-use trails, now within the 'Morro Dunes Ecological Reserve, Bayview Unit', have allowed safe access for equestrians and hikers from the east of Los Osos to the west, avoiding riding on the streets. As users of these trails we, our community of those who use these trails, have and will going forward assist with maintenance of the trails, and help prevent deviation of its boundary. We are part of the large Los Osos Equestrian Community and find that we have not had a voice in the decision to take this corridor away from us. In other reserves within the State, the Habitat Conservation Plans state "when possible link trails", and can allow limited equestrian use when linking trails to existing trails, as well as coastal access. Please note, that since the "No Horses Allowed" signs were put up along the perimeter of this area we have witnessed public exchange toward equestrians become quite negative and aggressive, where before exchanges were most often friendly and welcoming. This is a sad change for the atmosphere of our Los Osos Community. We also note that some of the species of concern in this reserve area (eg. the 'banded dune snail') have been re-designated from Endangered to Threatened. Please consider our need, and requests.

Thanks, Geof Gurley

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Hi,

I, Barbi Breen-Gurley have been a Los Osos resident and owner of an equestrian boarding and training facility since 1971 adjacent to the Morro Dunes Ecological Reserve, Bayview Unit. Throughout this time for 53 years I, my husband, our children, many riding students, and many visitors to this area have used the multi-use trail corridor from Bayview Heights to Montana de Oro State Park and to the beach on horseback. This long used multi-use trail, now within the 'Morro Dunes Ecological Reserve, Bayview Unit', has allowed safe access for equestrians from the east of Los Osos to the west, avoiding riding on the streets. We equestrians will help maintain this corridor and help prevent deviation of its boundary. We are part of the large Los Osos Equestrian Community and we have not had a voice in the decision to take this corridor away from us. The Habitat Conservation Plan can allow limited equestrian use when linking trails to existing trails, and coastal access. In addition, since the "No Horses" signs on the perimeter of this area have been posted, the public exchange toward equestrians has drastically changed to become quite negative and aggressive, where before it was friendly and welcoming. This is a sad change in the atmosphere of Los Osos. Please consider our need, and requests.

--

Sincerely, Barbi Breen Gurley



My name is Courtney Coleman, I live at Los Osos, CA

My email is:

I've been a resident of Los Osos and Morro Bay, and an equestrian riding Montana de Oro state park and the Broaderson trail area since 1993.

Fish & Wildlife recently eradicating equestrian access to our corridor trail along the North Side (bottom) of the Morro Dunes Ecological Reserve, cuts off our safe access to Montana de Oro trails, AND back to the East side of Los Osos (Bayview Heights).

This is a safety issue, as we are now forced to ride our horses on residential streets (Highland Dr) to get from one end of Los Osos to the other. It is a matter of time before a child or cyclist, etc. comes out of a driveway, and spooks a horse into traffic. When someone gets hurt or killed, who will be responsible? It seems it would come back on the party who changed the access rules in a historically multi-use trail, regardless of guidelines to "link trails whenever possible".

Thank You So Much for your time & consideration of a possible compromise... I just don't want anyone to get hurt.

Courtney



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Subject: Trails Support Letter from Mike

Michael Johnston

September 10, 2023

To Whom It May Concern:

I am writing this letter to support those who are advocating for an equestrian friendly community in Los Osos and continued use of the trails that have been available to us for decades.

I have lived in Los Osos with horses at my property since 1988. Since that time, I have ridden and enjoyed the trails between Mike Gorby's LOVE Farm and the beach as well as Montana De Oro. Those trails and riding opportunities have been a major enjoyment in my life, and I regret each time a trail is closed to riders.

Please explore every option for keeping trails open to horses and riders as they are an integral part of this beautiful and special community.

Thank you for your attention to this matter,

Michael Johnston

Aug. 8, 2023

My name is Lynnette Harwood Whaley.

I have been a member of this community from 1974 to the present. We have 10 acres on Clark Valley Road. From 1976 we have used the trails to ride from our property to Montana De Oro and back.

AS my children got older, we would ride our horses to Montana De Oro every Labor Day weekend and camp at Horse camp. We did this until 1993. I was also with S.L.O. Coastal Mounted Assistance and would ride out to meetings and trail patrols.

I have never seen any signs about no horses on the trails, nor have I ever received any mailings about this equestrian access was being taking away from us.

Lynnette Harwood Whaley

Synnette Harwood Whaley

Subject. I lease Allow Coastal Access to Equestrial is fit the Morro Duries Ecological Neserve Date: Monday, August 14, 2023 12:00 AM

Dear Members of the Coastal Commission.

My name is Devyn DiMascio and my Email address is

I am requesting that you help us correct an issue that is affecting many multi-use trail users in the Los Osos Morro Dunes Ecological Reserve area. We have historically (well over 50 years) used and needed a trail that goes from East to West across this area to allow access to the coast. We are currently being prohibited from using it. This trail exists in an East/West direction and it parallels Highland Dr. in Los Osos. Without this access trail we are forced to ride our horses on dangerous and busy streets with fast moving traffic and are cut off from reaching the coast.

Months ago the CA Fish and Wildlife Department posted signs throughout the boundaries of the reserve, including our main access to the coast demanding that all horses and riders are prohibited. They claim that they are trying to preserve a Morro Banded Snail, which is not endangered (and according to the county biologist lives way under the bushes down in the moist root area so we do not impact them). The plants in this area are flourishing and are not damaged or impacted either.

We as trail users and equestrians have been the recipients of hostile and unpleasant behavior from other uninformed trail users as a result of the CA Fish and Wildlife signs, EVEN when we are on other trails where we are NOT prohibited.

Please allow us an East/West access on a already existing, well-established wide and safe trail that will permit us to continue with the Historic trail use and access to the coast, and will end other trail users unpleasantness toward us. We understand that the Habitat Conservation Plan says "link trails when possible." There are other similar reserves that are following this and allowing Equestrian access.

**Side note- Over many years there has never been any problem with the multi-use trail users in this specific area, all very courteous and understanding of others desire to recreate and have coastal access in this area UNTIL the CA F&W signs were posted.

Many thanks for your consideration of this matter, it is much appreciated,

Devyn DiMascio

Dear Members of the Coastal Commission,

My name is Julian Watkins, and my email address is

I am writing to you in hopes you can help re-establish a much-needed trail that had historical equestrian use for over 50 years before the creation of the Morro Dunes Ecological Reserve took it away.

Many Ecological Reserves in California allow for equestrian users, but the local horse community was not included in the decision to ban horses from Morro Dunes Ecological Reserve. One of the reasons cited for banning horses was the endangered status of the Morro shoulderband snail. It is important to note that effective March 7, 2022, the Morro shoulderband snail was reclassified by the U.S. Fish and Wildlife Service and is no longer considered endangered.

Please at least re-establish the important east/west connector trail for equine use, this trail has had many generations of horses that have used it before it was taken away.

Thank you for your consideration,

Julian Watkins

To whom it may concern re: equine trail access in Los Osos off of Sea Horse Lane.

Hi I am writing in support of continued equine trail access in the trails recently closed to equines near Sea Horse Lane. I have been boarding my horses and riding on those trails for @20 years. I would like some access for equestrians to be allowed. Perhaps a perimeter loop using the existing perimeter trails on the property. All we would need are signs designating equestrian access for the perimeter trail.

Thank you for your time and consideration. Kathy Sallaz

Sent from my iPad

To: CA Fish & Wildlife From: Sharon & Jim Kroll Re: Broderson Los Osos Trail Closure

Dear Sirs/Madam:

I'm writing in regards to the trail closure to equestrians on Broderson Dr, Los Osos. It is the area west of Bayview Heights and east of Seahorse Lane that was owned by Morro Palisades Group until 2001. It was so surprising to see the signage maybe 2 years ago or so, out of the blue, designating the area closed to equestrian use. There were no notifications, meetings, nothing. For decades we have used those trails. For me, personally, I have been riding that trail since 1988..35 years! At that time I boarded with Barbi Breen (now Breen-Gurley). In 1994 my husband and I purchased property at the bottom of Seahorse Ln and within 2 years acquired a business license and Animal Regulation permit to board horses on the property, and have been operating ever since. So we are speaking from the perspective of a rider and business owner.

It is especially important to us now as our grandchildren (4 & 7) are now riding. We've walked their pony down to Bayview Heights to pick the youngest up from school (the site of the old Sunnyside school), and were forced on to Highland Dr and the traffic inherent to that.

Many decades ago that area east of Seahorse Lane was part of a future trail plan. I believe it was called Estero Trail Plan. Communities in many semi-rural areas of California have adopted such plans, bringing hikers, bikers, and equestrians together. We would hope for such a vision in our area.

We understand that these things aren't free...there's work involved keeping the trails up, addressing potential erosion, and a commitment that's necessary for users to be educated on environmental concerns and more, but this is all doable and the reward far outweighs the cost.

We urge you to amend the use designation for that area (Morro Dune Ecological Reserve Bayview), and to allow horseback riding on a designated trail.

Thank you, Jim & Sharon Kroll RE.: Morro Dunes Ecological Reserve-Equestrian Trail Closures

November 14, 2023 To Whom It May Concern

My name is Julia Long Meyers. I have lived in Morro Bay and Los Osos since 1975. In those days we always had plenty of horses to ride. We used our horses for recreational transportation in this glorious place. We were fortunate to be able to create and establish safe riding trails and routes which were very seldom disputed or disrupted. Our current established riding routes separated horse riders far away from traffic. These riding routes have provided a safe riding neighborhood for children riding horses with their parents, as well.

We have a lot of children, such as my own son, who were born here and learned to ride within their own families. Horse riding is one of the crown jewels of this town. With considerable pride and respect for the ability to live and ride with loved ones in our favorite places, we would like to maintain access to the places we have always used.

To diminish the ability to maintain access for the horse riders is not an option any of us residents would find beneficial or productive.

On behalf of the horse riding community in Los Osos, we need access provided where you have most recently sectioned off to plastic green waste bags only. The most recent closing of open spaces in Los Osos has proven most distressing to many horse owners, property owners, businesses, and homeowners, and we respectfully request your assistance.

Los Osos is well known for its spectacular and challenging horse riding of many types. There are well renowned horse trainers, well known riders, old ranching families (cowboys), who have accessed these same Los Osos open areas for at least 100 years.

The horse riders in this community are good stewards of the land. We are willing to cooperate with any plan that will allow us access in our already established riding areas without fear of intimidation.

There is no prior documentation of any erosion due to horse riding in that area.

I respectfully suggest we can cooperate with you in restoring safe access to horse riders whose lives are imbedded in this special place. Horse riding is a legitimate form of transportation. Please treat us as you would pedestrians, bicyclists, drivers, wheelchair persons, etc. Those of us, such as myself, who have worked in Transportation, know that the main concern in Transportation is to provide access.

We are looking forward to responsible reasonable, much needed access restored as soon as possible with as little negligible impact as possible.

Thank you for your time and your attention to this critical issue.

Most Sincerely.

Julia Long Mevers

Homeownwer in Los Osos

To: Fish and Wildlife

Re: Morro Dunes Ecological Reserve/Equestrian Trail Closures

My name is Julie Heriford and I have boarded my horses at Rancho Montanya del Mar for the past 7 years. I specifically picked this area due to the safe and immediate access to trails this barn has had access to for well over 30 years.

I can unequivocally say we are all nature lovers at heart. We understand the importance of preserving all endangered flora and fauna. We respect the environment and only ride well established dirt trails. We often come across families out walking and hiking and there is most always a positive exchange.

We have, at times, been the eyes and ears when illegal campers trespass and disrupt the environment and create an unsafe situation.

Now, equestrian's access to trails is being denied. We, as a group, are devastated. This is such a huge part of our lives that we hope will not come to an end.

I am hoping there is a place of compromise. Please consider providing equestrians a specific flat area where your concerns for erosion are minimized.

Thank you for your time.

Julie Heriford (homeowner)



PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 33 of 49

Bruce White <bwhite@pbwhite.com>

Mon, Aug 14, 10:07 PM

to Centralcoast@coastal.ca.gov, Monica, me

My wife (Monica) and I are residents of Los Osos living immediately adjacent to Montana De Oro SP and the affected equestrian trails-here are my thoughts as previous long time horse owners:

- 1. This is a multi-use corridor allowing the east side to access the coast.
- There is a long history of equestrian use-why is it now considered deleterious after so many years?
- If horses pose a threat, then humans should be banned also-there is 10X more human traffic vs. horse traffic on these trails. I walk these trails frequently and rarely do I come across equestrians
- The horse community is large in the Los Osos area-yet they were not asked to participate in the decision to ban horses from trail access.
- There are other Reserves that allow trail access to horses in order to link trails-and the HCP says when possible link trails.
- where is the science that a few horses pose an existential threat to banded snails? The snail is turning the corner despite some horse use of trails-now redesignated from Endangered to Threatened
- horses are part of our economic history and culture-the great majority of humans have an affection for horses-no different than the affection they have for family pets.

Bruce D. White, MS, CFP® Certified Financial Planner*** practitioner Phillip B. White & Company A Registered Investment Advisor San Luis Obispo | Danville Insurance License #0700202 11573 Los Osos Valley Rd., Ste. D San Luis Obispo, CA 93405 Phone: (925) 736-2108 Fax: (925) 736-2126

Prione: (925) 736-2108 Fax: (925) 736-2126 Email: <u>bwhite@pbwhite.com</u> Website: <u>https://pbwhite.com</u>

> Sat, Jul 22, 7:55 PM

to Losososequestriancommunity

My name is Carol Friend and I have been involved with the Los Osos equestrian community since 1970 when I moved to San Luis Obispo to attend Cal Poly. The reason I choose Cal Poly was because of the large horse community and the abundant year around trails.

Los Osos has always been a horse friendly community as evidenced by the street names referencing horses, such as Buckskin Drive, Palomino Drive, Lariat Drive and Tapidero Avenue to name a few. One of the big draws to living here is that a person can purchase an acre or two of land and keep their horse at their home.

In the 70's and 80's many of the people who kept their horses at their homes north of Los Osos Valley Road would ride to Lariat Drive, cross Los Osos Valley Road, and access the trails near Los Osos Creek and then access the trails that are in what is now called Morro Dunes Ecological Reserve. From there they could continue to Montana de Oro State Park.

I have personally ridden these trails since the early 1970's. Equestrians have had unfettered access to the trail system in the area now being called Morro Dunes Ecological Reserve.

To my knowledge no one was notified that horses would be excluded from these trails which have well established historical equestrian use.

I suggest that rather than exclude horses from this area, they should be grandfathered in because of their well established historical use in the area now called Morro Dunes Ecological Reserve.

Sincerely,

Carol Friend Sent from my iPhone



PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 34 of 49

From: Cricket Wood

Date: Fri, Jul 21, 2023 at 11:27 PM

Subject: Trail access

To: <Losososequestriancommunity@gmail.com>

Hello,

My name is Cricket Wood. As a teenager I rode the Los Osos trails in the summers of 1984/5 when I worked for Barbi Breen at Seahorse Ranch during the summer. I boarded my horse at Seahorse ranch and the trails provided a way for my horse and I to travel safely across Los Osos to visit friends at other barns and take our horses out to the beach. As a young person who didn't have my own truck and trailer I would have been stranded at one property if it hadn't been for the trails. It was beneficial to my horse and I to have the freedom to ride out in the open safely without encountering cars. Open trails for safe travel on horseback is a precious resource that has been rapidly disappearing across California. Over the past 40 years as cars and people have multiplied in CA I have watched as the trails available to horse riders in Southern and Central California have been continuously shrinking due to development, legal issues, etc. Horses traveling on established trails that have been in use for decades are not damaging to the animals that inhabit the Morro dunes. Please support sustainable travel and partner with horseback riders who are good stewards of the environment. Horseback riding across these trails has long preceded other human impacts on this region and has been intertwined with the natural state for decades. Please restore access for horses across the trails of Morro Dunes as has been a historical precedent and because it is also harmonious with the natural environment surrounding the trails.

Cricket Wood

2

Deborah Hirons

Sun, Jul 23, 8:19 PM

to Losososequestriancommunity

Dear Stewards of the Morro Dunes and Ecological Reserve,

My name is Deborah Hirons. I was raised in San Luis Obispo County with a big part of my childhood being with my pony and riding all over Los Osos. I kept my pony, and later a horse at sea Horse Ranch from 1975 to 1985 and again, off and on, from 1999 to present. I used to ride the corridor trail from Sea Horse Ranch to LOVE Farm, and other existing trails to go out on a leisure ride with my horse to be one with nature and enjoy the beauty Los Osos has to offer. I, and my riding companions, have always respected the environment and have never left the established trails.

Recently, the trail that I have been riding on for over 45 years has been designated as a preserve and closed to horses. I am asking that you please consider keeping the existing trails and the corridor above Highland open as other alternatives for riding are dangerous.

Sincerely, Deborah Hirons

Sent from my iPhone



PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE

FGC 1 (Rev 06/19) Page 35 of 49

Deb Hirons

Jul 23, 2023, 8:35 PM

to Losososequestriancommunity

Hello,

My name is Matt Hirons. Being born (1961) and raised in San Luis Obispo county, I have been involved with equine activities since I was 9. I have ridden many times, from the east side of Los Osos to the north side, on the trails in the area referred to as the Morro Dunes and Ecological Reserve. As a young child, I was taught to NOT leave the established trails, and NOT to disturb the native plants and animals. We would just pass through and enjoy the company of other horses, as well as people hiking. My earliest memory on this trail was in 1972 or 1973 when I was guided by people who knew the trails from LOVE farm to the beach. My sincere hope is that this trail remains open as part of the equestrian community in Los Osos.

Matt Hirons

Morro Dunes Preserve Trail Access

Sept, 9, 2023

My name is gretchen moreno. I am very concerned about the trail access at the Morro Dunes preserve sight. I bought my permitted horse stable, Rancho Montanya del Mar, in 1991, and have always had trail access on the said parcel up until recently. My boarders use these trails frequently. Also We have neighbors who live east of the parcel with horses in their back yards. They use these trails to access MDO trails.

To close off the MDP property would be a detriment to my business, as it has always allowed easy trail riding for the boarders as well as keeping horse traffic off slippery asphalt

I understand the need to preserve endangered flora and fauna species, as well minimize the trail erosion, so I would propose that the horses use the horizontal trails as much as possible.

I remember in 2001 the day that Kirshie(former owner) dedicated the parcel to the Los Osos Green Belt corridor.** Noted people in the photo; Shirley Bianchi, Abel Maldonado, María Morrissey, Kirshie??, Warden from F&W??.

After over 20 years of work to create a multi-use trail along the northern edge of this parcel I would hope that we can come to an amlicable agreement on the trails for multi-use. It had been through several reviews at the local and county level such as: LOCAC SLO COUNTY TRAILS

SLO COUNTY TRAILS SLO CO. PARKS AND REC SLO CO. SUPERVISORS- BRUCE GIBSON COASTAL COMM.?

SLO POST LOSOSOSEQUESTRIANCOMMITTEE@gmail.com



----- Forwarded message -----

From: Nancy Owen

Date: Mon, Aug 14, 2023 at 9:08 AM

Subject: Los Osos Habitat Conservation Plan

To: < Centralcoast@coastal.ca.gov>

To Whom it May Concern:

I wish to voice my concern about loss of access for equestrians to use a corridor trail that links trails east to west at the edge of the Morro Dunes Ecological Reserve. It is my understanding that this trail at the edge of the reserve has a multi-use history, including equestrian use, spanning at least 50 years.

I have two main concerns regarding banning only horses from this corridor. First, equestrians will be forced to ride on the road to access the back bay and beach which is dangerous for not only horses and riders, but also bikers, walkers, and drivers. Second, if equestrians trailer over to the park instead of riding over (assuming they have a truck and trailer), this would of course, increase traffic congestion and put pollutants into the air. It is my understanding that there are other reserves that allow trail access in order to link other trails and allowing the use of this corridor would allow the large equestrian community in Los Osos to have a safe route linking trails.

Thank you for our attention in this matter.

Nancy Owen

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State of California – Fish and Game Commission PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 37 of 49

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State of California – Fish and Game Commission PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 38 of 49

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State of California – Fish and Game Commission PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 42 of 49

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State of California – Fish and Game Commission PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 43 of 49

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State of California – Fish and Game Commission
PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE

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PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE
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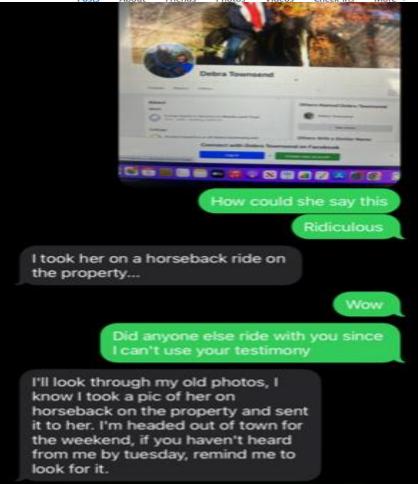
State of California – Fish and Game Commission
PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE
FGC 1 (Rev 06/19) Page 47 of 49

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State of California – Fish and Game Commission PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 48 of 49





11. Economic or Fiscal Impacts: Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing: The proposed designation will result

in additional revenue for local businesses such as the boarding facilities and hotels and could lead to additional jobs for our low income communities that are struggling to afford the rising costs in one of the most expensive regions in California (Central Coast). Los Osos has very limited job opportunities and limited housing due to the building moratorium by the Coastal Commission.

The initial designation of the Ecological Reserve failed to include the surrounding farms and horse boarding facilities despite it being a key tourist draw to the city. This has resulted in loss of revenue from the equine boarding stables surrounding the ecological reserve who have ridden there for countless decades. In addition, it has forced horseback riders to cross the heavily trafficked Los Osos Valley Road - Pecho Road which leads to Montano de Oro State Park that allows equine use. This area allows traffic speeds up to 45 MPH and there is no safety infrastructure for pedestrian or equine infrastructure. There have been enough collisions in the area surrounding Rodman Drive and Pecho Valley Road that the County of San Luis Obispo is studying the stretch of Los Osos Valley Road to Pecho Valley Road to determine how they can meet Caltrans' and the Department of Transportation's mandated safety guidelines. This has also reduced the demand for jobs in agriculture and equine care. With less available riding for horses, this impacts our low-income communities who have traditionally pursued this labor type among other agricultural employment.

12. Forms: If applicable, list any forms to be created, amended or repealed:

Click here to enter text.

SECTION 3: FGC Staff Only

Date received: [11/27/2023.]
FGC staff action: Accept - complete Reject - incomplete Reject - outside scope of FGC authority Tracking Number
Date petitioner was notified of receipt of petition and pending action:
Meeting date for FGC consideration:
FGC action: Denied by FGC Denied - same as petition Tracking Number
Granted for consideration of regulation change

Tracking Number: (__2023-14MPA_)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Email address:

Please be succinct. Responses for Section I should not exceed five pages

1.	Person or organization requesting the change (Required)
	Name of primary contact person: David Goldenberg, Executive Director, California Sea Urchir
	Commission
	Address:
	Telephone number:

- 2. Rulemaking Authority (Required) Reference to the statutory or constitutional authority of the Commission to take the action requested: Authority: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861, and 6750, Fish and Game Code, and Sections 36725(a) and 36725(e), Public Resources Code.
- **3. Overview (Required) -** Summarize the proposed changes to regulations: Allow the commercial take of urchins in the following State Marine Conservation Areas (SMCAs):
 - 1) Sea Lion Cove SMCA
 - 2) Stewart's Point SMCA
 - 3) Salt Point SMCA
 - 4) Double Cone Rock SMCA
 - 5) Naples SMCA
 - 6) Anacapa Island SMCA
 - 7) Point Dume SMCA
 - 8) Point Vicente SMCA
 - 9) Swami's SMCA
- **4. Rationale (Required) -** Describe the problem and the reason for the proposed change: The commercial urchin fishery and the resiliency of California's kelp forests have been identified as being at risk due to climate change. This became a reality with the warm water event that started in 2014 and led to urchin barrens and a decline in kelp forests along the California coast, with declines

in kelp as high as 90% along the north coast. This resulted in a catastrophic decline in urchin landings (4.2 million pounds in 2013 down to 284,000 pounds in 2022), leading to a federal fishery disaster declaration. Allowing commercial urchin fishing within the listed SMCAs will improve the sustainability of the urchin industry and may also support kelp recovery efforts endorsed by the Fish and Game Commission (FGC), Department of Fish and Wildlife (DFW), and the Ocean Protection Council (OPC).

This proposal is consistent with goals and objectives 1.1, 1.5, 2.4, and 5.1 identified in the 2016 Master Plan for Marine Protected Areas (MPA), along with the identified design considerations relative to climate change impacts and preservation of diverse commercial uses. Managed urchin fishing can promote the stability of species diversity and abundance consistent with natural fluctuations in environmental conditions. We believe that commercial urchin fishing can help the recovery of kelp ecosystems impacted by over-abundant urchin populations (urchin barrens) ultimately caused by climate change. This belief is based on the kelp restoration projects funded by the OPC along the north coast that are showing promise. Our petition sets up an economical approach that can be used to expand this effort in selected SMCAs along the entire coastline.

Our proposal is consistent with the Master Plan by protecting habitats (kelp forests) while allowing commercial harvest, thus mitigating some of the significant negative impacts experienced by the fishery when the MPA network was established. The Master Plan also states that the MPA network should consider several factors, including the potential impacts of climate change and the diversity of commercial fishing. The proposal is also consistent with the comprehensive recommendations and science guidelines of DFW's Decadal Management Review, which acknowledged inadequate engagement with the fishing industry and the continuing need for adaptive management under a changing climate. DFW's JEDI Governance recommendation #6(c) clearly states the need to explore innovative approaches to engage the fishing industry in MPA research and management. The industry believes that with the collaboration of CDFW, FGC, OPC, NGO's, academic institutions, and the Tribes it can help address urchin barrens and ultimately restore kelp forests the ecosystems reliant upon them.

Our proposal is supported at the Sea Lion Cove and Double Cone Rock SMCAs by the MPA Collaborative recommendations. The Collaborative also supports continuing the commercial urchin harvest at Saunders Reef SMCA.

The commercial urchin fishery has a long track record of working with DFW, and in recent years with OPC, on research and management issues and is ready to continue that partnership using the recommended changes to the MPA network listed in this petition as an important step in fulfilling the goals of the Marine Life Protection Act and mandates in the Fish and Game Code to support sustainable commercial fisheries.

The science developed to date indicates that in areas lacking significant urchin predators, urchin populations can have negative cascading effects on kelp forests in MPAs and reference sites (Carr et.al., 2021). By functioning as predators, commercial urchin fishermen may help restore and protect kelp forests in MPAs. In accordance with the adaptive management elements of the Master Plan, decadal review, and DFW recommendations, we ask that this petition be collaboratively evaluated by all stakeholders through the rulemaking process of the FGC with respect to improving the resiliency of both the commercial urchin fishery and kelp forests to climate change.

SECTION II: (Optional Ir	nformation
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5.	Date of Petition: Click here to enter text.
6.	Category of Proposed Change
	☐ Sport Fishing
	X Commercial Fishing
	☐ Hunting
	Other, please specify: Click here to enter text.
7.	The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs)
	X Amend Title 14 Section(s): 632(b)(30)(B)is allowed. The commercial take of urchins is
	allowed.
	632(b)(16)(B)2;-and Dungenessis allowed., and the commercial take of urchins is
	allowed.
	632(b)(33)(B)dip net. The commercial take of urchins is allowed.
	632(b)(35)(B) is allowed. The commercial take of urchins is allowed.
	632(b)(98)(B) 5 The commercial take of urchins is allowed

632(b)(112)(B)1 ... commercial take of spiny lobster and urchins is allowed.

632(b)(119)(B) ...is allowed. The commercial take of urchins is allowed.

632(b)(138)(B) ... 4. The commercial take of urchins is allowed.

632(b)(117)(B)2 ...take of urchins; swordfish...

☐ Add New Title 14 Section(s): Click here to enter text.

X Repeal Title 14 Section(s):

- 8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition [Click here to enter text.]

 Or X Not applicable.
- **9. Effective date**: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: 2025
- 10. Supporting documentation: Identify and attach to the petition any information supporting the proposal including data, reports and other documents: Red Sea Urchin Enhanced Status Report (See California Department of Fish and Game website). California Marine Life Protection Act Master Plan for Marine Protected Areas 2016 (See California Department of Fish and Game website). California's Marine Protected Area Network Decadal Management Review 2022 (See California Department of Fish and Game website). Monitoring and Evaluation of Kelp Forest ecosystems in the MLPA Marine Protected Area Network (Carr et.al. 2021) (See California Department of Fish and Game website). MPA Collaborative Network (see website, Collaborative Vetted Regulation Recommendations)
- **11. Economic or Fiscal Impacts:** Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs,

other state agencies, local agencies, schools, or housing: No known negative economic or fiscal impacts of the proposed changes. It is expected that there will be some positive economic benefits by opening formally closed areas to commercial urchin fishing.

12.	Forms: If applicable, list any forms to be created, amended or repealed: [Click here to enter text.]
SECT	ION 3: FGC Staff Only
Date	received: [11/13/23.]
]]]	staff action: Accept - complete Reject - incomplete Reject - outside scope of FGC authority Tracking Number Detitioner was notified of receipt of petition and pending action:
Meeti	ng date for FGC consideration:
F GC ;	action: Denied by FGC Denied - same as petition

Tracking Number

☐ Granted for consideration of regulation change

Tracking Number: (2023-15MPA)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages.

1.	Person or	r organization	requesting t	the change ((Required)
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Name of primary contact person: Blake Hermann Address:

Telephone number:

Email address:

- 2. **Rulemaking Authority (Required) -** Reference to the statutory or constitutional authority of the Commission to take the action requested:
 - -Fish and Game Code (FGC) Division 1, Chapter 2, Sections 200, 205c, 265, and 399
 - -Fish and Game Code (FGC) Division 2, Chapter 5, Sections 1590 and 1591
 - -Fish and Game Code (FGC) Division 3, Chapter 10.5, Sections 2860 and 2861
 - -Fish and Game Code (FGC) Division 6, Chapter 6, Section 6750
 - -Public Resource Code (PRC) Division 27, Chapter 7, Sections 36725(a) and 36725(e)

3. Overview (Required) - Summarize the proposed changes to regulations:

This petition requests a modification to three Marine Protected Areas (MPAs) off Southern Santa Cruz Island and Santa Barbara Island, known as the Footprint Marine Reserve (The Footprint), Gull Island Marine Reserve (Gull Island), and The Santa Barbara Island Marine Reserve (SBI). The Footprint and Gull Island Reserves are located on the southeast and southwest sides of Santa Cruz Island respectively, and the SBI Reserve is located on the southeast corner of Santa Barbara Island.

This petition requests, for the reasons stated in the accompanying sections, that The Footprint, Gull Island, and SBI Reserves be modified and partially opened and converted into limited take conservation areas with implementation of one the following options (listed from the most to least allowances):

Option 1: The least restrictive option, with some existing precedent SCMAs:

- The recreational take of pelagic finfish* is allowed.
- The commercial take of pelagic finfish* by hook-and-line, and swordfish by harpoon are allowed.
- Deep-Set-Buoy-Gear (DSBG) is allowed in the federal portions of the proposed MPAs. **

Option 2: Elevated protections in species selectivity (preferred option):

- The recreational take of Highly Migratory Species (HMS)* is allowed.
- The commercial take of Highly Migratory Species (HMS)* by hook-and-line, and swordfish by harpoon is allowed.
- The possession of Coastal Pelagic Species (CPS) is allowed.
- Deep-Set-Buoy-Gear (DSBG) is allowed in the federal portions of the proposed MPAs. **

Option 3: Option 1 with only allowance of "surface fishing methods:" ***

- The recreational take of pelagic finfish* is allowed via surface fishing methods.
- The commercial take of pelagic finfish* by hook-and-line via surface fishing methods, and swordfish by harpoon are allowed.

Option 4: Option 2 with only allowance of "surface fishing methods:"

- The recreational take of Highly Migratory Species (HMS)* is allowed via surface fishing methods.
- The commercial take of Highly Migratory Species (HMS)* by hook-and-line via surface fishing methods, and swordfish by harpoon are allowed.
- The possession of Coastal Pelagic Species (CPS) is allowed.

Each of the above options **may** also include a reduced in size, more selective, limited-take or notake zone within the Gull Island and SBI zones. However, as discussed later, these areas are only needed if Options 1 or 3 are selected (See Attached: Full Analysis Document 1).

*List of State HMS, CPS, and Pelagic finfish per Title 14 CA § 1.49, 1.39, and 632(3):

-Highly migratory species means any of the following: albacore, bluefin, bigeye, and yellowfin tuna (Thunnus spp.); skipjack tuna (Katsuwonus pelamis); dorado (dolphinfish) (Coryphaena hippurus); striped marlin (Tetrapturus audax); thresher sharks (common, pelagic, and bigeye) (Alopias spp); shortfin mako shark (Isurus oxyrinchus); blue shark (Prionace glauca); and Pacific swordfish (Xiphias gladius).

-Coastal pelagic species means any of the following: northern anchovy (Engraulis mordax), Pacific sardine (Sardinops sagax), Pacific mackerel (Scomber japonicus), jack mackerel (Trachurus symmetricus), and market squid (Loligo opalescens).

-Pelagic finfish, are a subset of finfish defined as: northern anchovy (Engraulis mordax), barracudas (Sphyraena spp.), billfishes (family Istiophoridae), dolphinfish (Coryphaena hippurus), Pacific herring (Clupea pallasi), jack mackerel (Trachurus symmetricus), Pacific mackerel (Scomber japonicus), salmon (Oncorhynchus spp.), Pacific sardine (Sardinops sagax), blue shark (Prionace glauca), salmon shark (Lamna ditropis), shortfin mako shark (Isurus oxyrinchus), thresher sharks (Alopias spp.), swordfish (Xiphias gladius), tunas (family Scombridae) including Pacific bonito (Sarda chiliensis), and yellowtail (Seriola lalandi).

Deep-Set-Buoy-Gear (DSBG), if allowed, would **only be allowed beyond the 3nm line, outside of state waters, as is currently fished. Barring any future changes or exempted fishing permits (EFPs).

***See Full Analysis Document attachment (Document 1) for detailed description.



4. **Rationale (Required) -** Describe the <u>problem</u> and the <u>reason(s)</u> for the proposed change:

The Problem:

Initially established in 2003 and federally expanded in 2006, the Channel Islands MPA network containing The Footprint, Gull Island, and SBI Reserves was the first network of its kind in California history. This island network later expanded into the statewide MPA network during coastal implementation phases from 2007-2012. The problem created by these first MPAs was the unintentional protection of seasonal pelagic and highly migratory species that migrate into Southern California during the summer months.

The allowance of limited pelagic or highly migratory take in these areas falls in line with the adaptive management measures set forth in the Decadal Management Review (DMR) and reinforced by the Marine Resource Council's (MRC) near-term recommendations. The proposed changes also fall in line with the MPA Master Plan and align with FGC comments on previous change request petitions.

While maintaining the original intentions for the creation of the MPAs, the proposed changes will have minimal impacts on the ecosystem due to the selective nature of the gear being recommended and highly mobile species it would allow for.

Summary of the reasons for change:

This petition aims to prove this proposal is justified by showing the following*:

- Limited take of pelagic finfish or HMS does not significantly affect or interfere with the species and features the MPAs aim to protect
- The proposed changes provide better equality of MPA policy across the state
- The 20 years of data from these and other MPAs support the proposed changes
- The proposed changes are in line with MPA decadal management review (DMR) comprehensive recommendations and the near-term priority recommendations of the marine resource committee (MRC)
- The proposed changes follow precedent set by the FGC's comments on previously submitted petitions, the current MPA overviews, the 2016 MPA master plan for the southern section, and the original 2002 MPA CEQA for the Channel Islands Network
- The proposed changes exclusively allow for sustainable fishing methods on no at risk populations/species
- The proposed changes support sustainable commercial fisheries the state and NOAA have expressed desire to further expand
- The proposed changes are reasonably enforceable (per discussions with F&G officers)
- The proposed changes have mass public support from the public, fishery groups, nonfishery groups, and conservation organizations

If implemented the resulting changes may have the following effects:

- The Channel Islands MPA network would be updated to allow for a more equitable 60/40 no-take to limited take closure ratio, which would be in line with the state's ratio
- Would provide new fishing opportunities to sustainable recreational and commercial fisheries while producing minimal impacts to the intended protected structures and species

- Provide new research opportunities for observing previous no-take zones under new allowance of pelagic or HMS limited-take
- Help grow local business and further develop the local and state economy

*Further detailed explanations, analysis, and figures are included in Document 1, and the remaining documentation in the "Supporting Documentation" section.

SECTION II: Optional Information

5.	Date of	Petition:	Submitted-1	1/22/2023
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6.	Category of Proposed Change Sport Fishing Commercial Fishing Hunting Other, please specify: Click here to enter text.
7.	The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs) Amend Title 14 Section(s): Division 1, Subdivision 2, Chapter 11, § 632 Add New Title 14 Section(s): Repeal Title 14 Section(s): Repeal Title 14 Section(s): See Document 20 for State and Federal Code modifications example

- 8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition Click here to enter text.

 Or Not applicable.
- 9. Effective date: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: Due to the change regarding modifying existing MPAs that cover both State and Federal waters, the federal bodies (NOAA, NMS, and PFMC) must mirror the above changes in their portions of the MPAs to allow for reasonable enforcement of these areas. Due to the lack of precedent, this being the first time the FGC is allowing petitions for individual or groups of MPAs to be modified, new channels need to be opened in order to facilitate such changes. A reasonable amount of time for all parties (state, federal, and public) to review and confirm the reasonings and data provided is required. This petition simply requests this change be made as soon as is practical.
- 10. Supporting documentation: Identify and attach to the petition any information supporting the proposal including data, reports and other documents:

<u>Document 1</u>: Complete, in-depth analysis of the prescribed changes and key points including weighing out the aforementioned change options, scientific basis, and stock assessment analysis.

Why Change These MPAs?

California's MPA network has provided valuable data for researchers allowing for observations of small-scale ecosystems in their raw form with no human intervention. That being said, all research focuses on the local non-pelagic species in these areas. The reasonings for this will be discussed later in depth but is a result of the massive area pelagic populations cover making their net presence the same everywhere. It is for this reason that if changes are made, the local non-pelagic species will remain unaffected, and still be protected under the proposed changes.

This petition aims to prove that specific limited-take allowances will not significantly interfere with the populations the MPAs aim to protect. This petition requests 3 current MPAs be modified to limited take in order to allow for sufficient numbers of no-take zones to still remain in the Channel Islands Network for research and public non-consumptive use (approximately 60% of the island network will remain no-take zones).

With the proposed change, there lies immense research opportunity in filling gaps in our knowledge. Never has a no-take MPA been converted into a limited-take zone. If there are factors that limited-take of pelagic or HMS does have on the local, non-pelagic populations (currently none are known), this change would allow for a whole new branch of research to take place; observing converted no-take zones after 20 years of historical data.

This petition acknowledges the need for no-take MPAs around the Channel Islands to act as a baseline to research as well as areas for the public to view undisturbed waters, and if implemented approximately 60% of the island network would remain no-take. This would mirror the state average for no-take zones. This petition also acknowledges there is no reason to request for a limited take zone in an area far offshore or often locked by foul weather that would theoretically only be fished a handful of times a year. These areas were selected for the reason that they offer sufficient new opportunities to the fishing community and researchers if the no-take areas are converted into limited-take areas.

A unique fact of these three MPAs, and other MPAs in the Channel Islands network is their expansion beyond state waters, something we see nowhere else in the state. All three of these MPAs are part of this subset of state/federal MPAs, extending 6nm from the islands compared to the traditional 3nm a normal MPA would cover. This means for this specific petition, if changes are made, both State and Federal changes should be mirrored to allow for reasonable enforcement and streamlining of regulations. The Commission and CDFW would likely need to partner with NOAA and the Channel Islands National Marine Sanctuary (CINMS) to make these dual zone changes within each MPA. Therefore, this petition will also be addressing NOAA/CINMS and federal fisheries in addition to the Commission and state, so all agencies are aware of the changes being requested and the supporting factors for this change.

The First California MPAs:

The Channel Islands MPA network was the first set of MPAs in California history. Established in 2003, the state closures were expanded in 2006 into federal waters, completing the Channel Islands MPA network. The first state MPAs off the central coast were then implemented one year later, in 2007, beginning the statewide network. The Channel Islands MPAs had no accompanying southern section coastal MPAs until the southern section's implementation in 2012, which also marked the completion year of the state MPA network and nearly a decade of existence for the Channel Islands MPAs.

Being the first, the Channel Islands Network acted as a baseline, moving the state into previously unexplored territory, that today has grown into the current network. That being said, these first MPA implementations were not perfect. We have learned a lot since their creation, from better understandings of both non-pelagic and pelagic species to new closures ideas that followed in the

four coastal MPA regions. Now that we have had more than 20 years to observe how this island network acts, it is time to make fine-tuned adjustments in order to modernize the Channel Island network to better mirror the remaining state network and the latest research.

MPA Intentions - Focus on Local Non-Pelagic Species:

Being the first set of MPAs and covering both state and federal waters, the state partnered with the Channel Islands National Marine Sanctuary (CINMS) and NOAA to develop a plan in order to determine how the Channel Islands MPA network would look. In the end, a two-part CEQA was developed that laid out the MPA plan for the Channel Islands network, in which the broad and specific reasonings for The Footprint, Gull Island, and SBI reserves were discussed (*Docs. 3-5*).

Broadly speaking all three of these Channel Islands MPAs were put into effect either around common invertebrate/fishing grounds or were built off of an existing invertebrate closure (SBI). The CEQA acknowledges that placing MPAs around these zones may have congested fishing efforts elsewhere and may slow fisheries short-term. However long-term, it was the belief that these protected areas would act as a sort of oasis, growing mass populations inside that would expand out as they grow to capacity inside reserves. These populations would then radiate from these areas and would in turn help fisheries over time.

We can see the idea of protecting the local, nearshore species of the Channel Islands very evident in each of the three MPA justifications in the CEQA (*Docs. 3-5*), the 2016 MPA master plan goals (*Doc. 10*), and the published MPA overviews (*Docs. 7-9*).

According to the CEQA, The Footprint was originally established with the primary intention to protect the unique rocky reefs and rebuild the rockfish populations (*Doc. 7*), The CEQA discussed the depleted groundfish stocks at the time and mentioned how they would benefit the most from the MPA's implementation. The Gull Island and SBI reserves also discuss deep water reefs and rockfish, but focus more on endangered bird nesting grounds, abalone populations, and the more diverse, nearshore species along the islands they border (*Docs. 8 and 9*). The broad implication of the MPAs in the CEQA was the intention that <u>local</u> populations of fish, birds, and mammals inside the MPAs would, "respond to protection within the reserve through increased density, individual size, and reproductive potential," (*Docs. 3 and 4*).

This logic is something we see echoed today in the modern MPA overviews of the three MPAs and the goals of the MPA Master Plan (*Doc. 10*). In the MPA overviews under, "Why was this location chosen for a state marine reserve?" we still see reasons such as the protection of canyons, rocky reefs, pinnacles, kelp forests, and rocky nearshore habitats for local non-pelagic species including copper rockfish, sheepshead, cowcod, and bocaccio. However, there is zero mention of any pelagic or HMS in these overviews. This point is further reinforced by the southern section MPA master plan, where under its goals, states its intentions revolve around protecting the ecosystems within the MPAs and help rebuild rare or depleted populations of species that are, "more likely to benefit from MPAs," and, "Protect selected species and the habitats on which they depend while allowing some commercial and/or recreational harvest of migratory, highly mobile, or other species; and other activities," (*Doc. 10*). All of these protective goals are catered to the local species of non-pelagic fish, while the pelagic goals clearly state that pelagic and HMS should have limited take areas, something that the Channel Island network severely lacks compared to the rest of the state.

Proposed Changes Effect on the Original MPA Intentions:

As mentioned, the original and current goals of these three MPAs revolve around protecting the local, non-pelagic, and nearshore species within them. The idea of a radiating effect helping fisheries around MPAs does indeed hold merit for local populations of non-pelagic species. Species like groundfish that could in theory live, feed, and spawn all within one MPA are a prime example of

this working as intended today. A groundfish that may have lived its entire lifecycle inside of a protected area, will only affect that local protected area if that individual was taken. This is why if implemented, the changes would still protect all invertebrates and non-pelagic species, such as rockfish, leaving the original science backed protections, and MPA intentions, in effect.

In regard to these intentions for pelagic or HMS, limited pelagic or HMS take would not noticeably affect any of the pelagic or HMS populations within our waters. This is the case since pelagic and HMS are either highly mobile or seasonal migrators, moving with currents rather than remaining on structure or in a small MPA zone. It is one thing if an entire or significant population of a species live inside a protected area, but for species that live and move over a vast area, these MPAs are negligible in helping their population. Species that live and feed over massive areas of ocean, and spawn hundreds of miles away from the network are intrinsically less affected by a small area they may or may not pass through each year. Unlike the non-pelagic species covered in the CEQA, Master Plan, and modern overviews, pelagic species' population densities, individual sizes, and reproductive potentials are not meaningfully affected by these MPAs. Populations would essentially remain as affected by human impacts whether this proposal goes into effect or not due to the protected areas covering so little of the area they live in. This is something that was actually touched on in the CEQA, where it is stated, "No-take areas, so long as their size is large relative to the movement of the species, will lead to increased (species) abundance," (Doc. 6). Essentially, due to pelagics and HMS covering so much area throughout their travels, the impact on a pelagic or highly migratory species being protected inside the existing MPAs is near zero. Therefore, there is no scientific basis to leave protections for these species in effect within these three MPAs.

A prime example is the swordfish, one of the three primary species that would be reasonably targeted inside the MPAs if partially opened. Satellite tag data from the Pfleger Institute of Environmental Research (PIER) (Doc. 15) shows tagged swordfish off southern California traveling from the tag location to as far south as Cabo (900 nm), or nearly as far west as Hawaii (1900 nm) to spawn in the winter/spring. They then migrate back to Southern California one year later in the summer to feed. Like the swordfish, other HMS such as marlin or tuna are also examples of species that travel massive distances every year during their migrations. These species cover so much water that the net environmental impact from small areas like these MPAs is near zero. It is for this reason the petition requests that pelagic or highly migratory species are able to be targeted inside of these three areas.

Following MPA Reports, The Need for Adaptive Management:

In January 2023 the DMR of the State's MPA network was published and contained comprehensive recommendations including the following considerations:

- "Allow take of migratory and pelagic species in MPAs that currently do not allow it" and
- "Return MPA fishing opportunities, especially in legacy fishing areas that were previously open to fishing." (Doc. 12)

The Footprint, Gull Island, and SBI Reserves fall under legacy pelagic fishing areas, being once completely open. In alignment with the DMR, these legacy areas can be justifiably re-opened to the limited take of pelagic or HMS per the recommendations.

This change is also supported by the recommendation of the Marine Resource Committee (MRC), as outlined in the networks near-term priorities from the DMR. Stating we must, "Apply what is learned from the first Decadal Management Review to support proposed changes to the MPA Network and Management Program." We have had ample time to observe these MPAs over their two-decade existence, now that we better understand the low impacts pelagic and HMS have on the network, we can justifiably adaptively manage these MPAs, opening them to limited take. In addition

to the DMR and MRC recommendations the 2016 MPA master plan directly called for limited take areas of pelagic or HMS. Due to these three MPAs being the among the oldest modern MPAs, existing since 2003, it is possible the Master Plan considerations from 2016 were not as refined in 2003. This is something we can now remedy, by modifying these MPAs to modern network outlooks.

In addition to adaptive management measures there also exists a pre-DMR precedent from the FGC stating that the MPA network is not designed for pelagic or HMS. In 2020 the FGC denied a petition calling for creating a sanctuary/MPA for Great White Sharks near Carpentaria on the grounds that MPAs are intended, "[...] not (to protect) individual species, <u>especially highly mobile, pelagic species</u>," (Doc. 11). Following the FGC's reason for rejection, this argument can be applied to support the case for the allowance of pelagic or HMS take within the listed reserves, because these species, per their pelagic/highly migratory designation, fall into this category.

Pursuing Equitable Policy Through Modernized SMCAs:

The MPA Network was founded on four key pillars with the innovative idea that these pillars would allow for the adaptive management of the system. One of these pillars is policy and permitting which calls for consistent policy across the network to allow for fair network governance.

After the Channel Islands MPAs were established, the remaining network followed. Comparing the Channel Islands network to the remaining state network we see large shifts toward the partial-take state marine conservation areas (SMCAs) and less overall water coverage.

The Channel Islands network of MPAs covers 21% (318 mi²) of the total sanctuary waters. Compared to the 16% of state waters currently protected under the network, this means there is a 31% increase in protected areas around the Channel Islands than the rest of the state.

Not only is there an increased area of closures (by percentage) within the Channel Islands network, but also, significantly less relative area open to limited-take. Of the 13 various closures around the island network all but 2 are no-take sections. This only accounts for only 11.43 square miles of water of the 318 square mile closure area, or 3.59% of the sanctuary's closures. By comparison, the state network contains about 40% limited take areas. This is a wide discrepancy between the Channel Islands network and the state network (Over 10 times the relative area around the Channel Islands is no take compared to the rest of the state). If implemented, the percent area of limited take in the Channel Islands Network would roughly mirror the State's 40% limited take figure, bringing more equity to the local region. The raw figures are shown in the table below.

Table 1: Comparison of MPA (no-take) and SMCA (limited take) of the Channel Islands MPAs vs the Entire State MPA Network				
Channel Islands MPA Network State MPA Network				
	(State and Federal Waters)			
% of Waters Protected (no-take	21% (~318 mi ²)	16%		
and limited take)				
% of network that is No-Take	60%			
% of network that is limited take 3.59% (~11.41 mi ²) 40%				
% of network that would be				
limited take if changes 41.17% (~130.93 mi²) <40%				
implemented*				

^{*}This assumes the optional "nearshore" closures are not implemented and <u>includes</u> the Channel Islands network in the state network figures.

The goal of these changes is to allow for enough reasonable take of pelagic or HMS at comparable levels of opportunity zones to the rest of the MPA network (~40% partial take allowance). If implemented, the Channel Islands network would still have elevated protected area rates, 21% compared to the state average of 16%, but would provide a better ratio of limited take areas.

Current examples of limited take areas outside of the island network in Southern California include SMCAs such as the Pt. Dume, Abalone Cove, Blue Cavern, and Farnsworth SMCAs (*Doc. 17*), which allow for some form of pelagic finfish take. Other statewide examples of limited take SMCAs outside Southern California cater to pelagic finfish and salmon, technically not a pelagic finfish by biological definition, but a species that still covers mass distances every year. This petition simply requests that we adapt too and update the Channel Islands network to the same standards we see in the rest of California.

Enforcement Analysis:

On the surface, the opening of limited take for pelagic or HMS in these current no-take MPAs could create additional enforcement issues for F&G Wardens covering these areas. However, upon talking to the warden office and local wildlife officers it was determined this was not the case. It is the intention of this petition that the changes made would be enforced similarly to how current pelagic allowed SMCA's are enforced. For the local Ventura agency, enforcement would be identical to how officers enforce the Anacapa Island SMCA.

Discussions with the enforcement agency have indicated that there are currently no issues with enforcement in the current pelagic allowed SMCAs. It is their standpoint that the current enforcement regulations are clear and allow officers to make decisions swiftly and appropriately. The current regulation that outlines enforcement of the SMCAs is under California Code of Regulations Title 14 Section 632(a)(1)(C) (Doc. 18). To summarize the code, take or possession of species except specific individuals or groups listed is prohibited. Meaning, under the proposed regulations, the take and possession of pelagic or HMS would be allowed within the conservation area, but the take and possession of non-pelagic or non-HMS species, like groundfish, would be not allowed. There is an added exception that only possession of coastal pelagic species (CPS) would be allowed if an HMS specific option is selected (it is preferred one is). The reasoning for this addition is the allowance for such HMS targeting vessels to possess baitfish that is commonly used to target such species. Due to the clear-cut boundaries of enforcement regulations, and the input from F&G wardens, it was determined that the additional enforcement required by these changes is both minimal and overlaps with current pelagic allowed SMCAs they currently patrol and enforce.

Mass Public Support:

The origins of the pelagic allowed zones go back to the original implementation of the Channel Islands MPA network which includes 2 areas for pelagic take. However, the waters these two zones cover are located on the northern side of Anacapa and Santa Cruz islands, areas where very little pelagic/HMS fishing takes place. HMS fishing method trial maps for DSBG and deep drop show a clear picture of the primary pelagic/HMS grounds in southern California (*Doc. 16*). The maps clearly display most pelagic and HMS fishing occurs on the southern sides of the four northern islands. Almost no fishing efforts are made in the two northern zones. Primarily, most pelagic and HMS targeting fishing around the Channel Islands occurs 2-12 miles south of the northern islands, down the entire 4 island chain. All three of the requested MPA lie in these areas.

Fisheries that actively target or have targeted pelagic or HMS off the northern Channel Islands have wanted these types of changes since the implementation of the network and have commented both in the past and present about the desire to allow for more pelagic or HMS limited take.

Comments from 2002 in the CEQA and from 2023 DMR show this desire. However, back in 2002, we did not know nearly as much about the pelagic or HMS migrations and what impacts allowing a small fishery inside these areas could be. Today this is simply not the case. We now know that this change, if implemented, will further streamline current regulations concerning pelagic or HMS, while having a net minimal impact on the local ecosystems inside these MPAs. This petition has the official backing and support of several fishery businesses, groups, and individuals, *Doc. 2 for list and letter*, and also includes a publicly signable petition containing over 880 signatures at the time of submittal.

The 4 Options Breakdown including Stock and Fishery Analysis:

This section will discuss the impact the allowed fisheries may have on the species that would primarily be targeted, the pros and cons of the four options, and the possible nearshore closure(s). The discussions on the four options and optional no take zones are meant to provide the thoughts and opinions of pelagic and HMS fishery groups and individuals for the Commission to better understand their viewpoints.

-Pelagic and HMS Stock and Fishery Analysis: Out of all of the HMS, Bluefin tuna migrate the furthest in terms of net geographical distance traveled in their lifetime, with individuals who reach maturity traveling from the coast of California across the pacific to Japan, moving up to 70 miles per day during said migration. Billfish (Swordfish or Marlin) travel in two more distinct groups, rotating from California either toward the mid-pacific and Hawaii or off the coast of Mexico, moving up to 35 miles per day according to tag data. All these species and the other pelagic and HMS affected by this change follow migrations similar these, coming into waters off of California in the early summer (June-July), and mostly departing by early winter (November-December). This migration timeline and fishing attempts toward HMS in California are directly related, meaning most, if not all, fishing will be during these 5-7 months, leaving waters relatively untouched the remaining months of each year.

The fishery impact from these changes would be minimal to the overall take of HMS and their stocks. It is the primary intention of this petition that the species primarily targeted inside of these areas (if HMS or pelagic fishing is allowed), would be swordfish, bluefin tuna, and striped marlin. While some other attempts toward more exotic species such as yellowfin or dorado may occur, it would be rarely available.

Fishery efforts in these MPAs also needs to be considered. Pelagic and HMS do not remain in small areas, rather moving with the water and currents. HMS fishery efforts would not be concentrated inside of these proposed limited-take areas, but rather flow through them as the water these species follow flows through these areas. The fishery would cover the same grounds it does today, with the changes allowing targeting though these areas compared to having to work around them as these species move through them. The two most targeted species in these areas that would be retained are bluefin tuna and swordfish. Striped marlin would likely be targeted the most in terms of fishing effort, but almost all marlin captures are recreational and result in a release.

According to NOAA the bluefin tuna population is not subject to overfishing and stock assessments show the population has "significantly increased," (Doc. 13). If any of the listed options is accepted, all recreational methods of take would be available for bluefin tuna. A majority of this would be hook-and-line, with spearfishing taking up the remaining numbers. Commercially, only hook-and-line bluefin would be permitted as spearfishing is not a commercial option. A concern that was raised was the allowance of commercial hook-and-line bluefin take within these areas. Some groups believed allowing commercial take would prove to have too much of an impact on the stock. However, observing NOAA commercial landing data we see that California's commercial fishermen only account for 2% of the yearly pacific bluefin that is commercially harvested, meaning the local commercial fishery has a minimal impact on the stock (Doc. 13).

The stock numbers and movements are similar for swordfish as well. NOAA lists the pacific swordfish stock is at safe levels and not subject to overfishing (Doc. 14). The total local impact by California vessels is listed as minimal with a "significant majority" of swordfish landed by Hawaii based longline vessels. Commercially, with the phasing out of the drift gillnet (DGN), both the state and federal agencies have made it readily apparent they are trying to find new ways to better target and expand commercial swordfish in California. All three of these current MPAs lie in the middle of some of the only reliably fishable swordfish grounds in the Channel Islands. All sit downwind of islands that block the wind and provide fair weather for fishing to occur on days fishing elsewhere is not possible under current allowed commercial methods (Harpoon and DSBG). This is especially the case for harpoon swordfish, a fishery that requires flat-calm water. The allowance for partial take of swordfish inside these regions would allow for a larger calm area to be covered and fished for migrating swordfish.

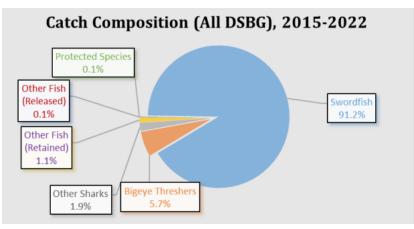
Unlike bluefin, depending on the accepted option, certain allowances for swordfish take would be made, but some <u>may</u> still be restricted. Options 1 and 2, if either are accepted, would allow all recreational methods for take of swordfish. Historically, this has almost exclusively been surface baiting basking swordfish, a fishery with zero deep water impacts, and has near zero impacts on anything in that area except for the swordfish it targets. Recently however, anglers have begun to mirror commercial methods, and have begun placing baited hooks at deeper depths (~900-1000 ft) for swordfish. Under current regulation, this method of "deep dropping" has no difference/distinction between hook-and-line fishing and would therefore be allowed.

For commercial methods of take, harpoon swordfish would be allowed under any accepted option. This globally recognized sustainable fishery with zero bycatch, is a fishery perfectly suited to have as little impact as possible on the local, non-pelagic ecosystems when a fish is taken. However, like the recreational hook-and-line case, the allowance of commercial hook-and-line for pelagic or HMS inside these regions would allow commercial deep drop of swordfish.

Along with deep drop methods, and in the spirit of fairness to the commercial fleets, Options 1 and 2 would also allow the use of standard-deep-set-buoy-gear (DSBG) in the federal waters only of the proposed limited-take areas (as it is currently primarily fished). DSBG is currently a federally exclusive fishery, with the exception of one exempted fishing permit (EFP). DSBG is a method consisting of ten separate flags and buoys with one line and one hook on each flag/buoy and is a modern sustainable fishery for swordfish. Due to the nature of these areas overlapping federal waters containing a harpoon allowance (state and federal), the argument for federal authorization of DSBG in these areas is being requested if hook-and-line deep drop is allowed. As previously mentioned, this change, along with other federal water changes would assumably be made by NOAA and the CINMS working with the state.

These methods of targeting swordfish at depth do have more impact than recreational surface baiting or commercial harpooning. However, the impact of these methods and their bycatch is minimal on non-HMS or pelagic species. This type of fishing has been praised by conservation organizations like Oceana and PEW for its high selectivity and extremely low bycatch (*Links 5/6*). There is also over 10 years of historical catch data for DSBG, the method that hook-and-line deep drop branched from, and 7 years of data from NOAA detailed in the chart below.

Looking at the data we can see that from 2015-2022, DSBG captured 91.2% swordfish, and a 96.9% mix of swordfish and thresher shark (another HMS). Of the "other sharks" and "other fish" most of these species were a mix of other pelagics (i.e., mako sharks, opah, and escolar). This means that nearly 99.8% of all species caught with DSBG are HMS. Almost no non-pelagic or non-HMS species have been landed under this type



of fishery, due to its extreme selectivity. In the small number of cases where non-HMS species were hooked, the active tending of this gear allows for most bycatch to be released alive and well. Since deep drop methods mirror DSBG it is reasonable to assume their catch rates would mirror DSBG rates as well. It is for this reason that deep drop and federal authorization of DSBG for swordfish were listed allowances under Options 1 and 2, since they produce the lowest bycatch numbers, but produce the higher success rates for swordfish catch compared to harpoon or surface baiting.

If Options 1 and 2 are rejected but Option 3 or 4 are accepted, all HMS or pelagic targeting methods would still be allowed except those going deep to primarily target swordfish. These options call for the use of only "surface fishing methods," a term used to describe all non-deep drop methods. This includes methods such as trolling, live bait casting, lure casting, live bait drifting (on the surface), and all other methods anglers or commercial fishermen use besides deep dropping or DSBG.

-The 4 Options and Their Reasonings: Each of the four options is designed to have a minimal impact on the protected area's local ecosystem but vary in both allowed species and allowed gear types. There are really two sets of choices, when we break down the 4 options. The first choice allows either pelagic finfish take and possession, or HMS take and possession with possession of coastal pelagic species (CPS). The logic behind allowing pelagic finfish is primarily the precedent already set on other SMCAs. Pelagic finfish cover the 3 species that would primarily be targeted (swordfish, bluefin tuna, and striped marlin), cover other pelagic species that would occasionally be targeted, and have existing SMCAs elsewhere that already allow for this subset of species. However, this list also covers more species than the HMS list, and as will be discussed, these extra species may pose undesirable issues if limited-take implementations are not made properly. The logic behind allowing HMS take and possession, and CPS possession is that the three targeted species also fall under this more selective classification of species. Meaning there would be a more selective list of species allowed to be taken, thus less overall impact on what could be done inside these areas. Allowing only HMS limited take would also avoid the possible pelagic finfish issues discussed below. The reasoning for the CPS allowance is it would allow common baitfish used to fish HMS to still be retained inside of these areas.

The second choice is the allowance of all hook-and-line methods, including deep drop, and DSBG or only allowing "surface fishing methods." The logic with allowing deep drop and federal DSBG allowance is the data shows that these methods are extremely selective and prove effective in targeting primarily swordfish at depth. This choice would allow for more area of opportunity to selectively target swordfish, something the State, NOAA, and PFMC has made very apparent they want to help accomplish, especially commercially with the end of the gillnet dropping landings of California swordfish. The logic with allowing "surface fishing methods" is an attempt at regulating out the deep dropping methods inside of these zones if the State deems them too impactful to allow. If

this choice is made, it would make the limited-take areas more selective to swordfish methods only, leaving surface baiting recreationally and harpooning commercially as the only allowed methods to target swordfish. If this option is selected, the state would have to clearly define "deep dropping" (to not allow it) or define "surface fishing methods" (to only allow those).

In addition to the four main options, there exists a final choice of adding a nearshore closure to the Gull Island and SBI zones with more selective or no fishing methods being allowed. The selected limited take option would then be implemented outside of this boundary throughout the remaining "offshore" area. The logic behind this choice has several factors, some of which are the existence of a nearshore/offshore pair in the Farnsworth and Point Buchon SMCAs, and the desire to continue having stricter limited-take or no-take regions closer to the more diverse shorelines. These nearshore regions rarely contain any species this petition intends on anglers targeting, meaning whether or not a nearshore zone is implemented, areas this close to the respective islands would have such a low fishery presence that they would effectively remain untouched, with one key exception.

If an option allowing the hook-and-line take of <u>pelagic finfish</u> is made it is recommended that the nearshore region be implemented. This is due to the fact that limited-take of pelagic finfish by hook-and-line would allow certain game fish species to be targeted in the local, nearshore ecosystems on fishing beds. The intent of this petition is to protect from this type of fishing allowance, intending limited take allowance for these regions to be open water fishing of pelagic or highly migratory species during their movements. This possibility of nearshore bed fishing is only the case for two species on the pelagic finfish list, yellowtail and barracudas. These are species that if pelagic finfish were allowed with no nearshore zone implemented, would definitely be targeted within the nearshore areas of the SBI and Gull Island closures. Again, it is the intention of this petition to only allow for offshore take of pelagic or highly migratory species, primarily billfish and tuna. Allowing pelagic finfish with no nearshore region that accounts for bed fishing of pelagic species such as yellowtail may interfere with the local ecosystem we still aim to protect. If the below listed coordinates are the border for the nearshore regions (table 2), the water outside of these areas at Gull Island and SBI is reasonably deep enough to ensure little to no effort would be made to target these species and would yield almost zero results.

Table 2: Proposed Coordinates and options for the Nearshore limited or no take areas for Gull		
Island and Santa Barbara Island		
Gull Island Nearshore MPA	Santa Barbara Island Nearshore MPA	
33° 58.000' N. lat. 119° 53.000' W. long, and	The 1nm boundary of SBI within the current	
33° 55.800' N. lat. 119° 48.000' W. long	MPA	
_		
Regulation within nearshore area:	Regulation within nearshore area:	
Recreational and commercial take of (pelagic	Recreational and commercial take of (pelagic	
finfish or HMS, depending on the state's choice)	finfish or HMS, depending on the state's choice)	
is allowed via surface casting, kite fishing, and	is allowed via surface casting, kite fishing, and	
surface trolling. The commercial take of	surface trolling. The commercial take of	
swordfish by harpoon is allowed. (preferred)	swordfish by harpoon is allowed. (preferred)	
Or	Or	
A mantaka manian (matamatamat)	A no take region (not mustoured)	
A no-take region (not preferred)	A no-take region (not preferred)	

The listed coordinates for the nearshore closures are only the listed coordinates for the dividing line between the proposed nearshore area and the offshore limited take SMCA and FMCA. The collective closure borders of the nearshore and offshore areas would be the same area as the current MPAs. If these are placed in effect along with the selected option applied outside, these nearshore regions would cover sufficient area to prevent nearshore bed-fishing efforts. While possible changes to these borders may be made, it is the fisheries' belief they are sufficient in preventing what would otherwise be a problem if an unrestricted pelagic finfish option is accepted. Further consultations with active fishery members should be made if these borders are desired to be modified. The preference for stricter limited-take rather than no-take is simply that these areas would contain so little presence of these species, that they would effectively be fully protected. During the time that pelagic or HMS do travel through these nearshore areas, fishing opportunities are so infrequent the opportunity to limited take should be allowed due to how minimally they would occur.

The Most Requested Option and Closing Remarks:

It is this petition's preference that in order to avoid the nearshore pelagic finfish risk all together, one of the two HMS allowance options be selected (Options 2 or 4) with the nearshore zone not selected. Option 2 is the preferred selection since this option allows for the most HMS opportunity, recreationally and commercially, while still remaining extremely selective, and leaving a minimal impact on the local, non-pelagic ecosystems. Option 2, with no accompanying nearshore zones would allow for HMS targeting within the entire area. In the unlikely case HMS are present nearshore, they may still be targeted with minimal local impact as they move through an area under the same selective fishing methods allowed elsewhere. The lack of nearshore zones in this case would also allow for easier enforcement of the area by wardens not having to worry about different zones within an area. If a nearshore region is desired, the more selective limited-take option is preferred. This change would still allow for selective enough take of HMS and prevent any bottom fishing activity nearshore.

In terms of the three MPAs, all three MPAs would preferably be converted to limited take areas. Discussions with those involved in the possible affected fisheries revealed a strong preference for The Footprint to be converted to limited take, with Gull Island and SBI having equal amounts of preference to be opened to limited take.

In closing this analysis, special thanks to all the individuals who provided the input and data to make this petition possible. I would especially like to thank the FGC and its staff for their assistance with and the creation of this adaptive management process.

Remaining Supporting Documents and Sources:

<u>Document 2</u>: Supporters letter for the petition. Summarizes the petition, its reasonings, and its intentions. Was sent out to business and individuals that could be impacted by this change or provide scientific input asking for their support of the petition and its rationale (signature list on the letter).



State of California - Fish and Game Commission PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 15 of 35



















































Dear FGC,

On behalf of the hundreds of thousands of anglers that frequent Southern California, and all of the businesses they support, the following organizations and individuals extend their special support and ask for your approval of this petition. This petition would allow for the limited recreational and commercial take of Pelagic Finfish or Highly Migratory Species (HMS) via select, sustainable fishing methods. The changes would apply to the following Marine Protected Areas (MPAs):

- The Footprint Marine Reserve
- Gull Island Marine Reserve
- The Santa Barbara Island Marine Reserve

This proposed regulation modification aims to return extremely selective take opportunities that the original MPA network implementation unintentionally removed. These regions would become state and federal marine conservation areas (SMCAs/MCAs) but would still provide the original protections to the species and ecosystems each of the MPAs intends to preserve.

The allowance of pelagic or HMS in these areas would provide more equal opportunities to anglers around Southern California targeting fast moving species, like billfish or tuna. Currently, these species cannot be followed into these zones as they move through them, traveling with the currents rather than remain on the structure or in the local ecosystems the MPAs are intended to protect. If accepted, anglers would have the opportunity to follow these species as they constantly flow in and out of these areas.

The push for this change is backed by the California State 2022 MPA Decadal Review, the MRC's near-term objectives, the 2016 MPA Master Plan, and several other state and federal reports/comments. We the fisherman, groups, clubs, and business owners, of California kindly ask for your approval of this petition.

Sincerely,

AFTCO

CCA California

Pfleger Institute of Environmental Research (P.I.E.R.)

Wild Oceans

BD Outdoors

Bear Flag Fish Co.

Bluewater Seafood

Chula Seafood

The Tuna Club

Balboa Angling Club

CISCOS Sportfishing

Hooks Sportfishing

Legit Sportfishing

Erics Tackle Shop

Channel Coast Marine

Executive Yachts

Bight Sportfishing

Bad Company Fishing Adventures

Seal Beach Fish Co.

Wild Local Caught Seafood

Santa Monica Seafood Ocean Pride Seafood Santa Barbara Fish Market

Special Individuals: Chugey S, Theresa L, Casey S, Nathen P, Ron H, Sean B, Morgan L, Bill S, Donald K, Christian H, Andrew W, Carl S, Michael M, Thomas C, Wes L, Marc H, Eric H, Bryce H, Ethan H, Steve W, Don G, Ryder D, Fisher D, Jonnah G, Jake K, Brandon H, Patrick O, John J, Bill W, Steve M, Eric H, Sean S, Ryder A, Evan K

And the over 880 members of the public that have signed the public support petition as of submittal (11/22), visible here: https://chng.it/2wy2dHSS6r



<u>Documents 3, 4, and 5</u>: Original founding reasoning for the Footprint, Gull Island, and Santa Barbara Island MPAs respectively, to be created and expanded into federal waters of the marine sanctuary from the Channel Islands CEQA in 2002. There is little to no mention of pelagic or HMS species, with primary objectives for the Footprint MPA being groundfish replenishment, and for Gull Island and SBI MPAs, being either or a mix of abalone, rockfish, or endangered bird populations. Original paper found here: https://nrmsecure.dfg.ca.gov/FileHandler.ashx?DocumentID=151023

Footprint State Marine Reserve

The Footprint SMR is located in open waters in the passage south of Santa Cruz and Anacapa Islands. The Footprint SMR is 28.6 nm², 6.4 square nautical miles of which would be within State waters and the rest entirely within Federal waters. It is described and analyzed here as a part of the entire recommendation, but not the decision before the Fish and Game Commission. The majority of the proposed Footprint SMR is sand or gravel between 90-900 ft. The Footprint includes several submerged rocky features, including pinnacles and submarine canyons that once supported large population of numerous rockfish species. Today, the rockfish populations around the Footprint are severely depleted from intensive recreational and commercial fishing in the region. Although populations are depleted, the habitat supports a variety of species, including bocaccio and cowcod, both recognized as overfished by the PFMC. Fish populations in the vicinity of the Footprint are likely to respond to protection within a reserve through increased density, individual size, and reproductive potential.

Gull Island, Santa Cruz Island State Marine Reserve

The Gull Island SMR is located on the southwest side of Santa Cruz Island. The reserve includes 2.9 nautical miles of shoreline from Morse Point to the point along the shore at 33° 58' N, 119° 48' W. The reserve extends south approximately three nautical miles to the State waters boundary. The Gull Island SMR contains 16.2 square nautical miles. A subsequent Federal waters phase would add 22.1 square nautical miles for a cumulative total of 38.3 square nautical miles.

Historically, Gull Island supported a diverse and abundant marine fauna. Although these populations are reduced, the habitat supports a variety of species. Fish populations in the vicinity of Gull Island are likely to respond to protection within a reserve through increased density, individual size, and reproductive potential. The Gull Island SMR would protect a variety of different habitat types from the nearshore to the continental slope. Sand beach is the predominant shoreline habitat at the border of the Gull Island SMR. Endangered snowy ployers may occur there and the beach supports one of the few populations of pismo clams at the islands. The remaining shoreline is covered with cobble beaches.

Subtidal habitats in the Gull Island SMR are mixed sand and rocky reefs. Red and green algae dominate inshore areas. Gull Island supports an intermittent population of giant kelp, but the kelp populations are reduced. Subtidal habitats support patchy populations of surfgrass. Rocky intertidal and subtidal habitats once supported populations of red, pink, white, and black abalone, but only a small population of red abalone, and very few black abalone have been observed recently. The Gull Island area supports large populations of purple urchins. Rocky subtidal habitats from Gull Island to Laguna Point support populations of spiny lobster. Purple hydrocoral (Allopora) is found in deeper rocky reefs around Gull Island.

Shallow rocky habitat extends offshore to Gull Island. Nearshore reefs support populations of various rockfish species. However, rockfish are not as diverse in this region because of physical changes associated with the mixing of warmer waters from the California Counter Current with cooler waters from the California Current. Southern species such as

5-27

California sheephead and wrasses are relatively common in the Gull Island region. The region also supports spawning populations of white seabass and halibut. Thresher and make sharks are fished in the deeper waters near stronger currents.



Santa Barbara Island State Marine Reserve

Santa Barbara Island SMR is located at the southeast side of Santa Barbara Island. The reserve includes one nautical mile of shoreline from South Point to the eastern point of the

5-22

island. The reserve boundaries extend east and south to the State waters boundary. The Santa Barbara Island SMR contains 13.2 square nautical miles. A subsequent Federal waters addition would add 46.3 square nautical miles for a cumulative total of 59.5 square nautical miles.

Santa Barbara Island, Sutil Island, and Shag Rock support major seabird and marine mammal colonies. Santa Barbara Island supports breeding colonies of numerous seabirds, including the endangered California brown pelican, western gull, black oystercatcher, black storm-petrel, Leach's storm-petrel, Brandt's cormorant, pelagic cormorant, Cassin's auklet, pigeon guillemot and Xantus's murrelet. California sea lions haul out on sandy beaches on the southeastern side of Santa Barbara Island. Harbor seals and northern elephant seals occasionally haul out in the same place.

The exposed rocky shoreline along Santa Barbara Island is interspersed with occasional cobble beaches (10-12 m wide) in protected coves. The rocky intertidal habitat descends steeply to patchy reefs in large areas of sand. Patchy populations of surfgrass grow on subtidal rocks (15-20 m). Populations of giant kelp on reefs around Santa Barbara Island have declined relative to historical data. Red and purple sea urchins and brittle stars (Ophiothrix) dominate the rocky subtidal habitats around Santa Barbara Island. Spiny lobsters are abundant in rocky subtidal habitats in the vicinity of South Point and large mussel beds can be found in the rocky intertidal habitats on the southeastern side of Santa Barbara Island.

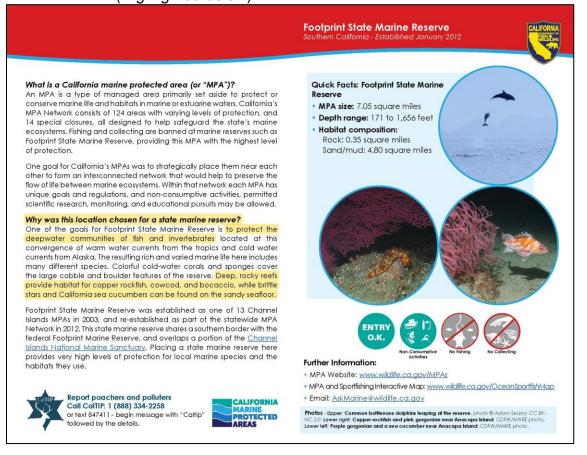
The continental shelf drops to approximately 200 m less than ½ mile from shore, and continues to drop to 400 m within 3 miles of Santa Barbara Island. In the past, populations of white, green, pink, and black abalone inhabited intertidal and subtidal rocky habitats. The reserve includes rocky subtidal habitats, from approximately 25-66 m, that may contribute to the recovery of the endangered white abalone. Sandy subtidal habitats support halibut populations near the northern border of the Santa Barbara Island SMR. California sheephead have been observed near South Point.



<u>Document 6</u>: Original 2002 CEQA: Dr. Ray Hilborn stating the size of an MPA must be large relative to a species' total movement to be actually impactful on their population abundance.

has reached population levels which increase natural mortality rates...@ Likewise, Dr. Ray Hilborn of the University of Washington=s College of Ocean and Fishery Sciences noted in comments on proposals for marine reserves in the Sanctuary that, A...it is almost universally accepted that exploitation reduces population sizes.... No-take areas, so long as their size is large relative to the movement of the species, will lead to increased abundance within the reserve.@

<u>Documents 7, 8, and 9</u>: Current Footprint, Gull Island, and SBI MPA descriptions in "Why the location was chosen..." (Highlighted below)



State of California – Fish and Game Commission

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Gull Island State Marine Reserve

What is a California marine protected area (or "MPA")?

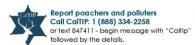
An MPA is a type of managed area primarily set aside to protect or conserve marine life and habitats in marine or estuarine waters. California's MPA Network consists of 124 areas with varying levels of protection, and 14 special closures, all designed to help safeguard the state's marine ecosystems. Fishing and collecting are banned at marine reserves such as Gull Island State Marine Reserve, providing this MPA with the highest level of protection.

One goal for California's MPAs was to strategically place them near each other to form an interconnected network that would help to preserve the flow of life between marine ecosystems. Within that network each MPA has unique goals and regulations, and non-consumptive activities, permitted scientific research, monitoring, and educational pursuits may be allowed.

Why was this location chosen for a state marine reserve?

One of the goals for Gull Island State Marine Reserve is to protect the diverse submarine canyon, rocky reef and pinnacle, kelp forest, and sandy plain habitat found at this location, where warm water currents from the tropics and cold water currents from Alaska converge. These habitats are used by a rich and varied selection of marine fish and invertebrates such as purple hydrocoral, a species not often seen in the Northern Channel Islands, Kelp forests and reefs provide shelter for opaleye, California spiny lobster, and cabezon, while schools of California barracuda and bonito may be seen in deeper, offshore waters.

Gull Island State Marine Reserve was established as one of 13 Channel Islands MPAs in 2003, and re-established as part of the statewide $\underline{\mathsf{MPA}}$ Network in 2012. The reserve shares a southern border with the federal Gull Island Marine Reserve, and overlaps a portion of the Channel Islands National Marine Sanctuary and Channel Islands National Park. Placing a state marine reserve here provides very high levels of protection for local marine species and the habitats they use.





Quick Facts: Gull Island State Marine

- MPA size: 19.93 square miles
- Shoreline span: 3.2 miles
- Depth range: 0 to 2,205 feet
- Habitat composition: Rock: 4.03 square miles Sand/mud: 16.55 square miles













Further Information:

- MPA Website: www.wildlife.ca.gov/MPAs
- MPA and Sportfishing Interactive Map: www.wildlife.ca.gov/OceanSportfishMap
- Email: AskMarine@wildlife.ca.gov

Photos - Upper: Gull bland, photo by R.Schwemmer, NOAA/CRIMS Lower right: Puple hydrocoral and sea urchin at Gull bland State Marine Reserve. CDFW photo by D. Stein Lower left: Opaleye in the kelp forest of Gull bland Stde Marine Reserve. CDFW photo by D. Stein

Santa Barbara Island State Marine Reserve

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One goal for California's MPAs was to strategically place them near each other to form an interconnected network that would help to preserve the flow of life between marine ecosystems. Within that network each MPA has unique goals and regulations, and non-consumptive activities, permitted scientific research, monitoring, and educational pursuits may be allowed.

Why was this location chosen for a state marine reserve?

One of the goals for Santa Barbara Island State Marine Reserve is to protect the sandy seafloor, surfgrass, kelp forest, and rocky nearshore habitat found there. Sea urchins, California mussels, and acom barnacles thrive along the island's rocky coastline. Giant sea bass, California sheephead, and Pacific angel sharks hunt and seek shelter in the island's kelp forests and eelgrass beds, while California halibut and other flatfish rest in the sandy sediments. Santa Barbara Island is also home to a large breeding colony of Scripps's murrelet, a seabird on California's threatened species list, and fourteen other species of bird.

Santa Barbara Island State Marine Reserve was established as one of 13 Channel Islands MPAs in 2003, and re-established as part of the statewide MPA Network in 2012. This state marine reserve shares a southeastern border with the federal Santa Barbara Island Marine Reserve. The reserve overlaps part of the <u>Channel Islands National Park</u> and <u>Channel Islands National Marine Sanctuary</u>. Placing a state marine reserve here provides very high levels of protection for local marine species and the habitats





Quick Facts: Santa Barbara Island State Marine Reserve

- MPA size: 12.77 square miles
- Shoreline span: 0.8 miles
- Depth range: 0 to 1,655 feet
- Habitat composition: Rock: 0.74 square miles Sand/mud: 2.43 sauare miles













Further Information:

- MPA Website: www.wildlife.ca.gov/MPAs
- MPA and Sportfishing Interactive Map: www.wildlife.ca.gov/OceanSportfishMap
- Email: AskMarine@wildlife.ca.aov

Photos - Upper: Aerial view of Santa Barbara Island, photo @ Jesse Hodge CC BY-HC NO 2.0, Lower right: Pacific angel shark at Santa Barbara Island State Marine Reserve. CDFW/MARE photo. Lower left: Pink genganian at Santa Barbara Island State Marine Reserve. CDFW/MARE photo.



<u>Document 10</u>: MPA Master plan goal for the southern section, that calls for the protections of at-risk local species while allowing for limited take of pelagic or HMS.

Goal 2. To help sustain, conserve, and protect marine life populations, including those of economic value, and rebuild those that are depleted.

- Help protect or rebuild populations of rare, threatened, endangered, depressed, depleted, or overfished species, and the habitats and ecosystem functions upon which they rely.¹⁴
- Sustain or increase reproduction by species likely to benefit from MPAs, with emphasis on those species identified as more likely to benefit from MPAs, and promote retention of large, mature individuals ¹⁵
- Sustain or increase reproduction by species likely to benefit from MPAs with emphasis on those species identified as more likely to benefit from MPAs through protection of breeding, spawning, foraging, rearing or nursery areas or other areas where species congregate.
- Protect selected species and the habitats on which they depend while allowing some commercial and/or recreational harvest of migratory, highly mobile, or other species; and other activities.

<u>Document 11</u>: Denied petition for White Shark MPA on grounds MPAs are **especially not focused** on pelagic or HMS (Highlighted below)

Appendix G: Decadal Management Review Supplemental Tables

add unlimited

invasive species

recreational take of

Sargasum horneri in

Crystal Cove SMCA

CALIFORNIA

PROTECTED

ACTION TYPE YEAR REQUEST RATIONALE ADAPTIVE MANAGEMENT ACTION TAKEN **Petition denied** 2020 Petition submitted to California Constitution, Article 1 No fishing is allowed in SMR per design criteria amend MPA regulations Section 25, recreational take from to allow surfboard a surfboard, even catch-andfishing at the South La release is not a fishery Jolla SMR. Petition denied 2020 Petition submitted to An MPA with boating and fishing MPAs are intended to protect ecosystems, not establish MPA at Padaro restrictions at Padaro Beach, individual species, especially highly mobile, Beach, Carpinteria, to Carpinteria, will help protect pelagic species protect great white white shark nursery grounds. shark nursery grounds. Petition denied 2020 Petition submitted to CDFW failed to respond and stop No recreational culling permitted within

the spread of the invasive species

Sargassum horneri is not a marine

Sargassum horneri, plus

resource.

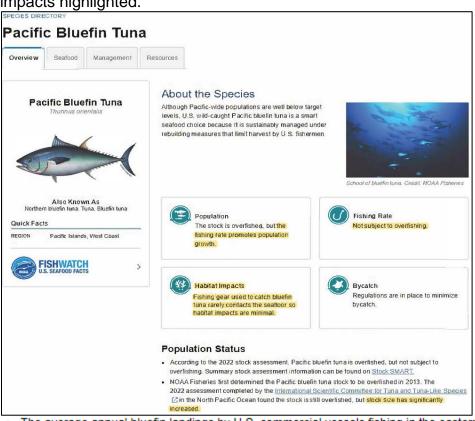


<u>Document 12</u>: MPA Decadal Review-Appendix A: Comprehensive Recommendations for the Review-Recommends to open legacy grounds and allow pelagic/HMS take in MPAs (Highlighted below)

Regulatory and Review Framework

- Conduct annual engagement meetings with stakeholders to inform them about MPA
 Management Program activities that inform decadal reviews.
- Define clear management reporting goals, including the scale of reporting at the statewide, regional, or local scale.
- Ensure that adaptive management changes to individual MPAs and the MPA Network are evidence based.
- Simplify designations by changing no-take SMCAs to SMRs after maintenance of existing infrastructure is permitted.
- Return MPA fishing opportunities, especially in legacy fishing areas that were previously open to fishing.
- Allow take of migratory and pelagic species in MPAs that currently do not allow it.
- Allow commercial urchin take in MPAs that allow commercial lobster take.
- Do not allow boat operations within 100 yards of a remnant kelp forest within MPAs.
- Requests to change specific MPAs (not including formal petitions; see Appendix G):
 - Relocate Piedras Blancas MPA north, just south of Cape San Martin to protect nursery grounds.
 - Increase the size of Matlahuayl State Marine Reserve to include Point La Jolla and the Boomer Beach area where the sea lion colony is located.

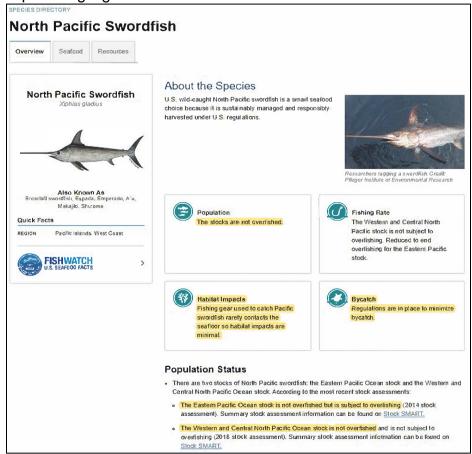
<u>Document 13</u>: NOAA Stock and Fishery Analysis for Bluefin Tuna, stock status, and minimal habitat impacts highlighted.



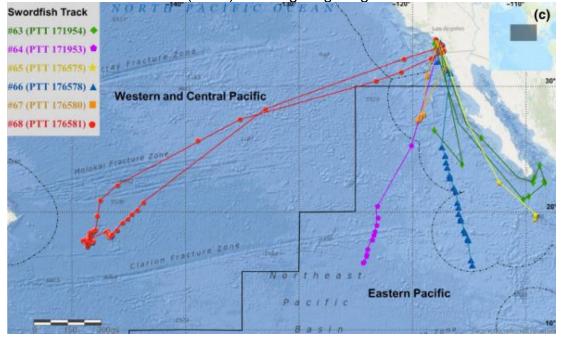
 The average annual bluefin landings by U.S. commercial vessels fishing in the eastern Pacific Ocean represent only 2 percent of the average annual landings from all fleets fishing there.



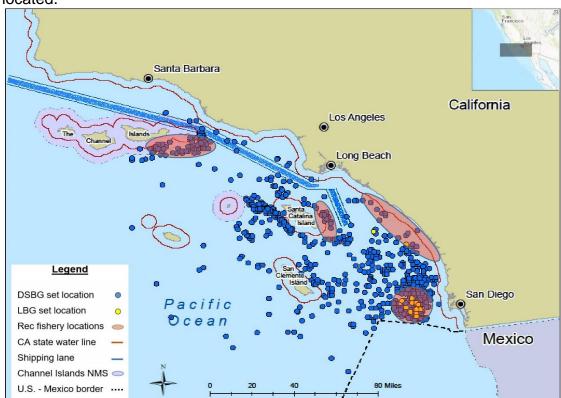
<u>Document 14</u>: NOAA Stock and Fishery Analysis for Swordfish, stock status and minimal habitat impacts highlighted.



<u>Document 15</u>: Swordfish migration data collected via satellite tags deployed by the Pfleger Institute of Environmental Research (PIER) showing long ranges swordfish travel relative to the MPAs.



<u>Document 16:</u> DSBG and deep drop fishery efforts map displaying the wide area HMS fishing activity covers, and lack of northern Santa Cruz and Anacapa island efforts, where the only 2 SMCAs are located.



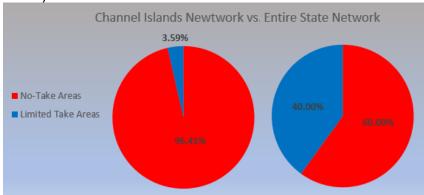
<u>Document 17</u>: Current pelagic finfish limited take SMCAs outside of the Channel Islands Network. These limited take MPAs were implemented in 2012, after the island network in 2003, and display the 9 year shift toward more pelagic allowed areas.



<u>Document 18</u>: Definition of State Marine Conservation Areas per California Code of Regulations Title 14 Section 632(a)(1)(C). The recommended change would make these MPAs effectively SMCAs and MCAs with limited HMS take and CPS possession.

(C) State Marine Conservation Areas: In a state marine conservation area, it is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource for commercial or recreational purposes, or a combination of commercial and recreational purposes except as specified in subsection 632(b), areas and special regulations for use. The department may issue scientific collecting permits pursuant to Section 650. The commission may authorize research, education, and recreational activities, and certain commercial and recreational harvest of marine resources, provided that these uses do not compromise protection of the species of interest, natural community, habitat, or geological features.

<u>Document 19</u>: Charts displaying no-take vs limited-take areas around the Channel Islands vs. the whole State MPA Network showing the disparity of no-take areas around the islands. If the changes are made, this disparity would all but disappear (see Table 1 in the analysis for before and after ratios). The calculation also includes federal sections of the MPAs.



<u>Document 20</u>: How the regulatory language <u>could</u> read if the <u>preferred proposed change was</u> <u>selected</u> (limited HMS take, deep drop methods and federal DSBG allowed, no nearshore closure) Existing regulation modifications presented similar to how CDFW shows yearly changes, crossed out being removed regulation and <u>red</u> being the amended regulation. <u>State and federal</u> sections are listed with proposed changes. For simplicity the federal amendments will follow the states for the MPA specific changes.

State and Federal Definition Modifications-

Amend: 14 CCR § 632 (a)** and 15 CFR 922.71:

(13) Highly Migratory Species. Highly migratory species, for the purpose of this section, are a subset of finfish defined as: albacore, bluefin, bigeye, and yellowfin tuna (Thunnus spp.); skipjack tuna (Katsuwonus pelamis); dorado (dolphinfish) (Coryphaena hippurus); striped marlin (Tetrapturus audax); thresher sharks (common, pelagic, and bigeye) (Alopias spp); shortfin mako shark (Isurus oxyrinchus); blue shark (Prionace glauca); and Pacific swordfish (Xiphias gladius). *Marlin is not allowed for commercial take

(14) Coastal Pelagic Species: Coastal pelagic species, for the purpose of this section, are a subset of finfish and invertebrates defined as: northern anchovy (Engraulis mordax), Pacific sardine (Sardinops sagax), Pacific mackerel (Scomber japonicus), jack mackerel (Trachurus symmetricus), and market squid (Loligo opalescens).

**(13) and (14) exclusive to 14 CCR § 632 (a), amendments to 15 CFR 922.71 would read identical but not include "(13)" and "(14)." Highly Migratory species and Coastal Pelagic species are defined under State regulations (Title 14 §1.49 and 1.39), meaning the change to Title 14 § 632 (a) may not be required.

State MPA Modifications-

Amend: 14 CCR § 632 (b) (109)

(109) Gull Island State Marine Reserve. Conservation Area.

(A) This area is bounded by the mean high tide line and straight lines connecting the following points in the order listed except where noted:

```
33° 58.065′ N. lat. 119° 50.967′ W. long.;
33° 58.000′ N. lat. 119° 51.000′ W. long.;
33° 58.000′ N. lat. 119° 53.000′ W. long.;
33° 55.449′ N. lat. 119° 53.000′ W. long.; thence eastward along the three nautical mile offshore boundary to
```

33° 54.257' N. lat. 119° 48.000' W. long.; and

33° 57.769′ N. lat. 119° 48.000′ W. long.

- (B) Area restrictions defined in subsection 632(a)(1)(A) apply. Area restrictions defined in subsection 632(a)(1)(C) apply, with the following specified exceptions:
- 1. The recreational take of highly migratory species is allowed.
- 2. The commercial take of highly migratory species by hook-and-line and swordfish by harpoon is allowed. The use of standard deep-set-buoy-gear is permitted outside of state waters (3nm).
- 3. The possession of coastal pelagic species is allowed.

Amend: 14 CCR § 632 (b) (114)

- (114) Footprint State Marine Reserve. Conservation Area.
- (A) This area is bounded by the straight lines connecting the following points in the order listed except where noted:

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33° 59.300′ N. lat. 119° 30.965′ W. long.;
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 33° 57.510′ N. lat. 119° 30.965′ W. long.; thence eastward along the three nautical mile offshore boundary to

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33° 57.264′ N. lat. 119° 25.987′ W. long.;
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33° 59.300' N. lat. 119° 25.987' W. long.; and

33° 59.300′ N. lat. 119° 30.965′ W. long.

- (B) Area restrictions defined in subsection 632(a)(1)(A) apply. Area restrictions defined in subsection 632(a)(1)(C) apply, with the following specified exceptions:
- 1. The recreational take of highly migratory species is allowed.

- 2. The commercial take of highly migratory species by hook-and-line and swordfish by harpoon is allowed. The use of standard deep-set-buoy-gear is permitted outside of state waters (3nm).
- 3. The possession of coastal pelagic species is allowed.

Amend: 14 CCR § 632 (b) (116)

- (116) Santa Barbara Island State Marine Reserve. Conservation Area.
- (A) This area is bounded by the mean high tide line and straight lines connecting the following points in the order listed except where noted:
- 33° 28.500′ N. lat. 119° 01.813′ W. long.;
- 33° 28.500′ N. lat. 118° 58.051′ W. long.; thence along the three nautical mile offshore boundary to
- 33° 24.842′ N. lat. 119° 02.200′ W. long.; and
- 33° 27.911′ N. lat. 119° 02.200′ W. long.
- (B) Area restrictions defined in subsection 632(a)(1)(A) apply. Area restrictions defined in subsection 632(a)(1)(C) apply, with the following specified exceptions:
- 1. The recreational take of highly migratory species is allowed.
- 2. The commercial take of highly migratory species by hook-and-line and swordfish by harpoon is allowed. The use of standard deep-set-buoy-gear is permitted outside of state waters (3nm).
- 3. The possession of coastal pelagic species is allowed.

NOTE: It may not be required to mention deep-set-buoy-gear (DSBG) in the state regulation as it would not be allowed in state waters. However, as all regulations (State and federal) may be listed under one "rulebook" this mention of federal DSBG allowance maybe needed.

Federal Modifications-

Amend: 15 CFR 922.73(b):

(b) *Marine conservation area.* Unless prohibited by <u>50 CFR part 660</u> (Fisheries off West Coast States), the following activities are prohibited and thus unlawful for any person to conduct or cause to be conducted within the <u>specified</u> marine conservation areas described in appendix C to this subpart, except as specified in paragraphs (b) through (e) of § 922.72:

(b.1). Anacapa Island Marine Conservation Area

- (1) Harvesting, removing, taking, injuring, destroying, collecting, moving, or causing the loss of any Sanctuary resource, or attempting any of these activities, except:
 - (i) Recreational fishing for pelagic finfish; or
 - (ii) Commercial and recreational fishing for lobster.
- (2) Possessing fishing gear on board a vessel, except legal fishing gear used to fish for lobster or pelagic finfish, unless such gear is stowed and not available for immediate use.
- (3) Possessing any Sanctuary resource, except legally harvested fish.
- (b.2) Gull Island (Santa Cruz Island) Marine Conservation Area

- (1) Harvesting, removing, taking, injuring, destroying, collecting, moving, or causing the loss of any Sanctuary resource, or attempting any of these activities, except:
 - (i) Recreational fishing for highly migratory species; or
 - (ii) Commercial fishing for highly migratory species by hook-and-line and harpoon. DSBG is allowed inside of federal waters.
 - (iii) Possession of coastal pelagic species.
- (2) Possessing fishing gear on board a vessel, except legal fishing gear used to fish for highly migratory species, unless such gear is stowed and not available for immediate use.
- (3) Possessing any Sanctuary resource, except legally harvested fish.
- (b.3) Footprint Marine Conservation Area
- (1) Harvesting, removing, taking, injuring, destroying, collecting, moving, or causing the loss of any Sanctuary resource, or attempting any of these activities, except:
 - (i) Recreational fishing for highly migratory species; or
 - (ii) Commercial fishing for highly migratory species by hook-and-line and harpoon. DSBG is allowed inside of federal waters.
 - (iii) Possession of coastal pelagic species.
- (2) Possessing fishing gear on board a vessel, except legal fishing gear used to fish for highly migratory species, unless such gear is stowed and not available for immediate use.
- (3) Possessing any Sanctuary resource, except legally harvested fish.
- (b.4) Santa Barbara Island Marine Conservation Area
- (1) Harvesting, removing, taking, injuring, destroying, collecting, moving, or causing the loss of any Sanctuary resource, or attempting any of these activities, except:
 - (i) Recreational fishing for highly migratory species; or
 - (ii) Commercial fishing for highly migratory species by hook-and-line and harpoon. DSBG is allowed inside of federal waters.
 - (iii) Possession of coastal pelagic species.
- (2) Possessing fishing gear on board a vessel, except legal fishing gear used to fish for highly migratory species, unless such gear is stowed and not available for immediate use.
- (3) Possessing any Sanctuary resource, except legally harvested fish.

Amend: Appendix B to Subpart G of Part 922 (Marine Reserve Boundaries) for 15 CFR 922 B.4, B.5, B.6, B.7, and B.8.

B.4. Gull Island (Santa Cruz Island) Marine Reserve

The Gull Island Marine Reserve (Gull Island) boundary is defined by the 3 nmi State boundary, the coordinates provided in Table B–4, and the following textual description.

The Gull Island boundary extends from Point 1 to Point 2 along a straight line. It then extends along a straight line from Point 2 to the 3 nmi State boundary where a line defined by connecting Point 2 and Point 3 with a straight line intersects the 3 nmi State boundary. The boundary then follows the 3 nmi

State boundary westward until it intersects the line defined by connecting Point 4 and Point 5 with a straight line. At that intersection, the boundary extends from the 3 nmi State boundary to Point 5 along a straight line.

Table B-4—Gull Island (Santa Cruz Island) Marine Reserve

Point	Latitude	Longitude
1	33.86195 ° N	119.80000 " W
2	33.86195 ° N	119.88330 " W
3	33.92690 ° N	119.88330 " W
4	33.90700 ° N	119.80000 " W
5	33.86195 ° N	119.80000 " W

B.4. Scorpion (Santa Cruz Island) Marine Reserve

The Scorpion Marine Reserve (Scorpion) boundary is defined by the 3 nmi State boundary, the coordinates provided in Table B–5, and the following textual description.

The Scorpion boundary extends from Point 1 to Point 2 along a straight line. It then extends along a straight line from Point 2 to the 3 nmi State boundary where a line defined by connecting Point 2 and Point 3 with a straight line intersects the 3 nmi State boundary. The boundary then follows the 3 nmi State boundary westward until it intersects the line defined by connecting Point 4 and Point 5 with a straight line. At that intersection, the boundary extends from the 3 nmi State boundary to Point 5 along a straight line.

Table B-4—Scorpion (Santa Cruz Island) Marine Reserve

Point	Latitude	Longitude
1	34.15450 ° N	119.59170 " W
2	34.15450 ° N	119.54670 " W
3	34.10140 ° N	119.54670 " W
4	34.10060 ° N	119.59170 " W
5	34.15450 ° N	119.59170 " W

B.6. Footprint Marine Reserve

The Footprint Marine Reserve (Footprint) boundary is defined by the 3 nmi State boundary, the coordinates provided in Table B–6, and the following textual description.

The Footprint boundary extends from Point 1 to Point 2 along a straight line. It then extends along a straight line from Point 2 to the 3 nmi State boundary where a line defined by connecting Point 2 and Point 3 with a straight line intersects the 3 nmi State boundary. The boundary follows the 3 nmi State boundary northeastward and then southeastward until it intersects the line defined by connecting Point 4 and Point 5 along a straight line. At that intersection, the boundary extends from the 3 nmi State boundary to Point 5 along a straight line.

Table B-6-Footprint Marine Reserve

Point	Latitude	Longitude
1	33.90198 ° N	119.43311 " W
2	33.90198 ° N	119.51609 " W
3	33.96120 ° N	119.51609 " W
4	33.95710 ° N	119.43311 " W
5	33.90198 ° N	119.43311 " W

B.5. Anacapa Island Marine Reserve

The Anacapa Island Marine Reserve (Anacapa Island) boundary is defined by the 3 nmi State boundary, the coordinates provided in Table B–7, and the following textual description.

The Anacapa Island boundary extends from Point 1 to Point 2 along a straight line. It then extends to the 3 nmi State boundary where a line defined by connecting Point 2 and Pont 3 with a straight line intersects the 3 nmi State boundary. The boundary follows the 3 nmi State boundary westward until it intersects the line defined by connecting Point 4 and Point 5 with a straight line. At that intersection, the boundary extends from the 3 nmi State boundary to Point 5 along a straight line.

Table B-5—Anacapa Island Marine Reserve

Point	Latitude		Longitude
1	34.08330°	N	119.41000 " W
2	34.08330°	N	119.35670 " W
3	34.06450°	N	119.35670 " W
4	34.06210°	N	119.41000 " W

Point	Latitude	Longitude
5	34.08330 ° N	119.41000 " W

B.8. Santa Barbara Island Marine Reserve

The Santa Barbara Island Marine Reserve (Santa Barbara) boundary is defined by the 3 nmi State boundary, the coordinates provided in Table B–8, and the following textual description.

The Santa Barbara boundary extends from Point 1 to Point 2 along a straight line. It then extends along a straight line from Point 2 to the 3 nmi State boundary where a line defined by connecting Point 2 and Point 3 with a straight line intersects the 3 nmi State boundary. The boundary follows the 3 nmi State boundary northeastward until it intersects the line defined by connecting Point 4 and Point 5 with a straight line. At that intersection, the boundary extends from the 3 nmi State boundary to Point 5 along a straight line. The boundary then extends from Point 5 to Point 6 along a straight line.

Table B-8—Santa Barbara Island Marine Reserve

Point	Latitude	Longitude
1	33.36320 ° N	118.90879 " W
2	33.36320 ° N	119.03670 " W
3	33.41680 ° N	119.03670 " W
4	33.47500 ° N	118.97080 " W
5	33.47500 ° N	118.90879 " W
6	33.36320 ° N	118.90879 " W

Amend: Appendix C to Subpart G of Part 922 (Marine Conservation Area Boundaries) for 15 CFR 922 C.2. Gull Island (Santa Cruz Island) Marine Conservation Area

The Gull Island Marine Conservation Area (Gull Island) boundary is defined by the 3 nmi State boundary, the coordinates provided in Table B–4, and the following textual description.

The Gull Island boundary extends from Point 1 to Point 2 along a straight line. It then extends along a straight line from Point 2 to the 3 nmi State boundary where a line defined by connecting Point 2 and Point 3 with a straight line intersects the 3 nmi State boundary. The boundary then follows the 3 nmi State boundary westward until it intersects the line defined by connecting Point 4 and Point 5 with a straight line. At that intersection, the boundary extends from the 3 nmi State boundary to Point 5 along a straight line.

Table B-4—Gull Island (Santa Cruz Island) Marine Conservation Area

Point	Latitude	Longitude
1	33.86195 ° N	119.80000 " W

Point	Latitude	Longitude
2	33.86195 ° N	119.88330 " W
3	33.92690 ° N	119.88330 " W
4	33.90700 ° N	119.80000 " W
5	33.86195 ° N	119.80000 " W

C.3. Footprint Marine Conservation Area

The Footprint Marine Conservation Area (Footprint) boundary is defined by the 3 nmi State boundary, the coordinates provided in Table B–6, and the following textual description.

The Footprint boundary extends from Point 1 to Point 2 along a straight line. It then extends along a straight line from Point 2 to the 3 nmi State boundary where a line defined by connecting Point 2 and Point 3 with a straight line intersects the 3 nmi State boundary. The boundary follows the 3 nmi State boundary northeastward and then southeastward until it intersects the line defined by connecting Point 4 and Point 5 along a straight line. At that intersection, the boundary extends from the 3 nmi State boundary to Point 5 along a straight line.

Table B–6—Footprint Marine Conservation Area

Point	Latitude	Longitude
1	33.90198 ° N	119.43311 " W
2	33.90198 ° N	119.51609 " W
3	33.96120 ° N	119.51609 " W
4	33.95710 ° N	119.43311 " W
5	33.90198 ° N	119.43311 " W

C.4. Santa Barbara Island Marine Conservation Area

The Santa Barbara Island Marine Conservation Area (Santa Barbara) boundary is defined by the 3 nmi State boundary, the coordinates provided in Table B–8, and the following textual description.

The Santa Barbara boundary extends from Point 1 to Point 2 along a straight line. It then extends along a straight line from Point 3 to the 3 nmi State boundary where a line defined by connecting Point 3 and

a straight line from Point 2 to the 3 nmi State boundary where a line defined by connecting Point 2 and Point 3 with a straight line intersects the 3 nmi State boundary. The boundary follows the 3 nmi State boundary northeastward until it intersects the line defined by connecting Point 4 and Point 5 with a straight line. At that intersection, the boundary extends from the 3 nmi State boundary to Point 5 along a straight line. The boundary then extends from Point 5 to Point 6 along a straight line.

Table B-8—Santa Barbara Island Marine Conservation Area

Point	Latitude	Longitude
1	33.36320 ° N	118.90879 " W
2	33.36320 ° N	119.03670 " W
3	33.41680 ° N	119.03670 " W
4	33.47500 ° N	118.97080 " W
5	33.47500 ° N	118.90879 " W
6	33.36320 ° N	118.90879 " W



State of California – Fish and Game Commission

PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 34 of 35

Links to data sources:

- 1. CDFW Marine Species Portal: https://marinespecies.wildlife.ca.gov/ for Bluefin Tuna, Swordfish, and Striped Marlin
- 2. NOAA Species Directory: https://www.fisheries.noaa.gov/species-directory for North Pacific Swordfish and Pacific Bluefin Tuna
- 3. PIER papers: https://pier.org/resources/publications/ for swordfish migratory movements DOI: 10.1111/fog.12461, and DOI:10.1111/j.1365-2419.2010.00543.x
- 4. WCPFC stock analysis: https://www.wcpfc.int/current-stock-status-and-advice for Pacific Bluefin Tuna, North Pacific Swordfish, North Pacific Striped Marlin
- 5. Oceana DSBG Sustainability Article: https://usa.oceana.org/press-releases/new-day-dawns-for-whales-sea-turtles-and-sustainable-swordfish-fishing-off-californias-shores/
- 6. PEW DSBG Sustainability Article: https://www.pewtrusts.org/en/research-and-analysis/articles/2023/06/22/us-approves-sustainable-way-to-catch-swordfish-off-west-coast
- 7. MPA regional info: https://californiampas.org/mpa-regions/north-coast-region
- 8. Channel Islands Network info (NOAA):
 <a href="https://channelislands.noaa.gov/about/maps.html#:~:text=Channel%20Islands%20National%20Marine%20Sanctuary%20protects%201%2C470%20square%20miles%20of,Miguel%2C%20and%20Santa%20Barbara%20islands
- 9. MPA Master Plan hub: https://wildlife.ca.gov/Conservation/Marine/MPAs/Master-Plan
- 11. **Economic or Fiscal Impacts:** Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing:
 - Would give local charter businesses better access to local Northern Channel Island banks, helping business and reducing fuel costs and emissions spent traveling further offshore.
 - Would significantly assist the commercial swordfish industry, returning legacy harpoon fishery waters, and allowing for more sustainable, domestic product to be landed by harpoon and DSBG.

12. Forms: If applicable, list any forms to be created, amended or repealed:		
None to my knowledge.		
SECTION 3: FGC Staff Only		
Date received: 11/22/23.		
FGC staff action:		

FGC staff action:
□ Accept - complete
Reject - incomplete
☐ Reject - outside scope of FGC authority
Tracking Number
Date petitioner was notified of receipt of petition and pending action:
Meeting date for FGC consideration:

FGC action:

State of California – Fish and Game Commission PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 35 of 35
Denied by FGC
Denied - same as petition
Tracking Number
Granted for consideration of regulation change

Tracking Number: (2023-16MPA)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain the necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

Person or organization requesting the change (Required)
Name of primary contact person: Richard (Dick) Ogg- Bodega Bay Fisherman's Marketing
Association
Address:
Telephone number:
Email address:

- Rulemaking Authority (Required) Reference to the statutory or constitutional authority of the Commission to take the action requested: Authority: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861, and 6750, Fish and Game Code, and Sections 36725(a) and 36725(e), Public Resources Code.
- 3. Overview (Required) Summarize the proposed changes to regulations: Allow the commercial take of salmon by troll in the following State Marine Reserves (SMRs) by converting them to State Marine Conservation Areas (SMCAs):
 - 1) Stewarts Point Marine Reserve
 - 2) Bodega Head State Marine Reserve
- 4. Rationale (Required) Describe the problem and the reason for the proposed change:

 The commercial salmon fishery has been identified as being at risk due to climate change. The
 Landings have declined significantly during the last decade. The recent drought precipitated
 the closure of the 2023 salmon season, with additional season closures likely. This resulted in
 a federal fishery disaster declaration. The existing Marine Protection Areas (MPAs) create
 problematic fishing practices by creating obstacles to efficient trolling around Bodega Head
 and Stewarts Point Reserves, forcing inefficient fishing and preventing access to otherwise
 productive trolling grounds. Allowing commercial salmon trolling in these two MPAs will help
 with efficiency and ultimately resiliency in the fishery.

This proposal is consistent with goals and objectives 1.1, 1.5, 2.4, and 5.1 identified in the 2016 Master Plan for Marine Protected Areas (MPA), along with the identified design considerations relative to climate change impacts and preservation of diverse commercial uses.

Our proposal is consistent with the Master Plan by maintaining protections under an SMR while allowing commercial salmon harvest by troll, thus mitigating some of the negative impacts experienced by the fishery when the MPA network was established. The Master Plan also states that the MPA network should consider several factors, including the potential impacts of climate change and the diversity of commercial fishing. The proposal is also consistent with the comprehensive recommendations and science guidelines of the California Department of Fish and Wildlife's (CDFW) Decadal Management Review, which acknowledged inadequate engagement with the fishing industry and the continuing need for adaptive management under a changing climate. CDFW's JEDI Governance recommendation #6(c) clearly states the need to explore innovative approaches to engage the fishing industry in MPA research and management.

Our proposal was discussed with the local collaborative, and it was interested in more information on the issue at Stewarts Point Reserve but was not supportive of the proposal at Bodega Head Reserve.

The commercial salmon fishery has a long track record of working with CDFW on research and management issues and is ready to continue that partnership using the recommended changes to the MPA network listed in this petition as an important step in fulfilling the goals of the Marine Life Protection Act and mandates in the Fish and Game Code to support sustainable commercial fisheries.

The science developed to date indicates that fishing for pelagic fishes (including salmon) in SMCAs does not appear to affect their performance compared to SMRs where no fishing is allowed (Carr et.al., 2021). In accordance with the adaptive management elements of the Master Plan, decadal review, and DFW recommendations, we ask that this petition be collaboratively evaluated by all stakeholders through the rulemaking process of the FGC with respect to improving the resiliency of both the commercial urchin fishery and kelp forests to climate change.

SECTION II: Optional Information

Hunting

5.	Date of Petition: November 20
6.	Category of Proposed Change
	☐ Sport Fishing
	X Commercial Fishing

Other, please specify: Click here to enter text.

7. The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs)

X Amend Title 14 Sections:

- 632(b)(34) Stewarts Point Marine Reserve-Conservation Area
 - B Subsection 632(a)(1)(AC) apply, with the following specified exception: the commercial take of salmon by troll is allowed
- 632(b)(39) Bodega Head State Marine Reserve-Conservation Area
 - B Subsection 632(a)(1)(AC) apply...Fish and Game Code and the commercial take of salmon by troll is allowed

Add New Title 14 Section(s): Click here to enter	text
X Repeal Title 14 Section(s):	

- 8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition [Click here to enter text.]

 Or X Not applicable.
- 9. Effective date: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: 2025
- **10. Supporting documentation:** Identify and attach to the petition any information supporting the proposal including data, reports, and other documents:
 - Salmon Enhanced Status Report (https://marinespecies.wildlife.ca.gov/)
 - California Marine Life Protection Act Master Plan for Marine Protected Areas 2016 (https://wildlife.ca.gov/Conservation/Marine/MPAs/Master-Plan)
 - California's Marine Protected Area Network Decadal Management Review 2022 (https://wildlife.ca.gov/Conservation/Marine/MPAs/Management/Decadal-Review)
 - Monitoring and Evaluation of Kelp Forest Ecosystems in the MLPA Marine Protected Area Network (Carr et.al.2021) (Report)
 - MPA Collaborative Network (https://www.mpacollaborative.org/blog/collaborative-network-guidance-for-mpa-petitions) Collaborative Vetted Regulation Recommendations)
- 11. **Economic or Fiscal Impacts:** Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing: There are no known negative economic or fiscal impacts of the proposed changes. It is expected that there will be some positive economic benefits by opening formally closed areas to commercial salmon fishing by troll.
- **12. Forms:** If applicable, list any forms to be created, amended or repealed:

Click here to enter text.

SECTION 3: FGC Staff Only

Date received: [Click here to enter text.]11/22/2023
FGC staff action:
☐ Accept - complete
Reject - incomplete
Reject - outside scope of FGC authority Tracking Number
Date petitioner was notified of receipt of petition and pending action:
Meeting date for FGC consideration:
FGC action:
Denied by FGC
Denied - same as petition
Tracking Number
☐ Granted for consideration of regulation change

Tracking Number: (2023-18MPA)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1. Person or organization requesting the change (Required)

Name of primary contact person: Greg Helms

Address:

Telephone number:

Email address: ghelms@oceanconservancy.org

- 2. Rulemaking Authority (Required) Reference to the statutory or constitutional authority of the Commission to take the action requested: Authority cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code.
- 3. Overview (Required) Summarize the proposed changes to regulations: This Petition requests 7 MPA network refinements representing consensus recommendations of the Santa Barbara Channel MPA Collaborative. The refinements address MLPA governance and management pillars aimed at enhanced compliance/enforceability, regulatory clarity, and MPA design guidelines.
- 4. Rationale (Required) Describe the problem and the reason for the proposed change: The 7 MPA refinements are proposed to improve and refine MPAs and/or MPA management in Santa Barbara and Ventura Counties based on Santa Barbara Channel MPA Collaborative Members' on-the-ground/water experience as well as the findings of the MLPA Decadal Management Review. MPA outcomes are closely linked with their core management pillars including research and monitoring; education and outreach; policy and permitting; and enforcement and compliance. The 7 proposed refinements in this petition are described in the attached narrative, and appear under Santa Barbara/Ventura in the spreadsheet submitted by the Collaborative Network and linked here. Column D of the spreadsheet summarizes the concern/problem addressed and column G provides the justification for the proposed refinement.

SEC1	FION II: Optional Information
5.	Date of Petition: November xx, 2023.
6.	Category of Proposed Change ☐ Sport Fishing ☐ Commercial Fishing ☐ Hunting ☐ Other, please specify: MPAs, Section 632.
7.	The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs) Amend Title 14 Section(s): Westlaw regulations. □ Add New Title 14 Section(s): Click here to enter text. □ Repeal Title 14 Section(s): Click here to enter text.
8.	If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition Click here to enter text. Or Not applicable.
9.	Effective date : If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency:
10.	Supporting documentation: Identify and attach to the petition any information supporting the proposal including data, reports and other documents: See attached narrative and rationale.
11.	Economic or Fiscal Impacts: Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing: These adjustments likely pose minimal economic impact and would fall well within the range evaluated in the original CEQA document.
12.	Forms: If applicable, list any forms to be created, amended or repealed: Click here to enter text.
SECT	ΓΙΟΝ 3: FGC Staff Only
Date	received: 11/28/2023
FGC	staff action: □ Accept - complete □ Reject - incomplete □ Reject - outside scope of FGC authority

Tracking Number



Date petitioner was notified of receipt of petition and pending action:	
Meeting date for FGC consideration:	
FGC action: ☐ Denied by FGC	
□ Denied by FGC□ Denied - same as petition	
Tracking Number	
☐ Granted for consideration of regulation change	



Petition for MPA refinements Submitted by Greg Helms Co-chair, Santa Barbara Channel MPA Collaborative

Background and Overall Rationale: The Santa Barbara Channel MPA Collaborative (SBC Collaborative) is composed of members from organizations and agencies aiding management and community engagement with MPAs in Santa Barbara and Ventura, CA. SBC Collaborative actively engages in MPA outreach and monitoring, gathering community input, and conducting projects to increase MPA awareness and compliance, visitation, and protection. SBC Collaborative engaged closely with the Decadal Management Review, considered members' on-the-ground experiences of local MPAs, convened to discuss each MPA in the Santa Barbara Channel Region in the context of the Decadal Review, and offers the following 7 MPA refinements recommended by consensus (consensus refers to all present during the in-person meeting of the SBC Collaborative on July 11, 2023) for consideration by the California Fish & Game Commission (FGC). Each is intended to enhance MPA success in attaining the goals of the Marine Life Protection Act (MLPA); discussion of each recommendation draws from guidance provided by the FGC Marine Resource Committee at the 2023 DMR convening and the follow-up MRC meeting on July 20, 2023.

Consensus recommendations:

1. <u>Vandenberg SMR</u>: Create a narrow alongshore SMCA allowing shore fishing for finfish by hook and line only.

Guiding rationale: Maintain contribution to MLPA goals 1-4, 6 while addressing equity concerns caused by consumptive activity allowed nearby within Vandenberg SMR.

Discussion: Vandenberg SMR is a core State Marine Reserve serving to anchor the MLPA Central Coast Study Region size, spacing and habitat representation goals; the SMR includes coastline along Vandenberg Space Force Base and at Surf Beach, the key coastal access point along an otherwise remote coastal area for residents in and around Lompoc, CA. Recreation at Surf Beach is constrained by seasonal snowy plover conservation regulations. An equity concern has arisen due to the SMR restrictions not being applied to Vandenberg Space Force personnel and dependents, in contrast to non-military residents at nearby Surf Beach who must comply. Petitioner believes this inequity can best be resolved by equally enforcing no-take regulations throughout this SMR, but that such enforcement may be infeasible. Therefore, it is recommended that hook and line only fishing from shore be allowed within a newly established SMCA, to consist of a 100-meter zone inshore of the existing SMR allowing hook and line fishing for finfish only along the coastal dimension of the existing MPA shape. The new SMR/SMCA regulations would apply and be enforced equitably across military and civilian populations.

2. <u>Point Conception SMR:</u> Provide continued support for Marine Monitor (M2) radar, ground-truthing, and agency coordination

Guiding rationale: Governance - To improve compliance and/or enforceability; MLPA Goal 5

Discussion: Point Conception anchors the northern reaches of the South Coast Study Region MPA network, protecting remote coastal and offshore habitats. Its remoteness, as well as extensive coastal

private land, pose access challenges for traditional enforcement by CDFW wardens. To address this, radar surveillance systems have been successfully employed to aid monitoring of the SMR. Collaborative members report M2 radar systems are providing crucial use data for the MPA but note high vessel activity that is a potential cause for concern. SBC collaborative recommends continued support for the M2 radar system to continue monitoring vessel activity within the SMR, and for ground-truthing and agency coordination to distinguish recreational (surf) visitation from potential MPA violations. California's MPA network includes several remote MPAs for which traditional enforcement patrols may not be adequate to ensure compliance; the Point Conception SMR M2 radar system may serve as an important model for addressing these challenges.

3. <u>Kashtayit SMCA</u>: Refine regulatory language to: "Recreational take of finfish, invertebrates, and giant kelp is allowed."

Guiding Rationale: Governance - Simplifies regulatory language and enhances public understanding.

Discussion: Kashtayit SMCA is a small SMCA aimed at cultural resource protection and education. Kashtayit SMCA is located along the highly visited Gaviota State Beach. Members of the SBC Collaborative (including enforcement partners) report visitors, along with those working to improve compliance, have difficulty interpreting the existing regulatory language for the SMCA due to its length and parenthetical exceptions. The recommended refinement would include and protect most species intended for protection with much greater clarity and public understanding. An additional recommendation is that State officials help collaborate locally for repairs to the Gaviota Pier to aid public access and safety in and around Kashtayit SMCA.

4. Campus Point No-Take SMCA: Use red, rather than purple, to identify this MPA on maps

Guiding rationale: Governance – enhances public understanding.

Discussion: On- and offshore hook and line fishing continue to be observed by SBC Collaborative participants, suggesting greater compliance with no-take regulations can be achieved. Our recommendation here is to depict this no-take SMCA in red, consistent with the other no-take MPAs and likely a clearer indication that the MPA is effectively a State Marine Reserve to the public.

5. San Miguel Island Special Closure: Consider removal of pre-existing special closure

Guiding rationale: Simplifies regulatory language; MPA design guidelines

The San Miguel Island Special Closure was originally designed to reduce disturbance to pinniped rookeries between Castle Rock and Judith point and was retained at the time of MLPA South Coast MPA design. The closure entails a seasonal exemption for sea urchin fishing and includes lengthy language pertaining to two separate regulations. With a NMFS marine mammal station equipped with M2 radar onsite and large, stable pinniped populations present in this zone, we encourage the State to consider whether the Special Closure remains a necessary sub-component of MPA design offshore western San Miguel Island.

6. Anacapa Island Special Closure – Revise to allow vessel access/landing at Frenchy's cove

Guiding rationale: Governance – accounts for Regional Stakeholder Group (RSG) intent while addressing non-consumptive access concern.

Discussion: In establishing an SMR/SMCA complex at Anacapa Island, the RSG retained two existing Special Closures designed to protect seabirds and brown pelicans, respectively. Aligning the boundaries of new MPA complex with those of the two special closures has interfered with the intended allowance for vessels to land safely at Frenchy's Cove. It is recommended that this intent be more effectively secured by including an exemption in the Special Closure for traditional vessel access and landing.

7. Anacapa Island Special Closure: Reassess and consider removing the full-island special closure

Guiding rationale: Simplifies regulatory language; MPA design guidelines

Discussion: Anacapa Island, as discussed above, has a SMR/SMCA complex overlain over one full-island, depth-based seabird protection closure and another special closure designed to protect brown pelicans. The overlapping conservation zones are visually confusing and, in particular, the broader seabird closure is based on depth along a steep, cliffside seabed area that is difficult to comply with and enforce. Given the extensive MPA and closure complex established to protect marine life including seabirds, SBC Collaborative recommends reassessment of the full-island closure and consideration of its removal as appropriate.

Tracking Number: (_2023-19MPA_)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

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SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1. Person or organization requesting the change (Required)

Sam Cohen, Esq. Santa Ynez Band of Chumash Mission Indians
100 Via Juana Road
PO Box 517 Santa Ynez, California 93460

Telephone number:

Email address: scohen@chumash.gov

Email address. sconeri@chumasn.gov

- 2. Rulemaking Authority (Required) Authority cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code.
- 3. Overview (Required) This attached Summary for this Petition describes a proposed additional California-Chumash co-management SMCA that is referred to as "Chitqawi" the northern most coastal Chumash village site of the territory traditionally inhabited by the diverse Chumash peoples. The proposed new regulations are as follows:
 - (B) Area restrictions defined in subsection 632(a)(1)(C) apply, with the following specified exceptions:
 - 1. The recreational take of finfish [subsection 632(a)(2)], invertebrates except rock scallops and mussels by hand harvest is allowed.
 - 2. Take pursuant to activities authorized under subsection 632(b)(97)(C) is allowed.
 - 3. The following federally recognized tribe is exempt from the area and take regulations found in subsection 632(b)(97) of these regulations and shall comply with all other existing regulations and statutes: Santa Ynez Band of Chumash Indians.
- 4. Rationale (Required) To ensure 30% of California waters are fully protected by 2030 and to foster Tribal engagement and co-management of MPAs, this Petition submitted by the Santa Ynez Band of Chumash Indians (SYBCI) recommends an additional MPA for the Central Coast Region MPA network. There is no Tribal MPA for co-management within this regional network.

The SYBCI are co-managers of four south coast SMCAs. The Tribe is recommending the adoption of a new MPA between Morro Bay and Cambria for the Central Coast Region. Describe the problem and the reason for the proposed change: Click here to enter text.

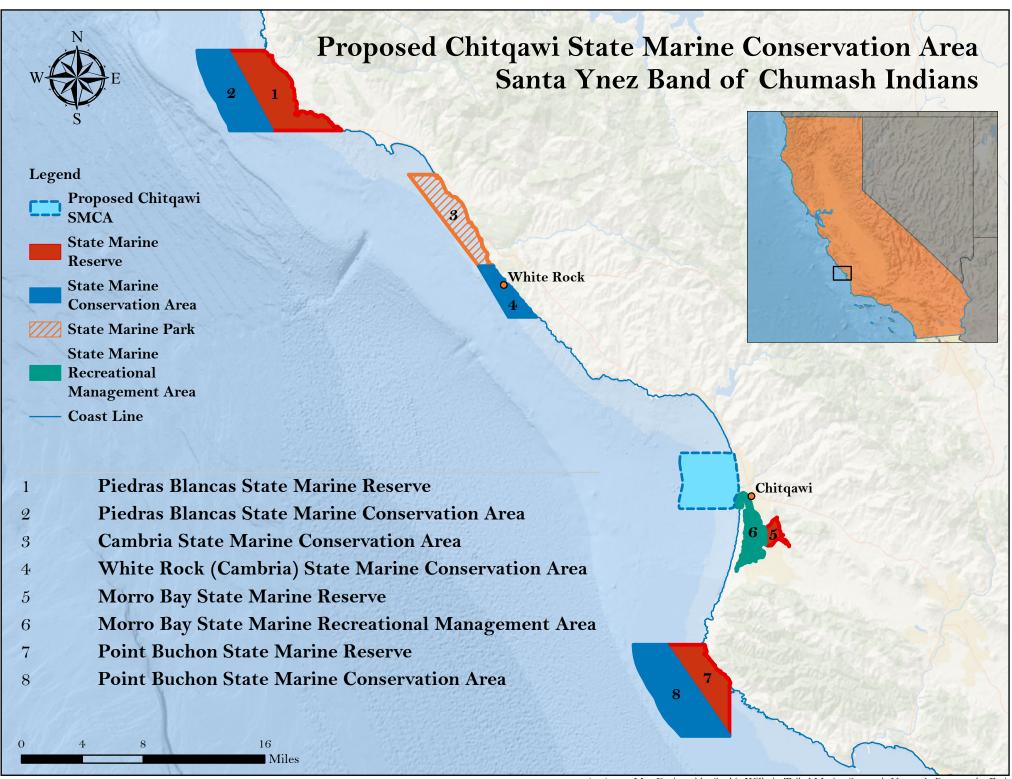
SECTION II: Optional Information

5.	Date of Petition: November 9, 2023
6.	Category of Proposed Change ☐ Sport Fishing ☐ Commercial Fishing ☐ Hunting ☐ Other, please specify: MPAs, Section 632.
7.	The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs) Amend Title 14 Section(s): Westlaw regulations. □ Add New Title 14 Section(s): Click here to enter text. □ Repeal Title 14 Section(s): Click here to enter text.
8.	If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition Click here to enter text. Or 🗷 Not applicable.
9.	Effective date : If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: At the discretion of the Commission.
10.	Supporting documentation: Identify and attach to the petition any information supporting the proposal including data, reports and other documents: Please see attached.
11.	Economic or Fiscal Impacts: Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing: [Unknown.]
12.	Forms: If applicable, list any forms to be created, amended or repealed: Please see attached.
SECT	TION 3: FGC Staff Only
Date	received: 11/29/2023
FGC :	staff action: ☐ Accept - complete ☐ Reject - incomplete ☐ Reject - outside scope of FGC authority

Tracking Number



Date petitioner was notified of receipt of petition and pending action:	_]
Meeting date for FGC consideration:	
FGC action: Denied by FGC Denied - same as petition Tracking Number	
Granted for consideration of regulation change	



CO-MANAGEMENT OF CALIFORNIA-CHUMASH MARINE CONSERVATION AREAS

A White Paper Produced for The Santa Ynez Band of Chumash Indians with Funding Provided by the 7th Generation Advisors







MICHAEL VINCENT MCGINNIS, PhD

Bioregional Planning Associates Sacramento California

EXECUTIVE SUMMARY



Malibu's Paradise Cove August 19, 2011. Chumash paddle their tomol to meet the sailors in seven vaka moanas or sailing canoes from the Pacific Voyage. *Photo*: M.V. McGinnis.

ACROSS THE PACIFIC RIM, Tribal and Indigenous peoples are participating and co-managing marine protected areas. These co-management experiences provide opportunities and challenges to sustain Indigenous maritime practices. Co-management of marine protected areas can foster the integration of scientific and traditional ecological knowledge systems.

The planning effort under the Marine Life Protection Act (MLPA) of 1999 currently involves federally recognized Tribes. The goal of this report is to strengthen the opportunities to implement co-management of designated California-Chumash marine conservation areas located at Anacapa Island, Naples, Point Dume, and Kashtayit in southern California.

The implementation of the existing California-Chumash marine conservation areas is ongoing, and the State plans to review the progress of the MLPA in 2022. At that time changes may be made to the existing legislative framework, and other planning and decision-making changes

may be developed to foster further cooperation with Tribes and the State in the implementation of the MLPA and the co-management of designated marine conservation areas.

Based on a review of case study materials and the literature on co-management of protective areas, there are three major recommendations described in this report. First, a move from consultative co-management to collaborative management of designated California-Chumash marine conservation areas is warranted. Second, the following factors contribute to successful implementation of co-management of State-Tribal protected areas: public access to Tribal members to the protected area; the proximity to use of the marine area; the scientific baseline information on the ecology of the marine area; the historical level of customary marine resource use; the institutional capacity to monitor the designated MPA; the enforcement capacity and capability of partnering agencies and the Tribe of the MPA; and the available customary values and ecosystem goods and services provided by the MPA. These factors are used to analyze the four alternative California-Chumash marine conservation areas. Third, the Chumash should consider joining the Tribal Marine Stewards Network pilot program as the fifth partner in the collaborative network effort. There is currently no southern California Tribal partner in the pilot program. Two California-Chumash marine conservation areas may be appropriate to consider by the Chumash members given the analysis in this report -- the Kashtayit or Point Dume marine conservation areas. This recommendation is based on the historical use of customary practice by the Chumash of these areas; the proximity of use to these areas; the availability of public access to the sites; and other factors. Furthermore, the Chumash should consider ways to contribute as co-managers to the enforcement, education, information exchange, and the monitoring efforts to further the implementation of existing California-Chumash marine conservation areas.

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INTRODUCTION

Me'pshumawish. Together we are making health, harmony, peace.

This study builds on a previous report entitled *Tribal Marine Protected Areas: Protecting Maritime Ways and Cultural Practices* (McGinnis 2004) produced for the *Wishtoyo Foundation*. At the time of publication of that report, the Marine Life Protection Act (MLPA) of 1999 did not include a statutory role for the Tribes in the collaborative network process (Sagkof et al. 2021). In their legal analysis of the changing role of the Tribes in the MLPA Berkeley and Williams (2019: 307) write:

Like the vast majority of California laws, the MLPA did not specifically address the rights and concerns of Indian tribes even though the California coast is Indian Country for many tribes. The failure of the legislature to acknowledge the centuries-long stewardship of coastal resources by Indian people, and the commencement of a resources-protection process that did not include tribes, resulted in initial opposition from Indian tribes. Many tribes feared the process would simply be the latest in a long history of state actions that risked the extinguishment of cultural practices. Instead, despite initial misunderstandings, the [marine protected area] MPA designation process elevated tribal engagement in state natural resource management and may be the catalyst for a fundamental shift in California's approach to tribal nations.

Requests to amend MPA regulations were submitted to the FGC by two different tribes: the Kashia Band of Pomo Indians and the Santa Ynez Band of Chumash Indians (hereafter, the Chumash). Tribal take was authorized in marine conservation areas that overlap with areas of historic and/or current uses for gathering, ceremony, or harvest as reflected in a factual record of use provided by a Tribe. There are four California-Chumash marine conservation areas that are located at sites in state waters at Anacapa Island, Naples, Point Dume, and *Kashtayit*.

The implementation of the existing California-Tribal marine conservation areas is ongoing. The first Decadal Management Review of the MLPA will take place in 2022, and will serve to review and potentially update four primary objectives of the MPA Management Program:

- Outreach and Education,
- Research and Monitoring,
- Enforcement and Compliance, and
- Policy and Permitting

The FWC will receive this review at their December 2022 meeting and decide whether to direct CDFW and its partners to pursue recommendations and identified next steps. At that time changes may be made to the existing legislative framework, and other planning and decision-making changes may be developed in cooperation with Tribes and California resource agencies to strengthen the co-management of designated marine conservation areas.

This paper begins with a description of the importance of traditional ecological knowledge or TEK and the Southern California Bight. Second, the paper characterizes the preliminary stages of implementation of the MLPA, and the changing role Tribes have in the collaborative network and decision-making. The paper reviews the co-management literature to suggest the need to move from *consultative* co-management to *collaborative* management of designated California-Chumash marine conservation areas.

In the last section, an analysis of the four alternative California-Chumash marine conservation areas is described. The alternative analysis is based on the following factors that contribute to successful co-management implementation:

- public access to Tribal members.
- the proximity to use of the marine area.
- the scientific baseline information on the ecology of the marine area.
- the historical level of customary marine resource use.
- the institutional capacity to monitor the designated MPA; and,
- the enforcement capacity and capability of partnering agencies and the Tribe of the MPA.

CHUMASH TEK AND THE SOUTHERN CALIFORNIA BIGHT

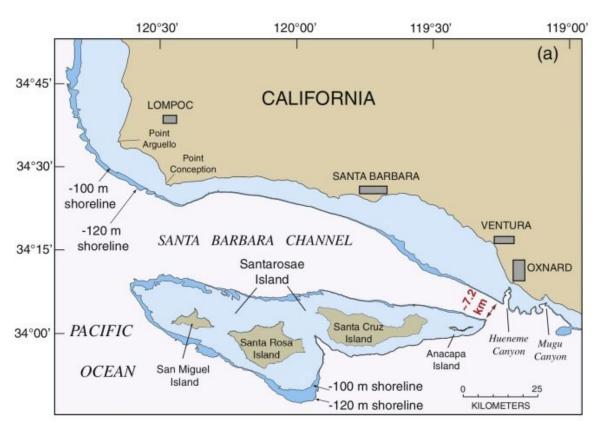
Federally recognized tribes are not mere stakeholders in the MLPA decision-making and collaborative process. As co-managers of marine life protection and management, Tribes are sovereign nations. Traditional ecological knowledge (TEK) is essential to the maintenance of Tribal maritime culture and should be considered a key facet of the co-management process for California-Chumash marine conservation areas. Moreover, the public and resource agencies can learn from TEK.

TEK is based on the interaction between traditional or Indigenous culture and the ecosystems that Tribal peoples are irrevocably connected to. In *Sacred Ecology*, Fikret Berkes (2008) describes two primary aspects of TEK that are important to consider as California and the Tribes move forward in the implementation of the MLPA. First, TEK should be considered a "process" rather than a "content." TEK is a process insofar as it changes and adapts to changes with ecosystems and cultural values. Second, there are benefits from a stronger integration and partnership between those who have TEK and scientific knowledge.

One hundred and forty-eight historic Chumash village sites have been identified from Malibu to San Luis Obispo, including eleven on Santa Cruz Island, eight on Santa Rosa Island, and two on San Miguel Island (Glassow 1995). The archaeological record shows that traditional Chumash maritime practices changed with a changing socio-ecological context. Mussel shells uncovered at excavated historical Chumash village sites indicate cyclical periods of species decline and rebound. These cyclical periods reflect changes in oceanographic setting of the California Current and the Southern California Bight, including short-term and longer-term (e.g., interdecadal oceanographic regime shifts) changes in sea surface temperature and associated changes in biogeography of fishes and invertebrates (Kennett 2005).

Moreover, archaeological and ethnographic evidence suggest that the periodic movement of Chumash village areas helped mediate socio-ecological changes in food security (Rick 2007). As in other traditional societies such as the Māori and other Pacific Islanders, Tribal peoples monitored and temporary banned fishing certain species in order for their respective populations to reach a more stable abundance. Chumash coastal inhabitants would change their diet to reflect changes in their food availability. Seaweeds, kelps, and other marine plants helped sustain Chumash populations; marine plants were often an essential food source during times of food insecurity.

Chumash TEK served the needs of cultural adaptation to changes in the socio-ecology of the Southern California Bight. The northern Channel Islands area were one connected island called *Santarosae* that was located nine kilometers from the coastal mainland (depicted in Map 1). Large-scale sea-level rise during the late Pleistocene and early Holocene periods inundated nearshore areas in many parts of the world, producing drastic changes in local ecosystems and obscuring significant portions of the archeological record (Reeder-Myers et al. 2015). Sea level was about 80–85 meters lower than present at the time of the first known human Chumash occupation.



Map 1. Santarosae Island before Sea-Level Rise

Source: KCET, California's Atlantis: The Lost Superisland of Santarosae, available at: https://www.kcet.org/shows/lost-la/californias-atlantis-the-lost-superisland-of-santarosae

There were major consequences from sea level rise on traditional cultures and customary practices of coastal southern California (Kennett 2005). At the close of the Pleistocene and start of the Holocene, people in coastal California faced shrinking land, intertidal, and subtidal zones that were used for food gathering and other customary uses. This led to a decline in food security and migration of traditional cultures. Second, as a consequence of sea-level rise in the Southern California Bight, including the Channel Islands and the coastal mainland areas, the archaeological and cultural areas used near river and creek mouths, coastal beach areas, and other areas historically inhabited by the Chumash are submerged today (Glassow 1995).

In addition, European colonialization of [*Alta*] California significantly impacted Chumash society (Dartt-Newton and Erlandson 2006). As Dartt-Newton and Erlandson (2006: 419):

While natural environmental fluctuations may have played a role in the movement of Chumash people to the missions (particularly in the abandonment of Channel Island villages after AD 1810), we contend that colonial oppression and Spanish-induced environmental degradation were the chief culprits. No amount of scientific data can blunt the harsh realities of the mission period, when the Chumash and other California Indians died by the tens of thousands and most survivors were reduced to a humiliating slavery-like condition.

Overall, the socio-ecology of the islands and coastal mainland changed and so did the traditional and customary practices of the Chumash (Holmes and Johnson 1998). Chumash knowledge evolves with changes in living conditions. Chumash TEK sustained the diverse communities for thousands of years.

Tribes have a substantive role in the co-management of California-Tribal marine conservation areas. One hope is that Tribal TEK can contribute to the strengthening of the public's awareness of the sacred and customary values of coastal and marine ecosystems in California. These coastal and marine ecosystems have long been influenced by human activities and customary practices.

PRINCIPLES OF CO-MANAGEMENT

Definitions of co-management focus on sharing management responsibility between government and stakeholders (Brown and Pomeroy 1998; Pomeroy 2001; Berkes et al. 2001). Borrini-Feyerabend et al. (2000) note that co-management is a situation in which two or more social actors negotiate, define, and guarantee amongst themselves an equitable sharing of the management functions, entitlements, and responsibilities for a marine area. In this case, the sharing of responsibility under the MLPA is between State agencies and the Chumash.

There are many benefits to co-management. The benefits include:

- improved management due to incorporation of better scientific evidence and TEK (Pinkerton 1989).
- more appropriate rules and regulations that can respond rapidly to changing soio-ecological conditions (Berkes et al. 2001; Ebbin 2002; Hernes et al. 2005).

- more effective and efficient enforcement due to increased legitimacy of the management structures (Berkes et al. 2001; Hanna 2003; Pinkerton and John 2008).
- can increase equitable and fair use of resources (Beierle and Cayford 2002; Borrini-Feyerabend et al. 2004; Coffey 2005); and
- can contribute to the empowerment and development of marginalized communities (Birner and Wittmer 2003; Hara and Nielsen 2003; Jentoft 2003; Pomeroy and Viswanathan 2003).

Figure 1 includes a general characterization of principles of co-management.

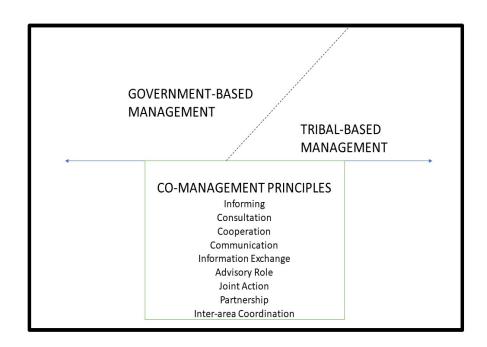


Figure 1. Co-Management Principles

There are three forms of co-management (depicted in Figure 2 below). The most common arrangement is described as "consultative co-management" whereby the resource agencies often consult with stakeholders or, in this case, Tribes (Brown and Pomeroy 1999). The term "collaborative co-management" connotes a stronger partnership where there is a sharing of authority and responsibility (Kurien 1988; McConney et al.1998). Third is "delegated co-management" that includes, but is not limited to, community-based management since national or state co-management structures are especially common in fisheries management (Jacobs 1998; McConney and Mahon 1998). Establishing successful co-management is seldom immediate. Like most participatory processes it takes time and careful attention to partnership building and strategic planning.

Figure 2. Types of Co-Management

TDADITIONAL

RESOURCE	
MANAGEMENT	TYPES OF CO-MANAGEMENT
Government has the most control	Consultative Co-Management Government interacts with partners But makes all decision Collaborative Co-Management Government and the tribes work closely and share decisions
	<u>Delegated Co-Management</u> Government lets formally organized tribes make decisions

A collaborative co-management approach to marine life protection requires the integration of two systems of governance and management. Tribal and customary management and marine ecosystem-based management systems have contrasting goals, inferred social and ecological benefits, and spatial scales. A general comparison of the diverse systems of management is found in Table 1.

Table 1. A Comparison of California and Tribal Management Systems

Management and Planning in the	Tribal and Customary Management
California MLPA	
Use of Ecosystem-based Principles in	Cyclical processes and periodic benefits
Planning	
Science-based Decision-making	Emphasis on the cultivation of TEK
Collaborative & Stakeholder based Planning	Utilitarian goals
Often dominated by Biological Conservation	Sensitive to Socio-economic and Socio-
Goals	ecological transformation
Operates on larger scales (e.g., networks of	Complex tenure systems may hinder larger-
small reserves)	scale conditions

In collaborative co-management, there are three institutional factors that can contribute to the successful integration of authority and responsibility:

• Planning processes, including the monitoring and enforcement of marine protected areas, should harness both scientific and TEK systems.

- Program strategies should match varying scales of social, economic, and ecological processes.
- Program strategies should reflect local or regional socio-cultural conditions as they change overtime and as new information is gathered, e.g., strategic management should support adaptive approaches to planning in the future.

A hybridized co-management approach to marine life protection is depicted in Figure 3.

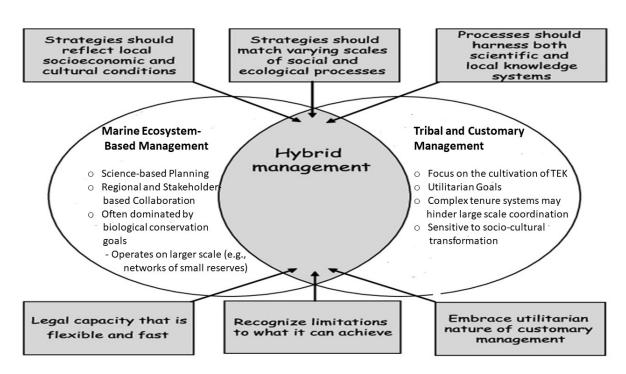


Figure 3. Hybrid Management

(After Pomeroy and Berkes 1997: 466)

Since the adoption of the MLPA in 1999, a number of steps have been taken by policymakers, resource agencies and members of Tribes to establish and encourage co-management of California-Tribal MPAs. Initial Studies, as required by CEQA, have been submitted and regulatory provisions have been approved by the California Department of Fish and Wildlife Commission (FGC). Governor Brown and Governor Newsome have signed Executive Orders to encourage co-management of marine resources with Tribes. California resource agencies have approved strategic goals and objectives in support of co-management principles to encourage co-management of California-Tribal marine conservation areas. Collaborative networks have been established that include formal Tribal membership. Pilot programs between California and the Tribes to develop monitoring programs and the deployment of data gathering to strengthen monitoring of existing MPAs have been developed.

CO-MANAGEMENT OF CALIFORNIA-CHUMASH MPAS

This section provides a general description of the early implementation of co-management of the California-Chumash marine conservation areas. A detailed overview of the early implementation of the MLPA and the role of the Tribes in the process is available at Sofka and colleagues (2021: 80-113) and Berkey and Williams (2019). These studies describe the collaborative, legal and historical role of the Tribes during the implementation of the MLPA.

The Move toward Tribal Exemption

Following adoption of MPAs in the North Coast MLPA planning process, a regulatory provision was adopted by the California Fish and Game Commission (FGC) to provide exemptions from MPA-specific area and take regulations for individual federally recognized California Tribes (i.e., tribal exemptions), through a petition process by the Commission. Requests to amend MPA regulations were submitted to the FGC by two different tribes: the Kashia Band of Pomo Indians (the Kashia) and the Chumash (Berkey and Williams 2019; Dudek 2018).

Tribal Take

"Federally recognized tribe" means any tribe on the List of Indian Entities Recognized and Eligible to Receive Services from the United States Bureau of Indian Affairs, published annually in the Federal Register. Any member of a federally recognized tribe authorized to take living marine resources from an area with area-specific take restrictions in subsection 632(b), when engaging in take within an authorized area shall possess on his person, in his immediate possession, or where otherwise specifically required by law to be kept, any valid license, report card, tag, stamp, validation, permit, or any other entitlement that is required in the Fish and Game Code, or required by other state, federal, or local entities, in order to take living marine resources. Members shall possess a valid photo identification card issued by a federally recognized tribe that contains expiration date, tribal name, tribal member number, name, signature, date of birth, height, color of eyes, color of hair, weight, and sex; and display any of the items listed above upon demand to any peace officer. Members taking living marine resources under this provision are subject to current seasonal, bag, possession, gear and size limits in existing Fish and Game Code statutes and regulations of the commission, except as otherwise provided for in subsection 632(b). No member, while taking living marine resources pursuant to this section, may be assisted by any person who does not possess a valid tribal identification card and is not properly licensed to take living marine resources. Nothing in the regulation is intended to conflict with, or supersede, any state or federal law regarding the take of protected, threatened or endangered species [Title 14, 632(a)(11)].

The Chumash requested the Commission to apply tribal take provisions in four SMCAs in southern California that are within their areas of historic and/or current tribal use. The regulations for the State Marine Conservation Areas (as January 1, 2019) are taken from California Code of Regulations (CCR) Title 14, Section 632, and are as follows:

The exemptions are consistent with allowing tribal take exemptions as currently defined in Title 14, §632(a)(11) (noted above), which identify how a member of a federally recognized tribe may be authorized to take living marine resources from an MPA with site-specific take restrictions.

A description of each California-Chumash marine conservation area is below (Dudek 2018):

1) Kashtayit State Marine Conservation Area Permitted/Prohibited Uses:

- a) It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource for recreational and/or commercial purposes, with the following specified exceptions:
 - i) The recreational take of finfish, invertebrates except rock scallops and mussels, and giant kelp (*Macrocystis pyrifera*) by hand harvest is allowed.
 - ii) Take pursuant to the maintenance of artificial structures and operation and maintenance of existing facilities is allowed inside the conservation area pursuant to any required federal, state and local permits, or as otherwise authorized by the Department
- b) The following federally recognized tribe is exempt from the area and take regulations found in subsection 632(b)(97) and shall comply with all other existing regulations and statutes: Santa Ynez Band of Chumash Indians.

2) Naples State Marine Conservation Area Permitted/Prohibited Uses:

- a) It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource for recreational and/or commercial purposes, with the following specified exceptions:
 - i) The recreational take by spearfishing of white seabass and <u>pelagic finfish</u> is allowed.
 - ii) The commercial take of giant kelp (*Macrocystis pyrifera*) by hand harvest or by mechanical harvest is allowed.
- b) Take pursuant to operation and maintenance of artificial structures inside the conservation area is allowed pursuant to any required federal, state and local permits, or as otherwise authorized by the Department.
- c) The following federally recognized tribe is exempt from the area and take regulations found in subsection 632(b)(98) and shall comply with all other existing regulations and statutes: Santa Ynez Band of Chumash Indians

3) Point Dume State Marine Conservation Area Permitted/Prohibited Uses:

- a) It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource for recreational and/or commercial purposes, with the following specified exceptions:
 - i) The recreational take by spearfishing of white seabass and <u>pelagic finfish</u> is allowed.
 - ii) The commercial take of swordfish by harpoon; and <u>coastal pelagic species</u> by round haul net, brail gear, and light boat is allowed. Not more than five percent by weight of any commercial coastal pelagic species catch landed or possessed shall be other incidentally taken species.
- b) Take pursuant to beach nourishment and other sediment management activities is allowed inside the conservation area pursuant to any required federal, state and local permits, or as otherwise authorized by the Department.
- c) The following federally recognized tribe is exempt from the area and take regulations found in subsection 632(b) (117) and shall comply with all other existing regulations and statutes: Santa Ynez Band of Chumash Indians

4) Anacapa Island State and Federal Marine Conservation Area Permitted/Prohibited Uses:

- a) It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource for commercial and/or recreational purposes, with the following specified exceptions:
 - i) The recreational take of spiny lobster and pelagic finfish and the commercial take of spiny lobster is allowed.
- b) The following federally recognized tribe is exempt from the area and take regulations found in subsection 632(b) (112) and shall comply with all other existing regulations and statutes: Santa Ynez Band of Chumash Indians

The Chumash remain subject to the Anacapa Island Special Closure regulations where it overlaps with the Anacapa Island SMCA and are not exempt from the Anacapa Island Federal Marine Conservation Area take restrictions. Fishing with use of hand-based equipment and intertidal collection is allowed in this area, for which there is no pelican fledging area closure. Therefore, there are currently no exemptions in federal waters of the Channel Islands National Marine Sanctuary.

With respect to the role of the Tribes in the MLPA process Berkey and Williams (2019: 349-350) note that Governor Brown in Executive Order B-10-11 moved forward with formally recognizing the role of federally recognized tribes in marine governance:

The perceptions of tribal representatives who participated in the late stages of the MLPA process bears out the truth of the Governor's observation. One tribal advocate said that, though there is a great deal of work yet to be done to fully recognize tribal rights to marine resources, the "space created by the MLPA is a promising first step."

Both the State and some tribal representatives see a trend toward a marked increase in tribal participation in the development of state policy beyond that of marine resources. While not every tribe has the resources to respond to state agency invitations, at least they have a greater opportunity.

In Executive Order N-82-20 Governor Newsome also recognized the role of the Tribes in marine resource protection and supported further development and movement toward co-management of MPAs.

Co-management and the California Department of Fish and Wildlife

The Tribal Communication and Consultation Policy provides the foundation for the CDFW to work cooperatively, communicate effectively, and consult with Tribes. This policy also serves as the CDFW's primary means to implement Executive Order B-10-11 and the California Natural Resource Agency's Tribal Consultation Policy.

The *Master Plan for Marine Protected Areas – Appendix B* from the CDFW (2016: B-10) describes the existing co-management policy with respect to Tribes as follows:

The purpose of this policy is to create a means by which tribes and Fish and Game Commission can effectively work together to realize sustainably managed natural resources of mutual interest.

This CDFW (2016) identifies the following priorities:

- 1. Communication. Both FWC and the Tribes are faced with innumerable demands on their limited time and resources. In the interest of efficiency, FWC will annually host a Tribal planning meeting to coordinate the upcoming regulatory and policy activities before FWC. The meeting will provide a venue for education about process, identifying regulatory and policy needs, and developing collaborative interests; this will include inviting sister agencies to participate.
- 2. Collaboration. In areas or subjects of mutual interest, FWC will pursue partnerships with tribes to collaborate on solutions tailored to each tribe's unique needs and capacity. The structure of these collaborative efforts can range from informal information sharing to Memorandum of Understanding (MOU) with more specific agreements regarding working relationships and desired outcomes, to co-management agreements with specific responsibilities and authorities.
- 3. Record-keeping. FWC will maintain a record of all comments provided by Tribes and will include them in administrative records where appropriate.
- 4. Training. FWC will provide training to interested Tribes on its processes for regulation and policy development.

The FWC Co-Management Vision Statement and Definition (February 2020) states:

The vision of tribes, the California Fish and Wildlife Commission, and the California Department of Fish and Wildlife is to engage in a collaborative effort between sovereigns to jointly achieve and implement mutually agreed upon and compatible governance and management objectives to ensure the health and sustainable use of fish and wildlife [my emphasis].

Definition: A collaborative effort established through an agreement in which two or more sovereigns mutually negotiate, define, and allocate amongst themselves the sharing of management functions and responsibilities for a given territory, area or set of natural resources [my emphasis].

The above strategy adopted by the CDFW clearly suggests the value of *collaborative* comanagement with the Chumash to implement marine conservation areas.

The Tribal Marine Stewards Pilot Program

Esgro (2020) notes that Tribes are engaged with California resource managers in multiple forums for MPA management through participation in multiple decision-making bodies, notably the CDFW Tribal Subcommittee and representatives at the MPA Statewide Leadership Team (MSLT). California's MSLT includes four regional Tribal representatives to ensure that Tribes

are directly involved in the development of MPA policy. Tribal participation in the collaboratives has given way to funded Tribal-specific projects and initiatives.

In 2020, a Tribal Marine Stewards Network Pilot Program was approved by the Ocean Protected Council (OPC) that included a disbursement of \$1,000,000 to the California Indian Environmental Alliance (CIEA) to support the development of a Tribal Marine Stewards Network pilot program. The objective of the program ram is to enhance engagement with Tribes and protect and restore coastal and marine ecosystems. According to OPC, this program is a mechanism to "advance California's efforts to support [I]ndigenous stewardship and adopt meaningful co-management measures."

The program is composed of four partner Tribes (Tolowa Dee-ni' Nation, Resighini Rancheria, Kashia Band of Pomo Indians, and the Amah Mutsun Tribal Band), and is supported by two non-governmental organizations (CIEA and Ecotrust). The program focuses on MPA monitoring and notes that <u>Tribes will work to identify a fifth Tribe, ideally in southern California, who is interested in participating in the network</u>. At the time of the writing of this report, the Chumash are not formally involved in this pilot program.

A timeline that includes a general summary of development in the co-management approach in California is below:

- Executive Order ("EO") B-10-11 started state agency tribal consultation under Gov. Brown
- 2012 Natural Resources Agency adopts Tribal Consultation policy
- 2014 CDFW adopts tribal Communication and Consultation Policy
- 2015 FGC Adopts Tribal Consultation Policy
- 2019 EO N-15-19 reaffirms Tribal Consultation by Gov. Newsom
- 2020 Tribal Subcommittee of FGC Adopts Co-Management Vision & definition
- 2020 Gov. 2d Annual Tribal nations Conference, Christina Snider, Gov. Tribal Advisor requests each tribe apply for co-management opportunities
- 2020 Sept. 25: Gov. Newsom issues Statement of Administration Policy, Native American Ancestral Lands, "to facilitate tribal access, use and co-management of state owned or controlled natural lands."
- 2020 Oct. 7: EO N-82-20 "to conserve 30% of California's land and coastal waters by 2030" and "to incorporate Tribal expertise and traditional ecological knowledge."

Moving from Consultation Co-Management to Collaborative Co-Management

In an evaluation of the MLPA collaborative network process, Sofka et al. (2021) describe a number of recommendations that can strengthen the collaborative co-management of California-Chumash marine conservation areas. Sofka et al. (2021) recommend the following:

- Improve Tribal Engagement, Protocols, and Initiatives
 - Provide cross-cultural training by establishing periodic cross-cultural training opportunities. Trainings should foster cultural awareness around interactions with Tribal groups. Allocate time and funding for ongoing collaborative, network, and

- state cross-cultural training that reflects local Tribal culture, histories, and connection to place.
- O Protocols to prioritize respect, reciprocity, and free, prior, and informed consent in all interactions that acknowledge historical and current injustices related to Tribal sovereignty. Sofka et al. (2021) recommend that California should evaluate how Tribal consent, respect, or reciprocity may have been violated with respect to resource management issues in general, and marine conservation specifically. California should review ways to redress these past violations, with an emphasis on transparency and accountability.
- Establish and abide by anti-discrimination policies approved and/or developed by Tribes. Sofka et al. (2021) recommend that California should determine which forms of discrimination, biases, or stereotypes Tribes have encountered through their participation in the collaboratives and MPA management. The State should review existing agency policies and interpretations that constrain Tribal participation, including but limited to considerations of inclusivity and accessibility.
- Consider the utility of developing a statewide MPA tribal committee and/or statewide Tribal collaborative.
- Engaging Tribes as partners in co-management, not stakeholders. The State should involve Tribal participants in decision-making bodies, forums, and protocols surrounding the control and co-management of MPAs. They also recommend that the State review how principles of Tribal co-management have been violated with respect to resource management issues in general, and ocean/MPA conservation specifically.
- Ensure Tribal co-authorship of language in all formal agreements. Sofka et al.
 (2021) recommend that Tribal authorship should take place in future planning and policymaking to ensure that Tribal perspectives, preferences, and confidentiality are appropriately captured.
- Establish protocols for integrating aspects of Tribal stewardship. Sofka et al. (2021) recommend that California establish and codify appropriate policies, best practices, and protocols at the collaborative and State levels of governance that emphasize the integration and acknowledgement of Tribal stewardship at all levels of MPA management. They also recommend that the State prioritize Tribally led and managed stewardship projects, such as the Tribal Marine Stewards Network.
- o Prioritize the inclusion of all forms of Tribal and indigenous communities and recognize that Tribal communities exist far beyond federal recognition. Sofka et al. (2021) recommend that California prioritize the involvement of diverse forms of Tribal arrangements including but not limited to federally recognized Tribes, State recognized Tribes, unrecognized Tribes, consortiums, etc. The State should review with Tribal participants what groups have been excluded from this MPA management in the past, and the procedures which facilitated that exclusion. Sofka et al. (2021) also recommend that the Tribes and California determine how

management and planning approaches can be modified to engage a variety of formal and informal Tribal arrangements.

- Establish Protections and Protocols for Tribal Decision-Making and Authority Around Knowledge and Data. This should include the establishment of policies with Tribal participants for knowledge requests, use, sharing, and mobilization within the collaboratives.
 - Anticipate and honor diverse Tribal preferences for data management, collection, analysis, and use. These protocols should facilitate Tribal participation and information sharing in collaboratives and beyond, creating an atmosphere of consent.
 - Understand that Tribes may not consent to the sharing of their knowledge and data that has been passed down and safeguarded for generations. Similarly, acknowledge the diversity of Tribal science and knowledge, how it differs from non-Tribal science, and the ways in which TEK can be better protected.
 - Consider the integration of Tribally selected models of Indigenous data governance and data protection at all levels of MPA collaborative management. Sofka et al. (2021) recommend that California and the Tribes carefully review Tribal decision-making authority and consider if there have been instances where Tribes felt as though they did not have control over their data, and if so, what policies could be established to mitigate these scenarios going forward.

Careful consideration of these recommendations is warranted to strengthen the collaborative comanagement approach to California-Chumash marine conservation areas.

CASE STUDIES OF CO-MANAGEMENT

This section includes a brief characterization of case studies on implementation of co-managed State-Tribal or Indigenous protected areas.

Fiji Locally Managed Marine Area (LMMA) Network

A locally managed marine area (LMMA) differs from a typical MPA in that LMMAs "are characterized by local ownership and/or control," whereas other forms of MPA are usually "designated by levels of management via a top-down approach" (Govan et al. 2006). The LMMA Network supports a collaborative co-management approach to manage coastal and marine resources. LMMA supports networks in Indonesia, the Philippines, Papua New Guinea, Palau, Pohnpei, Fiji and the Solomon Islands, and engages with more than fifteen other countries in the Indo Pacific. Case studies of member organizations within the LMMA are found in Rocliffe et al. (2014), Jupiter et al. (2014), and Robertson et al. (2020).

Increasingly, the LMMA Network is sharing its lessons globally, with increased interest not only in improved conservation outcomes, but also with an increased focus on social justice and the rights of traditional resource owners. Robertson et al. (2020) note that a LMMA, in the South Pacific context, is rooted in traditional and customary fisheries management and is designed to

gain support and active engagement from the local community, with the latter being a key condition for the successful and lasting implementation of MPAs.

The Fiji Locally Managed Marine Area (FLMMA) Network supports traditional communities who have observed declines in marine resources and their customary use of marine resources and want to act. The FLMMA Network is a non-profit and charitable association of resource conservation NGOs, government departments, academic institutions and over four hundred communities working together as co-managers to promote and encourage the preservation, protection and sustainable use of marine resources in Fiji.

The goals of the FLMMA are to:

- Provide practical capacity building, cost-effective and culturally appropriate engagement tools to promote locally led dialogues and management.
- Assist communities in managing their resources, often utilizing a revival of cultural traditions strengthened by contemporary science.
- Build trust, resiliency, confidence, and innovation through lesson sharing between practitioners.
- Follow a code of conduct that ensures community interests are the heart of any conservation effort.
- Advocate for communities at the national, regional, and international levels, for fair partnerships, policies, and support.

The Challenge of MPA governance in New Zealand and the Role of Māori

When New Zealand was settled by Europeans, a treaty was signed between Māori and the British Crown, called the Treaty of Waitangi. The Treaty gave guarantees that Māori would retain ownership and sovereignty over their customary resources. However subsequent government action deprived Māori of rights and land. It was only in the 1970s that the New Zealand government began to recognize the importance of partnership with the diverse Māori peoples. Today, much of the policy and legislation in relation to oceans governance requires consultation with local Māori (*tangata whenua*) and tribes (*iwi*) (McGinnis 2012).

The New Zealand government, as part of its obligations to Māori under the Treaty of Waitangi, has provided for some coastal and marine areas to be subject to the control of local Māori. Two types of protection can be granted over areas: *mātaitai* and *taiāpure*. Mātaitai reserves are established to protect traditional fishing grounds in internal waters or coastal waters. Within a mātaitai, commercial fishing is prohibited, but recreational fishing can continue. The *tangata whenua* can also request the Minister of Fisheries to create bylaws that restrict or prohibit recreational fishing. Other customary reserves are taiāpure-local fisheries. Consultation is required and an appeal against a decision by the Minister of Fisheries to establish a taiāpure-local fishery can be heard by a tribunal. Due to this process, they are harder to establish than mātaitai. The national government of New Zealand can deny designation of taiāpure-local fisheries.

There are several problems regarding Māori rights with respect to marine protection, and comanagement has failed (McGinnis 2012). Application for marine reserve designation is

dependent on approval from other interested parties and government agencies. Current comanagement legislation requires the Crown acting through the Department of Conservation have the final say regarding marine reserve management (Dodson, 2014). Co-management in New Zealand has not empowered local iwi or tribes in co-governance – there remains unequal authority between cultural groups and governmental organizations. Collaborative comanagement could potentially minimize marginalization of Māori communities and increase successful marine reserve implementation (Carlsson and Berkes 2005; Berkes 2009; Mossop 2020). Fragmented government authority and inter-agency conflict also contribute to failure to live up to international best practice in protected area management in New Zealand.

Co-management between Australia and the Miriuwung-Gajerrrong People of Western Australia

Collaborative co-management involves Australia and the Miriuwung-Gajerrrong people of Western Australia, and the partnership that has evolved shows co-management can provide equity in managing a protected area (Hill, 2011). In this case, collaborative co-management established a balance between Indigenous values and State conservation values.

Co-management is central to the Australian government's approach to this conservation/ Indigenous nexus, and to delivering the enhanced equity with Indigenous people in protected areas. Indigenous people favor community-controlled approaches to protected areas in this region of Australia. Hill (2011) describes a number of reasons for the success of the Australia-Miriuwung-Gajerrrong co-management model:

- Respect the rights of traditional owners, custodians, or users to lands, territories and resources Indigenous land ownership
- Free, prior and informed consent of the Traditional Owners
- Legal protection for rights and interests of parties
- Respect and strengthen Indigenous peoples' institutions and customary laws
- Coherent and effective Indigenous representative party with legitimacy
- Sufficient resources to enable Indigenous participation
- Conflict management
- Respect and strengthen Indigenous peoples' exercising of authority and control
- Commitment of Indigenous people to assume the opportunities
- Appropriate technical and other advice
- Clear understanding of Indigenous ideas about success
- Traditional Owners in driving role

As a general summary, Hill (2011) identified three factors of significance for the establishment of a successful co-management of a protected area: (1) a foundation platform of recognition of rights and interests; (2) a set of effective organizations to support the roles of the key actors; and (3) effective mechanisms for working together.

A number of factors contribute to unsuccessful co-management, such as: unclear law with vague strategic and programmatic development; failure to uphold treaty rights and obligations for

Indigenous or Tribal peoples regarding their use or right to access protected areas; lack of resources granted to Indigenous or Tribal peoples to participate as partners in co-management planning and decision-making; lack of funding granted to implement and enforce co-management plans; lack of leadership; and, the lack of institutional capacity to address conflicts between partners in co-management planning efforts.

[An *Addendum* describes the co-management framework that has been adopted and implemented for the Olympic National Marine Sanctuary.]

AN ANALYSIS OF FOUR CALIFORNIA-CHUMASH MARINE CONSERVATION AREAS

Based on an analysis of the scholarly literature and case study material published on comanagement of protected areas, this section provides an alternative analysis based on a sample of factors that often contribute to successful State-Tribal partnerships. The primary factors used in the analysis are:

- Public access of a marine area by Tribal members.
- The proximity to use of the marine area by Tribal members.
- The scientific baseline information on the ecology of the marine area.
- The historical level of customary marine resource use.
- The institutional capacity to monitor the designated MPA and enforce rules and regulations.

Table 2 depicts a general summary of the findings from this analysis. A characterization of the institutional capacity and capability of partnering organizations to monitor and enforce the rules and regulations of MPAs is described as well in the sections below the table.

[insert Table 2]

Institutional Capacity and Capability to Monitor and Enforce

A comprehensive evaluation of the institutional capacity and capability to monitor and enforce the existing MPA network is beyond the scope of this project. Starting in 2007, California Sea Grant partnered with the California Ocean Protection Council (OPC) and CDFW to administer research project funding for baseline monitoring of MPA's. These projects aimed to establish a snapshot of marine ecosystems and human activities around the time of the establishment of the new MPAs, and to document initial socioeconomic and ecological changes after the MPAs take effect. The South Coast was the third region to be studied as part of the MPA Baseline Monitoring Program. The projects ran from 2011 to 2017.

The MPA monitoring framework explicitly mentions the potential role of citizen science programs in MPA monitoring (CDFG 2008). Recently, many citizen-based science programs have endeavored to help provide these much-needed data (Freinwald et al., 2018). Implementation of MPAs under the MLPA Initiative in Southern California was followed by a monitoring program to establish a comprehensive baseline of the ecological conditions of several marine ecosystems at the time of MPA implementation. This baseline monitoring consortium involved several citizen science monitoring programs alongside more traditional academic monitoring programs, creating an opportunity to evaluate the potential for citizen scientists to become more involved in future long-term monitoring efforts.

Enforcement of existing CDFW regulations is based on education, public outreach, and a number of other factors, including the number of marine wardens. In an undercover operation and subsequent boarding by officers in 2013, CDFW wildlife officers observed eighteen violations including poaching within California's MPA) network, exceeding the possession limits of several fish species, using illegal methods to take fish, and failing to report accurate counts on logbooks. Monitoring and enforcement of MPA regulations will depend on the resources available to citizens, resource agencies and the Tribes to co-management designated areas. One obstacle often recognized in marine life protection is an "implementation deficit" whereby deficits occur during the implementation phase of policy development when there is a mismatch between fields of regulatory action. This can occur immediately or across a longer-term implementation phase. Immediate implementation deficits are caused by an excessively general definition of regulations or when policy goals are not operationalized in this field.

Recommendation

Based on the alternative analysis, the Chumash should consider joining the Tribal Marine Stewards Network pilot program as the fifth partner in the collaborative network effort. There is currently no southern California Tribal partner in the pilot program.

Two California-Chumash marine conservation areas may be appropriate to consider by the Chumash members given the analysis above: the *Kashtayit* or Point Dume marine conservation areas. This recommendation is based on the historical use of customary practice by the Chumash of these areas; the proximity of use to these areas; and the availability of public access to the sites.

Furthermore, the Chumash should consider ways to contribute as co-managers to the enforcement and monitoring efforts to further the implementation of existing California-Chumash marine conservation areas.

REFERENCES

Beierle, T.C. and J. Cayford (2002). *Democracy in practice: public participation in environmental decisions*. Resources for the Future: Washington, D.C.

Berkes, F. (2008). Sacred Ecology. Routledge.

Berkes, F. (2009). Evolution of co-management: Role of knowledge generation, bridging organizations and social learning. *Journal of Environmental Management*, 90(5):1692–1702.

Berkes, F., R. Mahon, P. McConney, R. Pollnac, R. Pomeroy (2001). *Managing small-scale fisheries: Alternative directions and methods*. International Development Research Centre: Ottawa, O.N.

Berkey, C.G. and S.W. Williams (2019). California Indian Tribes and the Marine Life Protection Act: The Seeds of a Partnership to Preserve Natural Resources, *Am. Indian L. Rev.* 43: 307.

Borrini-Feyerabend, G., M. Pimbert, M.T. Farvar, A. Kothari, Y. Renard (2004). *Sharing power: Learning by-doing in co-management of natural resources throughout the world*. IIED and IUCN/CEESP/CMWG: Cenesta, Tehran.

California Department of Fish and Game (2008). *Master plan for marine protected areas*. Sacramento, CA: California Department of Fish and Game.

California Department of Fish and Wildlife (CDFW) (2016). California's Marine Protected Area (MPA) Network. March 1, 2016. Available at: https://wildlife.ca.gov/Conservation/Marine/MPAs/Network

Carlsson, L., and F. Berkes. (2005). Co-management: Concepts and methodological implications. *Journal of Environmental Management* 75(1), 65-76.

Coffey, C. (2005) What role for public participation in fisheries governance? in *Participation in fisheries governance*. Springer: Dordrecht, The Netherlands. Pages 27-44.

Dartt-Newton, D. and J.M. Erlandson (2006). Little Choice for the Chumash: Colonialism, Cattle, and Coercion in Mission Period California, *American Indian Quarterly* (30): ³/₄: 16–30. http://www.jstor.org/stable/4139021.

Davis, N.A. (2008). Evaluating collaborative fisheries management planning: A Canadian case study. *Marine Policy* 32: 867-876.

Dodson, G. (2014). Co-Governance and Local Empowerment? Conservation Partnership Frameworks and Marine Protection at Mimiwhangata, New Zealand. *Society & Natural Resources* 27(5), 1-19.

Ebbin, S.A (2002). Enhanced fit through institutional interplay in the Pacific Northwest salmon comanagement regime. *Marine Policy* 26: 253-259.

Ebbin, S.A. (2009). Institutional and ethical dimensions of resilience in fishing systems: Perspectives from co-managed fisheries in the Pacific Northwest. *Marine Policy* 33: 264-270.

Ebbin, S.A. (2011). The problem with problem definition: Mapping the discursive terrain of conservation in two Pacific salmon management regimes. *Society and Natural Resources: An International Journal* 24(2): 148-164.

Esgro, M. (2020). Tribal Marine Stewards Network Pilot Program. Ocean Protection Council. Available at:

https://opc.ca.gov/webmaster/ftp/pdf/agenda_items/20200619/Item6a_TribalMarineStewardsNet work FINAL.pdf

Freiwald, J, Meyer, R, Caselle, J.E., et al. (2018). Citizen science monitoring of marine protected areas: Case studies and recommendations for integration into monitoring programs. *Mar Ecol.*: 39:e12470. https://doi.org/10.1111/maec.12470

Glassow, M. (1995). Purisimeno Chumash Prehistory: Maritime Adaptations Along the Southern California Coast (Case Studies in Archaeology. Wadsworth Publishing; 1st edition (November 17)

Govan, H., A. Tawake, K. Tabunakawai (2006). Community-based marine resource management in the South Pacific. *Parks* 16 (1): 63-67.

Hanna, S. (2003). The economics of co-management. in *The fisheries co-management experience: Accomplishments, challenges, and prospects*. Wilson, D.C., J.R. Nielsen, P. Degnbol, editors. Kluwer Academic Publishers: Dordrecht, The Netherlands. Pages 51-60.

Hara, M., and J.R. Nielsen (2003). Experiences with fisheries co-management in Arica. in *The fisheries co-management experience: Accomplishments, challenges, and prospects*. Wilson, D.C., J.R. Nielsen, P. Degnbol, editors. Kluwer Academic Publishers: Dordrecht, The Netherlands. Pages 81-98.

Hernes, H., S. Jentoft, K.H. Mikalsen (2005). Fisheries governance, social justice, and participatory decision-making. in *Participation in fisheries governance*. Springer: Dordrecht, The Netherlands. Pages 103-118.

Hill, R. (2011). Towards equity in indigenous co-management of protected areas: cultural planning by Miriuwung-Gajerrong People in the Kimberley, Western Australia. *Geographical Research* 49(1), 72-85.

Holmes, M.S., and J.R. Johnson (1998). *The Chumash and Their Predecessors: An Annotated Bibliography*. Contributions in Anthropology No. 1, Santa Barbara Museum of Natural History

Jentoft, S., K.H. Mikalsen, H. Hernes (2003). Representation in fisheries co-management. in *The fisheries co-management experience: Accomplishments, challenges, and prospects*. Wilson, D.C., J.R. Nielsen, P. Degnbol, editors. Kluwer Academic Publishers: Dordrecht, The Netherlands. Pages 281-292.

Jupiter, S., P. Cohen, R. Weeks, A. Tawake, H. Govan (2014). Locally managed marine areas: Multiple objectives and diverse strategies. *Pacific Conservation Biology* 20. 10.1071/PC140165.

Kennett, D.J. (2005). *The Island Chumash: Behavioral Ecology of a Maritime Society*. The University of California Press.

McGinnis, M.V. (2004). *Tribal Marine Protected Areas: Protecting Maritime Ways and Cultural Practices*. Produced for Wishtoyo Foundation. Bioregional Planning Associates. With Roberta Cordero.

McGinnis, M.V. (2012). Marine Governance: The New Zealand Dimension. Final Report. Funded by the Ministries of New Zealand. Emerging Issues Program. School of Government, Victoria University Wellington, New Zealand. April. Available at: https://cbe.miis.edu/cgi/viewcontent.cgi?article=1000&context=cbe_working_papers

Mossop, J. (2020). Marine Protected Areas and Area-Based Management in New Zealand, *Asia-Pacific Journal of Ocean Law and Policy* 5(1), 169-185. doi: https://doi.org/10.1163/24519391-00501009

Pinkerton, E. (1989). Introduction: Attaining better fisheries management through comanagement – prospects, problems, and propositions. in *Co-Operative management of local fisheries: New directions for improved management and community development*. Pinkerton, E., editor. The University of British Columbia Press: Vancouver, B.C. Pages 3-33.

Pomeroy, R. (2003). The government as a partner in co-management. in *The fisheries co-management experience: Accomplishments, challenges, and prospects*. Wilson, D.C., J.R. Nielsen, P. Degnbol, editors. Kluwer Academic Publishers: Dordrecht, The Netherlands. Pages 247-262.

Pomeroy, R.S. and F. Berkes (1997). Two to tango: The role of government in fisheries comanagement. *Marine Policy* 21(5): 465-480.

Reeder-Myers, L., Erlandson, J.M., D.R. Muhs, T.C. Rick (2015). Sea level, paleogeography, and archeology on California's Northern Channel Islands *Quaternary Research* 83(2): 263 – 272.

Rick, T.C. (2007) *The Archaeology and Historical Ecology of Late Holocene San Miguel Island*. Los Angeles: Cotsen Institute of Archaeology, University of California, Los Angeles. [*Perspectives in California Archaeology* 8.]

Robertson, T., S. Greenhalgh, I. Korovulavula, T. Tikoibua, Pio Radikedike, P. Stahlmann-Brown (2020). Locally managed marine areas: Implications for socio-economic impacts in Kadavu, Fiji, Marine Policy 117, 103950. https://doi.org/10.1016/j.marpol.2020.103950.

Rocliffe S, Peabody S, Samoilys M, Hawkins JP (2014) Towards A Network of Locally Managed Marine Areas (LMMAs) in the Western Indian Ocean. *PLoS ONE* 9(7): e103000. https://doi.org/10.1371/journal.pone.0103000

Seid-Green, Y. (2014). *Defining Co-management: Levels of Collaboration in Fisheries Management*. A thesis submitted in partial fulfillment of the requirements for the degree of Master of Marine Affairs University of Washington

Sofka, G., K. Guo, J. Hassen, C. Horbat, K. Maloney, D. Triebwasser (2021). *California's Marine Protected Areas through Bottom-Up Collaboration*. Funded by California MPA Collaborative Network & Resources Legacy Fund. Master of Science Program School for Environment and Sustainability University of Michigan. April.

Yaffee, S.L. (2020). *Beyond Polarization: Public Process and the Unlikely Story of California's Marine Protected Areas*. Island Press.

SANTA YNEZ BAND OF CHUMASH INDIANS

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November 28, 2023

California Fish and Game Commission 1416 Ninth Street, Suite 1320 Sacramento, CA 95814

Re: Petitions to the California Fish and Game Commission Regulation Change submitted by the Santa Ynez Band of Chumash Indians

Dear Commissioners,

The Santa Ynez Band of Chumash Indians welcomes the opportunity to submit the required forms (FGC 1) and summary narratives to the California Department of Fish and Game Commission to revise and amend existing regulations for marine protected areas within the Central Coast MLPA Region. Please find attached the following forms and documentation:

- 1) Petition to the California Fish and Game Commission for Regulation Change (FGC 1) for a new <u>Chitqawi SMCA</u> with a Summary Narrative and Map for consideration in the Central Coast Region.
- 2) Petition to the California Fish and Game Commission for Regulation Change (FGC 1) for amendments to the existing <u>Point Buchon SMCA and SMR</u> in the Central Coast Region with a Summary Narrative and White Paper produced by the Santa Ynez Band of Chumash Indians.

If you have any questions, please contact Sam Cohen, at 805-245-9083.

Thank you,

Sam Cohen, Esq.

Sam Cohen

Government Affairs and Legal Specialist

Tracking Number: (2023-20MPA)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1. Person or organization requesting the change (Required)

Sam Cohen, Esq. Santa Ynez Band of Chumash Mission Indians

100 Via Juana Road

PO Box 517 Santa Ynez, California 93460

Telephone number:

Email address: scohen@chumash.gov

- 2. Rulemaking Authority (Required) Authority cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code.
- 3. Overview (Required) To ensure 30% of California waters are fully protected by 2030 and to foster Tribal engagement and co-management of MPAs, this Petition submitted by the Santa Ynez Band of Chumash Indians (SYBCI) recommends that the Point Buchon SMCA be designated as a Chumash SMCA that will support Tribal engagement and co-management of the SMCA within the Central Coast Region network. Regulatory changes are also described in the attached Summary for this Petition. The SYBCI also supports the MPA Collaborative Network's Regulatory Recommendation (Row 104, Column E) to adjust the boundary of the Point Buchon SMR to the north to better capture the offshore marine area of the Point and to clarify the boundary of the SMR. The attached Summary for this Petition describes these proposed actions further. The proposed new regulations are as follows:
 - (B) Area restrictions defined in subsection 632(a)(1)(C) apply, with the following specified exceptions:
 - 1. The recreational take of finfish [subsection 632(a)(2)], invertebrates except rock scallops and mussels by hand harvest is allowed.
 - 2. Take pursuant to activities authorized under subsection 632(b)(97)(C) is allowed.

- 3. The following federally recognized tribe is exempt from the area and take regulations found in subsection 632(b)(97) of these regulations and shall comply with all other existing regulations and statutes: Santa Ynez Band of Chumash Indians.
- 4. Rationale (Required) There are no Tribal MPAs designated within the Central Coast Region network. The proposed Chumash Heritage National Marine Sanctuary (CHNMS) is currently under review by the Federal government for potential designation. The marine area of the Point Buchon SMCA may be included in the designated CHNMS. Therefore, the SYBCI recommends that the Commission consider a new designation of this SMCA as a Chumash co-managed SMCA.

This would be the fifth Chumash-California SMCA. In addition, in light of management and enforcement considerations associated with the Point Buchon SMR, the SYBCI supports the regulatory and boundary changes recommended by the MPA Collaborative Network's Regulatory Recommendation (Row 104, Column E) to move the SMR's boundary to the north to better capture the marine area offshore the Point and to improve enforcement of the marine reserve area.

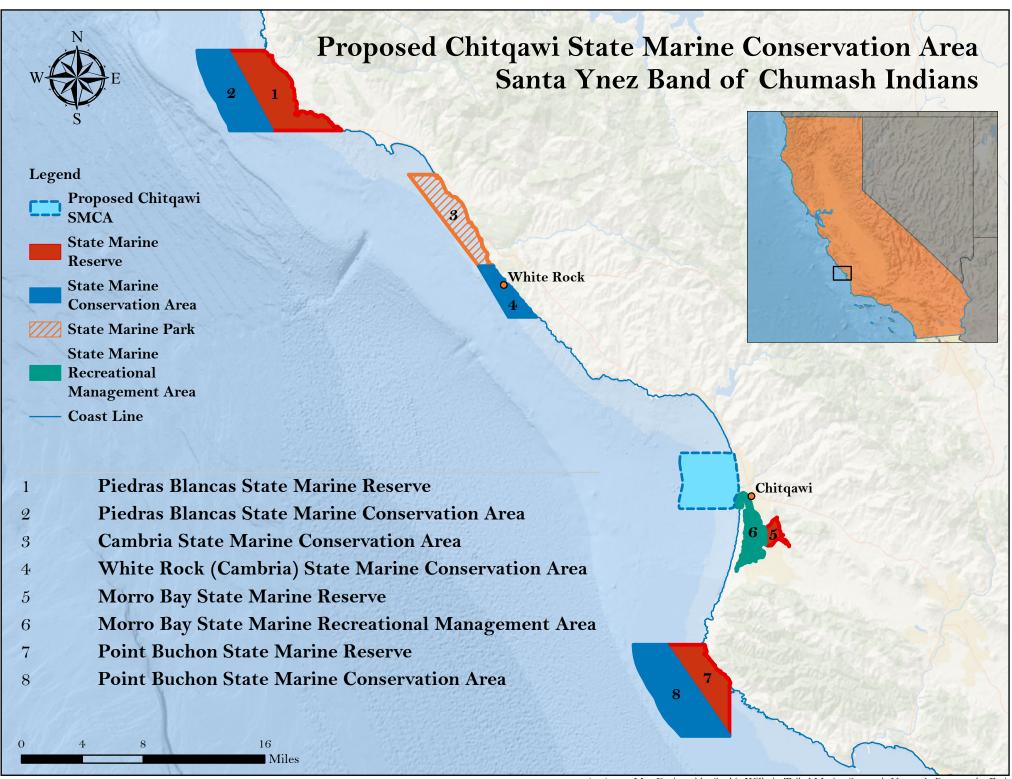
SECTION II: Optional Information

220	Total optional information		
5.	Date of Petition: Click here to enter text.		
6.	Category of Proposed Change ☐ Sport Fishing ☐ Commercial Fishing ☐ Hunting ☐ Other, please specify: MPAs, Section 632.		
7.	The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs) Amend Title 14 Section(s): Westlaw regulations. □ Add New Title 14 Section(s): Click here to enter text. □ Repeal Title 14 Section(s): Click here to enter text.		

- 8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition Click here to enter text. Or Not applicable.
- 9. Effective date: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: At the discretion of the Commission.
- **10. Supporting documentation:** Identify and attach to the petition any information supporting the proposal including data, reports and other documents: Please see attached.
- 11. **Economic or Fiscal Impacts:** Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing: Unknown.



12. Forms: If applicable, list any forms to be created, amended or replicate see attached.	epealed:
SECTION 3: FGC Staff Only	
Date received: Click here to enter text.	
FGC staff action: Accept - complete Reject - incomplete Reject - outside scope of FGC authority Tracking Number Date petitioner was notified of receipt of petition and pending action:]
Meeting date for FGC consideration:	_]
FGC action: ☐ Denied by FGC ☐ Denied - same as petition ☐ Tracking Number ☐ Granted for consideration of regulation change	



CO-MANAGEMENT OF CALIFORNIA-CHUMASH MARINE CONSERVATION AREAS

A White Paper Produced for The Santa Ynez Band of Chumash Indians with Funding Provided by the 7th Generation Advisors







MICHAEL VINCENT MCGINNIS, PhD

Bioregional Planning Associates Sacramento California

EXECUTIVE SUMMARY



Malibu's Paradise Cove August 19, 2011. Chumash paddle their tomol to meet the sailors in seven vaka moanas or sailing canoes from the Pacific Voyage. *Photo*: M.V. McGinnis.

ACROSS THE PACIFIC RIM, Tribal and Indigenous peoples are participating and co-managing marine protected areas. These co-management experiences provide opportunities and challenges to sustain Indigenous maritime practices. Co-management of marine protected areas can foster the integration of scientific and traditional ecological knowledge systems.

The planning effort under the Marine Life Protection Act (MLPA) of 1999 currently involves federally recognized Tribes. The goal of this report is to strengthen the opportunities to implement co-management of designated California-Chumash marine conservation areas located at Anacapa Island, Naples, Point Dume, and Kashtayit in southern California.

The implementation of the existing California-Chumash marine conservation areas is ongoing, and the State plans to review the progress of the MLPA in 2022. At that time changes may be made to the existing legislative framework, and other planning and decision-making changes

may be developed to foster further cooperation with Tribes and the State in the implementation of the MLPA and the co-management of designated marine conservation areas.

Based on a review of case study materials and the literature on co-management of protective areas, there are three major recommendations described in this report. First, a move from consultative co-management to collaborative management of designated California-Chumash marine conservation areas is warranted. Second, the following factors contribute to successful implementation of co-management of State-Tribal protected areas: public access to Tribal members to the protected area; the proximity to use of the marine area; the scientific baseline information on the ecology of the marine area; the historical level of customary marine resource use; the institutional capacity to monitor the designated MPA; the enforcement capacity and capability of partnering agencies and the Tribe of the MPA; and the available customary values and ecosystem goods and services provided by the MPA. These factors are used to analyze the four alternative California-Chumash marine conservation areas. Third, the Chumash should consider joining the Tribal Marine Stewards Network pilot program as the fifth partner in the collaborative network effort. There is currently no southern California Tribal partner in the pilot program. Two California-Chumash marine conservation areas may be appropriate to consider by the Chumash members given the analysis in this report -- the Kashtayit or Point Dume marine conservation areas. This recommendation is based on the historical use of customary practice by the Chumash of these areas; the proximity of use to these areas; the availability of public access to the sites; and other factors. Furthermore, the Chumash should consider ways to contribute as co-managers to the enforcement, education, information exchange, and the monitoring efforts to further the implementation of existing California-Chumash marine conservation areas.

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INTRODUCTION

Me'pshumawish. Together we are making health, harmony, peace.

This study builds on a previous report entitled *Tribal Marine Protected Areas: Protecting Maritime Ways and Cultural Practices* (McGinnis 2004) produced for the *Wishtoyo Foundation*. At the time of publication of that report, the Marine Life Protection Act (MLPA) of 1999 did not include a statutory role for the Tribes in the collaborative network process (Sagkof et al. 2021). In their legal analysis of the changing role of the Tribes in the MLPA Berkeley and Williams (2019: 307) write:

Like the vast majority of California laws, the MLPA did not specifically address the rights and concerns of Indian tribes even though the California coast is Indian Country for many tribes. The failure of the legislature to acknowledge the centuries-long stewardship of coastal resources by Indian people, and the commencement of a resources-protection process that did not include tribes, resulted in initial opposition from Indian tribes. Many tribes feared the process would simply be the latest in a long history of state actions that risked the extinguishment of cultural practices. Instead, despite initial misunderstandings, the [marine protected area] MPA designation process elevated tribal engagement in state natural resource management and may be the catalyst for a fundamental shift in California's approach to tribal nations.

Requests to amend MPA regulations were submitted to the FGC by two different tribes: the Kashia Band of Pomo Indians and the Santa Ynez Band of Chumash Indians (hereafter, the Chumash). Tribal take was authorized in marine conservation areas that overlap with areas of historic and/or current uses for gathering, ceremony, or harvest as reflected in a factual record of use provided by a Tribe. There are four California-Chumash marine conservation areas that are located at sites in state waters at Anacapa Island, Naples, Point Dume, and *Kashtayit*.

The implementation of the existing California-Tribal marine conservation areas is ongoing. The first Decadal Management Review of the MLPA will take place in 2022, and will serve to review and potentially update four primary objectives of the MPA Management Program:

- Outreach and Education,
- Research and Monitoring,
- Enforcement and Compliance, and
- Policy and Permitting

The FWC will receive this review at their December 2022 meeting and decide whether to direct CDFW and its partners to pursue recommendations and identified next steps. At that time changes may be made to the existing legislative framework, and other planning and decision-making changes may be developed in cooperation with Tribes and California resource agencies to strengthen the co-management of designated marine conservation areas.

This paper begins with a description of the importance of traditional ecological knowledge or TEK and the Southern California Bight. Second, the paper characterizes the preliminary stages of implementation of the MLPA, and the changing role Tribes have in the collaborative network and decision-making. The paper reviews the co-management literature to suggest the need to move from *consultative* co-management to *collaborative* management of designated California-Chumash marine conservation areas.

In the last section, an analysis of the four alternative California-Chumash marine conservation areas is described. The alternative analysis is based on the following factors that contribute to successful co-management implementation:

- public access to Tribal members.
- the proximity to use of the marine area.
- the scientific baseline information on the ecology of the marine area.
- the historical level of customary marine resource use.
- the institutional capacity to monitor the designated MPA; and,
- the enforcement capacity and capability of partnering agencies and the Tribe of the MPA.

CHUMASH TEK AND THE SOUTHERN CALIFORNIA BIGHT

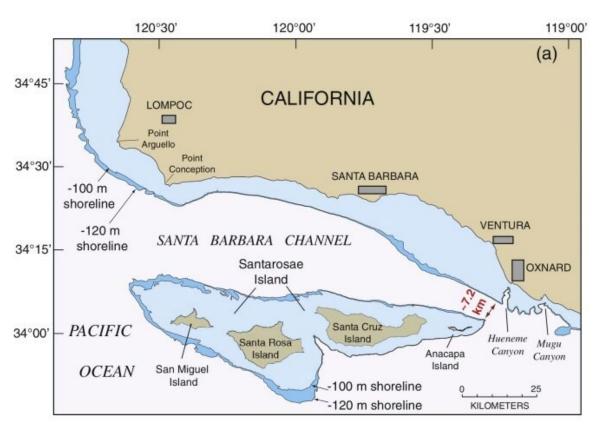
Federally recognized tribes are not mere stakeholders in the MLPA decision-making and collaborative process. As co-managers of marine life protection and management, Tribes are sovereign nations. Traditional ecological knowledge (TEK) is essential to the maintenance of Tribal maritime culture and should be considered a key facet of the co-management process for California-Chumash marine conservation areas. Moreover, the public and resource agencies can learn from TEK.

TEK is based on the interaction between traditional or Indigenous culture and the ecosystems that Tribal peoples are irrevocably connected to. In *Sacred Ecology*, Fikret Berkes (2008) describes two primary aspects of TEK that are important to consider as California and the Tribes move forward in the implementation of the MLPA. First, TEK should be considered a "process" rather than a "content." TEK is a process insofar as it changes and adapts to changes with ecosystems and cultural values. Second, there are benefits from a stronger integration and partnership between those who have TEK and scientific knowledge.

One hundred and forty-eight historic Chumash village sites have been identified from Malibu to San Luis Obispo, including eleven on Santa Cruz Island, eight on Santa Rosa Island, and two on San Miguel Island (Glassow 1995). The archaeological record shows that traditional Chumash maritime practices changed with a changing socio-ecological context. Mussel shells uncovered at excavated historical Chumash village sites indicate cyclical periods of species decline and rebound. These cyclical periods reflect changes in oceanographic setting of the California Current and the Southern California Bight, including short-term and longer-term (e.g., interdecadal oceanographic regime shifts) changes in sea surface temperature and associated changes in biogeography of fishes and invertebrates (Kennett 2005).

Moreover, archaeological and ethnographic evidence suggest that the periodic movement of Chumash village areas helped mediate socio-ecological changes in food security (Rick 2007). As in other traditional societies such as the Māori and other Pacific Islanders, Tribal peoples monitored and temporary banned fishing certain species in order for their respective populations to reach a more stable abundance. Chumash coastal inhabitants would change their diet to reflect changes in their food availability. Seaweeds, kelps, and other marine plants helped sustain Chumash populations; marine plants were often an essential food source during times of food insecurity.

Chumash TEK served the needs of cultural adaptation to changes in the socio-ecology of the Southern California Bight. The northern Channel Islands area were one connected island called *Santarosae* that was located nine kilometers from the coastal mainland (depicted in Map 1). Large-scale sea-level rise during the late Pleistocene and early Holocene periods inundated nearshore areas in many parts of the world, producing drastic changes in local ecosystems and obscuring significant portions of the archeological record (Reeder-Myers et al. 2015). Sea level was about 80–85 meters lower than present at the time of the first known human Chumash occupation.



Map 1. Santarosae Island before Sea-Level Rise

Source: KCET, *California's Atlantis: The Lost Superisland of Santarosae*, available at: https://www.kcet.org/shows/lost-la/californias-atlantis-the-lost-superisland-of-santarosae

There were major consequences from sea level rise on traditional cultures and customary practices of coastal southern California (Kennett 2005). At the close of the Pleistocene and start of the Holocene, people in coastal California faced shrinking land, intertidal, and subtidal zones that were used for food gathering and other customary uses. This led to a decline in food security and migration of traditional cultures. Second, as a consequence of sea-level rise in the Southern California Bight, including the Channel Islands and the coastal mainland areas, the archaeological and cultural areas used near river and creek mouths, coastal beach areas, and other areas historically inhabited by the Chumash are submerged today (Glassow 1995).

In addition, European colonialization of [*Alta*] California significantly impacted Chumash society (Dartt-Newton and Erlandson 2006). As Dartt-Newton and Erlandson (2006: 419):

While natural environmental fluctuations may have played a role in the movement of Chumash people to the missions (particularly in the abandonment of Channel Island villages after AD 1810), we contend that colonial oppression and Spanish-induced environmental degradation were the chief culprits. No amount of scientific data can blunt the harsh realities of the mission period, when the Chumash and other California Indians died by the tens of thousands and most survivors were reduced to a humiliating slavery-like condition.

Overall, the socio-ecology of the islands and coastal mainland changed and so did the traditional and customary practices of the Chumash (Holmes and Johnson 1998). Chumash knowledge evolves with changes in living conditions. Chumash TEK sustained the diverse communities for thousands of years.

Tribes have a substantive role in the co-management of California-Tribal marine conservation areas. One hope is that Tribal TEK can contribute to the strengthening of the public's awareness of the sacred and customary values of coastal and marine ecosystems in California. These coastal and marine ecosystems have long been influenced by human activities and customary practices.

PRINCIPLES OF CO-MANAGEMENT

Definitions of co-management focus on sharing management responsibility between government and stakeholders (Brown and Pomeroy 1998; Pomeroy 2001; Berkes et al. 2001). Borrini-Feyerabend et al. (2000) note that co-management is a situation in which two or more social actors negotiate, define, and guarantee amongst themselves an equitable sharing of the management functions, entitlements, and responsibilities for a marine area. In this case, the sharing of responsibility under the MLPA is between State agencies and the Chumash.

There are many benefits to co-management. The benefits include:

- improved management due to incorporation of better scientific evidence and TEK (Pinkerton 1989).
- more appropriate rules and regulations that can respond rapidly to changing soio-ecological conditions (Berkes et al. 2001; Ebbin 2002; Hernes et al. 2005).

- more effective and efficient enforcement due to increased legitimacy of the management structures (Berkes et al. 2001; Hanna 2003; Pinkerton and John 2008).
- can increase equitable and fair use of resources (Beierle and Cayford 2002; Borrini-Feyerabend et al. 2004; Coffey 2005); and
- can contribute to the empowerment and development of marginalized communities (Birner and Wittmer 2003; Hara and Nielsen 2003; Jentoft 2003; Pomeroy and Viswanathan 2003).

Figure 1 includes a general characterization of principles of co-management.

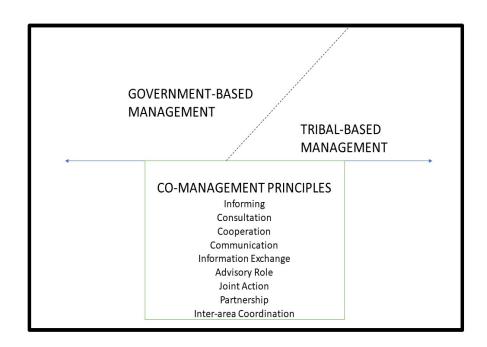


Figure 1. Co-Management Principles

There are three forms of co-management (depicted in Figure 2 below). The most common arrangement is described as "consultative co-management" whereby the resource agencies often consult with stakeholders or, in this case, Tribes (Brown and Pomeroy 1999). The term "collaborative co-management" connotes a stronger partnership where there is a sharing of authority and responsibility (Kurien 1988; McConney et al.1998). Third is "delegated co-management" that includes, but is not limited to, community-based management since national or state co-management structures are especially common in fisheries management (Jacobs 1998; McConney and Mahon 1998). Establishing successful co-management is seldom immediate. Like most participatory processes it takes time and careful attention to partnership building and strategic planning.

Figure 2. Types of Co-Management

TDADITIONAL

RESOURCE	
MANAGEMENT	TYPES OF CO-MANAGEMENT
Government has the most control	Consultative Co-Management Government interacts with partners But makes all decision Collaborative Co-Management Government and the tribes work closely and share decisions
	<u>Delegated Co-Management</u> Government lets formally organized tribes make decisions

A collaborative co-management approach to marine life protection requires the integration of two systems of governance and management. Tribal and customary management and marine ecosystem-based management systems have contrasting goals, inferred social and ecological benefits, and spatial scales. A general comparison of the diverse systems of management is found in Table 1.

Table 1. A Comparison of California and Tribal Management Systems

Management and Planning in the	Tribal and Customary Management
California MLPA	
Use of Ecosystem-based Principles in	Cyclical processes and periodic benefits
Planning	
Science-based Decision-making	Emphasis on the cultivation of TEK
Collaborative & Stakeholder based Planning	Utilitarian goals
Often dominated by Biological Conservation	Sensitive to Socio-economic and Socio-
Goals	ecological transformation
Operates on larger scales (e.g., networks of	Complex tenure systems may hinder larger-
small reserves)	scale conditions

In collaborative co-management, there are three institutional factors that can contribute to the successful integration of authority and responsibility:

• Planning processes, including the monitoring and enforcement of marine protected areas, should harness both scientific and TEK systems.

- Program strategies should match varying scales of social, economic, and ecological processes.
- Program strategies should reflect local or regional socio-cultural conditions as they change overtime and as new information is gathered, e.g., strategic management should support adaptive approaches to planning in the future.

A hybridized co-management approach to marine life protection is depicted in Figure 3.

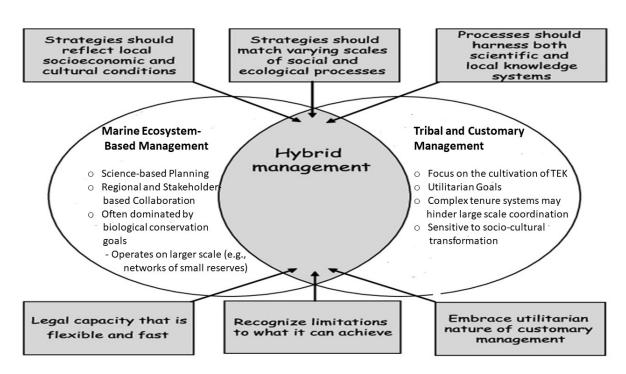


Figure 3. Hybrid Management

(After Pomeroy and Berkes 1997: 466)

Since the adoption of the MLPA in 1999, a number of steps have been taken by policymakers, resource agencies and members of Tribes to establish and encourage co-management of California-Tribal MPAs. Initial Studies, as required by CEQA, have been submitted and regulatory provisions have been approved by the California Department of Fish and Wildlife Commission (FGC). Governor Brown and Governor Newsome have signed Executive Orders to encourage co-management of marine resources with Tribes. California resource agencies have approved strategic goals and objectives in support of co-management principles to encourage co-management of California-Tribal marine conservation areas. Collaborative networks have been established that include formal Tribal membership. Pilot programs between California and the Tribes to develop monitoring programs and the deployment of data gathering to strengthen monitoring of existing MPAs have been developed.

CO-MANAGEMENT OF CALIFORNIA-CHUMASH MPAS

This section provides a general description of the early implementation of co-management of the California-Chumash marine conservation areas. A detailed overview of the early implementation of the MLPA and the role of the Tribes in the process is available at Sofka and colleagues (2021: 80-113) and Berkey and Williams (2019). These studies describe the collaborative, legal and historical role of the Tribes during the implementation of the MLPA.

The Move toward Tribal Exemption

Following adoption of MPAs in the North Coast MLPA planning process, a regulatory provision was adopted by the California Fish and Game Commission (FGC) to provide exemptions from MPA-specific area and take regulations for individual federally recognized California Tribes (i.e., tribal exemptions), through a petition process by the Commission. Requests to amend MPA regulations were submitted to the FGC by two different tribes: the Kashia Band of Pomo Indians (the Kashia) and the Chumash (Berkey and Williams 2019; Dudek 2018).

Tribal Take

"Federally recognized tribe" means any tribe on the List of Indian Entities Recognized and Eligible to Receive Services from the United States Bureau of Indian Affairs, published annually in the Federal Register. Any member of a federally recognized tribe authorized to take living marine resources from an area with area-specific take restrictions in subsection 632(b), when engaging in take within an authorized area shall possess on his person, in his immediate possession, or where otherwise specifically required by law to be kept, any valid license, report card, tag, stamp, validation, permit, or any other entitlement that is required in the Fish and Game Code, or required by other state, federal, or local entities, in order to take living marine resources. Members shall possess a valid photo identification card issued by a federally recognized tribe that contains expiration date, tribal name, tribal member number, name, signature, date of birth, height, color of eyes, color of hair, weight, and sex; and display any of the items listed above upon demand to any peace officer. Members taking living marine resources under this provision are subject to current seasonal, bag, possession, gear and size limits in existing Fish and Game Code statutes and regulations of the commission, except as otherwise provided for in subsection 632(b). No member, while taking living marine resources pursuant to this section, may be assisted by any person who does not possess a valid tribal identification card and is not properly licensed to take living marine resources. Nothing in the regulation is intended to conflict with, or supersede, any state or federal law regarding the take of protected, threatened or endangered species [Title 14, 632(a)(11)].

The Chumash requested the Commission to apply tribal take provisions in four SMCAs in southern California that are within their areas of historic and/or current tribal use. The regulations for the State Marine Conservation Areas (as January 1, 2019) are taken from California Code of Regulations (CCR) Title 14, Section 632, and are as follows:

The exemptions are consistent with allowing tribal take exemptions as currently defined in Title 14, §632(a)(11) (noted above), which identify how a member of a federally recognized tribe may be authorized to take living marine resources from an MPA with site-specific take restrictions.

A description of each California-Chumash marine conservation area is below (Dudek 2018):

1) Kashtayit State Marine Conservation Area Permitted/Prohibited Uses:

- a) It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource for recreational and/or commercial purposes, with the following specified exceptions:
 - i) The recreational take of finfish, invertebrates except rock scallops and mussels, and giant kelp (*Macrocystis pyrifera*) by hand harvest is allowed.
 - ii) Take pursuant to the maintenance of artificial structures and operation and maintenance of existing facilities is allowed inside the conservation area pursuant to any required federal, state and local permits, or as otherwise authorized by the Department
- b) The following federally recognized tribe is exempt from the area and take regulations found in subsection 632(b)(97) and shall comply with all other existing regulations and statutes: Santa Ynez Band of Chumash Indians.

2) Naples State Marine Conservation Area Permitted/Prohibited Uses:

- a) It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource for recreational and/or commercial purposes, with the following specified exceptions:
 - i) The recreational take by spearfishing of white seabass and <u>pelagic finfish</u> is allowed.
 - ii) The commercial take of giant kelp (*Macrocystis pyrifera*) by hand harvest or by mechanical harvest is allowed.
- b) Take pursuant to operation and maintenance of artificial structures inside the conservation area is allowed pursuant to any required federal, state and local permits, or as otherwise authorized by the Department.
- c) The following federally recognized tribe is exempt from the area and take regulations found in subsection 632(b)(98) and shall comply with all other existing regulations and statutes: Santa Ynez Band of Chumash Indians

3) Point Dume State Marine Conservation Area Permitted/Prohibited Uses:

- a) It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource for recreational and/or commercial purposes, with the following specified exceptions:
 - i) The recreational take by spearfishing of white seabass and <u>pelagic finfish</u> is allowed.
 - ii) The commercial take of swordfish by harpoon; and <u>coastal pelagic species</u> by round haul net, brail gear, and light boat is allowed. Not more than five percent by weight of any commercial coastal pelagic species catch landed or possessed shall be other incidentally taken species.
- b) Take pursuant to beach nourishment and other sediment management activities is allowed inside the conservation area pursuant to any required federal, state and local permits, or as otherwise authorized by the Department.
- c) The following federally recognized tribe is exempt from the area and take regulations found in subsection 632(b) (117) and shall comply with all other existing regulations and statutes: Santa Ynez Band of Chumash Indians

4) Anacapa Island State and Federal Marine Conservation Area Permitted/Prohibited Uses:

- a) It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource for commercial and/or recreational purposes, with the following specified exceptions:
 - i) The recreational take of spiny lobster and pelagic finfish and the commercial take of spiny lobster is allowed.
- b) The following federally recognized tribe is exempt from the area and take regulations found in subsection 632(b) (112) and shall comply with all other existing regulations and statutes: Santa Ynez Band of Chumash Indians

The Chumash remain subject to the Anacapa Island Special Closure regulations where it overlaps with the Anacapa Island SMCA and are not exempt from the Anacapa Island Federal Marine Conservation Area take restrictions. Fishing with use of hand-based equipment and intertidal collection is allowed in this area, for which there is no pelican fledging area closure. Therefore, there are currently no exemptions in federal waters of the Channel Islands National Marine Sanctuary.

With respect to the role of the Tribes in the MLPA process Berkey and Williams (2019: 349-350) note that Governor Brown in Executive Order B-10-11 moved forward with formally recognizing the role of federally recognized tribes in marine governance:

The perceptions of tribal representatives who participated in the late stages of the MLPA process bears out the truth of the Governor's observation. One tribal advocate said that, though there is a great deal of work yet to be done to fully recognize tribal rights to marine resources, the "space created by the MLPA is a promising first step."

Both the State and some tribal representatives see a trend toward a marked increase in tribal participation in the development of state policy beyond that of marine resources. While not every tribe has the resources to respond to state agency invitations, at least they have a greater opportunity.

In Executive Order N-82-20 Governor Newsome also recognized the role of the Tribes in marine resource protection and supported further development and movement toward co-management of MPAs.

Co-management and the California Department of Fish and Wildlife

The Tribal Communication and Consultation Policy provides the foundation for the CDFW to work cooperatively, communicate effectively, and consult with Tribes. This policy also serves as the CDFW's primary means to implement Executive Order B-10-11 and the California Natural Resource Agency's Tribal Consultation Policy.

The *Master Plan for Marine Protected Areas – Appendix B* from the CDFW (2016: B-10) describes the existing co-management policy with respect to Tribes as follows:

The purpose of this policy is to create a means by which tribes and Fish and Game Commission can effectively work together to realize sustainably managed natural resources of mutual interest.

This CDFW (2016) identifies the following priorities:

- 1. Communication. Both FWC and the Tribes are faced with innumerable demands on their limited time and resources. In the interest of efficiency, FWC will annually host a Tribal planning meeting to coordinate the upcoming regulatory and policy activities before FWC. The meeting will provide a venue for education about process, identifying regulatory and policy needs, and developing collaborative interests; this will include inviting sister agencies to participate.
- 2. Collaboration. In areas or subjects of mutual interest, FWC will pursue partnerships with tribes to collaborate on solutions tailored to each tribe's unique needs and capacity. The structure of these collaborative efforts can range from informal information sharing to Memorandum of Understanding (MOU) with more specific agreements regarding working relationships and desired outcomes, to co-management agreements with specific responsibilities and authorities.
- 3. Record-keeping. FWC will maintain a record of all comments provided by Tribes and will include them in administrative records where appropriate.
- 4. Training. FWC will provide training to interested Tribes on its processes for regulation and policy development.

The FWC Co-Management Vision Statement and Definition (February 2020) states:

The vision of tribes, the California Fish and Wildlife Commission, and the California Department of Fish and Wildlife is to engage in a collaborative effort between sovereigns to jointly achieve and implement mutually agreed upon and compatible governance and management objectives to ensure the health and sustainable use of fish and wildlife [my emphasis].

Definition: A collaborative effort established through an agreement in which two or more sovereigns mutually negotiate, define, and allocate amongst themselves the sharing of management functions and responsibilities for a given territory, area or set of natural resources [my emphasis].

The above strategy adopted by the CDFW clearly suggests the value of *collaborative* comanagement with the Chumash to implement marine conservation areas.

The Tribal Marine Stewards Pilot Program

Esgro (2020) notes that Tribes are engaged with California resource managers in multiple forums for MPA management through participation in multiple decision-making bodies, notably the CDFW Tribal Subcommittee and representatives at the MPA Statewide Leadership Team (MSLT). California's MSLT includes four regional Tribal representatives to ensure that Tribes

are directly involved in the development of MPA policy. Tribal participation in the collaboratives has given way to funded Tribal-specific projects and initiatives.

In 2020, a Tribal Marine Stewards Network Pilot Program was approved by the Ocean Protected Council (OPC) that included a disbursement of \$1,000,000 to the California Indian Environmental Alliance (CIEA) to support the development of a Tribal Marine Stewards Network pilot program. The objective of the program ram is to enhance engagement with Tribes and protect and restore coastal and marine ecosystems. According to OPC, this program is a mechanism to "advance California's efforts to support [I]ndigenous stewardship and adopt meaningful co-management measures."

The program is composed of four partner Tribes (Tolowa Dee-ni' Nation, Resighini Rancheria, Kashia Band of Pomo Indians, and the Amah Mutsun Tribal Band), and is supported by two non-governmental organizations (CIEA and Ecotrust). The program focuses on MPA monitoring and notes that <u>Tribes will work to identify a fifth Tribe, ideally in southern California, who is interested in participating in the network</u>. At the time of the writing of this report, the Chumash are not formally involved in this pilot program.

A timeline that includes a general summary of development in the co-management approach in California is below:

- Executive Order ("EO") B-10-11 started state agency tribal consultation under Gov. Brown
- 2012 Natural Resources Agency adopts Tribal Consultation policy
- 2014 CDFW adopts tribal Communication and Consultation Policy
- 2015 FGC Adopts Tribal Consultation Policy
- 2019 EO N-15-19 reaffirms Tribal Consultation by Gov. Newsom
- 2020 Tribal Subcommittee of FGC Adopts Co-Management Vision & definition
- 2020 Gov. 2d Annual Tribal nations Conference, Christina Snider, Gov. Tribal Advisor requests each tribe apply for co-management opportunities
- 2020 Sept. 25: Gov. Newsom issues Statement of Administration Policy, Native American Ancestral Lands, "to facilitate tribal access, use and co-management of state owned or controlled natural lands."
- 2020 Oct. 7: EO N-82-20 "to conserve 30% of California's land and coastal waters by 2030" and "to incorporate Tribal expertise and traditional ecological knowledge."

Moving from Consultation Co-Management to Collaborative Co-Management

In an evaluation of the MLPA collaborative network process, Sofka et al. (2021) describe a number of recommendations that can strengthen the collaborative co-management of California-Chumash marine conservation areas. Sofka et al. (2021) recommend the following:

- Improve Tribal Engagement, Protocols, and Initiatives
 - Provide cross-cultural training by establishing periodic cross-cultural training opportunities. Trainings should foster cultural awareness around interactions with Tribal groups. Allocate time and funding for ongoing collaborative, network, and

- state cross-cultural training that reflects local Tribal culture, histories, and connection to place.
- O Protocols to prioritize respect, reciprocity, and free, prior, and informed consent in all interactions that acknowledge historical and current injustices related to Tribal sovereignty. Sofka et al. (2021) recommend that California should evaluate how Tribal consent, respect, or reciprocity may have been violated with respect to resource management issues in general, and marine conservation specifically. California should review ways to redress these past violations, with an emphasis on transparency and accountability.
- Establish and abide by anti-discrimination policies approved and/or developed by Tribes. Sofka et al. (2021) recommend that California should determine which forms of discrimination, biases, or stereotypes Tribes have encountered through their participation in the collaboratives and MPA management. The State should review existing agency policies and interpretations that constrain Tribal participation, including but limited to considerations of inclusivity and accessibility.
- Consider the utility of developing a statewide MPA tribal committee and/or statewide Tribal collaborative.
- Engaging Tribes as partners in co-management, not stakeholders. The State should involve Tribal participants in decision-making bodies, forums, and protocols surrounding the control and co-management of MPAs. They also recommend that the State review how principles of Tribal co-management have been violated with respect to resource management issues in general, and ocean/MPA conservation specifically.
- Ensure Tribal co-authorship of language in all formal agreements. Sofka et al.
 (2021) recommend that Tribal authorship should take place in future planning and policymaking to ensure that Tribal perspectives, preferences, and confidentiality are appropriately captured.
- Establish protocols for integrating aspects of Tribal stewardship. Sofka et al. (2021) recommend that California establish and codify appropriate policies, best practices, and protocols at the collaborative and State levels of governance that emphasize the integration and acknowledgement of Tribal stewardship at all levels of MPA management. They also recommend that the State prioritize Tribally led and managed stewardship projects, such as the Tribal Marine Stewards Network.
- o Prioritize the inclusion of all forms of Tribal and indigenous communities and recognize that Tribal communities exist far beyond federal recognition. Sofka et al. (2021) recommend that California prioritize the involvement of diverse forms of Tribal arrangements including but not limited to federally recognized Tribes, State recognized Tribes, unrecognized Tribes, consortiums, etc. The State should review with Tribal participants what groups have been excluded from this MPA management in the past, and the procedures which facilitated that exclusion. Sofka et al. (2021) also recommend that the Tribes and California determine how

management and planning approaches can be modified to engage a variety of formal and informal Tribal arrangements.

- Establish Protections and Protocols for Tribal Decision-Making and Authority Around Knowledge and Data. This should include the establishment of policies with Tribal participants for knowledge requests, use, sharing, and mobilization within the collaboratives.
 - Anticipate and honor diverse Tribal preferences for data management, collection, analysis, and use. These protocols should facilitate Tribal participation and information sharing in collaboratives and beyond, creating an atmosphere of consent.
 - Understand that Tribes may not consent to the sharing of their knowledge and data that has been passed down and safeguarded for generations. Similarly, acknowledge the diversity of Tribal science and knowledge, how it differs from non-Tribal science, and the ways in which TEK can be better protected.
 - Consider the integration of Tribally selected models of Indigenous data governance and data protection at all levels of MPA collaborative management. Sofka et al. (2021) recommend that California and the Tribes carefully review Tribal decision-making authority and consider if there have been instances where Tribes felt as though they did not have control over their data, and if so, what policies could be established to mitigate these scenarios going forward.

Careful consideration of these recommendations is warranted to strengthen the collaborative comanagement approach to California-Chumash marine conservation areas.

CASE STUDIES OF CO-MANAGEMENT

This section includes a brief characterization of case studies on implementation of co-managed State-Tribal or Indigenous protected areas.

Fiji Locally Managed Marine Area (LMMA) Network

A locally managed marine area (LMMA) differs from a typical MPA in that LMMAs "are characterized by local ownership and/or control," whereas other forms of MPA are usually "designated by levels of management via a top-down approach" (Govan et al. 2006). The LMMA Network supports a collaborative co-management approach to manage coastal and marine resources. LMMA supports networks in Indonesia, the Philippines, Papua New Guinea, Palau, Pohnpei, Fiji and the Solomon Islands, and engages with more than fifteen other countries in the Indo Pacific. Case studies of member organizations within the LMMA are found in Rocliffe et al. (2014), Jupiter et al. (2014), and Robertson et al. (2020).

Increasingly, the LMMA Network is sharing its lessons globally, with increased interest not only in improved conservation outcomes, but also with an increased focus on social justice and the rights of traditional resource owners. Robertson et al. (2020) note that a LMMA, in the South Pacific context, is rooted in traditional and customary fisheries management and is designed to

gain support and active engagement from the local community, with the latter being a key condition for the successful and lasting implementation of MPAs.

The Fiji Locally Managed Marine Area (FLMMA) Network supports traditional communities who have observed declines in marine resources and their customary use of marine resources and want to act. The FLMMA Network is a non-profit and charitable association of resource conservation NGOs, government departments, academic institutions and over four hundred communities working together as co-managers to promote and encourage the preservation, protection and sustainable use of marine resources in Fiji.

The goals of the FLMMA are to:

- Provide practical capacity building, cost-effective and culturally appropriate engagement tools to promote locally led dialogues and management.
- Assist communities in managing their resources, often utilizing a revival of cultural traditions strengthened by contemporary science.
- Build trust, resiliency, confidence, and innovation through lesson sharing between practitioners.
- Follow a code of conduct that ensures community interests are the heart of any conservation effort.
- Advocate for communities at the national, regional, and international levels, for fair partnerships, policies, and support.

The Challenge of MPA governance in New Zealand and the Role of Māori

When New Zealand was settled by Europeans, a treaty was signed between Māori and the British Crown, called the Treaty of Waitangi. The Treaty gave guarantees that Māori would retain ownership and sovereignty over their customary resources. However subsequent government action deprived Māori of rights and land. It was only in the 1970s that the New Zealand government began to recognize the importance of partnership with the diverse Māori peoples. Today, much of the policy and legislation in relation to oceans governance requires consultation with local Māori (*tangata whenua*) and tribes (*iwi*) (McGinnis 2012).

The New Zealand government, as part of its obligations to Māori under the Treaty of Waitangi, has provided for some coastal and marine areas to be subject to the control of local Māori. Two types of protection can be granted over areas: *mātaitai* and *taiāpure*. Mātaitai reserves are established to protect traditional fishing grounds in internal waters or coastal waters. Within a mātaitai, commercial fishing is prohibited, but recreational fishing can continue. The *tangata whenua* can also request the Minister of Fisheries to create bylaws that restrict or prohibit recreational fishing. Other customary reserves are taiāpure-local fisheries. Consultation is required and an appeal against a decision by the Minister of Fisheries to establish a taiāpure-local fishery can be heard by a tribunal. Due to this process, they are harder to establish than mātaitai. The national government of New Zealand can deny designation of taiāpure-local fisheries.

There are several problems regarding Māori rights with respect to marine protection, and comanagement has failed (McGinnis 2012). Application for marine reserve designation is

dependent on approval from other interested parties and government agencies. Current comanagement legislation requires the Crown acting through the Department of Conservation have the final say regarding marine reserve management (Dodson, 2014). Co-management in New Zealand has not empowered local iwi or tribes in co-governance – there remains unequal authority between cultural groups and governmental organizations. Collaborative comanagement could potentially minimize marginalization of Māori communities and increase successful marine reserve implementation (Carlsson and Berkes 2005; Berkes 2009; Mossop 2020). Fragmented government authority and inter-agency conflict also contribute to failure to live up to international best practice in protected area management in New Zealand.

Co-management between Australia and the Miriuwung-Gajerrrong People of Western Australia

Collaborative co-management involves Australia and the Miriuwung-Gajerrrong people of Western Australia, and the partnership that has evolved shows co-management can provide equity in managing a protected area (Hill, 2011). In this case, collaborative co-management established a balance between Indigenous values and State conservation values.

Co-management is central to the Australian government's approach to this conservation/ Indigenous nexus, and to delivering the enhanced equity with Indigenous people in protected areas. Indigenous people favor community-controlled approaches to protected areas in this region of Australia. Hill (2011) describes a number of reasons for the success of the Australia-Miriuwung-Gajerrrong co-management model:

- Respect the rights of traditional owners, custodians, or users to lands, territories and resources Indigenous land ownership
- Free, prior and informed consent of the Traditional Owners
- Legal protection for rights and interests of parties
- Respect and strengthen Indigenous peoples' institutions and customary laws
- Coherent and effective Indigenous representative party with legitimacy
- Sufficient resources to enable Indigenous participation
- Conflict management
- Respect and strengthen Indigenous peoples' exercising of authority and control
- Commitment of Indigenous people to assume the opportunities
- Appropriate technical and other advice
- Clear understanding of Indigenous ideas about success
- Traditional Owners in driving role

As a general summary, Hill (2011) identified three factors of significance for the establishment of a successful co-management of a protected area: (1) a foundation platform of recognition of rights and interests; (2) a set of effective organizations to support the roles of the key actors; and (3) effective mechanisms for working together.

A number of factors contribute to unsuccessful co-management, such as: unclear law with vague strategic and programmatic development; failure to uphold treaty rights and obligations for

Indigenous or Tribal peoples regarding their use or right to access protected areas; lack of resources granted to Indigenous or Tribal peoples to participate as partners in co-management planning and decision-making; lack of funding granted to implement and enforce co-management plans; lack of leadership; and, the lack of institutional capacity to address conflicts between partners in co-management planning efforts.

[An *Addendum* describes the co-management framework that has been adopted and implemented for the Olympic National Marine Sanctuary.]

AN ANALYSIS OF FOUR CALIFORNIA-CHUMASH MARINE CONSERVATION AREAS

Based on an analysis of the scholarly literature and case study material published on comanagement of protected areas, this section provides an alternative analysis based on a sample of factors that often contribute to successful State-Tribal partnerships. The primary factors used in the analysis are:

- Public access of a marine area by Tribal members.
- The proximity to use of the marine area by Tribal members.
- The scientific baseline information on the ecology of the marine area.
- The historical level of customary marine resource use.
- The institutional capacity to monitor the designated MPA and enforce rules and regulations.

Table 2 depicts a general summary of the findings from this analysis. A characterization of the institutional capacity and capability of partnering organizations to monitor and enforce the rules and regulations of MPAs is described as well in the sections below the table.

[insert Table 2]

Institutional Capacity and Capability to Monitor and Enforce

A comprehensive evaluation of the institutional capacity and capability to monitor and enforce the existing MPA network is beyond the scope of this project. Starting in 2007, California Sea Grant partnered with the California Ocean Protection Council (OPC) and CDFW to administer research project funding for baseline monitoring of MPA's. These projects aimed to establish a snapshot of marine ecosystems and human activities around the time of the establishment of the new MPAs, and to document initial socioeconomic and ecological changes after the MPAs take effect. The South Coast was the third region to be studied as part of the MPA Baseline Monitoring Program. The projects ran from 2011 to 2017.

The MPA monitoring framework explicitly mentions the potential role of citizen science programs in MPA monitoring (CDFG 2008). Recently, many citizen-based science programs have endeavored to help provide these much-needed data (Freinwald et al., 2018). Implementation of MPAs under the MLPA Initiative in Southern California was followed by a monitoring program to establish a comprehensive baseline of the ecological conditions of several marine ecosystems at the time of MPA implementation. This baseline monitoring consortium involved several citizen science monitoring programs alongside more traditional academic monitoring programs, creating an opportunity to evaluate the potential for citizen scientists to become more involved in future long-term monitoring efforts.

Enforcement of existing CDFW regulations is based on education, public outreach, and a number of other factors, including the number of marine wardens. In an undercover operation and subsequent boarding by officers in 2013, CDFW wildlife officers observed eighteen violations including poaching within California's MPA) network, exceeding the possession limits of several fish species, using illegal methods to take fish, and failing to report accurate counts on logbooks. Monitoring and enforcement of MPA regulations will depend on the resources available to citizens, resource agencies and the Tribes to co-management designated areas. One obstacle often recognized in marine life protection is an "implementation deficit" whereby deficits occur during the implementation phase of policy development when there is a mismatch between fields of regulatory action. This can occur immediately or across a longer-term implementation phase. Immediate implementation deficits are caused by an excessively general definition of regulations or when policy goals are not operationalized in this field.

Recommendation

Based on the alternative analysis, the Chumash should consider joining the Tribal Marine Stewards Network pilot program as the fifth partner in the collaborative network effort. There is currently no southern California Tribal partner in the pilot program.

Two California-Chumash marine conservation areas may be appropriate to consider by the Chumash members given the analysis above: the *Kashtayit* or Point Dume marine conservation areas. This recommendation is based on the historical use of customary practice by the Chumash of these areas; the proximity of use to these areas; and the availability of public access to the sites.

Furthermore, the Chumash should consider ways to contribute as co-managers to the enforcement and monitoring efforts to further the implementation of existing California-Chumash marine conservation areas.

REFERENCES

Beierle, T.C. and J. Cayford (2002). *Democracy in practice: public participation in environmental decisions*. Resources for the Future: Washington, D.C.

Berkes, F. (2008). Sacred Ecology. Routledge.

Berkes, F. (2009). Evolution of co-management: Role of knowledge generation, bridging organizations and social learning. *Journal of Environmental Management*, 90(5):1692–1702.

Berkes, F., R. Mahon, P. McConney, R. Pollnac, R. Pomeroy (2001). *Managing small-scale fisheries: Alternative directions and methods*. International Development Research Centre: Ottawa, O.N.

Berkey, C.G. and S.W. Williams (2019). California Indian Tribes and the Marine Life Protection Act: The Seeds of a Partnership to Preserve Natural Resources, *Am. Indian L. Rev.* 43: 307.

Borrini-Feyerabend, G., M. Pimbert, M.T. Farvar, A. Kothari, Y. Renard (2004). *Sharing power: Learning by-doing in co-management of natural resources throughout the world*. IIED and IUCN/CEESP/CMWG: Cenesta, Tehran.

California Department of Fish and Game (2008). *Master plan for marine protected areas*. Sacramento, CA: California Department of Fish and Game.

California Department of Fish and Wildlife (CDFW) (2016). California's Marine Protected Area (MPA) Network. March 1, 2016. Available at: https://wildlife.ca.gov/Conservation/Marine/MPAs/Network

Carlsson, L., and F. Berkes. (2005). Co-management: Concepts and methodological implications. *Journal of Environmental Management* 75(1), 65-76.

Coffey, C. (2005) What role for public participation in fisheries governance? in *Participation in fisheries governance*. Springer: Dordrecht, The Netherlands. Pages 27-44.

Dartt-Newton, D. and J.M. Erlandson (2006). Little Choice for the Chumash: Colonialism, Cattle, and Coercion in Mission Period California, *American Indian Quarterly* (30): ³/₄: 16–30. http://www.jstor.org/stable/4139021.

Davis, N.A. (2008). Evaluating collaborative fisheries management planning: A Canadian case study. *Marine Policy* 32: 867-876.

Dodson, G. (2014). Co-Governance and Local Empowerment? Conservation Partnership Frameworks and Marine Protection at Mimiwhangata, New Zealand. *Society & Natural Resources* 27(5), 1-19.

Ebbin, S.A (2002). Enhanced fit through institutional interplay in the Pacific Northwest salmon comanagement regime. *Marine Policy* 26: 253-259.

Ebbin, S.A. (2009). Institutional and ethical dimensions of resilience in fishing systems: Perspectives from co-managed fisheries in the Pacific Northwest. *Marine Policy* 33: 264-270.

Ebbin, S.A. (2011). The problem with problem definition: Mapping the discursive terrain of conservation in two Pacific salmon management regimes. *Society and Natural Resources: An International Journal* 24(2): 148-164.

Esgro, M. (2020). Tribal Marine Stewards Network Pilot Program. Ocean Protection Council. Available at:

https://opc.ca.gov/webmaster/ftp/pdf/agenda_items/20200619/Item6a_TribalMarineStewardsNet work FINAL.pdf

Freiwald, J, Meyer, R, Caselle, J.E., et al. (2018). Citizen science monitoring of marine protected areas: Case studies and recommendations for integration into monitoring programs. *Mar Ecol.*: 39:e12470. https://doi.org/10.1111/maec.12470

Glassow, M. (1995). Purisimeno Chumash Prehistory: Maritime Adaptations Along the Southern California Coast (Case Studies in Archaeology. Wadsworth Publishing; 1st edition (November 17)

Govan, H., A. Tawake, K. Tabunakawai (2006). Community-based marine resource management in the South Pacific. *Parks* 16 (1): 63-67.

Hanna, S. (2003). The economics of co-management. in *The fisheries co-management experience: Accomplishments, challenges, and prospects*. Wilson, D.C., J.R. Nielsen, P. Degnbol, editors. Kluwer Academic Publishers: Dordrecht, The Netherlands. Pages 51-60.

Hara, M., and J.R. Nielsen (2003). Experiences with fisheries co-management in Arica. in *The fisheries co-management experience: Accomplishments, challenges, and prospects*. Wilson, D.C., J.R. Nielsen, P. Degnbol, editors. Kluwer Academic Publishers: Dordrecht, The Netherlands. Pages 81-98.

Hernes, H., S. Jentoft, K.H. Mikalsen (2005). Fisheries governance, social justice, and participatory decision-making. in *Participation in fisheries governance*. Springer: Dordrecht, The Netherlands. Pages 103-118.

Hill, R. (2011). Towards equity in indigenous co-management of protected areas: cultural planning by Miriuwung-Gajerrong People in the Kimberley, Western Australia. *Geographical Research* 49(1), 72-85.

Holmes, M.S., and J.R. Johnson (1998). *The Chumash and Their Predecessors: An Annotated Bibliography*. Contributions in Anthropology No. 1, Santa Barbara Museum of Natural History

Jentoft, S., K.H. Mikalsen, H. Hernes (2003). Representation in fisheries co-management. in *The fisheries co-management experience: Accomplishments, challenges, and prospects*. Wilson, D.C., J.R. Nielsen, P. Degnbol, editors. Kluwer Academic Publishers: Dordrecht, The Netherlands. Pages 281-292.

Jupiter, S., P. Cohen, R. Weeks, A. Tawake, H. Govan (2014). Locally managed marine areas: Multiple objectives and diverse strategies. *Pacific Conservation Biology* 20. 10.1071/PC140165.

Kennett, D.J. (2005). *The Island Chumash: Behavioral Ecology of a Maritime Society*. The University of California Press.

McGinnis, M.V. (2004). *Tribal Marine Protected Areas: Protecting Maritime Ways and Cultural Practices*. Produced for Wishtoyo Foundation. Bioregional Planning Associates. With Roberta Cordero.

McGinnis, M.V. (2012). Marine Governance: The New Zealand Dimension. Final Report. Funded by the Ministries of New Zealand. Emerging Issues Program. School of Government, Victoria University Wellington, New Zealand. April. Available at: https://cbe.miis.edu/cgi/viewcontent.cgi?article=1000&context=cbe_working_papers

Mossop, J. (2020). Marine Protected Areas and Area-Based Management in New Zealand, *Asia-Pacific Journal of Ocean Law and Policy* 5(1), 169-185. doi: https://doi.org/10.1163/24519391-00501009

Pinkerton, E. (1989). Introduction: Attaining better fisheries management through comanagement – prospects, problems, and propositions. in *Co-Operative management of local fisheries: New directions for improved management and community development*. Pinkerton, E., editor. The University of British Columbia Press: Vancouver, B.C. Pages 3-33.

Pomeroy, R. (2003). The government as a partner in co-management. in *The fisheries co-management experience: Accomplishments, challenges, and prospects*. Wilson, D.C., J.R. Nielsen, P. Degnbol, editors. Kluwer Academic Publishers: Dordrecht, The Netherlands. Pages 247-262.

Pomeroy, R.S. and F. Berkes (1997). Two to tango: The role of government in fisheries comanagement. *Marine Policy* 21(5): 465-480.

Reeder-Myers, L., Erlandson, J.M., D.R. Muhs, T.C. Rick (2015). Sea level, paleogeography, and archeology on California's Northern Channel Islands *Quaternary Research* 83(2): 263 – 272.

Rick, T.C. (2007) *The Archaeology and Historical Ecology of Late Holocene San Miguel Island*. Los Angeles: Cotsen Institute of Archaeology, University of California, Los Angeles. [*Perspectives in California Archaeology* 8.]

Robertson, T., S. Greenhalgh, I. Korovulavula, T. Tikoibua, Pio Radikedike, P. Stahlmann-Brown (2020). Locally managed marine areas: Implications for socio-economic impacts in Kadavu, Fiji, Marine Policy 117, 103950. https://doi.org/10.1016/j.marpol.2020.103950.

Rocliffe S, Peabody S, Samoilys M, Hawkins JP (2014) Towards A Network of Locally Managed Marine Areas (LMMAs) in the Western Indian Ocean. *PLoS ONE* 9(7): e103000. https://doi.org/10.1371/journal.pone.0103000

Seid-Green, Y. (2014). *Defining Co-management: Levels of Collaboration in Fisheries Management*. A thesis submitted in partial fulfillment of the requirements for the degree of Master of Marine Affairs University of Washington

Sofka, G., K. Guo, J. Hassen, C. Horbat, K. Maloney, D. Triebwasser (2021). *California's Marine Protected Areas through Bottom-Up Collaboration*. Funded by California MPA Collaborative Network & Resources Legacy Fund. Master of Science Program School for Environment and Sustainability University of Michigan. April.

Yaffee, S.L. (2020). *Beyond Polarization: Public Process and the Unlikely Story of California's Marine Protected Areas*. Island Press.

SANTA YNEZ BAND OF CHUMASH INDIANS

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November 28, 2023

California Fish and Game Commission 1416 Ninth Street, Suite 1320 Sacramento, CA 95814

Re: Petitions to the California Fish and Game Commission Regulation Change submitted by the Santa Ynez Band of Chumash Indians

Dear Commissioners,

The Santa Ynez Band of Chumash Indians welcomes the opportunity to submit the required forms (FGC 1) and summary narratives to the California Department of Fish and Game Commission to revise and amend existing regulations for marine protected areas within the Central Coast MLPA Region. Please find attached the following forms and documentation:

- 1) Petition to the California Fish and Game Commission for Regulation Change (FGC 1) for a new <u>Chitqawi SMCA</u> with a Summary Narrative and Map for consideration in the Central Coast Region.
- 2) Petition to the California Fish and Game Commission for Regulation Change (FGC 1) for amendments to the existing <u>Point Buchon SMCA and SMR</u> in the Central Coast Region with a Summary Narrative and White Paper produced by the Santa Ynez Band of Chumash Indians.

If you have any questions, please contact Sam Cohen, at 805-245-9083.

Thank you,

Sam Cohen, Esq.

Sam Cohen

Government Affairs and Legal Specialist

Tolowa Dee-ni' Nation's Petition to the California Fish and Game Commission for Regulation Change

Submitted November 29, 2023

Tracking Number: (_2023-21MPA_)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1. Tolowa Dee-ni' Nation requesting the change (Required)

Name of primary contact person: Rosa Laucci

Address: 12801 Mouth of Smith River Road Smith River, CA 95567

Telephone number: 707-487-9255

Email address: rosa.laucci@tolowa.com

- 2. Rulemaking Authority (Required) Authority cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code.
- 3. Overview (Required) Remove allowance for surf smelt (*Hypomesus pretiosus*) by dip net or Hawaiian type throw net; Change to No-Take SMCA with Tribal exemption for Tolowa Dee-ni' Nation, as stated in E2 of the MPA Collaborative Network's Regulatory Recommendations (Appendix 2). Change northern boundary to align with recognized California/Oregon state line, as stated in E4 of the MPA Collaborative Network's Regulatory Recommendations (Appendix 2).
- **4. Rationale (Required) -** Smelt is culturally important species to the Tolowa Dee-ni' Nation and a "No Take" designation will be clearer to public, reducing violations. See Appendix 1 for further explanations.

Original boundary used a mapping system that does not align with on-the-ground state line.

SECTION II: Optional Information

5. Date of Petition: 11/27/2023

6. Category of Proposed Change

□ Sport Fishing

117.	State of California – Fish and Game Commission PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 2 of 2
	□ Commercial Fishing □ Hunting ☑ Other, please specify: MPAs, Section 632.
7.	The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs) ✓ Amend Title 14 Section(s): Westlaw regulations. ✓ Add New Title 14 Section(s): Click here to enter text. ✓ Repeal Title 14 Section(s): Click here to enter text.
8.	If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition Click here to enter text. Or Not applicable.
9.	Effective date: As soon as approved.
10.	Supporting documentation: Additional explanation of rationale (Appendix 1) is attached, along with the Regulatory Recommendations Summary for each MPA Collaborative (Appendix 2).
11.	Economic or Fiscal Impacts: Please see Appendix 1 for economic impacts
12.	Forms: Not Applicable
SECT	ION 3: FGC Staff Only
Date r	eceived: 11/29/2023
FGC s	taff action: ☐ Accept - complete ☐ Reject - incomplete ☐ Reject - outside scope of FGC authority
Date p	Tracking Number petitioner was notified of receipt of petition and pending action:
Meetir	ng date for FGC consideration:
FGC a	Denied by FGC Denied - same as petition Tracking Number
[L	☐ Granted for consideration of regulation change

Appendix 1

Rationale for Regulation Change

Tolowa Dee-ni' Nation Rationale for Marine Protected Area Pyramid Point Regulation Change Petition

Ancestral Territory of the Tolowa Dee-ni' Nation (the Nation) encompass over 90 miles of shoreline in Northern California and Southern Oregon. The central region of the territory has been the hub for the continuance of traditional fishing of the culturally important keystone species, lhvmsr (surf smelt, *Hypomesus pretiosus*). The area of *Tr'uu-luu-k'wvt*, also known as Pyramid Point, a Marine Protected Area designated by the State of California in 2012, is an area where traditional lhvmsr fish camps have been identified and have been utilized since time immemorial.

Lhvmsr has seen significant decline since the late 1990s, as documented by the California Department of Fish and Wildlife and by Tolowa Dee-ni' traditional lhvmsr fishermen. This decline has caused a panic among the Nation's citizens because of the cultural significance of the species, as elders and traditional fishermen are not seeing a return of the smelt to the Tolowa Dee-ni' territory in the numbers they have historically. This species is also of ecological importance as a food source to other cultural keystone species, including salmonids, seabirds, and marine mammals. Federally-listed species within these categories include Steller sea lions, snowy plovers, and the Southern Oregon-Northern California Coast coho salmon. It is imperative the Nation continues to take an active role to determine ecological, environmental, and anthropogenic impacts affecting this invaluable resource. This includes petitioning for the removal of lhvmsr as allowable take from the state's Northernmost Marine Protected Area, Pyramid Point State Marine Conservation Area.

The Tolowa Dee-ni' Nation is the only indigenous group in the lower Pacific Northwest to continue the practice of "fish camp." Tribal families seasonally migrate to the *Tr'uu-luu-k'wvt* territory from July to October and set up temporary housing to fish, camp, and traditionally process the lhvmsr throughout its spawning months. Lhvmsr are harvested with a traditional A-frame net by the men of the society and then processed by the family



members who oversee the family camp unit (see photo above). Pre-contact fish camps were settled along the entire Tolowa Dee-ni' coastline, and despite the confinement of reservation and adjacent beach lands, the Tolowa Dee-ni' have maintained a continual connection to the *Tr'uu-luu-k'wvt* territory fishing grounds and return every season to interact with the ecosystem to practice traditional fishing methods and protocol. The practice of "fish camp" plays a key role in the health of the community and environment and it is important to ensure the continuance of this important cultural tradition. Smelt is an integral part of Tolowa Dee-ni' culture as there are specific prayers and ceremonies centered on lhvmsr, being a key indicator of the health of the local ecosystem. Prior to the first lhvmsr catch, there is traditional protocol that must occur for a productive and successful fishing season.

As original stewards of the land and waters, and because of the importance of this particular fishery to our spiritual, physical, and cultural health and well-being, we have a responsibility to assist in filling the current data gap through assessing the habitat and gathering baseline data that can inform us as to the indicators of species decline. This essential data is severally lacking for lhvmsr in the lower Pacific Northwest. It is imperative that we collect more data, especially comparative data, in order to gain a better understanding of why we are seeing a decline in this species. Once substantial data is collected and analyzed, this will inform the development of a future conservation plan that can address habitat restoration, best management practices, and related policy and regulatory measures, backed by scientific data, to ensure that this ecological and cultural keystone species can make a robust recovery. This is

particularly true for lhvmsr, when research indicates that impacts to relatively few beaches could greatly affect production of the entire species.¹

The continuance of fish camps located within *Tr'uu-luu-k'wvt* and the intergenerational transmission of knowledge associated with the continued practice is essential for the Tolowa Dee-ni's physical and spiritual welfare. For indigenous peoples, the loss of access to culturally important resources not only impacts the individual, it impacts the entire community and the socio-economic, socio-cultural and socio-political relationships within the community.² As Turner et al. notes, "[T]he decline or removal of key food sources can introduce a cascading effect in which important associated cultural practices and institutions are also lost." More seriously, the loss of access to culturally important resources, along with displacement from cultural landscapes considered to be sacred, directly impacts the ability of the individual, family, and community to sustain deeply-held cultural and spiritual relationships with not only the species used, but with associated species and their habitats – relationships that we as indigenous people see as part of our ancestral responsibility and identity. Thus, there is a need to ensure that this cultural practice is continued by future generations and that Tolowa youth are equipped with the traditional knowledge, social protocols, and skills necessary to protect the habitat, properly conserve the species, and maintain the custom.

The extreme commitment to continue the practice of traditional lhvmsr fish camps within *Tr'uu-luu-k'wvt*, and specifically at *Dat-naa-svt*, by Tolowa families and the Nation is well documented. In addition to scholarly accounts of fish camps dating from the 1800s to the

present^{4'5'6} these traditions have been well documented in numerous newspaper articles throughout the years.⁷ In 2000, the area was determined eligible for listing to the National Register of Historic Places as both an archaeological site and a traditional cultural property (TCP). The TCP eligibility is based on the relationship of the traditional lhvmsr fish camp to the Howonquet village and the associated social codes, fish preservation methods, cultural activities, cultural sites, spiritual and ceremonial connections, North Beach whale rights and ceremonies, and other historic records. ⁸



¹ Quinn, Timothy and Kirk Krueger, Ken Pierce, Daniel Penttila, Kurt Perry, Tiffany Hicks, and Davy Lowry. 2012. Estuaries and Coasts 35:1214–1228

² Charles A and L Wilson. Human dimensions of protected areas. ICES Journal of Marine Science. 66:6-15.

³ Turner NJ, Gregory R, Brooks C, Failing L and T Satterfield. 2008. From invisibility to transparency: identifying the implications. *Ecology and Society* 13(2):7-20.

⁴ Drucker, Philip A. 1937. The Tolowa and their Southwest Oregon Kin. *University of California Publications in American Archaeology and Ethnology. 36: 4.* 221-299.

⁵ Kroeber, A. L. and S. A. Barrett. (1960). Fishing Among the Indians of Northwest California. Anthropological Records. University of California Press.

⁶ Byram, S. and D.G. Lewis. (2001) Origin: Wealth of the Northwest Coast. Oregon Historical Quarterly 102(2): 126-157.

⁷ Hanly, "Fish Camp," News from Native California, Winter 1996/97; "Preserving tradition; Tolowa gather at beach site to dry smelt for winter stores," Daily Triplicate, July 27, 2011; "Learning the traditions; Summer camp passes on Tolowa customs, language to next generation," Daily Triplicate, July 20, 2006; "Tradition, preserved. Yaa-ghii~-'a' (Fish Camp)," Daily Triplicate, August 17, 2007.

⁸ Lewis, David Gene. 2000. Tolowa Deeni Fish Camp: A Traditional Cultural and Archaeological Property Nomination to the National Register of Historic Places. Unpublished Master's Thesis. University of Oregon.

As stated previously, over the years, the Nation has observed and documented a significant decline in the returning numbers of lhvmsr to our traditional fishing grounds and this has caused concerns among tribal citizens that have continued the practice of stewarding this culturally significant resource. In December of 2011, the Nation established a Natural Resources Committee to address the concerns of culturally significant resources, and to be an advisory body to the Tribal Council in respect to ecological and species concerns relating to the cultural needs of the community. Lhvmsr was the first species identified by the Committee as a species of extreme concern. Over the years of observable species decline by the Tolowa Dee-ni' traditional fishermen, neither State or Federal conservation programs in our region, which are responsible for species management, including the recreational and commercial fishery, have addressed the concerns of the Nation.

The California Department of Fish and Wildlife "California Living Marine Resources Status Report" documents a severe decline in the lhvmsr fishery from over 800,000 pounds in 1995 to 1997, to only 100,000 pounds in 1998, and just over 12,000 pounds in 1999. This is approximately a 66% lhvmsr fisheries reduction in just four years. The status report goes on to note that:

Environmental factors such as seawater temperature changes may dramatically affect population levels. However, given their short life-cycle, excessive fishing could cause smelt populations to plummet in just two or three years. Heavy recreational use of the beaches may also compact gravels and crush recently spawned eggs. It is also possible that the developing eggs may depend on water percolating through the gravels from above, so alterations of inflowing streams or lagoons may affect the suitability of the spawning habitat for egg survival. ¹⁰

Although there has been more detailed study of lhvmsr in Canada and Washington State and the development of management plans to ensure species abundance/recovery, 11'12'13'14 research and data is severally lacking for northern California and southern Oregon, which includes the ancestral land and waters of the Tolowa Dee-ni'.

Of further concern, smelt is not a substantial commercial or recreational fishery; there has been less than aggressive regulation by the State of California of this key tribal fishery. Access to and the continued use of *Tr'uu-luu-k'wvt* was threatened with the implementation of the California Marine Life Protection Act (MLPA) Initiative on the North Coast, beginning in 2009. The entire area of *Tr'uu-luu-k'wvt* was selected for a marine protected area that would have not allowed *any* recreational and/or commercial fishing. Although the Nation maintains that the State does not have authority to regulate their subsistence, ceremonial, and customary fishing uses because the right to continue these uses has never been ceded or explicitly extinguished by Congress, the State maintained they had authority. Through a difficult and arduous three-year process, the Nation was successful in ensuring that although a marine protected area would be designated at Pyramid Point, that it would continue to allow non-commercial "tribal take" by members of the Nation. Thus, the Tolowa Dee-ni' had once again successfully ensured the continuance of the traditional lhvmsr fish

9 California Department of Fish and Game. 2001. California's Living Marine Resources: A Status Report. Sacramento, CA.

10 *Ibid.*

11 Rice, Casimir A. 2006. Effects of Shoreline Modification on Marine Northern Puget Sound Beach: Microclimate and Embryo Mortality in Surf Smelt (Hypomesus pretiosus). *Estuaries and Coasts*. 29 (1): 63-71.

12 Lee, Chris G. and Colin D. Levings. 2007. The Effects of Temperature and Desiccation on Surf Smelt (Hypomesus pretiosus) Embryo Development and Hatching Success: Preliminary Field and Laboratory Observations. *Northwest Science*. 81 (2): 166-171.

13 Krueger, Kirk. L. and Kenneth B. Pierce, Jr., Timothy Quinn, and Daniel E. Penttila. 2010, Anticipated effects of sea level rise in Puget Sound on two beach-spawning fishes, *in* Shipman, H., Dethier, M.N., Gelfenbaum, G., Fresh, K.L., and Dinicola, R.S., eds., 2010, Puget Sound Shorelines and the Impacts of Armoring—Proceedings of a State of the Science Workshop, May 2009: U.S. Geological Survey Scientific Investigations Report 2010-5254, p. 171-178.

14 Fisheries and Oceans Canada. 2012. Pacific Region Integrated Fisheries Management Plan: Surf Smelt, April 1, 2012 to December 31, 2014.

camps. However, in this same process, lhvmsr were considered by the Science Advisory Team as a species that would not benefit from marine protected areas, due to their transitory nature. Thus, lhvmsr was a species that was allowed to be taken in any of the State Marine Conservation Areas that allowed some level of species take by recreational and commercial anglers. This includes the marine protected areas designated at Pyramid Point (*Tr'uu-luu-k'wvt*), Redding Rock, Samoa, and Ten Mile, which all include key surf fish spawning habitat. Thus, a prime opportunity to protect spawning habitat from recreational and commercial uses by the general public was overlooked and lost.

Through a commitment to the continuance of this important cultural and subsistence activity and the diligence to ensure that these practices continue, the Nation has secured guaranteed access and political and regulatory recognition to support the continuance of fish camps. All of this, however, is meaningless, if the habitat is not protected and the resource is not healthy and available. Thus, there is a cultural, economic, and ecological need to remove lhvmsr as allowable recreational take within *Tr'uu-luu-k'wvt*.

Appendix 2 MPA Collaborative Vetted Regulation Recommendations

County	MPA	Current Regs Summarized	Compliance concerns and/or management problem identified	Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
Del Norte	Pyramid Point SMCA	Rec take of surf smelt by dip net or Hawaiian type throw net. Tolowa Dee-ni' exempt	Onshore and offshore hook and line fishing, collecting sand crabs as bait, kayak fishers, violations from boaters registered in both CA and OR	Remove allowance for surf smelt by dip net or Hawaiian type throw net; Change to No-Take SMCA with Tribal exemption for Tolowa Dee-ni'	Yes	Smelt is culturally important species to Tolowa and No Take designation will be clearer to public, reducing violations	Signs being vandalized, ripped out. Outreach to gain compliance needed (Guardian Watchmen)	Tolowa Dee-ni' Nation	rosa.laucci@tolowa.com	Take Allowance Change	Yes, from SMCA to No-Take SMCA with Tribal exemption
Del Norte	Pyramid Point SMCA	Rec take of surf smelt by dip net or Hawaiian type throw net. Tolowa Dee-ni' exempt	Elk Valley Rancheria is interested in exploring the possibility of being included in exempt status	Add Elk Valley Rancheria to exempt Tribes if requested by Tribal Council	Yes	Elk Valley Rancheria has ancestral ties to the area				Take Allowance Change	
Del Norte	Pyramid Point SMCA	Rec take of surf smelt by dip net or Hawaiian type throw net. Tolowa Dee-ni' exempt	Boundary is in Oregon	Change northern boundary to align with recognized California/Oregon state line	Yes	Original boundary used a mapping system that does not align with on-the- ground state line.		Tolowa Dee-ni' Nation	rosa.laucci@tolowa.com	Boundary Change	
Del Norte	Point St. George Offshore Reef SMCA	Rec take of salmon by trolling and Dungeness crab by trap. Commercial take of salmon with troll fishing gear and Dungeness crab by trap. Elk Valley and Tolowa Dee-ni' exempt		No change	Yes						
Del Norte	Sea Lion Rock Special Closure	300'	No data	No change	Yes						
Del Norte	Castle Rock Special Closure	300'	Poke poling at Preston Island and Battery Point and Hook Finger Point during extremely low tides. Kayaks near closure	No change	Yes						
Del Norte	False Klamath Rock Special Closure	300' from 3/1-8/31	Low flyovers by US Coast Guard helicopter. Kayaks near closure, kaking kelp. Dogs off leash	No change	Yes		Signs needed at Wilson Creek. Potential site for CoastSnap to crowdsource changes around rock				
Humboldt		Rec take of salmon by trolling; surf smelt by dip net or Hawalian type throw net; Dungeness crab by trap, hoop net or hand. Commercial take of salmon with troll fishing gear; surf smelt by dip net; Dungeness crab by trap. Trinidad, Resighini and Yurok exempt	Hook and line fishing and take of sand crabs regularly occur, especially at southern boundary Gold Bluffs beach traditional smelt camp Track amount of surf smelt taken (25 lbs current limit). Hawaiian Type throw net inappropriate	Work with California Tribes and indigenous people to change "Hawaiian type throw net" to a term that is more reflective of Indigenous Californian net based take methods	Yes		Monitor Surf smelt as a part of state monitoring plan.			Language Change	
Humboldt		Rec take of salmon by trolling; surf smelt by dip net or Hawaiian type throw net; Dungeness crab by trap, hoop net or hand. Commercial take of salmon with troll fishing gear; surf smelt by dip net; Dungeness crab by trap. Trinidad, Resighini and Yurok exempt		Recommend implementing limits on commercial take of surf smelt	Yes	Culturally important species				Take Allowance Change	
			Drifting commercial	No change							

County	MPA	Current Regs Summarized	Compliance concerns and/or management problem identified	Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
Humboldt	Samoa SMCA	Rec take of salmon by trolling; surf smelt by dip net or Hawaiian type throw net; Dungeness crab by trap, hoop net or hand. Commercial take of salmon with troll fishing gear; surf smelt by dip net; Dungeness crab by trap. Wiyot exempt	Difficult to determine boundaries	Work with California Tribes and indigenous people to change "Hawaiian type throw net' to a term that is more reflective of Indigenous Californian net based take methods	Yes	Reference to Hawaiian nets when indigenous terms exist for this take type is inappropriate and disrespectful	Monitor recreational and commercial (through landing/block reports) take of salmon by troll and surf smelt by dip net and assess effect on population; Signs with you are here map at Mad River			Language Change	
Humboldt	South Humboldt Bay SMRMA	No Take except waterfowl may be taken. Wiyot exempt	Invasive grasses, loss of eelgrass, general threats to habitat. Non Tribal members clamming. Difficult to identify boundaries within South Humboldt Bay	Determine reason it does not extend to southern water's edge and extend if no reason	Yes	Clearer for outreach purposes to say from southern end of bay to 2nd hunter pull out	Direct enforcement to look for unlawful clamming			Boundary Change	
Humboldt	Sugarloaf Island Special Closure	300'		No change	Yes						
Humboldt	South Cape Mendocino SMR	No Take	Minimal patrol	No change	Yes		Develop a plan for evaluating remote area MPAs to determine impact, such as temporary M2 radar/drone surveillance; support southern Humboldt patrol by LED				
Humboldt	Steamboat Rock Special Closure	300' 3/1-8/31	Confusion on when it is open to swim out to and when it is closed	No change	Yes		Sign that highlights special closure and closure dates				
Humboldt	Mattole Canyon SMR	No Take	Minimal patrol. Some commercial crab pots observed during USCG flyover	No change	Yes		Develop a plan for evaluating remote area MPAs to determine impact, such as temporary M2 radar/drone surveillance; support southern Humboldt patrol by law enforcement division				
Humboldt	Sea Lion Gulch SMR	No Take	Backpackers harvest mussels along entire Lost Coast Trail; people getting too close to new elephant seal colony. No cell connectivity to determine boundaries of MPA	Move southern boundary south to Cooskie Creek	BLM support but need fisher input	Creek is more identifiable feature for land based outreach to fishers hiking the Lost Coast Trail				Boundary Change	
Humboldt	Big Flat SMCA	Rec take of salmon by trolling and Dungeness crab by trap, hoop net or hand. Commercial take of salmon with troll fishing gear and Dungeness crab by trap. Multiple Tribes exempt	Backpackers harvest mussels along entire Lost Coast Trail; surf fishing occurs at Miller Flat. No cell connectivity to determine boundaries of MPA	No change	Yes		More outreach needed for fishers hiking lost coast. Include more detailed information in BLM Lost Coast map				
Mendocino	Double Cone Rock SMCA	Rec take of salmon by trolling; Dungeness crab by trap, hoop net or hand. Commercial take of salmon with troll fishing gear and Dungeness crab by trap	Unknown. Limited patrol. Report of excessive urchin and need for grazer suppression.	Reassess restoration policy in SMCAs impacted by climate change/kelp loss	Yes	Loss of kelp habitat needs to be addressed in this SMCA	Allow for restoration work/grazer suppression to address urchin barrens (reds and purples)	California Sea Urchin Commission - allow for commercial take of urchin		Other	
Mendocino	Vizcaino Rock Special Closure	300' 3/1-8/31		No change	Yes						

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Mendocino	Ten Mile SMR	No Take	Primary concern is shore-based fishing (rod and reel at seaside creek beach). Recreational fishers take rockfish and lingcod, crab pots "walk themselves" into MPA at southern boundary. Dogs off leash	No change	Yes		OK/boundary sign needed at northern boundary. Simplify outreach language around MPA clusters				
Mendocino	Ten Mile Beach SMCA	Rec take of Dungeness crab by trap, hoop net or hand. Commercial take of Dungeness crab by trap. Many Tribes exempt	Unlawful take of fish (rockfish, lingcod); dogs off leash in snowy plover habitat. Potential sand dump site south side of Ten Mile Beach	No change	Yes		Simplify outreach language around MPA clusters				
Mendocino	Ten Mile Estuary SMCA	Waterfowl may be taken. Many Tribes exempt	Limited access for fishers	No change	Yes		Simplify outreach language around MPA clusters				
Mendocino	MacKerricher SMCA	All rec take allowed. Commercial take allowed except for bull kelp and glant kelp	Multiple violations occur daily since closest to Fort Bragg city center (general fish and game code violations). North boundary (Laguna Point) hotspot for intertidal take	Add protection for intertidal zone, per State Parks, in support for protection of the resource and ease of enforcement/outreach	Many in support but no full consensus	There are limited areas in the county to lawfully take intertidal animals such as mussels, turban snails, limpets, etc.	More enforcement support needed due to limited State Parks personnel. Focus on tidepool education. Intertidal specific take signs are needed	State Parks pending review		Take Allowance Change	
Mendocino	Point Cabrillo SMR	No Take	Lighthouse sees lots of boats fishing offshore of Frolic Cove on northern end of Point Cabrillo SMR or inside	No change	Yes		OK boundary signs would be beneficial on both boundaries for kayak fishing				
Mendocino	Russian Gulch SMCA	All rec take allowed. Commercial take allowed except for bull kelp and giant kelp	General fish and game code violations	No change	Yes						
Mendocino	Big River Estuary SMCA	Rec take of surfperch by hook and line from shore only and Dungeness crab by hoop net or hand. Many Tribes exempt. Waterfowl may be taken	Increased use for swimming and recreation has led to safety concerns, including close calls between swimmers and hunters. Swimmers mixing with motorized boats may lead to accidents	Hunting should be prohibited due to high public use/public safety issues, per State Parks	Yes	Community reported incidents of near misses between hunters/boaters and swimmers		State Parks pending review		Allowed Activity Change	
Mendocino	Big River Estuary SMCA	Rec take of surfperch by hook and line from shore only and Dungeness crab by hoop net or hand. Many Tribes exempt. Waterfowl may be taken	Can MPA restrict motorized vessels if not ecological reserve?	Restrict all motorized vessels with allowance for public safety, per State Parks	Yes, with clarification that motorized vessels are only restricted going east (up river)	West access from launch should be allowed for boaters going out to ocean	Data on crab fishery is needed to determine whether allowance is sustainable. Need clear signage restricting snare traps. Pick up after dog signs needed	State Parks pending review		Allowed Activity Change	
Mendocino	Van Damme SMCA	All rec take allowed. Commercial take allowed except for bull kelp and giant kelp	Overtake and take of undersize fish	No change	Yes						
Mendocino	Navarro River Estuary SMCA	Rec take of salmonoids by hook and line. Many Tribes exempt. Waterfowl may be taken	People illegally breach sandbar (but outside MPA?)	No change	Yes						
Mendocino	Point Arena SMR	No Take	Fishing in SMR reported by lighthouse manager	No change	Yes		OK boundary signs needed				
Mendocino	Point Arena SMCA	Rec take of salmon by trolling. Commercial take of salmon with troll fishing gear		No change	Yes						

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Mendocino	Sea Lion Cove	Rec and commercial take of finfish	Urchin barrens	Reassess restoration policy in SMCAs impacted by climate change/kelp loss	Yes		Allow for restoration work/grazer suppression to address urchin barrens (reds and purples)	California Sea Urchin Commission - allow for commercial take of urchin		Other	
Mendocino	Saunders Reef SMCA	Rec take of salmon by trolling. Commercial take of salmon with troll fishing gear and urchin	Citations issued for people diving and taking at Schooner Gulch; illegal shore fishing from Hearn Gulch	No change	Yes		Additional enforcement personnel/efforts are needed				
Sonoma	Del Mar Landing SMR	No Take	Fishing at north end	No change	Yes		Trail pamphlets with MPA information				
Sonoma	Stewarts Point SMR	No Take	Poaching at 3 mile line. Difficult for fishers to determine where 3 mile line is and difficult to enforce from land	Allow for trolling of salmon. Change to SMCA?	No. Discussed with no strong opposition but more info needed	Impact to commercial salmon fishing can be addressed with minimal impact to other resources	More signage needed at public access points			Take Allowance Change	Yes, would change SMR to SMCA. No consensus
Sonoma	Stewarts Point SMCA	Rec take from shore only of marine aquatic plants other than sea palm, marine invertebrates, finfish by hook and line, surf smelt by beach net, species authorized by hand-held dip net	Tribal based MPA	Prohibit all take and add Kashia Pomo to Tribal exemptions to make affirmative rights of Tribal Members re: collection, harvesting, and research	Yes	MPA is only accessed by Kashia Tribal members from shore (owned by Tribe) so would be same protection while acknowledging Tribal rights				Take Allowance Change	Yes, change from SMCA to No-Take SMCA with Tribal exemption
Sonoma	Salt Point SMCA	Recreational take of abalone and finfish allowed	Take of abalone during closure; poaching of intertidal species. Confusion regarding intertidal take	No change	Yes		Needs more signage on collecting/take of shellfish and other non finfish				
Sonoma	Gerstle Cove SMR	No Take	Excessive intertidal take. Rec fishers fishing the line	No change	Yes		Need for good tidepooler rules signs to address harmful tidepooling				
Sonoma	Russian River SMRMA	No take except waterfowl may be taken	Marine mammal disturbance occurring. County of Sonoma needs to conduct restoration work as part of management plan	Allow for restoration work in SMRMA	Yes	Restoration will not impact haul out sites, marine mammals or birds				Other	
Sonoma	Russian River SMCA	Rec take of Dungeness crab by trap, and surf smelt by hand-held dip net or beach net. Commercial take of Dungeness crab by trap	Illegal onshore and offshore fishing; seal disturbance "seal selfies" near Goat Rock. Trash/dogs off leash	No change	Yes		More outreach for out of town fishers/permanent signage				
Sonoma	Bodega Head SMR	No Take	Take of rockfish and trolling for salmon; fishing on northern boundary off rocks Difficult "fan" shape and hard to identify northern boundary makes enforcement difficult	No change	Yes	Would require new outreach					
Sonoma/Marin	Bodega Head SMCA	Rec take of pelagic finfish by trolling, Dungeness crab by trap, and market squid by hand-held dip net. Commercial take of pelagic finfish by troll fishing gear and round haul net, Dungeness crab by trap, and market squid by round haul net	Take of rockfish and trolling for salmon; fishing on northern boundary off rocks Difficult "fan" shape and hard to identify northern boundary makes enforcement difficult	No change	Yes						

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Sonoma/Marin	Estero Americano SMRMA	No take except waterfowl may be taken	Confusion as to boundary "high tide line" and who manages strip of beach between ocean and estuary that is often closed, Difficulty identifying eastern boundary. No way to see boundary from shore	No change	Yes		More signs needed at access points here to address compliance concerns				
Marin	Estero de San Antonio SMRMA	No take except waterfowl may be taken	Some take (animal remains) and illegal fishing	No change	Yes						
Marin	Point Reyes SMR	No take	Sand dollar and fossil take, rod and reel fishing from vessels, party boats troll for salmon; violations are limited offshore	No change	Yes		Signage and more enforcement needed, especially at Drakes Beach and Coast Guard Station. Consolidated mixed messaging signs, with dog information.				
Marin	Point Reyes_SMCA	Rec take of salmon by trolling and Dungeness crab by trap. Commercial take of salmon with troll fishing gear and Dungeness crab by trap	Commercial crabbers set coonstripe shrimp traps on top of crab traps; Boundaries in MPA cluster hard to identify; NPS jurisdiction limited to 0.25 miles.	No change	Yes						
Marin	Point Reyes Headlands Special Closure	No access from mean high tide line to a distance of 1000 feet seaward	Recreational vessels fishing in summer; Disturbance spiked in 2020; USFW continues to monitor this area	No change at this time	Yes	Might need to revisit making adjustments in the future if data shows changes/increases in disturbance					
Marin	Estero de Limantour SMR	No take	Difficult to determine boundary between SMR and Drakes Estero SMCA makes enforcement difficult. There are suspicions that poaching of clams occurs in the SMR from people on kayaks from Drakes Estero	Extend SMR designation all the way into Drakes Estero	Yes	NPS in support of expanding SMR because federally designated wilderness, major harbor seal haul out, and critical nursery habitat for leopard shark and bay rays		EAC Marin with NPS letter of support		Boundary Change	
Marin	Drakes Estero SMCA	The recreational take of clams is allowed	Difficult to determine boundary line between Drakes Estero SMCA and Estero de Limantour SMR leading to poaching. Cows accessing/pooping from NPS ranch leased land	Prohibit clamming in Drakes Estero SMCA. Merge with Estero de Limantour SMR.	Yes	SMCA designation was originally due to oyster farm that is no longer there. NPS in support of making into a SMR due to federally designated wilderness area	Give people direction/ outreach materials on where they CAN clam safely	EAC Marin with NPS letter of support		Take Allowance Change	Yes, change from SMCA to SMR
Marin	Point Resistance Rock Special Closure	No access from mean high tide line to a distance of 300 feet seaward of rock	Seabird flushing by vessels. USFW monitoring area.	No change	Yes	GFNMS thinks current regulations are good, very important to their mission and public outreach					
Marin	Double Point/Stormy Stack Special Closure	No access from mean high tide line to a distance of 300 feet seaward of rock	Seabird flushing by vessels and surfers, who enter harbor seal rookery. Increased visitation due to people hiking to Alamere Falls	No change	Yes	GFNMS thinks current regulations are good, very important to their mission and public outreach and don't want to extend to shore to allow shore access	Put signs with regulations and text about importance of special closure at trailhead; more outreach to boaters about special closures needed				

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Marin	Duxbury Reef SMCA	Recreational take of finfish from shore and abalone* is allowed	Difficult to enforce and outreach about why you can take finfish but not invertebrates. Beach Watch data at this site for 30 years show slight decrease in activities in last 10 years, but take of invertebrates has been observed, and the Greater Farallones National Marine Sanctuary Superintendent has provided information about the need to consider additional conservation measures at Duxbury Reef. Maria Brown (NMS) submitted a letter saying Duxbury Reef would benefit from increased protection of unique and important habitat of entire reef (largest shale reef in N. America). EAC MPA Watch data shows increased activities, including take and poaching incidents.	Double Point to fully	No	No agreement on extending boundaries to cover the reef and changing to SMR. More research needed on benefits of changing existing ribbon from SMCA to SMR; Might be important fishing access point for public	More signs needed and more support for onsite education and enforcement from CDFW to agate beach and land-side terrestrial Duxbury	EAC Marin		Take Allowance Change	Yes, would change SMCA to SMR. No consensus
Marin	Duxbury Reef SMCA	Recreational take of finfish from shore and abalone* is allowed	Heavy use and impacts, intertidal take – buckets and tools (e. g., crow bars, tire jacks) used to take black turban snails and purple urchin that are nestled into cracks. People need to break the reef to get to purple ur	Potential compromise would be to add specific tidepool protections, similar to OC	TBD	NMS would like to continue conversation to explore potential compromises	Research other tidepool docent programs in MPAs with mixed use of allowed fishing/idepool protections			Language Change	
San Francisco	North Farallon Islands SMR	No Take	Commercial crab case here	No change	Yes	More data needed for this MPA cluster	Increase CDFW LED patrols during peak months. Need for CCFRP program here				
San Francisco	North Farallon Islands Special Closure	No vessel shall be operated or anchored at any time from the mean high tide line to a distance of 1000 feet seaward of the mean lower low tide line of any shoreline of North Farallon Island, or to a distance of 300 feet seaward of the mean lower low tide line of nor low tide line of the remaining three southern islets		No change	Yes						
San Francisco	Southeast Farallon Islands SMR	No Take	Small recreational boats. A number of encroachments occur into SMR during better weather months	No change	Yes		Increase patrols from LED and consider M2 radar at this location				
San Francisco	Southeast Farallon Islands SMCA	Recreational take of salmon by trolling and commercial take of salmon by troll fishing gear	Salmon fishers use salmon gear to fish for halibut	No change	Yes						

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San Francisco	Southeast Farallon Islands Special Closure	Closed 300 feet seaward year-oan's except Fisherman's Bay to East Landing, southeastern tip of the island and southeastern side of Saddle (Seal) Rock, which is closed from December 1 through September 14. 5 mile per hour speed limit 1000 ft seaward of mean lower low tide of any shoreline Exhaust system requirements lower to commercial dive boats		No change	Yes	Predates MLPA process, careful consideration went into crafting special closure regulations					
San Mateo	Egg (Devii's Slide) Rock to Devii's Slide Special Closure	A special closure is designated from the mean high tide line to a distance of 300 feet seaward of the mean lower low tide line of any shoreline of any shoreline of any of the three rocks comprising Egg (Devil's Slide) Rock; Transit in between the rock and the mainland between these points is prohibited at any time.	Reported violations include fishing boats inside boundaries and low flying aircraft/drones	Change name to "Devil' s Slide Special Closure"	Yes	Egg rock is no longer a name used/recognized locally. Devil's Slide is more appropriate and simpler for outreach				Language Change	
San Mateo	Montara SMR	No Take	A top cited MPA in Central Coast, highest in San Mateo; fishing offshore and tidepool take; Difficulty interpreting southern boundary	Move Montara SMR onshore southern boundary to current Pillar Point SMCA southern boundary (north end of Maverick' s Beach), then extending out to current offshore southern SMR boundary point	Yes	Easier for enforcement and makes SMR boundaries consistent with Fitzgerald Marine Reserve boundaries				Boundary Change	
San Mateo	Pillar Point SMCA	The recreational take of pelagic finfish by trolling, Dungeness crab by trap, and market squid by handheld dip net is allowed. The commercial take of pelagic finfish by troll or round haul net Dungeness crab by trap, and market squid by round haul net is allowed.	Unclear boundary leads to poaching in intertidal Difficult for local law enforcement to ensure	Extend southern SMCA boundary further south	Yes	Would cover entire reef in MPA for ease of allied agency outreach and enforcement.				Boundary Change	
San Mateo	Pillar Point SMCA	The recreational take of pelagic finfish by trolling, Dungeness crab by trap, and market squid by handheld dip net is allowed. The commercial take of pelagic finfish by troll or round haul net Dungeness crab by trap, and market squid by round haul net is allowed.		Change regulations to allow for recreational hook and line take of finfish from shore and take of mussels, crabs, snails and seaweeds for equity and access purposes	Yes	Allowing for shore based hook and line and some intertidal take maintains access for consumptive users while applying some protection for a heavily impacted habitat				Take Allowance Change	
San Mateo/Santa Cruz	Año Nuevo SMR	No Take	Unlawful take of snails; fishing; wildlife disturbance. Boats driving squid out of MPA. Confusion because sign at top of trail to Greyhound Rock says fishing beach but must go left at bottom to legally fish	Move southern boundary line to have whole of Greyhound Rock in SMR	Yes, at both Santa Cruz and San Mateo Collaborative meetings	Clearer boundary makes enforcement easier	Ensure sign with map at bottom of trail. Utilize social/digital/traditional media for public outreach	State Parks pending review		Boundary Change	

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San Mateo/Santa Cruz	Greyhound Rock SMCA	Rec take of giant kelp by hand harvest only, market squid, salmon. Other finfish by hook and line only from shore. Commercial take of giant kelp by hand harvest only, salmon and market squid	Take of mussels at southern boundary Confusion with Año Nuevo SMR boundary/whether fishing is allowed at Greyhound Rock Split between 2 counties	Move northern boundary line to have whole of Greyhound Rock outside of SMCA and in SMR; Move southern boundary south to beginning of Scott Creek bridge	Yes, at both Santa Cruz and San Mateo Collaborative meetings	Reef should be fully protected or fully open. Preference to cover reef but either way will have clearer boundary for outreach/enforcement. Move of southern boundary would cover reef to address intertidal impacts	Need for sign with map at Scotts Creek	State Parks pending review		Boundary Change	
San Mateo/Santa Cruz	Greyhound Rock SMCA	Rec take of giant kelp by hand harvest only, market squid, salmon. Other finfish by hook and line only from shore. Commercial take of giant kelp by hand harvest only, salmon and market squid	Confusing regulations	Replace comma with semi-colon in regulations after "giant kelp by hand harvest only", or otherwise edit	Yes	Clearer language needed to clarify you are not required to catch salmon and squid by hand harvest only		State Parks pending review		Language Change	Section 100 change
Santa Cruz	Natural Bridges SMR	No Take	Hard to identify boundaries; safety concerns with fishers and swimmers at Natural Bridges State Park beach	Shift both boundaries south to more identifiable features (4 mile point and Natural Bridge)	Yes	State Parks would like SMR to cover the beach at Natural Bridges SP for public safety reasons	Need for interpretive signs with maps/good tidepooler rules, why MPAs, etc.	State Parks pending review		Boundary Change	
Santa Cruz	Soquel Canyon SMCA	Rec and commercial take of pelagic finfish	Split between 2 counties	No change	Yes						
Monterey	Elkhorn Slough SMR	No Take	Fishing occurs regularly at Kirby Park pier/dock, was originally built for fishers with disabilities with SFRA grant. Inconsistent enforcement.	Move northern boundary south of Kirby Park pier/dock. Shift entire MPA to maintain size	Yes, at both Santa Cruz and Monterey Collaborative meetings	Opens fishing area as originally intended to limit poaching; supports increased enforcement presence in area	If Kirby is open, must be concerted cross- jurisdictional effort to enforce shore waste of fish/debris and other F&G Code violations. Need for good fishing practices outreach	Elkhorn Slough Foundation		Boundary Change	
Monterey	Elkhorn Slough SMCA	The recreational take of finfish by hook and line only and clams is allowed. Clams may only be taken on the north shore of the slough in the area adjacent to the Moss Landing State Wildlife Area [subsection 550 (a)].	Difficult to determine where SMR/SMCA boundary is (i.e., where kayak fishers can no longer fish).	Move SMR line to bird watching platform (eastern side)	Yes, at both Santa Cruz and Monterey Collaborative meetings	Bird watching platform provides a clear boundary for shore and kayak fishers and would maintain size of SMR with shift off Kirby		Elkhorn Slough Foundation		Boundary Change	
Monterey	Elkhorn Slough SMCA	The recreational take of finfish by hook and line only and clams is allowed. Clams may only be taken on the north shore of the slough in the area adjacent to the Moss Landing State Wildlife Area [subsection 550 (a)].	Clamming disturbs sea ofter rafts. Huge amounts of trash (fishing receptacles full)	Removing allowance for clamming to address impact to otters and human health considerations	Maybe?	Need more info on impact to recreational clammers and safety of consuming clams	Need for more trash receptacles/removal	Elkhorn Slough Foundation		Take Allowance Change	
Monterey	Moro Cojo Slough State Marine Reserve	No take	Some access on eastern end. Agricultural influence. Elkhorn Slough NERR in support of no change	No change	Yes						
Monterey/Santa Cruz	Soquel Canyon State Marine Conservation Area	Recreational and commercial take of pelagic finfish is allowed	Many violations, especially illegally set crab traps (commercial) and rockfish take (recreational). Whale disturbance. More impact due to depth restrictions lifted	No change	Yes						
Monterey	Portuguese Ledge State Marine Conservation Area	Recreational and commercial take of pelagic finfish is allowed	Many violations, especially rockfish take (recreational). Whale disturbance	No change	Yes						

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Monterey	Edward F. Ricketts State Marine Conservation Area	Recreational take of finfish by hook and line. Commercial take of giant kelp and bull kelp by hand	Fishing debris from Coast Guard pier. Abalone and other intertidal poaching at breakwater	Explore regulations to limit fishing gear loss from Coast Guard pier (such as requiring use of breakaway leaders or no braided line)	Yes	Fishing gear loss impacts wildlife, habitat, and safety of divers due to entanglement	Partner with MBNMS on outreach of litter/derelict fishing gear			Language Change	
Monterey	Edward F. Ricketts State Marine Conservation Area	Recreational take of finfish by hook and line. Commercial take of giant kelp and bull kelp by hand	New regulations may restrict fishing for rockfish from boat close to shore after October 1	Change to SMR and join with Lovers Point-Julia Platt SMR	Maybe	No strong opposition but no fishing reps present		Giant Giant Kelp Restoration Project (G2KR)		Take Allowance Change	Yes, would change from SMCA to SMR
Monterey	Edward F. Ricketts State Marine Conservation Area	Recreational take of finfish by hook and line. Commercial take of giant kelp and bull kelp by hand		Allow restoration/urchin culling without requiring SCP	No	May lead to destruction of healthy urchins		Giant Giant Kelp Restoration Project (G2KR) - applies to Ed Ricketts, PG Gardens, and Carmel Bay SMCAs, and will include suggestion for buoys on sites		Other	
Monterey	Lovers Point- Julia Platt State Marine Reserve	No Take	Fishing off Lovers Point rocks, undersize and immature fish, spearfishers and fishing boats catch halibut, illegal tidepool take; confusion around northern boundary line	Move southern boundary line so Lovers Point is either all in or all out (with preference for all in reserve)	No	Disagreement about where to move line	Boundary marker or fishing/no fishing arrow sign needed if boundary doesn't change			Boundary Change	
Monterey	Lovers Point- Julia Platt State Marine Reserve	No Take		Move southern boundary to end of Lovers Point, splitting point equally in half	Yes	Fishing/No fishing arrow signs would make sense/be more accurate	Fishing/no fishing arrow sign needed at Lovers Point			Boundary Change	
Monterey	Pacific Grove Marine Gardens State Marine Conservation Area	Recreational take of finfish. Commercial take of giant kelp and bull kelp by hand	Spearfishing violations, especially from kayaks and dinghies; illegal take of scallops and crustaceans; undersize and immature fish taken Point Pinos is key oystercatcher nesting habitat	Move both boundary lines so Lovers Point and Point Pinos are all out of SMCA and in SMRs because both are key oystercatcher nesting sites	No	Rock outcropping and buoy at Point Pinos (southern boundary) are currently good boundary indicators for boaters				Boundary Change	
Monterey	Pacific Grove Marine Gardens State Marine Conservation Area	Recreational take of finfish. Commercial take of giant kelp and bull kelp by hand		Move northern boundary to end of Lovers Point	Yes	Fishing/No fishing arrow signs would make sense/be more accurate	Fishing/no fishing arrow sign needed at Lovers Point and Point Pinos			Boundary Change	
Monterey	Pacific Grove Marine Gardens State Marine Conservation Area	Recreational take of finfish. Commercial take of giant kelp and bull kelp by hand	New regulations may restrict fishing for rockfish from boat close to shore after October 1	Change to SMR, join with Lovers Point SMR	Maybe	No strong opposition but no fishing reps present		Giant Giant Kelp Restoration Project (G2KR)		Take Allowance Change	Yes, would change from SMCA to SMR
Monterey	Asilomar State Marine Reserve	No Take	Onshore and offshore fishing common, hook and line from nooks and crannies; harmful tidepooling, tidepool take; wildlife disturbance common Northern boundary at Point Pinos is confusing, splits rocks in half	No change	Yes		Fishing/No Fishing arrow signs needed at Point Pinos				
Monterey	Carmel Pinnacles State Marine Reserve	No Take	Offshore violations common	No change	Yes						
Monterey	Carmel Bay State Marine Conservation Area	Recreational take of finfish. Commercial take of giant kelp and bull kelp by hand	Intertidal take common, including abalone and mussels. Golf balls go into MPA and are not collected. Some kelp take at Stillwater Cove	No change	Yes		Work with Pebble Beach on reducing golf ball litter either through requiring biodegradable balls at key holes or ensuring balls are collected by divers				
Monterey	Point Lobos State Marine Reserve	No Take	Take occurs. Boundaries are confusing	No change	Yes						
Monterey	Point Lobos State Marine Reserve	No Take		Allow restoration/urchin culling	No	Difficult for enforcement/interpretati on in no-take area		Giant Giant Kelp Restoration Project (G2KR)		Other	

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Monterey	Point Lobos State Marine Conservation Area	Recreational take of salmon and albacore and the commercial take of salmon, albacore, and spot prawn is allowed		No change	Yes						
Monterey	Point Sur State Marine Reserve	No Take	Violations common between SMR and SMCA, southern corner is hard to enforce. Abalone case reported	Encompass the whole coastline of Point Sur in MPA	No	Keep boundaries as is				Boundary Change	
Monterey	Point Sur State Marine Conservation Area	Recreational and commercial take of salmon and albacore		Add bluefin tuna to list of species allowed for take	No	Lessens protection				Take Allowance Change	
Monterey	Big Creek State Marine Reserve	No Take	L-shape of SMR within SMCA is confusing	No change	Yes						
Monterey	Big Creek State Marine Conservation Area	Recreational take of salmon and albacore. Commercial take of salmon, albacore and spot prawn	Potential unlawful fishing off Marine Lab	No change	Yes						
San Luis Obispo	Piedras Blancas State Marine Reserve	No take	Missing signs. Onshore fishing violations (poaching mussels at Point Sierra Nevada). Wildlife disturbance. Extreme angle makes kayak fishers look like they are fishing in SMR	No change	Yes		Use boundary images on signs to help reference angle at pullout.				
San Luis Obispo	Piedras Blancas State Marine Conservation Area	Recreational and commercial take of salmon and albacore	Occasional poaching observed. Fishing for rockfish. No albacore, limited salmon observed by fishers/wardens	No change	Yes						
San Luis Obispo	Cambria State Marine Conservation Area	All recreational take is allowed	Harmful tidepooling occurring throughout MPA. Difficult to message good tidepooler rules without designated protections	Add tidepool protection language similar to Crystal Cove and Dana Point SMCAs	Yes	Would make it easier to message about responsible tidepooling and reduce inadvertent take	Tools for existing SP tidepool docent program needed here, such as Natural Bridges State Park tidepool cart	State Parks pending review; Environment California?		Take Allowance Change	
San Luis Obispo	Cambria State Marine Conservation Area	All recreational take is allowed	Boundary between Cambria SMCA and White Rock SMCA is confusing, leading to accidental poaching by kayak fishers putting in at boundary at Wedgewood	Shift White Rock SMCA northern boundary to end of neighborhood at Lampton Park. Shift southern boundary south 1/2 mile accordingly to not lose any protection and cover some kelp habitat	Yes	May be some pushback from commercial live rockfish fishery for southern shift but recreational anglers in support		Environment California?		Boundary Change	
San Luis Obispo	Cambria State Marine Conservation Area	All recreational take is allowed	No commercial take allowed but there is an existing kelp lease?	Remove kelp lease 209 OR clarify that lease holder cannot harvest within Cambria SMCA	Yes	Commercial harvest of kelp is incompatible with MPA regulations that allow recreational take only		Environment California?		Other	
San Luis Obispo	White Rock State Marine Conservation Area	Commercial take of giant kelp and bull kelp with valid lease	Boundary between Cambria SMCA and White Rock SMCA is confusing, leading to accidental poaching of kayak fishers putting in at boundary at Wedgewood	Shift White Rock SMCA northern boundary to end of neighborhood at Lampton Park. Shift southern boundary south 1/2 mile accordingly to not lose any protection	Yes	May be some pushback from commercial live rockfish fishery for southern shift but recreational anglers in support		Environment California?		Boundary Change	
San Luis Obispo	White Rock State Marine Conservation Area	Commercial take of giant kelp and bull kelp with valid lease		Prohibit commercial take of giant kelp and bull kelp with valid lease and change to an SMR	Yes	Original intent was a reserve but there was existing kelp lease. Current lease holder is fine with relinquishing/ disallowing take of kelp		Environment California?		Take Allowance Change	Yes, would change from SMCA to SMR

County	MPA	Current Regs Summarized	Compliance concerns and/or management problem identified	Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
San Luis Obispo	Morro Bay State Marine Recreational Management Area	Waterfowl hunting allowed. Recreational take of finfish north of line at Pasadena Point. Aquaculture allowed	outreach materials.	Shift no fishing boundary 150 yds north to public access at Pasadena Park (between Santa Ysabel and Baywood Way)	Yes	Makes it easier for county to manage and educate more accurately about fishing/no fishing line	Signs needed, especially at Blue Pier. County can install sign at Pasadena Park			Boundary Change	
San Luis Obispo	Morro Bay State Marine Recreational Management Area	Waterfowl hunting allowed. Recreational take of finfish north of line at Pasadena Point. Aquaculture allowed	Hunting "within" a bird sanctuary (City of Morro Bay) is confusing, safety concerns for paddlers with increased visitors who are unaware hunting is allowed. Concern about safety issues around hunting around neighborhoods. Trampling of plants occur on shoreline in Baywood Park.	No change to regulations at this time	Yes	Important hunting area. Confusion should be addressed through outreach	Overlay hunting map on SMRMA for outreach purposes Mixed message signs/more education needed about estuary impacts/erosion: "tread lightly" in Los Osos				
San Luis Obispo	Morro Bay State Marine Reserve	No Take	Some hunting violations, hugging line; Boardwalks work to protect birds! Might be good to have one at Baywood Park at 1st Street	No change (reluctantly)	Yes	Some desire to extend SMR west and into bottom part of bay beneath Baywood Peninsula but do not want to impede on aquaculture	More education and outreach needed				
San Luis Obispo	Point Buchon State Marine Reserve	No Take	Regular poaching offshore, trolling, and stopping to drop a line in water. Busiest MPA in SLO, most violations observed/cited	Move northern boundary to actual Point Buchon	Yes	Clearer boundary for fishers coming from Port San Luis	Boundary marker needed here. Make "flagpole" more visible (hang flag?) if boundary doesn't change	State Parks pending review		Boundary Change	
San Luis Obispo	Point Buchon State Marine Conservation Area	Recreational and commercial take of salmon and albacore allowed	Regular poaching, rockfish and lingcod, maybe some squid boats?	No change	Yes						
Santa Barbara and Ventura (Santa Barbara Channel)	Vandenberg SMR	No Take	Vandenberg Space Force Base (VSFB) allows active-duty officers, their dependents/families, and guests to fish off Vandenberg. Leads to confusion since officially a no-take area. Regulations should match take allowed. Petition has been submitted by City of Lompoc to allow shore fishing at Surf Beach	Change designation to SMCA that allows hook and line for finfish from shore only	Yes	Would increase actual protection due to past 5 Base Commanders' decision to allow all legal take on base and would address equity concerns by allowing access for non-military at Surf Beach		Greg Helms to propose intertidal ribbon		Take Allowance Change	Yes, would change from SMR to SMCA
Santa Barbara and Ventura (Santa Barbara Channel)	Vandenberg SMR	No Take		Revaluate MOA with VSFB that is being interpreted as allowing for full military recreational take in a no-take SMR	No, not needed if designation is changed to SMCA	Vandenberg conservation officer will enforce updated take regs on military personnel				Other	
Santa Barbara and /entura (Santa Barbara Channel)	Point Conception SMR	No Take	Recent groundfish case. Difficult for enforcement to access from land through Dangermond Preserve. M2 radar at Pt. Conception shows a lot of boating activity, may be surf related	No change	Yes		Provide continued support for M2 radar with ground truthing and continued coordination/info sharing between agencies				

County	MPA	Current Regs Summarized	Compliance concerns and/or management problem identified	Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
Santa Barbara and Ventura (Santa Barbara Channel)	Kashtayit SMCA	Rec take of finfish, invertebrates (except rock scallops and mussels) and giant kelp by hand harvest. Santa Ynez band of Chumash exempt	Illegal and dangerous access down the bluffs on Gaviota. Fishing without a license. Access issues for pier fishers with Gaviota pier closed. Difficult to interpret regulations	Reword regulations for clarity of outreach: "Recreational take of finfish, invertebrates, and giant kelp allowed"	Yes	Simpler regulations will make outreach easier, increasing compliance, with minimal impacts to the resources	Have FGC/State push for pier repair at Gaviota Pier (SB County/State Parks) for safety/access reasons	State Parks pending review/Greg Helms		Language Change	Section 100 change
Santa Barbara and Ventura (Santa Barbara Channel)	Naples SMCA	Rec take by spearfishing of white seabass and pelagic finfish. Commercial take of giant kelp by hand or mechanical harvest. Santa Ynez Band of Chumash exempt	Hook and line fishing and access issues occur here, and most days there are at least two vehicles for fishing or surfing parked near Naples. Impact to hook and line fishers	Add hook and line to allowed method of take	No	Numbers/impact/level of take different between hook and line and spearfishing. Would drastically reduce protection				Take Allowance Change	
Santa Barbara and Ventura (Santa Barbara Channel)	Campus Point No-Take SMCA	No Take	Onshore and offshore hook and line fishing continues to be observed	Change purple to red for outreach purposes	Yes	Easier to explain "no take" if consistent with red SMR		Greg Helms		Other	
Santa Barbara and Ventura (Santa Barbara Channel)	Goleta Slough No-Take SMCA	No Take	Trespassing (e.g., illegal swimming, dogs). People occasionally use nets to fish here and/or fish off bridges at the finger boundaries of the slough. Dumping of sediment still occurs in Goleta Bay	Consider water quality designation for Goleta Bay	Yes	Goleta Bay is between two MPAs and there is a need to address impacts of sediment dumping to subsistence fishers off Goleta Pier		Greg Helms		Other	
Santa Barbara and Ventura (Santa Barbara Channel)	Goleta Slough No-Take SMCA	No Take		Change purple to red for outreach purposes	Yes	Easier to explain "no take" if consistent with red SMR		Greg Helms		Other	
Santa Barbara and Ventura (Santa Barbara Channel)	Richardson Rock SFMR	No Take		No change	Yes						
Santa Barbara and Ventura (Santa Barbara Channel)	San Miguel Island Special Closure	Allowance for sea urchin divers between Castle Rock and Judith Rock SMR western boundary (Point Bennet) between 3/15- 4/30 and 10/1-12/15.	Commercial urchin poaching. Purpose to reduce disturbance to pinniped populations. Is closure still necessary? Point Bennet has one of the largest pinniped (six species) rookeries on the West Coast of North America		Yes		M2 radar at NMFS marine mammal station	Greg Helms		Language Change	
Santa Barbara and Ventura (Santa Barbara Channel)	Harris Point SFMR	No Take	CDFW sees some fishers that are taking from shore, although it is not common	No change	Yes		Use land-based range markers (e.g., O & K) to mark boundaries				
Santa Barbara and Ventura (Santa Barbara Channel)	Judith Rock SFMR	No Take		No change	Yes		Use land-based range markers (e.g., O & K) to mark boundaries				
Santa Barbara and Ventura (Santa Barbara Channel)	Carrington Point SMR	No Take	Confusing angle relative to pier	No change	Yes	NPS outreach on angle has been good	More permanent boundary markers/signage is needed				
Santa Barbara and Ventura (Santa Barbara Channel)	Skunk Point SMR	No Take	Difficult to determine how far offshore boats are (in or out)	No change	Yes						
Santa Barbara and Ventura (Santa Barbara Channel)	South Point SFMR	No Take		No change	Yes						
Santa Barbara and Ventura (Santa Barbara Channel)	Painted Cave SMCA	Rec take of spiny lobster and pelagic finfish	People are taking non- pelagic fish species, rockfish, California sheephead, and live fish	No change	Yes						
Santa Barbara and Ventura (Santa Barbara Channel)	Gull Island SFMR	No Take	-	Have state discuss with NMS changing federal area to FMCA to allow for take of pelagics	No	More data/justification needed				Take Allowance Change	Yes, would turn federal MRs into federal MCAs. No consensus

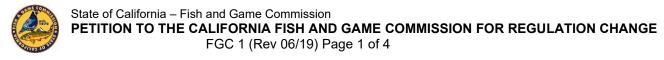
County	MPA	Current Regs Summarized	Compliance concerns and/or management problem identified	Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
Santa Barbara and Ventura (Santa Barbara Channel)	Scorpion SFMR	No Take	Fishing/take in little coves at eastern boundaries. Lobster traps	No change	Yes		More on-island enforcement presence needed				
Santa Barbara and Ventura (Santa Barbara Channel)	Anacapa Island Special Closure	No net or trap may be used in waters less than 20 feet deep. Brown Pelican closure from Portuguese Rock to Frenchy's Cove 1/1- 10/31	Brown pelican area makes it difficult for Island Packers and others to land legally at Frenchy's	Add exemption to allow access/landing Frenchy's Cove	Yes	Intent was to allow landing at Frenchy's Cove but aligning brown pelican closure with SMR/SMCA boundary closed off access to safe landing		Greg Helms		Allowed Activity Change	
Santa Barbara and Ventura (Santa Barbara Channel)	Anacapa Island Special Closure	No net or trap may be used in waters less than 20 feet deep. Brown Pelican closure from Portuguese Rock to Frenchy's Cove 1/1- 10/32	Depth hard to enforce due to sheer drop off from island	Reassess need for Special Closure and consider removing if not justified	Yes	May only need brown pelican closure rather than full island special closure to protect seabirds		Greg Helms		Allowed Activity Change	Yes, would remove special closure
Santa Barbara and Ventura (Santa Barbara Channel)	Anacapa Island SFMCA	Rec take of spiny lobster and pelagic finfish. Commercial take of spiny lobster. Santa Ynez Band of Chumash exempt	Confusion regarding what "pelagic" means may lead to unlawful take	No change	Yes		Outreach needed around pelagics				
Santa Barbara and Ventura (Santa Barbara Channel)	Anacapa Island SFMR	No Take	Violations for unlawful take	No change	Yes						
Santa Barbara and Ventura (Santa Barbara Channel)	Footprint SFMR	No Take	Lots of violations. Boats drift in because they cannot anchor	Have state discuss with NMS changing federal area to FMCA to allow for take of pelagics	No	More data/justification needed				Take Allowance Change	Yes, would turn federal MRs into federal MCAs. No consensus
Santa Barbara and Ventura (Santa Barbara Channel)	Begg Rock SMR	No Take	The MPA violations here are commercial and come from experienced mariners	No change	Yes						
Santa Barbara and Ventura (Santa Barbara Channel)	Santa Barbara Island SFMR	No Take	Osborne Bank. CPFV/commercial lobster poaching. Overlapping jurisdictions	Have state discuss with NMS changing federal area to FMCA to allow for take of pelagics	No	More data/justification needed	M2 radar needed to monitor remote MPA			Take Allowance Change	Yes, would turn federal MRs into federal MCAs. No consensus
Los Angeles (Mainland)	Point Dume SMCA	Rec take by spearfishing of white seabass and pelagic finfish. Commercial take of swordfish by harpoon and coastal pelagic species by round haul net, brail gear, and light boat. Santa Ynez band exempt	Frequent noncompliance with MPAs and limited enforcement	Delete allowance for commercial take of Swordfish by harpoon	Yes	Swordfish fishing does not occur that close to shore	Additional enforcement personnel/efforts are needed	State Parks pending review; Heal the Bay		Take Allowance Change	
Los Angeles (Mainland)	Point Dume SMCA	Rec take by spearfishing of white seabass and pelagic finfish. Commercial take of swordfish by harpoon and coastal pelagic species by round haul net, brail gear, and light boat. Santa Ynez band exempt		Allow hook and line fishing for allowed method of take of white seabass and pelagic finfish	No	Lessening of protection/unclear impacts				Take Allowance Change	
Los Angeles (Mainland)	Point Dume SMR	No Take	Angle of eastern boundary is confusing/extends due west and is close to shore	No change	Yes		Use of surveyed boundary images in outreach can help address confusion with eastern boundary at Paradise Cove				
Los Angeles (Mainland)	Point Vicente No-Take SMCA	No Take	Frequent noncompliance with MPAs and limited enforcement	No change	Yes		Additional enforcement personnel/efforts are needed				

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Los Angeles (Mainland)	Point Vicente No-Take SMCA	No Take	Confusion of significance of purple designation	Keep allowance for maintenance but change color from purple to red for ease of public interpretation	Yes	Easier to explain "no take" if consistent with red SMR				Other	
Los Angeles (Mainland)	Abalone Cove SMCA	Rec take by spearfishing of white seabass and pelagic finfish; and market squid by hand-held dip net. Commercial take of swordfish by harpoon and coastal pelagic species by round haul net, brail gear, and light boat	Harmful tidepooling impacts/take from tidepools. Frequent noncompliance with MPAs and limited enforcement	Delete allowance for commercial take of swordfish by harpoon	Yes	Swordfish fishing does not occur that close to shore	Additional enforcement personnel/efforts are needed	Heal the Bay		Take Allowance Change	
Los Angeles (Mainland)	Abalone Cove SMCA	Rec take by spearfishing of white seabass and pelagic finfish; and market squid by hand-held dip net. Commercial take of swordfish by harpoon and coastal pelagic species by round haul net, brail gear, and light boat		Allow hook and line fishing for allowed method of take of white seabass and pelagic finfish	No	Lessening of protection/unclear impacts				Take Allowance Change	
Los Angeles (Catalina Island)	Arrow Point to Lion Head Point SMCA	All rec and commercial take allowed. Take of invertebrates prohibited	Poaching lobster and abalone. Hoop nets. Difficult to identify 1,000 feet from shore at Indian/Endemic Rock	No change	Yes		Need for a locally managed (research) buoy to mark 1,000 feet point				
Los Angeles (Catalina Island)	Blue Cavern Onshore No-Take SMCA	No Take. No anchor area in original refuge boundaries	Fishing/using hoop nets close to shore at Big Fisherman Cove. Poaching at Yellowtail Point and Bird Rock; Confusion around no anchor zone	Change purple to red for outreach purposes	Yes, only if all current maintenance/access activities are still allowed	Easier to explain "no take" if consistent with red SMR	Need for some boundary marker at Yellowtail Point. MPA Watch transect would help identify use/ compliance issues here			Other	
Los Angeles (Catalina Island)	Blue Cavern Offshore SMCA	Rec take of pelagic finfish by hook and line and spearfishing and white seabass by spearfishing and market squid by hand held dip net. Commercial take of pelagic finfish by hook and line and swordfish by harpoon	Take via illegal gear types	No change	Yes						
Los Angeles (Catalina Island)	Long Point SMR	No Take	Trolling through MPA occurs. Misconception that MPA is only close to shore. Rental boats go past Long Point and fish	Make a distance from shore rather than lat/long for ease of outreach. Cut off corner and flip and move west (offshore) to maintain size	Yes	Clearer outreach to trollers to stay certain distance from shore, IF maintains size				Boundary Change	
Los Angeles (Catalina Island)	Lover's Cove SMCA	Rec take by hook and line from the Cabrillo Mole is allowed. Feeding fish allowed	Fishing from shore at the ramp near the Mole. Angle is difficult at eastern boundary. Food torpedoes are shot from tourist subs to attract fish to windows	Remove allowance for feeding of fish	Yes	Against intent of MLPA, affecting behavior of fish/habitat; public safety issue as fish become more aggressive and bite				Allowed Activity Change	
Los Angeles (Catalina Island)	Casino Point No-Take SMCA	No Take. Feeding fish allowed	Boundaries don't match dive park buoys. Feeding fish may be incompatible use. 40- 50' depth at MPA line.	Remove allowance for feeding of fish.	Yes	Against intent of MLPA, affecting behavior of fish/habitat; public safety issue as fish become more aggressive and bite	Might need to utilize a weaning off process for fish used to being fed			Allowed Activity Change	
Los Angeles (Catalina Island)	Casino Point No-Take SMCA	No Take. Feeding fish allowed		Change purple to red for outreach purposes for outreach	Yes	Easier to explain "no take" if consistent with red SMR				Other	

County	MPA	Current Regs Summarized		Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
Los Angeles (Catalina Island)	Farnsworth Onshore_ SMCA	Rec take by spearfishing of white seabass and pelagic finfish; marline, tunas and dorado by trolling and market squid by hand held dip net. Commercial take of swordfish by harpoon, coastal pelagics by roundhaul net, brail gear and light boat	More difficult to assess whether poaching is occurring on the backside. Challenging/confusing for fishers	No change	Yes		More outreach to fishers needed on why deep habitat/fish are protected here				
Los Angeles (Catalina Island)	Earnsworth Offshore_ SMCA	Rec take of pelagic finfish by hook and line or by spearfishing; white seabass by spearfishing; marlin, tunas and dorado by trolling and market squid by hand held dip net. Commercial take of swordfish by harpoon, coastal pelagics by roundhaul net, brail gear and light boat	CPFVs (party boats) are seen illegally fishing in Farnsworth Offshore SMCA, moving out if they see the CDFW patrol boat approaching. Regs restricting take of rockfish can be confusing for fishers/challenging to prove rockfish on board was taken outside	No change	Yes						
Los Angeles (Catalina Island)	Cat Harbor SMCA	Rec take of finfish by hook and line or by spearfishing, market squid by hook and line, and spiny lobster and sea urchin. Commercial take of sea cucumbers by diving only and spiny lobster and sea urchin. Aquaculture of finfish	Some take of undersized fish	No change	Yes						
Orange	Bolsa Bay SMCA	Rec take of finfish by hook and line from shore in designated areas only	Confusion between Bolsa Bay and Bolsa Chica Basin MPAs	Potentially combine Bolsa Bay with Bolsa Chica Basin MPAs?	No	State Lands requirement to have fishing				Boundary Change	Yes, would change from SMCA to SMR. No consensus
Orange	Bolsa Chica Basin No- Take SMCA	No Take. Allows for maintenance of artificial structures	Water management infrastructure is failing - needs management and repairs. Shoaling and potential closing of inlet - need cost effective alternative to dredging and \$ to implement. Could ultimately change boundaries of MPAs	MPA should cover all waters in ecological reserve. Move northeastern boundary to Graham	Yes	Makes enforcement easier so CDFW can cite for unlawful fishing using 632 instead of no trespassing		OC Coastkeeper	Wendy Berube	Boundary Change	
Orange	Bolsa Chica Basin No- Take SMCA	No Take. Allows for maintenance of artificial structures	Confusion between Bolsa Bay and Bolsa Chica Basin MPA regulations and whether take is allowed. Bridge inconsistency	Change purple to red for outreach purposes	Yes	Easier to explain "no take" if consistent with red SMR		OC Coastkeeper	Wendy Berube	Other	
Orange	Upper Newport Bay SMCA	Rec take of finfish by hook and line from shore in designated areas only	Ecological Reserve and MPA overlapping jurisdiction. Fishing from floats by PCH bridge and using gill nets at Jamboree Bridge; kayak fishing	No change	Yes		Harbor and estuary signs needed at Newport Dunes. Additional enforcement personnel/efforts are needed				
Orange	Crystal Cove SMCA	Rec take of finfish by hook and line or by spearfishing and spiny lobster and sea urchin. Commercial take of sea urchin, spiny lobster by trap, and coastal pelagic species by round haul net, brail gear and light boat	Harmful tidepooling and undersized lobster. Nighttime poaching. Angle is difficult at southern boundary	Better define tidepool definition to encompass rocky intertidal habitat	Yes	"Area encompassing the rocky pools" is confusing, makes it sounds like it is only the pools, not intertidal zone when dry	Night vision for State Parks officers to address nighttime poaching	State Parks pending review; OC Coastkeeper	Wendy Berube	Language Change	

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Orange	Crystal Cove SMCA	Rec take of finfish by hook and line or by spearfishing and spiny lobster and sea urchin. Commercial take of sea urchin, spiny lobster by trap, and coastal pelagic species by round haul net, brail gear and light boat		Add "non-living, geological or cultural" marine resource to tidepool take prohibition for consistency with 632(a)1(C)	Yes	Clarifies tidepool protections to include rocks and shells		State Parks pending review; OC Coastkeeper	Wendy Berube	Language Change	
Orange	Laguna Beach SMR	No Take	Poaching in gated/private communities; angle is difficult at northern boundary	No change	Yes		More enforcement needed in private community. Bring back community scientist/anglers (i.e., CCFRP) to OC				
Orange	Laguna Beach No-Take SMCA	No Take. Maintenance allowed	Angle is difficult at southern boundary	Change purple to red for outreach purposes	Yes	Easier to explain "no take" if consistent with red SMR	Produce map that has layer that shows allowed maintenance/artificial structures and scientific take	OC Coastkeeper	Wendy Berube	Other	
Orange	Dana Point SMCA	Rec take of finfish by hook and line or by speaffishing and spiny lobster and sea urchin. Commercial take of sea urchin, spiny lobster by trap, and coastal pelagic species by round haul net, brail gear and light boat. Tidepools protected	Fishing without a license. Night poaching at 3 Arch. Take of limpets at north end. Shift in fishing pressure. Angle is difficult at southern boundary. Harmful tidepooling	Add "non-living, geological or cultural" marine resource to tidepool take prohibition for consistency with 632(a)1(C)	Yes	Clarifies tidepool protections to include rocks and shells		OC Coastkeeper	Wendy Berube	Language Change	
Orange	Dana Point SMCA	Rec take of finfish by hook and line or by speaffishing and spiny lobster and sea urchin. Commercial take of sea urchin, spiny lobster by trap, and coastal pelagic species by round haul net, brail gear and light boat. Tidepools protected		Better define tidepool definition to encompass rocky intertidal habitat or utilize a different term.	Yes	Tidepools are specific to pools but intertidal habitats protected can be free of pools in some cases. "Area encompassing the rocky pools" is unclear whether all rocky intertidal habitat is included here.		OC Coastkeeper	Wendy Berube	Language Change	
San Diego	Batiquitos Lagoon No- Take SMCA	No take. Boating, swimming, wading and diving prohibited	Confusion between ecological reserve regulations west of 5 and MPA regulations east of 5	Expand SMCA west of I-5 bridge to encompass all of ecological reserve	No	Expands MPA size, unclear on impacts to recreational fishing				Boundary Change	
San Diego	Batiquitos Lagoon No- Take SMCA	No take. Boating, swimming, wading and diving prohibited		Change to blue SMCA with designated fishing areas	Maybe	If does not reduce fishing opportunities under I-5 and 101 bridges, or lessen existing protections				Take Allowance Change	Yes, would change from No-Take SMCA to SMCA
San Diego	Batiquitos Lagoon No- Take SMCA	No take. Boating, swimming, wading and diving prohibited		Change purple to red for outreach purposes if boundaries remain the same	Yes	Easier to explain "no take" if consistent with red SMR				Other	
San Diego	Swami's SMCA	Rec take by hook and line from shore and rec take by spearfishing of white seabass and pelagic finfish	Harmful tidepooling, especially at Seaside reef. Enforcement for take of lobster is hard at southern boundary since it splits 2 jurisdictions and the reef (hard to know where they are actually taking from and who is responsible for enforcing what.)	Move southern boundary to jurisdictional boundary between State Parks and City of Solana Beach for full tidepool protection of reef	No	Increases size of MPA, reducing fishing access, and may impact take of halibut				Boundary Change	
San Diego	Swami's SMCA	Rec take by hook and line from shore and rec take by spearfishing of white seabass and pelagic finfish	,	Shift entire shape south (lifeguard tower to state/Solana Beach line to cover tidepool on south side)	Yes	Compromise. Keeps same size MPA but covers impacted tidepool area on southern boundary. Lifeguard tower clear boundary at north end		State Parks pending review; Wildcoast		Boundary Change	

County	MPA	Current Regs Summarized	Compliance concerns and/or management problem identified	Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
San Diego	San Elijo Lagoon No Take SMCA	No take. Boating, swimming, wading and diving prohibited	Lots of people fishing at entrance to San Elijo lagoon under bridge and in channel	Move boundary to west side of the bridge (prohibiting fishing under the bridge) as long as accommodations are allowed for dredging	Yes	Signs are currently posted on west side of bridge to prohibit people from entering the San Elijo Lagoon. Makes outreach clearer		State Parks pending review; Wildcoast		Boundary Change	
San Diego	San Elijo Lagoon No Take SMCA	No take. Boating, swimming, wading and diving prohibited		Change purple to red for outreach purposes	Yes	Easier to explain "no take" if consistent with red SMR				Other	
San Diego	San Dieguito Lagoon SMCA	Rec take of finfish by hook and line from shore. Boating, swimming, wading and diving prohibited	Confusion between ecological reserve boundaries and regulations and MPA boundaries and regulations. Speculation that extent of water has changed since restoration. Original intent of 632 was to align with 630 in overlapping waters. Non-MPA areas are more restrictive which leads to confusion.	Have MPA cover all water within ecological reserve.	Need more information	Check with Joint Power authority because would lessen protections if SMCA (that allows fishing) is expanded to all state waters	Sea level rise impacts should be considered			Boundary Change	
San Diego	San Diego-Scripps Coastal SMCA	Rec take of coastal pelagic species, except market squid, by hook and line only	Harmful tidepooling. People using gear types for fishing for species other than coastal pelagics but gear type cannot assume intent. Makes enforcement difficult. Also safety concerns with surf casters into high use swim/surf area	Add, "except from shore" to prohibit surf hook and line	Yes	Surf fishing from shore causes safety concerns (hooks getting caught on surfers/swimmers). Still allows kayakers to fish for bait fish on way out, which was original intent				Take Allowance Change	
San Diego	Matlahuayl SMR	No Take	Harmful tidepooling. Kayak fishing. Caves are being defaced/ graffitied	Add place name (La Jolla) to traditional Kumeyaay name (Matlahuayl)	No	Keep Kumeyaay name only for Tribal acknowledgement. Would also add confusion between other La Jolla MPAs	More focused patrols on caves in La Jolla to address littering/defacement of MPA			Language Change	
San Diego	South La Jolla SMR	No Take	Most highly cited MPA. Poaching of lobster and offshore fishing. Harmful tidepooling. Challenges of parking and access (coastline related challenges due to sea level rise, climate disturbance)	No change	Yes	Focus on local management/outreach/ enforcement	Need for more focus on tidepools (outreach/ enforcement). More staff for allied agencies to help enforce. Encourage city to maintain safe accessways and deal with coastal erosion problems. More education on marine mammal disturbance				
San Diego	South La Jolla SMCA	Rec take of pelagic finfish by hook and line only		No change	Yes						
San Diego	Famosa Slough No Take SMCA	No Take	Homeless encampments. Construction run-off. Dogs and cats disturbing birds	Change purple to red for outreach purposes	Yes	Easier to explain "no take" if consistent with red SMR				Other	
San Diego	<u>Cabrillo SMR</u>	No Take	Harmful tidepooling. Offshore boats but NPS unable to contact other than through megaphone	Work with Kumeyaay to rename MPA to traditional Kumeyaay name	Yes	Kumeyaay name exists for this location. Need to confirm spelling	Additional enforcement personnel/efforts are needed			Language Change	
San Diego	Tijuana River Estuary SMCA	Rec take of coastal pelagic species, except market squid, by hand held dip net. Commercial take of coastal pelagics, except market squid by round haul net	Difficult take regulations to interpret in the field and take by hand held dip net not really occurring, per Imperial Beach lifeguards	No change							



Tracking Number: (_2023-22MPA_)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1. Orange County Coastkeeper

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Address: 3151 Airway Ave. Suite F-110, Costa Mesa, CA 92626

Telephone number: (949) 291-0809 Email address: wendy@coastkeeper.org

2. Rulemaking Authority (Required) - Reference to the statutory or constitutional authority of the Commission to take the action requested: Authority cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code.

3. Overview (Required) -

- a. In both the Bolsa Chica Basin and Laguna Beach no-take SMCAs, change the purple to red on outreach maps. See rows 150 and 155 on the MPA Collaborative Network Regulatory Recommendations spreadsheet. All items listed in the spreadsheet have been extensively discussed at OCMPAC meetings. The groups reached a consensus at a dedicated regulatory recommendations meeting with broad community representation.
- b. For Crystal Cove and Dana Point SMCAs, add "non-living, geological or cultural" to marine resource tidepool take prohibition for consistency with 632(a)1(C). See rows 153 and 156 on the MPA Collaborative Network Regulatory Recommendations spreadsheet.
- c. For the Crystal Cove and Dana Point SMCAs, change the description of tidepools to "rocky intertidal zone" with a modified definition, "the rocky intertidal zone includes all hard substrate between the highest high tide and lowest low tide." This definition is provided by Dr. Jayson Smith, professor of intertidal biology at Cal Poly Pomona. See rows 152 and 157 on the MPA Collaborative Network Regulatory Recommendations spreadsheet.



FGC 1 (Rev 06/19) Page 2 of 4

d. In all Orange County MPAs, with the exception of Upper Newport Bay, add an amendment that "Scientific research, monitoring, restoration, and education is allowed pursuant to any required federal, state or local permits, or as otherwise authorized by the department." Upper Newport Bay already has a similar amendment, which is why it is being excluded from this request: CCR Title 14 Section 632(132)(D): "(D) Maintenance dredging, habitat restoration, research and education programs, maintenance of artificial structures, and operation and maintenance of existing facilities inside the conservation area is allowed pursuant to any required federal, state and local permits, or activities pursuant to Section 630, or as otherwise authorized by the department."

4. Rationale (Required) -

- a. A no-take SMCA has the same rules for the public as do the SMRs. It is easier for the public to understand the regulations when there are fewer designations. Right now, there is confusion over what the purple area means on the maps that we use for outreach. It would simplify the rules if all no-take areas were red. It is anticipated that other MPA Collaborative members will be submitting similar petitions across the South Coast region. This change supports Decadal Review Prioritized Recommendation #15.
- b. This clarifies that the tidepool protection also includes rocks and shells. Our enforcement partners have reported many people taking rocks and shells from the MPA. These are important abiotic ecosystem resources and should be explicitly protected.
- c. Tidepools are specific to pools but the intertidal habitats that need protection can be free of pools in some cases. "Area encompassing the rocky pools" is unclear to the public that all rocky intertidal habitat is included here.
- d. It has been widely recognized in OCMPAC meetings as well as in the Decadal Review process that it is extremely difficult to obtain permits to do research, monitoring, and restoration within our MPAs. These practices have been permitted in other coastal MPAs, such as nearby San Elijo Lagoon, where restoration efforts successfully restored the lagoon and coastal dune living shoreline. With climatic uncertainty and sea level rise, it is imperative that we are able to respond quickly to any changes with current and accurate scientific data. In Orange County, all of the rocky intertidal and reef habitats are protected by the MPAs, so there is absolutely no other option for scientific study of this habitat. When we do identify problems and solutions through research, we need to be able to implement those solutions quickly. In many cases, the appropriate response is restoration. To ensure the ecological integrity of the Orange County MPAs, we must permit scientific research, monitoring, and restoration. This knowledge will broaden our understanding of OC MPAs under climatic stress. This change supports Decadal Review Prioritized Recommendations # 11, 17, 25, and 6.

SECTION II: Optional Information

5. Date of Petition: 11/29/2023

6. Category of Proposed Change

Ш	Sport Fishing
	Commercial Fishing

□ Hunting

PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 3 of 4

➤ Other, please specify: MPAs, Section 632.

7. The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs)

Amend Title 14 Section(s): Westlaw regulations.

☐ Add New Title 14 Section(s):

☐ Repeal Title 14 Section(s):

- 8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition.
 Or ➤ Not applicable.
- **9. Effective date**: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency:
- **10. Supporting documentation:** Identify and attach to the petition any information supporting the proposal including data, reports and other documents:
 - a. MPA Collaborative Network Regulatory Recommendations Spreadsheet
 - b. Letter of support from Dr. Jayson Smith of Cal Poly Pomona
 - c. Letter of support from Nancy Caruso, Executive Director of Get Inspired, Inc.
 - d. Letter of support from Michael C Couffer, Lead Biologist at Grey Owl Biological Consulting
 - e. Letter of support from Dr. Wendy Marshall Lovell, President and CEO of the Ocean Institute
 - f. Letter of support from Jessica Brasher, Director of Husbandry and Facilities for the Ocean Institute
 - g. Letter of support from Stacey Chartier-Grable, Founder and Director or OC Habitats
 - h. Letter of support from the El Modena Ecological Research Class
 - i. Letter of support from the STEM educators at Warner Middle School
 - j. Letter of support from Don Cruse
 - k. Letter of support from Marius Stanoiu
 - I. Letter of support from Noel Besuzzi
 - m. Letter of support from Kyle Jenkins
 - n. Letter of support from John Phibbs
 - o. Letter of support from Barbara Sarp
- 11. Economic or Fiscal Impacts: Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, Letter of support from other state agencies, local agencies, schools, or housing. The only fiscal impact would be the cost to reprint any outreach materials with the new red colors on the map.
- **12. Forms:** If applicable, list any forms to be created, amended or repealed:



SECTION 3: FGC Staff Only

Date received: 11/29/2023
FGC staff action:
☐ Accept - complete
☐ Reject - incomplete
☐ Reject - outside scope of FGC authority
Tracking Number
Date petitioner was notified of receipt of petition and pending action:
Meeting date for FGC consideration:
FGC action:
☐ Denied by FGC
☐ Denied - same as petition
Tracking Number
☐ Granted for consideration of regulation change

County	MPA	Current Regs Summarized	Compliance concerns and/or management problem identified	Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
Orange	Bolsa Bay SMCA	Rec take of finfish by hook and line from shore in designated areas only	Confusion between Bolsa Bay and Bolsa Chica Basin MPAs	Potentially combine Bolsa Bay with Bolsa Chica Basin MPAs?	No	State Lands requirement to have fishing				Boundary Change	Yes, would change from SMCA to SMR. No consensus
Orange	Bolsa Chica Basin No Take SMCA	No Take. Allows for maintenance of artificial structures	Water management infrastructure is failing - needs management and repairs. Shoaling and potential closing of inlet - need cost effective alternative to dredging and \$ to implement. Could ultimately change boundaries of MPAs	MPA should cover all waters in ecological reserve. Move northeastern boundary to Graham	Yes	Makes enforcement easier so CDFW can cite for unlawful fishing using 632 instead of no trespassing				Boundary Change	
Orange	Bolsa Chica Basin No- Take SMCA	No Take. Allows for maintenance of artificial structures	Confusion between Bolsa Bay and Bolsa Chica Basin MPA regulations and whether take is allowed. Bridge inconsistency	Change purple to red for outreach purposes	Yes	Easier to explain "no take" if consistent with red SMR		OC Coastkeeper	Wendy Berube	Other	
Orange	Upper Newport Bay SMCA	Rec take of finfish by hook and line from shore in designated areas only	Ecological Reserve and MPA overlapping jurisdiction. Fishing from floats by PCH bridge and using gill nets at Jamboree Bridge; kayak fishing	No change	Yes		Harbor and estuary signs needed at Newport Dunes. Additional enforcement personnel/efforts are needed				
Orange	Crystal Cove SMCA	Rec take of finfish by hook and line or by spearfishing and spiny lobster and sea urchin. Commercial take of sea urchin, spiny lobster by trap, and coastal pelagic species by round haul net, brail gear and light boat	Harmful tidepooling and undersized lobster. Nighttime poaching, Angle is difficult at southern boundary	Better define tidepool definition to encompass rocky intertidal habitat	Yes	"Area encompassing the rocky pools" is confusing, makes it sounds like it is only the pools, not intertidal zone when dry	Night vision for State Parks officers to address nighttime poaching	State Parks pending review; OC Coastkeeper	Wendy Berube	Language Change	
Orange	Crystal Cove SMCA	Rec take of finfish by hook and line or by spearfishing and spiny lobster and sea urchin. Commercial take of sea urchin, spiny lobster by trap, and coastal pelagic species by round haul net, brail gear and light boat		Add "non-living, geological or cultural" marine resource to tidepool take prohibition for consistency with 632(a)1(C)	Yes	Clarifies tidepool protections to include rocks and shells		State Parks pending review; OC Coastkeeper	Wendy Berube	Language Change	
Orange	Laguna Beach SMR	No Take	Poaching in gated/private communities; angle is difficult at northern boundary	No change	Yes		More enforcement needed in private community. Bring back community scientist/anglers (i.e., CCFRP) to OC				

Orange	Laguna Beach No- Take SMCA	No Take. Maintenance allowed	Angle is difficult at southern boundary	Change purple to red for outreach purposes	Yes	Easier to explain "no take" if consistent with red SMR	Produce map that has layer that shows allowed maintenance/artificial structures and scientific take	OC Coastkeeper	Wendy Berube	Other	
Orange	Dana Point SMCA	Rec take of finfish by hook and line or by spearfishing and spiny lobster and sea urchin. Commercial take of sea urchin, spiny lobster by trap, and coastal pelagic species by round haul net, brail gear and light boat. Tidepools protected	Fishing without a license. Night poaching at 3 Arch. Take of limpets at north end. Shift in fishing pressure. Angle is difficult at southern boundary. Harmful tidepooling	Add "non-living, geological or cultural" marine resource to tidepool take prohibition for consistency with 632(a)1(C)	Yes	Clarifies tidepool protections to include rocks and shells		OC Coastkeeper	Wendy Berube	Language Change	
Orange	Dana Point SMCA	Rec take of finfish by hook and line or by spearfishing and spiny lobster and sea urchin. Commercial take of sea urchin, spiny lobster by trap, and coastal pelagic species by round haul net, brail gear and light boat. Tidepools protected		Better define tidepool definition to encompass rocky intertidal habitat or utilize a different term.	Yes	Tidepools are specific to pools but intertidal habitats protected can be free of pools in some cases. "Area encompassing the rocky pools" is unclear whether all rocky intertidal habitat is included here.		OC Coastkeeper	Wendy Berube	Language Change	

Re: Support for OC Coastkeeper Petition to allow scientific research, monitoring, education, and restoration in Orange County Marine Protected Areas

Dear President Sklar and Commissioner Murray,

Justice alle

The El Modena Ecological Research Class submit these comments in support of Orange County Coastkeeper's petition regarding adding an amendment for Orange County Marine Protected Areas (MPAs) allowing for scientific research, monitoring, education, and restoration within the MPAs. The El Modena Ecological Research Class are committed to coastal protection, the marine protected area (MPA) network, and the advancement of science to understand and address impending climate change challenges.

Orange County beaches have some of the most beautiful coves and rocky tide pools found anywhere in the world. Visitation is high, and therefore the protection offered by the MPAs is vital. However, there is still a lot we do not understand about how these areas are being affected by warming water and rising sea levels, among other climate change uncertainties. It is therefore imperative that we study these habitats and understand how to best protect them. We also need to be able to move quickly to enact solutions should they be needed.

To help scientists access permits to conduct research, establish monitoring protocols, and implement restoration if necessary, we urge the commission to add an amendment to all MPAs within Orange County with the exception of Upper Newport Bay that states, "Scientific research, monitoring, restoration, and education is allowed pursuant to any required federal, state or local permits, or as otherwise authorized by the department." Upper Newport Bay already has a similar amendment, so it is not necessary to include that MPA.

We enthusiastically support California's MPA Network. In the case of Orange County MPAs, we assert that scientific study, monitoring, and possible restoration are needed to preserve the area's biodiverse marine life in light of changing climatic conditions for future generations.

Sincerely,

Re: Support for OC Coastkeeper Petition to allow scientific research, monitoring, education, and restoration in Orange County Marine Protected Areas

Dear President Sklar and Commissioner Murray,

The El Modena Ecological Research Club submit these comments in support of Orange County Coastkeeper's petition regarding adding an amendment for Orange County Marine Protected Areas (MPAs) allowing for scientific research, monitoring, education, and restoration within the MPAs. The El Modena Ecological Research Club are committed to coastal protection, the marine protected area (MPA) network, and the advancement of science to understand and address impending climate change challenges.

Orange County beaches have some of the most beautiful coves and rocky tide pools found anywhere in the world. Visitation is high, and therefore the protection offered by the MPAs is vital. However, there is still a lot we do not understand about how these areas are being affected by warming water and rising sea levels, among other climate change uncertainties. It is therefore imperative that we study these habitats and understand how to best protect them. We also need to be able to move quickly to enact solutions should they be needed.

To help scientists access permits to conduct research, establish monitoring protocols, and implement restoration if necessary, we urge the commission to add an amendment to all MPAs within Orange County with the exception of Upper Newport Bay that states, "Scientific research, monitoring, restoration, and education is allowed pursuant to any required federal, state or local permits, or as otherwise authorized by the department." Upper Newport Bay already has a similar amendment, so it is not necessary to include that MPA.

We enthusiastically support California's MPA Network. In the case of Orange County MPAs, we assert that scientific study, monitoring, and possible restoration are needed to preserve the area's biodiverse marine life in light of changing climatic conditions for future generations.

Sincerely, Monny Reberth, Rigard toyilar, Muther Telabry

California Fish and Game Commission

P.O. Box 944209

Sacramento, CA 94244-2090

Re: Support for OC Coastkeeper Petition to allow scientific research, monitoring, education, and restoration in Orange County Marine Protected Areas

Dear President Sklar and Commissioner Murray,

On behalf of the Ocean Institute, I, Jessica Brasher, submit these comments in support of Orange County Coastkeeper's petition regarding adding an amendment for Orange County Marine Protected Areas (MPAs) allowing for scientific research, monitoring, education, and restoration within the MPAs. The Ocean Institute is committed to coastal protection, the marine protected area (MPA) network, and the advancement of science to understand and address impending climate change challenges.

Orange County beaches have some of the most beautiful coves and rocky tide pools found anywhere in the world. Visitation is high, and therefore the protection offered by the MPAs is vital. However, there is still a lot we do not understand about how these areas are being affected by warming water and rising sea levels, among other climate change uncertainties. It is therefore imperative that we study these habitats and understand how to best protect them. We also need to be able to move quickly to enact solutions should they be needed.

To help scientists access permits to conduct research, establish monitoring protocols, and implement restoration if necessary, we urge the commission to add an amendment to all MPAs within Orange County with the exception of Upper Newport Bay that states, "Scientific research, monitoring, restoration, and education is allowed pursuant to any required federal, state or local permits, or as otherwise authorized by the department." Upper Newport Bay already has a similar amendment, so it is not necessary to include that MPA.

We enthusiastically support California's MPA Network. In the case of Orange County MPAs, we assert that scientific study, monitoring, and possible restoration are needed to preserve the area's biodiverse marine life in light of changing climatic conditions for future generations.

Sincerely,

Jessica Brasher Director of Husbandry and Facilities Ocean Institute

11/27/23



California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Support for OC Coastkeeper Petition to allow scientific research, monitoring, education, and restoration in Orange County Marine Protected Areas

Dear President Sklar and Commissioner Murray,

Get Inspired, Inc has been working on restoration projects in Orange County since 2011, educating over 12,000 students and involving 1,000 community volunteers to survey and restore species to our coast. We submit these comments in support of Orange County Coastkeeper's petition regarding adding an amendment for Orange County Marine Protected Areas (MPAs) allowing for scientific research, monitoring, education, and restoration within the MPAs.

Orange county's rocky reefs are all included in the MPA network, making it very difficult to request permission for monitoring, research, and restoration. These reefs are unique because of the orientation of our coast and high human impacts due to fishing pressure and tidepooling activities. It is therefore imperative that we study these habitats and understand how to best protect them. We also need to be able to move quickly to enact solutions should they be needed and restore species which are missing from these reefs.

To help scientists access permits to conduct research, establish monitoring protocols, and implement restoration activities, we urge the commission to add an amendment to all MPAs within Orange County, with the exception of Upper Newport Bay, that states "Scientific research, monitoring, restoration, and education is allowed pursuant to any required federal, state or local permits, or as otherwise authorized by the department." Upper Newport Bay already has a similar wording.

We enthusiastically support California's MPA Network. In the case of Orange County MPAs, we assert that scientific study, monitoring, and restoration are needed to preserve the area's biodiverse marine life in light of changing climatic conditions for future generations.

Sincerely,

Executive Director Get Inspired, Inc

www.getinspiredinc.org

Mancy L. Conuso

714-206-5147

Re: Support for OC Coastkeeper Petition to allow scientific research, monitoring, education, and restoration in Orange County Marine Protected Areas

Dear President Sklar and Commissioner Murray,

I, Marius Stanoiu, submit these comments in support of Orange County Coastkeeper's petition regarding adding an amendment for Orange County Marine Protected Areas (MPAs) allowing for scientific research, monitoring, education, and restoration within the MPAs. I, Marius Stanoiu, am committed to coastal protection, the marine protected area (MPA) network, and the advancement of science to understand and address impending climate change challenges.

Orange County beaches have some of the most beautiful coves and rocky tide pools found anywhere in the world. Visitation is high, and therefore the protection offered by the MPAs is vital. However, there is still a lot we do not understand about how these areas are being affected by warming water and rising sea levels, among other climate change uncertainties. It is therefore imperative that we study these habitats and understand how to best protect them. We also need to be able to move quickly to enact solutions should they be needed.

To help scientists access permits to conduct research, establish monitoring protocols, and implement restoration if necessary, we urge the commission to add an amendment to all MPAs within Orange County with the exception of Upper Newport Bay that states, "Scientific research, monitoring, restoration, and education is allowed pursuant to any required federal, state or local permits, or as otherwise authorized by the department." Upper Newport Bay already has a similar amendment, so it is not necessary to include that MPA.

We enthusiastically support California's MPA Network. In the case of Orange County MPAs, we assert that scientific study, monitoring, and possible restoration are needed to preserve the area's biodiverse marine life in light of changing climatic conditions for future generations.

Sincerely, Marius Stanoiu



716 Marguerite Avenue, Corona del Mar, California 92625 (949) 644-7127 mikecouffer@gmail.com

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090 November 27, 2023

Re: Support for OC Coastkeeper Petition to allow scientific research, monitoring, education, and restoration within Orange County's Marine Protected Areas

Dear President Sklar and Commissioner Murray,

Grey Owl Biological Consulting submits these comments in support of Orange County Coastkeeper's petition to add an amendment for Orange County Marine Protected Areas (MPAs) allowing for scientific research, monitoring, education, and restoration within the MPAs. My company is committed to coastal protection, supporting the marine protected area (MPA) network, and the advancement of science to understand and address impending climate change challenges.

Orange County beaches have some of the most beautiful coves and rocky tide pools found anywhere in the world. Visitation is high, and therefore the protection offered by the MPAs is vital. However, there is still a lot we do not understand about how these areas are being affected by warming water and rising sea levels, among other climate change uncertainties. It is therefore imperative that we study these habitats and understand how to best protect them. We also need to be able to move quickly to enact solutions should they be needed.

To help scientists access permits to conduct research, establish monitoring protocols, and implement restoration if necessary, we urge the commission to add an amendment to all MPAs within Orange County with the exception of Upper Newport Bay that states, "Scientific research, monitoring, restoration, and education is allowed pursuant to any required federal, state or local permits, or as otherwise authorized by the department." Upper Newport Bay already has a similar amendment, so it is not necessary to include that MPA.

We enthusiastically support California's MPA Network. In the case of Orange County MPAs, we assert that scientific study, monitoring, and possible restoration are needed to preserve the area's biodiverse marine life in light of changing climatic conditions for future generations.

Sincerely,

Michael C. Couffer

Owner and Senior Biologist

Grey Owl Biological Consulting

Re: Support for OC Coastkeeper Petition to allow scientific research, monitoring, education, and restoration in Orange County Marine Protected Areas

Dear President Sklar and Commissioner Murray,

I Marvin D Cruse submit these comments in support of Orange County Coastkeeper's petition regarding adding an amendment for Orange County Marine Protected Areas (MPAs) allowing for scientific research, monitoring, education, and restoration within the MPAs. I Marvin D Cruse are committed to coastal protection, the marine protected area (MPA) network, and the advancement of science to understand and address impending climate change challenges.

Orange County beaches have some of the most beautiful coves and rocky tide pools found anywhere in the world. Visitation is high, and therefore the protection offered by the MPAs is vital. However, there is still a lot we do not understand about how these areas are being affected by warming water and rising sea levels, among other climate change uncertainties. It is therefore imperative that we study these habitats and understand how to best protect them. We also need to be able to move quickly to enact solutions should they be needed.

To help scientists access permits to conduct research, establish monitoring protocols, and implement restoration if necessary, we urge the commission to add an amendment to all MPAs within Orange County with the exception of Upper Newport Bay that states, "Scientific research, monitoring, restoration, and education is allowed pursuant to any required federal, state or local permits, or as otherwise authorized by the department." Upper Newport Bay already has a similar amendment, so it is not necessary to include that MPA.

We enthusiastically support California's MPA Network. In the case of Orange County MPAs, we assert that scientific study, monitoring, and possible restoration are needed to preserve the area's biodiverse marine life in light of changing climatic conditions for future generations.

Sincerely, Masoa D. Crust

Re: Support for OC Coastkeeper Petition to allow scientific research, monitoring, education, and restoration in Orange County Marine Protected Areas

Dear President Sklar and Commissioner Murray,

The am submitting these comments in support of Orange County Coastkeeper's petition regarding adding an amendment for Orange County Marine Protected Areas (MPAs) allowing for scientific research, monitoring, education, and restoration within the MPAs.

Orange County beaches have some of the most beautiful coves and rocky tide pools found anywhere in the world. Visitation is high, and therefore the protection offered by the MPAs is vital. However, there is still a lot we do not understand about how these areas are being affected by warming water and rising sea levels, among other climate change uncertainties. It is therefore imperative that we study these habitats and understand how to best protect them. We also need to be able to move quickly to enact solutions should they be needed.

To help scientists access permits to conduct research, establish monitoring protocols, and implement restoration if necessary, we urge the commission to add an amendment to all MPAs within Orange County with the exception of Upper Newport Bay that states, "Scientific research, monitoring, restoration, and education is allowed pursuant to any required federal, state or local permits, or as otherwise authorized by the department." Upper Newport Bay already has a similar amendment, so it is not necessary to include that MPA.

We enthusiastically support California's MPA Network. In the case of Orange County MPAs, we assert that scientific study, monitoring, and possible restoration are needed to preserve the area's biodiverse marine life in light of changing climatic conditions for future generations.

Sincerely,

Noel Besuzzi

Noel Besuzzi



The mission of OC Habitats™ (OCH) is to provide a public service for the many habitats of Orange County, California through conservation efforts, rehabilitation, restoration, education, outreach, volunteerism, monitoring, and partnering with other entities whose goal is to promote the preservation, conservation, and restoration of natural habitats and the species therein.

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Support for OC Coastkeeper Petition to allow scientific research, monitoring, education, and restoration in Orange County Marine Protected Areas

Dear President Sklar and Commissioner Murray,

OC Habitats submits these comments in support of Orange County Coastkeeper's petition regarding adding an amendment for [1] [2] Orange County Marine Protected Areas (MPAs) allowing for scientific research, monitoring, education, and restoration within the MPAs. OC Habitats is committed to coastal protection, the marine protected area (MPA) network, and the advancement of science to understand and address impending climate change challenges.

Orange County beaches have some of the most beautiful coves and rocky tide pools found anywhere in the world. Visitation is high, and therefore the protection offered by the MPAs is vital. However, there is still a lot we do not understand about how these areas are being affected by warming water and rising sea levels, among other climate change uncertainties. It is therefore imperative that we study these habitats and understand how to best protect them. We also need to be able to move quickly to enact solutions should they be needed.

To help scientists access permits to conduct research, establish monitoring protocols, and implement restoration if necessary, we urge the commission to add an amendment to all MPAs within Orange County with the exception of Upper Newport Bay that states, "Scientific research, monitoring, restoration, and education is allowed pursuant to any required federal, state or local permits, or as otherwise authorized by the department." Upper Newport Bay already has a similar amendment, so it is not necessary to include that MPA.

We enthusiastically support California's MPA Network. In the case of Orange County MPAs, we assert that scientific study, monitoring, and possible restoration are needed to preserve the area's biodiverse marine life in light of changing climatic conditions for future generations.

Sincerely,

Stacey Chartier-Grable
Executive Director and Founder

SChartier-Grable@ochabitats.ora



Re: Support for OC Coastkeeper Petition to allow scientific research, monitoring, education, and restoration in Orange County Marine Protected Areas

Dear President Sklar and Commissioner Murray,

I, Kyle Jenkins, a local citizen and avid ocean enthusiast, submit these comments in support of Orange County Coastkeeper's petition regarding adding an amendment for Orange County Marine Protected Areas (MPAs) allowing for scientific research, monitoring, education, and restoration within the MPAs. I strongly believe in and support coastal protection, the marine protected area (MPA) network, and the advancement of science to understand and address impending climate change challenges.

Orange County beaches have some of the most beautiful coves and rocky tide pools found anywhere in the world. Visitation is high, and therefore the protection offered by the MPAs is vital. However, there is still a lot we do not understand about how these areas are being affected by warming water and rising sea levels, among other climate change uncertainties. It is therefore imperative that we study these habitats and understand how to best protect them. We also need to be able to move quickly to enact solutions should they be needed.

To help scientists access permits to conduct research, establish monitoring protocols, and implement restoration if necessary, we urge the commission to add an amendment to all MPAs within Orange County with the exception of Upper Newport Bay that states, "Scientific research, monitoring, restoration, and education is allowed pursuant to any required federal, state or local permits, or as otherwise authorized by the department." Upper Newport Bay already has a similar amendment, so it is not necessary to include that MPA.

We enthusiastically support California's MPA Network. In the case of Orange County MPAs, we assert that scientific study, monitoring, and possible restoration are needed to preserve the area's biodiverse marine life in light of changing climatic conditions for future generations.

Sincerely,

Kyle Jenkins

Kyh Jankin

Re: Support for OC Coastkeeper Petition to allow scientific research, monitoring, education, and restoration in Orange County Marine Protected Areas

Dear President Sklar and Commissioner Murray,

I John Phibbs submit these comments in support of Orange County Coastkeeper's petition regarding adding an amendment for Orange County Marine Protected Areas (MPAs) allowing for scientific research, monitoring, education, and restoration within the MPAs. I John Phibbs are committed to coastal protection, the marine protected area (MPA) network, and the advancement of science to understand and address impending climate change challenges.

Orange County beaches have some of the most beautiful coves and rocky tide pools found anywhere in the world. Visitation is high, and therefore the protection offered by the MPAs is vital. However, there is still a lot we do not understand about how these areas are being affected by warming water and rising sea levels, among other climate change uncertainties. It is therefore imperative that we study these habitats and understand how to best protect them. We also need to be able to move quickly to enact solutions should they be needed.

To help scientists access permits to conduct research, establish monitoring protocols, and implement restoration if necessary, we urge the commission to add an amendment to all MPAs within Orange County with the exception of Upper Newport Bay that states, "Scientific research, monitoring, restoration, and education is allowed pursuant to any required federal, state or local permits, or as otherwise authorized by the department." Upper Newport Bay already has a similar amendment, so it is not necessary to include that MPA.

We enthusiastically support California's MPA Network. In the case of Orange County MPAs, we assert that scientific study, monitoring, and possible restoration are needed to preserve the area's biodiverse marine life in light of changing climatic conditions for future generations.

Sincerely,

John Philofy



Biological SciencesCollege of Science

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Support for OC Coastkeeper Petition to allow scientific research, monitoring, education, and restoration in Orange County Marine Protected Areas

Dear President Sklar and Commissioner Murray,

I am a professor and marine ecologist in the Biological Sciences department at California State Polytechnic University, Pomona and submit this letter in support of Orange County Coastkeeper's petition regarding adding an amendment for Orange County Marine Protected Areas (MPAs) allowing for scientific research, monitoring, education, and restoration within the MPAs. My research history and professional service, particularly with Orange County MPAs, show a long-standing commitment to coastal protection, the marine protected area (MPA) network, and the advancement of science to understand and address impending climate change challenges but recognize that fundamental research in MPAs still needs to be allowed and the process be made more streamlined.

Orange County beaches have some of the most beautiful coves and rocky tide pools found anywhere in the world. Visitation is high, and therefore the protection offered by the MPAs is vital. However, there is still a lot we do not understand about how these areas function naturally and how they are being affected by anthropogenic impacts, including climate change. It is therefore imperative that science be given the ability to robustly study these habitats and understand how to best protect them.

To help scientists access permits to conduct research, establish monitoring protocols, and implement restoration, if necessary, I urge the commission to add an amendment to all MPAs within Orange County with the exception of Upper Newport Bay that states, "Scientific research, monitoring, restoration, and education is allowed pursuant to any required federal, state or local permits, or as otherwise authorized by the department." Upper Newport Bay already has a similar amendment, so it is not necessary to include that MPA.

I enthusiastically support California's MPA Network. In the case of Orange County MPAs, I assert that scientific study, monitoring, and possible restoration are needed to preserve the area's biodiverse marine life in light of changing climatic conditions for future generations.

Sincerely,

Dr. Jayson Smith

Jayson Smith

Professor Department of Biological Science jaysonsmith@cpp.edu California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Support for OC Coastkeeper Petition to allow scientific research, monitoring, education, and restoration in Orange County Marine Protected Areas

Dear President Sklar and Commissioner Murray,

I'm writing in support of Orange County Coastkeeper's petition regarding adding an amendment for Orange County Marine Protected Areas (MPAs) allowing for scientific research, monitoring, education, and restoration within the MPAs. I'm committed to coastal protection, the marine protected area (MPA) network, and the advancement of science to understand and address impending climate change challenges.

Orange County beaches have some of the most beautiful coves and rocky tide pools found anywhere in the world. Visitation is high, and therefore the protection offered by the MPAs is vital. However, there is still a lot we do not understand about how these areas are being affected by warming water and rising sea levels, among other climate change uncertainties. It is therefore imperative that we study these habitats and understand how to best protect them. We also need to be able to move quickly to enact solutions should they be needed.

To help scientists access permits to conduct research, establish monitoring protocols, and implement restoration if necessary, we urge the commission to add an amendment to all MPAs within Orange County with the exception of Upper Newport Bay that states, "Scientific research, monitoring, restoration, and education is allowed pursuant to any required federal, state or local permits, or as otherwise authorized by the department." Upper Newport Bay already has a similar amendment, so it is not necessary to include that MPA.

We enthusiastically support California's MPA Network. In the case of Orange County MPAs, we assert that scientific study, monitoring, and possible restoration are needed to preserve the area's biodiverse marine life in light of changing climatic conditions for future generations.

Sincerely,

Barbara Sharp

Barbara Sharp



California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Support for OC Coastkeeper Petition to allow scientific research, monitoring, education, and restoration in Orange County Marine Protected Areas

Dear President Sklar and Commissioner Murray,

The Ocean Institute submits these comments in support of Orange County Coastkeeper's petition regarding adding an amendment for Orange County Marine Protected Areas (MPAs) allowing for scientific research, monitoring, education, and restoration within the MPAs. The Ocean Institute is committed to coastal protection, the marine protected area (MPA) network, and the advancement of science to understand and address impending climate change challenges.

Orange County beaches have some of the most beautiful coves and rocky tide pools found anywhere in the world. Visitation is high, and therefore the protection offered by the MPAs is vital. However, there is still a lot we do not understand about how these areas are being affected by warming water and rising sea levels, among other climate change uncertainties. It is therefore imperative that we study these habitats and understand how to best protect them. We also need to be able to move quickly to enact solutions should they be needed.

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We enthusiastically support California's MPA Network. In the case of Orange County MPAs, we assert that scientific study, monitoring, and possible restoration are needed to preserve the area's biodiverse marine life in light of changing climatic conditions for future generations.

Sincerely,

Dr. Wendy Leavell President/CEO

Ocean Institute

wendy@oceaninstitute.org

Woody Marshall

714.916.3464

California Fish and Game Commission

P.O. Box 944209

Sacramento, CA 94244-2090

Re: Support for OC Coastkeeper Petition to allow scientific research, monitoring, education, and restoration in Orange County Marine Protected Areas

Dear President Sklar and Commissioner Murray,

The STEM educators at Warner Middle School submit these comments in support of Orange County Coastkeeper's petition regarding adding an amendment for [Orange County Marine Protected Areas (MPAs) allowing for scientific research, monitoring, education, and restoration within the MPAs. The STEM educators at Warner Middle School are committed to coastal protection, the marine protected area (MPA) network, and the advancement of science to understand and address impending climate change challenges.

Orange County beaches have some of the most beautiful coves and rocky tide pools found anywhere in the world. Visitation is high, and therefore the protection offered by the MPAs is vital. However, there is still a lot we do not understand about how these areas are being affected by warming water and rising sea levels, among other climate change uncertainties. It is therefore imperative that we study these habitats and understand how to best protect them. We also need to be able to move quickly to enact solutions should they be needed.

To help scientists access permits to conduct research, establish monitoring protocols, and implement restoration if necessary, we urge the commission to add an amendment to all MPAs within Orange County with the exception of Upper Newport Bay that states, "Scientific research, monitoring, restoration, and education is allowed pursuant to any required federal, state or local permits, or as otherwise authorized by the department." Upper Newport Bay already has a similar amendment, so it is not necessary to include that MPA.

We enthusiastically support California's MPA Network. In the case of Orange County MPAs, we assert that scientific study, monitoring, and possible restoration are needed to preserve the area's biodiverse marine life in light of changing climatic conditions for future generations.

Sincerely,

Travis Garwick

Renee Balboa

Steve Lambright

Joe Acquarelli

Tracking Number: (_2023-23MPA__)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1. Person or organization requesting the change (Required)

Name of primary contact person: Keith Rootsaert

Address:

Telephone number: 408-206-0721 Email address: Keith@g2kr.com

- **2.** Rulemaking Authority (Required) Reference to the statutory or constitutional authority of the Commission to take the action requested: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code.
- **3. Overview (Required) -** Summarize the proposed changes to regulations:

Kelp Restoration

Multiple methods in 3 SMCAs and 1 SMR.

Kelp Protection by Redesignation

Edward F. Ricketts State Marine Conservation Area to Edward F. Ricketts State Marine Reserve.

Pacific Grove Marine Gardens State Marine Conservation Area to Pacific Grove Marine Gardens State Marine Reserve.

Carmel Bay State Marine Conservation Area to Carmel Bay State Marine Reserve.

Kelp Protection by Designation

The Tanker's Reef enforcement area as Tanker's Reef State Marine Reserve.

Permission to deploy buoys

Prevent anchor damage to rocky reef denizens,

Navigation aid for kelp restoration activities.

Regulatory Pathway for Sunken ship and other artificial reef structures

<u>SCP Framework Changes</u> Management of Kelp Restoration

<u>Public Outreach</u> Adopt a Reef for Kelp Restoration

4. Rationale (Required) - Describe the problem and the reason for the proposed change:

This <u>Giant Giant Kelp Restoration</u> petition advances MLPA <u>goals</u> 1-6 and has strong community support of volunteers and grassroots funding. The MPA Collaborative network <u>lists</u> many of these issues on rows 77, 78, 83, & 88, and was supported by all present at the Monterey MPA Collaborative Meeting at Asilomar, August 16, 2023.

This petition is in alignment with the <u>prioritized recommendations</u> from the California Marine Protected Area Decadal Management Review, <u>near-term Priorities (ongoing- 2 years)</u>, Cornerstone Governance, Regulatory and Review Framework, Recommendation 04. Apply what is learned from the first Decadal Management Review to support proposed changes to the MPA Network and Management Program. Also: Management Program, Policy and Permitting 18: Utilize OPC's Restoration and Mitigation Policy to develop a framework to evaluate and approve appropriate restoration and mitigation actions within MPAs and MMAs

Kelp Restoration

Due to widespread urchin barrens following the 2014-2016 marine heat wave and kelp biomass decline in central and northern California, kelp restoration is a proven remedy by scuba divers culling urchins to suppress grazing pressure. Early <u>results</u> at Tanker's Reef in Monterey have shown that divers culling urchins results in natural kelp recruitment and survival.

This petition will allow certified Kelp Restoration Specialty Divers, recreational and commercial fishermen, to participate in a Regenerative Fishery which suppresses grazing pressure from urchins and promotes giant kelp survival in three State Marine Conservation Areas: Edward F. Ricketts, Pacific Grove Marine Gardens, and Carmel Bay State Marine Conservation Areas and in "Whaler's Cove", a portion of the Point Lobos State Marine Reserve.

The methods will involve multiple techniques to suppress grazing pressure on kelp and to enhance kelp recruitment and survivorship and are explained in further detail in <u>Blueprint for Kelp Restoration in Monterey.</u>

Suppression:

Hand culling of urchins.

Commercial harvest of urchins for urchin ranching and food sales.

Baiting & trapping urchins.

Utilizing natural defenses of acid weed.



Removing invasive marine algae.

Benefitting:

Pruning kelp canopy to promote growth and resilience to storms.

Out-planting kelp on the reef.

Spore dispersal by sporophyte bags.

Artificial reef structures.

All the methods employed will be detailed, discussed, and approved by the Department and work would be performed in coordination with other restoration activities. Reef Check California is our monitoring partner and will perform modified kelp forest monitoring surveys of the treated sites and controls. Reports on the project criteria will be discussed bi-weekly with the Department and as requested by the FGC.

We are asking that these kelp restoration methods be permitted without a SCP both inside and outside MPAs and will involve changes to sportfishing regulations to allow unlimited culling of urchins by hand tools, deploying sporophyte bags, etc. We ask that recreational fishermen be allowed to trap, harvest, capture for research, and cull urchins. Commercial fishing regulations will require a restoration exception to harvesting urchins in MPAs and exemption to the <u>wanton</u> <u>waste rule</u> for kelp restoration activities to allow commercial fishermen to cull urchins that are below the 4.5 cm minimum useful harvest size or for commercial divers to alternate between commercial and recreational fishing.

Kelp Protection by Redesignation:

The MPAs were mapped without considering the possibility of a native invertebrate species becoming overabundant and gobbling up most of the algae in the ecosystem combined with the Department's unwillingness to address that crisis. Urchin barrens have occurred sporadically for millennia as evidenced by the millions of urchin-made holes in the benthos at Tanker's Reef. 250 years ago, when southern sea otters were nearly extirpated by the fur trade, the abalone and urchins flourished and for 125 years kelp disappeared from the central coast until abalone were eventually overfished and take banned south of San Francisco in 1997 and giant kelp again became dominant. in 2007, the central coast MPA rules were formed to prohibit the take of any invertebrates, relying on a written provision for "restoration" as an "allowed" activity in MPAs but the Department does not "permit" restoration because they have conjured a de facto contradictory 7th goal of MPAs to "not disturb" them.

In Monterey the community led group Giant Giant Kelp Restoration Project has successfully defended a kelp forest at Tanker's Reef and is aspiring to restore large kelp forests on both sides of the Monterey Peninsula by SCP. FGC would not consider petitions allowing take of invertebrates in the SMCAs & SMRs until the Decadal Management Review could be completed. Now that the DMR has passed, this petition is seeking to begin the Adaptive Management Review Cycle for the central coast MPAs that have remained unmodified since 2007.

Kelp forests need protection from fishing pressure which has detrimental effects on species richness and kelp biomass. By designating the areas of kelp restoration as State Marine Reserves, fishing pressure will be considerably reduced. This is safer for the volunteer divers involved to avoid fishing boat traffic or getting hooked by fishing gear while diving.

The MLPA is now administered in 3-year Adaptive Management Review Cycles and there is now flexibility in addressing the kelp crisis in a way that accomplishes the MLPA goals but also does not harm the environment in a long term, unforeseen and unwanted way that occurred on the central coast for the last 16 years. The G2KR projects at Lovers Cove and at Tanker's Reef demonstrated that the effort of the certified volunteer divers can be consistently and positively directed to restore kelp forests. Restoration work in these clearly described and familiar MPA boundaries would avoid confusion and guide diver effort in a predictable and effective strategy. In an Adaptive Management Review Cycle these methods can be continuously evaluated and adapted to the evolving stressors in the environment and as our knowledge, techniques, and capabilities at restoring kelp similarly evolve.

In future Adaptive Management Review Cycles the consequences of kelp restoration can be reviewed and the FGC may consider applying these methods more broadly, changing allowed methods, and allowing fishing under modified conditions. The other Monterey SMRs are acting as "controls" without treatment, but in the next review cycle we may ask for those SMRs to be treated as well in order to halt urchin migration and to achieve our goal, pledged to the Kelp Forest Alliance, to restore 2000 acres of giant kelp around the Monterey Peninsula by 2030.

Research shows the reduced fishing pressure in places where fish are born will be beneficial to the fishery in the future when more fish live to adulthood and make more fish. In the future the kelp situation may change, and these places may be opened again in future management cycles to fishing for selected species, or in coordination with scientific monitoring protocols. The three State Marine Conservation Areas mentioned presently have diminished fish stocks and species richness and could benefit from a temporary fishing prohibition. This closure, in coordination with kelp restoration, will benefit adjacent areas with the "spillover effect" of the MPAs providing better fishing opportunities for participants.

This closure would not affect commercial fishermen who are prohibited from fishing in SMCAs already, but mostly the recreational fishermen who fish from shore. The fishermen fishing from boats are typically fishing further from shore because the fish are not as plentiful in the nearshore SMCAs now that the kelp has thinned. Although this closure would prohibit fishing at the Monterey Breakwater parking lot, there is still accessible fishing at the Commercial Wharf. Surf fishing from shore is generally not done at the Tanker's Reef area but further to the north at Sunset, Seacliff and New Brighton State Parks.

There are some fishermen that fish on the west side of Lovers Point and the north side of Point Pinos that would be displaced in a portion of the Pacific Grove Marine Gardens SMCA that is frequented by tourists and rented out by Pacific Grove for weeddings. To mitigate the loss of this fishing opportunity we recommend the replacement of the Del Monte Bathhouse Pier, by others. It is not fair that our community group of volunteers is working hard to restore kelp and suppress kelp grazers while the state licenses individuals to fish in the same place and time with activities that are detrimental to that same kelp's growth and survival while also endangering diver's lives with propellers and fishing hooks.

The <u>Central Coast</u> Regional Stakeholder Group's intent during regional MLPA planning process (including MPA-specific goals/objectives and design considerations), adopted in April

2007, was found to be aligned with our proposal to improve the conservation status. In the <u>Regional Goals Design Considerations</u> #3."To the extent possible, site MPAs to prevent fishing effort shifts that would result in serial depletion" is what has happened in these places due to fishing pressure being concentrated in only a few accessible places. Redesignating the SMCAs as SMRs aligns with the original intent of more fishing prohibitions at two sites and stopping serial depletion of species at all three sites.

Edward F. Ricketts SMCA was proposed by the RSG to be split as half Edward F. Ricketts SMCA and half Edward C. Cooper SMR so the original intent was to make the area closest to the breakwater into a SMR. John Wolfe, Diving representative to the Regional Stakeholder Group, recalled that a disabled veteran testified that the breakwater was the "only place he could fish" so fishing by hook and line was decided to be allowed. There was a favorite wolf eel that lived on the wall and a spearfishermen shot it and threw it in a garbage can and divers were outraged so fishing by spear was not allowed on this site and the site is partially closed to fishing already. The fishermen fishing off the breakwater wall is a constant danger to divers at this most popular dive site on the west coast of North America and for safety it must stop. There is disabled access at the municipal wharf for fishermen.

<u>Pacific Grove Marine Gardens SMCA</u> was proposed by the <u>RSG</u> to be an SMR north of Point Pinos. Presently the delineation between Asilomar SMR and PG Marine Gardens SMCA is at Point Pinos, so the original intent was to make a large portion north of the peninsula protected as a SMR. This was the first area impacted by widespread urchin barrens in 2015 and is a high priority site for kelp restoration.

<u>Carmel Bay SMCA</u> was implemented as designed but has poor fishing opportunities and depletion of species because it is the only accessible fishing place south of the Monterey Peninsula until Malpaso Creek south of Point Lobos SMR. The loss of kelp forests exacerbates the problem because rockfish are born in kelp forests and take 8-10 years to reach maturity.

These MPAs were all <u>described</u> as "High Priority" sites by OPC's <u>research</u> that would have the highest probability of kelp restoration success.

Kelp Protection by Designation:

We propose that the Tanker's Reef enforcement area be designated the Tanker's Reef State Marine Reserve (working title). This kelp forest was created by volunteer divers and is very vulnerable from fishing pressure because it is outside of MPA fishing prohibitions. Routinely fishermen in boats and kayaks take fish at the 11 acre kelp forest. The experimental 2.5-acre underwater cable grid is studied by OPC, CDFW, MBNMS, and Reef Check California. We try very hard to reduce externalities as much as possible to determine a natural process of kelp reforestation. Fishermen taking fish is an externality for the scientific design and confounds the results. Fishing gear often becomes entangled in underwater navigation cables used to guide divers. Furthermore, boat propellers are a threat to injure scuba divers in the area under the water.

Designating this area as a State Marine Reserve will also protect more sandy habitat at Del Monte Beach, the most eroded beach in California, at a time when the beach is nourished after the closure of <u>sand mining</u> in Southern Monterey Bay and studied by <u>USGS</u>.

In the <u>Regional Goals Design Considerations</u> #8, "To the extent possible, site MPAs to take advantage of existing long-term monitoring studies" is consistent with designating Tanker's Reef, the site of CDFW/MBNMS and Reef Check surveys, as a State Marine Reserve.

Permission to deploy buoys

Boat anchors on rocky reefs often disturb sensitive marine habitat with their heavy chains scraping in an arc from the anchor to the boat. In a sensitive kelp restoration site that has frequent visits, dropping and recovery of the anchor disturbs the kelp we are trying to defend. By deploying a temporary buoy that the boats can attach to instead of dropping an anchor, the kelp is not disturbed. The use of buoys also aids the divers in the kelp restoration activity by providing underwater visual markers to guide where to cull the urchins and protect the kelp.

This petition seeks to allow seasonal deployment of certain colored and well-maintained buoys to be deployed in kelp restoration areas for the purpose of directing boats where to anchor and to direct divers for the purpose of kelp restoration.

Regulatory Pathway for an Artificial Reef:

Since 2010 Scuba divers have expressed an interest in diving on a sunken ship in Monterey Bay and this was proposed by the community group California Ships to Reefs and studied by the Office of National Marine Sanctuaries in 2012. In 2017 Artificial Reefs was established as a priority for Monterey Bay National Marine Sanctuary Advisory Council. This was proposed to CDFW, but because the State has never permitted an artificial reef in State waters, this was never permitted. However, there are 52 other artificial permitted reefs in California including the Wheeler North Reef in Southern California, created in 2008.

Creating a shipwreck in protected nearshore waters deep enough to not be displaced by winter storms would be of interest to the scuba diving community. It will also serve as a unique scientific baseline to observe what is the order of marine life formation on a "blank" surface. It may also be beneficial to plant kelp on <u>artificial structures</u> better suited to kelp growth and marine aquaculture. This petition seeks a pathway for the FGC to determine if an artificial reef is in the public interest and establish an application process to obtain permission from CDFW and other state and federal agencies.

This request is in alignment with the <u>prioritized recommendations</u> from the California Marine Protected Area Decadal Management Review, near-term Priorities (ongoing- 2 years), Cornerstone Governance, MPA Statewide Leadership Team and Partner Coordination 09. Continue to coordinate and collaborate with OPC and other agencies on California's ocean and coastal priorities to enhance coastal biodiversity, climate resiliency, human access and use, and a sustainable blue economy.

SCP Framework Changes Management of Kelp Restoration

This petition is in furtherance of the <u>prioritized recommendations</u> from the California Marine Protected Area Decadal Management Review, near-term Priorities (ongoing- 2 years), Cornerstone Management Program, Policy and Permitting, Recommendations 17. Improve the application and approval process for scientific collecting permits. And 18. Utilize OPC's



Restoration and Mitigation Policy to develop a framework to evaluate and approve appropriate restoration and mitigation actions within MPAs and MMAs

We propose to establish a new process in CDFW's Scientific Collecting Permit program for Restoration Permits. Presently the process available for the Department to manage restoration projects in marine ecosystems is the Scientific Collecting Permit process where applicants submit applications for \$71.62 and pay \$269.08 for a Special Use Permit to operate a project with certain methods, species take restrictions, and reporting requirements. We request similar fees for Kelp Restoration Permits.

In our 2018 SCP permit with Reef Check we were not able to amend the permit to take sufficient red urchins and we had to abandon the project. In our 2 attempts to obtain SCPs for kelp restoration methods we were denied. Our pre-application to cull urchins in 3 SMCAs has been in process for 18 months before we can submit it into the SCP portal. The problem is that kelp restoration seeks to change a grazer species population within the defined area, but "Decision Tree" limits the take of species to not affect and change a species population within the area. This leads to situations where kelp restoration experiments are impossible because the number of permitted animals to take is very small and not enough to benefit the recruitment and survival of kelp forests. This led to the abandonment of our experiment at Lovers Cove in year 3 when we couldn't remove sufficient red urchins.

The scientific method requires isolation of treatment methods and establishment of a control area. This places a limitation on kelp restoration practitioners to only employ singular methods when the best results are possible using multiple methods. This also restricts the kelp restoration activities by attempting to answer scientific questions where the goal is simply kelp restoration and this scientific component is best accomplished by science divers rather than certified kelp restoration specialists. Once a permit application is obtained it is difficult to change as new discoveries are made that affect kelp survivorship and the process to attempt to amend a permit takes over a year. At the end of the typical 3 year SCP permit period the treatment must stop, and the 5 year post-restoration monitoring period begins. This is contradictory to the goals of kelp restoration and has led to similar abandonment of work in the treatment area at Tanker's Reef where the effort is desired to be continued by the volunteers, but because the experiment stops after 3 years, the divers are not allowed to come back and tend the kelp forest they successfully created and defended. The extension of Tanker's Reef is "noticed" at the FGC and hopefully will be extended 5 years, but the point is that restoration should lead the activity and scientific experiments should evaluate, but not interfere with, or seek to end, the restoration effort.

Kelp Restoration is an allowable activity in SMRs, and now with the unanimous passage of AB63, in SMCAs as well. However, restoration is allowed but not permitted. Our attempt to obtain a Restoration Management Permit was denied because the law does not address conspecifics. The Department could issue a Letter of Authorization, similar to the one written for the Monterey Bay Aquarium to repair intake pipes, but that is not available to us for inequitable reasons that support the built environment over the natural environment. The only available process we are told is available to us is the SCP process, which is exceedingly slow and inappropriate mechanism which, by rule, restricts the restoration activity to being deliberately inconsequential to improving the health of the MPA.

To remedy this, we petition that the Department establish a "Restoration" category in the SCP process that would allow restoration methods, coordinate with CDFW Research, and establish periodic reviews of restoration efforts, allow for 10-year project durations, and allow take of overpopulating species until the species reaches the threshold density observed pre-marine heatwave of 2014.

Additional comments on the SCP Portal and Process are that the website interface is very clunky and time consuming to complete, especially when submitting for take of multiple species at multiple locations and the program slowly populates look-up tables. The response to permit applications is not transparent, we never know who made the comments and there is not an ability to clarify and discuss the commenter's concerns. There is not an opportunity to have a conversation of what would be acceptable, only a rejection and it becomes incumbent on the petitioner to apply again and guess what would be acceptable. We ask that these issues be repaired in the SCP software and Restoration Project approval process.

Public Outreach

This petition asks the FGC to affirm kelp restoration as public policy in MPAs and to celebrate community collaboration in kelp restoration, mitigating climate change, and conserving biodiversity in public outreach to stakeholders and encourage ocean stewardship. At the October 12 FGC meeting the commissioners suggested kelp practitioner leadership be unified under an "Adopt a Reef" community program, which is a wonderful idea, and we ask the commission to consider our proposed sites as G2KR adopted reefs. We ask that FGC and the Department promote kelp restoration collaboration on their website and in public outreach. This is prioritized in California Marine Protected Area Decadal Management Review, near-term Priorities (ongoing- 2 years), Cornerstone Management Program, Outreach and Education, Recommendation 16. Conduct more targeted outreach to specific audiences to connect stakeholders with coastal resources and to encourage stewardship and compliance with regulations.

Thank you for considering our petitions! In our effort to be succinct and consolidate seven petitions into one, we reduced arguments in favor of the proposal yet still exceeded 5 pages. Additional rationale/justification is available upon request and may be presented at future FGC meetings.

SECTION II: Optional Information

5. Date of Petition: 11/29/23

6. Category of Proposed Change

X Sport Fishing

X Commercial Fishing

☐ Hunting

X Other, please specify: MPAs, Section 6.32



7.	The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs) X Amend Title 14 Section(s): 29.06 and others. X Add New Title 14 Section(s): 29.06 and others. Repeal Title 14 Section(s): Click here to enter text.
8.	If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition 2021-025 & 2023-02 Or \square Not applicable.
9.	Effective date : If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: 4/1/24
10.	Supporting documentation: Identify and attach to the petition any information supporting the proposal including data, reports and other documents: See blue links in this document and supporting documents here .
11.	Economic or Fiscal Impacts: Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing: See Recreational Sea Urchin fiscal impact study in October FGC Meeting materials



Tracking Number: (2023-24MPA)

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SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1. Laguna Bluebelt Coalition

Name of primary contact person: Mike Beanan Address: PO Box 9132, Laguna Beach, CA 92652

Telephone number: 949.500.5039

Email address: mike@lagunabluebelt.org

2. Rulemaking Authority (Required) - Reference to the statutory or constitutional authority of the Commission to take the action requested: Authority cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code.

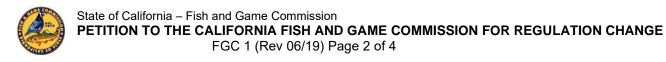
3. Overview (Required) -

a. Extend the Laguna Beach SMCA no-take regulation down to the southern border of the city of Laguna Beach. This area is currently covered by the Dana Point SMCA, which only protects tide pool resources, not the offshore kelp beds.

4. Rationale (Required) -

a. Laguna Beach has recently taken over enforcement of the South Laguna beaches all the way down to the city border. Right now there is confusion due to the different regulations within one city. This regulation change will make enforcement easier and more consistent because it will create continuity within the city, where the same rules apply to all beaches. All Laguna Beach lifeguards have received MPO training and enforce no-take rules for the rest of the city beaches. This will result in an increase in outreach and enforcement effectiveness, which supports priority recommendation number 15.

High fishing and lobstering pressure are taking a toll on the remaining kelp beds in South Laguna due to overharvesting and substrate degradation due to anchor drag. The



Sustainable Fisheries Act of 1996 established new requirements for fishery management councils to identify and describe Essential Fish Habitat and to protect, conserve, and enhance these EFH for the benefit of fisheries. A 2002 update to these EFH regulations allowed fishery management councils to designate Habitat Areas of Particular Concern (HAPCs). HAPCs are considered high priority areas for conservation, management, or research because they are important to ecosystem function, sensitive to human activities, stressed by development, or are rare. The rocky reef and kelp beds in this particular area of South Laguna are slightly different than those in the rest of the city because of the steep drop of the cliffs into the ocean. This creates a unique microhabitat where waters are mixed due to wave refraction off of the cliffs.

There are kelp forests offshore in these areas that are desperately needed as habitat. One of the original design considerations for designating MPAs was to "Include within MPAs suitable rocky habitat containing abundant kelp and/or foliose algae" (CMLPA Master Plan for MPAs, Appendix F). When the MPA boundaries were finalized in 2012, the kelp was at its highest extent of coverage since 1967 (see supplemental graph), so the total area of kelp forest was overestimated. The kelp beds off South Laguna have been nearly decimated by overharvesting and anchor drag and need to be protected. This, in combination with the potential for additional kelp decline due to warm water events makes it imperative that we protect as much as possible.

The Marine Mammal Protection Act also requires action to be taken here. The south end of the no-take SMCA is visible from shore as a line of lobster trap buoys extending out from the cliffs. One MPA watch volunteer reported 223 buoys off of Table Rock beach on 11/8/2023. This represents a virtual "wall" of dangerous trap lines that interrupt whale migration paths. Whales have been seen frequently traveling very close to shore along this stretch of coastline (see supplemental photo of Thousand Steps beach). In 2019, Donna Kalez of Dana Wharf Whale Watching was referenced in a magazine article saying that in the preceding few weeks her captains had logged more than 40 sightings of gray whale cow-calf pairs in the shallow coves of Laguna Beach (Men's Journal). The lobster buoy lines create a dangerous obstacle for migrating whales, which are protected under the MMPA.

Residents in South Laguna support the extension of the no-take SMCA as evidenced by the attached letters of support from the Three Arch Bay Community Services District, Orange County Coastkeeper, Laguna Canyon Conservancy, Laguna Bluebelt Coalition, and the South Laguna Civic Association. They feel that it is not equitable to have only the north and central beaches protected. Please see the attached letters of support.

SECTION II: Optional Information

5. Date of Petition: 11/29/2023

6. Category of Proposed Change

☐ Sport Fishing

☐ Commercial Fishing

☐ Hunting

X Other, please specify: MPAs, Section 632. ■



State of California – Fish and Game Commission

PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE

FGC 1 (Rev 06/19) Page 3 of 4

7.	The proposal is to: (To determine section number(s), see current year regulation booklet or
	https://govt.westlaw.com/calregs

Amend Title 14 Section(s): Westlaw regulations.

☐ Add New Title 14 Section(s): Click here to enter text.

☐ Repeal Title 14 Section(s): Click here to enter text.

8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition

Or X Not applicable.

9. Effective date: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency:

This should be implemented as soon as possible. Ancient California Gray Whale Migration is currently being altered due to proliferation of nearshore lobster traps and rope buoys at the southern SMCA boundary.

- **10. Supporting documentation:** Identify and attach to the petition any information supporting the proposal including data, reports and other documents:
 - (A) Map of proposed Boundary Adjustment.
 - (B) Letter of support from the Three Arch Bay Community Services District
 - (C)Letter of support from the South Laguna Civic Association
 - (D) Letter of support from the Laguna Bluebelt Coalition
 - (E) Letter of support from Orange County Coastkeeper
 - (F) Letter of support from the Laguna Canyon Conservancy
 - (G)Graphic from "Status of the Kelp Beds in 2019: Orange & San Diego Counties. Prepared for the Region Nine Kelp Survey Consortium" by MBC Aquatic Sciences
 - (H) Full Report: "Status of the Kelp Beds in 2019"
 - (I) Photo of gray whale at Thousand Steps Beach
- 11. Economic or Fiscal Impacts: There would be a fiscal impact on commercial lobster fishers due to reducing their fishing grounds. However, fishing effort will be closer to Dana Point Harbor to save fuel costs and use of ropeless buoys will be encouraged. With removal of lobster buoy lines as migration barriers, whale watching tours can resume in Laguna Beach (\$10 million estimated annual revenues to Dana Point economy). Less anchoring by CPFVs will reduce anchor drag damaging local reefs and kelp forests. Estimated resident property values gain an increase of 20% from proximity to a fully protected MPA
- **12. Forms:** If applicable, list any forms to be created, amended or repealed:

Click here to enter text.

SECTION 3: FGC Staff Only

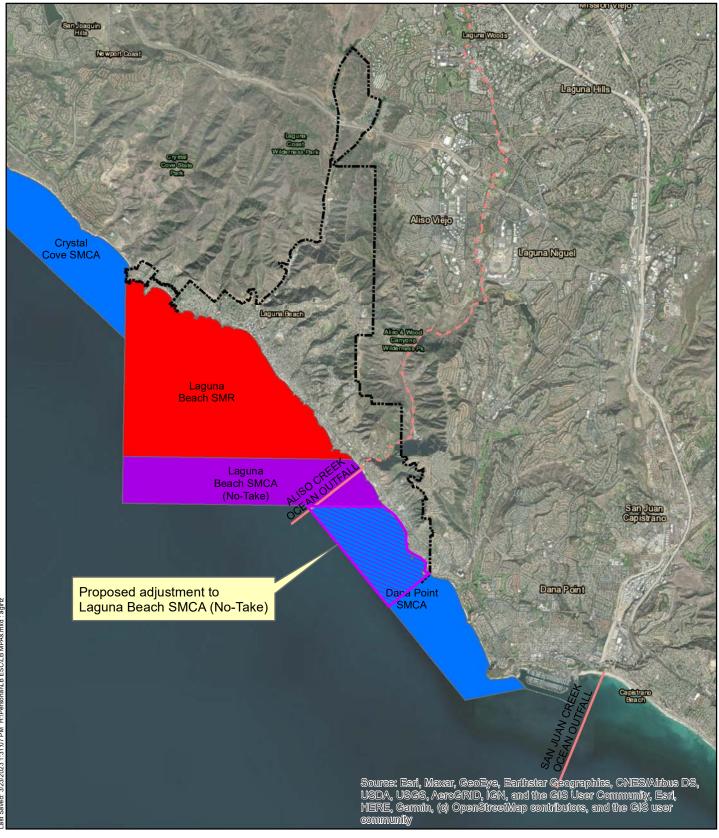
Date received: 11/29/2023

FGC staff action:

☐ Accept - complete



☐ Reject - incomplete	
☐ Reject - outside scope of FGC authority	
Tracking Number	
Date petitioner was notified of receipt of petition and pending action:	_
Meeting date for FGC consideration:	
FGC action:	
☐ Denied by FGC	
☐ Denied - same as petition	
Tracking Number	
☐ Granted for consideration of regulation change	



Symbology

---- City Limits

- - SOCWA Effluent Transmission Line

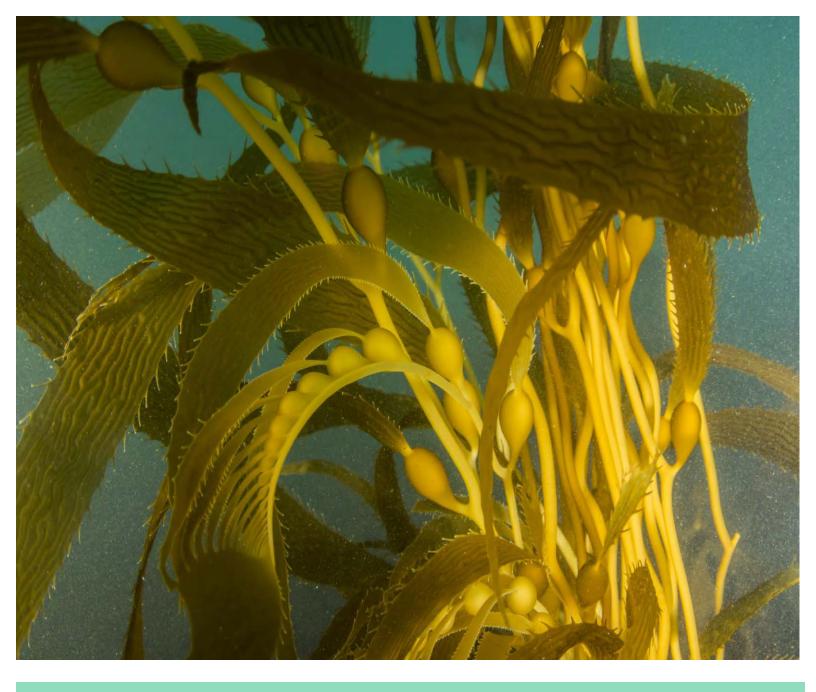
SOCWA Ocean Outfall

Proposed Laguna Beach SMCA (No-Take) Adjustment



Figure 1

City of Laguna Beach
Proposed Marine Protected Area Adjustment



Status of the Kelp Beds in 2019:

Orange and San Diego Counties

Prepared for the Region Nine Kelp Survey Consortium

MBC Aquatic Sciences

STATUS OF THE KELP BEDS IN 2019: Orange and San Diego Counties

Prepared for:

Region Nine Kelp Survey Consortium

Prepared by:

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August 18, 2020

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Cover photograph courtesy of D. J. Schuessler

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EXECUTIVE SUMMARY

Aerial imaging surveys of the 24 giant kelp beds off Orange and San Diego counties were conducted for the Region Nine Kelp Survey Consortium (RNKSC) by MBC Aquatic Sciences on March 31, July 19, September 19, and December 19, 2019. The maximum surface canopy observed during 2019 was quantified from color infrared photos of each kelp bed.

The total kelp canopy throughout Region Nine covered approximately 5.2 km² in 2019, a 53% decrease compared to 2018. This was similar to the total kelp canopy coverage recorded in 2016 (5.1 km²), but considerably larger than the total coverage for 2017 (3.3 km²), which was the lowest since 2006. More than half of all kelp beds observed in 2018 disappeared in 2019 (10 out of 18), and none reappeared. The La Jolla and Point Loma kelp beds were the largest, accounting for 99% of the total canopy coverage in 2019.

Vessel surveys of all Region Nine kelp beds were scheduled for late 2019, but were not actually conducted until January 7, 15, and 30, 2020. Visual observations indicated that surface canopy was present at North Laguna Beach, Dana Point/Salt Creek, Leucadia Central and South, Encinitas, Solana Beach, La Jolla North and South, and Point Loma North and South. No surface canopy was observed at South Laguna Beach, South Laguna, or from Capistrano Beach through Leucadia North. Subsurface kelp was observed at many kelp bed locations, even those without visible surface canopy. More detailed in-water surveys were conducted by biologist-divers at three kelp bed locations: Dana Point/Salt Creek, Leucadia North, and the Encina Power Plant.

Water temperatures throughout the RNKSC areas generally were warmer than average throughout most of 2019, particularly from September through December. However, lower than normal temperatures were recorded at Newport Pier during most of April, May, and August, and occasionally during March, June, and July. Lower than normal water temperatures were also occasionally recorded at Scripps Pier from February through October, particularly during the months of June, July and August. Daily sea surface temperature (SST) values rarely fell below 14°C, a threshold below which nutrient availability is much greater than at higher water temperatures, at Newport Pier and Scripps Pier, and never fell below this threshold at Oceanside or Point Loma South.

As in previous years, nutrient availability continued to be low in 2019. Upwelling in 2019 (at a location approximately 161 km west of Solana Beach) generally increased each month from January through August, decreasing through December. Upwelling index values in 2019 were much higher than the long-term mean in July and August, but lower in March, May and June. Upwelling was lower from March through June in 2019 compared with the same time period in 2018, which is when surface water temperatures are generally lower and nutrient availability would be increased. Although upwelling between July and September was higher in 2019 than the previous year, this corresponds to when surface water temperatures are highest and nutrient availability would be decreased.

I - INTRODUCTION

Giant kelp (*Macrocystis pyrifera*) beds along most of the southern California mainland coast have been mapped quarterly by the Region Nine Kelp Survey Consortium (RNKSC) since 1983. The RNKSC participants agreed that the monitoring program would be methodologically based upon aerial kelp surveys that were conducted since 1967 by the late Dr. Wheeler J. North.

I.1 - REGION NINE KELP BEDS

The RNKSC program area extends from Abalone Point in northern Laguna Beach in Orange County southward to the U.S./Mexico Border in San Diego County, and recognizes 24 existing or historic kelp beds (Figure 1). Kelp beds associated with harbors, marinas, or hard substrate also are surveyed. Region Nine supports what are usually the two largest kelp beds in southern California, the La Jolla and Point Loma kelp beds. There are eight ocean outfalls located within the geographical area surveyed on behalf of the RNKSC, including three outfalls that are shared by two different agencies (Figure 1).

One of the objectives of the RNKSC program is to answer several basic monitoring questions regarding the status of kelp beds within the region:

- 1. What is the maximum areal extent of the coastal kelp bed canopy each year?
- 2. What is the variability of the coastal kelp bed canopy over time?
- 3. Are coastal kelp beds disappearing? If yes, what are the factors that could contribute to the disappearance?
- 4. Are new kelp beds forming?

I.2 - KELP BIOLOGY

If spores and suitable rocky substrate are available, giant kelp can quickly colonize surfaces and grow within a wide range of environmental conditions. Giant kelp grows rapidly and becomes reproductive in less than one year, with population dynamics largely driven by changes in the oceanographic environment, such as temperature and nutrient levels. If not removed prematurely by storms or grazers, large vegetative fronds eventually produce a terminal meristem, stop growing, and senesce. Individual fronds usually live no more than four to nine months, and individual kelp can live up to approximately nine years (Schiel & Foster, 2015). Detailed information on kelp biology is presented in Appendix B.

II - MATERIALS AND METHODS

II.1 - KELP DATA COLLECTION

II.1.A - AERIAL SURVEYS

In the early-1960s, when kelp surveys began, the surface area of coastal kelp beds was calculated via aerial photography by the late Dr. Wheeler J. North of the California Institute of Technology (Pasadena). Later MBC continued the surveys using a method following that of Dr. North's, as it provided a consistent approach for comparing kelp bed size (North 2001). MBC has continued to use this same methodology for the Region Nine surveys since inception of the program in 1983.

In 2019, Ecoscan Resource Data conducted quarterly overflights of the coastline on behalf of the RNKSC from Newport Harbor (Orange County) to the U.S./Mexico border (San Diego County). Direct downward-looking photographs of the kelp beds were taken from an aircraft modified by Ecoscan Resource Data to facilitate aerial photography. Approximately 200 to 225 high-contrast digital color and infrared photos were taken during each survey. Prior to each survey, the flight crew assessed the weather, marine conditions, and sun angle to schedule surveys on dates when optimum photos could be captured. The pilot targeted the following conditions:

- Weather: greater than a 15,000' ceiling throughout the entire survey range and wind less than 10 knots,
- Marine: sea/swell less than 1.5 m and tide range less than +1.0' Mean Lower Low Water (MLLW) during the survey,
- Sun angle greater than 30 degrees from vertical.

Aerial surveys were flown on March 31, June 19, September 19, and December 19, 2019 (Table 1). The flight path and data sheets from each quarterly aerial survey are included in Appendix D and photographs from each aerial survey are contained in Appendix E.

II.1.B - VESSEL SURVEYS

A vessel survey is conducted annually to observe all RNKSC kelp beds. The vessel survey for the 2019 survey year was scheduled to occur in December, but was delayed by adverse ocean conditions and was conducted on January 7, 2020 from Imperial Beach to Santa Margarita, on January 15, 2020 from Pendleton Artificial Reef to Capistrano Beach, and on January 30, 2020 from Dana Point to Corona del Mar. During the vessel surveys, biologists visually located each kelp bed by the main surface canopies present, or in the absence of surface kelp, relied upon latitude and longitude coordinates for canopies present during prior years. The presence of subsurface kelp was also recorded via visual observations from the vessel and fathometer readings. During the vessel surveys, more detailed in-water surveys were conducted by biologist-divers at the Dana Point/Salt Creek, Encina Power Plant, and Leucadia North kelp beds. Field data sheets from the vessel surveys are included in Appendix D.

Visual observations of the surface canopy included:

- Extent and density of the bed,
- Tissue color: ranges from pale yellow (indicating poor nutrient uptake) to dark brown (indicating good nutrient intake),
- Frond length on the surface,
- Presence/absence of apical meristems (scimitar = growing tips),
- Extent of encrustations by hydroids or bryozoans,
- Sedimentation on fronds,
- Any evidence of disease, such as holes or black rot,
- Age composition of fronds: young, mature, or senile.

II.2 - KELP DATA ANALYSIS

All photographs were reviewed after each overflight and the canopy surface area of each kelp bed was ranked in size by subjectively comparing the extent of canopy coverage shown in the photographs to the average historical bed size and photographs from previous surveys (Table 2). The ranking scale ranged from 0 for no kelp, 0.5 for minimal kelp, 1 for well below average kelp, 1.5 for somewhat below average kelp, 2 for below average kelp, 2.5 for average kelp, 3 for above average kelp, 3.5 for somewhat above average kelp, and 4 for well above average kelp. These rankings allowed the archiving of the quarterly survey slides for later retrieval and assembly of a digitized photo-mosaic of each kelp bed that represented the greatest areal extent for each survey year. Individual beds in the composite were selected for detailed evaluation and the surface area of all visible kelp canopies in each distinct kelp bed was calculated.

All digital photographs from one of the four surveys that showed the greatest areal coverage were digitally assembled into a composite photo-mosaic that provided a regional view of entire kelp bed areas. Photos of kelp beds that displayed the greatest canopy coverage during a single survey were used to make photo-mosaics. Usually data from one or two surveys were used to for the photo-mosaics to provide the best estimate of maximum canopy coverage for the year. The Photoshop mosaics were then transferred to Geographic Information System (GIS; ArcGIS 10.3.1) to geo-reference them, and placed into specific California Department of Fish and Wildlife (CDFW) geo-spatial shape files. Each mosaic was geo-referenced to match several prominent features (usually more than three) on the map and converted to Universal Transverse Mercator (UTM), or another acceptable coordinate system, and subsequently converted to a geo-referenced JPEG file. Surface canopy areas were calculated using the image classification function, an extension to the ArcGIS program. The kelp beds from the photos were then layered on standard base maps to facilitate interannual comparisons. The "Hard Substrate" layer on the base maps (shown as lightly shaded areas on the maps in Appendix A) was obtained through the CDFW Biogeographic Information and Observation System.

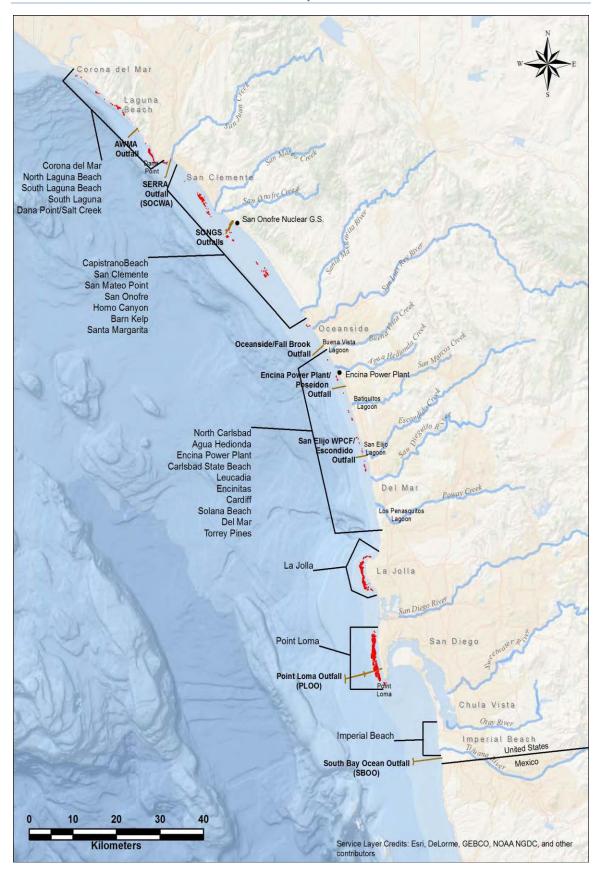


Figure 1. Ocean discharges and kelp beds located within Region Nine kelp survey area.

Table 1. Kelp bed overflights in 2019.

Quarter	Target Date	Actual Date	Comments
1st Quarter	January to March 2019	March 31, 2019	Excellent conditions for photos and observations during overflight
2nd Quarter	April to June 2019	July 19, 2019	Excellent conditions for photos and observations during overflight (survey delayed due to foggy conditions during month of June)
3rd Quarter	July to September 2019	September 19, 2019	Excellent conditions for photos and observations during overflight
4th Quarter	October to December 2019	December 19, 2019	Excellent conditions for photos and observations during overflight

The "Average Bed Area Per Year" (ABAPY) was plotted with results from individual beds to compare canopy sizes and patterns of growth/decline to averages for particular regions. Those regions were: CDFW lease bed 9 in Orange County and CDFW lease beds 5, 6, 7, and 8 in San Diego County (Figure 24). Kelp beds off La Jolla (CDFW lease bed 4, Figure 24) and Point Loma (CDFW lease beds 2 and 3, Figure 24) were treated separately because they are typically much larger beds which would dominate the ABAPY if included with the smaller beds, potentially skewing the data presentation and masking any changes occurring in the smaller beds. Each ABAPY was calculated by summing the annual canopy estimates for the relevant beds during each year and dividing the total by the number of beds included.

Table 2. Ranking values of canopy coverage assigned to kelp beds from Newport Harbor to Imperial Beach based on aerial photographs from 2019 Region Nine quarterly overflights.

	2019 Quarterly Overflights					
Kelp Beds	31 March	19 July	19 September	19 Decembe		
Newport Harbor *	_	_	_	_		
Corona del Mar	0.5	_	_	_		
No. Laguna Beach	0.5	0.5	_	0.5		
So. Laguna Beach	0.5	0.5	_	0.5		
South Laguna	_	_	_	_		
Salt Creek-Dana Point	_	_	_	_		
Dana Marina *	_	_	_	_		
Capistrano Beach	_	_	_	_		
San Clemente	1.5	1.0	_	_		
San Mateo Point	0.5	_	_	_		
San Onofre	0.5	0.5	_	_		
Pendleton Reefs *	_	_	_	_		
Horno Canyon	_	_	_	_		
Barn Kelp	_	_	_	_		
Santa Margarita	_	_	_	_		
Oceanside Harbor *	_	_	_	_		
North Carlsbad	_	_	_	_		
Agua Hedionda	_	_	_	_		
Encina Power Plant	_	_	_	_		
Carlsbad State Beach	_	_	_	_		
North Leucadia	_	0.5	_	_		
Central Leucadia	_	_	_	_		
South Leucadia	_	_	_	_		
Encinitas	_	_	_	_		
Cardiff	_	_	_	_		
Solana Beach	_	_	_	_		
Del Mar	_	_	_	_		
Torrey Pines Park	_	_	_	_		
La Jolla Upper	0.5	1.5	1.0	1.0		
La Jolla Lower	2.5	3.0	1.0	2.5		
Point Loma Upper	3.0	4.0	1.5	3.5		
Point Loma Lower	3.0	4.0	1.5	2.5		
Imperial Beach	_	_	_	_		

Ranking values:

Green highlight = survey utilized to quantify surface canopy area

^{0.5 =} trace or very small amount of kelp present; 1 = well below average;

^{1.5 =} somewhat below average; 2 = below average; 2.5 = average;

^{3 =} above average; 3.5 = somewhat above average; and 4 = well above average.

^{* =} not a designated kelp bed

NI = No Image

[&]quot;-" = no kelp present

III - RESULTS

III.1 - SUMMARY

Maps showing the areal extent of RNKSC canopy coverage in 2019 are provided in Appendix A. Tables displaying the historical canopy coverage for Region Nine from 1983 through 2019 are included in Appendix B. Delineation of each kelp bed area is shown in Appendix D. Aerial photographs taken during the four quarterly overflights in 2019 are included in Appendix E.

All kelp beds in the RNKSC region attained maximum surface canopy area for the year during either the March or June surveys (Table 2). The total amount of kelp canopy coverage in the RNKSC region was 5.2 km² in 2019, decreasing by 53% from 11.0 km² in 2018. In 2019, nine kelp beds displayed surface canopy, compared to 18 kelp beds with surface canopy in 2018 (10 kelp beds disappeared in 2019). No kelp beds increased in size and no new kelp beds reappeared in 2019. The largest beds in the RNKSC region were the La Jolla and Point Loma kelp beds, with Point Loma being the largest at 3.9 km² (Figure 2, Panel A). These two large kelp beds accounted for 99% of the total RNKSC kelp coverage in 2019. In 2019, every kelp bed was less than 10% of the maximum size recorded since 1983, with the exception of La Jolla (26%) and Point Loma (50%) (Figure 2, Panel B). All nine of the kelp beds with visible surface canopy decreased in size in 2019 (Figure 2, Panel C).

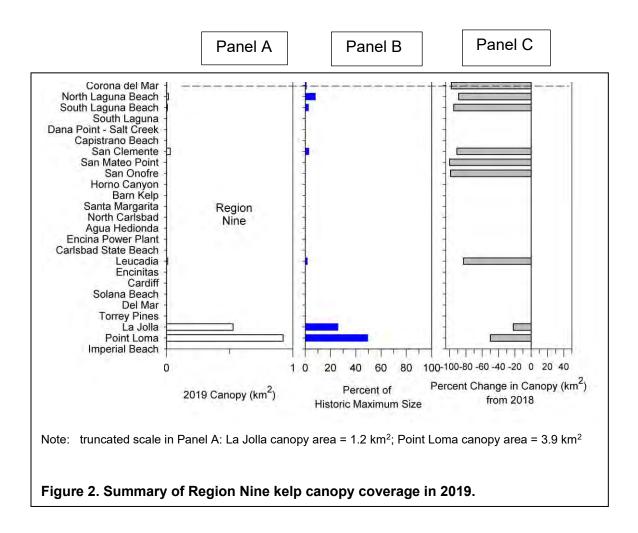
III.2 - SIZE OF KELP BEDS IN REGION NINE

The following is a synopsis of the status of each of the 24 designated individual kelp beds in the Region Nine during the 2019 survey year based upon the quarterly surveys. Information also is presented on several other areas where kelp beds were present. The comparison of canopy coverage between 2018 and 2019 for each kelp bed is presented in Table 3. Historical canopy coverage since 1911 is presented in Appendix B.4. Visual observations of the kelp beds recorded in Table 4 are based on vessel surveys conducted in January 2020. Observations from diver surveys conducted at the Dana Creek/Salt Point, North Leucadia and Encina Power Plant (Cabrillo Energy, Carlsbad) kelp bed areas are also presented in Table 4.

III.2.A - NEWPORT BEACH TO ABALONE POINT, LAGUNA BEACH

Corona del Mar. This kelp bed decreased in size by 98%, from 0.119 km² in 2018 to 0.003 km² in 2019 (Table 3). The canopy area in 2019 was only 1% of the maximum recorded in 2011 (Appendix B.3; Figure 3).

Downcoast from Newport Harbor, giant kelp grows in several small beds collectively referred to as the Corona del Mar kelp bed, or sometimes called the Newport/Irvine Coast kelp bed. The surface canopy area in 2019 was the smallest recorded since 2005. The decrease in size of this bed in 2019 (Figure 3) was similar to the decline of the Orange County ABAPY.



III.2.B - ABALONE POINT TO CAPISTRANO BEACH

There are five kelp beds located between Abalone Point and Capistrano Beach. In 2019, all five beds decreased in size (Table 3).

North Laguna Beach/South Laguna Beach. The North Laguna Beach kelp bed decreased in size by 89%, from 0.133 km² in 2018 to 0.015 km² in 2019 (Table 3). The canopy area in 2019 was 8% of the maximum recorded in 2012. The South Laguna Beach kelp bed decreased in size by 95%, from 0.131 km² in 2018 to 0.007 km² in 2019. The canopy area in 2019 was only 2% of the maximum recorded in 2013 (Appendix B.4; Figure 3).

The North and South Laguna Beach beds were rarely visible after the early 1990s until 2008, when they reestablished as a result of restoration efforts. The surface canopy areas of the North and South kelp beds in 2019 were the lowest recorded since 2009 and 2007, respectively. The decreases in size of both beds in 2019 (Figure 3) were similar to the decline of the Orange County ABAPY.

During the January 2020 vessel survey (Table 4), the North Laguna Beach surface canopy was estimated at approximately 100 by 150 meters. Tissue color was light to medium yellow, with no encrustation on fronds and only a few apical meristems were observed. The kelp bed

was composed of approximately 39% senile, 60% mature, and 1% young fronds. Subsurface kelp was visible on the fathometer, extending over a larger area than the surface canopy. No surface canopy was observed at South Laguna Beach, but some subsurface kelp was visible on the fathometer.

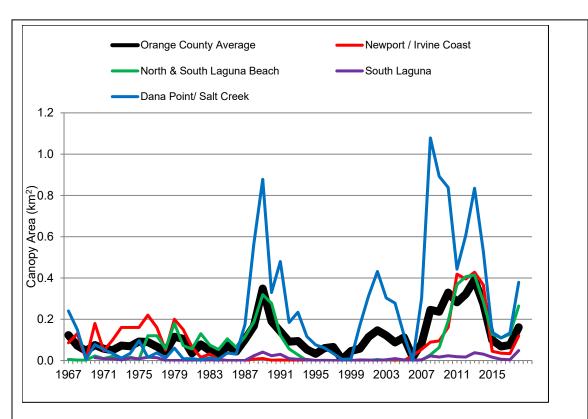


Figure 3. Comparisons between the average Orange County ABAPY and the canopy coverage of the kelp beds from Newport/Irvine Coast (Corona del Mar) to Dana Point/Salt Creek from 1967 through 2019.

South Laguna. This kelp bed disappeared in 2019 (Table 3). This followed 2018, when the surface canopy was the maximum recorded since RNKSC surveys began in 1983 (Appendix B.4; Figure 3).

After nearly disappearing in 2017, the South Laguna kelp bed increased in size by 1,500% in 2018, reaching the highest level observed (0.048 km²) since RNKSC surveys began), only to decline once again in 2019. This is the first time that no surface canopy was visible since 2006. The decrease in size of this bed was similar to the decline of the Orange County ABAPY.

No surface or subsurface kelp was observed at South Laguna during the January 2020 vessel survey (Table 4).

Dana Point/Salt Creek. This kelp bed disappeared in 2019 (Table 3).

The Dana Point/Salt Creek kelp bed (Appendix A.46) ranged in size from 0.110 to 0.137 km² from 2015 to 2017, then increased to 0.379 km² in 2018, although it remained well below the levels observed in 2008, 2009, 2010, and 2013 (Figure 3). This also is the first time that no surface canopy was visible since 2006. The decrease in size of this bed in 2019 was similar to the decline in the Orange County ABAPY.

During the January 2020 vessel survey (Table 4), scattered surface canopy was observed at Dana Point/Salt Creek. Tissue color was medium to dark yellow, with less than 25% encrustation on fronds and no apical meristems were observed. The kelp bed was composed of 100% mature fronds.

An in-water survey of the Dana Point/Salt Creek kelp bed was conducted on January 30, 2020. The bottom was composed of approximately 50% boulder, 40% cobble, and 10% sand. In addition to giant kelp, *Laminaria*, *Egregia*, and *Pterogorgia* species of algae were present on the bottom. Kelp fronds were medium yellow in color, with less than 25% encrustation observed. Many sporophylls and juvenile fronds were observed. Fish observed included kelp bass (more than 5), sheepshead (1), and rock wrasses (more than 5).

No kelp was observed along the breakwaters in Dana Point Harbor (Appendix A.47) in 2019. This is not a designated kelp bed.

Capistrano Beach. This kelp bed disappeared in 2019 (Table 3).

This was the first year that surface canopy had not been observed at the Capistrano Beach kelp bed since 2005 (Appendix B.4; Figure 4). The 2019 decrease in size was similar to the decline of the Orange County ABAPY.

During the January 2020 vessel survey, no surface canopy was observed. However, patches of subsurface kelp were visible on the fathometer at depths of 35 to 45 feet (Table 4).

III.2.C - SAN CLEMENTE TO SAN ONOFRE

Three kelp beds are located between San Clemente and San Onofre. All three beds decreased in size in 2019 (Table 3).

San Clemente. This kelp bed decreased in size by 91%, from 0.335 km² in 2018 to 0.030 km² in 2019 (Table 3). The canopy area in 2019 was only 3% of the maximum recorded in 2013 (Appendix B.4; Figure 4).

The surface canopy area at the San Clemente kelp bed in 2019 was the lowest amount recorded since 2007 (Appendix B.4; Figure 4). The 2019 decrease in size was similar to the decline of the Orange County ABAPY.

Scattered surface canopy was visible during the January 2020 vessel survey. Tissue color was 5% light yellow, 10% medium yellow, and 85% dark yellow, with 30% encrustation on fronds and 25% apical meristems present. The kelp bed was composed of 10% senile, 85% mature, and 5% young fronds (Table 4).

Table 3. Canopy coverage of the Region Nine kelp beds from Laguna Beach to Imperial Beach (kelp beds listed north to south) during 2018 and 2019.

Kelp Bed	2018 (km²)	2019 (km²)	Percentage Difference
Newport Harbor	0.113	0	Disappeared
Corona del Mar	0.119	0.003	-98%
North Laguna Beach	0.133	0.015	-89%
South Laguna Beach	0.131	0.007	-95%
South Laguna	0.048	0	Disappeared
Dana Point/Salt Creek	0.379	0	Disappeared
Capistrano Beach	0.018	0	Disappeared
San Clemente	0.335	0.030	-91%
San Mateo Point	0.083	0.0001	-100%
San Onofre	0.127	0.001	-99%
Horno Canyon	0.008	0	Disappeared
Barn Kelp	0.092	0	Disappeared
Santa Margarita	0	0	No change
North Carlsbad	0.038	0	Disappeared
Agua Hedionda	0	0	No change
Encina Power Plant	0.045	0	Disappeared
Carlsbad State Beach	0	0	No change

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Kelp Bed	2018 (km²)	2019 (km²)	Percentage Difference
Leucadia	0.052	0.009	-83%
Encinitas	0.033	0	Disappeared
Cardiff	0.005	0	Disappeared
Solana Beach	0.024	0	Disappeared
Del Mar	0	0	No change
Torrey Pines	0	0	No change
La Jolla	1.566	1.227	-22%
Point Loma	7.920	3.923	-50%
Imperial Beach	0	0	No change
TOTAL	11.037	5.213	-53%

San Mateo Point. This kelp bed virtually disappeared, decreasing in size by 100%, from 0.083 km² in 2018 to 0.0001 km² in 2019 (Table 3). The canopy area in 2019 was less than 0.1% of the maximum recorded in 1989 (Appendix B.4; Figure 4).

The surface canopy area of the San Mateo Point kelp bed in 2019 was the lowest amount recorded since 1998 (Appendix A.50; Figure 4). The 2019 decrease in size was similar to the decline of the Orange County ABAPY.

No surface canopy was observed during the January 2020 vessel survey. Some subsurface individuals were present, approximately 20-feet tall, and one solid patch was observed 0.25 miles south of San Mateo Point (Table 4).

San Onofre. This kelp bed decreased in size by 99%, from 0.127 km² in 2018 to 0.001 km² in 2019 (Table 3). The canopy area in 2019 was 0.2% of the maximum recorded in 1989 (Appendix B.4; Figure 4).

Table 4. Visual observations of Region Nine kelp beds during January 2020 vessel surveys.

Kelp Bed	Surface Canopy	Subsurface Kelp		
	Extent	Appearance		
Corona del Mar	none		none	
North Laguna Beach	estimated at 100 x 150 meters	light and medium yellow; 39% senile, 60% mature, 1% young; no encrustation; a few apical meristems	subsurface kelp beyond the edges of the surface canopy	
South Laguna Beach	none		some subsurface kelp	
South Laguna	none		none	
Dana Point/Salt Creek	scattered canopy estimated at 400 x 800 meters	medium and dark yellow; 100% mature; less than 25% encrustation; no apical meristems	see discussion of dive survey results	
Dana Point Harbor	none		none	
Capistrano Beach	none		patches with approximately 15 to 25-feet tall individuals, scattered at approximately 35 to 45-feet depth	
San Clemente	scattered kelp canopy	5% light yellow, 10% medium yellow, 85% dark yellow; 10% senile, 85% mature, 5% young; 30% encrustation; 25% apical meristems	scattered individuals approximately 20 to 30 feet tall in patches	
San Mateo Point	none		some subsurface kelp, individuals approximately 20-feet tall, 1 solid patch 0.25 miles south of San Mateo Point	
San Onofre	none		none	
Pendleton Reefs	none		none	
Horno Canyon	none		sparse kelp individuals 20 to 30- feet tall	
Barn Kelp	none		20 to 30-feet tall kelp individuals, multiple patches at approximately 20 meters depth	
Santa Margarita	none		none	
North Carlsbad	none		none	
Agua Hedionda	none		10-15 individuals on the bottom (two to three patches with up to six individuals)	
Encina Power Plant	none		see discussion of dive survey results	
Carlsbad State Beach	none		none	
Leucadia-north	none		see discussion of dive survey results	
Leucadia-central	surface kelp canopy estimated at 100 x 30 meters	50% light tissue color 50% senile, 45% mature, 5% young	subsurface kelp present with visible apical meristems	

Table 4 (continued	1)		
Leucadia-south	surface kelp canopy estimated at 30 x 30 meters	20% light yellow, 70% medium yellow, 10% dark yellow 18% senile, 80% mature, 2% young	subsurface kelp present with visible apical meristems
Encinitas	surface kelp canopy estimated at 100 x 30 meters	10% light yellow, 70% medium yellow, 20% dark yellow 5% senile, 35% mature, 60% young 40% apical meristems	5- to 10-foot kelp individuals on the bottom; two to three patches of 10-40 individuals scattered over approximately 0.35 miles (some reaching to the surface)
Cardiff	none		several single individuals 10-15 feet tall over approximately 0.25 miles
Solana Beach	scattered surface canopy	30% light yellow, 70% dark yellow	scattered individuals at the south end of the bed, 15-20 feet tall to 30-35 feet tall
Del Mar	none		several individuals 2-3 feet tall over approximately 200 meters
Torrey Pines	none		none
La Jolla North	scattered canopy, estimated at 100 to 200 meters in width		visible subsurface kelp
La Jolla South	continuous canopy south to north end, estimated at 100 to 300 meters in width; lower density inshore than offshore	60% light yellow, 40% dark yellow; 5% senile, 95% mature; 60 to 70% encrustation 2 to 5% apical meristems	subsurface kelp at approximately70 feet depth
Point Loma North	continuous canopy south to north end, approximately 200 meters width	50% light yellow, 50% dark yellow; 9% senile, 90% mature, 1% young; no encrustation; 1-2% apical meristems	visible subsurface kelp
Point Loma South	continuous canopy south to north end, estimated at approximately 200 meters in width	100% dark yellow; 1% senile, 98% mature, 1% young; 30% encrustation; 1% apical meristems	scattered kelp just below the surface, heavy encrustation, many apical meristems
Imperial Beach	none		none

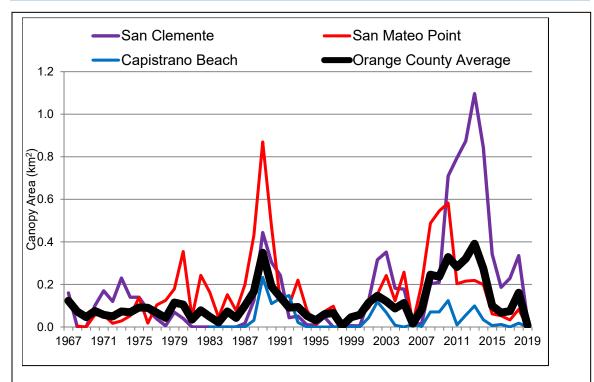


Figure 4. Comparisons between the average Orange County ABAPY and the canopy coverage of the kelp beds from Capistrano Beach to San Mateo Point from 1967 through 2019.

The surface canopy area of the San Onofre kelp bed in 2019 was the lowest amount recorded since 2006 (Appendices A.50 and A.51, Figure 4)). The 2019 decrease was similar to the decline of the San Diego County average ABAPY.

No surface or subsurface kelp was observed during the January 2020 vessel survey (Table 4).

III.2.D - HORNO CANYON TO SANTA MARGARITA RIVER

Three kelp beds are located between Horno Canyon and the Santa Margarita River.

Horno Canyon. This kelp bed disappeared in 2019 (Table 3).

This was the first year that no surface canopy was observed at the Horno Canyon kelp bed since 2011 (Figure 5). The 2019 decrease in size was similar to the decline of the San Diego County ABAPY.

No surface canopy was visible during the January 2020 vessel survey. However, sparse kelp individuals 20 to 20 feet tall were visible on the fathometer (Table 4).

In addition, the Pendleton Artificial Reef (PAR), which is not a designated kelp bed, is just upcoast from Horno Canyon. No surface canopy or subsurface kelp was observed at this location.

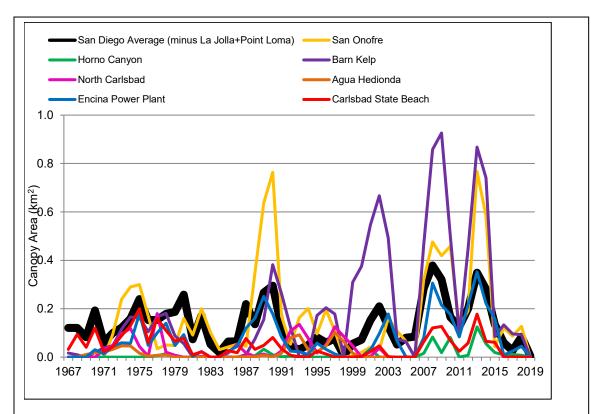


Figure 5. Comparisons between the San Diego average ABAPY and canopy coverage of the kelp beds from San Onofre to Carlsbad State Beach from 1967 to 2019.

Barn Kelp. This kelp bed also disappeared in 2019 (Table 3).

This was the first year that no surface canopy was observed at the Barn Kelp bed since 2006 (Figure 5).

No surface canopy was observed during the January 2020 vessel survey. However, 20- to 30-foot tall kelp individuals were visible on the fathometer in multiple patches at approximately 20 meters depth (Table 4).

Santa Margarita. This kelp bed was not observed during 2019, nor was it visible in 2018 (Table 3).

The Santa Margarita kelp bed is a small bed that occasionally forms a canopy off the Santa Margarita River mouth (Appendix A.56). However, surface canopy has only been observed during one year (2013) since 1993 (Appendix B.4).

No surface canopy or subsurface kelp was visible at Santa Margarita during the January 2020 vessel survey.

No kelp was observed in Oceanside Harbor (Appendix A.57; Table 3) in 2019. This is not a designated kelp bed.

III.2.E - NORTH CARLSBAD TO CARLSBAD STATE BEACH

There are four kelp beds located between North Carlsbad and Carlsbad State Beach. In 2019, three of the beds decreased in size, while the other still was not visible (Table 3).

North Carlsbad. This kelp bed disappeared in 2019 (Table 3).

The North Carlsbad kelp bed is usually comprised of several small beds (Appendices A.58 and A.59). This kelp bed was not observed in 2016 and was very small in 2017, but increased considerably in size in 2018 (21% of the maximum size recorded), before disappearing in 2019 (Appendix B.4; Figure 5).

During the January 2020 vessel survey (Table 4), no surface canopy was observed at the North Carlsbad kelp bed.

Agua Hedionda. This kelp bed was not observed in 2019 (Table 3), nor has it been visible since 2015 (Figure 5).

No surface canopy was observed at the Agua Hedionda kelp bed during the January 2020 vessel survey (Table 4). However, 10 to 15 subsurface individuals were visible on the fathometer in two to three groups of up to six individuals each.

Encina Power Plant. This kelp bed disappeared in 2019 (Table 3).

This was the first time that no surface canopy was observed at the Encina Power Plant kelp bed since 2006 (Appendix A.60, Figure 5)).

No surface canopy was observed at the Encina Power Plant kelp bed during the January 07, 2020 vessel survey (Table 4). Underwater observations were made during a dive survey on the same date. The bottom was composed of flat shale reef, with cobble bottom in some areas. Red alga was the dominant species of algae present. Kelp observed included juvenile individuals; nine new holdfasts were observed. Tissue color of kelp fronds was medium to dark yellow. No encrustation or sediment was observed on the kelp fronds. No fish were observed, but 3 lobsters, 1 white spotted rose anemone (*Urticina eques*), 3 large sea snails (*Kelletia*), 4 turban snails (*Megastraea*), 16 purple sea urchins (*Strongylocentrotus purpuratus*), and 7 red sea urchins (*Mesocentrotus fransciscanus*) were observed on the bottom.

Carlsbad State Beach. This kelp bed was not observed in 2019, nor was it visible in 2018 (Table 3).

The Carlsbad State Beach (Carlsbad State Park) kelp bed (Appendices A.60 and A.61) was very small or absent from 2016 through 2018, before finally disappearing in 2019 (Figure 5).

No surface canopy or subsurface kelp was observed at the Carlsbad State Beach kelp bed during the January 2020 vessel survey (Table 4).

III.2.F - LEUCADIA TO TORREY PINES

Leucadia. This kelp bed decreased in size by 83%, from 0.052 km² in 2018 to 0.009 km² in 2019 (Table 3). The canopy area in 2019 was only 2% of the maximum recorded in 2013 (Appendix B.4; Figure 6).

The Leucadia kelp bed comprises the North, Central, and South Leucadia kelp beds, which are surveyed as three separate beds because of distinct breaks in the beds (Appendices

A.62 and A.63). In 2013, Leucadia kelp bed increased in size to its highest canopy coverage in the last 30 years (0.541 km²), but by 2016 had declined to only 6% of the 2013 maximum and had remained small through 2019 (Appendix B.4; Figure 6). In 2019, kelp canopy was observed only in the North bed.

No surface or subsurface kelp was observed at the North Leucadia Bed during the January 2020 vessel survey (Table 4). Surface canopy was observed at the Central Leucadia kelp bed. The surface canopy was present as scattered kelp over an estimated 100 x 30 meter area. Half of the fronds were light in color, half were dark. Approximately 50% of the fronds were senile, 45% mature, and 5% young. Surface canopy also was observed at the South Leucadia kelp bed. The surface canopy was present as scattered kelp over an estimated 30 x 30 meter area. Fronds were approximately 20% light yellow, 70% medium yellow, and 10% dark yellow. Approximately 18% of the fronds were senile, 80% mature, and 2% young. Fronds were approximately one to two meters in length. Apical meristems were observed subsurface.

Underwater observations were made during a dive survey on the same date. The bottom was composed of shale reef and plate rock. The dominant algae species present was *Egregia*. Kelp observed included one juvenile individual and four recruits, as well as a few adult individuals. Tissue color of kelp fronds was medium to dark yellow.

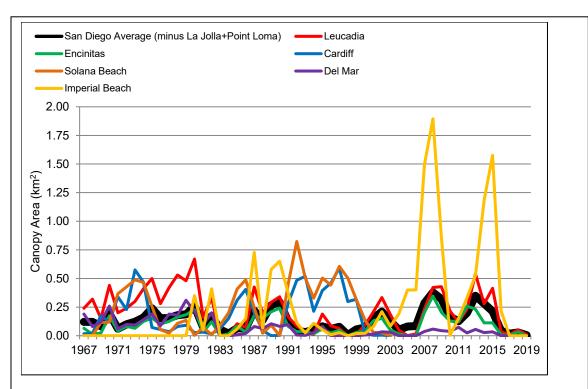


Figure 6. Comparisons between the San Diego average ABAPY and canopy coverage of the kelp beds from Leucadia to Imperial Beach from 1967 to 2019.

Encinitas. This kelp bed disappeared in 2019 (Table 3).

This was the first time that no surface canopy was observed at the Encinitas kelp bed since 2005 (Appendix A.63; Figure 6).

During the January 2020 vessel survey, scattered surface canopy was observed over an estimated 30 x 100 meter area (Table 4). Kelp fronds ranged from light yellow (10%), medium yellow (70%), to dark yellow (20%) in color. Approximately 5% of the fronds were senile, 35% mature, and 60% young. Scattered subsurface kelp was present, consisting of 10 to 40 individuals ranging in height from 5 to 10 feet.

Cardiff. This kelp bed also disappeared in 2019 (Table 3).

This was also the first time that no surface canopy was observed at the Cardiff kelp bed since 2005 (Appendix A.64; Figure 6).

During the January 2020 vessel survey, no surface canopy was visible (Table 4). Subsurface kelp was visible on the fathometer, consisting of several single individuals that were 10- to 15-feet tall over an area of approximately 1,000 feet long.

Solana Beach. This is another kelp bed that disappeared in 2019 (Table 3).

This was the first time that no surface canopy was observed at the Solana Beach kelp bed since 1983 (Appendices A.64 and A.65; Figure 6).

During the January 2020 vessel survey, scattered surface canopy was observed at the Solana Beach kelp bed (Table 4). Kelp fronds were approximately 30% light yellow and 70% dark yellow in color. Scattered subsurface kelp was observed visually and/or on the fathometer, with individuals ranging in height from 15 to 35 feet.

Del Mar. This kelp bed was not observed in 2019, nor was it visible in 2018 (Table 3).

The Del Mar kelp bed (Appendices A.66 and A.67) is typically one of the smallest beds in Region Nine. No surface canopy has been observed at the Del Mar kelp bed since 2015(Appendices A.66 and A.67; Figure 6).

No surface canopy was observed at the Del Mar kelp bed during the January 2020 vessel survey (Table 4). Subsurface kelp was visible on the fathometer as 2- to 3-foot tall individuals over an area of approximately 200 meters.

Torrey Pines. This kelp bed was not observed in 2019, nor was it visible in 2018 (Table 3).

Torrey Pines kelp bed appeared as a small trace of kelp during La Niña conditions in 1988 and 1989. It reappeared in 2006 with a canopy area of 0.010 km² with scattered giant kelp concentrations approximately 1.5 km, 3.5 km, and 5 km north of Scripps Pier. Small canopies were observed in various locations in the area from 2008 through 2013, but this bed was not observed from 2014 through 2019 (Appendices A.67 and A.68).

No surface canopy or subsurface kelp was visible during the January 2020 vessel survey (Table 4).

III.2.G - LA JOLLA

La Jolla. This kelp bed decreased in size by only 22%, from 1.566 km² in 2018 to 1.227 km² in 2019 (Table 3). The canopy area in 2019 was 26% of the maximum recorded in 1989 (Appendix B.4; Figure 7).

La Jolla kelp bed is composed of two canopies: northern La Jolla and southern La Jolla. Between southern La Jolla and Upper Point Loma (offshore Mission Bay), nearshore habitat is mostly sand and kelp does not grow in this area (Appendices A.70 and A.71). The La Jolla kelp bed decreased in size considerably from 2013 through 2017, resulting in the smallest canopy size since 2006. After more than doubling in size in 2018, the La Jolla kelp bed decreased in size by approximately 20% in 2019 (Appendices A.68 through A.70; Figure 7).

During the January 2020 vessel survey, the La Jolla North kelp bed surface canopy was scattered, covering an estimated area approximately 100 to 200 meters wide (Table 4). Subsurface kelp was visible on the fathometer. The La Jolla South kelp bed surface canopy was continuous from the south to north end, ranging from 100 to 300 meters in width. The density of the surface canopy was lower inshore than offshore. Tissue color was 60% light yellow and 40% dark yellow, with 2 to 5% apical meristems, and the fronds had 60 to 70% encrustation. The kelp bed was composed of approximately 5% senile and 95% mature fronds. Subsurface kelp was visible on the fathometer at a depth of approximately 70 feet.

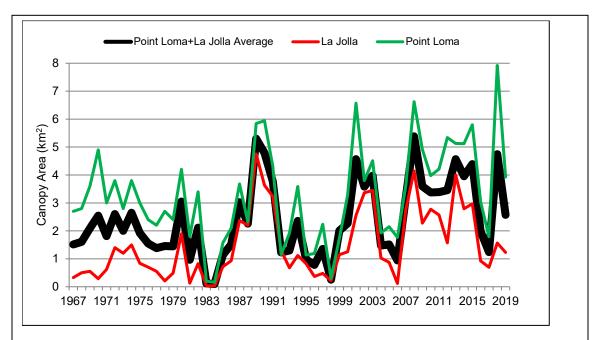


Figure 7. Comparisons between the Point Loma/La Jolla Average ABAPY and canopy coverage of the La Jolla and Point Loma kelp beds from 1967 to 2019.

III.2.H - POINT LOMA TO CORONADO BEACH

Point Loma. This kelp bed decreased in size by 50%, from 7.920 km² in 2018 to 3.923 km² in 2019 (Table 3). The canopy area in 2019 was 50% of the maximum recorded in 2018 (Appendix B.4; Figure 7).

The Point Loma kelp bed comprises many, usually contiguous, kelp canopies ranging from depths of 5 to greater than 30 meters during years with sufficient nutrients. *Pelagophycus porra* is prevalent beyond about 30 meters depth at Point Loma (Turner et al. 1968). It is the largest bed in Region Nine. The canopy at Point Loma maintained a relatively large size (more than 5 km²) from 2013 through 2015. However, decreases in 2016 and 2017 resulted in the smallest sizes measured since 2006. In 2018, the Point Loma kelp bed increased in size considerably, reaching the maximum size observed since RNKSC surveys began in 1983. Even with the decrease in size observed in 2019, this kelp bed remains larger than in 2016 or 2017 (Appendices A.71 through A.74; Figure 7).

During the January 2020 vessel survey, the surface canopy was continuous from the south to the north end at the Point Loma North kelp bed, and was estimated at approximately 200 meters in width (Table 4). Tissue color was 50% light yellow and 50% dark yellow, with no encrustation on the fronds and 1 to 2% apical meristems. Subsurface kelp was visible on the fathometer. A continuous surface canopy from the south to the north end also was visible at the Point Loma South kelp bed, and also was estimated at approximately 200 meters in width. Tissue color was 100% dark yellow, with 30% encrustation of the fronds and 1% apical blades. The kelp bed was composed of approximately 1% senile, 98% mature and 1% young fronds. Scattered kelp was observed just below the surface, with heavy encrustation of the fronds and many apical meristems.

III.2.I - CORONADO BEACH TO U.S./MEXICO BORDER

No kelp was observed at Coronado Beach (Appendix A.76) or Silver Strand (Appendix A.77), which are not designated kelp beds, during aerial overflights or during the January 2020 vessel survey.

Imperial Beach. This kelp bed was not observed in 2019, nor was it visible in 2018 (Table 3).

The surface canopy area of the Imperial Beach kelp bed has fluctuated considerably from year to year, reaching its highest levels in 2008 and 2015 (Appendices A.79 and A.80; Figure 6). No surface canopy was observed in 2017 for the first time since 1998, nor was it visible in 2018 or 2019.

No surface or subsurface kelp was visible at the Imperial Beach kelp bed during the January 2020 vessel survey (Table 4).

IV - DISCUSSION

IV.1 - REGION NINE KELP BEDS

One objective of the RNKSC program is to answer several basic monitoring questions regarding the status of kelp beds within the region:

- 1. What is the maximum areal extent of the coastal kelp bed canopy each year?
 - the total kelp canopy covered 5.2 km² in 2019.
- 2. What is the variability of the coastal kelp bed canopy over time?
 - the total kelp canopy decreased in size in 2019 by 53% (from 11.0 km² to 5.2 km²);
 - none of the kelp beds increased in size in 2019
 - all 18 kelp beds with visible surface canopy present in 2018 decreased in size in 2019
- 3. Are coastal kelp beds disappearing? If yes, what are the factors that could contribute to the disappearance?
 - 10 kelp beds disappeared in 2019: South Laguna, Dana Point/Salt Creek, Capistrano Beach, Horno Canyon, Barn Kelp, North Carlsbad, Encina Power Plant, Encinitas, Cardiff, and Solano Beach. Higher than normal sea surface temperatures and low nutrient availability could have contributed to the disappearance of these 10 kelp beds.
 - Six other kelp beds continued to display no surface canopy in 2019: Santa Maragarita and Torrey Pines, which disappeared in 2014; Agua Hedionda and Del Mar, which disappeared in 2016; Imperial Beach, which disappeared in 2017, and Carlsbad, which disappeared in 2018. Above average sea surface temperatures and low nutrient availability may have contributed to the continued absence of surface canopy at these six kelp beds.
- 4. Are new kelp beds forming?
 - No kelp beds reappeared in 2019.

The total kelp canopy in Region Nine covered approximately 5.2 square kilometers in 2019, which was similar to the total kelp canopy recorded in 2016 (5.1 square kilometers), but larger than the total for 2017 (3.3 square kilometers), the lowest amount of total kelp canopy since 2006 (Table 5, Figure 8). The largest kelp beds were the La Jolla and Point Loma kelp beds, which accounted for 99 percent of the total canopy coverage in 2019. The surface canopy areas of the La Jolla and Point Loma beds were at 26% and 50% of the maximum extent recorded since 1983. However, all of the other kelp beds were at 10% or less of their maximum size (Figure 2), and most were at their lowest levels in years (Solano Beach canopy area was the smallest since 1983, San Mateo Point was the smallest since 1998, and others were the smallest since 2005 to 2009).

Vessel surveys of all Region Nine kelp beds were conducted in January 2020. Visual observations indicated that kelp canopy was present at North Laguna Beach and Dana Point/Salt Creek, but no surface canopy was observed at South Laguna Beach, South Laguna, or from Capistrano Beach to Leucadia North. Surface canopy was also present at Leucadia Central, Leucadia South, Encinitas, Solana Beach, La Jolla, and Point Loma. Subsurface kelp was observed at many bed locations, even those without visible surface canopy. In-water surveys conducted in January 2020 at three kelp beds, Dana Point/Salt

Creek, Leucadia North, and Encina Power Plant, recorded limited numbers of giant kelp individuals on the bottom at each location.

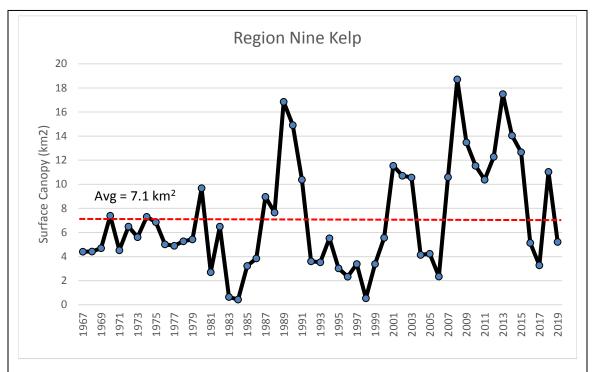


Figure 8. Combined canopy coverage of all kelp beds off Orange and San Diego Counties from 1967 through 2019.

IV.2 - ENVIRONMENTAL VARIABLES

The productivity and growth of giant kelp forests along the west coast of the United States has been shown to be limited by dissolved inorganic nitrogen, mainly in the form of nitrate (Wheeler and North, 1980; Zimmerman and Kremer, 1984). In the upper ocean (depths less than 200 meters), nitrate concentrations were strongly dependent on density and temperature (Kamykowski and Zentara, 1986). However, temperature apparently accounted for less than half of the variability in canopy area or density of giant kelp within the California Current System (CCS) (North et al, 1993; Tegner et al, 1996). Seawater density has been shown to predict nitrate concentrations in nearshore southern California ocean waters better than temperature, and has been utilized to identify the relative contributions of nitrate concentrations within the CCS from different source waters, primarily including subarctic water, upwelled undercurrent water, subtropical water, and surface runoff (Lynn and Simpson, 1987; Parnell et al, 2010).

Table 5. Canopy coverage (km²) of the kelp beds from Laguna Beach to Imperial Beach (kelp beds listed from north to south) from 2009 through 2019.

Kelp Bed	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
N Laguna Beach	0.093	0.147	0.192	0.142	0.120	0.080	0.074	0.096	0.133	0.015
S Laguna Beach	0.098	0.221	0.214	0.273	0.165	0.048	0.035	0.032	0.131	0.007
South Laguna	0.023	0.018	0.017	0.038	0.031	0.016	0.006	0.003	0.048	-
Dana Pt/Salt Crk	0.839	0.442	0.607	0.835	0.528	0.137	0.110	0.133	0.379	-
Capistrano Beach	0.124	0.010	0.056	0.099	0.034	0.007	0.012	0.0004	0.018	-
Total F&W 9	1.178	0.838	1.086	1.385	0.879	0.287	0.237	0.264	0.709	0.022
San Clemente	0.710	0.795	0.874	1.097	0.843	0.343	0.187	0.229	0.335	0.03
San Mateo Point	0.583	0.203	0.216	0.219	0.199	0.062	0.053	0.033	0.083	0.000
San Onofre	0.458	0.127	0.191	0.767	0.584	0.043	0.120	0.087	0.127	0.00
Total F&W 8	1.750	1.124	1.281	2.083	1.627	0.449	0.359	0.349	0.545	0.03
Horno Canyon	0.081	-	0.008	0.125	0.055	0.019	0.010	0.011	0.008	_
Barn Kelp	0.500	0.095	0.442	0.868	0.741	0.085	0.133	0.096	0.092	-
Santa Margarita	-	-	-	0.080	-	-	-	-	-	-
Total F&W 7	0.581	0.095	0.450	1.073	0.795	0.104	0.143	0.107	0.100	0.00
North Carlsbad	0.078	0.017	0.052	0.125	0.086	0.047	_	0.004	0.038	_
Agua Hedionda	0.031	0.022	0.046	0.102	0.065	0.016	-	-	-	-
Encina Power Plant	0.176	0.084	0.216	0.352	0.221	0.159	0.009	0.025	0.045	-
Carlsbad St. Bch	0.069	0.024	0.058	0.178	0.065	0.061	-	0.001	-	-
Total F&W 6	0.354	0.147	0.372	0.757	0.437	0.282	0.009	0.031	0.083	0.00
Leucadia	0.215	0.119	0.232	0.541	0.279	0.414	0.033	0.010	0.053	0.00
Encinitas	0.128	0.124	0.260	0.231	0.112	0.113	0.009	0.003	0.033	-
Cardiff	0.213	0.395	0.459	0.590	0.299	0.318	0.024	0.003	0.005	-
Solana Beach	0.328	0.504	0.442	0.606	0.504	0.316	0.138	0.029	0.024	-
Del Mar	0.038	0.074	0.024	0.056	0.027	0.034	-	-	-	-
Torrey Pines	0.003	0.031	0.034	0.081	-	-	-	-	-	-
Total F&W 5	0.925	1.247	1.452	2.106	1.221	1.195	0.204	0.045	0.114	0.00
La Jolla F&W 4	2.776	2.565	1.569	4.006	2.790	2.968	0.927	0.694	1.566	1.22
Point Loma F&W 3&2	3.977	4.212	5.340	5.127	5.121	5.806	3.037	1.787	7.920	3.92
Imperial Beach F&W 1	0.004	0.152	0.333	0.526	1.183	1.576	0.217	-	-	-

Red denotes warm-water years, **blue** denotes cold-water years, and neutral years are in **black**

"-" = no canopy area

IV.2.A - WATER TEMPERATURE

Sea surface water temperature (SST) data is discussed below and has been used as a surrogate for nutrient availability (water temperature is inversely related to nutrient availability). Although there appears to be good evidence that seawater density also can be used as a surrogate, and in some cases, may predict nutrient availability better than temperature (Parnell et al 2010), long-term measurements of density were not available for broad areas of Region Nine. In contrast, nearshore temperature measurements have been ongoing for decades, resulting in readily accessible data sets.

Oceanographic data from shore stations, data buoys, and thermistor strings were used to determine potential effects on kelp bed extent during the study year. These data sources included:

- Water temperature data from automated shore stations at Newport Pier and Scripps Pier. At these locations, automated samplers measured conductivity, temperature, and fluorometry at a frequency of one to four minutes. Samplers were mounted at a depth of 2 meters MLLW at Newport Pier, and at 5 meters MLLW at Scripps Pier. These data were made available in real time via the Southern California Coastal Ocean Observation System (SCCOOS) website (www.sccoos.org).
- Water temperature data from the National Data Buoy Center (NDBC) for Oceanside and Point Loma South were available in real time via the NDBC website (www.ndbc.noaa.gov). These data buoys recorded water temperature, and wave height, period, and direction at least every 30 minutes (frequency varies for each buoy) from approximately one meter below the waterline.
- Water temperature data were provided by the City of San Diego's Ocean Monitoring Program from a thermistor string approximately 3.8 kilometers west-northwest of Point Loma in 60 meters of water (City of San Diego 2019). Sensors were placed at four-meter intervals from near the sea surface to a depth of 54 meters MLLW.
- Water temperature data were also provided by Orange County Sanitation
 District from a thermistor mooring located approximately eight kilometers
 offshore (-118.02220, 33.57620) and upcoast of the outfall in 60 meters of
 water (Orange County Sanitation District, 2020).

Sea surface temperatures (SST) from Newport Pier, Oceanside, Scripps Pier, and Point Loma South, as well as the Scripps Pier long-term harmonic mean, are presented in Figure 9. Graphs of SST values at each of these individual locations are presented in Appendix C.

Water temperatures throughout the RNKSC region were generally warmer than average throughout most of 2019, particularly from September through December (Figure 9). However, lower than normal temperatures were recorded at Newport Pier during most of April, May, and August, as well as occasionally during March, June, and July. Lower than normal water temperatures were also recorded at Scripps Pier at times from February through October, particularly during the months of June, July and August. Water temperatures at Oceanside and Point Loma South were lower than normal occasionally during the months of February through August and in October, but less frequently than at Newport Pier or Scripps Pier. Daily SST values rarely fell below 14°C,a threshold below

which nutrient availability is increased (Schiel and Foster, 2015)) at Newport Pier and Scripps Pier, but never fell below this threshold at Oceanside or Point Loma South. Overall, the pattern of SST values in 2019 was similar to 2018.

Unfortunately, while SST data were available at several locations in the RNKSC region, subsurface water temperature data were not as extensive or readily available.

Temperature monitoring accomplished via a thermistor string deployed off Point Loma in 2019 was limited since data for temperatures at the surface down to approximately 15 meters depth were missing from January through August. In September and October, water temperatures were warm in the upper 15 meters of the water column. From November through mid-December, water temperatures were warm to depths up to 50 meters (Figure 10).

Temperature monitoring, also accomplished via a thermistor string deployed offshore of Orange County, was limited since all data from January through August were missing, due to the inability by Orange County Sanitation District personnel to service the mooring due to the COVID pandemic. From June through October, water temperatures in the upper water column from 1 to 10 meters depth were warmer (approximately 17 to 23°C) than at lower depths from 15 to 60 meters (approximately 11 to 16.5 °C). In November and December, water temperatures were cool throughout the water column (Figure 11).

The number of days with SST values <14°C increased slightly in 2019 at Newport Pier (from 1 to 6 days) and decreased slightly at Scripps Pier (from 12 to 5 days) (Figure 12). These values were well below the long-term mean (1994-2018) for Newport Pier (52 days) and lower than the long-term mean for Scripps Pier (16 days). This continues the trend observed over the past several years, as the number of days with water temperatures <14°C has been lower than usual since 2014.

The number of days with water temperatures >18°C in 2019 increased slightly at Newport Pier (from 137 to 146 days), but the number of days with water temperatures >16°C and >20°C decreased (from 254 to 235 days, and from 69 to 61 days, respectively (Figure 9). At Scripps Pier, the number of days with warm temperatures decreased for all three thresholds in 2019. Overall, the pattern of unusually warm SST values observed since 2014 has continued.

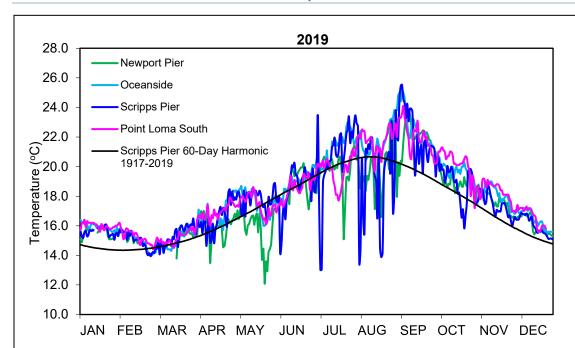
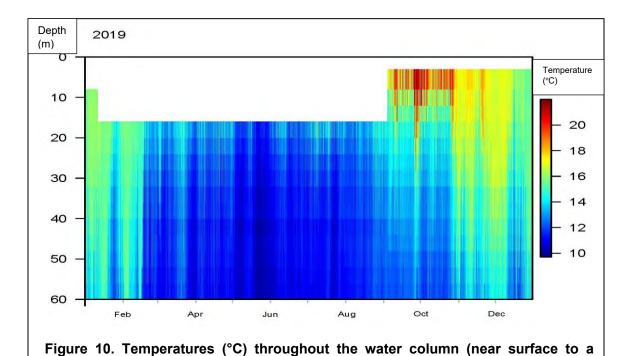


Figure 9. Daily sea surface temperatures (SSTs) at Newport Pier, Oceanside, Scripps Pier, and Point Loma South for 2019, and the long-term harmonic mean for Scripps Pier SIO 60-Day Harmonic calculated from 1917 through 2019). Source: Southern California Coastal Ocean Observation System (SCCOOS) (www.sccoos.org) and National Data Buoy Center (NDBC) (www.ndbc.noaa.gov).



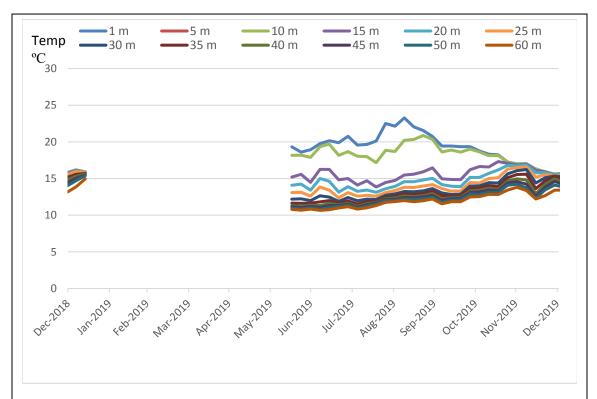


Figure 11. Temperatures (°C) throughout the water column (near surface to a depth of 60 m) off Orange County during 2019. Source: Orange County Sanitation District, 2020.

IV.2.B - NUTRIENTS

The Nutrient Quotient (NQ) Index described by North and MBC (2001) provides a useful indicator of the amount of nitrate that is theoretically available for uptake by kelp (in micrograms-per-gram per-hour) (Haines and Wheeler 1978; Gerard 1982). This method allows for an inter-annual comparison of the nutrients available to kelp, making it possible to pinpoint those years when nutrients were either abundant or depleted, and to establish possible temporal trends.

This index is calculated for the 12-month period from July 1 through June 30 (i.e., the 2019 NQ Index values shown on Figure 13 corresponded to the period from July 1, 2019 to June 30, 2020). The NQ Index was calculated for each of four locations (Newport Pier, Oceanside, Scripps Pier, and Point Loma) by averaging the early-morning SST values at each station for each of the 12 months, assigning a point score to each monthly SST average (1 point if the average falls between 16.01 and 17.00°C, 2 points if between 15.01 and 16.00°C, 4 points if between 14.01 and 15.00°C, 8 points if between 13.01 and 14.00°C, and 14 points if between 12.01 and 13.00°C. The NQ for the 12-month period was the sum of the monthly point scores.

The NQ calculations for four locations in Region Nine in 2019/2020 are shown in Table 7. The 2019/2020 NQ Index was calculated to be 8 for Newport Pier, 7 for Oceanside, 7 for

Scripps Pier, and 6 for Point Loma (Table 7). The NQ Indices for all four locations were slightly lower in 2019 than the previous year (Figure 13). This continues the pattern of below average NQ Index levels observed since 2013.

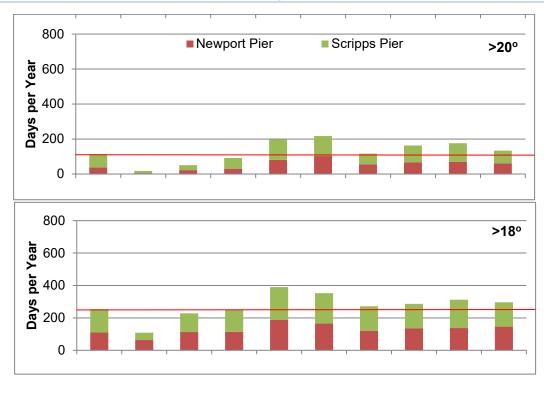
The size of kelp beds in 2019 were likely influenced by the 2018/2019 NQ Index (covering the period from July 2018 through June 2019), since the maximum extent of surface canopy at all of the Region Nine kelp beds occurred in March or June. Although nutrient availability appeared to be similar in 2018 and 2019 based on the NQ Index, the size of the kelp beds in Region Nine decreased considerably in 2019. Upwelling was lower in 2019 than in 2018 during the months of March, May, and June, which may have reduced nutrient availability in 2019, resulting in decreased surface canopy coverage. Overall, the pattern of low nutrient availability observed since 2013 has continued.

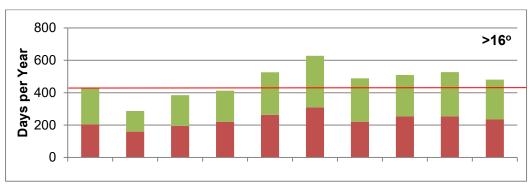
The nutrient climate has shifted from waters with sufficient nitrate prior to the 1976/1977 regime shift, to depleted conditions thereafter (Parnell et al. 2010). The sensitivity of kelp canopies to nutrient limitation appeared to have increased after 1977 and was evident by the strong correlation of seawater density (δ_t) and density of giant kelp (Parnell et al. 2010). Unfortunately, density data were not available throughout the RNKSC region. The NQ index recorded during the 1997/1998 El Niño indicated a particularly bad year for kelp beds in the Southern California Bight. During that season, NQ values ranged from 3 to 11. In contrast, during 1988/1989, a year in which kelp beds reached their maximum extents in several decades, NQ values ranged from 27 to 39 (Figure 13). The variability in SSTs and nutrients was driven by prevailing flow characteristics and bathymetric features that resulted in periodic upwelling along the rocky shores of the coastline, particularly at the Dana Point, La Jolla, and Point Loma kelp beds.

Table 6. Comparison of mean temperature from 1994 through 2019 versus annual mean temperature from 2011 through 2019 at Newport Pier, and Scripps Pier.

			Annual Mean SST (°C)							
	Mean SST (°C) (1994–2018)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Newport Pier	16.7	15.9	16.6	16.7	18.0	18.4	17.8	17.8	17.9	17.6
Scripps Pier	17.7	15.7	16.6	17.0	18.8	18.9	17.7	17.9	18.6	17.8

Note: red cells indicate years above the long-term mean, white cells indicate years equivalent to the mean, and blue cells indicate years below the long-term mean.





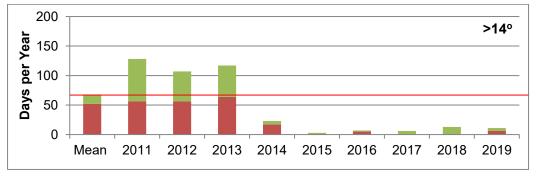


Figure 12. Number of days with SSTs >20°C, >18°C, >16°, and <14°C at Newport Pier and Scripps Pier from 2011 to 2019, and the mean from 1994 to 2018 (red line).

Table 7. Nutrient Quotient calculations for period from July 2019 to June 2020.

	Мо					
Sites	12.01 to 13.00 (14 pts)	13.01 to 14.00 (8 pts)	14.01 to 15.00 (4 pts)	15.01 to 16.00 (2 pts)	16.01 to 17.00 (1 pt)	Total Nutrient Quotient (Calculation Formula)
Newport Pier				Jan 2020 Feb 2020 Mar 2020	Dec 2019 Apr 2020	(4 pts x 0) + (2 pts x 3) + (1 pt x 2) = 8
Oceanside				Jan 2020 Feb 2020	Dec 2019 Mar 2020 Apr 2020	(4 pts x 0) + (2 pts x 2) + (1 pt x 3) = 7
Scripps Pier				Jan 2020 Feb 2020	Dec 2019 Mar 2020 Apr 2020	(4 pts x 0) + (2 pts x 2) + (1 pt x 3) = 7
Point Loma				Jan 2020 Feb 2020	Dec 2019 Mar 2020	(4 pts x 0) + (2 pts x 2) + (1 pt x 2) = 6

IV.2.C - UPWELLING

The frictional stress of equatorial wind on the ocean's surface, combined with the effect of the earth's rotation, causes water in the surface layer to move away from the western coast of continental land masses. This offshore moving water is replaced by water which upwells, or flow toward the surface, from depths of 50 to 100 meters or more. Upwelled water is cooler and saltier than the original surface water, and typically has much greater concentrations of nutrients, such as nitrates, phosphates and silicates, that are key to sustaining biological production.

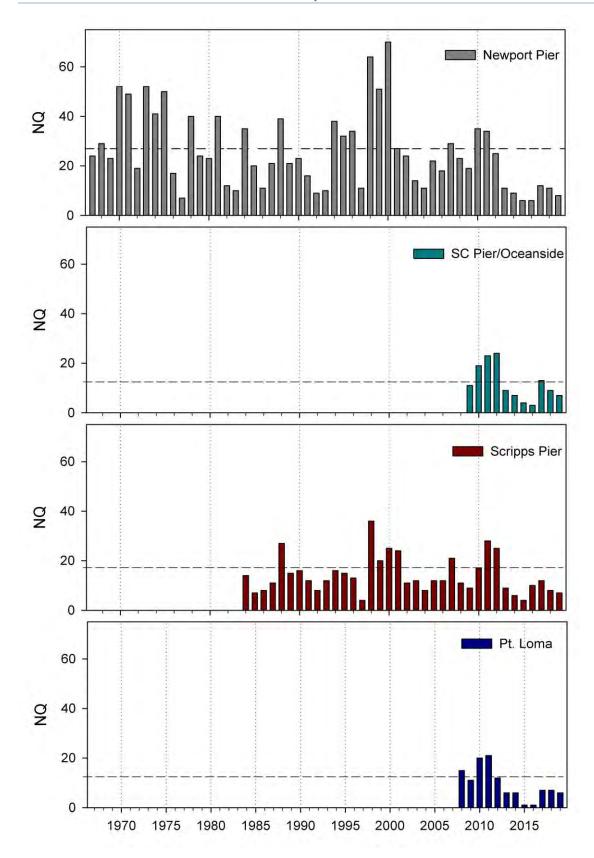


Figure 13. Nutrient Quotient (NQ) values in Region Nine, 1967 to 2019 (dotted line = long-term mean for site).

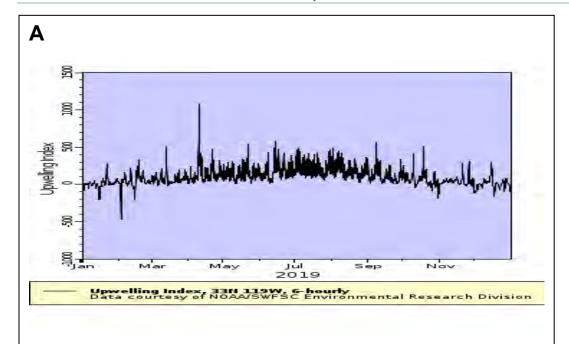
The upwelling index in 2019 (at a location approximately 161 km west of Solana Beach) generally increased each month from January through August, then decreased through December (Figure 14 A). The Upwelling Anomaly Index demonstrates that upwelling in 2019 was much higher than the long-term mean (1946-2018) during the months of July and August, but lower than usual during March, May, and June (Figure 14 B). The monthly PFEL Upwelling Index was lower in 2019 than during 2018 for the months of March, April, May and June (Figure 15), when surface water temperatures generally were lower and more nutrients would be available. However, upwelling was higher in 2019 than the previous year during the months of July, August, and September. Unfortunately, this corresponded to the period of the year when surface water temperatures were highest and nutrient availability was lowest.

IV.2.D - ENVIRONMENTAL INDICES

The ENSO is the most important coupled ocean-atmosphere phenomenon affecting interannual climate variability. ENSO can be monitored via the Multivariate ENSO Index (MEI), which is based on a suite of six variables observed over the tropical Pacific Ocean (sea-level pressure, zonal and meridional components of the surface wind, the sea surface temperature, the surface air temperature, and the total cloudiness fraction of the sky) (https://www.esri.noaa.gov/psd/enso/mei/). Negative values of the MEI represented the cold ENSO phase (i.e., La Niña), while positive MEI values represented the warm ENSO phase (El Niño).

The North Pacific Gyre Oscillation (NPGO) is a climatic pattern that is based on sea surface height variability in the Northeast Pacific Ocean. The NPGO was significantly correlated with fluctuations of salinity, nutrients, and chlorophyll-a measured in long-term observations in the California Current and Gulf of Alaska. Fluctuations in the NPGO were driven by regional and basin-scale variations in wind-driven upwelling and horizontal advection, which were the fundamental processes controlling salinity and nutrient concentrations. Nutrient fluctuations drove concomitant changes in phytoplankton concentrations and may have resulted in similar variability in higher trophic levels (http://www.o3d.org/npgo/).

The Pacific Decadal Oscillation (PDO) is a long-lived El Niño-like pattern of Pacific climate variability. The PDO and ENSO had similar spatial climate fingerprints but exhibited very different behavior in time. While twentieth century PDO events typically persisted for 20 to 30 years, typical ENSO events tended to persist for only 6 to 18 months. A "cool" PDO regime persisted from 1890 through 1924 and again from 1947 through 1976, while a "warm" PDO regime dominated from 1923 through 1946 and from 1977 through the mid-1990s. Warm eras correlated with enhanced coastal ocean biological productivity in Alaska and inhibited productivity off the west coast of the United States, while cold PDO eras produced the opposite (http://research.jisao.washington.edu/pdo). Causes for PDO fluctuations are not currently known.



В

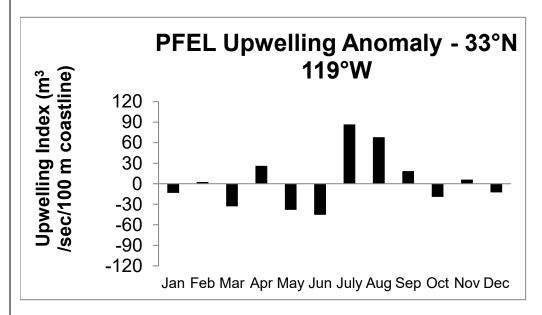


Figure 14. (A) Daily Upwelling Index (UI) at 33°N 119°W for 2019. (B) UI anomaly at 33°N 119°W in 2019 (compared to 71-year monthly mean from 1946 through 2018) (positive values indicate upwelling greater than long-term mean; negative values indicate upwelling less than long-term mean). Source: http://www.pfeg.noaa.gov/products/PFEL/modeled/indices/upwelling/NA).

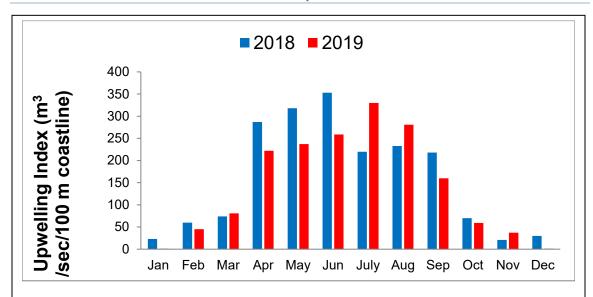


Figure 15. Monthly PFEL upwelling index at 33°N 119°W for 2018 and 2019. Source: http://www.pfeg.noaa.gov/products/PFEL/modeled/indices/upwelling/NA).

The MEI and PDO changed phase about the same time in 2014; the MEI transitioned from negative to positive in April 2014, and the PDO became positive in January 2014 (Figure 26; Mantua 2017; and NOAA-ESRL 2018). The MEI transitioned back to negative in September 2016 but became positive from April through August 2017 before transforming to negative for the remainder of the year (Figure 16). The MEI continued to be negative in early 2018 but shifted to positive in May and continued to be positive throughout 2019, indicating a warm ENSO phase which probably was unfavorable for kelp growth. The PDO remained positive since 2014, but index values indicated that more neutral conditions were present in 2018. However, higher values were recorded in 2019, also indicating a warm ocean regime which probably was unfavorable to kelp (Figure 16). The NPGO changed from positive to negative in October 2013 and has stayed negative for most of the time since then (although it was positive for five months in 2016). NPGO values were strongly negative throughout all of 2017, 2018, and 2019 (Figure 16; Di Lorenzo 2017). The PDO transition to positive indicated warmer temperatures in the North Pacific, while the NPGO transition to negative was indicative of lower productivity along the coast (Di Lorenzo et al. 2008; Leising et al. 2015), conditions that would be expected to adversely affect kelp beds.

IV.2.E - WAVE HEIGHTS

Sea and swell height data from Coastal Data Information Program (CDIP) data buoys located off Oceanside and Point Loma were available in real time via the CDIP website (http://www.cdip.ucsd.edu).

The directions of swells off Oceanside and Point Loma in 2019 were very similar to 2018 (Table 8). Off Oceanside, waves approached from the south-southwest (202.5°) approximately 43% of the time in 2019, from the south (180°) approximately 17% of the time, and from the west (270°) approximately 14% of the time (Table 8, Figure 17). Offshore of Point Loma, waves were from the south-southwest (202.5°) about 29% of the time, from the west about 26% of the time, and from the south (180°) approximately 17% of the time.

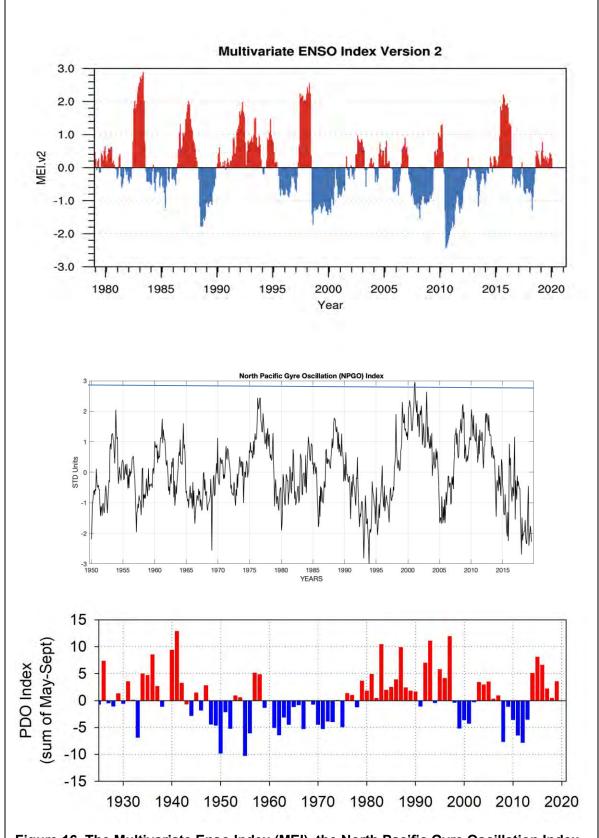


Figure 16. The Multivariate Enso Index (MEI), the North Pacific Gyre Oscillation Index (NPGO), and the Pacific Decadal Oscillation Index (PDO).

Table 8. Direction of swells in 2019. Source: http://cdip.ucsd.edu.					
Direction	Oceanside	Pont Loma South			
West	14%	26%			
(270°)					
South	17%	17%			
(180°)					
West-southwest	10%	7%			
(247.5°)					
South-southwest	46%	29%			
(202.5°)					
Southwest	13%	10%			
(225°)					
West-northwest	2%	10%			
(292.5°)					

High-energy waves that negatively affect kelp beds usually are low-frequency, high-amplitude waves approaching from the west. Wave heights at Oceanside (CDIP Buoy 045) only exceeded four meters on one date in 2019 (4.2 m on May 22) (Table 9). Wave heights were not as high as in 2018, when waves exceeded four meters in late February and late November/early December and reached a maximum of 4.9 m on both occasions (MBC 2019). Waves originated primarily from the south and south-southwest (Table 11), which would tend to have less effect on kelp beds than waves originating from the west. Waves exceeding three meters were rarely recorded throughout the year.

Waves originated from the west at Point Loma South (CDIP Buoy 191) approximately one-fourth of the time in 2019. The largest waves (five meters or more) were recorded on April 10 (5.3 meters), May 23 (5.0 meters), and November 21 (5.5 meters). However, none of these waves were as large as those recorded in 2018, which exceeded six meters in early January (maximum of 7.5 meters), mid-January, mid-February, and late November/early December (MBC 2019). Waves larger than four meters were recorded on fewer occasions in 2019 than in 2018.

The storms that occurred from March 12 through 14 produced large wave heights (Table 9) and large nearshore swells were evident along the coastline from Oceanside to San Diego on March 13, 2019 (Figure 18), although the largest waves were observed offshore. The storms that occurred from April 10 through 13 also produced large swells along the coastline from Oceanside to San Diego, but once again the largest waves were offshore (Figure 19). Similar conditions were produced by the storms that occurred on May 22 and 23 (Figure 20).

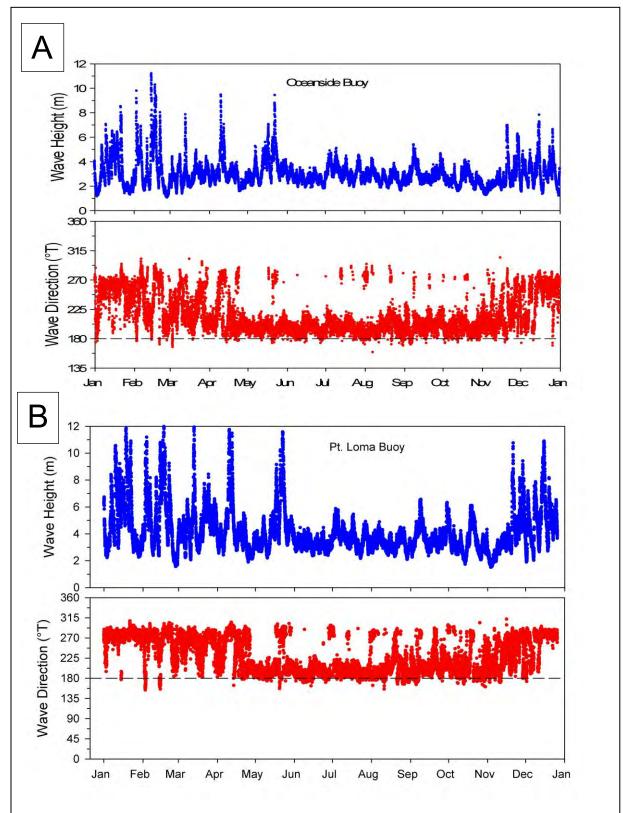


Figure 17. Wave height (blue) and direction (red) at: A) Oceanside Buoy and B) Point Loma Buoy from January through December 2019.

IV.2.F - RAINFALL

Periods of sustained high turbidity in southern California waters often result from high rainfall. Rainfall data for Costa Mesa and San Diego are shown in Figure 21.

The total amount of rainfall in 2019 was a little higher than normal for Costa Mesa (12.6 inches versus the long-term average of 11.4 in). Rainfall was much higher than normal during the months of February and December, lower than normal in January, March, April, September and October, and close to normal during November. Total rainfall in 2019 was approximately 50% higher than normal for San Diego (15.3 in versus the long-term average of 10.1 in). Rainfall in San Diego was higher than normal during the months of January, February, May, November, and December, but lower than normal during the months of March, April, September, and October.

These low rainfall levels were unlikely to generate any extended periods of high turbidity and would not be expected to have affected kelp beds in 2019.

Date	Oceanside	Point Loma South
	(maximum height in meters)	(maximum height in meters)
February 22		3.3
March 5		3.0
March 7/8/9		3.4/3.1/
March 12/13/14	/3.1/	3.7/4.2/4.1
March 20/21/22/23/24	///	3.3/3.7/3.3/3.0/3.6
March 26/27	/	3.2/3.1
March 30		3.1
April 7/8	/	3.1/3.1
April 10/11/12/13	/3.9/	5.3/3.3/4.8/3.3
April 21/22	/	3.0/3.0
May 7		3.0
May 16/17/18	3.2/3.8//	//3.4

Note: "---" indicates maximum wave height was less than 3.0 meters

Table 9 (continued). Large waves in 2019.

Date	Oceanside	Point Loma South
	(maximum height in meters)	(maximum height in meters)
May 20		4.8
May 22/23	4.2/3.2	/5.0
July 17		3.1
September 9		3.1
October 1		3.0
October 18/19	/	3.5/3.3
November 21	3.6	5.5
November 26		3.4
November 28/29	3.7/3.4	4.1/3.3
December 3		3.4
December 8		3.7
December 12/13/14/15/16/17	//3.0//	3.0/3.7/3.4/5.2/4.5/3.3
December 19/20/21	/	3.3/3.0/3.1
December 25/26	/3.6	3.2/

Note: "---" indicates maximum wave height was less than 3.0 meters

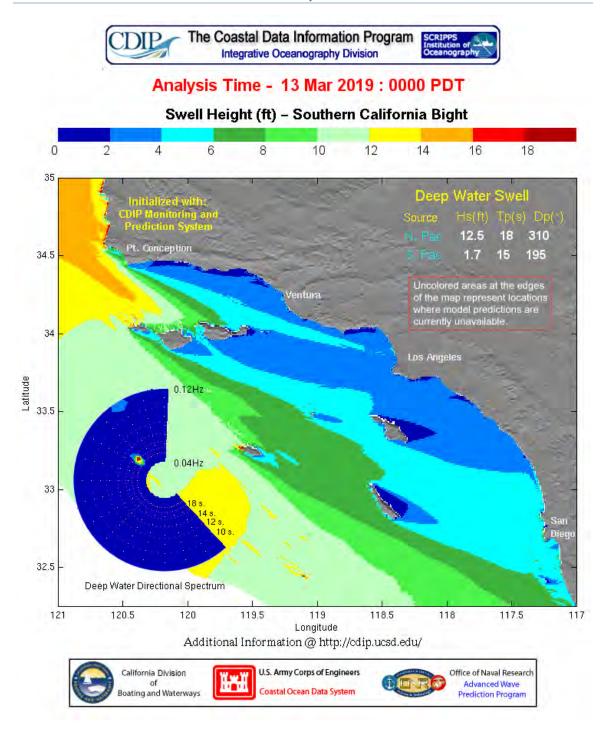


Figure 18. Swell height and direction in the Southern California Bight on March 13, 2019. Source: Coastal Data Information Program (CDIP), http://cdip.ucsd.edu/.

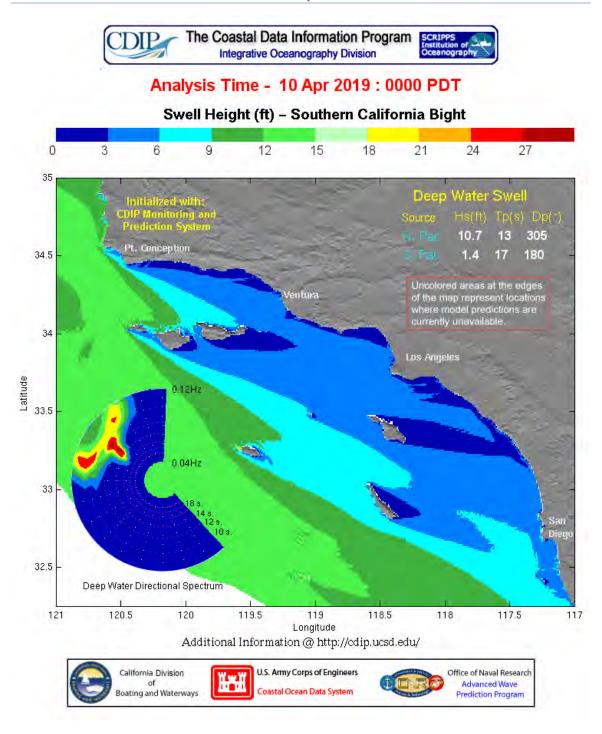


Figure 19. Swell height and direction in the Southern California Bight on April 10, 2019. Source: Coastal Data Information Program (CDIP), http://cdip.ucsd.edu/.

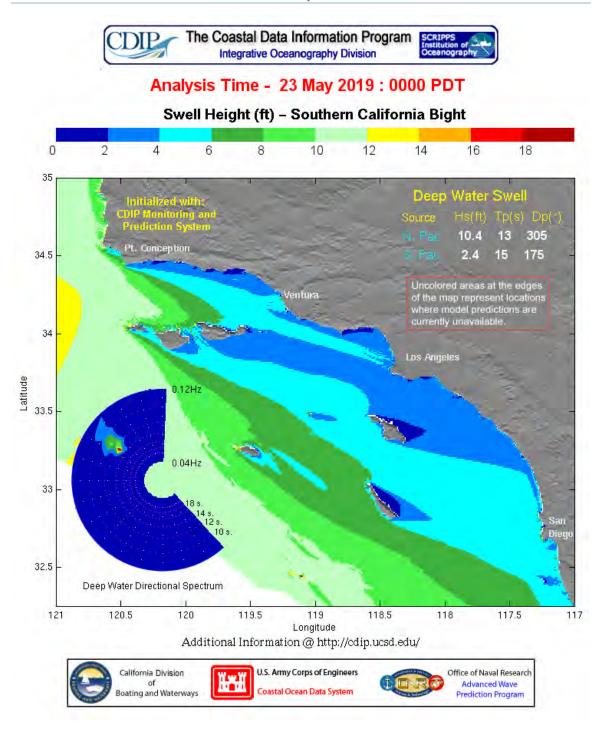


Figure 20. Swell height and direction in the Southern California Bight on May 23, 2019. Source: Coastal Data Information Program (CDIP), http://cdip.ucsd.edu/.

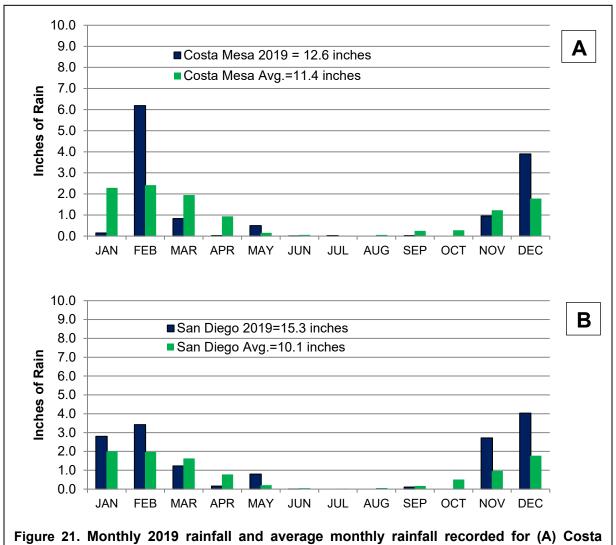


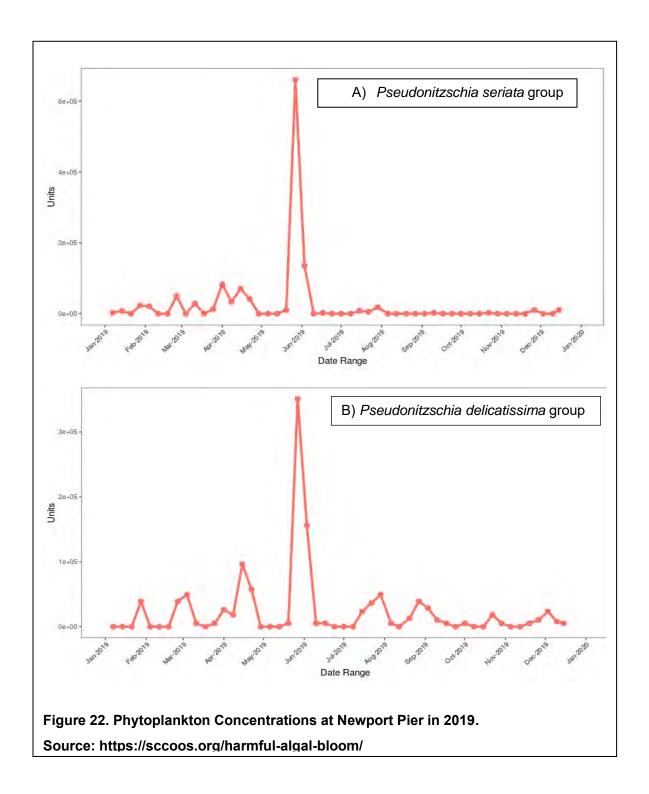
Figure 21. Monthly 2019 rainfall and average monthly rainfall recorded for (A) Costa Mesa, and (B) Lindbergh Field (San Diego).

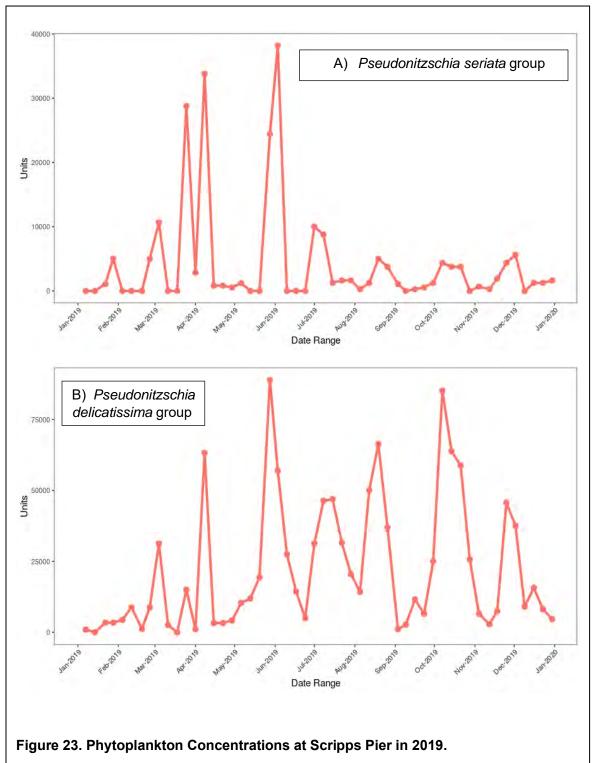
IV.2.G - PHYTOPLANKTON

Harmful Algal Bloom (HAB) data were available in real time for certain locations via the SCCOOS website (<u>www.sccoos.org</u>).

Two phytoplankton groups associated with harmful algal blooms *Pseudo-nitzschia seriata* group and *Pseudo-nitzschia delicatissima* group were only recorded at Newport Pier during June 2019 (Figure 22 A and B). Domoic acid, a toxin produced by these groups, was not recorded at this location at any time throughout 2019. High concentrations of the *Pseudo-nitzschia seriata* group were recorded at Scripps Pier during April and June 2019, while high concentrations of the *Pseudo-nitzschia delicatissima* group were found throughout the year (March, April, June, September, October, and December) (Figure 23 A and B). However, domoic acid was not recorded at this location any time in 2019.

High concentrations of phytoplankton can effectively exclude light from all but the shallowest depths, which could limit photosynthetic activity at depth and may have been responsible for a portion of the severe impacts on the kelp bed resources observed in 2005 and 2006 (Gallegos and Jordan 2002, Gallegos and Bergstrom 2005). However, the concentrations recorded in 2019 appear unlikely to have impacted kelp beds.





Source: https://sccoos.org/harmful-algal-bloom/

IV.3 - KELP RESTORATION

The Orange County Giant Kelp Restoration Project began in 2002 with an aim to restore historical giant kelp forests along the Orange County Coastline via outreach and education. Orange County Coastkeeper worked with volunteers to grow, plant, and monitor giant kelp in northern Orange Country. Restoration sites, control sites, and a reference site were chosen in Crystal Cove State Park (Newport Beach), Heisler Park (Laguna Beach) and Salt Creek (Dana Point). Volunteers working with marine biologist Nancy Caruso also removed sea urchins that had overpopulated kelp reefs, relocating them to deeper water.

Beginning in 2002, the kelp beds at San Clemente were enhanced by the placement of approximately 50 small artificial reefs (each measuring 40 m x 40 m) on barren sand at depths of about 12 to 15 m. Kelp immediately recruited to these reefs, and canopies in the shape of small squares were visible during most of the aerial surveys of 2002 and 2003. In early 2008, Southern California Edison (SCE) added additional reef material (covering 0.712 km² in total) and kelp recruited to the new reefs in late 2008. However, SCE determined that the 174-acre San Clemente reef was only sustaining approximately half the volume of fish required by its 1991 agreement with the California Coastal Commission. In February 2019, the Coastal Commission approved the SCE proposal to construct an additional 210-acre kelp reef to expand the existing 174-acre Wheeler North Reef. SCE proposed to place 175,000 tons of quarried rock in 23 new polygons north and inshore of the existing reef. The expansion project was scheduled to begin in July 2019 and is expected to be completed in 2020.

IV.4 - KELP HARVESTING

CDFW has designated 87 administrative kelp beds located offshore of California's mainland coast and surrounding the Channel Islands. These kelp beds contain giant kelp (*Macrocystis*) or bull kelp (*Nereocystis*), or a combination of both. As of November 2016, each kelp bed falls within one of the following management categories:

Open	Available to harvest by all commercial kelp harvesters	33 kelp beds
Leasable	Available to harvest by commercial kelp harvesters until an exclusive lease is granted by the California Fish and Wildlife Commission, then only available to lessee	28 kelp beds (5 are currently leased)
Lease only	Commercial harvest of kelp is prohibited unless an exclusive lease is granted by the California Fish and Wildlife Commission	3 kelp beds
Closed	Commercial harvest of kelp is prohibited	18 kelp beds

Approximately 41% of the State's kelp beds have been designated as available for leasing, while approximately 38% have been designated as available for kelp harvest by any licensed kelp harvester (ensuring that smaller kelp harvesters have access to kelp and are not shut

out by lease agreements). Approximately 21% of kelp beds are closed to kelp harvesting, as harvest has been deemed too potentially disruptive to the environment.

All commercial harvesters of marine algae must purchase an annual commercial kelp harvester license and abide by commercial algae harvest regulations (California Code of Regulations, Title 14, Sections 165 and 165.5). Eelgrass (*Zostera* species) and surfgrass (*Phyllospadix* species) are prohibited from commercial harvest. There currently are no provisions for the commercial harvest of other large kelps, such as elk kelp (*Pelagophycus*), feather boa kelp (*Egregia*), or members of the genus *Pterygophora*. Members of the genera *Porphyra*, *Laminaria*, *Monostrema*, and other aquatic plants utilized fresh or preserved as human food are classified as edible seaweeds. Agar-bearing marine algae are defined as members of the genera *Gelidium*, *Pterocladia*, *Gracilaria*, *Iridaea*, *Gloiopeltis*, and *Gigartina*. Edible and agar algae harvesting are governed by regulations.

Kelp harvesters may not cut attached giant and bull kelp at a depth greater than four feet below the sea surface at the time of cutting, may not allow cut kelp to escape from harvest, must weigh and report the amount harvested, and must pay a royalty to the State for each wet ton of kelp harvested. A Commission-approved Kelp Harvest Plan is required for kelp bed lease holders and for the mechanical harvest of kelp in all locations where harvest is allowed.

CDFW is currently reviewing its Management Policies and Harvest Methods guidance document and is drafting several proposed new regulations governing commercial harvest of wild kelp and algae (Rebecca Flores-Miller, pers. comm.). There is no timetable to bring these proposed regulations to the CDFW Commission for adoption during 2020, due to a shortage of staff resources during the COVID 19 pandemic. In the near future, CDFW also plans to review its Royalty Rates and License Fees schedule for commercial harvesters. The royalty rates for kelp were established 24 years ago at \$1.71 per wet ton, and the rates for edible seaweed and agar were established 35 years ago at \$24 and \$17 per wet ton, respectively.

Recreational harvest of marine algae for personal use is permitted in California. Those harvesting for personal use must abide by the regulations governing the recreational harvest. The daily bag limit for recreational harvesters of marine algae is 10 pounds wet weight in the aggregate. Commonly harvested kelp and marine algae include bull kelp (*Nereocystis luetkeana*), giant kelp (*Macrocystis pyrifera*), grapestone or Turkish washcloth (*Mastocarpus papillatus*), bladderwrack (*Fucus distichus*), kombu (*Laminaria setchellii*), wakame (*Alaria marginata*), sea cabbage or sweet kombu (*Saccharina sessilis*), bladder chain kelp or sea fern (*Stephanocystis osmundacea*), nori *Pyropia* spp.), and sea lettuce (*Ulva* species).

Recreational harvesters are prohibited from harvesting or disturbing eelgrass (*Zostera* spp.), surfgrass (*Phyllospadix* spp.), and sea palm (*Postelsia palmaeformis*). Marine aquatic plants may not be cut or harvested in state marine reserves. Regulations may prohibit cutting or harvesting of marine aquatic plants within state marine conservation areas and state marine parks (California Code of Regulations, Title 14, Section 632b).

The administrative kelp bed status in the Region Nine study area is shown in Figure 24. Kelp areas 1 and 2 are open, 3 is leased, 4, 5, and 6 are leasable (except for portions that are closed within marine protected areas), 7, 8, and 9 are open (except for portions of 9 that are closed within marine protected areas), and 10 is closed.

Commercial marine algae harvest data are shown in Figure 25 for the period from 1931 to 2019 (https://www.wildlife.ca.gov/Conservation/Marine/Kelp/Commercial-Harvest). The annual harvest exceeded 100,000 metric tons in the 1950s, 1960s and 1970s, but declined considerably in the early 1980s. The annual harvest again exceeded 100,000 metric tons in the early 1990s, but subsequently declined. Since 2006, the annual harvest has been relatively low (fewer than 5,000 metric tons per year).

Table 10 shows how the RNKSC kelp bed designations correspond to the State of California's administrative lease kelp bed designations. Multiple RNKSC kelp beds fall within each of lease areas 5 through 9. Lease area 4 contains the La Jolla kelp bed, lease areas 2 and 3 contain the Point Loma kelp bed, and lease area 1 contains the Imperial Beach kelp bed.

In March 2018, Knocean Sciences (Dallas, Texas) applied to the California Department of Fish and Wildlife (CDFW) to renew its existing Kelp Bed No. 3 lease issued in July 2013. Bed No. 3 extends from the southern tip of Point Loma to the south jetty of Mission Bay, and covers an area of 2.58 m². Knocean Sciences proposed to harvest a maximum of 200 tons per year of giant kelp during the first two years of the five-year lease renewal, and 2,000 tons per year during years three through five. As part of the renewal process, Knocean Sciences proposed a royalty bid to the Fish & Game Commission of \$3.00 per wet ton of kelp harvested. Knocean Sciences planned to harvest giant kelp from May through November via mechanical harvesting from vessels specially modified for this purpose. The lease renewal was approved by CDFW in June 2018. CDFW subsequently authorized Dr. Matthew Edwards, San Diego State University, to perform research activities involving giant kelp in Kelp Bed No. 3 (August 2018).

Kelp harvesting peaked in the 1970s, exceeding 150,000 metric tons per year in some years (Figure 25). However, kelp harvesting has been relatively low (fewer than 5,000 metric tons per year) since 2006. It is unlikely that this low amount of kelp harvesting has had any impact on the health of the kelp beds in Region Nine.

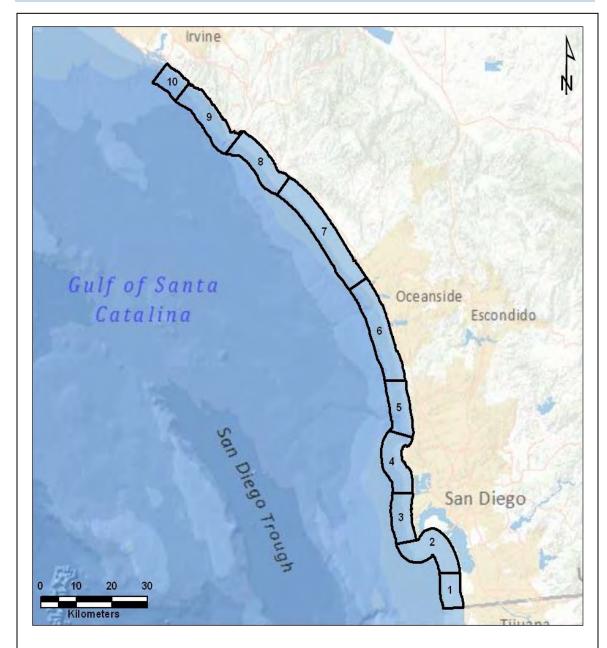


Figure 24. Administrative kelp bed lease areas in the Region Nine study area.

Source: California Department of Fish and Wildlife (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=134676&inline).

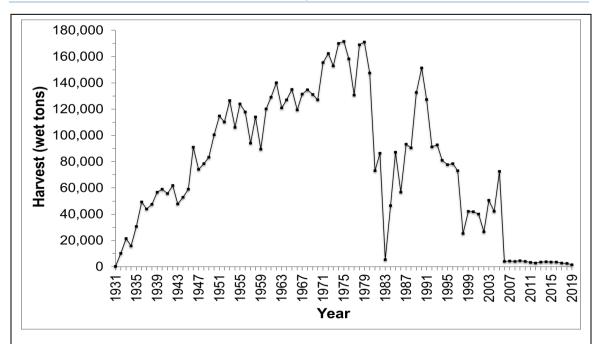


Figure 25. Commercial kelp harvest landings for giant and bull kelp from 1931 through 2019. Source: California Department of Fish and Wildlife (https://www.wildlife.ca.gov/Conservation/Marine/Kelp/Commercial-Harvest).

Table 10. Region Nine kelp bed designations compared to California Department of Fish and Wildlife kelp bed designations.

F & W Lease Area	Region Nine Kelp Bed Designations
Bed 1	Imperial Beach
Beds 2 and 3	Point Loma
Bed 4	La Jolla
Bed 5	Leucadia, Encinitas, Cardiff, Solana Beach, Del Mar, Torrey Pines
Bed 6	North Carlsbad, Agua Hedionda, Encina Power Plant, Carlsbad State Beach
Bed 7	Horno Canyon, Barn Kelp, Santa Margarita
Bed 8	San Clemente, San Mateo Point, San Onofre
Bed 9	North Laguna Beach, South Laguna, Dana Point/Salt Creek, Capistrano Beach

V - UPDATE TO PRESENT

The first aerial survey for 2020 was conducted on April 15, 2020. Little or no kelp surface canopy was observed throughout most of Region Nine. However, the La Jolla Lower and Point Loma kelp beds were extensive, although surface canopy was lower than the maximum observed in 2019 (except for lower Point Loma, which was similar). The second aerial survey was conducted on July 5, 2020. Once again, little or no kelp surface canopy was observed throughout most of the region.

VI - CONCLUSIONS

Total combined kelp surface canopy decreased substantially (by 53%) in 2019 in Region Nine. More than half of the kelp beds observed in 2018 disappeared in 2019 (10 out of 18), while none reappeared. The total kelp canopy in Region Nine covered approximately 5.2 km² in 2019, similar to the total amount recorded in 2016 (5.1 km²), but larger than the total for 2017 (3.3 km²), which was the lowest amount of total kelp canopy since 2006. The largest beds were the La Jolla and Point Loma kelp beds, accounting for 99% of the total canopy coverage in 2019.

Water temperatures throughout the RNKSC areas generally were warmer than average throughout most of 2019, particularly from September through December. However, lower than normal temperatures were recorded at Newport Pier during most of April, May, and August, as well as at times during March, June, and July. Lower than normal water temperatures also were recorded at Scripps Pier at times from February through October, particularly during the months of June, July and August. Daily sea surface temperature values rarely fell below 14°C (a threshold below which nutrient availability is much greater than at higher water temperatures) at Newport Pier and Scripps Pier, and never fell below this threshold at Oceanside or Point Loma South.

Nutrient availability continued to be low in 2019. Upwelling in 2019 (at a location approximately 161-km west of Solana Beach) generally increased each month from January through August, then decreased through December. Upwelling in 2019 was much higher than the long-term mean during the months of July and August, but lower during March, May and June. Upwelling was lower in 2019 than during 2018 for the months of March, April, May and June, when surface water temperatures generally were lower and nutrient availability would be increased. Although upwelling was higher in 2019 than the previous year during the months of July, August, and September, this corresponded to the period of the year when surface water temperatures were highest and nutrient availability would be decreased.

VII - REFERENCES

- California Dept. of Fish and Wildlife. 2019. Commercial marine algae harvest data. Web site: https://www.wildlife.ca.gov/Conservation/Marine/Kelp/Commercial Harvest.
- City of San Diego. 2020. Thermistor data from offshore Point Loma.
- Di Lorenzo, E. 2017. Monthly North Pacific Gyre Oscillation (NPGO) index values. Web site: http://www.o3d.org/npgo/npgo.php
- Di Lorenzo, E., N. Schneider, K. Cobb, P. Franks, K. Chhak, A. Miller, J. Mcwilliams, S. Bograd, H. Arango, and E. Curchitser. 2008. North Pacific Gyre Oscillation links ocean climate and ecosystem change. Geophys. Res. Lett. 35:L08607.
- Gallegos, C.L. and T.E. Jordan. 2002. Impact of the Spring 2000 phytoplankton bloom in Chesapeake Bay on optical properties and light penetration in the Rhode River, Maryland. Estuaries 25(4A): 508-518.
- Gallegos, C.L. and P.W. Bergstrom. 2005. Effects of a *Prorocentrum* minimum bloom on light availability for and potential impacts on submersed aquatic vegetation in upper Chesapeake Bay. Harmful Algae 4(3): 553-574.
- Gerard, V.A. 1982. *In situ* rates of nitrate uptake by giant kelp, *Macrocystis pyrifera* (L.) C. Agardh: tissue differences, environmental effects, and predictions of nitrogen limited growth. Journal of Experimental Marine Biology and Ecology 62: 211-224.
- Haines, K.C. and P.A. Wheeler. 1978. Ammonium and nitrate uptake by the marine macrophytes *Hypnea musciformes* (Rhodophyta) and *Macrocystis pyrifera* (Phaeophyta). Journal of Phycology 14: 319-324.
- Kamykowski, D. and S.J. Zentara. 1986. Predicting plant nutrient concentrations from temperature and sigma-t in the world ocean. Deep Sea Research 33:89-105.
- Leising, A.W., I.D. Schroeder, S.J. Bograd, J. Abell, R. Durazo, G. Gaxiola-Castro, CICESE, E. Bjorkstedt, J. Field, K. Sakuma, R. Goericke, W.T Peterson, R.D. Brodeur, C. Barcelo, T.D. Auth, E.A. Daly, R.M. Suryan, A.J. Gladics, J.M. Porquez, S. McClatchie, E.D. Weber, W. Watson, J.A. Santora, W.J. Sydeman, S.R. Melin, F.P. Chavez, R.T. Golightly, S.R. Schneider, J. Fisher, C. Morgan, R. Bradley, and P.Warybok. 2015. State of the California Current 2014–15: Impacts of the Warm-Water "Blob". CalCOFI Rep. 56:31-68.
- Mantua, N. 2017. Standardized values for the Pacific Decadal Oscillation (PDO) index. Web site: http://research.jisao.washington.edu/pdo/PDO.latest
- MBC Applied Environmental Sciences. 2019. Status of the Kelp Beds 2016 Survey. Prepared for the Central Region Kelp Survey Consortium and the Region Nine Kelp Survey Consortium. 86 p. plus appendices.
- National Oceanic and Atmospheric Administration (NOAA) Earth System Research Laboratory (ESRL). 2019. Multivariate ENSO Index. Web site: http://www.esrl.noaa.gov/psd/enso/mei/index.html
- National Oceanic and Atmospheric Administration (NOAA) National Data Buoy Center (NDBC). 2019. Data Buoys. Web site: http://www.ndbc.noaa.gov

- National Oceanic and Atmospheric Administration (NOAA) Pacific Fisheries Env. Lab. (PFEG). 2019. Web site: http://www.pfeg.noaa.gov/products/PFEL/modeled/indices/upwelling/NA
- National Oceanic and Atmospheric Administration (NOAA) Southwest Fisheries Sci. Center (SWFSC) Env. Res. Div. (ERD). 2019. Web site: https://swfsc.noaa.gov/erd/
- North, W.J., D.E. James and L.G. Jones. 1993. History of kelp beds in Orange and San Diego Counties, California. Hydrobiologia 260/261:277-283.
- North, W.J. 2001. Analysis of aerial survey data & suggestions for follow-up activities. Prepared for the Region Nine Kelp Survey Consortium. 27 p. plus appendices.
- North, W.J. and MBC Applied Environmental Sciences. 2001. Status of the kelp beds of San Diego and Orange Counties for the years 1990 to 2000. Prepared for the Region Nine Kelp Survey Consortium. Costa Mesa, CA.
- Orange County Sanitation District. 2020. Thermistor data from offshore Orange County.
- Parnell, P.E., E.F. Miller, C.E. Lennert-Cody, P.K. Dayton, M.L Carter, and T.D. Stebbins. 2010. The response of giant kelp (*Macrocystis pyrifera*) in southern California to low-frequency climate forcing. Limnology and Oceanography 55(6) 2686-2702.
- SCCOOS (Southern California Coastal Ocean Observing System). 2019. HAB and ROMS data. Web site: http://www.sccoos.org.
- Schiel, D.R. and M.S. Foster. 2015. The biology and ecology of giant kelp forests. University of California Press. 395 pages.
- Tegner, M.J., P.B. Edwards and K.C. Riser. 1996. Is there evidence for long-term climatic changes in southern California kelp forests? California Cooperative Fisheries Investigative Report 37:111-126.
- Wheeler, P.A. and W.J. North. 1980. Effect of nitrogen supply on nitrogen content and growth rates of juvenile *Macrocystis pyrifera* (Phaeophyta) sporophytes. Journal of Phycology 16:577-582.
- Zimmerman, R.C. and J.N. Kremer. 1984. Episodic nutrient supply to a kelp forest ecosystem in southern California. Journal of Marine Research 42:591-604.

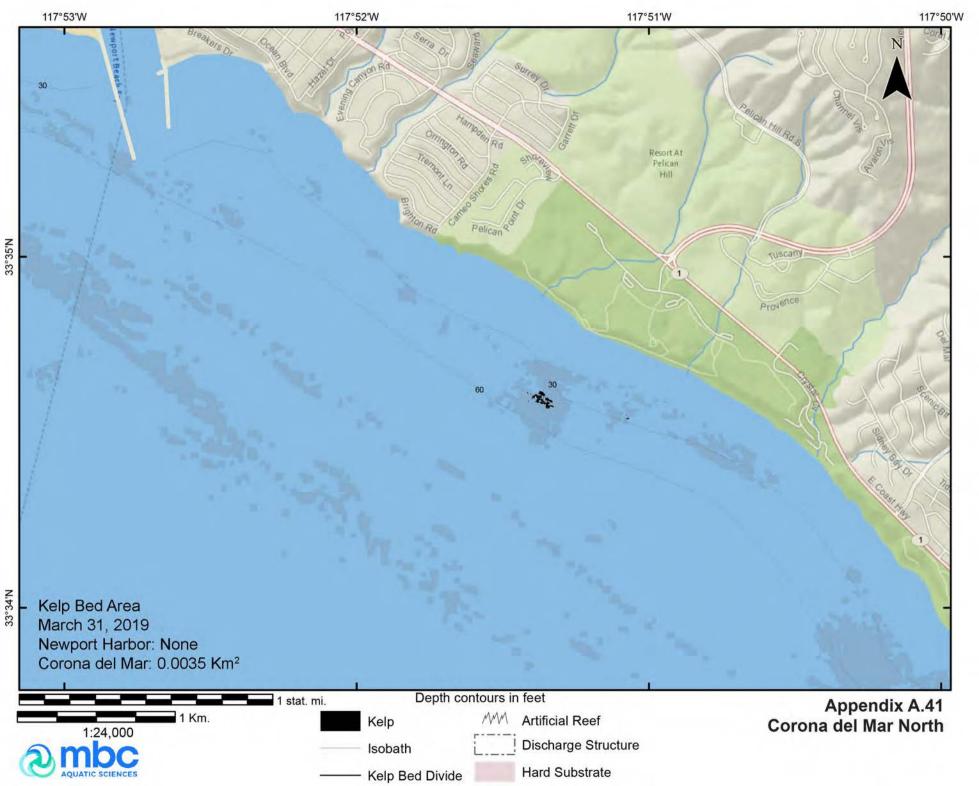
PERSONAL COMMUNICATIONS

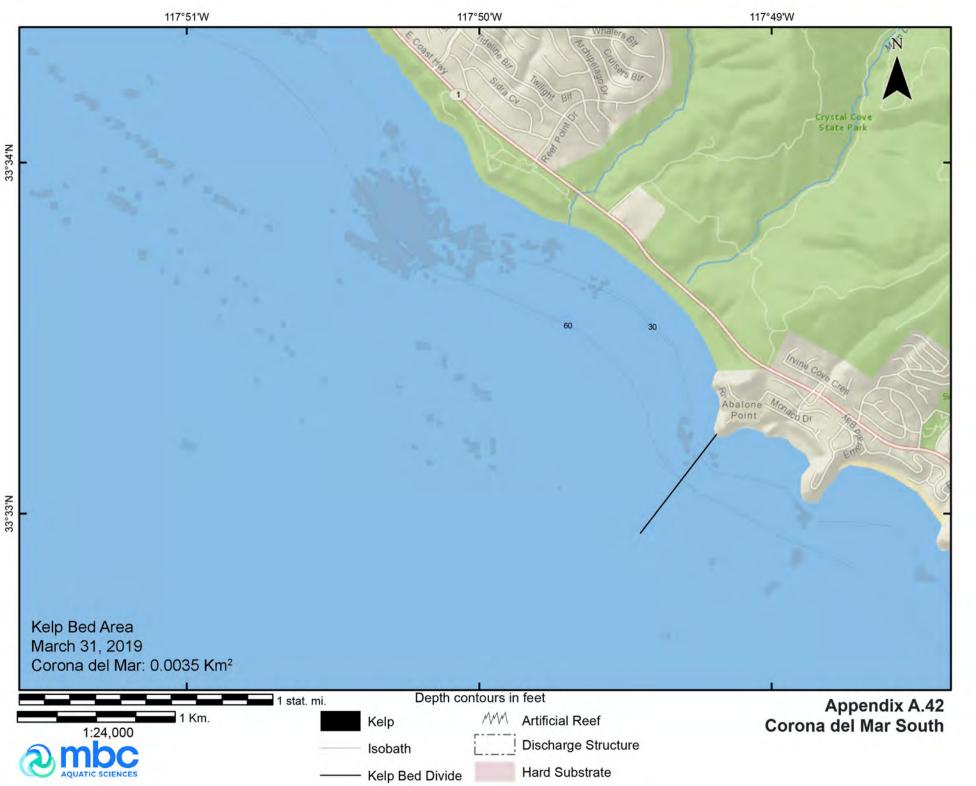
Flores-Miller, R. 2020. Rebecca Flores-Miller, California Department of Fish and Wildlife, Environmental Scientist. Commercial Kelp and Other Marine Algae Outreach Meeting, June 2, 2020.

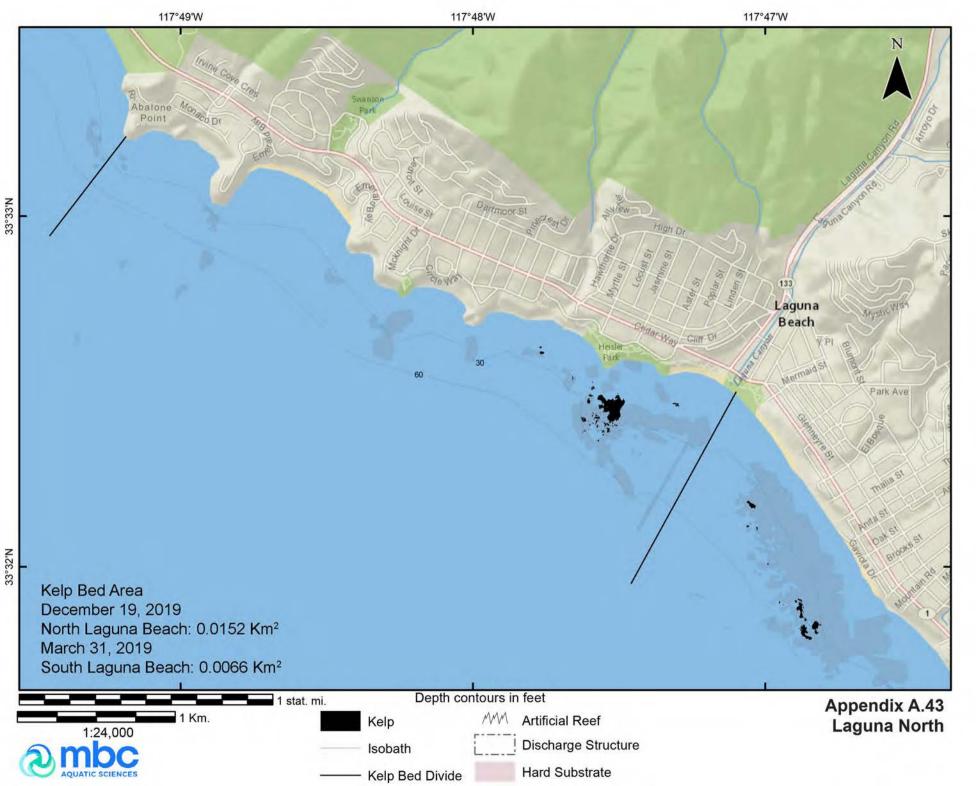
APPENDIX A

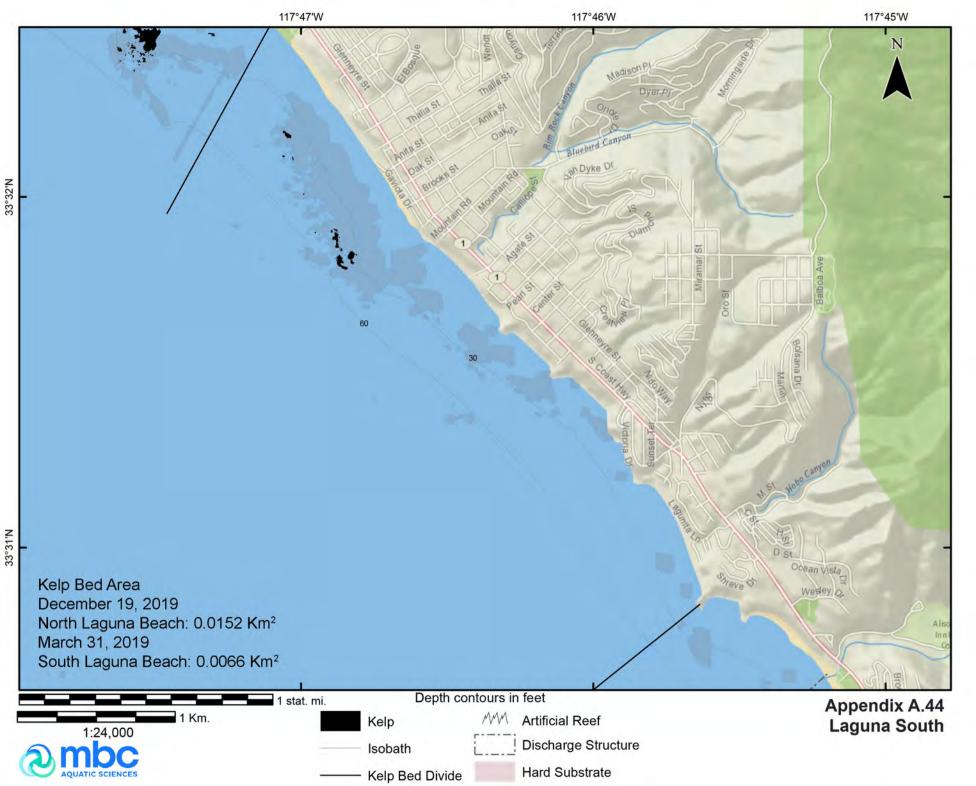
Kelp Canopy Maps

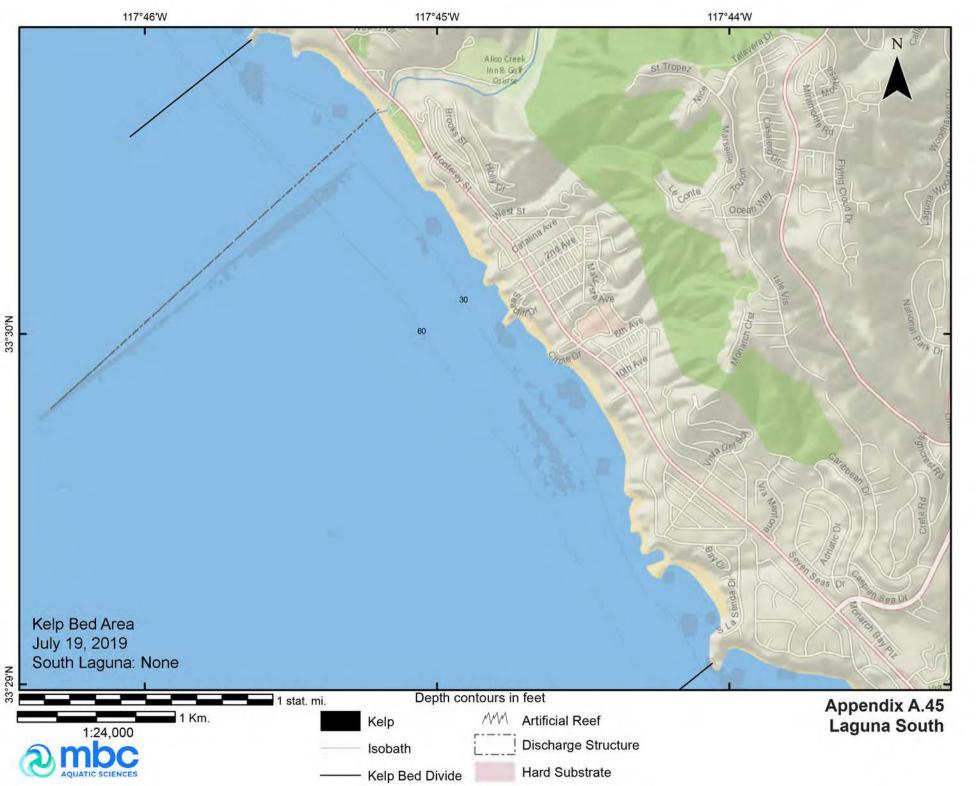


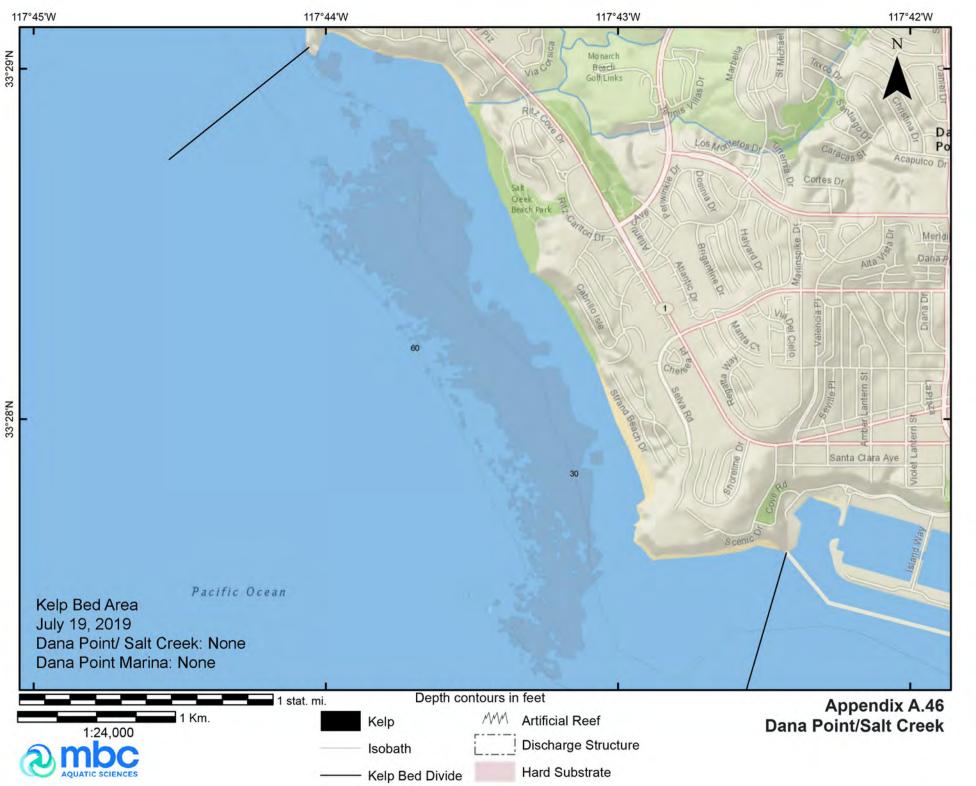


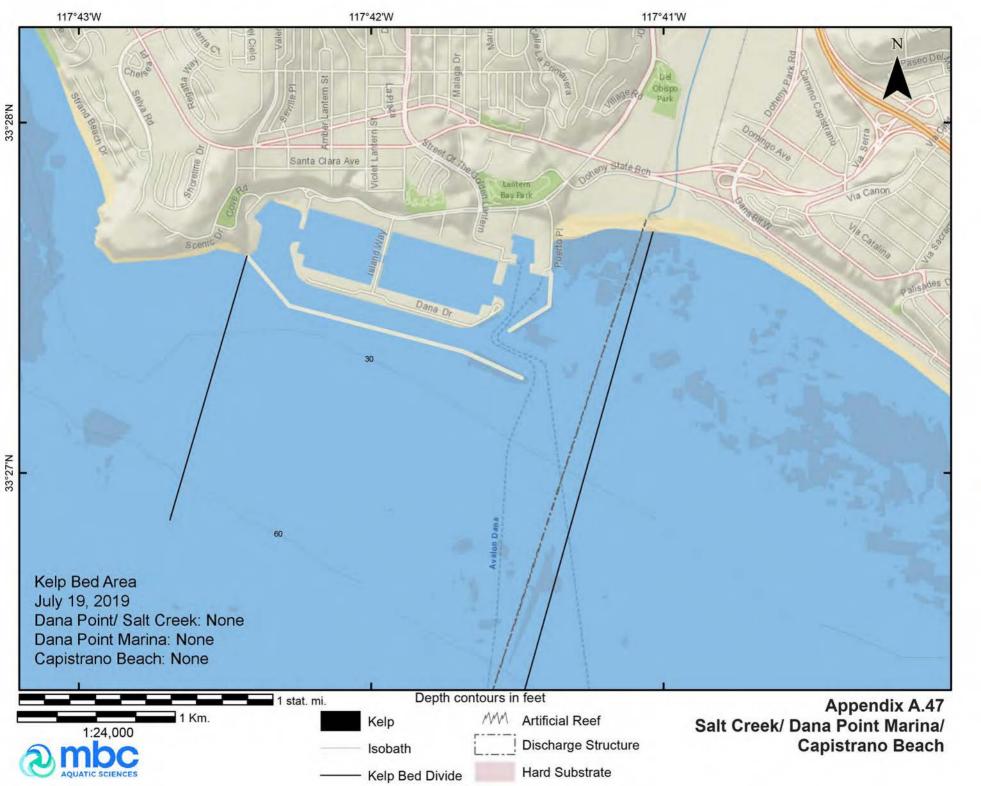


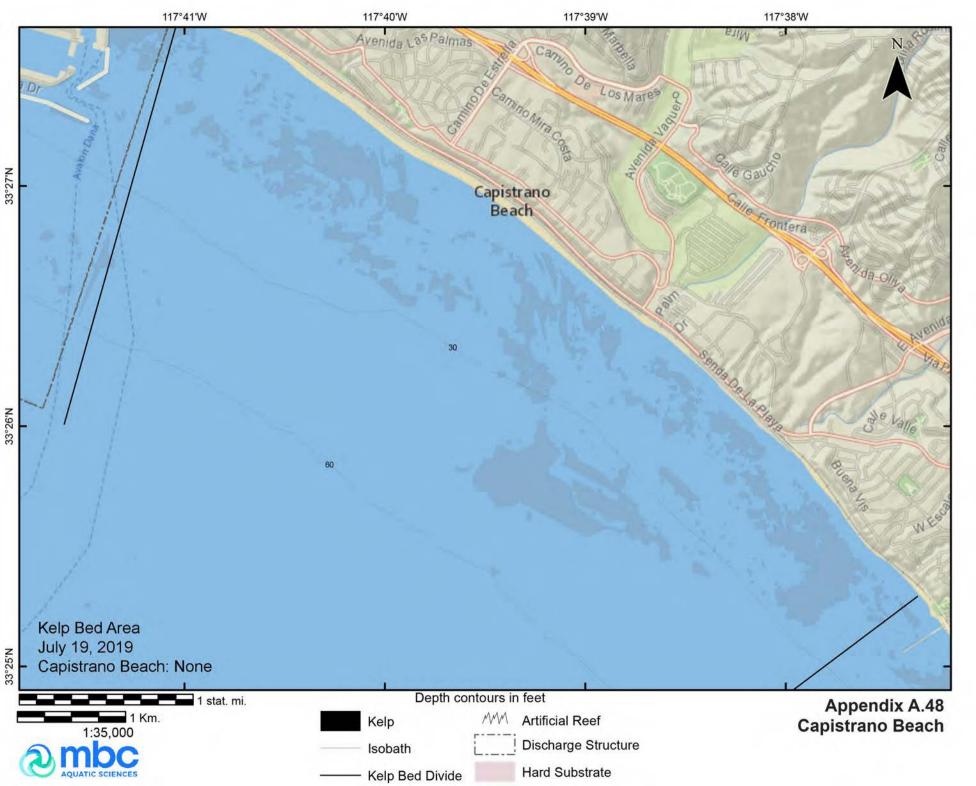


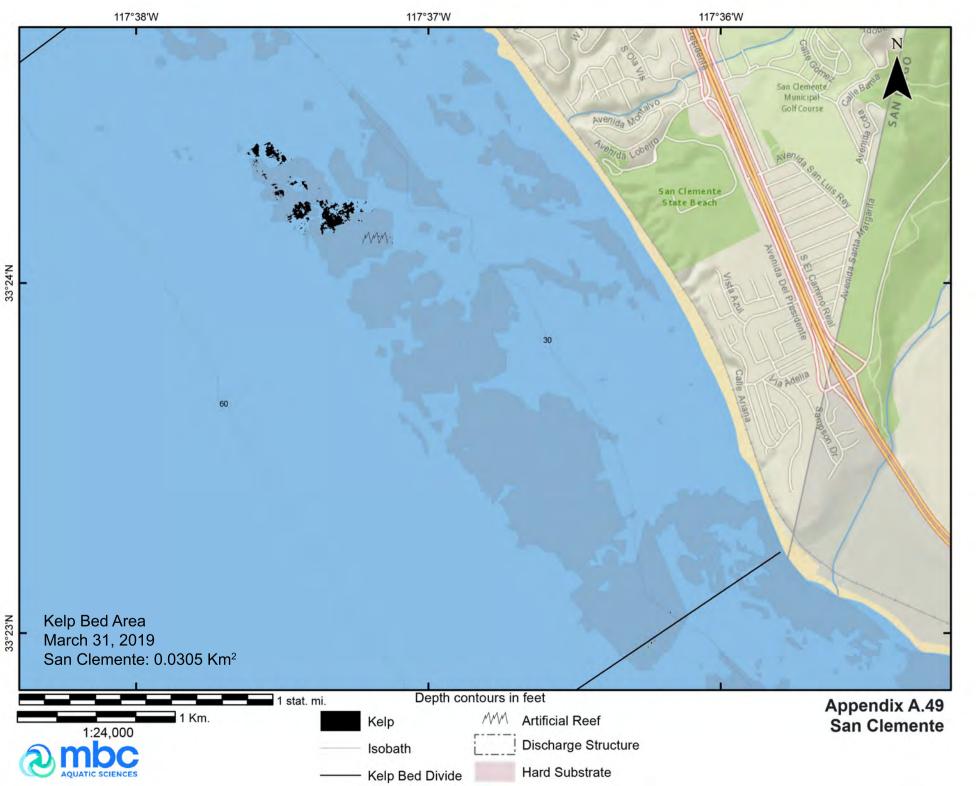


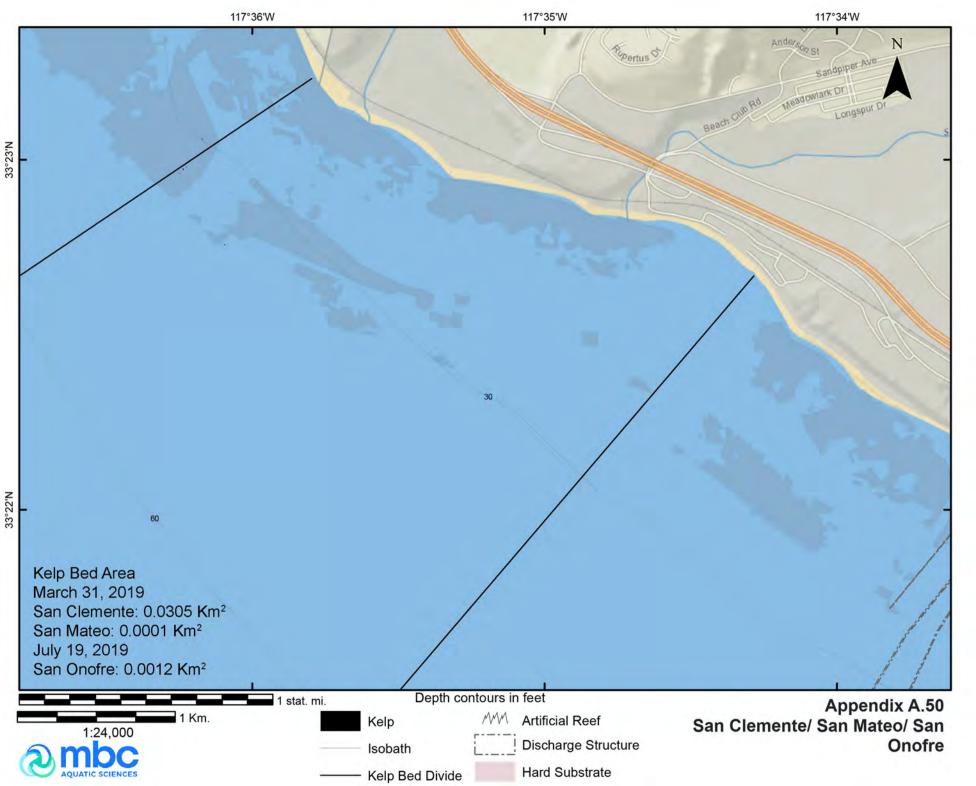


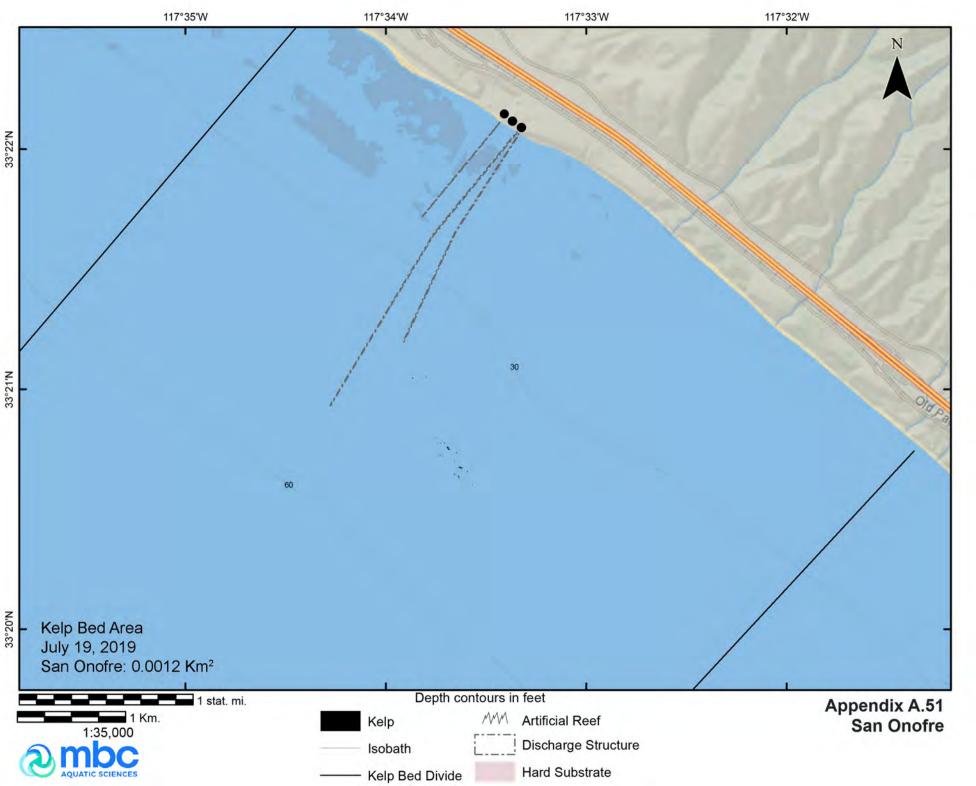


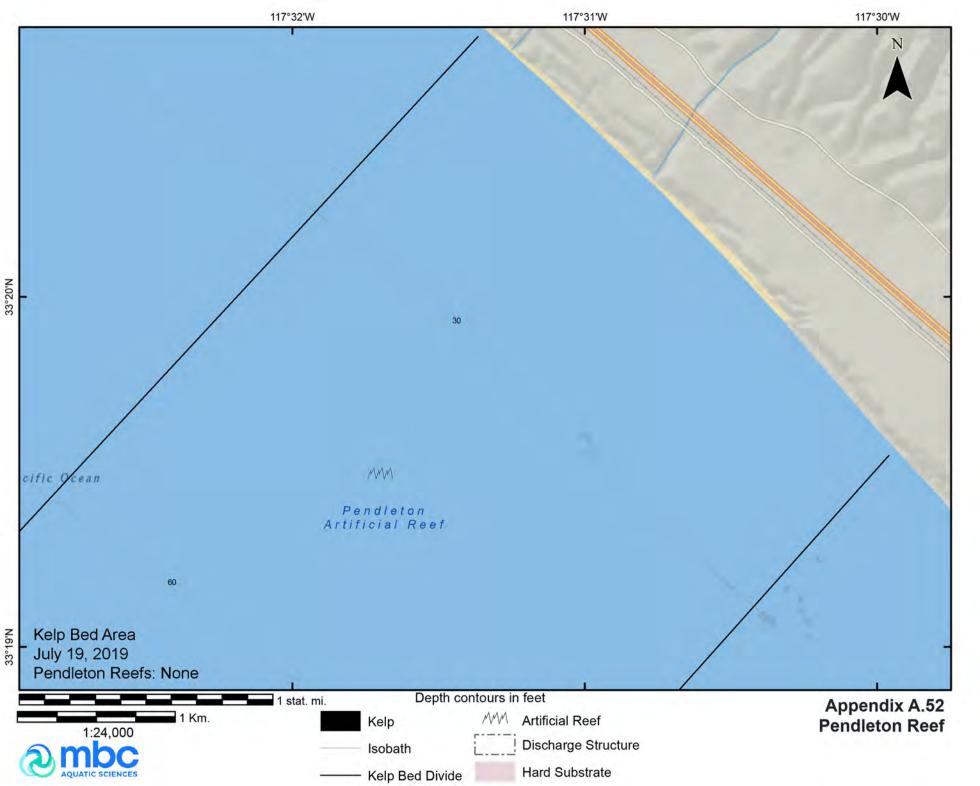


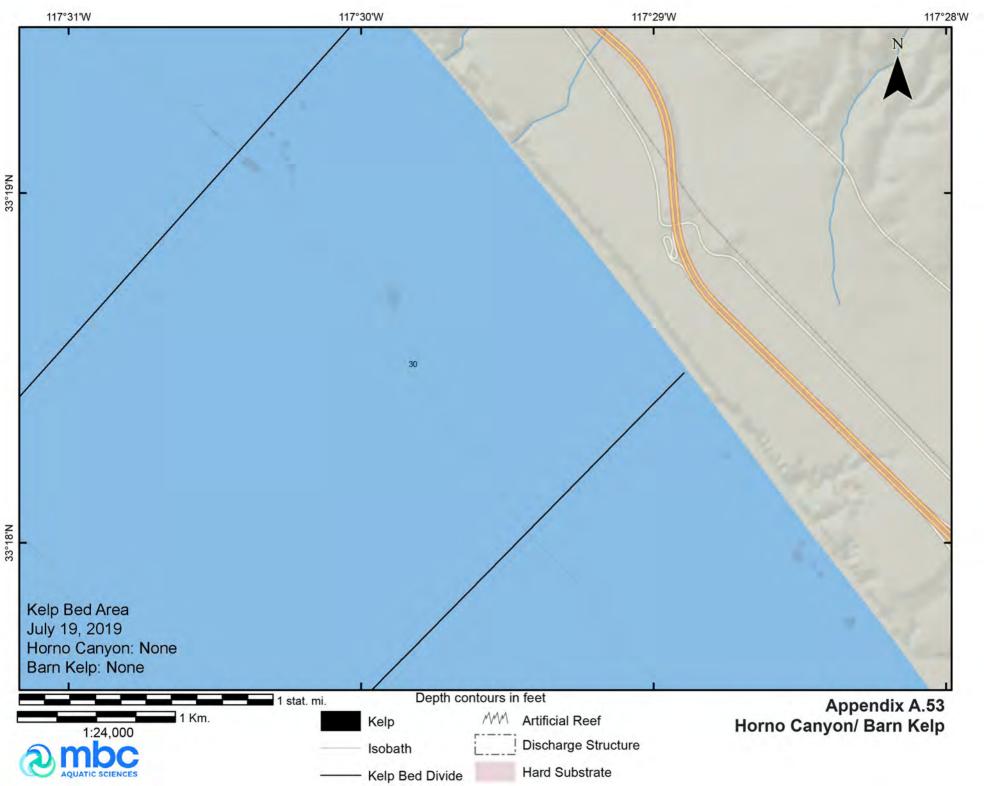


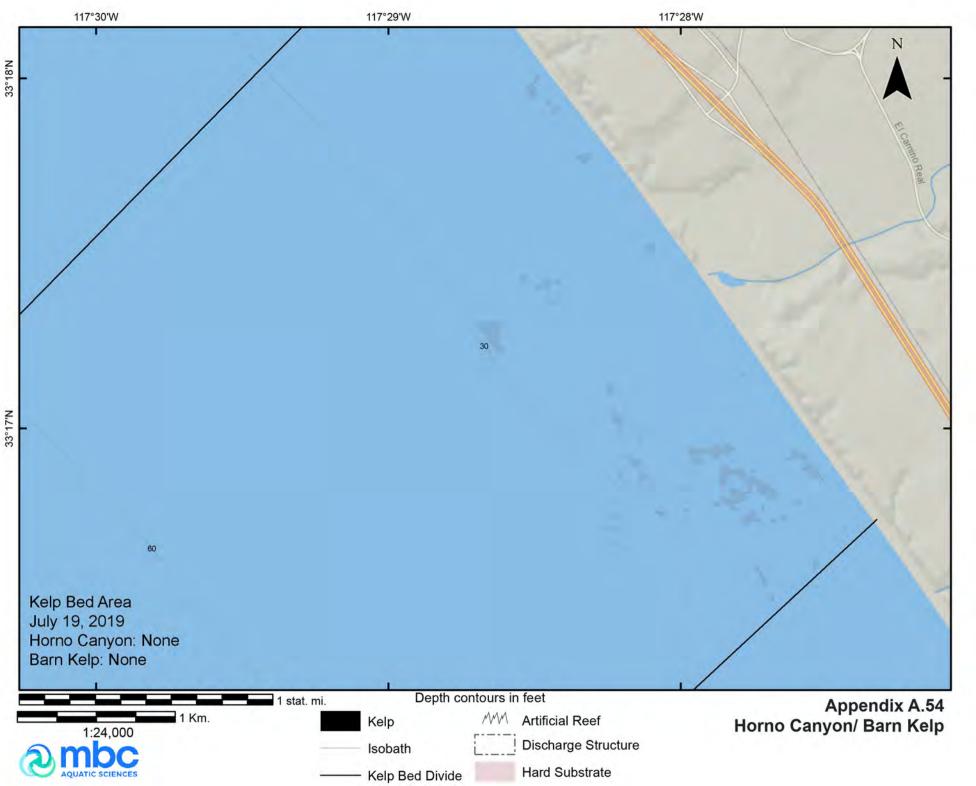


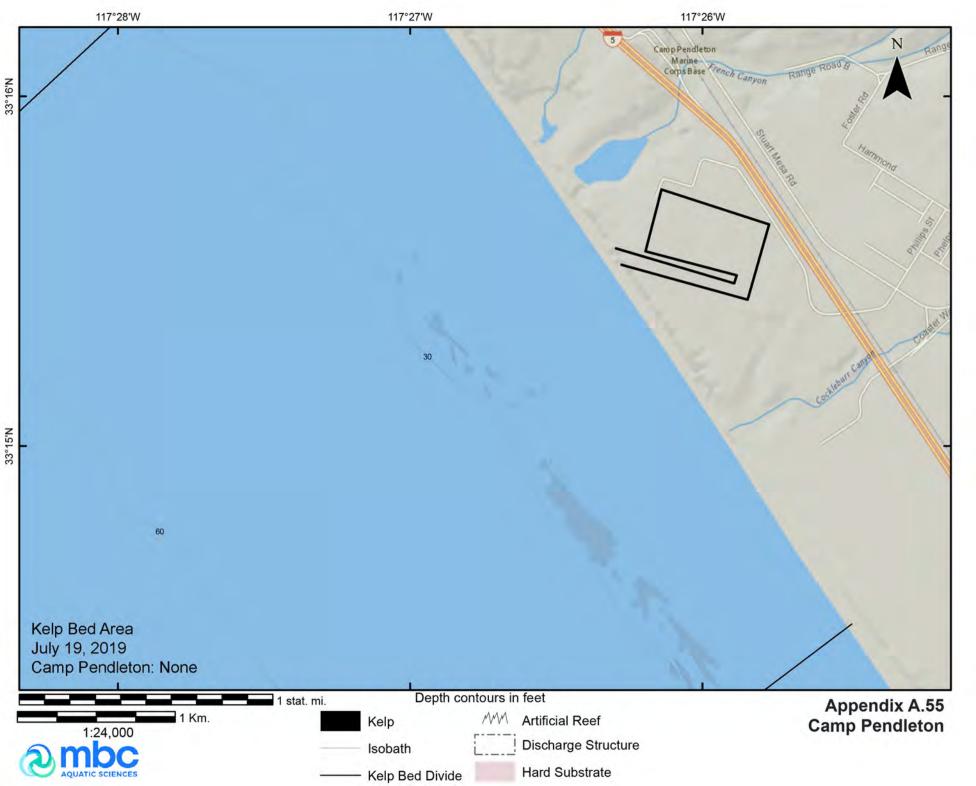


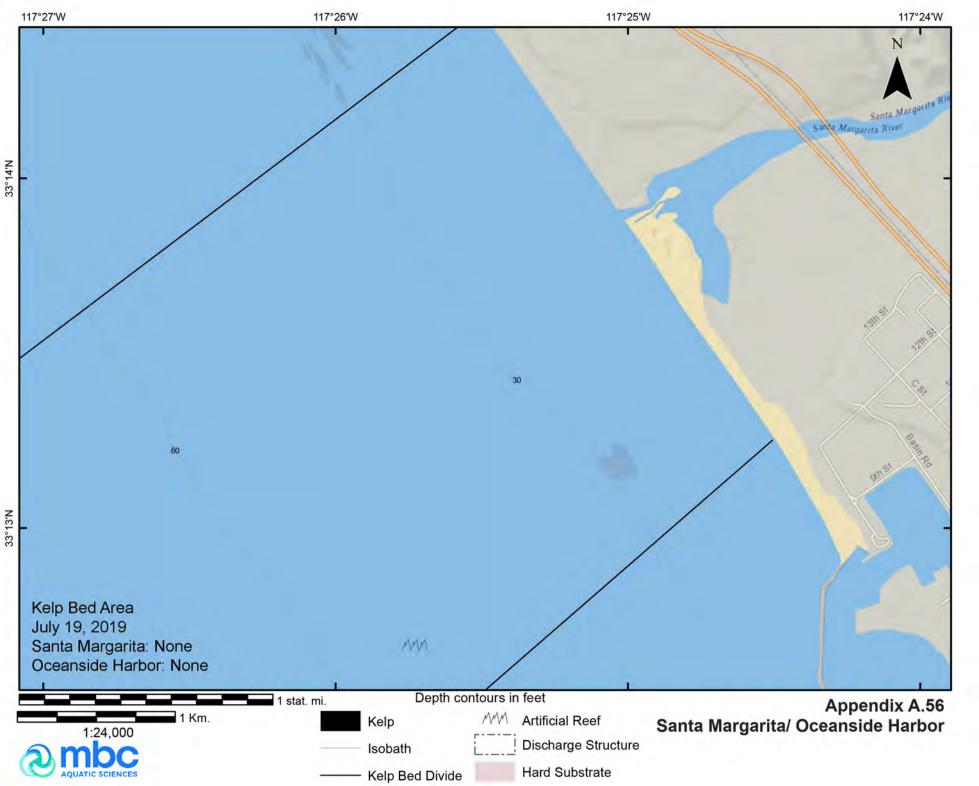








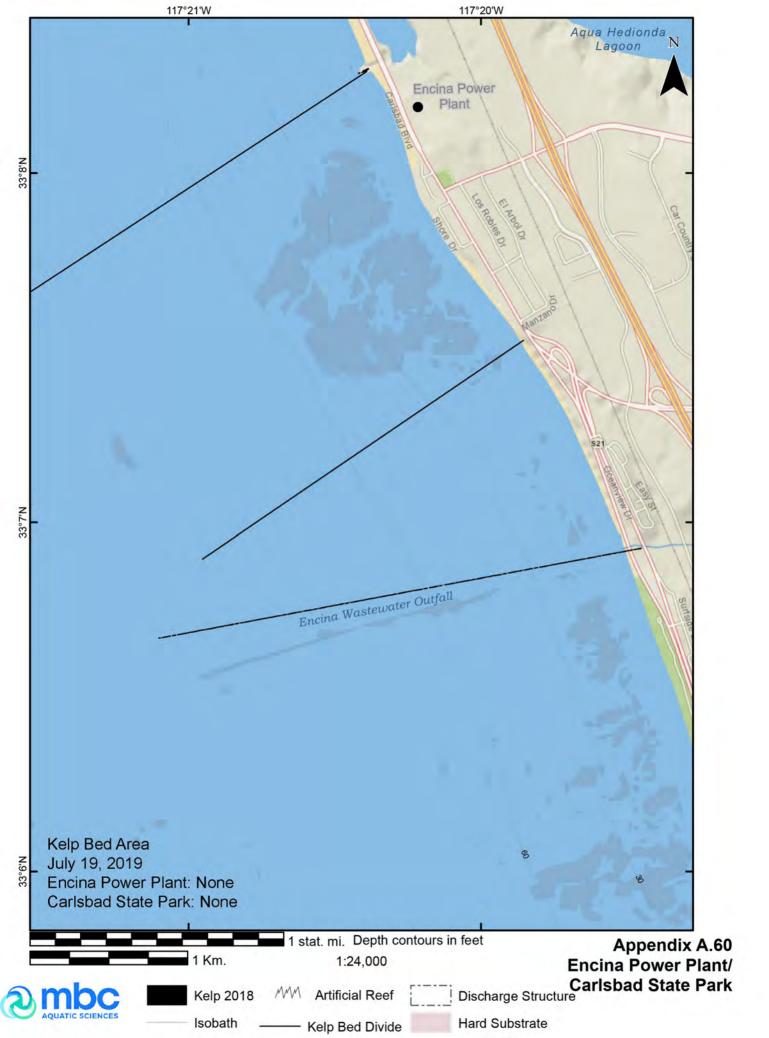




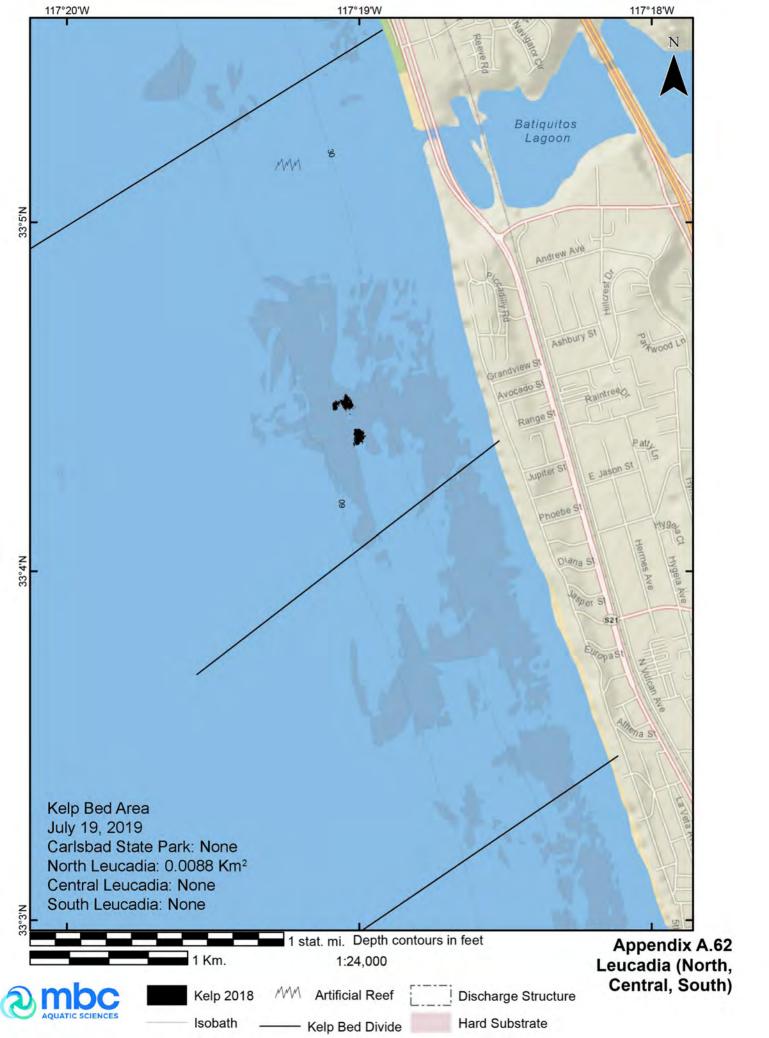


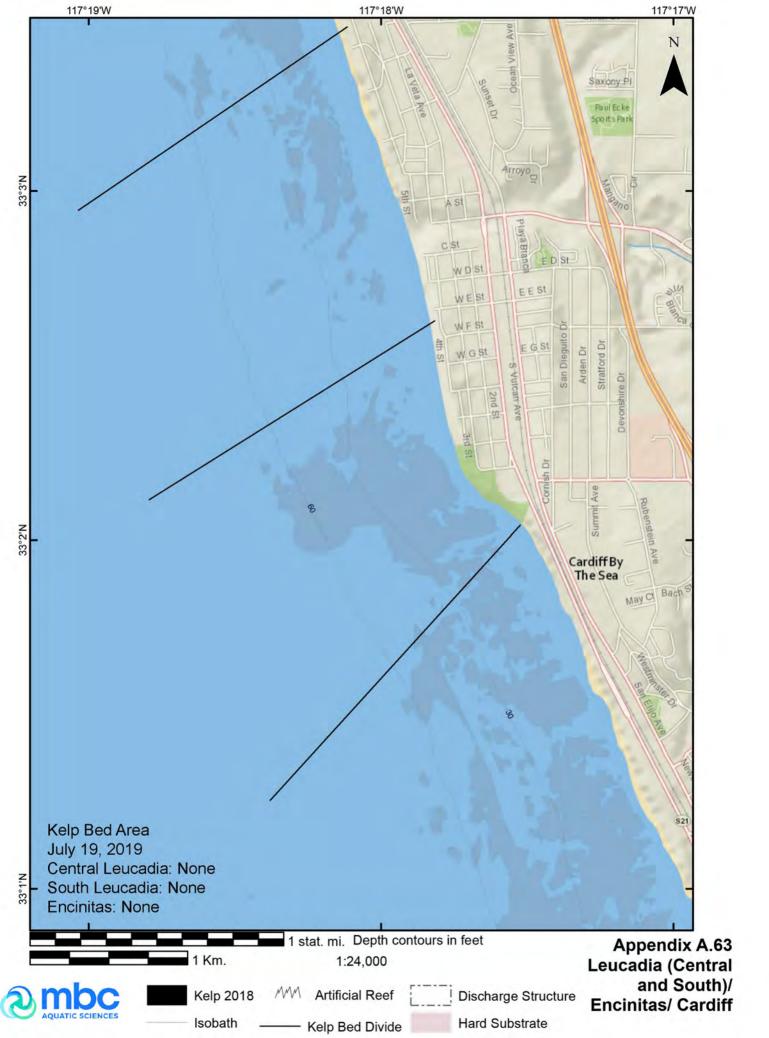


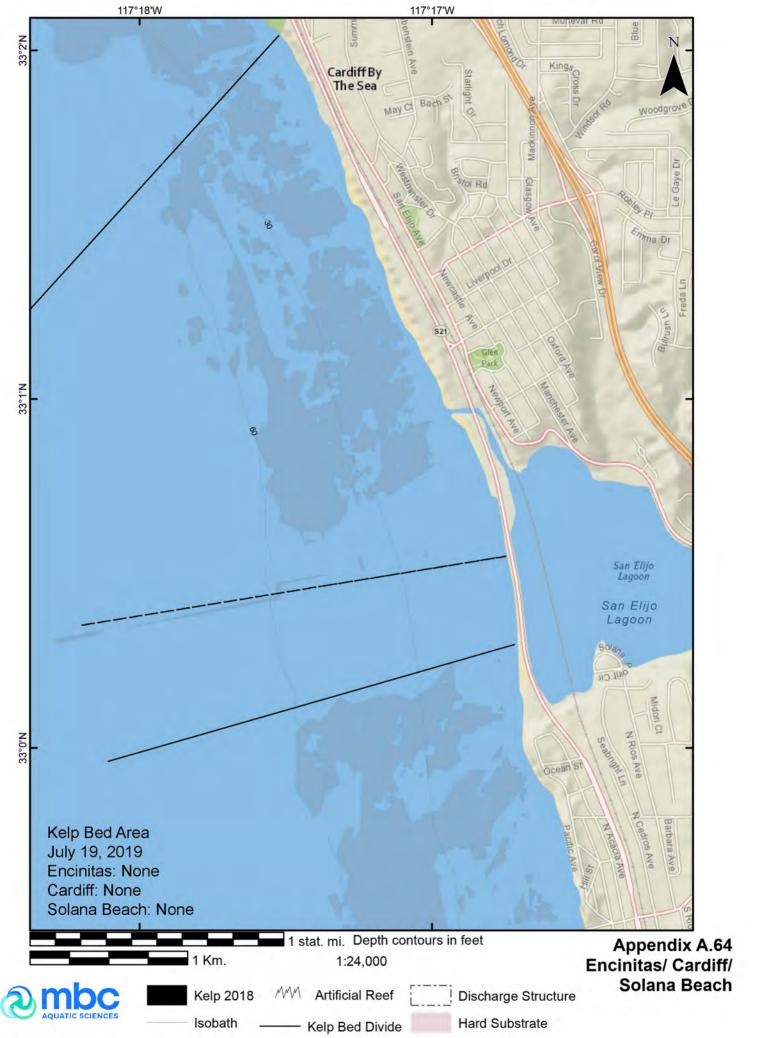




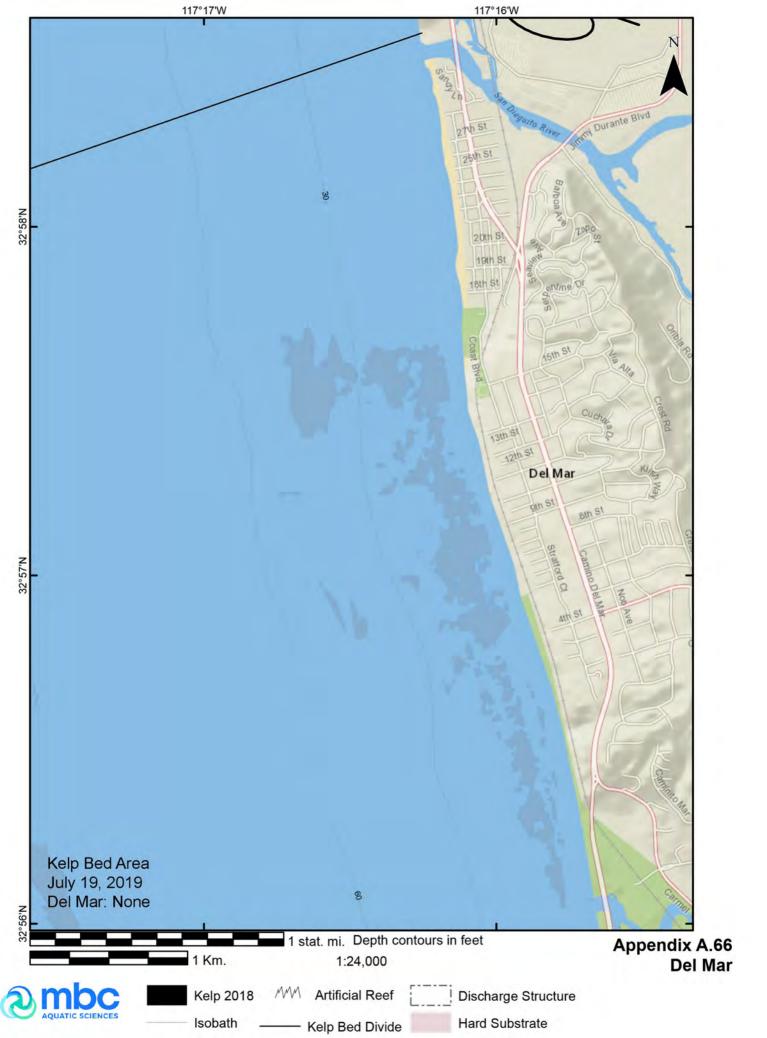


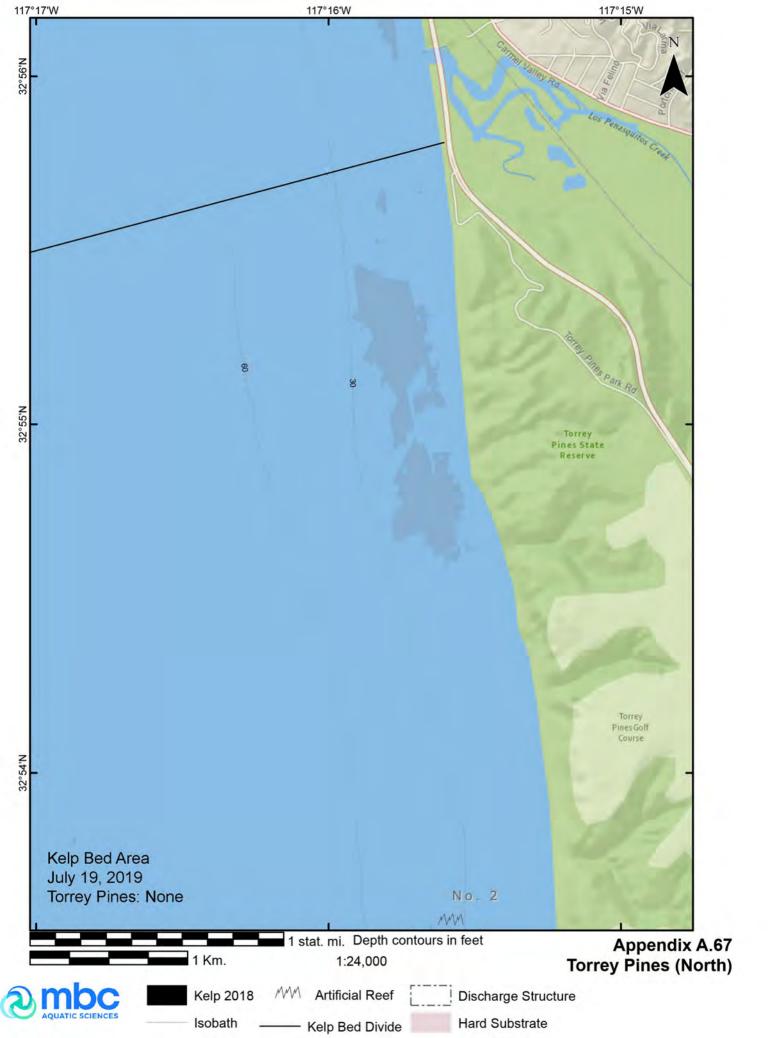


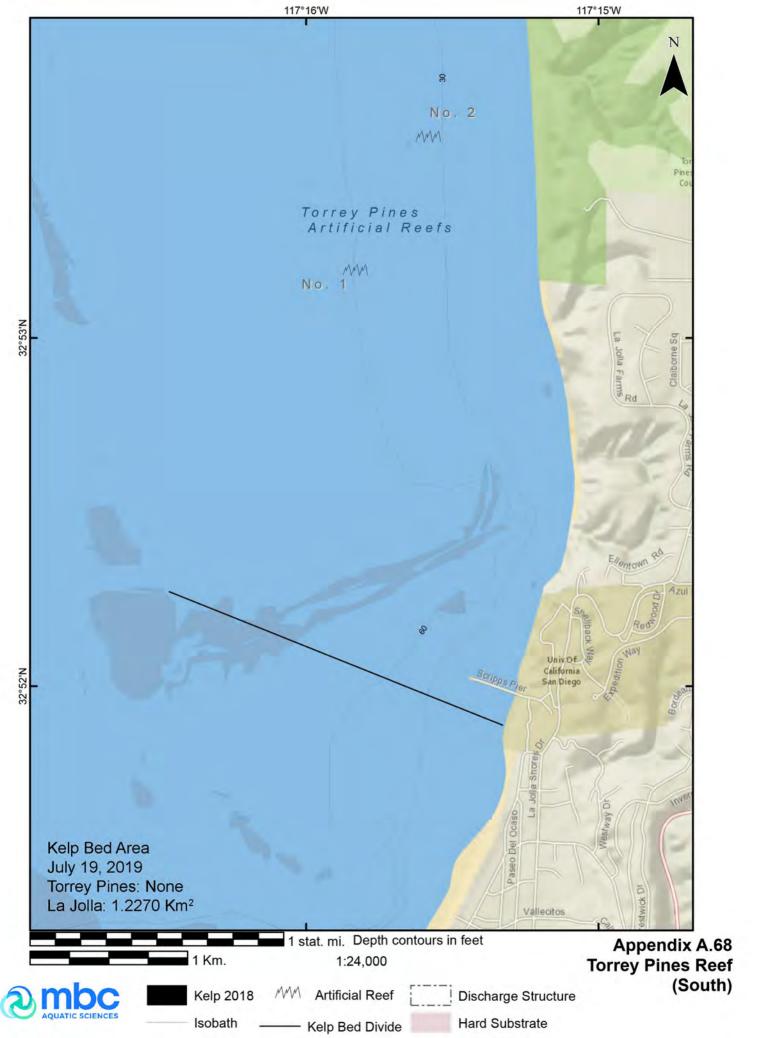


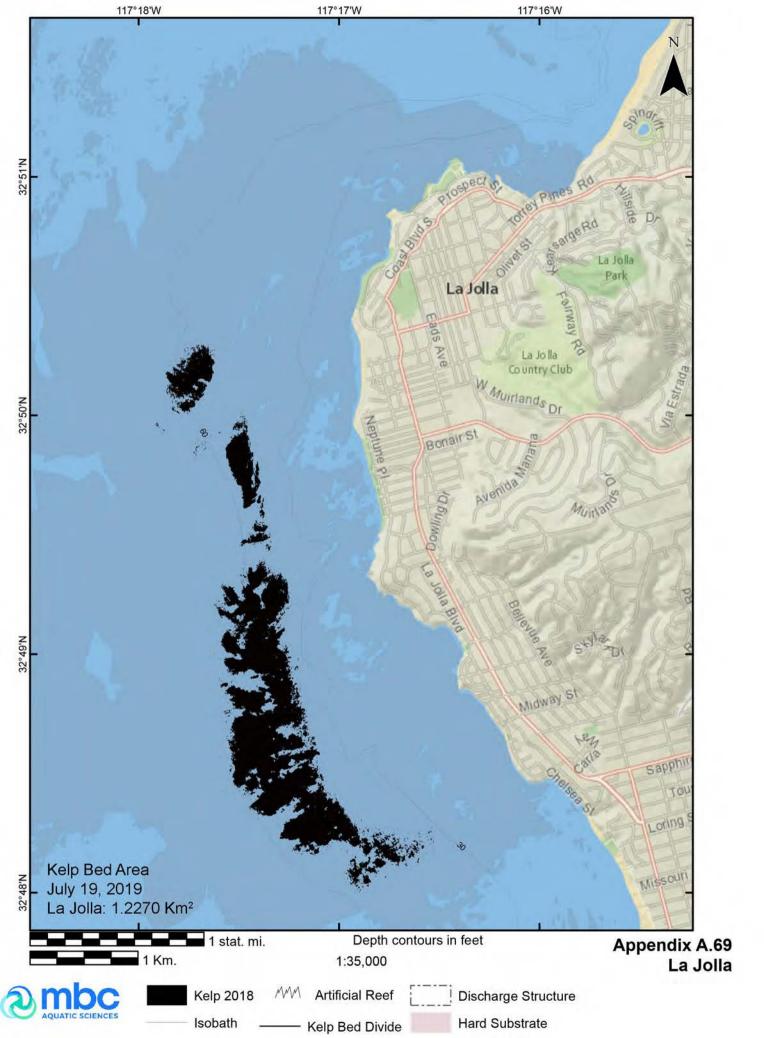






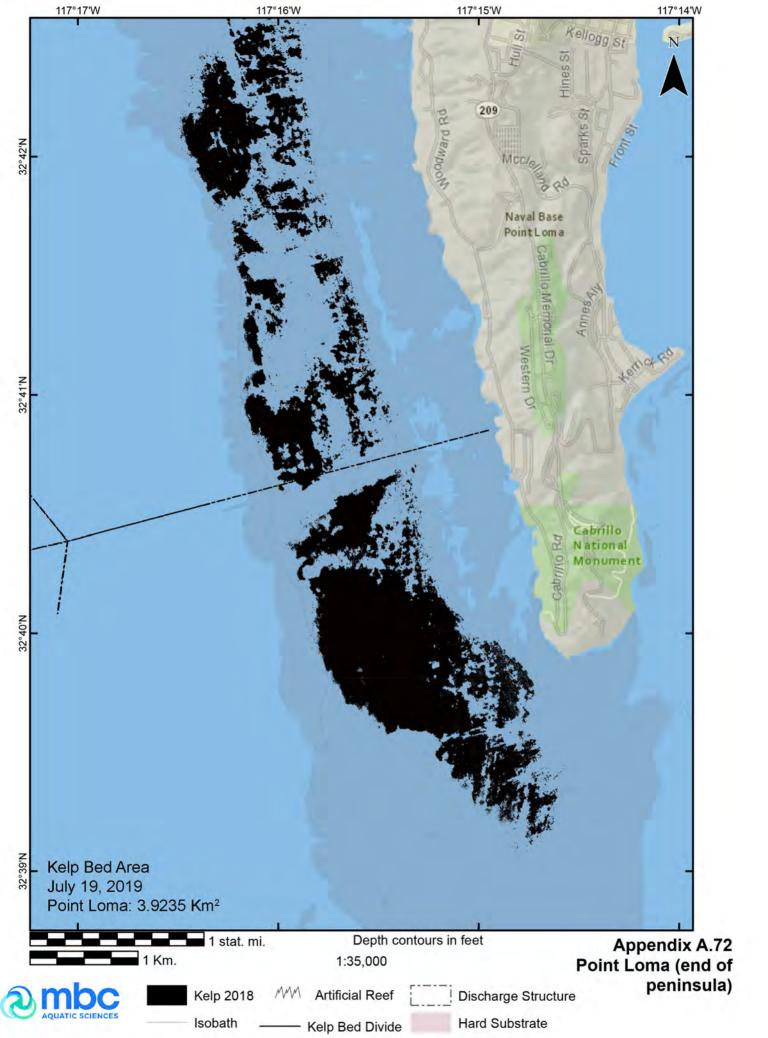


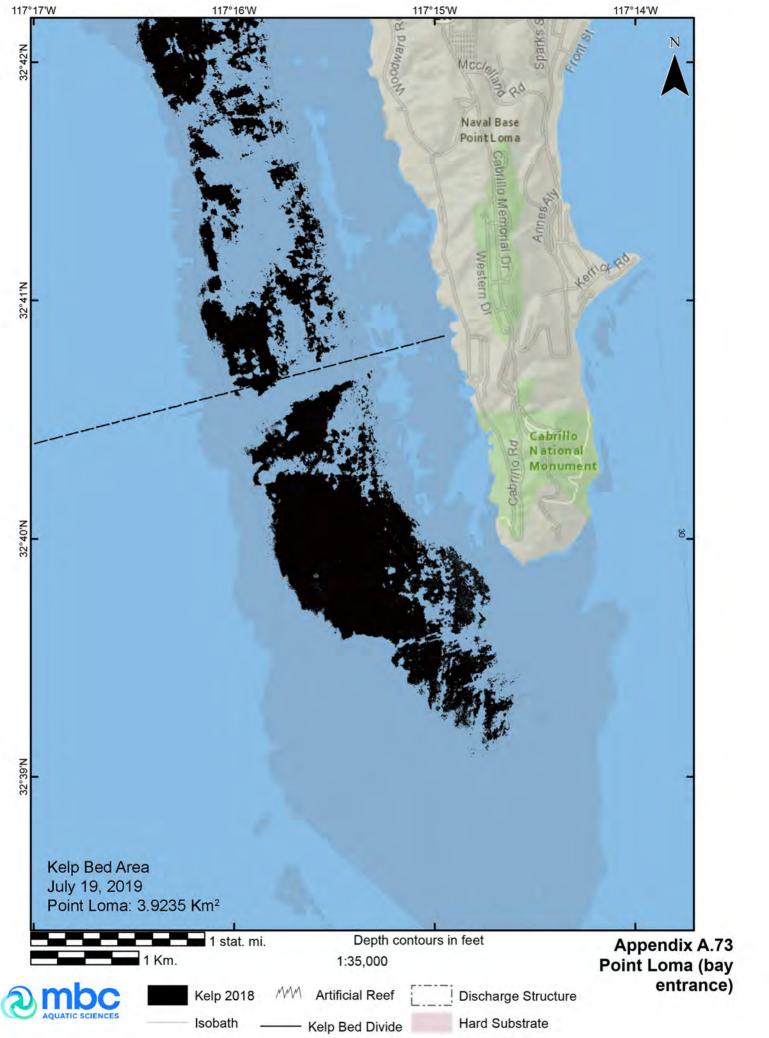


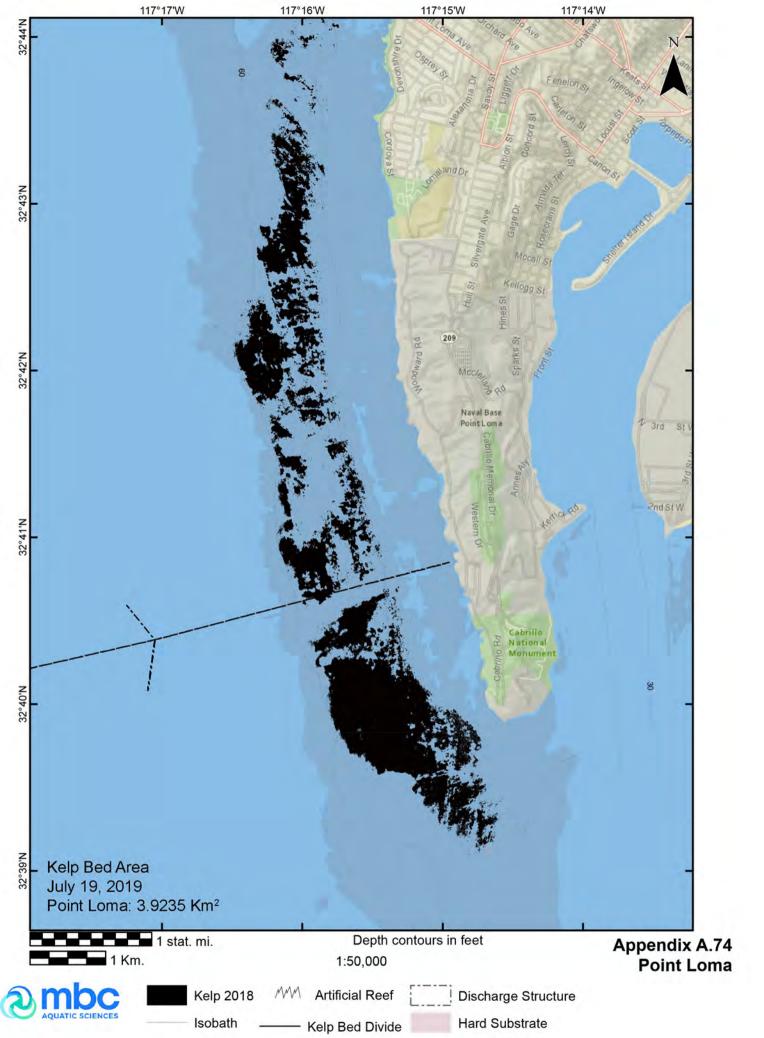


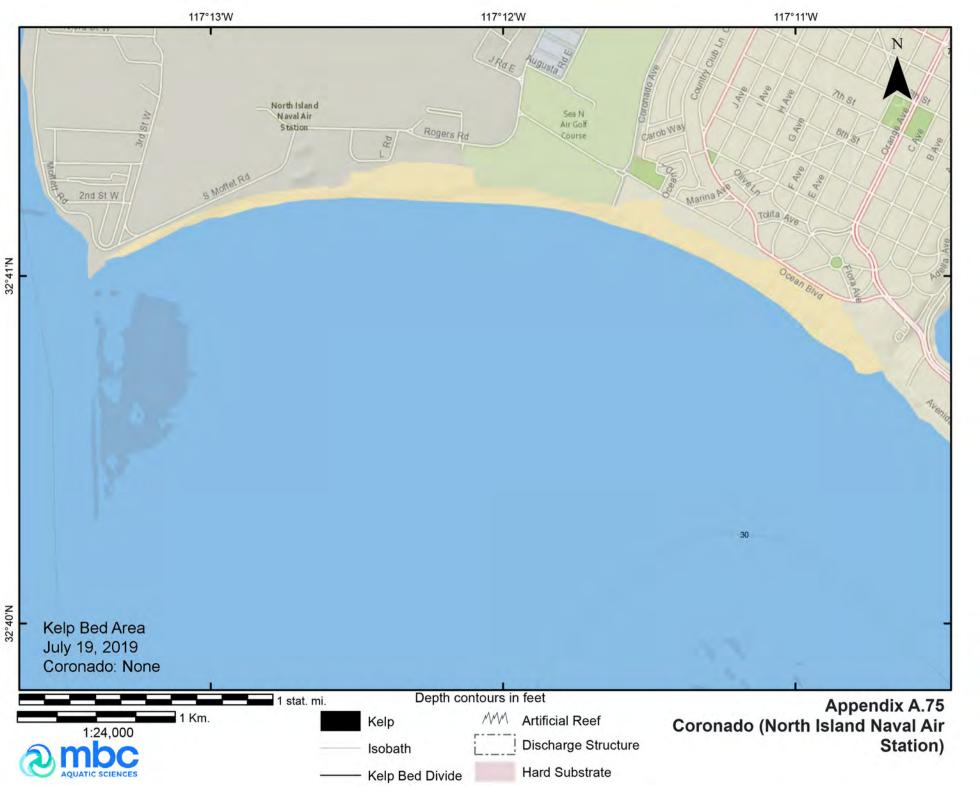


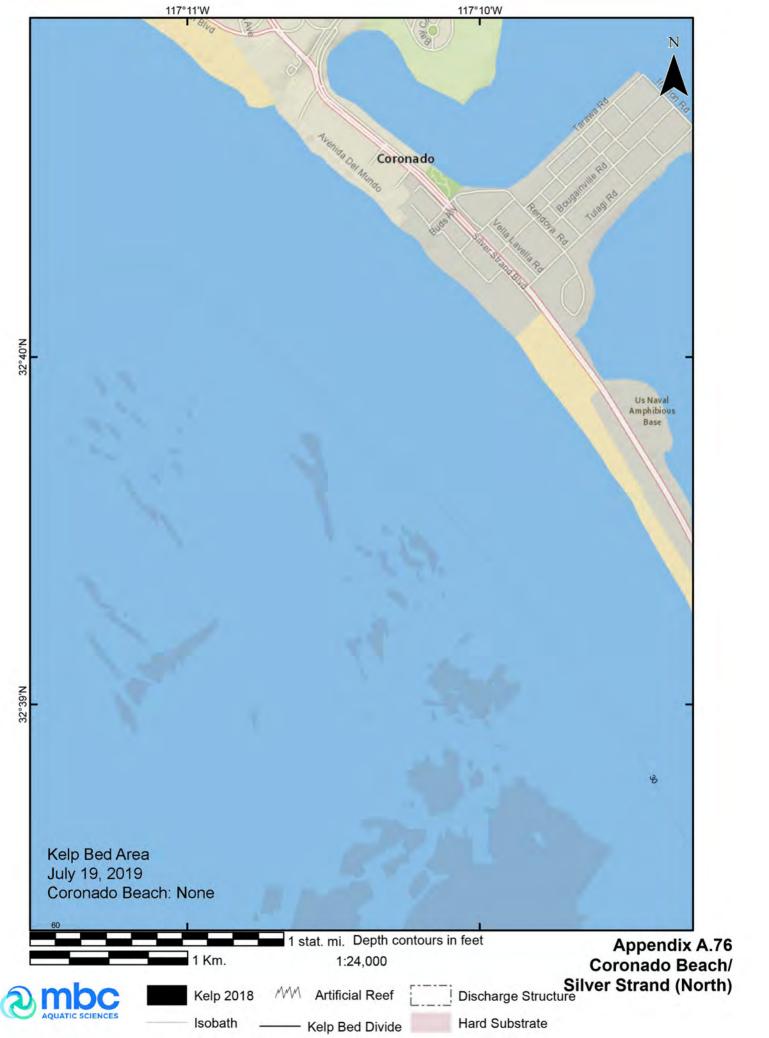




















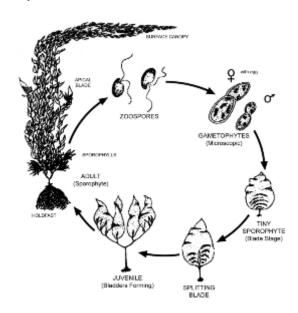
APPENDIX B

Life History of Giant Kelp Historical Kelp Surveys Crandall's Maps

LIFE HISTORY OF GIANT KELP

Kelp consists of a number of species of brown algae, of which 10 are typically found from Point Conception to the Mexican Border (the Southern California Bight [SCB]). Compared to most other algae, kelp species can attain remarkable size and long life span (Kain 1979; Dayton 1985; Reed et al. 2006). Along the central and southern California coast, giant kelp *Macrocystis pyrifera* is the largest species colonizing rocky (and in some cases sandy) subtidal habitats, and is the dominant canopy-forming kelp. Giant kelp is a very important component of coastal and island communities in southern California, providing food and habitat for numerous animals (North 1971; Patton and Harmon 1983; Dayton 1985; Foster and Schiel 1985). Darwin (1860) noted the resemblance of the three-dimensional structure of giant kelp stands to that of terrestrial forests. Because of its imposing physical presence, giant kelp biology and ecology have been the focus of considerable research since the early 1900s. Much effort was expended in the early years deciphering its enigmatic life history (Neushul 1963; North 1971; Dayton 1985; Schiel and Foster 1986; Witman and Dayton 2001; Reed et al. 2006). Giant kelp commonly attains lengths of 15 to 25 m and can be found at depths of 30 m. In conditions of unusually good water clarity, giant kelp may even thrive to depths of 45 m (Dayton et al. 1984).

Giant kelp may form beds wherever suitable substrate occurs, typically on rocky, subtidal reefs (North 1971). Such substrate must be free of continuous sediment intrusion. Giant kelp beds can form in sandy-bottom habitats protected from direct swells where individuals will attach to worm tubes; this occurs along portions of the Santa Barbara coastline (Bedford 2001). Like terrestrial plants, algae undergo photosynthesis and therefore require light energy to generate sugars. For this reason, light availability at depth is an important limiting factor to giant kelp growth. Greater water clarity normally occurs at the offshore islands, and as a result, giant kelp is commonly found growing there in depths exceeding 30 m. Along the mainland coast, high biological productivity, terrestrial inputs and nearshore mixing result in greater turbidity and hence lower light levels. Consequently, giant kelp generally does not commonly grow deeper than 20 m along the coastal shelf, although exceptional conditions off San Diego produce impressively large beds that can grow vigorously beyond 30 m.



Appendix B.1 Life cycle for giant kelp.

Giant kelp has a complex life cycle and undergoes a heteromorphic alternation of generations, where the phenotypic expression of each generation does not resemble the generation before or after it (Appendix B.1). The stage of giant kelp that is most familiar is the adult canopy-forming diploid sporophyte generation. Sporophyll blades at the base of an adult giant kelp release zoospores, especially in the presence of cold, nutrient-rich waters. These zoospores disperse into the water column and generally settle a short distance from the parent sporophyte (Reed et al. 1988). Within three weeks, the zoospores mature into microscopic male and female gametophytes that in produce sperm and eggs. This second generation does not resemble the sporophyte. The life cycle is completed when fertilization of the gametophyte egg develops into the adult sporophyte

stage. Successful completion of the life cycle relies on the persistence of favorable conditions throughout the process.

Giant kelp grows in groups called forests because erect bundles of fronds (stipes and blades) resemble tree trunks, and spreading canopies at the sea surface represent the stems and leaves (Dawson and Foster 1982). *Macrocystis* anchors to rocks (or occasionally in sand) by a holdfast, and new fronds, comprised of stipes and attached blades, grow up to the sea surface at rapid rates. Giant kelp is known as a biological facilitator (Bruno and Bertness 2001), where its three-dimensional structure and the complexity of its holdfast provides substrate, refuge, reduction of physical stress, and a food source for many fishes (Carr 1989) and invertebrates (Duggins et al. 1990). Stands of giant kelp can also affect flow characteristics in the nearshore zone, and enhance recruitment (Duggins et al. 1990), thus increasing animal biomass. For these reasons, giant kelp is also of great importance to sport and commercial fisheries.

HISTORICAL KELP SURVEYS

Giant kelp bed size and health are known to be highly variable but there has been a downward trend in canopy coverage since the inception of surveying in 1911 (Crandall 1912). In 1911, a mapping expedition of canopy-forming kelps along most of the Pacific coast was conducted to determine the amount of potash (potassium carbonate, an essential ingredient in explosives at the time) potentially available from the kelp. Using rowboats, compass, and sextants to triangulate positions, U.S. Army Captain William Crandall produced one of the most complete surface density kelp maps of the west coast of North America. Using this methodology, all of the existing kelp beds in the Central Region and Region Nine areas were mapped and these measurements have been used to define a baseline for southern California kelp beds (Appendices B.2, B.3, and B.4).

Despite the value of Crandall's maps, the accuracy of his measurements was questioned (Hodder and Mel 1978 [SAI 1978], Neushul 1981). These authors contended that measurement errors might have resulted from using a rowboat and triangulations from shore to compute the bed perimeters, particularly on very large beds such as Palos Verdes, Point Loma, and La Jolla. Although Crandall's ability to accurately triangulate a position was adequate, his measurements of large beds resulted from fewer fixed points and estimation of the area between points. Modern aerial surveys reveal numerous holes and a fair degree of patchiness in such beds. Crandall's estimates did not account for these natural gaps and therefore the 1911 survey probably overestimated the size of these larger beds. Given this ambiguity, Crandall's measurements should be viewed qualitatively rather than as quantitative estimates comparable to aerial survey data taken since the 1920s. However, the data are a very good approximation to use as a baseline. Anecdotal reports from area stakeholders reported by Cameron (1915) indicate kelp beds in 1911 were in fairly poor condition compared to previous years.

Although the historical El Niño Southern Oscillation (ENSO) index suggests that the five years prior to 1911 were favorable to the kelp, the Pacific Decadal Oscillation (PDO) (another environmental metric that has historical data extending back to that period) is in agreement with Cameron's 1915 statement. While the PDO is a poor predictor of oceanographic conditions in the Southern California Bight (Di Lorenzo et al. 2008), it does correlate with sea surface temperature (SST). Therefore, it provides some insight into the local hydrographic conditions at the time. The annual mean PDO was slightly negative between 1909 and 1911, before transitioning to a warm phase from 1912 through 1915. This is suggestive, but not conclusive, of lower nutrient concentrations in 1912–1915 that would result in poor kelp growth. To add further credibility to the premise that beds were larger than current trends would indicate, aerial photos of Palos Verdes kelp beds taken in 1928 (measured by North in 1964) found the area to be more than 10% larger than Crandall reported in 1911.

In 1964, Dr. Wheeler North, working for the State Water Quality Control Board (1964), remeasured Crandall's Palos Verdes charts and found the 2.66 square nautical miles (Nm² [9.12 km²]) Crandall reported to be very similar to his measurement of 2.42 Nm², but North's measurement did not include much of Malaga Cove (that added an additional 0.130 Nm² of kelp to the Palos Verdes beds), resulting in North's measurement of about 2.55 Nm² (Appendices B.5-B.11; Crandall Maps).

Due to the large sizes reported by Crandall, Neushul (1981) assumed there was a scaling error, re-measured the maps, and calculated a value that was 10% less than Crandall's original measurement. However, Neushul (1981) wrote that his measurements resulted in

Appendix B.2 Kelp beds of the California coast as described by Crandall in 1911.

Crandall Sheet (Map in report) No.	indall Sheet (Map in Kelp Bed report) No. No.		Bed Name 2013	Area Square Nautical Miles	Area Square Statute Miles	Area Square Kilometers	
	IVO.	Density					
Sheet 52	4	Medium	Imperial Beach	0.287	0.3801	0.9844	
Sheet 18	1	Very Heavy.	Point Loma	5.400	7.1516	18.5226	
01 445	2	Very Heavy.	La Jolla	2.300	3.0461	7.8893	
Sheet 17	3	Medium	Del Mar	0.240	0.3178	0.8232	
		N. Present	No Solana Beach	0.000	0.0000	0.0000	
		N. Present	No Cardiff	0.000	0.0000	0.0000	
	4	Medium	Encinitas 30% (0.970)	0.291	0.3854	0.9982	
	4	Medium	Leucadia 50% (0.970)	0.485	0.6423	1.6636	
	4	Medium	Carlsbad St Bch 20%	0.194	0.2569	0.6654	
	5	Medium	Encina Power	0.125	0.1655	0.4288	
	5	Medium	Agua Hedionda	0.125	0.1655	0.4288	
	6	Medium	Carlsbad	0.140	0.1854	0.4802	
	7	Medium	Santa Margarita	0.250	0.3311	0.8575	
	8	Thin	Barn Kelp	0.370	0.4900	1.2691	
	9	Thin	Barn Kelp	0.080	0.1059	0.2744	
	10	Thin	Barn Kelp	0.260	0.3443	0.8918	
	11	Thin	Horno Canyon	0.050	0.0662	0.1715	
	12	Thin	San Onofre	0.110	0.1457	0.3773	
	13	Thin	San Onofre	0.130	0.1722	0.4459	
	14	Thin	San Onofre	0.060	0.0795	0.2058	
	15	Thin	San Mateo	0.360	0.4768	1.2348	
Sheet 14, 15, and 16	16	Thin	San Clemente	0.060	0.0795	0.2058	
	17	Medium	Capistrano	0.240	0.3178	0.8232	
	18	Medium	Doheny	0.220	0.2914	0.7546	
	19	Medium	Dana Point/Salt Creek	0.340	0.4503	1.1662	
		N. Present	Laguna Beach	0.000	0.0000	0.0000	
	20	Medium	Corona Del Mar	0.220	0.2914	0.7546	
	21	Medium	Cabrillo to Port Bend	0.760	1.0065	2.6069	
	22	Thin	Portuguese Bend	0.100	0.1324	0.3430	
	23	Thin	Point Vicente, PV	0.070	0.1324	0.2401	
	24	Medium	PV Pt to Flat Rk, PV	1.600	2.1190	5.4882	
	25	Medium	,	0.130	0.1722		
21			Malaga Cove, PV			0.4459	
Chart 13	1	Thin	Sunset Beach	0.280	0.3708	0.9604	
	2	Thin	Topanga (50%)	0.005	0.0066	0.0172	
	2	Thin	Las Tunas (50%)	0.005	0.0066	0.0172	
	3	Thin	Big Rock	0.005	0.0066	0.0172	
	4	Thin	Las Flores	0.004	0.0053	0.0137	
	5	Thin	La Costa	0.006	0.0079	0.0206	
		N. Present	Malibu Point	0.000	0.0000	0.0000	
	6	Thin	Puerco/Amarillo (10%)	0.100	0.1324	0.3430	
	6	Thin	Latigo Canyon (13%)	0.130	0.1722	0.4459	
	6	Thin	Escondido Wash (17%)	0.170	0.2251	0.5831	
	6	Thin	Paradise Cove (40%)	0.400	0.5297	1.3720	
Chart 13	6	Thin	Point Dume (20%)	0.200	0.2649	0.6860	
	7	Thin	Lechuza (33%)	0.037	0.0485	0.1255	
	7	Thin	Pescador/Piedra (67%)	0.073	0.0971	0.2515	
	8	Medium	Nicolas Canyon (33%)	0.367	0.4855	1.2575	
	8	Medium	Leo Carillo (67%)	0.733	0.9712	2.5153	
		N. Present	Deer Crk	0.000	0.0000	0.0000	
Totals				17.512	23.192	60.068	

only slight improvements from what Crandall measured: "The smaller areas obtained by measurements from more recent maps of southern California kelp beds probably reflect both a slight increase in mapping precision over Crandall's methods, and an actual decrease in size." In 2004, Crandall's original maps of Palos Verdes were re-measured by MBC Applied Environmental Sciences (MBC) using computer-aided spatial estimation software (including Malaga Cove), and the resulting area (2.57 Nm²) was about 3% smaller but very similar to that reported by Crandall (2.66 Nm²). Therefore, the actual sizes of the beds that Crandall

reported were probably relatively accurate because the areal survey extent and configuration he reported was subsequently confirmed from contemporary charts (Hodder and Mel 1978, Neushul 1981).

Thus, Crandall's kelp bed areas are retained as the baseline estimate, and the total regional area was probably larger from 1928–1934 than the area Crandall measured in 1911. Based on the sizes of the Palos Verdes beds in 1928 (9.912 km²) and La Jolla kelp beds in 1934 (8.161 km²) from aerial photos that North measured in 1964 (SWQCB 1964), the bed sizes were well above Crandall's measurements of 9.124 km² (2.66 Nm²) for Palos Verdes (including the bed at Malaga Cove) and 7.889 km² (2.3 Nm²) for La Jolla. This lends credence to Cameron's comment that kelp harvesters reported that the beds were at minimal levels at the time of Crandall's survey, and suggests even larger losses have occurred over time (Cameron 1915).

The next complete kelp survey of the southern California region was not undertaken until 1955. By that time, the beds in the Central Region had decreased greatly (to 6.750 km²), and were only 36% of that recorded in 1911 (18.815 km²). Beds in Region Nine were similarly reduced to 40% (16.310 km²) of the 1911 total of 41.563 km². The most significant loss during this period was that of Sunset Kelp (offshore of Santa Monica); Sunset Kelp covered almost 1.0 km² in 1911, but was very small by 1955. The Sunset kelp bed remained small or completely missing through the intervening years, and the Palos Verdes beds were also small, having decreased sometime after 1945. By 1947, the Palos Verdes beds were only 3.6 km², and further to 1.5 km² by 1953. During an aerial survey conducted in 1963, kelp canopies were in very poor condition, with Palos Verdes covering only 0.180 km² and the La Jolla and Point Loma beds covering only 0.9 km². Exceptionally good conditions in 1967 resulted in a total of 7.856 km² of kelp canopy coverage in the Central Region, but this was only about 42% of the estimate from 1911. Palos Verdes kelp beds south of Point Vicente were missing, but north of Point Vicente, they totaled almost 1.0 km². In Region Nine, similar results were observed in 1967 with the La Jolla/Point Loma kelp beds covering 3.03 km² and the total for the region only 4.4 km². La Jolla kelp bed was only about 0.330 km² in 1967, and it stayed small until after 1975, when it became a consistently large kelp bed (over 1 km²) through most of the next four decades.

Restoration activities began in 1974 by the Kelp Habitat Improvement Project. At that time, the Palos Verdes beds were only 0.015 km². In 1975, after restoration, those beds began increasing and covered 4.6 km² during the exceptionally favorable conditions in 1989 (North and Jones 1991). The impetus provided by the 1989 La Niña resulted in almost 6 km² of kelp canopy in the Central Region and more than 16 km² in Region Nine, but kelp coverage decreased to less than one-third of these totals during the subsequent two decades. In 2009 (Central) and 2008 (Region Nine), favorable conditions again increased canopy totals to about 6.5 km² in the Central Region and 18.7 km² in Region Nine, larger than they had been since 1967 and 1955, respectively (Appendices B.3 and B.4).

The Imperial Beach kelp bed south of San Diego measured 0.984 km² in 1911, and was never again measured to be larger than about 0.727 km² for the rest of the century (occurring in 1987, Appendix B.4). However, by the end of 2007, Imperial Beach kelp bed measured 1.493 km² (Appendix B.4, MBC 2011b), almost 50% greater than what Crandall measured, lending further credence to Cameron's (1915) statement that beds were in poor condition in 1911 compared to earlier years. It therefore follows that the Palos Verdes, La Jolla, and Point Loma kelp beds of Central and Region Nine prior to 1911 were likely much larger than they are today.

As these measurements indicate, most of the beds remain smaller than those of a century ago. Ongoing surveys attempt to determine what environmental factors have changed in the intervening years to cause such large declines.

Appendix B.3 Historical canopy coverage of the kelp beds from Laguna Beach to Imperial Beach from 1911 through 2019. Values represent an estimate of coverage utilizing varying methods over the years.

Kelp Bed	Canopy Area (km²)												
	1911	1934	1941	1955*	1959*	1963*	1967	1970	1975	1980	1983	1984	
North Laguna Beach South Laguna Beach South Laguna Dana Point-Salt Creek Capistrano Beach Total F&W 9	Tr Tr Tr 1.166 1.578 2.744	ND ND ND ND ND	ND ND ND ND ND	p p p p 2.020	0.160 ND 0.180 p p 0.340	ND ND 0.020 p p	0.001 0.001 — 0.240 0.080 0.322	0.011 0.011 0.014 0.077 0.050 0.163	0.003 0.003 0.008 0.096 0.070 0.180	0.036 0.036 — 0.008 0.020 0.100	0.035 0.040 0.004 0.013 — 0.092	0.025 0.028 - 0.007 - 0.060	
San Clemente San Mateo Point San Onofre Total F&W 8	0.206 1.235 1.029 2.470	ND ND ND	ND ND ND	6.310 p p 6.310	3.710 p p 3.710	0.010 p p 0.010	0.080 — — 0.080	0.050 0.057 — 0.107	0.070 0.140 0.300 0.510	0.020 0.360 0.160 0.540	— 0.163 0.102 0.265	 0.045 0.031 0.076	
Horno Canyon Barn Kelp Santa Margarita Total F&W 7	0.172 2.435 0.858 3.465	ND ND ND	ND ND ND	ND 1.370 ND 1.370	ND ND ND	ND 0.130 ND 0.130		 0.019 0.019	 0.160 0.160	 0.056 0.056	=	=	
North Carlsbad Agua Hedionda Encina Power Plant Carlsbad State Beach Total F&W 6	0.480 0.429 0.429 0.499 1.837	ND ND ND ND	ND ND ND ND	2.620 p p p 2.620	2.520 p p p 2.520	1.180 p p p 1.180	0.009 — — 0.032 0.041	0.060 0.006 0.025 0.120 0.211	0.100 0.036 0.144 0.200 0.480	0.120 0.019 0.074 0.078 0.291	=======================================	0.001 0.002 — 0.003	
Leucadia Encinitas Cardiff Solana Beach Del Mar Torrey Pines Total F&W 5	1.996 0.832 ND ND 0.823 — 3.651	ND ND ND ND ND	ND ND ND ND ND	p p 0.340 p p - 0.340	p p 0.400 p p - 0.400	p p 0.160 p p - 0.160	0.240 0.065 0.125 0.290 0.190 —	0.440 0.173 0.337 0.490 0.260 — 1.700	0.500 0.153 0.297 0.560 0.190 — 1.700	0.670 0.228 0.442 0.690 0.210 —	0.001 0.018 0.019	0.002 0.016 0.021 0.001 — — 0.040	
La Jolla F&W 4	7.889	8.161	7.847	1.660	6.490	0.640	0.330	0.290	0.840	1.900	0.032	0.034	
Point Loma F&W 3&2 Imperial Beach F&W 1	18.523 0.984	11.465 ND	8.286 ND	1.990 ND	0.610 ND	0.240 ND	2.700 —	4.900 —	3.000	4.200 0.350	0.200 —	0.160 —	
TOTAL	41.563	19.626	16.133	16.310	14.070	2.380	4.400	7.390	6.870	9.327	0.608	0.373	

NOTE: * = Incomplete Data; Tr = Trace <100 m^2 ; ND = No Data; p = part of above value; "— " = 0

red = warm year El Nino; blue = cold year La Nina; black = neutral year

Sources: 1934, 1941 from SWQCB (1964); 1955, 1959, 1963 from Neushul (1981); MBC (2007b-2012b, 2013-2017).

Appendix B.3 (Cont.).

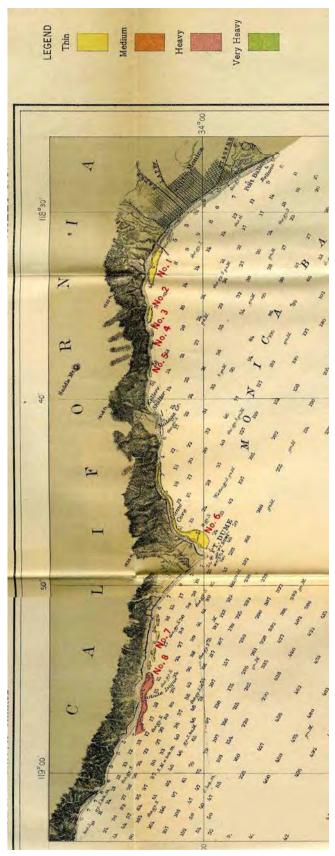
	Canopy Area (km²)												
Kelp Bed	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	
North Laguna Beach South Laguna Beach South Laguna Dana Point-Salt Creek Capistrano Beach Total F&W 9	0.028 0.077 — 0.036 — 0.141	0.022 0.041 — 0.031 — 0.094	0.028 0.087 — 0.174 — 0.289	0.042 0.145 0.023 0.568 0.032 0.810	0.055 0.264 0.041 0.878 0.233 1.471	0.034 0.243 0.023 0.329 0.110 0.739	0.029 0.093 0.030 0.480 0.134 0.766		 0.028 0.006 0.234 0.022 0.290	 0.005 0.116 0.121	 0.076 0.076	0.001 — 0.061 — 0.062	
San Clemente San Mateo Point San Onofre Total F&W 8	 0.152 0.042 0.194		0.017 0.200 0.045 0.262	0.124 0.432 0.348 0.904	0.444 0.870 0.638 1.952	0.304 0.472 0.763 1.539	0.243 0.120 0.170 0.533	0.044 0.103 0.053 0.200	0.051 0.220 0.163 0.434	0.010 0.080 0.201 0.291	0.010 0.010 0.096 0.116	0.047 0.073 0.196 0.316	
Horno Canyon Barn Kelp Santa Margarita Total F&W 7	=	=	=	0.006 0.008 — 0.014	0.033 0.116 — 0.149	0.010 0.382 — 0.392	0.018 0.262 0.049 0.329	0.040 0.124 0.009 0.173	 0.002 0.002	0.010 - 0.010		 0.204 0.204	
North Carlsbad Agua Hedionda Encina Power Plant Carlsbad State Beach Total F&W 6		 0.018 0.045 0.018 0.081	0.031 0.021 0.120 0.077 0.249	0.049 0.032 0.161 0.032 0.274	0.096 0.047 0.251 0.049 0.443	0.119 0.046 0.179 0.081 0.425	0.044 0.016 0.083 0.035 0.178	0.004 0.004 0.025 0.008 0.041	0.018 0.012 0.022 0.002 0.054	0.020 0.004 0.011 0.011 0.046	0.008 0.008 0.058 0.025 0.099		
Leucadia Encinitas Cardiff Solana Beach Del Mar Torrey Pines Total F&W 5	0.104 0.083 0.176 0.115 0.008 — 0.486	0.074 0.032 0.120 0.120 0.021 — 0.367	0.426 0.177 0.340 0.367 0.081 — 1.391	0.197 0.153 0.229 0.427 0.063 Tr 1.069	0.291 0.209 0.575 0.488 0.104 Tr 1.667	0.341 0.241 0.468 0.466 0.082 — 1.598	0.163 0.080 0.072 0.257 0.097 — 0.669	0.084 0.036 0.054 0.053 0.006 —	0.035 0.037 0.034 0.023 0.003 — 0.132	0.010 0.016 0.080 0.108 0.029 — 0.243	0.189 0.061 0.092 0.134 0.082 — 0.558	0.087 0.023 0.026 0.003 — — 0.139	
La Jolla F&W 4	0.720	0.930	2.369	2.200	4.755	3.632	3.230	1.301	0.681	1.119	0.824	0.371	
Point Loma F&W 3&2 Imperial Beach F&W 1	1.570 0.058	2.100 0.150	3.682 0.727	2.322 0.067	5.842 0.579	5.943 0.651	4.310 0.370	1.153 0.111	1.917 0.025	3.589 0.108	1.134 0.053	1.187 0.008	
TOTAL	3.173	3.702	8.242	7.593	16.279	14.268	10.015	3.498	3.510	5.419	3.032	2.341	

Appendix B.3 (Cont.).

					Cano	py Area	(km²)					
Kelp Bed	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
North Laguna Beach South Laguna Beach South Laguna Dana Point-Salt Creek Capistrano Beach Total F&W 9		 0.005 0.005	 0.080 <0.001 0.080	 0.003 0.170 <0.001 0.173			0.0004 0.0002 0.004 0.303 0.069 0.376		 0.003 0.123 0.126	 0.011 0.011	 0.001 0.004 0.302 0.002 0.309	0.002 0.025 0.023 1.068 0.071 1.189
San Clemente San Mateo Point San Onofre Total F&W 8	— 0.098 0.108 0.206	_ <0.001 _	0.006 0.051 0.005 0.062	0.005 0.050 0.020 0.075	0.124 0.090 0.041 0.255	0.316 0.155 0.030 0.501	0.352 0.242 0.162 0.755	0.182 0.123 0.109 0.414	0.178 0.258 0.065 0.501	0.014 0.016 — 0.030	0.016 0.201 0.320 0.536	0.203 0.487 0.476 1.166
Horno Canyon Barn Kelp Santa Margarita Total F&W 7	 0.178 0.178	=	0.310 — 0.310	0.002 0.375 — 0.377	0.034 0.547 — 0.581	0.667 — 0.667	0.001 0.492 — 0.494	0.075 — 0.075	0.064 — 0.064	=	0.015 0.466 — 0.481	0.083 0.858 — 0.941
North Carlsbad Agua Hedionda Encina Power Plant Carlsbad State Beach Total F&W 6		0.003 — — — 0.003	=======================================	 0.002 0.003 0.005	0.017 — 0.029 0.023 0.069	0.053 <0.001 0.097 0.047 0.197	0.017 0.002 0.178 0.002 0.199	0.003 0.001 0.067 0.0001 0.070	0.013 0.008 0.001 — 0.023	_ _ _	0.026 0.016 0.081 0.064 0.187	0.108 0.080 0.306 0.121 0.615
Leucadia Encinitas Cardiff Solana Beach Del Mar Torrey Pines Total F&W 5	0.062 0.048 0.031 0.073 Tr — 0.214	 0.016 0.009 0.004 0.029	0.015 0.029 0.063 0.091 — — 0.198	0.090 0.040 0.150 0.200 0.006 — 0.486	0.209 0.131 0.309 0.407 0.015 — 1.071	0.334 0.153 0.405 0.488 0.035 — 1.415	0.185 0.050 0.202 0.245 0.030 —	0.048 0.016 0.045 0.022 — — 0.131	0.001 — 0.093 — 0.094	0.016 0.002 0.004 0.0003 — 0.010 0.032	0.233 0.205 0.286 0.457 0.037 — 1.218	0.421 0.346 0.484 0.823 0.057 0.001 2.133
La Jolla F&W 4 Point Loma F&W 3&2 Imperial Beach F&W 1	0.478 2.235 0.027	0.215 0.295 —	1.146 1.725 0.019	1.250 3.290 0.020	2.555 6.574 0.078	3.366 3.799 0.210	3.444 4.509 0.083	1.029 1.924 0.191	0.873 2.152 0.400	0.117 1.767 0.400	2.750 3.616 1.493	4.145 6.623 1.895
TOTAL	3.385	0.547	3.540	5.676	11.542	10.710	10.572	4.136	4.233	2.358	10.591	18.706

Appendix B.3 (Cont.).

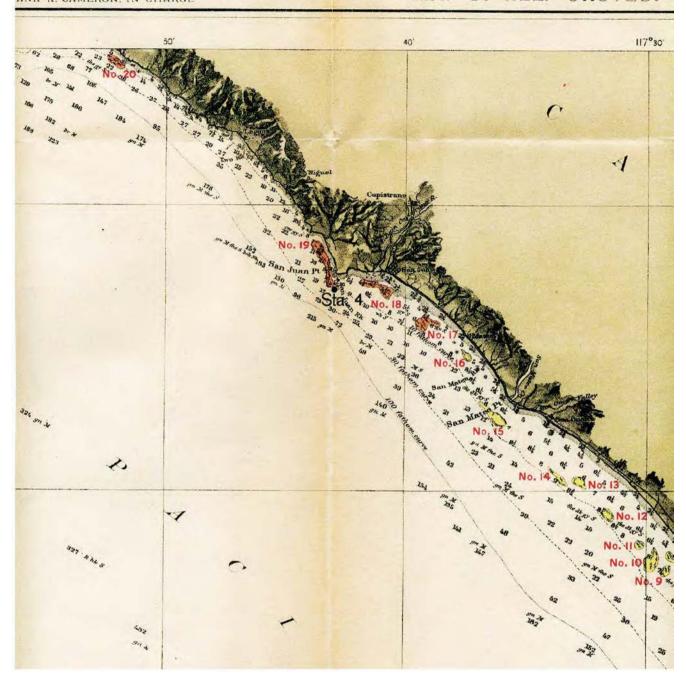
Kelp Bed	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
North Laguna Beach	0.005	0.093	0.147	0.192	0.142	0.120	0.080	0.074	0.096	0.133	0.015
South Laguna Beach	0.058	0.098	0.221	0.214	0.273	0.165	0.048	0.035	0.032	0.131	0.007
South Laguna	0.017	0.023	0.018	0.017	0.038	0.031	0.016	0.006	0.003	0.048	_
Dana Point-Salt Creek	0.892	0.839	0.442	0.607	0.835	0.528	0.137	0.110	0.133	0.379	_
Capistrano Beach	0.071	0.124	0.010	0.056	0.099	0.034	0.007	0.012	0.0004	0.018	_
Total F&W 9	1.043	1.178	0.838	1.086	1.385	0.879	0.287	0.237	0.264	0.709	0.022
San Clemente	0.210	0.710	0.795	0.874	1.097	0.843	0.343	0.187	0.229	0.335	0.031
San Mateo Point	0.545	0.583	0.203	0.216	0.219	0.199	0.062	0.053	0.033	0.083	0.0001
San Onofre	0.419	0.458	0.127	0.191	0.767	0.584	0.043	0.120	0.087	0.127	0.001
Total F&W 8	1.174	1.750	1.124	1.281	2.083	1.627	0.449	0.359	0.349	0.545	0.032
Horno Canyon	0.018	0.081	_	0.008	0.125	0.055	0.019	0.010	0.011	0.008	_
Barn Kelp	0.926	0.500	0.095	0.442	0.868	0.741	0.085	0.133	0.096	0.092	_
Santa Margarita	_	_	_	_	0.080	_	_	_	_	_	_
Total F&W 7	0.944	0.581	0.095	0.450	1.073	0.795	0.104	0.143	0.107	0.100	0.000
North Carlsbad	0.135	0.078	0.017	0.052	0.125	0.086	0.047	_	0.004	0.038	_
Agua Hedionda	0.092	0.031	0.022	0.046	0.102	0.065	0.016	_	_	_	_
Encina Power Plant	0.215	0.176	0.084	0.216	0.352	0.221	0.159	0.009	0.025	0.045	_
Carlsbad State Beach	0.127	0.069	0.024	0.058	0.178	0.065	0.061	_	0.001	_	_
Total F&W 6	0.569	0.354	0.147	0.372	0.757	0.437	0.282	0.009	0.031	0.083	0.000
Leucadia	0.429	0.215	0.119	0.232	0.541	0.279	0.414	0.033	0.010	0.053	0.009
Encinitas	0.205	0.128	0.124	0.260	0.231	0.112	0.113	0.009	0.003	0.033	_
Cardiff	0.520	0.213	0.395	0.459	0.590	0.299	0.318	0.024	0.003	0.005	_
Solana Beach	0.505	0.328	0.504	0.442	0.606	0.504	0.316	0.138	0.029	0.024	_
Del Mar	0.044	0.038	0.074	0.024	0.056	0.027	0.034	_	_	_	_
Torrey Pines	0.0004	0.003	0.031	0.034	0.081	_	_	_	_	_	_
Total F&W 5	1.703	0.925	1.247	1.452	2.106	1.221	1.195	0.204	0.045	0.114	0.009
La Jolla F&W 4	2.274	2.776	2.565	1.569	4.006	2.790	2.968	0.927	0.694	1.566	1.227
Point Loma F&W 3&2	4.909	3.977	4.212	5.340	5.127	5.121	5.806	3.037	1.787	7.920	3.924
Imperial Beach F&W 1	0.861	0.004	0.152	0.333	0.526	1.183	1.576	0.217	_	_	_
TOTAL	13.476	11.545	10.379	11.882	17.064	14.053	12.667	5.134	3.277	11.037	5.213



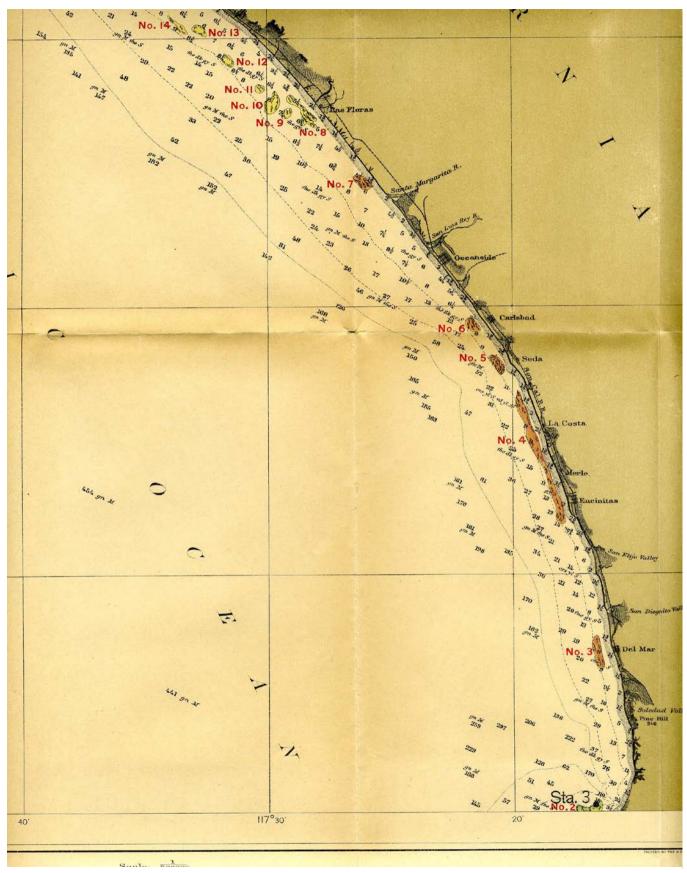
Appendix B.4 Crandall's 1911 kelp survey Deer Creek to Ballona Creek.



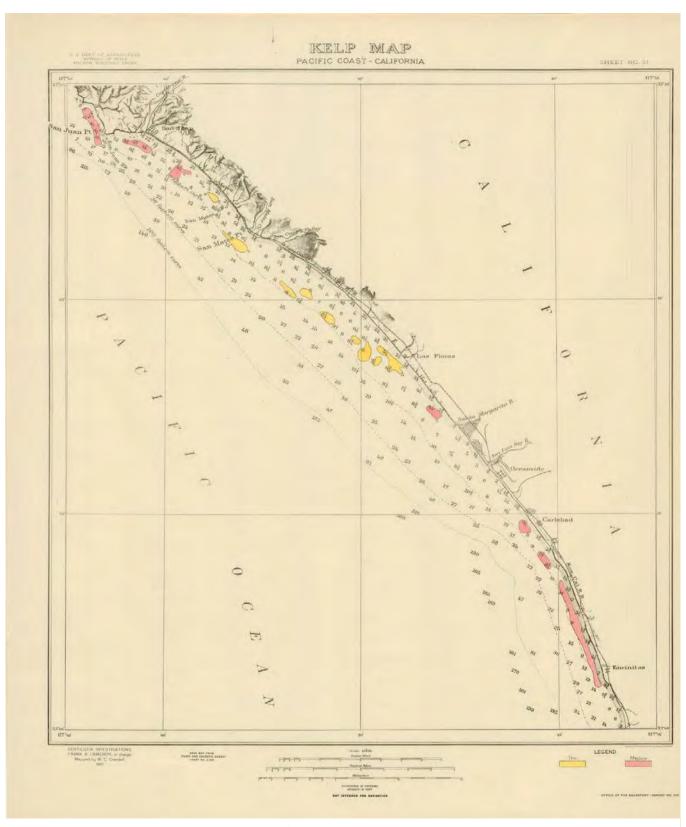
Appendix B.5 Crandall's 1911 kelp survey Palos Verdes to Los Angeles Harbor.



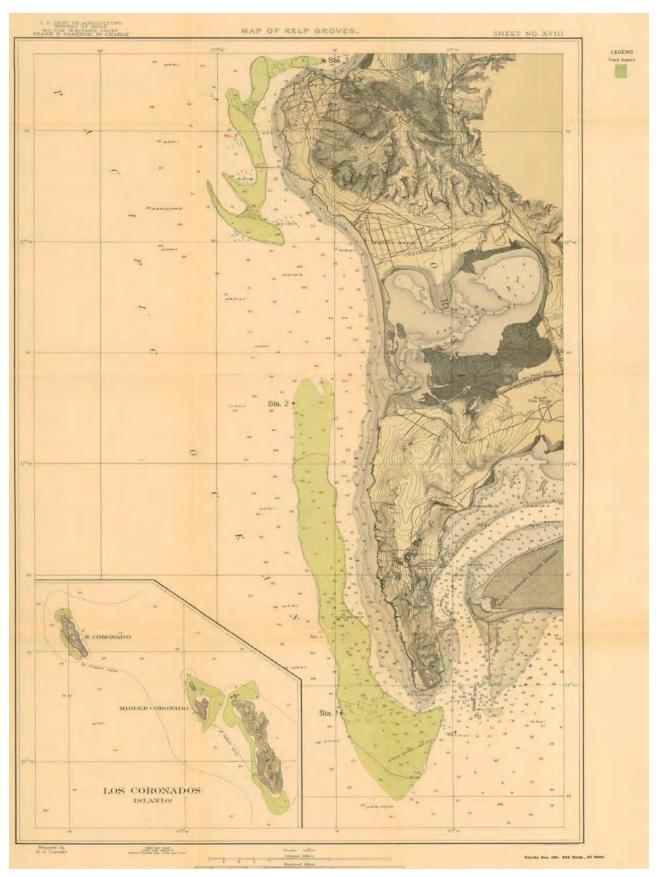
Appendix B.6 Crandall's 1911 kelp bed survey Newport to San Onofre.



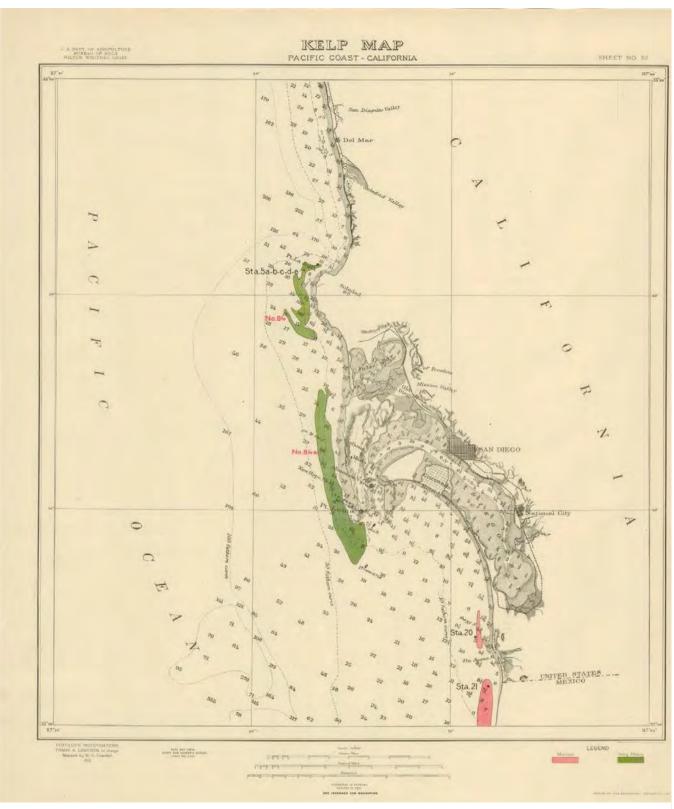
Appendix B.7 Crandall's 1911 kelp bed survey San Onofre to Del Mar.



Appendix B.8 Crandall's 1911 kelp bed survey San Juan to Encinitas.



Appendix B.9 Crandall's 1911 kelp bed survey La Jolla to Point Loma.

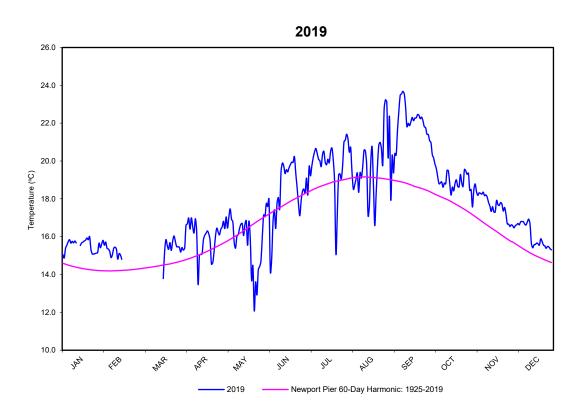


Appendix B.10 Crandall's 1911 kelp bed survey La Jolla to Imperial Beach.

APPENDIX C

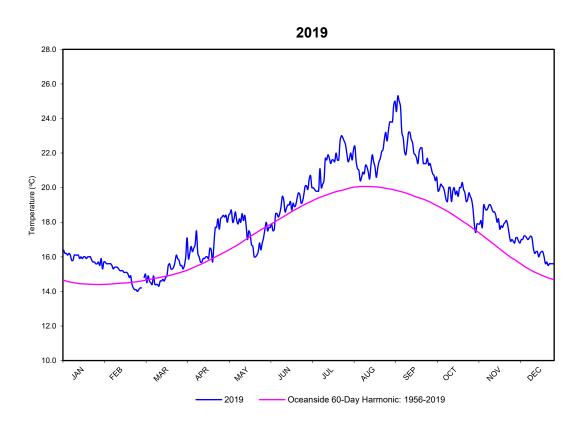
Sea Surface Temperatures

Newport Pier Sea Surface Temperature



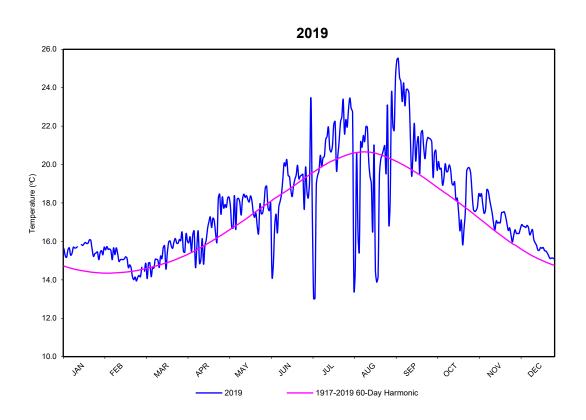
Appendix C.1 Daily sea surface temperatures (SST) at Newport Pier for 2019.

Oceanside Sea Surface Temperature



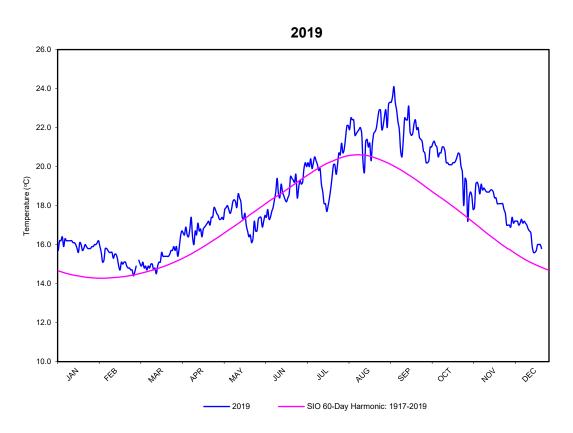
Appendix C.2 Daily sea surface temperatures (SST) at Oceanside for 2019.

Scripps Pier Sea Surface Temperature



Appendix C.3 Daily sea surface temperatures (SST) at Scripps Pier for 2019.

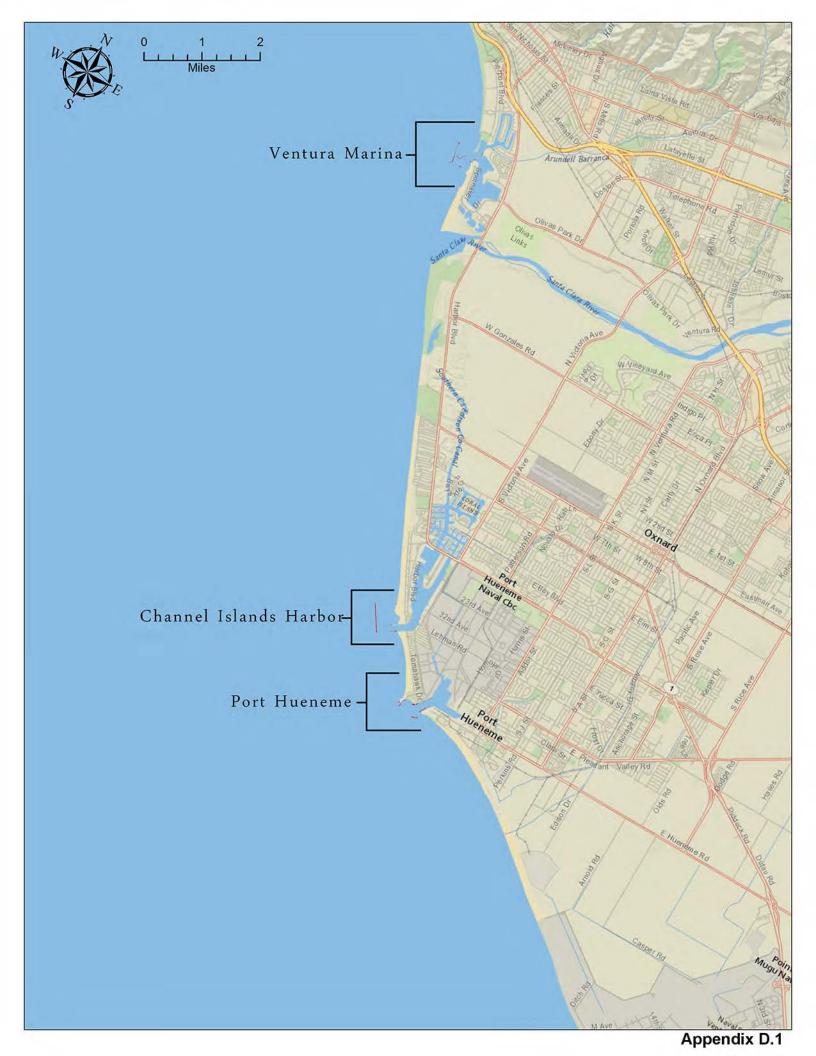
Point Loma South Sea Surface Temperature

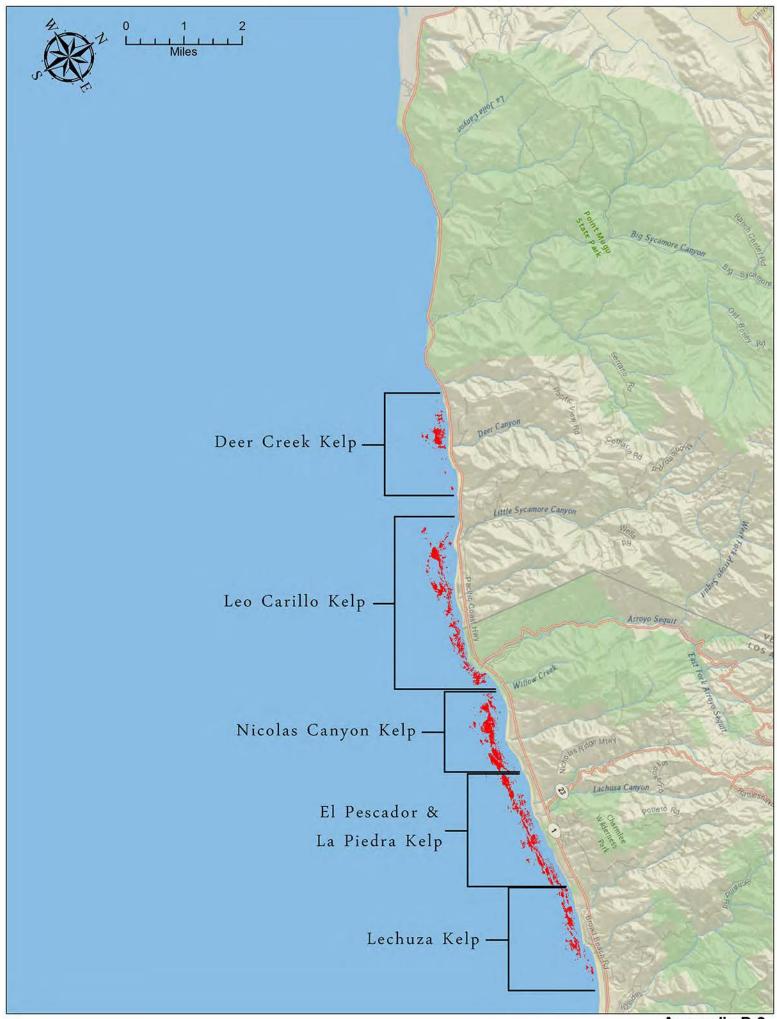


Appendix C.4 Daily sea surface temperatures (SST) at Point Loma South for 2019.

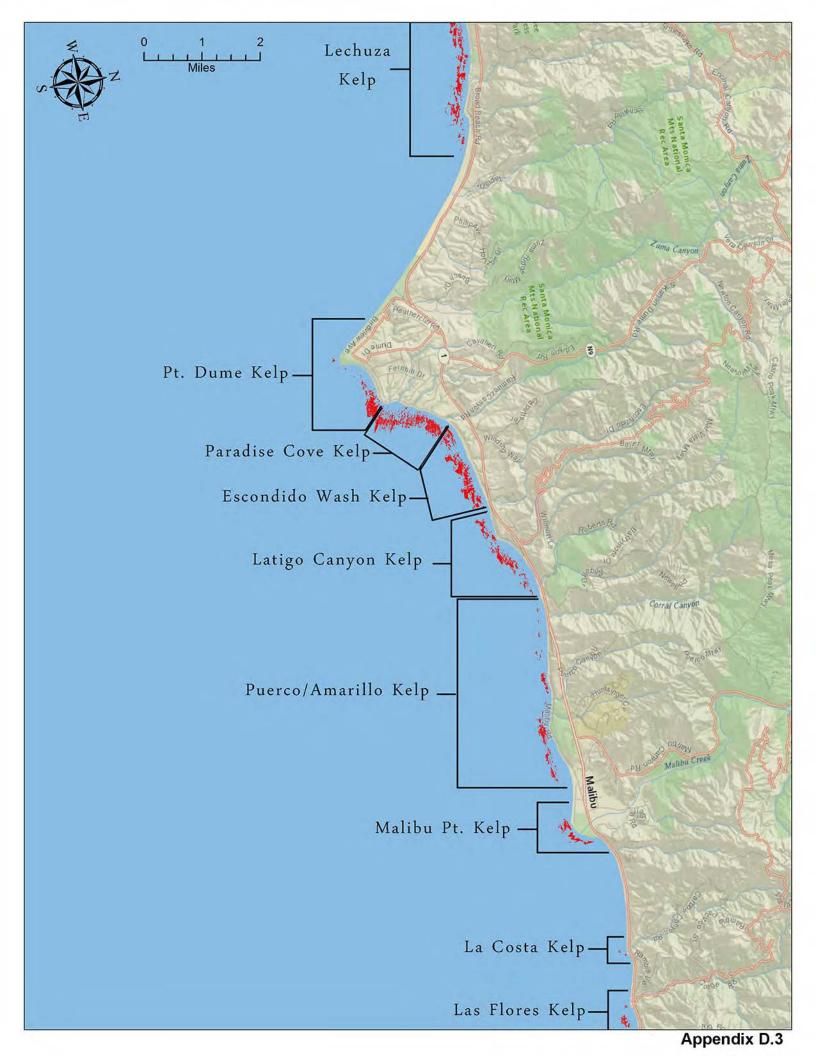
APPENDIX D

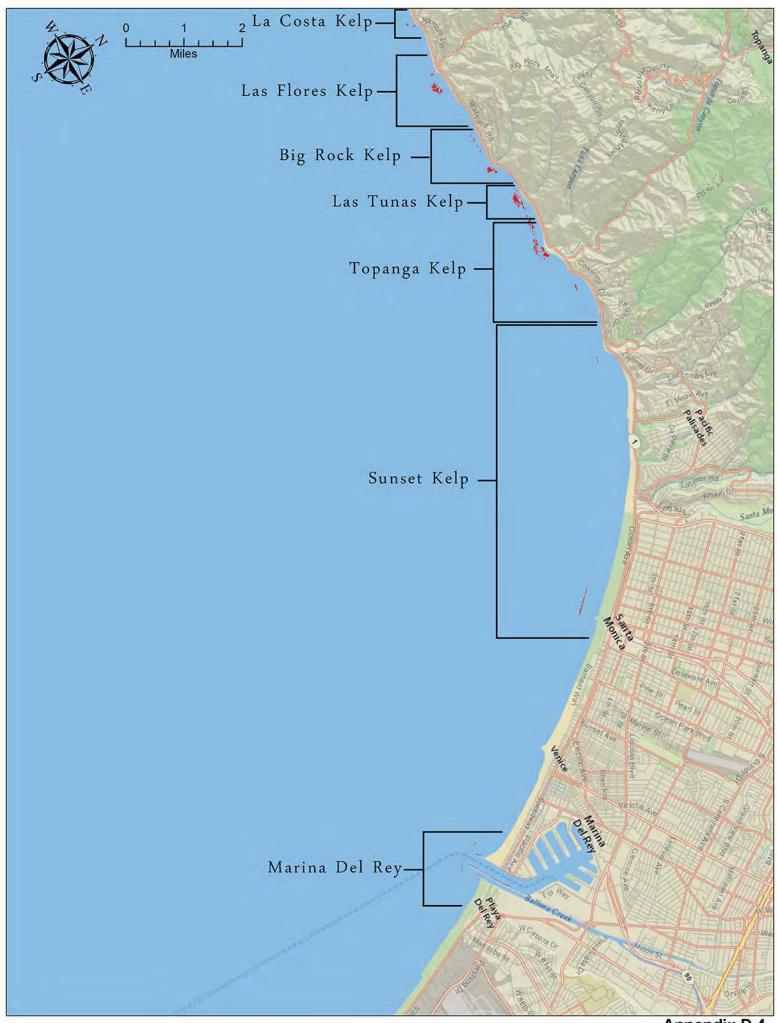
Flight Path Flight Data Reports Field Data Sheets



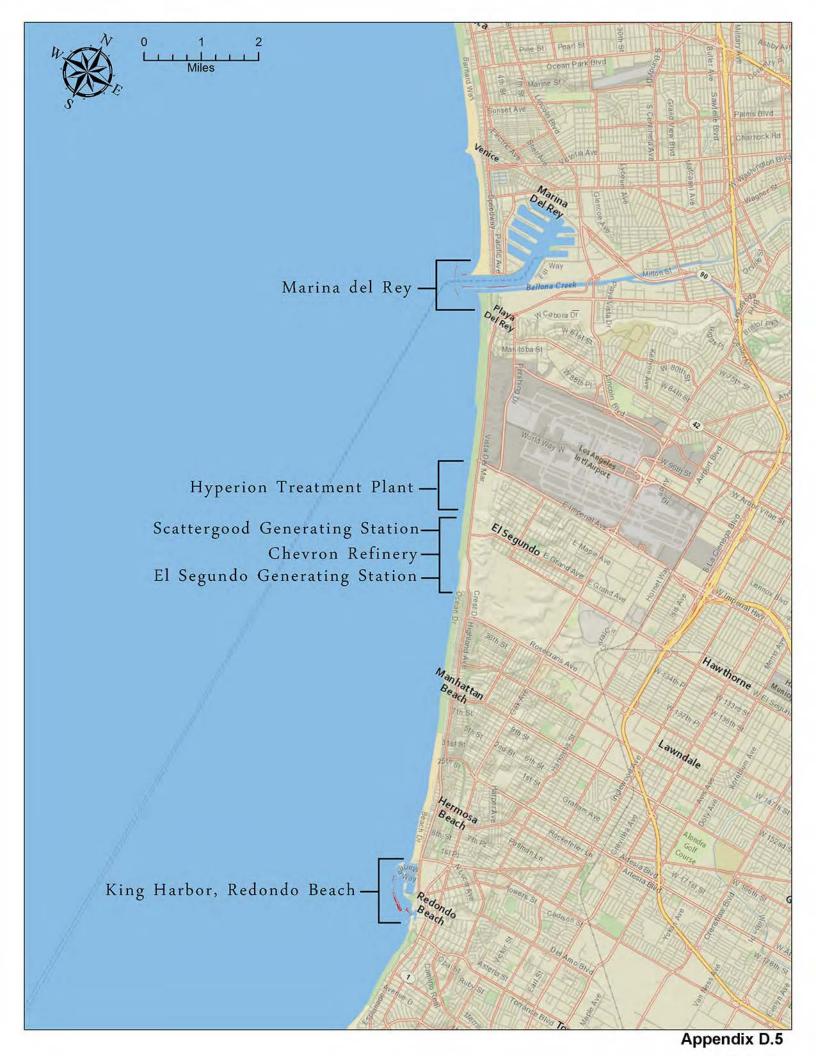


Appendix D.2





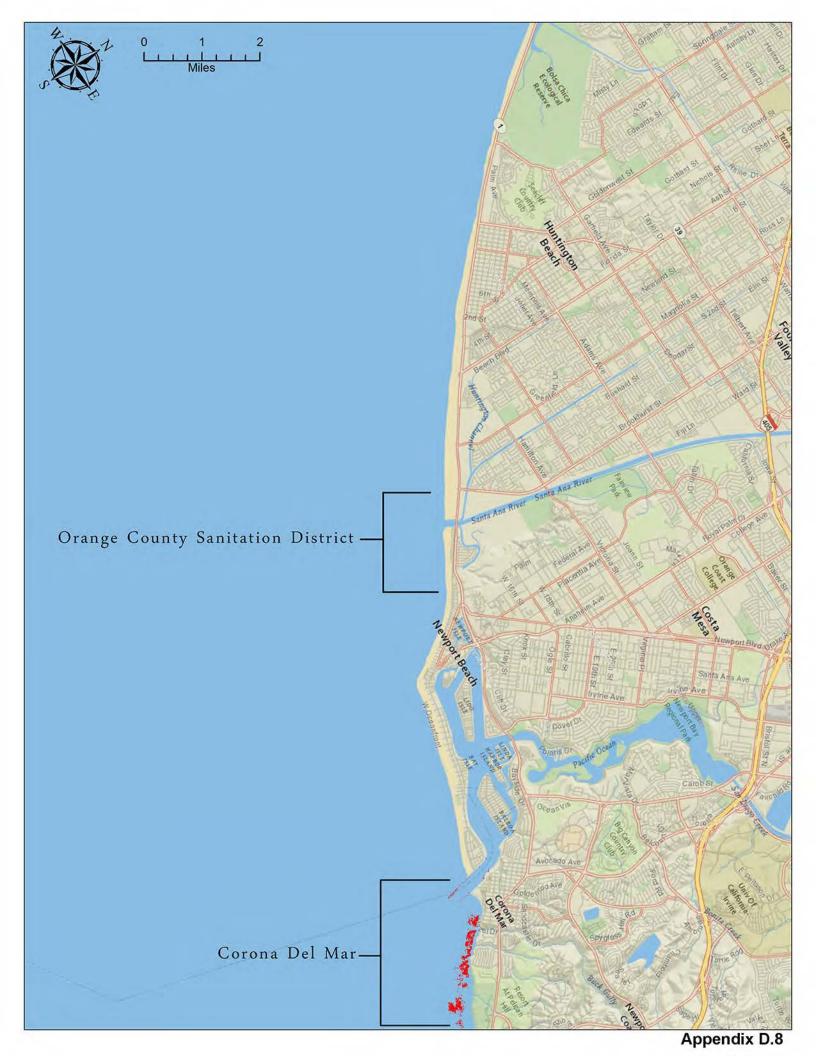
Appendix D.4

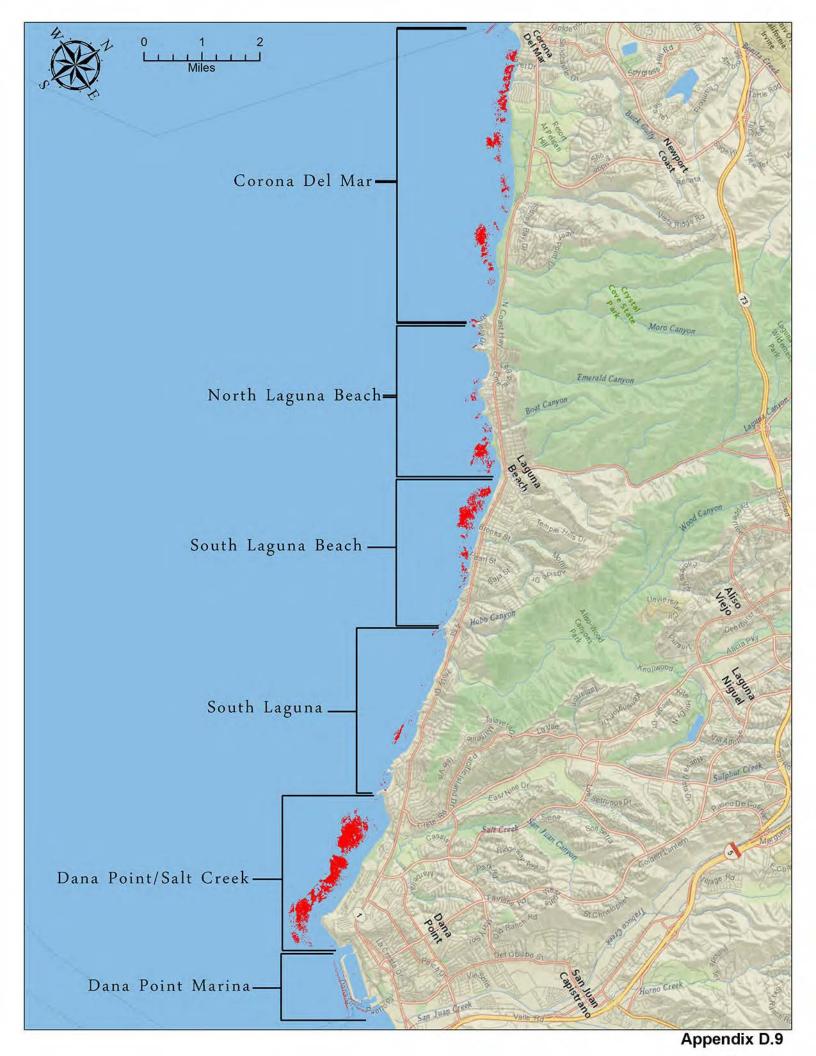


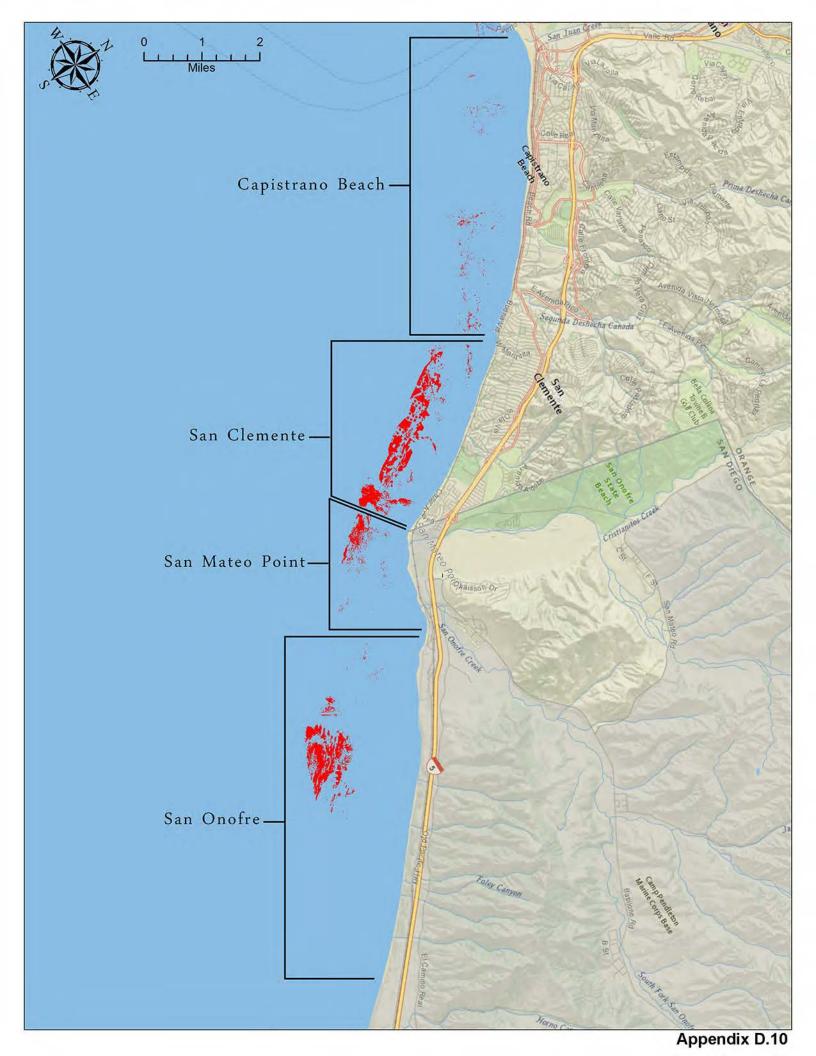


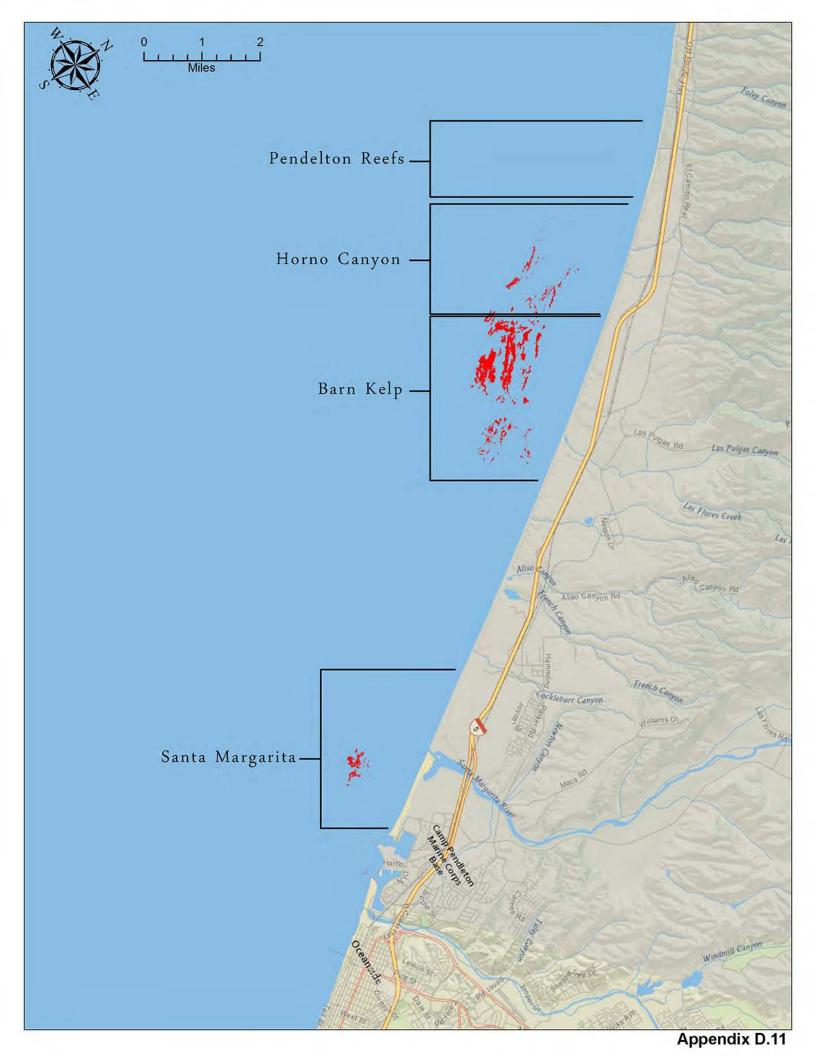


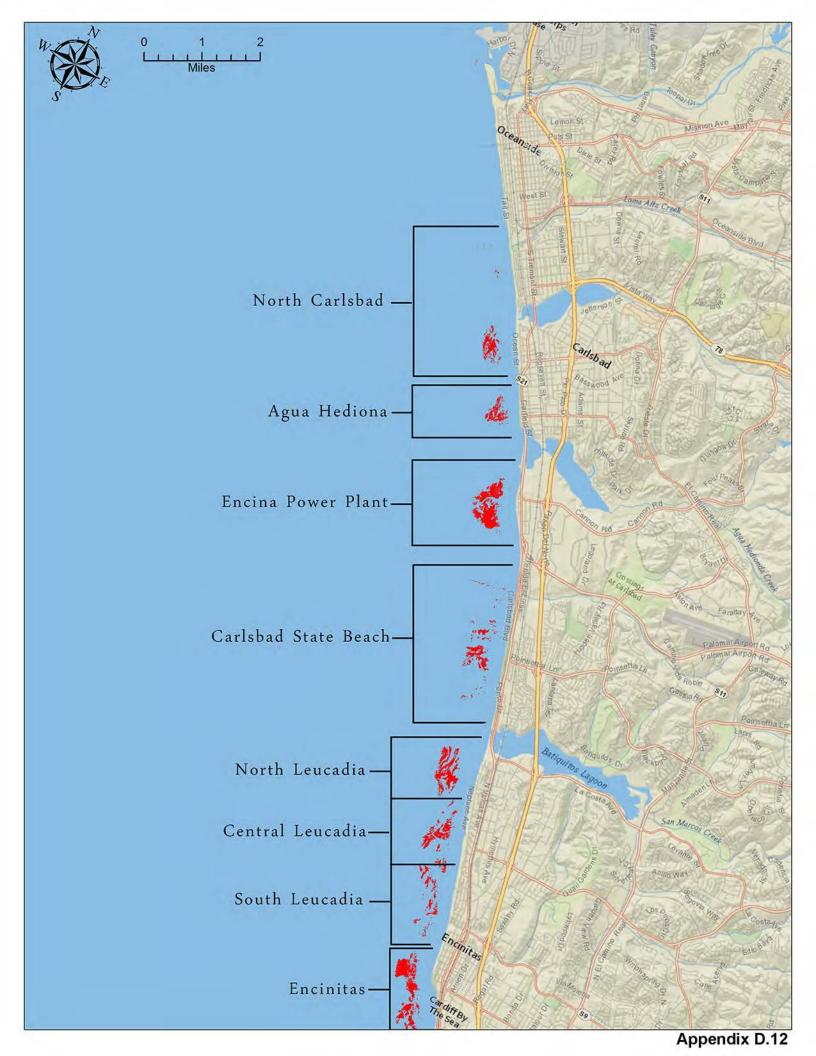
Appendix D.7

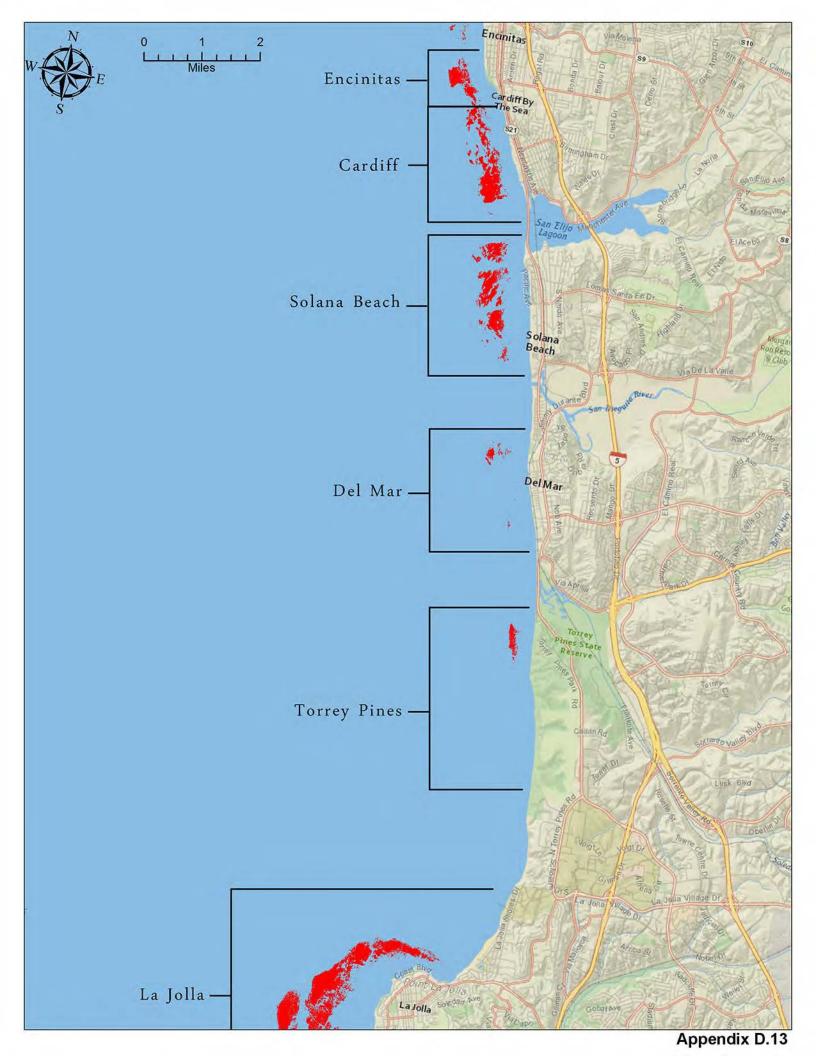


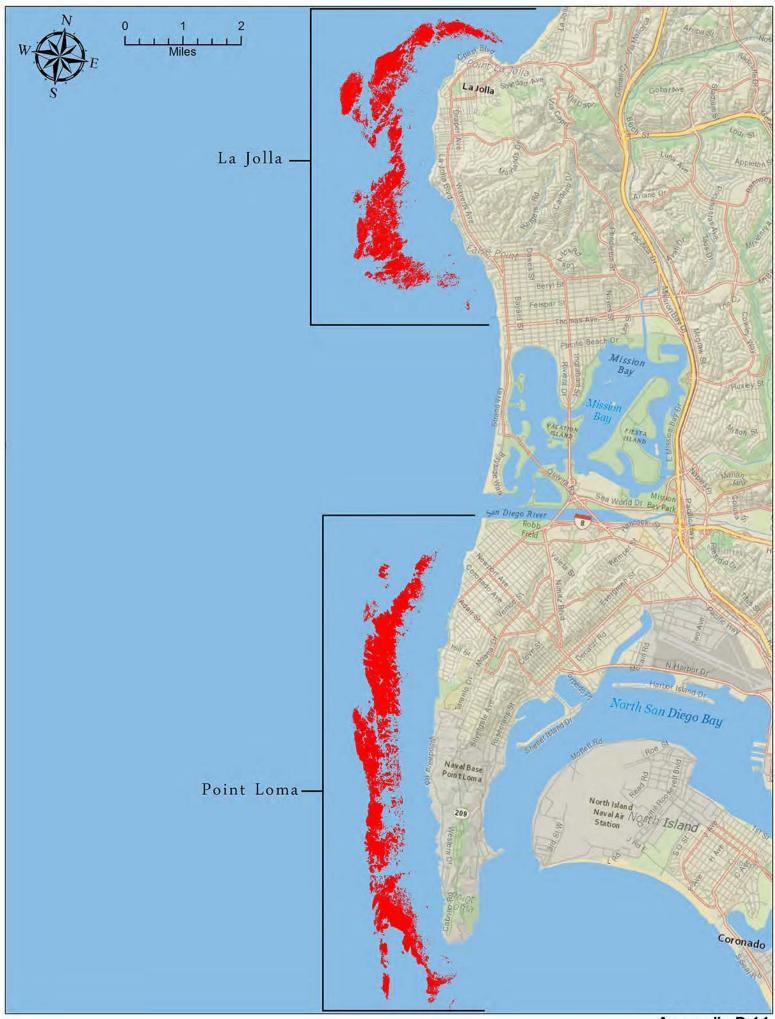




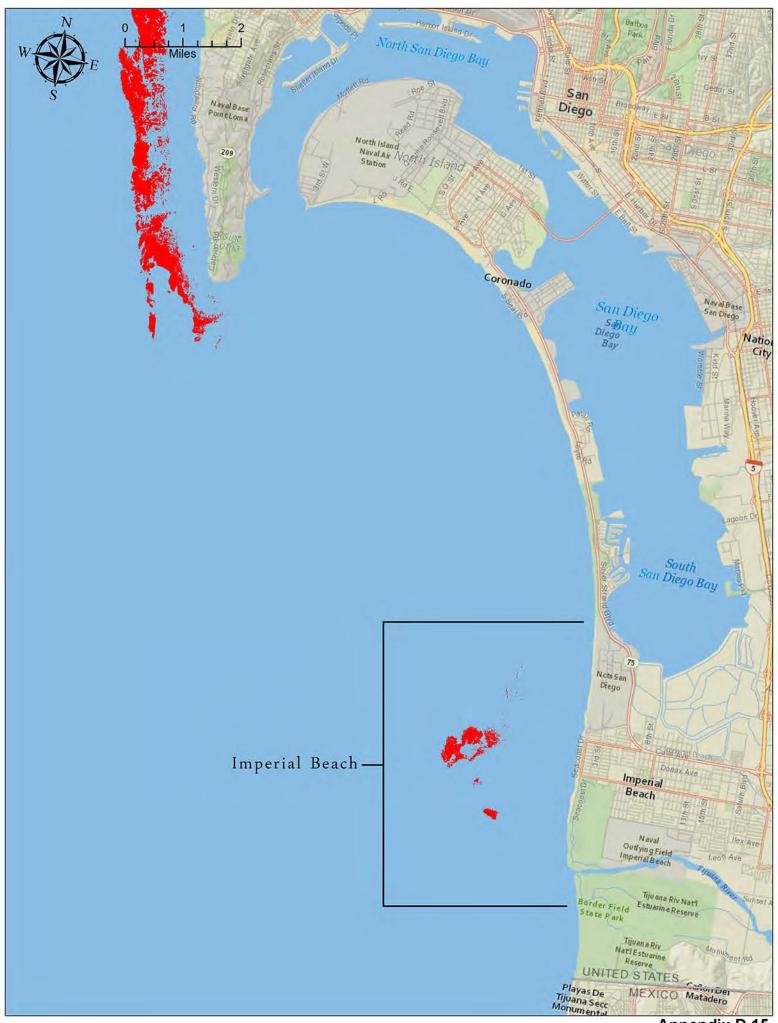








Appendix D.14



Appendix D.15

	Contracting Agency/Contact	Contract/Order #/Ag	ency File #			
Contracting Agency:	MBC Applied Environmental Sciences	Contract/Order #:				
Division:		Agency File #:				
Contact/Title:	Shane Beck, Michael Lyons	Calendar				
Address:	3000 Redhill Ave.	Services Ordered:	03/19			
City/State/Zip:	Costa Mesa, CA 92626	Data Acquisition Completed:	03/31/19			
Phone 1/Phone 2:	(714) 850-4830	Draft Report Materials Due:				
Fax/E-Mail:	(714) 850-4840	Final Report Materials Due:	5/19			
	Project Title/Target Resource (s)- Surve	ey Range (s)/Survey Data Flow				
Project Title	California Coastal Kelp Resou	rces - Ventura to Imperial Beach -	03/31/19			
Target Resource (s)/ Survey Range (s)	Coastal Kelp Canopies Ventura Harbor to Imperial Beach					
Survey Data Flow Processing Analysis	al kelp canopies within the survey ran	•				
Presentation	All survey imagery presented with 8"x10" co	ry presented with 8"x10" contact sheets (12 images/per page)				

Aerial Resource Survey Flight Data for:			March 31, 2019				
Survey Type				Aircraft/Imagery Data		Associated Conditions	
	Aerial Trans	portation/Observation	on	Aircraft:	Cessna 182	Sky Conditions:	Clear
	Photograph	ic Film Imagery - 35	mm	Altitude:	13,500' MSL	Sun Angle:	> 20 degrees from vertical
	Photograph	ic Film Imagery - 70	mm	Speed:	100 kts.	Visibility:	50+ miles
/	Digital Color	r/Color Infrared Imag	gery	Camera:	Nikon D200	Wind:	Less than 5 knots
	Videography	y		Lenses:	30mm (see note)	Sea/Swell:	2-4 feet
	Radio Telen	netry		Film:	Digital Color IR	Time:	1237-1413
	Radiometry	Geophysical Measu	ırements	Angle:	Vertical	Tide:	0.2' (+) to 0.1' (+) MLLW
	Other 1:			Photo Scale:	As Displayed	Shadow:	None
	Other 2:			Pilot:	Unsicker	Other:	
	Other 3:			Photographer:	Van Wagenen	Comments:	Excellent Conditions
		Ventura Harbor to	Imperial Beac	h			
-	Surveyed Target Resource	Imagery Date Note weak camera data	e: Imagery EXI battery cause Kelp canopie	F data shows ima ed this error and th	ne correct date and range showed signif	time is as shown a	

Ecoscan Resource Data

143 Browns Valley Rd. Watsonville, CA 95076 (831) 728-5900 (ph./fax)



Signed:		Bob	Van	Wagenen,	Director
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	Contracting Agency/Contact	Contract/Order #/Ag	ency File #		
Contracting Agency	y: MBC Applied Environmental Sciences				
Division:		Agency File #:			
Contact/Title:	Shane Beck, Michael Lyons	Calendar			
Address:	3000 Redhill Ave.	Services Ordered:	6/19		
City/State/Zip:	Costa Mesa, CA 92626	Data Acquisition Completed:	07/26/19		
Phone 1/Phone 2:	(714) 850-4830	Draft Report Materials Due:			
Fax/E-Mail:	(714) 850-4840	Final Report Materials Due:	8/19		
	Project Title/Target Resource (s)- Surv	ey Range (s)/Survey Data Flow			
Project Title	California Coastal Kelp Reso	urces - Ventura to Imperial Beach -	07/26/19		
Target Resource (s)/ Survey Range (s)	Coastal Kelp Canopies Ventura Harbor to Imperial Beach				
Survey Data Acquisiti Process Analy	ing Survey imagery indexed and delivered to N				
Flow Presentat	ion All survey imagery presented with 8"x10" o	contact sheets (12 images/per page)			

Aerial Resource Survey Flight Data for:			July 26, 2019				
Survey Type			Aircraft/Imagery Data		Associated Conditions		
	Aerial Trans	portation/Observation	n	Aircraft:	Cessna 182	Sky Conditions:	Clear
	Photographi	ic Film Imagery - 35	mm	Altitude:	13,500' MSL	Sun Angle:	> 20 degrees from vertical
	Photographi	ic Film Imagery - 70	mm	Speed:	100 kts.	Visibility:	50+ miles
7	Digital Color	r/Color Infrared Imag	jery	Camera:	Nikon D200	Wind:	Less than 5 knots
	Videography	у		Lenses:	30mm (see note)	Sea/Swell:	2-4 feet
	Radio Telen			Film:	Digital Color IR	Time:	1555-1745
	Radiometry	Geophysical Measu	rements	Angle:	Vertical	Tide:	4.7' (+) to 5.1' (+) MLLW
	Other 1:			Photo Scale:	As Displayed	Shadow:	None
	Other 2:			Pilot:	Unsicker	Other:	
	Other 3:			Photographer:	Van Wagenen	Comments:	Excellent Conditions
	Range (s) Surveyed	Ventura Harbor to Imagery Date Note faulty camera data	: Imagery EXI battery cause	F data shows ima ed this error, and	has been replaced.	The correct date	en 1320 and 1446 PDT. A and time is as shown above
	Pasource observed in t		s throughout the he March 2019 su creases were mor	urvey, especially the	ht increase in surf range between L	face extent from that a Jolla and Point Loma	
		ed normally. All	of the imagery was j	udged of excellent	e, and the image processing t quality and was useable for		

Ecoscan Resource Data 143 Browns Valley Rd: Watsonville, CA 95076 (831) 728-5900 (ph./fax)



Signed:		Bob	Van	Wagenen,	Directo
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C	ontracting Agency/Contact	Contract/Order #/Agency File #				
Contracting Agency:	MBC Applied Environmental Sciences	Contract/Order #:				
Division:		Agency File #:				
Contact/Title:	Shane Beck, Michael Lyons	Calendar				
Address:	3000 Redhill Ave.	Services Ordered:	9/19			
City/State/Zip:	Costa Mesa, CA 92626	Data Acquisition Completed:	09/24/19			
Phone 1/Phone 2:	(714) 850-4830	Draft Report Materials Due:				
Fax/E-Mail:	(714) 850-4840	Final Report Materials Due:	10/19			
	Project Title/Target Resource (s)- Survey	Range (s)/Survey Data Flow				
Project Title	California Coastal Kelp Resourc	ces - Ventura to Imperial Beach -	09/24/19			
Target Resource (s)/ Survey Range (s)	Coastal Kelp Canopies Newport Harbor to Imperial Beach					
Survey Data Flow Processing Analysis Presentation	Survey imagery indexed and delivered to MB	C for further processing and analys				
Presentation	All survey imagery presented with 8"x10" cor	sented with 8"x10" contact sheets (12 images/per page)				

Aerial Resource Survey Flight Data for:			September 24, 2019				
		Survey Type		Aircraft/Imagery Data		Associated Conditions	
	Aerial Trans	portation/Observation	on	Aircraft:	Cessna 182	Sky Conditions:	Clear
	Photographi	ic Film Imagery - 35	mm	Altitude:	13,500' MSL	Sun Angle:	> 20 degrees from vertica
	Photographi	ic Film Imagery - 70	mm	Speed:	100 kts.	Visibility:	50+ miles
1	Digital Color	/Color Infrared Imag	gery	Camera:	Nikon D200	Wind:	Less than 5 knots
	Videography	/		Lenses:	30mm (see note)	Sea/Swell:	2-4 feet
	Radio Telen			Film:	Digital Color IR	Time:	1632-1719
	Radiometry	Geophysical Measu	urements	Angle:	Vertical	Tide:	4.9' (+) to 5.2' (+) MLLW
	Other 1:			Photo Scale:	As Displayed	Shadow:	None
	Other 2:			Pilot:	Unsicker	Other:	
	Other 3:			Photographer:	Van Wagenen	Comments:	Excellent Conditions
	Range (s) Surveyed	Newport Harbor to	Imperial Bead	ch.			
Resource Observations Imagery Quality/ Quality/ Community Community Community Observed in tall observed					n surface extent from that between La Jolla and Point		
		was conducted the subseque	ed normally. All ent mapping and		udged of excellen resource.	e, and the image processing t quality and was useable for	

Ecoscan Resource Data 143 Browns Valley Rd.

Watsonville, CA 95076 (831) 728-5900 (ph./fax)



Signed:	 Bob Van Wagenen,	Director
9		

	Contracting Agency/Contact	Contract/Order #/Age	ency File #
Contracting Ager	ncy: MBC Applied Environmental Sciences	Contract/Order #:	
Division:		Agency File #:	
Contact/Title:	Shane Beck, Michael Lyons	Calendar	
Address:	3000 Redhill Ave.	Services Ordered:	12/19
City/State/Zip:	Costa Mesa, CA 92626	Data Acquisition Completed:	12/19/19
Phone 1/Phone 2	: (714) 850-4830	Draft Report Materials Due:	
Fax/E-Mail: (714) 850-4840		Final Report Materials Due:	12/19
	Project Title/Target Resource (s)- S	urvey Range (s)/Survey Data Flow	
Project Title	California Coastal Kelp Re	sources - Ventura to Imperial Beach -	12/19/19
Target Resource (s) Survey Range	· ·		
Flow	Survey imagery indexed and delivered	pastal kelp canopies within the survey ran to MBC for further processing and analys	•
Present	ation All survey imagery presented with 8"x10	0" contact sheets (12 images/per page)	

Aerial Resource Survey Flight Data for:			December 19, 2019				
Survey Type				Aircraft/Ir	nagery Data	Associated Conditions	
	Aerial Trans	sportation/Observation	on	Aircraft:	Cessna 182	Sky Conditions:	Clear
	Photograph	ic Film Imagery - 35	mm	Altitude:	13,500' MSL	Sun Angle:	> 20 degrees from vertical
	Photograph	ic Film Imagery - 70	mm	Speed:	100 kts.	Visibility:	50+ miles
V	Digital Colo	r/Color Infrared Imag	gery	Camera:	Nikon D200	Wind:	Less than 5 knots
	Videography	y		Lenses:	30mm (see note)	Sea/Swell:	2-4 feet
	Radio Telen	netry		Film:	Digital Color IR	Time:	1147-1318
	Radiometry	/Geophysical Measu	irements	Angle:	Vertical	Tide:	2.6' (+) to 3.3' (+) MLLW
	Other 1:			Photo Scale:	As Displayed	Shadow:	None
	Other 2:			Pilot:	Unsicker	Other:	
	Other 3:			Photographer:	Van Wagenen	Comments:	Excellent Conditions
	Range (s) Surveyed	Ventura Harbor to	ітрепаі веас	n.			
Resource Observations Imagery Quality/ Comments				range showed a red that between La Joll			
		Excellent	was conducte	ce kelp canopies were photographed within the above range, and the image ducted normally. All of the imagery was judged of excellent quality and watequent mapping and analysis of the kelp resource. igital SLR camera) is similiar focal length to 50mm (35mm film SLR camer			

Ecoscan Resource Data 143 Browns Valley Rd. Watsonville, CA 95076 (831) 728-5900 (ph./fax)



Signed:	 Bob	Van	Wagenen,	Director

AQUATIC SCIENCES

Client:	ecion 9 Job	No:/	14315	Date: _	+ Jem.	20	
Work Site: _	ImpBch - O'side	Personn	el: R1/m	VIZ	Sme		
Team Leade	ər:	Vess	el: <u>Seor</u>	acna			
Time	Work Related Activities:		·				
0530	Arrive & Linish	load			Plot Sta	1/23 0	n ma
0550	Depart MBC			<u> </u>			
0645	Step o'side to	ola Wayne					
	Laurel Shelter	,					
0840	Inp Bel	9918 - f.	t. Lova S	0945	of Lona N	· · · · · · · · · · · · · · · · · · ·	
1020	La gulla 5.				1		
1155	So)	1220	Bard	1	230 Enerit	αζ .	
1735	Sten	1245	C. Lenc			· · · · · · · · · · · · · · · · · · ·	
1328	- 131532 5 Dive N) Leu	1410	- Cars	St Park		
	14/58 Dive 1	_			· .		<u> </u>
1520	Ngua Hed	1530	N carlshad		1600 Santa	Margarita	7
1625	Arrive at Ocea		·		•		
1640	Depart Oceanside				*		
1740	Arrive MBC	T. 11	· · · · · · · · · · · · · · · · · · ·		· ·	estation of the second	
				-			
	:						-,*
	Bal YL's W	gules					



Client:	0NGS Job No: 15020 Date: 15070200
Work Site: _	SONGS Personnel: JUC CME
Team Leade	r:Vessel:Venduna
Time	Work Related Activities:
0030	Arrive at MBC, mob
areo	Depart MBC
0720	Arrive at Dana Point
0730	Launch Svorpaena
0735	Arrive at Fuel Dock
0820	Depart Fuel Bock
0925	FZS-thermistors
1000	PAR 1010 Barn Kelp 1020 Homo Canyon
1039	C2S - thermistors
1122	C223 - thermistors
1155	A-water
1201	C - n
1207	B - h
1210	San Onofre 1235 San Mateo 1245 San Chemente
1300	Cap istrano Brach
1330	Pull scorpalna
1	lunch
1425	Arrive @ MSC, demols
1530	Done.



Client:	9 Kelp Job No: 14315	Date: 30 Jan 20	· .
Work Site: _	Dana -> Newport Personnel: RHM	DUS	<u> </u>
Team Leade	er: Vessel: Poco	loco	
Time	Work Related Activities:		<u> </u>
0630	Arrive flood		
0703	Depent		
0730	Arrive Dana It uzelo Launch		MMSI NH
0830	Andres DP Kelp 9913 26m 511		· · · · · · · · · · · · · · · · · · ·
<u>-</u>	+ lots subsmituce		
1000	J. Lag		· .
1030	Laguna 1054-18 nin 52'		
	N Lay Ruf Pt	Whichler	
1300	Corona delMer		
1340	dod - pulled boat	276 Ls	
1405	MBC		_
 500	Finial		
			· · · · · · · · · · · · · · · · · · ·
			·
•		With the second	

a Moc

Client:	ecton 9 Job	No:/	14315	Date:	+ Gem	20	
Work Site: _	Imp Bch > O'side	Person	nel: RIJM	<u>1773.</u>	Smet		· · · · · · · · · · · · · · · · · · ·
Team Leade	r:	Ves	sel: <u>Sevipi</u>	icna .			
Time	Work Related Activities:		·	 			
0530	Arrive & finish	load			Plot St	21/230	n ma
0550	Depart MBC			·.		· · · · · · · · · · · · · · · · · · ·	
0645	Step o'side to	e la Wayn		: ·			
	Laurch Sheller	,					
0840	Imp SeL	9918=1	It. Lova S	0945	of Lona N		
1020	La gulla 5.		_		•		
1155	Sw)				30 Eveni	Lus	
1735			5 C. Leuc			, . 	
1328	13/5325 Dive 1) Leu	14-10	- Cors	St Park		
!	1458 Dive 1						
1520	Ngha Hed	1530	N carlsbad		1600 Santo	a Margan	the?
b25	Arrive at Oce						
1640	Depart Oceanside			*			
1740	Arrive MBC		:			- Mary Market	
_			-			n *	
						·	:
		•					
				-			
	The Administration of						
			•	,	· · · · · · · · · · · · · · · · · · ·		: -
	(2) 1/1/2 1	<u> </u>		·····			

Observer: SME	Date 7 JAN 2020
Lat/Long: 33° 07.517' 117° 20.441'	Location Mina PP
	Time
TOPSIDE OBSERVATIONS	Wind/Direction
	Current
Kelp Canopy	Weather
	UW Visibility
Extent	Swell Ht/Period
Density	<u>.</u> .
Tissue color	
% Frond comp. Senile Matu	reYoungOther
Disease	
Encrustation	<u> </u>
Apical blades Sediment on blades	<u></u>
Remarks	
Remarks	
Subsurface	
Juburiace	
Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color Lel - dark Clew Encrustation Disease Dise	Turf algae Y - Red Turf invert. N Shrub algae Large Invert. Snaw and mone under Fishes N 2/3 Felletia Disease N 4 Megnotraea Sed. on rocks Urchin status W+3+3 2 Rm - Ranke walne 10 Dark Purf = 5+4 & Red walne 7 Bottom characteristics
Sediment on blades (/	
Sinking fronds V	cobble rock she (Fbottom
Grazed tissues y	Suc 17 BOTTUNI
Sporophyllis	
Juvenile fronds \	
Holdfasts $\psi + 3 = (9)$	are to a straight and toolly a
Old holdfasts N	graced a mil, not bottom
Recruitment 4	
REMARKS for: 11 = (2)	

Observer: RHM	Date 7.1AN 2020
Lat/Long: 33° p4. 450/ 117 18.964/	Location North Lengdia
	Time
TOPSIDE OBSERVATIONS	Wind/Direction
Con y EGM	Current
Kelp Canopy	Weather
Extent Eporophy (ades w)	UW Visibility
Dencity	Swell Ht/Period
Tissue color	<u> </u>
% Frond comp. Senile Mature	YoungOther
Disease not carrying sporcy	of thou
Encrustation	<u> </u>
Apical blades	· ·
Sediment on blades	_
Remarks	Depty 35'
LAM MARIA	2,1
Subsurface	· · · · · · · · · · · · · · · · · · ·
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease Sed. on rocks Urchin status
Encrustation	
Disease	Bottom characteristics
Sediment on blades ()	elt rock / Platerock 90 c
Sinking fronds	Jaud Channel asm
Grazed tissues	
Sporophyllis /	
Juvenile fronds	
Holdfasts Old holdfasts	
Recruitment	
REMARKS Recruits 114 =4	Mostly Egragia
Ada 1x 11 7h	

Lat llong's incorrect— chected 2 si @ 1600 * 161

rcorrect—				
•	SME		Date _	7.JAU 2020
nected 2 sites	191117 27,249	/ ???		Santa Margarita
1600 - 1615.	117°25.192	17	Time _	1600/1615
	s " (* 5 . 19 L	* *	Wind/Direction	
			Current	
Kelp Canopy			Weather	P. Cloudy
			UW Visibility	10-A- 0
Extent Nove			_ Swell Ht/Period _	
Density				
Tissue color			_	
% Frond comp	Senile	Mature	Young	Other
Disease	•		di .	
Encrustation				
Apical blades			-	•
Sediment on blades			-	1
Remarks			=	Depth.35
Subsurface NON a			<u></u>	
Midwater Tissue Color			<u>Community</u> Litter	
Encrustation			 Turf algae	
Disease	· · · · · · · · · · · · · · · · · · ·		Turf invert.	
Sediment on blades	<u> </u>		Shrub algae	
Sinking fronds			Large Invert.	· · · · · · · · · · · · · · · · · · ·
Grazed tissues			Fishes	······································
			Disease	
<u>Bottom</u>			Sed. on rocks	
Tissue color	•		Urchin status	
Encrustation			.	
Disease			Bottom characte	eristics
Sediment on blades	S		· · · · · · · · · · · · · · · · · · ·	
Sinking fronds				
Grazed tissues		· · · · · · · · · · · · · · · · · · ·		
Sporophyllis				
Juvenile fronds				
Holdfasts				
Old holdfasts		· · · · · · · · · · · · · · · · · · ·		
Recruitment				
		·····	**************************************	
REMARKS				
	· · · · · · · · · · · · · · · · · · ·			

Observer: PHM SME	Date 7 JAN 2020
Lat/Long: 32009.3211117°21.665	Location North Carlsbad
	Time 1530
TOPSIDE OBSERVATIONS	Wind/Direction
	Current
Kelp Canopy	Weather p. Cloudy
	UW Visibility 15 ft.
Extent Nove	Swell Ht/Period 2-3 ft w
Density	
Tissue color	<u></u>
% Frond comp. Senile Mature	Young Other
Disease	·
Encrustation	
Apical blades	·
Sediment on blades	
Remarks	1 tepth: 43'
	16ts
Subsurface scattered subsurface ~ 10ft tall part	nes ~ 10 plants
UNDERWATER OBSERVATIONS Midwater Tissue Color Encrustation	Community Litter Turf algae
Disease	Turf invert.
Sediment on blades	Shrub algae
Sinking fronds	Large Invert.
Grazed tissues	Fishes
	Disease
<u>Bottom</u>	Sed. on rocks
Tissue color	Urchin status
Encrustation	
Disease	Bottom characteristics
Sediment on blades	
Sinking fronds Grazed tissues	
Sporophyllis Juvenile fronds	
Holdfasts	
Old holdfasts	
Recruitment	
REMARKS	

Observer: RHMISME	Date
Lat/Long: 32°08.664' 117°21.119'	Location Arus Had
	Time 1520
TOPSIDE OBSERVATIONS	Wind/Direction
	Current
Kelp Canopy	Weather D. Cloudy
	UW Visibility 15ft.
Extent NOWL	Swell Ht/Period 2-3 A. W
Density	
Tissue color	
% Frond comp. Senile Mature	Young Other
Disease	
Encrustation	
Apical blades	,
Sediment on blades	<u> </u>
Remarks	Tepth 40
Subsurface 10-15 ft. plants on bottom, parch	of ~6 plants, 2-3 patches
UNDERWATER OBSERVATIONS	
Midwater	<u>Community</u>
Tissue Color	Litter
Encrustation	Turf algae
Disease	Turf invert.
Sediment on blades	Shrub algae
Sinking fronds	Large Invert.
Grazed tissues	Fishes
	Disease
Bottom	Sed. on rocks
Tissue color	Urchin status
Encrustation	
Disease	Bottom characteristics
Sediment on blades	
Sinking fronds	
Grazed tissues	
Sporophyllis	
Juvenile fronds	
Holdfasts	•
Holdfasts	
Holdfasts Old holdfasts	
Holdfasts Old holdfasts	
Holdfasts Old holdfasts Recruitment	
Holdfasts Old holdfasts Recruitment	

Observer: RAIM SME	Date 7JAN 2020
_at/Long: 33°01, 631' 117°19.561'	Location North-tensalia CS
FORCING COCTOMATIONS	Time 1410
TOPSIDE OBSERVATIONS	Wind/Direction
	Current
Kelp Canopy	Weather P. Moudy
Naca	Ove distributed 10-tt
Extent None	Swell Ht/Period 2-3H.W
Density	-
issue color	, Vaura OAhan
6 Frond comp Senile Mature Disease	Young Other
ncrustation	•
Apical blades	-
ediment on blades	_
temarks	.
emarks	
ubsurface \\ \tag{Year}	·
ubsurface Name	
Midwater Tissue Color	<u>Community</u> Litter
Encrustation	Turf algae
Disease	Turf invert.
Sediment on blades	Shrub algae
Sinking fronds	Large Invert.
Grazed tissues	Fishes
	Disease
<u>Bottom</u>	Sed. on rocks
Tissue color	Urchin status
Encrustation	
Disease	Bottom characteristics
Sediment on blades	
Sinking fronds	
Grazed tissues	
Sporophyllis	
Juvenile fronds	
Holdfasts	
Old holdfasts	
Recruitment	
EMARKS	
EMARKS	

Observer: RHM SMB	Date 7 14N 2020
Lat/Long: 33°03.9/6' 1/7° /8.656	Location Control Leucadia
	Time 1245
TOPSIDE OBSERVATIONS	Wind/Direction ₃ ₩
	Current
Kelp Canopy	Weather p. Cwudy
	UW Visibility 10'-15'
Extent Medlum-scattered	Swell Ht/Period 2 - 3 ↔ W
Density Mm x 30m	
Tissue color 50 / light,	
% Frond comp. 50 / Senile 45 Mature	5 / YoungOther
Disease None	<u>.</u>
Encrustation 50%	- -
Apical blades 5/	· · · · · · · · · · · · · · · · · · ·
Sediment on blades Nove	-
Remarks	Nepth 31
	·
Subsurface apical blades on subsurface, not on can	opy
UNDERWATER OBSERVATIONS	
<u>Midwater</u>	Community
Tissue Color	Litter
Encrustation	Turf algae
Disease	Turf invert.
Sediment on blades	Shrub algae
Sinking fronds	Large Invert.
Grazed tissues	Fishes
	Disease
Bottom	Sed. on rocks
Tissue color	Urchin status
Encrustation	
Disease	. Bottom characteristics
Sediment on blades	
Sinking fronds	
Grazed tissues	
Sporophyllis	
Juvenile fronds	
Holdfasts	
Old holdfasts	
Recruitment	·
ned druffent	
DENANDYC	
REMARKS	
	and the state of t

Observer: RHM SME	Date	7JAN 2020	
Lat/Long: 33.02.979' 117° 18.321'	Location	S. Lewadia	
	Time	1235	
TOPSIDE OBSERVATIONS	Wind/Direction	3(1)	
	Current	,	
Kelp Canopy	Weather		
	UW Visibility		
Extent 30m x 30m	Swell Ht/Period_	2-3H.W	
Density medium-scattered			,
Tissue color 20%. light yellow, 7107. modium, 10% dar		·	. (.
% Frond comp. <u>w/</u> Senile <u>807</u> Mature	Young	Other	,
Disease Now		•	
Encrustation 20/			
Apical blades 5/		•	
Sediment on blades pare		0 4 : 241	
Remarks 1-2 m length fronds		Depth: 34'	
Subsurface and the of a			
Subsurface aplical tips subsurface	······································		
Midwater Tissue Color	<u>Community</u> Litter_		
Encrustation	Turf algae		
Disease	Turf invert.		
Sediment on blades	Shrub algae _		
Sinking fronds	Large Invert		
Grazed tissues	Fishes_	· · · · · · · · · · · · · · · · · · ·	
	Disease _		
Bottom	Sed. on rocks		
Tissue color	Urchin status_		
Encrustation			
Disease Sediment on blades	Bottom characte	Pristics	<u></u>
Sinking fronds	 		
Grazed tissues	· · · · · · · · · · · · · · · · · · ·		,
Sporophyllis			
Juvenile fronds			
Holdfasts			
Old holdfasts	· · · · · · · · · · · · · · · · · · ·		
Recruitment			
			<u> </u>
REMARKS	÷	•	

Observer: RLM , SME Lat/Long: 33°02-314' 117° 18.148'	Date	7 JAN 2020
	 Location	Encinitas
	Time	1230
TOPSIDE OBSERVATIONS	Wind/Direction	3 W
	Current	
Kelp Canopy	Weather	P. Clordy
	UW Visibility	
Extent 30 m wide, 100 m long	Swell Ht/Period	2-3 ft. W
Density scaffered to the north		
Tissue color - Medium yellow711. Dank Yellow201,10	7.11gtor (07Young	
% Frond comp. 5 / Senile 55 / Mature	Young	Other
Disease Nove	<u></u>	
Encrustation 5/.	-	
Apical blades 40 7.		
Sediment on blades	-	N 1/ 2/ 1
Remarks 2-3m frond length		Depth: 36'
Subsurface 5-10' algae (kelp) on bottom	· · · · · · · · · · · · · · · · · · ·	
2-3 patches to the surface of 10-40p	lants - sattered	over 0.35 Miles
UNDERWATER OBSERVATIONS Midwater	Community	
Tissue Color	Litter	
Encrustation	_ Turf algae	
Disease	Turf invert.	
Sediment on blades	- Shrub algae	
Sinking fronds	Large Invert.	
Grazed tissues	Fishes	
	Disease	
<u>Bottom</u>	Sed. on rocks	
Tissue color	Urchin status	
Encrustation	<u>.</u>	
Disease	Bottom charact	teristics
Sediment on blades	· '	
Sinking fronds		
Grazed tissues	<u> </u>	
Sporophyllis		
Juvenile fronds		
	·	
Holdfasts		
Old holdfasts		
Old holdfasts	· · · · · · · · · · · · · · · · · · ·	
Old holdfasts Recruitment		

Observer: DHM, SME	Date	7JAN2020
at/Long:	 Location	Cardiff
south: 33°01.039' 117° 17.385'		1220
OPSIDE OBSERVATIONS	Wind/Direction	
	Current	.
Kelp Canopy	Weather	P. Cloudy
	UW Visibility	
extent None	Swell Ht/Period	
Density	·	
issue color		1
6 Frond comp Senile Mature	Young	Other
Pisease		• • • • • • • • • • • • • • • • • • •
ncrustation	-	
pical blades	_	•
ediment on blades	_	
emarks	•	Depth: 40'
ubcurface	1 0 0.0.2/	- (n n n n)
ubsurface metering ~5 ft. tall algae 10-15 tal	1 tor ~ 2 3/10 MI	e (0.25 m)
several scattered breaching surface	· · · · · · · · · · · · · · · · · · ·	
Midwater	Community	
Tissue Color	Litter	· · · · · · · · · · · · · · · · · · ·
Tissue Color Encrustation	Litter Turf algae	
Tissue Color Encrustation Disease	Litter Turf algae Turf invert.	
Tissue Color Encrustation Disease Sediment on blades	Litter Turf algae Turf invert. Shrub algae	
Tissue Color Encrustation Disease Sediment on blades Sinking fronds	Litter Turf algae Turf invert. Shrub algae Large Invert.	
Tissue Color Encrustation Disease Sediment on blades	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes	
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease	
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease Sed. on rocks	
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease	
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color Encrustation	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease Sed. on rocks Urchin status	
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color Encrustation Disease	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease Sed. on rocks	eristics
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color Encrustation Disease Sediment on blades	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease Sed. on rocks Urchin status	eristics
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color Encrustation Disease Sediment on blades Sinking fronds	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease Sed. on rocks Urchin status	eristics
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease Sed. on rocks Urchin status	eristics
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sediment on blades Sinking fronds Grazed tissues Sporophyllis	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease Sed. on rocks Urchin status	eristics
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissuės Sediment on blades Sinking fronds Grazed tissuės Sporophyllis Juvenile fronds	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease Sed. on rocks Urchin status	eristics
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sediment fonds Grazed tissues Sporophyllis Juvenile fronds Holdfasts	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease Sed. on rocks Urchin status	eristics
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sediment fonds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease Sed. on rocks Urchin status	eristics
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sediment fonds Grazed tissues Sporophyllis Juvenile fronds Holdfasts	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease Sed. on rocks Urchin status	eristics
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts Recruitment	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease Sed. on rocks Urchin status	eristics
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sediment fonds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	Litter Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease Sed. on rocks Urchin status	eristics

Date 7 JAN 2020 Location Sdana Beach Time 1/55- Wind/Direction 3 W Current Weather p. Cloudy UW Visibility 10-15-f1. Swell Ht/Period 2-3 A. W Other
Time //55- Wind/Direction 3 \(\text{Vind/Direction} \) Current Weather \(\text{p. Cloudy} \) UW Visibility \(\text{po-15 f1.} \) Swell Ht/Period \(\text{2-3 A.W} \) \[\text{Voung} \text{Other} \]
Wind/Direction 3 W Current Weather p. Cloudy UW Visibility 10-15 f1. Swell Ht/Period 2-3 A. W Young Other
Current Weather p. Cloudy UW Visibility 10 -15 f1. Swell Ht/Period 2-3 A. W \'/: Young Other
Weather p. Cloudy UW Visibility 10-15 f1. Swell Ht/Period 2-3 A. W Young Other
UW Visibility 10 -15 f1. Swell Ht/Period 2-3 fl. W ('/: Young Other
Swell Ht/Period 2-3 A. W Young Other
YoungOther
- Toung Other
- Toung Other
- Toung Other
- - - -
- - - Doth 37
- - Death 37
- Death 37
1/1 -21 1 1 1 1 1 1 1 1 1
, 30-35 ft tall-can see (50% senile, 50%)
Community
Litter
Turf algae
Turf invert.
Shrub algae
Large Invert. Fishes
· · · · · · · · · · · · · · · · · · ·
Disease
Sed. on rocks
Urchin status
Bottom characteristics
·

Observer: RHM. SME	Date 714N2020
Lat/Long: 32°57.512' 167°16.539' 560 537	Location <u>Nel Mar</u>
560 537	Time 1145
TOPSIDE OBSERVATIONS	Wind/Direction 3 km W
	Current
Kelp Canopy	Weather P. Choudy
	UW Visibility 18 FI
Extent Nova	Swell Ht/Period 2 - 7 臼 . W
Density	
Tissue color	• · · · · · · · · · · · · · · · · · · ·
% Frond comp Senile Mature	YoungOther
Disease	
Encrustation	-
Apical blades	-
Sediment on blades	•
Remarks	Daoth 37'
	•
Subsurface 2-3 ft. talialgae on followeder for a	200 m distance
L ^e	•
Midwater Tissue Color	Community
Tissue Color	Litter
Encrustation	Turf algae
Disease	Turf invert.
Sediment on blades	Shrub algae
Sinking fronds	Large Invert.
Grazed tissues	Fishes
	Disease
<u>Bottom</u>	Sed. on rocks
Tissue color	Urchin status
Encrustation	
Disease	Bottom characteristics
Sediment on blades	
Sinking fronds	
Grazed tissues	
Sporophyllis	
Juvenile fronds	·
Holdfasts	
Old holdfasts	
Recruitment	
0	
REMARKS 32°57.590' 117°16.705'	

OUL CLAC	71
Observer: RHM, SME	Date 7 JAN 2020
Lat/Long: 32° 53,561' 117°15.633'	Location Torrey Pines
	Time 1115
TOPSIDE OBSERVATIONS	Wind/Direction
	Current
Kelp Canopy	Weather p. Woudy
	UW Visibility <u>い ft</u> る
Extent None	Swell Ht/Period 2-3 ft. W
Density	<u> </u>
Tissue color	.
% Frond comp. Senile Mature	Young Other
Disease	<u> </u>
Encrustation	_
Apical blades	
Sediment on blades	
Remarks	
Subsurface Now	
UNDERWATER OBSERVATIONS Midwater	Community
Tissue Color	Litter
Encrustation	Turf algae
Disease	Turf invert.
Sediment on blades	Shrub algae
Sinking fronds	Large Invert.
Grazed tissues	Fishes
	Disease
<u>Bottom</u>	Sed. on rocks
Tissue color	Urchin status
Encrustation	
Disease	Bottom characteristics
Sediment on blades	
Sinking fronds	
Grazed tissues	
Sporophyllis	
Juvenile fronds	
Holdfasts	·
Old holdfasts	
Recruitment	
REMARKS	

Observer: RHm SmF	Date 7 Jan 20
Lat/Long: 27:102.9122' 117017.532' (central)	Location La Jolla / South
Observer: RHm, SME Lat/Long: 32-48.922' 117017.538' (central) 32.48.986' 117016.479' *(south)	Time /02.0
TOPSIDE OBSERVATIONS 32. 50, 651 17017, 926 (NOWL)	Wind/Direction 3₩
(1 / 1, 150 (is appe)	Current
Kelp Canopy centre 0 = 200 na	Weather f. Upudy.
Kelp Canopy central = 300 m (~100 m vidth)	4 11 4 11 41 11 11 11 11 11 11 11 11 11
Extent 44 mi willy continuous south to north and	Swell Ht/Period 237+
Density medium inshore, thick offshore	
Tissue color 60% light viction, 40% dark yellow	•
% Frond comp Senile 95 / Mature	YoungOther
Disease Nove	
Encrustation (e0 / 70 /.	•
Apical blades 2-5%	•
Sediment on blades None	- '
Remarks 42 ft. "scattered plant at surface - Mone met	comparbaceaco Dept 42'-
3 m length from a c	d
Subsurface offshore subsurface (celp ~ 70' depth	
central > 70% dark yellow, 10% enuncted 4-5 m of m	and length 85% mature 11% aprial 15-75
UNDERWATER OBSERVATIONS	
Midwater	Community
Tissue Color	Litter
Encrustation	Turf algae
Disease Sediment on blades	Turf invert.
Sinking fronds	Shrub algae
Grazed tissues	Large Invert. Fishes
Glazed (issues	·
Battom	Disease
Bottom Tissue color	Sed. on rocks Urchin status
Encrustation	· · · · · · · · · · · · · · · · · · ·
Disease	Bottom characteristics
Sediment on blades	Dottom characteristics
Sinking fronds	
Grazed tissues	
Sporophyllis	
Juvenile fronds	
Holdfasts	
Old holdfasts	
Recruitment	
REMARKS	
	<u> </u>

Observer: RHM SME	Date 7 gan Zu
Lat/Long: 32-42639 117 16.3671 North edge :32+43.545 117-16.264	Location Of Lone North
North edge :32 43.545 115 16.264	Time 0945
TOPSIDE OBSERVATIONS	Wind/Direction 3 W
	Current down coast
Kelp Canopy	Weather p. croudy 10'1.
	UW Visibility 10 ft.
Extent www wide continuous to south	Swell Ht/Period 2-344 W
Density Solid	
Tissue color 50% dark yellow 50% light yellow	-
% Frond comp. 10 / Senile 90 / Mature	Other
Disease None	
Encrustation 56 /	-
Apical blades 1-2-1.	<u>.</u>
Sediment on blades Nove	<u> </u>
Remarks	Jupy 55A
Subsurface	
Midwater Tissue Color	<u>Community</u> Litter
Encrustation	Turf algae
Disease	Turf invert.
Sediment on blades	Shrub algae
Sinking fronds	Large Invert.
Grazed tissues	Fishes
	Disease
<u>Bottom</u>	Sed. on rocks
Tissue color	Urchin status
Encrustation	Oreimi status
Disease	- Bottom characteristics
Sediment on blades	DOLLOTTI CHIMAGO. ISSICO
Sinking fronds	
Grazed tissues	
Sporophyllis	
Juvenile fronds	
Holdfasts	
Old holdfasts	
Recruitment	
REMARKS	
	· · · · · · · · · · · · · · · · · · ·

Observer: RHM, SME	Date	7 Jan 20
Lat/Long: 32° 39', 159 117075.085' 32° 39,578' 1/7° 15.688'	Location	Pt Long South
32° 39,578' (17° 14.688'	Time	0918
TOPSIDE OBSERVATIONS	Wind/Direction	8
	Current	
Kelp Canopy	Weather	P. Cloudy
Kelp Canopy Continuous to N	UW Visibility	
Extent 200 L w x Ostaville long	Swell Ht/Period	2-3 H W
Density Solid	-	
Tissue color Donky llow at i	.	
% Frond comp	<i>[</i>	Other 50 (
Disease N	-	
Encrustation 30 4	-	
Apical blades / '/,		•
Sediment on blades V	-	•
Remarks By airea scallered @ 0.25 mile long	-	Death 60'
	· · · · · · · · · · · · · · · · · · ·	
Subsurface (Just below Surface George Concentration	· · · · · · · · · · · · · · · · · · ·	
lots of arical block visible		**************************************
(of volunteer stock tree, the		
Midwater Tissue Color	<u>Community</u> Litter	
Encrustation	Turf algae	· · · · · · · · · · · · · · · · · · ·
Disease	Turf invert.	
Sediment on blades	Shrub algae	
Sinking fronds	Large Invert.	
Grazed tissues	Fishes	
	Disease	
Bottom	Sed. on rocks	
Tissue color	Urchin status	
Tissue color Encrustation	Urchin status	
Encrustation	<u>.</u>	ristics
Encrustation Disease	Urchin status	ristics
Encrustation Disease Sediment on blades	<u>.</u>	ristics
Encrustation Disease Sediment on blades Sinking fronds	<u>.</u>	ristics
Encrustation Disease Sediment on blades Sinking fronds Grazed tissues	<u>.</u>	ristics
Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis	<u>.</u>	ristics
Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds	<u>.</u>	ristics
Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts	<u>.</u>	ristics
Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	<u>.</u>	ristics
Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts	<u>.</u>	ristics
Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	<u>.</u>	ristics
Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts Recruitment	<u>.</u>	ristics

Observer: RHM, SME	Date	7 Jan 20
Lat/Long: 32° 34,548' 117°09, 163'	Location _	Imperial Beach
	Time _	0840
TOPSIDE OBSERVATIONS	Wind/Direction _	3-5 E
	:Current_	
Kelp Canopy	Weather_	Chear thy P. Clary (107)
	UW Visibility _	
Extent None	_ Swell Ht/Period _	1-21 W
Density	-	
Tissue color		
% Frond comp. Senile Mature	Young	Other
Disease		
Encrustation	_	
Apical blades		
Sediment on blades	-	Depth 55'-36'
Remarks No Campy		Depth 37-36
<u> </u>		
Subsurface Flord Bottom - nothing subsur-	tace C 0.25	diene for circle
Tissue Color	Litter	
Encrustation	Turf algae	
Disease	Turf invert	
Sediment on blades	Shrub algae _	· · · · · · · · · · · · · · · · · · ·
Sinking fronds	Large Invert.	
Grazed tissues	Fishes	
	Disease _	
Bottom Tierre and an arrangement of the state of the stat	Sed. on rocks	
Tissue color	Urchin status _	
Encrustation Disease	Bottom characte	ariatias
Sediment on blades	BOLLOIN CHAIACLE	i i i i i i i i i i i i i i i i i i i
Sinking fronds		
Grazed tissues		
Sporophyllis	<u> </u>	
Juvenile fronds		-
Holdfasts		
Old holdfasts		
Recruitment		
Reduction		
REMARKS >2m	< 2 m	
	- 12	
		

Observer: SME	Date (5 (1 AN 20
Lat/Long: N33°19.466' W 117°31.643'	Location Dendleton Princial Real
	Time 1000
TOPSIDE OBSERVATIONS	Wind/Direction 3-5 NW
	Current Sawh
Kelp Canopy	Weather P. Cloudy
	UW Visibility 10 F4.
Extent None	Swell Ht/Period 2-3 W
Density	
Tissue color	-
% Frond comp. Senile Mature	YoungOther
Disease	
Encrustation	
Apical blades	· ·
Sediment on blades	Depth 42°
Remarks	Deproi 42
Subsurface N ~~	
UNDERWATER OBSERVATIONS	
<u>Midwater</u>	Community
Tissue Color	Litter
Encrustation	Turf algae
Disease	Turf invert.
Sediment on blades	Shrub algae
Sinking fronds	Large invert.
Grazed tissues	Fishes
	Disease
Bottom	Sed. on rocks
Tissue color	Urchin status
Encrustation	
Disease	Bottom characteristics
Sediment on blades	
Sinking fronds	
Grazed tissues	
Sporophyllis	
Juvenile fronds	
Holdfasts	
Old holdfasts	
Recruitment	
REMARKS	

Observer: SMF	Date 15 JAN 20
Lat/Long: N 23. 17.132 W 117° 29.376	Location Darn Kelp
2372018. 10 23 11.112 10 11 21:310	Time (0)0
TOPSIDE OBSERVATIONS	Wind/Direction 3-5 NW
	Current South
Kelp Canopy	Weather P. Cloudy
naile demoki	UW Visibility 10 ft.
Extent None	Swell Ht/Period 2-3 W
Density	
Tissue color	-
% Frond comp. Senile Mature	Young Other
Disease	
Encrustation	-
Apical blades	
Sediment on blades	
Remarks	- Depth: 491
Subsurface ~ 20 ft. Length - 20 -30 ft to	Il, multiple patches over mile
Midwater Tissue Color	Community
Encrustation	Litter
Disease	Turf algae Turf invert.
Sediment on blades	
Sinking fronds	Shrub algae Large Invert.
Grazed tissues	Fishes
Grazed dissues	Disease
Bottom	Sed. on rocks
Tissue color	Urchin status
Encrustation	Orcinii status
Disease	- Bottom characteristics
Sediment on blades	
Sinking fronds	·
Grazed tissues	
Sporophyllis	
Juvenile fronds Holdfasts	
Juvenile fronds	
Juvenile fronds Holdfasts	
Juvenile fronds Holdfasts Old holdfasts	
Juvenile fronds Holdfasts Old holdfasts Recruitment	
Juvenile fronds Holdfasts Old holdfasts Recruitment	
Juvenile fronds Holdfasts Old holdfasts	

Observer: SME	Date	151AN20
Lat/Long: 133 18.212 W 119 30.408		Homo Canyon
	Time	1020
TOPSIDE OBSERVATIONS	Wind/Direction	3-5NW
	Current	South
Kelp Canopy	Weather	P. croudy
	UW Visibility	10 pt.
Extent Upd	Swell Ht/Period	2-3 M
Density \(\frac{1}{2}\)	·	
Tissue color		
% Frond comp. Senile Mature	Young	Other
Disease		
Encrustation		
Apical blades		•
Sediment on blades		Depth 46'
Remarks		Depth. To
	·	
Subsurface sperse plants - 20 - 30ft. fall	@ Horro Com	you on G PS (HORCYN)
Na		· · · · · · · · · · · · · · · · · · ·
R9KIIHC- wrong lation	73-2.5mil	1 of barn kelp 0.5 mi
UNDERWATER OBSERVATIONS	4	SPHR
Midwater	Community	
Tissue Color	Community	
Encrustation	Litter	
Disease	Turf algae	
	Turf invert.	
Sediment on blades	Shrub algae	
Sinking fronds Grazed tissues	Large Invert.	
Grazed tissues	Fishes	
	Disease	
Bottom	Sed. on rocks	
Tissue color	Urchin status	
Encrustation		
Disease	Bottom charact	eristics
Sediment on blades		
Sinking fronds		
Grazed tissues		
Sporophyllis		
Juvenile fronds		
Holdfasts		·
Old holdfasts		·
Recruitment		
REMARKS		
	<u> </u>	

Observer: SME	Date	15 JAN 20
Lat/Long: N 37 20.588 W 17 33. 5091	Location	san Onofre
	Time	12-10
TOPSIDE OBSERVATIONS	Wind/Direction	3-5NW
	Current	South
Kelp Canopy	Weather	P. Cloudy
	UW Visibility	(0 64.
Extent \\\\) 0 ~~~~	Swell Ht/Period	2-3W
Density	·	
Tissue color		•
% Frond comp Senile Mature	Young	Other
Disease	•	
Encrustation		
Apical blades		
Sediment on blades		Depth: 44'
Remarks		Del.
Subsurface Nov		
UNDERWATER OBSERVATIONS		
Midwater Observations	Community	·
Tissue Color	Litter	
Encrustation	Turf algae	
Disease	Turf invert.	······································
Sediment on blades	Shrub algae	
Sinking fronds	Large invert.	
Grazed tissues	Fishes	
010200	Disease	
<u>Bottom</u>	Sed. on rocks	
Tissue color	Urchin status	
Encrustation	•	
Disease	Bottom charact	eristics
Sediment on blades		
Sinking fronds		
Grazed tissues		
Sporophyllis		
Juvenile fronds		
Holdfasts	<u></u>	
Old holdfasts		
		.
Recruitment		
Recruitment		
Recruitment REMARKS		

Observer: SME	Date 15JAN 20
Lat/Long: N 33°22.497' W117'36.189'	Location San Mateo
TOPSIDE ORSEDVATIONS ~ 117 35.832'	Time 12.25
TOPSIDE OBSERVATIONS	Wind/Direction 3-5 NW
	Current Struth
Kelp Canopy	Weather P. Ugudy
	UW Visibility 10 ft.
Extent Nove	Swell Ht/Period 2-3 M
Density	
Tissue color	
% Frond comp. Senile Mature	Young Other
Disease	
Encrustation	-
Apical blades	- 1171
Sediment on blades	- 47
Remarks	- 1) from *42'
Subsurface Some suffered plants	et en
	olid patch D. 25 mi southof San
* Total plants ~ 20ff. tall 150	
	Waypoi
Midwater Tissue Color	<u>Community</u> Litter
Encrustation	Turf algae
Disease	Turf invert.
Sediment on blades	Shrub algae
Sinking fronds	Large Invert.
Grazed tissues	Fishes
	Disease
Bottom	Sed. on rocks
Tissue color	Urchin status
Encrustation	O TOTAL STATE OF THE STATE OF T
Disease	- Bottom characteristics
Sediment on blades	
Sinking fronds	
Grazed tissues	
Sporophyllis	
Juvenile fronds	
Holdfasts	
Old holdfasts	
Recruitment	
REGIUMINEIIL	· · · · · · · · · · · · · · · · · · ·
FRAADVC	
EMARKS	
· · · · · · · · · · · · · · · · · · ·	

Date SJAN 20 Location San Clemente Time 1245 Wind/Direction Gurdy South Weather Uw Visibility 10 Swell Ht/Period 2-3 Sil S
Time 1245 Wind/Direction P. Usway: 3-5 NW Current South Weather P. Usway Depth 101 Swell Ht/Period 2-3 61. Sylvany Other Community Litter
Wind/Direction Current South Weather P. Goury UW Visibility Swell Ht/Period 2-3 6% 5 Young Other Community Litter
Current South Weather P. Young UW Visibility 10' Swell Ht/Period 2-3 6% 5 Young Other Depth '46' I in patches Community Litter
Weather P. Goury UW Visibility Swell Ht/Period 2-3 6% 5 Young Other Depth '46 I in patches Community Litter
UW Visibility 101 Swell Ht/Period 2-3 61. 5 Young Other Depth '46 Lin patches Community Litter
Swell Ht/Period 2-3 6% 5 Young Other Depth '46 In pathles Community Litter
Solver Storm
S Young Other Depth : 46! I in patches Community Litter
S Young Other Depth '46! I in patches Community Litter
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turt algae
Turf invert.
Shrub algae
Large Invert.
Fishes
Disease
Sed. on rocks
Urchin status
Bottom characteristics
·

Observer: SME	Date 15UMN 20
Lat/Long: N 33° 25-460' W 117° 38.910'	Location Capistrano Beach
	Time 1300
TOPSIDE OBSERVATIONS	Wind/Direction 3-5 N W
	Current 88WH
Kelp Canopy	Weather p. Cloudy
	UW Visibility to ft.
Extent 0M	Swell Ht/Period <u>a - 3 W</u>
Density	·
Tissue color	
% Frond comp Senile Mature	Young Other
Disease	_
Encrustation	<u>-</u>
Apical blades	-
Sediment on blades	- Depth : mal
Remarks	Depth 401
UNDERWATER OBSERVATIONS	
	Community
Midwater Tissue Color	<u>Community</u> Litter
Encrustation	Turf algae
Disease	Turf invert.
Sediment on blades	Shrub algae
Sinking fronds	Large Invert.
Grazed tissues	Fishes
,	risites
·	Disease
Bottom	· · · · · · · · · · · · · · · · · · ·
Bottom Tissue color	Disease
Tissue color Encrustation	Disease Sed. on rocks Urchin status
Tissue color Encrustation Disease	Disease Sed. on rocks
Tissue color Encrustation Disease Sediment on blades	Disease Sed. on rocks Urchin status
Tissue color Encrustation Disease Sediment on blades Sinking fronds	Disease Sed. on rocks Urchin status
Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues	Disease Sed. on rocks Urchin status
Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis	Disease Sed. on rocks Urchin status
Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds	Disease Sed. on rocks Urchin status
Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts	Disease Sed. on rocks Urchin status
Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	Disease Sed. on rocks Urchin status
Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts	Disease Sed. on rocks Urchin status
Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	Disease Sed. on rocks Urchin status
Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts Recruitment	Disease Sed. on rocks Urchin status

Observer: RIM	Date 30 (fan 20
Lat/Long: \$3°28,884' 117944 760'	Location South Cogune
	Time (000 - 1010
TOPSIDE OBSERVATIONS	Wind/Direction <u>z-3</u> ,√ €
	Current/
Kelp Canopy	Weather P. Cleady
· ·	UW Visibility
Extent Nove	Swell Ht/Period 2~3 ಬ sಟ
Density	
Tissue color	
% Frond comp. Senile Ma	atureYoungOther
Disease	
Encrustation	
Apical blades	
Sediment on blades	
Remarks	
Subsurface Alsace	
Subsurface None	
UNDERWATER OBSERVATIONS	
Midwater	Community
Tissue Color	Litter
Encrustation	Turf algae
Disease	Turf invert.
Sediment on blades	Shrub algae
Sinking fronds	Large Invert.
Grazed tissues	Fishes
	Disease
<u>Bottom</u>	Sed. on rocks
Tissue color	Urchin status
Encrustation	
Disease	Bottom characteristics
Sediment on blades	·
Sinking fronds	
Grazed tissues	
Sporophyllis	
Juvenile fronds	
Holdfasts	
Old holdfasts	
Recruitment	
REMARKS	
ILLIMANO	

Observer: RHL	Date	30 yan 20
Lat/Long: 33°32ドロ 112°42・47し	Location	N. Laguna
•	Time	1210
TOPSIDE OBSERVATIONS	Wind/Direction	2-3 NY
	Current	None
Kelp Canopy	Weather	Mostly Cloudy
	UW Visibility	15'-20'
Extent $\sqrt{00}$ × $\sqrt{50}$ ~	Swell Ht/Period	2-3 wsw
Density Full-Thick	•	
Tissue color Mad & Light Yellow	•	
% Frond comp. 40% Senile 60% Mature	/ // Young	Other
Disease N	· · · · · · · · · · · · · · · · · · ·	_
Encrustation N	•	
Apical blades 4	•	
Sediment on blades ν	•	
Remarks	-	
Subsurface Yes beyond edges of caropy	·	
(2) Stephio Step = 1		
UNDERWATER OBSERVATIONS Midwater	Community	
Tissue Color	Litter	
Encrustation	Turf algae	
Disease	Turf invert.	
Sediment on blades	Shrub algae	
Sinking fronds	Large Invert.	
Grazed tissues	Fishes	
	Disease	
Bottom	Sed. on rocks	
Tissue color	Urchin status	
Encrustation	_	
Disease	Bottom characte	eristics
Sediment on blades		
Sinking fronds		
Grazed tissues		
Sporophyllis		
Juvenile fronds		
Holdfasts		
Old holdfasts		
Recruitment		
REMARKS		

Observer: Ath Date Lat/Long: 33 ° 33 · 32!	
TOPSIDE OBSERVATIONS TOPSIDE OBSERVATIONS TOPSIDE OBSERVATIONS Kelp Canopy Weather UW Visibility Extent Non / Four Senile Mature UW Sibility Density Tissue color % Frond comp. Senile Mature Young Other Disease Encrustation Apical blades Sediment on blades Remarks Subsurface	Cri Rul
Note	0
Extent	
Density Swell Ht/Period Z-3 ws Density Tissue color Senile Mature Young Other Disease	
Extent Nom / Fow Swell Ht/Period 2-3 ws 1 Density Tissue color % Frond comp. Senile Mature Young Other Disease Encrustation Apical blades Sediment on blades Midwater Tissue Color Tissue Color Sediment on blades Sinking fronds Tissue Color Grazed tissues Sediment on blades Sinking fronds Sinking fronds Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
Density Tissue color % Frond comp. Senile Mature Young Other Disease Encrustation Apical blades Sediment on blades Remarks Subsurface	
Tissue color % Frond comp. Senile Mature Young Other Disease Encrustation Apical blades Sediment on blades Remarks Subsurface Subsurface Subsurface Visibles (Lef. Subsurface Visibles) (Lef. Subsurface Visibles	
## Frond comp. Senile Mature Young Other Disease Encrustation Apical blades Sediment on blades Part	
Disease Encrustation Apical blades Sediment on blades Remarks Subsurface) Ffort Subsurface virifications and in the second sec	
Encrustation Apical blades Sediment on blades Remarks Subsurface 2) 2-3 C sfc g rigink is such 250 plant a lost gwelface blades Midwater Tissue Color Encrustation Disease Sinking fronds Grazed tissues Fishes Disease Sediment on blades Sinking fronds Grazed tissues Sediment on blades Sinking fronds Sediment on blades Sinking fronds Sediment on blades Sinking fronds Tissue color Encrustation Disease Sediment on blades Sinking fronds Tissue color Encrustation Disease Sediment on blades Sinking fronds Fishes Urchin status Fishes Urchin status Fishes Urchin status Fishes Disease Sediment on blades Sinking fronds Fishes Urchin status Fishes Fishes Disease Fishes Fishes Disease Fishes Disease Fishes Fishe	
Apical blades Sediment on blades Remarks Subsurface	
Subsurface) Spot Subsurface vishellow ruf 2 > 3 C shu ; visible is senich; > 50 plant > lots in the curface wery rag UNDERWATER OBSERVATIONS Midwater Tissue Color Encrustation Disease Sinking fronds Grazed tissues Bottom Tissue color Fishes Disease Bottom Tissue color Fishes Disease Sediment on blades Sinking fronds Grazed tissues Fishes Disease Sediment on blades Sinking fronds Tissue color Fishes Disease Sediment on blades Sinking fronds Fishes Disease Sed on rocks Urchin status Fishes Disease Fishes Fishes Disease Fishes Fishes Disease Fishes Fishes Disease Fishes	
Subsurface StfOth Subsurface Visible is suith 250 plant > lots More Surface Visible is suith 250 plant > lots 250 plant	
Subsurface) SHO+ Subsurface y shellow red 2) 2-3 C she i yisible is senich; > 50 plant → lots war switch very fag UNDERWATER OBSERVATIONS Midwater Tissue Color Encrustation Disease Sinking fronds Sinking fronds Sinking fronds Large Invert. Grazed tissues Fishes Disease Bottom Tissue color Fincrustation Disease Sediment on blades Sinking fronds Sed. on rocks Tissue color Encrustation Disease Sediment on blades Sinking fronds Fishes Disease Sed on rocks Tissue color Fishes Disease Sed on rocks Tissue color Fincrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
Subsurface) SHOH Subsurface vishellow (inf 2) 2-3 C sfc; visible is such; 250 plant a lots war swrface very fag UNDERWATER OBSERVATIONS Midwater Community Tissue Color Litter Encrustation Turf algae Disease Turf invert. Sediment on blades Sinking fronds Large Invert. Grazed tissues Fishes Disease Bottom Sed. on rocks Tissue color Urchin status Encrustation Disease Sed. on rocks Sinking fronds Sediment on blades Sinking fronds Grazed tissues Sediment fon blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
UNDERWATER OBSERVATIONS Midwater Tissue Color Encrustation Disease Sinking fronds Grazed tissues Bottom Tissue color Encrustation Disease Bottom Tissue color Sediment on blades Sinking fronds Grazed tissues Bottom Tissue color Finerustation Disease Bottom Tissue color Finerustation Disease Sediment on blades Sinking fronds Grazed tissues Sediment on blades Sinking fronds Grazed tissues Sediment fon blades Sinking fronds Grazed tissues Sediment fon blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	<u>.</u>
UNDERWATER OBSERVATIONS Midwater Tissue Color Litter Encrustation Disease Sinking fronds Grazed tissues Bottom Tissue color Encrustation Disease Bottom Tissue color Encrustation Disease Bottom Tissue color Encrustation Disease Bottom Disease Sed. on rocks Urchin status Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
UNDERWATER OBSERVATIONS Midwater Tissue Color Litter Encrustation Disease Sinking fronds Grazed tissues Bottom Tissue color Encrustation Disease Bottom Tissue color Encrustation Disease Bottom Tissue color Encrustation Disease Bottom Disease Sed. on rocks Urchin status Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	sed-
MidwaterCommunityTissue ColorLitterEncrustationTurf algaeDiseaseTurf invert.Sediment on bladesShrub algaeSinking frondsLarge Invert.Grazed tissuesFishesDiseaseDiseaseBottomSed. on rocksTissue colorUrchin statusEncrustationUrchin statusDiseaseBottom characteristicsSediment on bladesSinking frondsGrazed tissuesSporophyllisJuvenile frondsJuvenile frondsHoldfastsOld holdfasts	
MidwaterCommunityTissue ColorLitterEncrustationTurf algaeDiseaseTurf invert.Sediment on bladesShrub algaeSinking frondsLarge Invert.Grazed tissuesFishesDiseaseDiseaseBottomSed. on rocksTissue colorUrchin statusEncrustationUrchin statusDiseaseBottom characteristicsSediment on bladesSinking frondsSinking frondsGrazed tissuesSporophyllisJuvenile frondsHoldfastsOld holdfasts	
Tissue Color Encrustation Turf algae Disease Turf invert. Sediment on blades Sinking fronds Large Invert. Grazed tissues Fishes Disease Bottom Sed. on rocks Tissue color Urchin status Encrustation Disease Bottom to blades Sinking fronds Sed. on rocks Tissue color Urchin status Encrustation Disease Sodiment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
Encrustation Disease Disease Turf invert. Sediment on blades Sinking fronds Sinking fronds Large Invert. Grazed tissues Fishes Disease Bottom Sed. on rocks Tissue color Urchin status Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
Disease Turf invert. Sediment on blades Shrub algae Sinking fronds Large Invert. Grazed tissues Fishes Disease Bottom Sed. on rocks Tissue color Urchin status Encrustation Disease Bottom characteristics Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
Sediment on blades Sinking fronds Large Invert. Grazed tissues Fishes Disease Bottom Sed. on rocks Tissue color Urchin status Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	···
Sinking fronds Grazed tissues Fishes Disease Bottom Sed. on rocks Tissue color Urchin status Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	`
Grazed tissues Bottom Sed. on rocks Tissue color Urchin status Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
Bottom Sed. on rocks Tissue color Urchin status Encrustation Disease Bottom characteristics Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
Bottom Tissue color Urchin status Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
Tissue color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
Disease Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
Sediment on blades Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
Sinking fronds Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
Grazed tissues Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
Sporophyllis Juvenile fronds Holdfasts Old holdfasts	
Juvenile fronds Holdfasts Old holdfasts	
Holdfasts Old holdfasts	
Old holdfasts	
Recruitment	· · · · · · · · · · · · · · · · · · ·
	,
REMARKS	

Observer: Rtha	Date	30 Jan 20
Lat/Long: 33° 35.258' //7" 52.186'	Location	Corona delMov
	Time	1300
TOPSIDE OBSERVATIONS	Wind/Direction _	2-3 NE
	Current _	None
Kelp Canopy	Weather	Mostly Cloudy
<u> </u>	UW Visibility _	15'
Extent //me_	_ Swell Ht/Period _	·2-3 wsw
Density	•	
Tissue color	-	•
% Frond comp. Senile Mature	Young	Other
Disease	•	-
Encrustation	_	
Apical blades	<u> </u>	
Sediment on blades		
Remarks		
	·	<u> </u>
Subsurface None		
	· · · · · · · · · · · · · · · · · · ·	
UNDERWATER OBSERVATIONS <u>Midwater</u>	Community	
Tissue Color	Litter	
Encrustation	Turf algae	
Disease	Turf invert.	
Sediment on blades	Shrub algae _	
Sinking fronds	Large Invert.	
Grazed tissues	Fishes _	
	Disease	
<u>Bottom</u>	Sed. on rocks	
Tissue color	Urchin status	
Encrustation	<u>-</u>	
Disease	Bottom characte	ristics
Sediment on blades		
Sinking fronds		
Grazed tissues		
Sporophyllis	_	
Juvenile fronds		
Holdfasts		
Old holdfasts		<u></u>
Recruitment		
REMARKS		

Observer: R Huy & DJ5	Date 30 gan 20
Lat/Long: 33° 27,715' 117°43.283'	Location Dana Part
	Time D800
TOPSIDE OBSERVATIONS	Wind/Direction 5 East
	Current None
Kelp Canopy	Weather P. Clay dy
	UW Visibility 20 '
Extent 0.25 - 0.5 A.	. Swell Ht/Period 3-4 രാഗ
Density Scattered	
Tissue color Med-Dark Yellow	
% Frond comp. Senile 100 Mature	YoungOther
Disease No.	
Encrustation 1/95	
Apical blades \mathcal{N}_{o}	
Sediment on blades No.	
Remarks Fronts @ 2-3 when execut	30-35 to 50'
Subsurface Most meterd subswfue 10-151 b	closede Depterage 35 value de 52' lots
•	
Tissue Color Encrustation Disease Sediment on blades Sinking fronds Grazed tissues Vec Bottom Tissue color Encrustation Disease No Sediment on blades No Sedimen	Turf algae Turf invert. Shrub algae Large Invert. Fishes Disease N Sed. on rocks Urchin status Bottom characteristics
Sediment on blades N_o	Mix 50% Boarder 40 Cobble
Sinking fronds //o	10% Swd
Grazed tissues / es	scattered ledge/shelf rock
Sporophyllis Yes walk	
Juvenile fronds Yes	
Holdfasts Yes	Sommeiscans 6
Old holdfasts No	Migasti -
Recruitment ? See mite ?	16up Bass - 5-6+
REMARKS Ad - Z (tw)	Halichuens - 1 Shephend - 1
Jun-5 (mm)	
Rec lots lamin weales recruit	<i>y</i>
Dominant bottom algae Pterogo	

Observer: RHW	Date 30 9an 20
Lat/Long: 33' 31,887' 117046,893'	Location Laluna Black
	Time /p3p
TOPSIDE OBSERVATIONS	Wind/Direction
	Current N
Kelp Canopy	Weather PCloudy
	UW Visibility 15-201
Extent $300_{\rm m} \times 100_{\rm m}$. Swell Ht/Period 2-3 ພຽມ
Density Madpum	-
Tissue color Med + Dark Kellor	
% Frond comp. 5% Senile 95% Mature	Other
Disease No.	
Encrustation 10 4	
Apical blades No	<u>.</u>
Sediment on blades No.	•
Remarks 1-2n length	Death 38-55'
Subsurface	
	- 1
UNDERWATER OBSERVATIONS	3m VV
Midwater.	Community
Tissue Color Me &/Light Yel	Litter No
Encrustation V_{δ}	Turf algae / valia
Disease Wv	Turf invert.
Sediment on blades Yes	Shrub algae Poer good laye / La minare
Sinking fronds No	Large Invert. Mesostran 2
Grazed tissues $\mathcal{Y}_{a,\varsigma}$	Fishes Suplie Kel, 1 Bard Rages
	Disease
<u>Bottom</u>	Sed. on rocks
Tissue color Med Le	Urchin status
Encrustation None	
Disease N 5m	Bottom characteristics
Sediment on blades 8 out	:40 Boulder 1. 40% Cohby 100% Sound
Sinking fronds Hore	Still Hash - 10%
Grazed tissues Nome	
Sporophyllis Yes all aduly	
Juvenile fronds \(\sqrt{\varphi}	
Holdfasts y 4	
Old holdfasts Non	
Recruitment None	
REMARKS Pa (1) eleven	
Jus - none	——————————————————————————————————————
Recy - None	

Observer: DJS	Date 30 JAN 2020
Lat/Long: 33°27.715' 117°43.283'	Location AN AN AND AND AND AND AND AND AND AND A
	Time 0800
TOPSIDE OBSERVATIONS	Wind/Direction $3-4 \in$
	Current
Kelp Canopy	Weather Clear, Sunny
	UW Visibility 201
Extent SEE RHM'S DATA	Swell Ht/Period 3-4 WSW
<u>Density</u>	
Tissue color	
% Frond comp. Senile Mature	Young Other
Disease	
Encrustation	
Apical blades	
Sediment on blades	
Remarks	<u> </u>
Subsurface	· · ·
Subsurface	
UNDERWATER OBSERVATIONS 33°28-174' 117°4 Midwater Tissue Color M22-494+ Yellow	3.495' <u>Community</u> Litter None
Encrustation None	Turf algae Reds
Disease Nave	Turf invert. Nane
Sediment on blades 10 (405)	Shrub algae RedS
Sinking fronds None	Large Invert. Megastrea undosa(4), Kelletiayz
Grazed tissues	Fishes 6 Kelo Bass 4 Sheepead
	Disease None
Bottom	Sed. on rocks Light
Tissue color Parkened), yellow	Urchin status None
Encrustation	
Disease Nove	Bottom characteristics
Sediment on blades Nove	751Cobble
Sinking fronds No Ne	15% Boulder
Grazed tissues None	10% sand
Sporophyllis Yes, many	
Juvenile fronds	Laminaria 20% maceo
Holdfasts	Flerogo, hova 80% Algae
Old holdfasts &	
Recruitment -	
REMARKS A 11 (TWA)	
R 8	

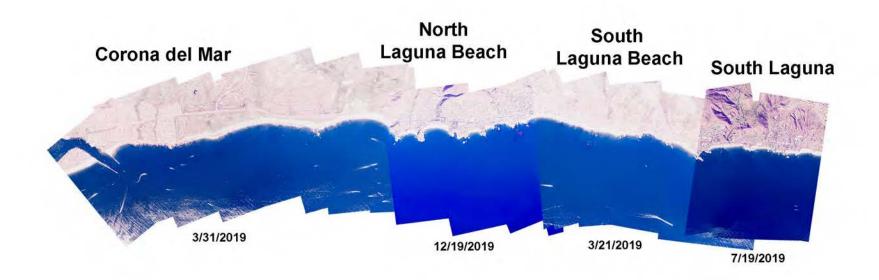
Observer: DJS		Date	30 JAN 2020
Lat/Long:		Location	LAGUNA (Brooks ST.)
		Time	1040
TOPSIDE OBSERVATIONS	•	Wind/Direction	
		Current	
Kelp Canopy	,	Weather	
		UW Visibility	
Extent JEE RHM	's Data	Swell Ht/Period	
Density		· · · · · -	
Tissue color	,		·
% Frond comp. Senile	Mature	Young	Other
Disease			
Encrustation			
Apical blades		:	
Sediment on blades	N. C.		
Remarks		•	
	···	· ·	
Subsurface			
•		- WAS 2	***************************************

UNDERWATER OBSERVATIONS			•
<u>Midwater</u>	en e	Community	
Tissue Color Med-light yelle	, M	Litter	Slight red & surfgrass
Encrustation Webt		Turf algae	reas
Disease Mone		Turf invert.	
Sediment on blades None	· · · · · · · · · · · · · · · · · · ·	Shrub algae	sterogophora, lamman's , red
Sinking fronds None		Large Invert. n	regalithea undora, norrina norrica
Grazed tissues Shank		Fishes	Lelphass, borred bass, sheephear
V		Disease	
<u>Bottom</u>		Sed. on rocks	
Tissue color Medium yell	9W	trans	s. purpuratus() s. francisecum
Encrustation None		· · ·	1
Disease None		Bottom characte	ristics
Sediment on blades None		\	Moler
Sinking fronds Nowl		30% cos	
Grazed tissues Very little		30% 5an	
Sporophyllis Yos, many	· ·		
Juvenile fronds	-	· · · · · · · · · · · · · · · · · · ·	The state of the s
Holdfasts 2 holdfasts hollow	wed, one encrusted		
Old holdfasts None	out or or cross reg		
Recruitment Sove		······································	
LI VVK			
REMARKS A &			
1 = 0	· · · · · · · · · · · · · · · · · · ·		
ROB			
<u> </u>			

APPENDIX E

Kelp Canopy Aerial Photographs









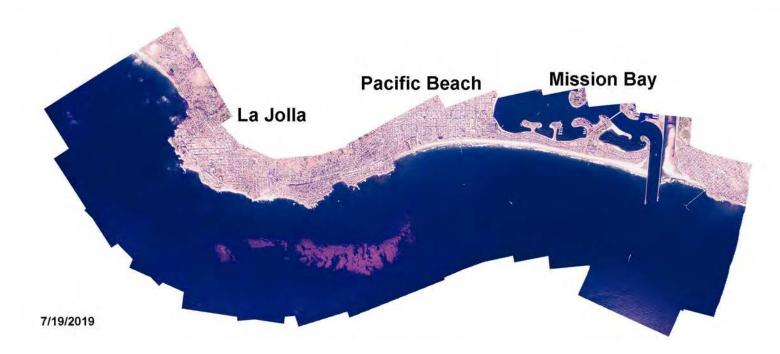




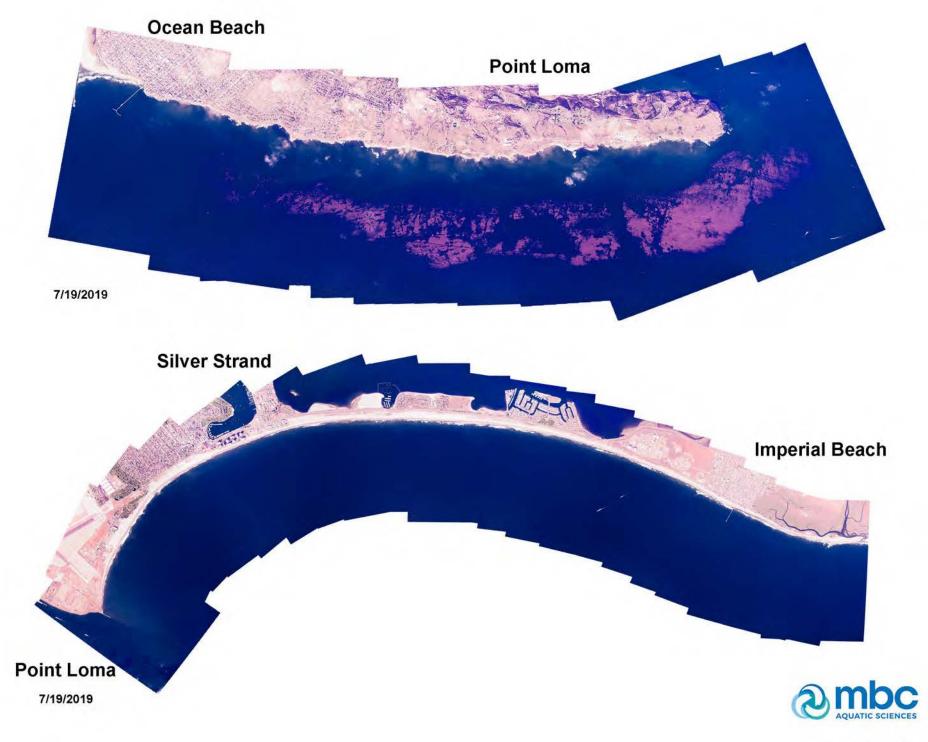












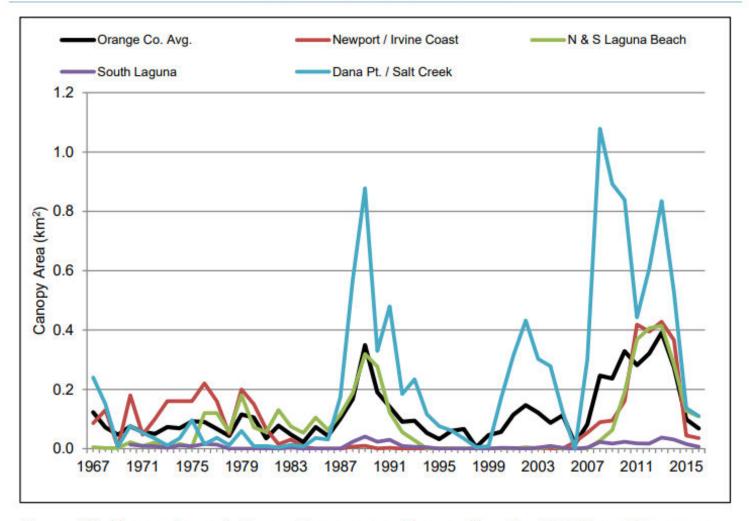


Figure 26. Comparisons between the average Orange County ABAPY and the canopy coverage of the kelp beds from Newport/Irvine Coast to Dana Point/Salt Creek from 1967 through 2016.





August 29, 2023

Commissioners and Staff,

Since 2012, with the implementation of the California Marine Life Protection Act of 1999, Laguna Beach has successfully managed a network of Marine Protected Areas as a statewide model of collaboration and appreciates the support of the Fish & Game Commission in that effort.

On the heels of annexation of South Laguna beaches coming under the purview of the City of Laguna Beach on March 1, 2023, we are requesting an expansion of the "No Take SMCA" provisions to extend throughout all Laguna Beach MPAs. In addition to alignment with Laguna Beach's commitment to the national "30 x 30 Initiative Plan" to conserve 30% of America's land and waters by 2030, a citywide "No Take" provision will provide enforcement consistency and community equity while protecting South Laguna kelp reefs – key to carbon sequestration, rising sea temperatures and attenuating bluff erosion.

Multiple benefits will accompany extending the Laguna Beach No Take MPA from 7.2 to 7.9 miles: from Aliso Beach and Totuava Cove through Three Arch Bay (TAB) southwest to the Laguna Beach city limit, see attached map. TAB has exceptional nursery beds for marine life in its bays that are not protected under our current MPAs. For this reason, coupled with the decimating impacts of over-fishing in the unprotected SMCA along TAB during the past 10 years, the TAB Community Services District requested in May 2023 that California Fish and Wildlife Commission extend the No Take MPA through "the southernmost point of the city of Laguna Beach – Mussel Cove, also known as Three Arch Bay."

The Laguna Bluebelt Coalition, Laguna Ocean Foundation through their education and outreach programs, the City of Laguna Beach's Environmental Sustainability Committee, and the enthusiastic 100% support and collaboration of our City Council and Marine Safety Department have enabled us to be strong watchdogs and local stewards of our MPAs. Together, we have focused on habitat restoration, water-quality education, wildlife and resource protection, and networking.

Laguna Beach's rocky coastline has been scientifically determined to provide ideal tidepool and kelp forest habitats as a vital genetic linkage for marine life between the Palos Verde Peninsula and La Jolla Cove. No Take MPAs in Laguna Beach have created increased sea life populations, support an expanding variety of ecotourism recreational opportunities, and have proven to be essential to mitigating decades of over-fishing.

Citywide MPA consistency will further improve ocean water quality by reducing harmful greenhouse gas emissions from fishing boats traveling from Dana Point to Laguna Beach.

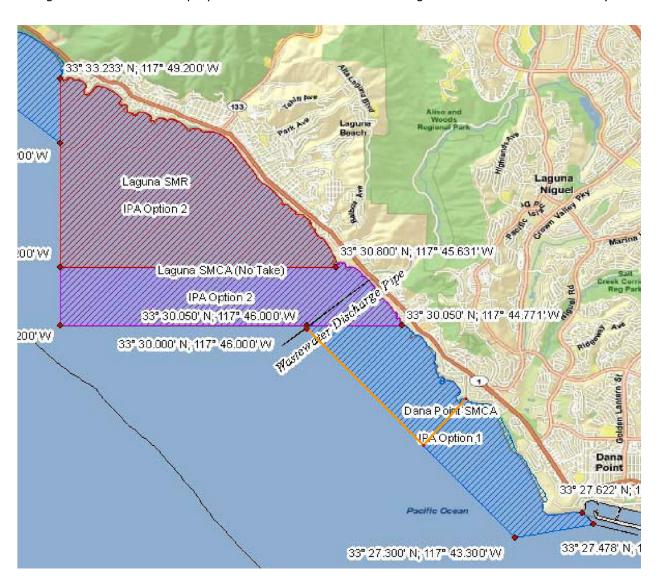
Climate change science recognizes the ocean as key to reversing negative anthropogenic climate impacts.

Thank you for your support of Laguna's Marine Protected Areas and for your consideration of an expansion of the network of No Take MPAs citywide which will increase protections to California's sea life populations and habitat value while benefitting us all.



Greg O'Loughlin, President South Laguna Civic Association

Orange outline indicates the proposed No Take MPA extension to Laguna Beach's southern boundary.





P.O. Box 1383, Laguna Beach, CA 92652 • www.LagunaCanyonConservancy.org

November 22, 2023

California Fish and Wildlife Commission P.O. Box 944209 Sacramento, CA 94244-2090 Via email: fgc@fgc.ca.gov

RE: Support for Extending Laguna Beach's Southern MPA Boundary

Dear Commissioners,

The Board of Directors of the Laguna Canyon Conservancy (LCC) joins with our local environmental colleagues and organizations in support of extending the Marine Protected Areas at the southern end of Laguna Beach.

LCC believes a revision is vital to ensuring an increase in protection of California's sea life populations and ecosystems, as well as enforcing consistency of rules and regulations, along with community equity. It is also important to achieve the City of Laguna Beach's 30 x 30 contribution to protect 30% of the world's coastal marine areas by 2030.

As stewards of our wilderness, we hope the Commission will support the goals and requests of Laguna Beach's environmental groups to expand the network of No Take MPAs citywide and protect our coastal environment for present and future generations to come. Thank you in advance for making this critical step forward.

Laguna Canyon Conservancy is a non-profit, all-volunteer environmental organization founded in 1988 to Save and Protect Laguna Canyon. LCC members have been involved in expanding the South Coast Wilderness nature reserves of Orange County that now include over 22,000 acres of parks, open space, and marine preserves. For more information, please visit: www.LagunaCanyonConservancy.org

Sincerely.

Gayle Waite

President, Laguna Canyon Conservancy

Cc: City Council of Laguna Beach
Jeremy Frimond, Assistant City Manager

March 9, 2023

California Fish and Wildlife Commission P.O. Box 944209
Sacramento, CA 94244-2090
fgc@fgc.ca.gov



RE: Letter of Support for Citywide "No Take" Marine Protected Areas (SMR and SMCA) in Laguna Beach, Orange County, California

Commissioners and Staff,

With the implementation of the California Marine Life Protection Act of 1999, Laguna Beach has successfully managed a network of MPAs as a statewide model of collaboration, education and enforcement. To provide citywide enforcement consistency, the Laguna Bluebelt Coalition requests extending "no take" provisions to include all of Laguna Beach's State Marine Conservation Areas (SMCAs) to the southern City Limits.

Laguna Beach's rocky coastline has been scientifically determined to provide ideal tidepool and kelp forest habitats as a vital genetic linkage for marine life between the Palos Verde Peninsula and La Jolla Cove. The City of Laguna Beach continues to benefit economically and ecologically from Marine Protected Areas with experienced Marine Protection Officers (MPOs), community vigilance, marine life education and comprehensive fishing restrictions.

The South Laguna SMCA is characterized by steep bluffs and compact coves to create a unique coastal ecology with tide pools, deep rocks and kelp forests. Wave action and backwash energy from bluffs surrounded by offshore kelp forests offers a local mixing zone for marine mammal and sealife foraging. Annual migrations of California Gray Whales often use South Laguna Coves as a rest stop for mothers and calves. Laguna Beach's other No Take MPAs have increased sea life populations and currently support a variety of ecotourism recreational opportunities.

While most of Laguna Beach restricts fishing, South Laguna is a designated State Marine Conservation Area allowing recreational and commercial fishing. Daily, concentrated fishing effort in the South Laguna SMCA has unfortunately contributed to over-fishing during the past ten years by recreational fishers and commercial passenger fishing vessels (CPFVs). Expansion of Laguna Beach's MPAs is essential to mitigate decades of regional over-fishing.

Expanding "No Take" provisions for all City MPAs will contribute to the City's commitment to the national "30 x 30 Initiative Plan" to conserve 30% of America's land and waters by 2030. The March 1, 2023 annexation of South Laguna beach areas by the City of Laguna Beach requires "No Take" provisions for the South Laguna SMCA to provide citywide enforcement consistency and community equity.

Climate change science recognizes the ocean as key to reversing negative anthropogenic climate impacts and the City of Laguna Beach is committed to a Climate Action Plan. Citywide MPA enforcement

consistency will improve ocean water quality by reducing harmful greenhouse gas emissions from commercial fishing boats traveling far from Dana Point to fish in South Laguna.

The City Council proudly supports the Marine Protected Areas and City policies encourage exapnding marine life refuges.

Thank you for your dedicated efforts to protect California's marine life and for considering our request to extend citywide "No Take" protection for all of Laguna Beach's MPAs.

Mike Beanan Laguna Bluebelt Coalition

https://www.lagunabluebelt.com/

References:

https://www.lagunabeachcity.net/home/showpublisheddocument/8148/637406985535730000

City of Laguna Beach: Tide Pools and Marine Habitats

2A Encourage the expansion of the Marine Life Refuges and the designation of particularly unique or ecologically sensitive coastal areas as Ecological Reserves (such as seal and bird rocks), pursuant to the provisions of the State Department of Fish and Game.



3151 Airway Ave, Suite F-110 Costa Mesa, CA 92626 714-850-1965 www.coastkeeper.org

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Support for Laguna Bluebelt Coalition Petition to extend the no-take SMCA to the southern boundary of the City of Laguna Beach

Dear President Sklar and Commissioners,

OC Coastkeeper has the mission to protect swimmable, drinkable, fishable water and promote watershed resilience throughout our region. We have been actively working to support and implement Marine Protected Areas since the passage of the Marine Life Protection Act. We support the Laguna Bluebelt Coalition's petition regarding an extension of the Laguna Beach no-take SMCA boundary to the southern border of the city and urge you to approve this proposed boundary change.

Orange County beaches have some of the most beautiful beaches and coves found anywhere in the world. Visitation is high, and therefore the protection offered by the MPAs is vital. Most of the city is protected by the Laguna Beach State Marine Reserve (SMR) and the Laguna Beach no-take State Marine Conservation Area (SMCA). However, there is a stretch of coastline that lies within the city limits that does not receive the same level of protection. Commercial and recreational fishing is permitted in these waters and residents are alarmed by the amount of fishing and the number of lobster traps that they see regularly. This area of the coastline has not been sufficiently studied to get scientific data on the impact of fishing, but local residents that spend substantial time in the water have noted a decrease in fish in the unprotected area.

These coves support vital kelp forest habitat, which is on the decline across the state. The rocky substrate that supports the kelp as well as the fish and invertebrates that utilize the kelp are impacted by lobster traps and anchors. The kelp is still present, but now fails to reach the surface. We must protect this habitat while it still has the ability to come back.

Another concern in this area is the whale migration route. Whales frequently come in close to the shore through Laguna Beach on their migration to and from the calving and breeding grounds in Baja California. During Lobster season, the whales run into a virtual wall of lobster ropes and buoys, which pose a serious threat to entanglement.

Extension of the no take SMCA boundary south will assist enforcement of MPA regulations by making the entire City of Laguna Beach a no take zone. The City of Laguna Beach has recently taken over management of all of the beaches in the city. Until last summer, the County of Orange was in charge of managing all of the beaches south of Aliso Creek. Now that

beach management is consistent throughout the city, the MPA rules should be consistent as well. This will make it easier for the public to identify where they can and can't fish, and for enforcement officers to do their job.

To help MPA enforcement, protect whales, and preserve the remaining kelp beds, we urge the commission to extend the no-take SMCA boundary to coincide with the southern boundary of the City of Laguna Beach. We enthusiastically support California's MPA Network and believe the MPAs are working to preserve biodiversity. In the case of Laguna Beach, the MPA extension will enhance the protection of vital ecosystems and create a more consistent and cohesive enforcement policy.

Sincerely,

Rayed Themster

Associate Director of Policy and Projects



THREE ARCH BAY COMMUNITY SERVICES DISTRICT

5 BAY DRIVE, LAGUNA BEACH, CALIFORNIA 92651-6780 (949) 499-4567 FAX: (949) 499-2352

May 1, 2023

California Fish and Wildlife Commission P.O. Box 944209 Sacramento, CA 94244-2090 fgc@fgc.ca.gov

RE: Letter of Support for Laguna Beach City-wide Marine Protected Areas including South Laguna, to the Southern Point of Mussel Cove, Orange County, California

Dear Commissioners,

Since 2012, with the implementation of the California Marine Life Protection Act of 1999, Laguna Beach has successfully managed a network of Marine Protected Areas (MPAs) as a statewide model of collaboration, education and enforcement. To provide marine protection consistently throughout all of Laguna Beach, the Community Services District of Three Arch Bay supports an extension of marine protection via "no take" Marine Conservation Areas (SMCAs) to the point at the end of Mussel Cove, which is the southern border of Laguna Beach, in the community of Three Arch Bay (TAB).

Laguna Beach's rocky coastline has been scientifically determined to provide ideal tidepool and kelp forest habitats as a vital genetic linkage for marine life between the Palos Verde Peninsula and La Jolla Cove. The City of Laguna Beach continues to benefit economically and ecologically from Marine Protected Areas.

Three Arch Bay (TAB), which includes Mussel Cove, in South Laguna's SMCA, is characterized by steep bluffs and compact coves that create a unique coastal ecology with tide pools, deep rocks and kelp forests. Wave action and backwash energy from bluffs surrounded by offshore kelp forests offers a local mixing zone for marine mammal and sea life foraging.

While most of Laguna Beach restricts fishing, the southern end of Laguna Beach was only designated a State Marine Conservation Area, which allows continued recreational and commercial fishing. Unfortunately, the over-fishing during the past ten years by commercial and recreational fishermen, including commercial passenger fishing vessels (CPFVs), has devastated the kelp beds, fish population, and sea life across South Laguna. Expansion of Laguna Beach's MPAs is essential to mitigate decades of regional over-fishing particularly in South Laguna.

Thus, we request that you initiate and vote to provide an extended "no take" Marine Protected Area (SMR and SMCA) Citywide, across Laguna Beach, including South Laguna, to the Southern Point of Mussel Cove, Orange County, California. This would extend the existing marine protections throughout Laguna Beach, including the southernmost point of the city of Laguna Beach – Mussel Cove, also known as Three Arch Bay.

As a community, we are active stewards of our waterways and marine resources, ensuring quality management of our natural resources, and would appreciate the state's support of our efforts by extending the MPA to the Southern end of Laguna Beach.

Thank you, Sary w Rubel

Gary Rubel President

Three Arch Bay Community Services District

Cc: City of Laguna Beach

Board Members of the TAB CSD



Tracking Number: (2023-25MPA)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

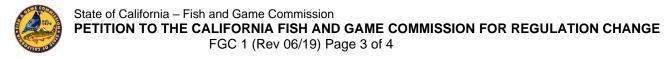
Please be succinct. Responses for Section I should not exceed five pages

1.	Person or organization requesting the change (Required)					
	Name of primary con	act person: Bu	irton Mille	er, Catalina	MPA Colla	borative Co-Chai
	Address:					
	Telephone number:					
	Email address:					

- 2. Rulemaking Authority (Required) Reference to the statutory or constitutional authority of the Commission to take the action requested: Authority cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code.
- **3. Overview (Required) -** Summarize the proposed changes to regulations: The following proposed changes are regarding MPAs on Catalina Island:
 - a. Blue Cavern Onshore SMCA. The proposal is to change the current SMCA (No-Take) purple color coding to match the SMR red color coding for simplicity and reduced confusion for public outreach and education regarding no-take zones. The proposed change received full consensus at the Catalina MPA Collaborative meeting on June 30, 2023 (provided that all current maintenance and access activities remain allowed) and can be found on the MPA Collaborative Vetted Regulation Recommendations document here in Row 139.
 - b. Casino Point SMCA (1): The proposal is to remove the allowance for feeding fish. The proposed change received full consensus at the Catalina MPA Collaborative meeting on June 30, 2023 and can be found on the MPA Collaborative Vetted Regulation Recommendations document here in Row 143.



- c. Casino Point SMCA (2): The proposal is to change the current SMCA (No-Take) purple color coding to match the SMR red color coding for simplicity and reduced confusion for public outreach and education regarding no-take zones. The proposed change received full consensus at the Catalina MPA Collaborative meeting on June 30, 2023 and can be found on the MPA Collaborative Vetted Regulation Recommendations document here in Row 144.
- d. Long Point SMR: The proposal is to change the type of boundary from a latitude and longitude line to being a certain, specified distance from shore. To maintain overall size, the northeast corner could be trimmed and fitted to the western edge of the offshore boundary to create a standard distance from shore (in a similar fashion to the Arrow Point to Lion Head SMCA). The proposed change received full consensus at the Catalina MPA Collaborative meeting on June 30, 2023 and can be found on the MPA Collaborative Vetted Regulation Recommendations document here in Row 141.
- e. Lover's Cove SMCA: The proposed change is regarding the Lover's Cove SMCA. The proposal is to remove the allowance for feeding fish. The proposed change received full consensus at the Catalina MPA Collaborative meeting on June 30, 2023 and can be found on the MPA Collaborative Vetted Regulation Recommendations document here in Row 142.
- **4. Rationale (Required) -** Describe the problem and the reason for the proposed change:
 - a. Blue Cavern Onshore SMCA. MPA Collaborative members witness the use of fishing and use of hoop nets close to shore at Big Fisherman Cove, as well as poaching at Yellowtail Point and Bird Rock. The change in color-coding would create consistency with the red no-take zone labels already in place for the SMR and assist with simplified public outreach and education. As stated above, the color change has consensus from the Catalina MPA Collaborative provided that all current maintenance and access activities remain allowed.
 - b. Casino Point SMCA (1): The recreational feeding of fish in the SMCA goes against the intent of the MLPA. Fish become acclimated to the availability of food in this particular habitat which affects their behavior. Fish are prone to becoming more aggressive which presents a public safety issue as fish can bite. As stated above and as outlined in the MPA Collaborative Regulation Recommendations document, the recommendation achieved consensus from the Catalina MPA Collaborative.
 - c. Casino Point SMCA (2): The change in color-coding would create consistency with the red no-take zone labels already in place for the SMR and will assist with simplified public outreach and education. As stated above, the color change has consensus from the Catalina MPA Collaborative.
 - d. **Long Point SMR:** Trolling through the MPA occurs and it is a misconception of the fishing community that the MPA only occurs close to shore. The outreach to trollers would be simplified and clarified if the boundary was a specified distance that would not



require advanced navigation techniques such as referencing latitude and longitude. As stated above, the change achieved consensus from the Catalina MPA Collaborative.

e. **Lover's Cove SMCA:** The recreational feeding of fish in the SMCA goes against the intent of the MLPA. Fish become acclimated to the availability of food in this particular habitat which affects their behavior. Fish are prone to becoming more aggressive which presents a public safety issue as fish can bite. As stated above and as outlined in the MPA Collaborative Regulation Recommendations document, the recommendation achieved consensus from the Catalina MPA Collaborative.

SECTION II: Optional Information		
5.	Date of Petition: 11/30/2023	
6.	Category of Proposed Change ☐ Sport Fishing ☐ Commercial Fishing ☐ Hunting ☑ Other, please specify: MPAs, Section 632.	
7.	The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs) Amend Title 14 Section(s): Westlaw regulations. □ Add New Title 14 Section(s): Click here to enter text. □ Repeal Title 14 Section(s): Click here to enter text.	
8.	If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition Click here to enter text. Or X Not applicable.	

- **9. Effective date**: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: Although not urgent, the requested changes should be implemented as soon as reasonably practicable.
- **10. Supporting documentation:** Identify and attach to the petition any information supporting the proposal including data, reports and other documents: No additional documentation.
- 11. **Economic or Fiscal Impacts:** Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing:
 - a. **Blue Cavern Onshore SMCA**: It is not believed that this change will have any economic or fiscal impact.



State of California – Fish and Game Commission

PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE

FGC 1 (Rev 06/19) Page 4 of 4

- b. Casino Point SMCA (1): Snorkeling and SCUBA diving are robust recreational activities in the Casino Point SMCA and it is believed that there would not be an impact to these activities, as people will enjoy wildlife viewing whether or not they are able to feed fish.
- c. Casino Point SMCA (2): It is not believed that the proposed change would have any economic or fiscal impact.
- d. **Long Point SMR:** It is not believed that there would be an economic or fiscal impact as a result of this change.
- e. Lover's Cove SMCA: Multiple passenger vessels used for tourism purposes sell fish food in the form of "food torpedoes" or other feeding methods. Passengers can purchase the food torpedoes with cash as an upcharge to their wildlife viewing excursion. The fish food torpedo is then triggered by the passenger via button and the food attracts fish to their underwater viewing window. A common line by tour guides is that "the fish you see are larger than others because they are fed all day." There would be an economic impact in the form of passenger vessels no longer being able to sell this upcharge.
- **12.** Forms: If applicable, list any forms to be created, amended or repealed: N/A.

SECTION 3: FGC Staff Only

Date received: Click here to enter text.	
FGC staff action:	
☐ Accept - complete	
☐ Reject - incomplete	
☐ Reject - outside scope of FGC authority Tracking Number	
Date petitioner was notified of receipt of petition and pending action:	
Meeting date for FGC consideration:	
FGC action:	
☐ Denied by FGC	
☐ Denied - same as petition	
Tracking Number	
☐ Granted for consideration of regulation change	

Tracking Number: (2023-26MPA)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

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SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1. Person or organization requesting the change (Required)

Name of primary contact person: Lisa Gilfillan

Address: 2120 Jimmy Durante Blvd #106, Del Mar, CA 92014

Telephone number:
Email address: lisa@wildcoast.org

- 2. **Rulemaking Authority (Required) -** Reference to the statutory or constitutional authority of the Commission to take the action requested: Authority cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code.
- 3. **Overview (Required) -** WILDCOAST is an international non-profit that conserves coastal and marine ecosystems and addresses climate change through natural solutions. We often work in partnership with the MPA Collaborative Network and serve as co-chairs for the San Diego MPA Collaborative group. We will reference the Collaborative Network's <u>Vetted Regulation</u> <u>Recommendations</u> for this petition. Given the complete consensus received within the San Diego MPA Collaborative, we are proposing four changes (one boundary change, and three other changes) across four MPAs. The proposed changes are as follows:
 - Line/Row #162- affecting <u>Swami's SMCA</u>: Our Reg recommendation= Shifting the entire shape South (from the lifeguard tower to State/Solana Beach line to cover tidepool on South side)
 - Line/Row #160, #164, & #170- affecting <u>Batiquitos Lagoon No-Take SMCA</u>, <u>San Elijo Lagoon No-Take SMCA</u>, & <u>Famosa Slough No-Take SMCA</u>: Our Reg recommendation changing the purple to red for outreach purposes only, if boundaries remain the same
- 4. Rationale (Required) -



PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 2 of 3

The above proposed recommendations are based on WILDCOAST's extensive MPA work in San Diego County and also through our collaboration with the MPA Collaborative Network (as a long-standing co-chair for San Diego County). These proposed recommendations came about after a robust discussion with local San Diego stakeholders on June 26, 2023, at the last San Diego MPA Collaborative meeting.

Line/Row #162- Swami's SMCA: There is a compliance concern here regarding harmful tidepooling, especially at Seaside reef. Enforcement for take of lobster is difficult at the southern boundary since it splits two jurisdictions and the reef (hard to know where they are actually taking from and who is responsible for enforcing what). This proposed change keeps the same size MPA but covers the impacted tidepool area on the Southern boundary. Additionally, the Lifeguard tower would serve as a clear boundary at the North end.

Line/Row #160, #164, & #170- affecting Batiquitos Lagoon No-Take SMCA, San Elijo Lagoon No-Take SMCA, & Famosa Slough No-Take SMCA: The compliance concerns in these locations are all the same- there is confusion amongst the general public around the purple No-Take SMCA designation versus a red SMR. It is therefore easier for the public to understand the regulations when there are fewer designations. It would simplify the rules if all No-Take areas were red for education and outreach purposes. It is anticipated that other MPA Collaborative members will be submitting similar petitions across the South Coast region. Additionally, this change supports Decadal Review Prioritized Recommendation #15.

SECTION II: Optional Information

5. Date o	f Petition:	Novemb	er 28,	2023
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- 6. Category of Proposed Change
 - □ Sport Fishing
 - □ Commercial Fishing
 - ☐ Hunting
 - ★Other, please specify: MPAs, Section 632.
- **7.** The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs)
 - Amend Title 14 Section(s): Westlaw regulations.
 - □ Add New Title 14 Section(s): Click here to enter text.
 - □ Repeal Title 14 Section(s): Click here to enter text.
- 8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition Click here to enter text.

 Or Not applicable.
- 9. **Effective date**: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: N/A



State of California – Fish and Game Commission

PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE

FGC 1 (Rev 06/19) Page 3 of 3

- 10. Supporting documentation: Identify and attach to the petition any information supporting the proposal including data, reports and other documents:
 - MPA Collaborative Network Vetted Regulation Recommendations
- 11. Economic or Fiscal Impacts: Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing: N/A

12.	N/A
SEC	TION 3: FGC Staff Only
Date	received: 11/30/2023
	staff action: Accept - complete Reject - incomplete Reject - outside scope of FGC authority Tracking Number petitioner was notified of receipt of petition and pending action:
Meet	ting date for FGC consideration:
FGC	action: □ Denied by FGC □ Denied - same as petition Tracking Number □ Granted for consideration of regulation change

Tracking Number: (2023-27MPA)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1. Person or organization requesting the change (Required)

Name of primary contact person: Azsha Hudson

Address: 906 Garden Street, Santa Barbara, CA 93101

Telephone number: 805.963.1622 X 105

Email address: ahudson@environmentaldefensecenter.org

- **2. Rulemaking Authority (Required) -** Reference to the statutory or constitutional authority of the Commission to take the action requested: Authority cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code
- **3. Overview (Required) -** Summarize the proposed changes to regulations: This petition seeks to reclassify the Anacapa State Marine Conservation Area (SMCA) as a State Marine Reserve (SMR) or at a minimum reclassify the portion of the SMCA from shore to at least 30 meters depth to better protect eelgrass habitat.
- **4. Rationale** (**Required**) Describe the problem and the reason for the proposed change:

Numerous state and federal policies underscore the importance of eelgrass as an important yet vulnerable species that provides nursery habitat for fish, reduces coastal erosion, acts as a carbon sink, and increases species diversity by providing three-dimensional structure on sandy bottomed habitats.

Based on a scientific study conducted at the Anacapa SMCA from 2016 to 2019, and a growing body of literature on eelgrass recruitment and ecology, there is compelling evidence that seasonally occurring lobster trapping and anchoring in the SMCA is destroying eelgrass beds that are otherwise thriving in the adjacent Anacapa SMR.

• At Anacapa Island the main threat to eelgrass, as found by the study conducted by Jessica Altstatt, are hard bottomed objects.

- O Dive surveys found the transplanted eelgrass meadows at Frenchy's Cove within Anacapa SMCA to be damaged and greatly reduced. Concurrent interviews with mariners and National Park rangers revealed that Frenchy's Cove was being fished heavily by spiny lobster fishermen during the two months (November and December) that the brown pelican Special Closure was open.
- o Boaters that come to the Channel Islands prefer areas that overlap with eelgrass habitat, leaving the eelgrass susceptible to damage from anchoring.

The limited subset of pelagic fishing methods allowed at the Anacapa SMCA also creates challenges for enforcement by requiring officers to board vessels and confirm compliance on an individual basis. This petition requests Fish and Game Commission (FGC) approval to support the goals of the Marine Life Protection Act (MLPA), align with state and federal policies focused on eelgrass resilience and health, and protect important eelgrass and associated marine life at Anacapa Island.

5.	Date of Petition: 11/30/2023
6.	Category of Proposed Change ☐ Sport Fishing ☐ Commercial Fishing ☐ Hunting X Other, please specify: MPAs, Section 632.
7.	The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs) X Amend Title 14 Section(s): Westlaw regulations. □ Add New Title 14 Section(s): Click here to enter text. □ Repeal Title 14 Section(s): Click here to enter text.

- 8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition Click here to enter text. Or X Not applicable.
- 9. **Effective date**: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: November 1, 2024
- **10. Supporting documentation:** Identify and attach to the petition any information supporting the proposal including data, reports and other documents:
 - Petition narrative on eelgrass at Anacapa SMCA: Anacapa-MPA-Petition-Narrative FINAL 2023 11 30
 - White paper research from Jessica Alstatt: Altstatt_Eelgrass report_2021_03_01
 - Sign on letter for support: Frenchys-Cove-Sign-On FINAL 2023 11 29

11. Economic or Fiscal Impacts: Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing:

This petition protects habitat that confers biodiversity and biomass benefits that enhance the health of Anacapa Island and surrounding ecosystems. Eelgrass beds filter nutrients, stabilize sediments, and increase complexity of the substrate and effective habitat for marine life. As demonstrated by numerous reports of lobster traps "fishing the line" of the Anacapa SMR, fishers perceive the nearby fully protected MPA has created a beneficial habitat for lobster trapping. Notably, a recent study on the California spiny lobster fishery determined that the short-term losses from a restrictive MPA is compensated by an over 200% increase in total catch after about 6 years of MPA designation.

This petition would close the Anacapa SMCA to lobster trapping year round and would also prevent anchoring damage from pelagic fishing efforts. While converting this SMCA into an SMR may have short term impacts on recreational and commercial fishing, any such impacts will be offset by the long-term ecosystem wide benefits of protecting eelgrass function at this valuable site.

12. Forms: If applicable, list any forms to be created, amended or repealed:

Click here to enter text.

SECTION 3: FGC Staff Only
Date received: 11/30/2023
FGC staff action:
□ Accept - complete
□ Reject - incomplete
☐ Reject - outside scope of FGC authority
Tracking Number
Date petitioner was notified of receipt of petition and pending action:
Meeting date for FGC consideration:
FGC action:
□ Denied by FGC
☐ Denied - same as petition
Tracking Number
Granted for consideration of regulation change

Petition Narrative

Overview

This petition seeks to reclassify the Anacapa State Marine Conservation Area (SMCA) as a State Marine Reserve (SMR) or at a minimum reclassify the portion of the SMCA from shore to at least 30 meters depth to better protect eelgrass habitat. Numerous state and federal policies underscore the importance of eelgrass as an important yet vulnerable species that provides nursery habitat for fish, reduces coastal erosion, acts as a carbon sink, and increases species diversity by providing three-dimensional structure on sandy bottomed habitats.

Based on a scientific study conducted at the Anacapa SMCA from 2016 to 2019¹, and a growing body of literature on eelgrass recruitment and ecology, there is compelling evidence that seasonally occurring lobster trapping and anchoring in the SMCA is destroying eelgrass beds that are otherwise thriving in the adjacent Anacapa SMR.

The limited subset of pelagic fishing methods allowed at the Anacapa SMCA also creates challenges for enforcement by requiring officers to board vessels and confirm compliance on an individual basis. This petition requests Fish and Game Commission (FGC) approval to support the goals of the Marine Life Protection Act (MLPA), align with state and federal policies focused on eelgrass resilience and health, and protect important eelgrass and associated marine life at Anacapa Island.

Importance of Eelgrass Habitat

Eelgrass, specifically *Zostera marina*, is a marine plant that provides significant ecosystem services in shallow, sandy-bottom habitats. Eelgrass beds support complex food webs, filter nutrients, and improve water quality, stabilize sediments, and serve as important refuge and nurseries for marine vertebrates and invertebrates.² Eelgrass beds are typically found from shallow waters down to depths of up to 30 meters (98 feet).³

Given its ecological importance, eelgrass habitat restoration and conservation has been identified as a high priority by numerous federal and state policies and planning documents. The National Oceanic and Atmospheric Administration (NOAA) has released several policies related to eelgrass, including the 2014 "California Eelgrass Mitigation Policy and Implementing Guidelines" that emphasize the importance of recovering and sustaining eelgrass across California. Eelgrass is designated as Essential Fish Habitat for various federally managed fish species within the Pacific Coast Groundfish and Pacific Coast Salmon Fisheries Management

¹Jessica Altstatt (2021). Island Eelgrass (*Zostera pacifica*): Focused Assessment of Condition and Extent of Meadows and Biological Monitoring of Associated Fish and Invertebrate Communities

²Engle, J. M., & Miller, K. A. (2005, November). Distribution and morphology of eelgrass (Zostera marina L.) at the California Channel Islands. In *Proceedings of the Sixth California Islands Symposium*. *Institute for Wildlife Studies*, *Arcata*, *CA* (pp. 405-414).

³ marinespecies.wildlife.ca.gov/eelgrass/

⁴https://www.fisheries.noaa.gov/resource/document/california-eelgrass-mitigation-policy-and-implementing-guidelines

Plans and is a habitat area of particular concern for various species within the Pacific Coast Groundfish Fishery Management Plan.⁵

California state policy also recognizes the critical importance of eelgrass; see California Senate Bill 1363 (2016), the Ocean Protection Council (OPC) Strategic Plan (2020-2025) and OPC Ocean Acidification Management Tool (Nielsen et al. 2018), and California Coastal Act sections 30230, 30231. Specifically, the OPC Strategic Plan lists eelgrass preservation and recovery as a priority in its Strategic Plan Target 3.1.4 and aims to protect 15,000 acres of California's eelgrass and create 1,000 new acres by 2025. OPC's Ocean Acidification Action Plan also prioritizes protection and conservation of eelgrass due to its associated carbon storage benefits in sections 4.1.2 and 4.1.3. Globally, eelgrass populations have declined during the past 25 years through a combination of natural and anthropogenic deterioration. 8,9

While eelgrass restoration efforts have been conducted in the West Coast for over 60 years at significant effort and cost, restoration projects have had mixed success, demonstrating the importance of both protecting existing eelgrass habitat and prioritizing restoration projects that result in successful eelgrass reintroduction.¹⁰

Ecological Benefits

There have also been a suite of studies demonstrating both the ecological benefits of eelgrass habitat and of fully protected areas, which include higher abundance of commercially important species and that fully protected areas can better support climate adaptation and resilience than lightly protected areas. ^{11,12} The Channel Islands are home to some of the greatest biodiversity in California and are a critical habitat for a wide range of commercially, recreationally, and culturally important species. Because healthy eelgrass habitat is both ecologically valuable and limited, protecting areas where it can thrive should be a high priority for the State.

Anacapa Island Eelgrass: Need for Improved Protection

Eelgrass used to be abundant at multiple sites at Anacapa island until white urchin (*Lytechinus anemesus*) populations increased and locally extirpated eelgrass following the 1983 El Nino.¹³

⁵https://www.fisheries.noaa.gov/feature-story/importance-eelgrass

⁶https://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20200226/OPC-2020-2025-Strategic-Plan-FINAL-20200228 pdf

⁷ https://www.opc.ca.gov/webmaster/ media library/2018/10/California-OA-Action-Plan-Final.pdf

⁸ Short, F.T. and S. Wyllie-Echeverria. 1996. Natural and human-induced disturbance of seagrasses. Environmental Conservation 23:17–27.

⁹ Hemminga, M.A. and C.M Duarte. 2000. Seagrass Ecology. Cambridge University Press, Cambridge, UK, 298 pp. ¹⁰ Melissa Ward and Kathryn Behestri. Lessons learned from over thirty years of eelgrass restoration on the US West Coast. Ecosphere, Volume 14, Issue 8, August 2023.

¹¹ Front Ecol Environ 2018; 16(7): 381–387, doi:10.1002/fee.1934

¹² Roberts, C. M., O'Leary, B. C., McCauley, D. J., Cury, P. M., Duarte, C. M., Lubchenco, J., ... & Castilla, J. C. (2017). Marine reserves can mitigate and promote adaptation to climate change. *Proceedings of the National Academy of Sciences*, 114(24), 6167-6175.

¹³ Jessica Altstatt, Richard Ambrose, Jay Carroll, James Coyer, Joseph Wible, John Engle "Eelgrass Meadows Return to Frenchy's Cove, Anacapa Island: Recovery Ten Years after Successful Transplantation," Monographs of the Western North American Naturalist, 7(1), 500-517, (1 January 2014)

Frenchy's Cove, which is located within the Anacapa SMCA, historically sustained the largest eelgrass meadow around all Anacapa Island. Researchers at Anacapa Island found that there had been no sign of recruitment at Frenchy's Cove since 1991 up until the 2000s when efforts were made to reintroduce eelgrass into the area. ^{14,15} Transplanting efforts in 2002 restored eelgrass at several sites at Anacapa Island.

In dive surveys conducted by Jessica Altstatt and her team from 2016 to 2019 at transplantation sites at Anacapa Island and other Channel Islands, Anacapa eelgrass sites had 13-14 species of fish recorded, except for Frenchy's Cove (which had no remaining eelgrass), which only reported six species. Similarly, the lowest densities of kelp bass were largely found at the sites with little to no eelgrass; and the lowest number of observed fish species was at the Frenchy's Cove restoration site, over barren sand. These findings underscore that healthy eelgrass beds have been shown to support increased fish biodiversity and enhance marine life and function at sites around Anacapa Island, and the lack of eelgrass is correlated with diminished marine biodiversity and richness.

The eelgrass species at Anacapa Island, *Zostera marina*, is especially vulnerable to disturbance as it grows in soft sediments and can be easily uprooted by activities like trap fishing, which drag along the sandy bottom and disturb vulnerable habitat. Eelgrass beds at Anacapa Island are typically 20-45 feet in depth, and they expand through fragmentation of the stems and through seed dispersal at short distances, meaning that localized protections are important for eelgrass reproduction.¹⁸

Dive surveys conducted in 2016 and 2019 found the transplanted eelgrass meadows at Frenchy's Cove within Anacapa SMCA to be damaged and greatly reduced. ¹⁹ Concurrent interviews with mariners and National Park rangers revealed that Frenchy's Cove was being fished heavily during the two months (November and December) that the brown pelican Special Closure was open. ²⁰ In November 2019, Channel Islands National Marine Sanctuary staff reported at least 100 lobster traps within the Anacapa SMCA, some as shallow as 17 feet, with another 100 traps along the Anacapa SMR boundary line. ²¹ Fishing block data for the mainland showed that effort

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¹⁴ Ruckelshaus, M.H. 1996. Estimation of genetic neighborhood parameters from pollen and seed dispersal in the marine angiosperm Zostera marina L. Evolution 50:856–864.

¹⁵ Reusch, T.B.H., W.T. Stam and J.L. Olsen. 2000. A microsatellite-based estimation of clonal diversity and population subdivision in Zostera marina, a marine flowering plant. Molecular Ecology 9:127–40.

¹⁶Jessica Altstatt (2021). Island Eelgrass (*Zostera pacifica*): Focused Assessment of Condition and Extent of Meadows and Biological Monitoring of Associated Fish and Invertebrate Communities ¹⁷Id.

¹⁸ Olesen, B., Krause-Jensen, D. & Christensen, P.B. Depth-Related Changes in Reproductive Strategy of a Cold-Temperate Zostera marina Meadow. Estuaries and Coasts 40, 553–563 (2017). https://doi.org/10.1007/s12237-016-0155-4

¹⁹Jessica Altstatt (2021). Island Eelgrass (*Zostera pacifica*): Focused Assessment of Condition and Extent of Meadows and Biological Monitoring of Associated Fish and Invertebrate Communities
²⁰Id.

 $^{^{21}}$ *Id*.

more than doubled within blocks containing fishing areas adjacent to SMRs.²² Notably, eelgrass continued to thrive within the Anacapa SMR itself, 200 meters to the east of the SMCA.²³

In the summer and fall of 2016, the research team also marked and reported four abandoned lobster traps within Frenchy's Cove, with one along the boundary with the Anacapa SMR. The other three traps were within a mapped footprint of the eelgrass restoration site within the SMCA, where there was no longer any eelgrass remaining.²⁴ In a 2019 survey, an abandoned trap was found "ghost fishing" and was filled with live lobsters along the Anacapa SMR boundary.²⁵

The impact of lobster trapping and boat anchoring (from lobster trapping, as well as other fishing and recreational sources) within Anacapa SMCA has been to denude transplanted eelgrass beds and prevent ongoing recruitment and growth of this important species and habitat. ²⁶ Disturbing and harming the sandy bottom has a conclusively negative impact on eelgrass survival. Converting this area to an SMR is necessary to protect future eelgrass recovery efforts and all the associated benefits to fish and marine ecosystems.

Notably, the Altstatt paper from 2021 contained the following specific policy recommendation:

Re-classify the shallow soft-sediment bottom within the Frenchy's SMCA as SMR or No Entry (it is already a Special Closure 10 months out of the year). Suitable habitat for eelgrass within Frenchy's Cove only exists within certain hydrodynamic and depth parameters (20'-45'), and over soft bottom not rock. This area historically sustained the largest eelgrass meadow at all of Anacapa Island. Our restoration work showed that eelgrass will rapidly colonize and thrive if anthropogenic disturbance (trapping) were to cease.²⁷

Impact of Hard Bottom Objects on Shallow Root Eelgrass (Zostera marina)

Eelgrass faces many threats in Southern California, including increased turbidity, dredging, construction, and pollution.²⁸ At Anacapa Island the main threat to eelgrass, as found by the study conducted by Jessica Altstatt, are hard bottomed objects.²⁹ Lobster traps are not the only

²² Lenihan, H. S., Gallagher, J. P., Peters, J. R., Stier, A. C., Hofmeister, J. K., & Reed, D. C. (2021). Evidence that spillover from Marine Protected Areas benefits the spiny lobster (Panulirus interruptus) fishery in southern California. *Scientific Reports*, 11(1), 2663.

²³ Jessica Altstatt (2021). Island Eelgrass (*Zostera pacifica*): Focused Assessment of Condition and Extent of Meadows and Biological Monitoring of Associated Fish and Invertebrate Communities ²⁴*Id*.

 $^{^{25}}Id.$

 $^{^{26}}Id.$

²⁷Jessica Altstatt (2021). Island Eelgrass (*Zostera pacifica*): Focused Assessment of Condition and Extent of Meadows and Biological Monitoring of Associated Fish and Invertebrate Communities

²⁸ Merkel, K.W. 1991. The use of seagrasses in the enhancement, creation, and restoration of marine habitats along the California Coast: Lessons learned from fifteen years of transplants. Technical Advisory Panel presentation to Marine Board, National Research Council Committee on the role of technology in marine habitat protection and enhancement. 20 March 1991. San Francisco, CA.

²⁹Jessica Altstatt (2021). Island Eelgrass (*Zostera pacifica*): Focused Assessment of Condition and Extent of Meadows and Biological Monitoring of Associated Fish and Invertebrate Communities

object that can reduce transplantation success. A study conducted in Puget Sound on seagrass that has a similar makeup to the eelgrass present in the waters surrounding Anacapa Island looked at the impact of Dungeness crab traps set in an eelgrass bed. It was determined that traps could lead to the destruction of the eelgrass immediately beneath it and create a scour hole that would also be devoid of eelgrass.³⁰ Recovery of the eelgrass after a few months saw less than 50% recovery, but no further growth was found after eight months.³¹

Anchors are also detrimental to survival and expansion of eelgrass. Boaters that come to the Channel Islands prefer areas that overlap with eelgrass habitat, leaving the eelgrass susceptible to damage from anchoring.³² In areas that attract boaters there is a cumulative impact from the setting and dragging of the many anchors used over time.³³ Hard bottomed objects resting on top of eelgrass for extended periods cause blades to become broken or abraded, which may disrupt normal blade function.³⁴ Other impacts to the eelgrass include blades of grass being crushed into the underlying anoxic sediments, likely suffocating the plants and leading to eventual deterioration of above-ground plant, and shading by traps that reduces light availability, thereby inhibiting photosynthetic function.³⁵

Increasing Enforcement Efficacy

This petition requests that the Anacapa SMCA be converted to an SMR, removing commercial and recreational lobster fishing and pelagic fishing from the allowable activities. Current regulations for the Anacapa SMCA state the following:

It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource, EXCEPT:

Recreational take of lobster and pelagic finfish (northern anchovy, barracudas, billfishes, dorado (dolphinfish), Pacific herring, jack mackerel, Pacific mackerel, salmon, Pacific sardine, blue shark, salmon shark, shortfin mako shark, thresher shark, swordfish, tunas, Pacific bonito, and yellowtail) is allowed.³⁶

Converting Anacapa SMCA into an SMR will support law enforcement effectiveness as officers will be able to assess compliance from a distance and not required to individually contact, board, and verify each fishing vessel to determine the species and gear being deployed. It is notable that the ocean salmon fishery has closed as of 2023 due to poor fish survival, so removing this species from allowable activities would have no impact on the industry in the near term.

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³⁰ June J., Antonelis K. 2009. Marine Habitat Recovery of Five Derelict Gear Removal Sites in Puget Sound. Natural Resources Consultants, Inc, Seattle, WA. Report for the Northwest Straits Initiative. 19 pp.

³² https://www.nps.gov/chis/learn/nature/seagrass-beds.htm

³³ Santa Barbara Channel Keeper (2009-2010). The Role of Eelgrass Beds as Fish and Invertebrate Habitat. https://www.sbck.org/wp-content/uploads/2013/06/Eelgrass-Report.pdf

³⁴ Ührin, A. V., Fonseca, M. S., and DiDomenico, G. P. 2005. Effects of spiny lobster on seagrass beds: damage assessment and evaluation of recovery. American Fisheries Society Symposium, 41: 579–588.

³⁶ https://wildlife.ca.gov/Conservation/Marine/MPAs/Anacapa-Island.

Socioeconomic Impacts

This petition protects habitat that confers biodiversity and biomass benefits that enhance the health of Anacapa Island and surrounding ecosystems. Eelgrass beds filter nutrients, stabilize sediments, and increase complexity of the substrate and effective habitat for marine life. As demonstrated by numerous reports of lobster traps "fishing the line" of the Anacapa SMR, fishers perceive the nearby fully protected MPA has created a beneficial habitat for lobster trapping. Notably, a recent study on the California spiny lobster fishery determined that the short-term losses from a restrictive MPA is compensated by an over 200% increase in total catch after about 6 years of MPA designation.³⁷

This petition would close the Anacapa SMCA to lobster trapping during the months of November and December and would also prevent anchoring damage from pelagic fishing efforts. While converting this SMCA into an SMR may have short term impacts on recreational and commercial fishing, any such impacts will be offset by the long-term ecosystem wide benefits of protecting eelgrass function at this valuable site.

Advancing Goals of the MLPA

This petition advances MLPA goals 1, 2, 3, and 5.

- Goal 1: Converting the Anacapa SMCA to an SMR will directly "protect the natural diversity and abundance of marine life, and the structure, function and integrity of marine ecosystems" by removing a significant and specific threat to eelgrass recreational and commercial lobster fishing. In its absence, the 2019 study authors explicitly state: "Our restoration work showed that eelgrass will rapidly colonize and thrive if anthropogenic disturbance (trapping) were to cease."
- Goal 2: This petition also "sustains, conserves, and protects marine life populations" of both eelgrass and a wide range of marine species that rely on and benefit from eelgrass, as shown by studies indicating higher biodiversity in areas with eelgrass versus the bare sandy bottom that results from lobster trapping and damage from boat anchors. Global research has also shown that fully protected MPAs confer biodiversity and biomass benefits, which further supports the request of this petition.
- Goal 3: Anacapa's transplanted eelgrass beds are a critical "study opportunity" for understanding how to restore eelgrass in other parts of California and temperate climates. Anacapa Island is an important natural laboratory that has been used by researchers to inform broader eelgrass management efforts since the 1980s. Increasing eelgrass research and recovery is a priority for agencies including OPC and NOAA. The proposed conversion to an SMR can support that important work by helping restore eelgrass beds where they are currently harmed by fishing pressures.

³⁷ Lenihan, H.S., Gallagher, J.P., Peters, J.R. et al. Evidence that spillover from Marine Protected Areas benefits the spiny lobster (Panulirus interruptus) fishery in southern California. Sci Rep 11, 2663 (2021). https://doi.org/10.1038/s41598-021-82371-5

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• Goal 5: As the state considers adaptive management of the MPA network, it is important to make decisions that support "effective management measures and adequate enforcement and are based on sound scientific guidelines." The current allowable activities at the SMCA include take of select pelagic fish, which creates complexity for enforcement officers who must ensure individual compliance with regulations. Commercial and recreational lobster fishing is also allowed; but as described above, recent surveys and studies demonstrate that there is a clear and specific fishing-related threat to eelgrass beds at the Anacapa SMCA, and that converting to an SMR will remove that pressure and allow for ecosystem recovery. Prohibiting these fishing pressures will support enhanced enforcement and align with recently available scientific findings about the significant damage caused by lobster traps and boat anchoring.

Alignment with Decadal Management Review

This petition supports the Decadal Management Review (DMR) recommendation #4: "Apply what is learned from the first Decadal Management Review to support proposed changes to the MPA Network and Management Program." Over the past decade, significant research has been conducted in the Anacapa SMCA and surrounding ecosystems to better understand how policy protections can support eelgrass ecosystem recovery and safeguard this critical species. The DMR report and recommendations also underscore that enhancing MPA enforcement is a continued priority, so creating regulations that facilitate compliance and simplify allowable activities is a clear pathway for addressing this ongoing management goal.

Available data demonstrates that lobster traps and boat anchors in Anacapa SMCA cause significant harm to eelgrass recovery efforts. Eelgrass beds in the nearby Anacapa SMR were healthy, while those in the SMCA were degraded or nonexistent following lobster season. When combined with the benefit of streamlining enforcement by removing piecemeal fishing allowances, this petition clearly responds to the DMR and confers multiple benefits for MPA management.

By approving the conversion of Anacapa SMCA to an SMR, the FGC will integrate the best available science into MPA policy; support the goals of the MLPA; advance federal and state policies advocating for the recovery and protection of eelgrass; and directly support the DMR's goal of adaptively managing MPAs based on findings from the past decade.

Island Eelgrass (*Zostera pacifica*): Focused Assessment of Condition, Health and Extent of Beds and Biological Monitoring of Associated Fish and Invertebrate Communities



March 1, 2021

Island Eelgrass (*Zostera pacifica*): Focused Assessment of Condition and Extent of Meadows and Biological Monitoring of Associated Fish and Invertebrate Communities

Abstract

Eelgrass (*Zostera pacifica*) meadows were present along the northern shores of Anacapa Island prior to the late 1980s, when sea urchin over-grazing led to local extirpation. No natural recruitment occurred over 12 years and in 2002, ~500 eelgrass (*Zostera pacifica*) shoots from two large meadows at Santa Cruz Island (Smugglers, Prisoners) were transplanted to Frenchy's Cove, Anacapa Island. The short-term survivorship and growth of eelgrass at the transplantation site and continuing expansion of eelgrass from the restoration site to the east along Middle Anacapa Island was documented over a 17 year period, along with conditions at naturally occurring beds at Santa Cruz and Santa Rosa islands. Eelgrass bed dynamics and associated fish and invertebrate communities were characterized in 2016 and 2019 and compared with existing conditions within the donor beds and other Channel Islands eelgrass meadows. At Anacapa, eelgrass meadows have persisted longer post-transplantation (2003-2019) than was documented without natural recovery prior to our efforts (1991-2002), and are fully functioning habitat as shown by fish and invertebrate communities, and when compared to natural meadows at Santa Cruz Island.

Introduction

Seagrasses are flowering plants that have evolved from land plants to live in the ocean, forming lush green underwater meadows. These meadows or beds are an important coastal habitat and support complex food webs, provide refuge for animals, filter out nutrients, and stabilize sediments. Species diversity in seagrass beds can be nearly twice as high as on nearby sandy intertidal and subtidal habitats (Engle et al, unpublished data). Through photosynthesis, seagrass fixes carbon from carbon dioxide dissolved in seawater, and transfers that carbon to the sediments. Growing interest in the potential of seagrass as a 'green carbon' solution to climate change is amplified by recent evidence that subtidal seagrass beds could play a critical role in slowing or reversing the deleterious effects of ocean acidification on marine larval invertebrates and fishes. The focus of most seagrass research has been in intertidal estuaries but submerged beds occurring along the open coast may contribute as much or more value. Thus, the need for up-to-date information on the size, health and habitat function of the major seagrass beds around the Channel Islands and Santa Barbara mainland coast is ever-more relevant and timely.

There are two types of seagrasses found along the California coast- surfgrass and eelgrass. Surfgrass (genus *Phyllospadix*) grows in rocky wave-swept environments while eelgrass (genus *Zostera*) grows in soft sediment found in sheltered coasts, bays and estuaries. *Zostera sp.* was historically abundant in California's shallow inlets but has been especially damaged by coastal development and up to 90% of

its historic range has been lost. DNA analysis has defined two species occurring at the California Channel islands—*Z. marina* and *Z. pacifica* (Coyer *et al.* 2007).

Although both surfgrass and eelgrass are flowering plants and produced seeds, eelgrass is especially vulnerable to disturbance as it grow in soft sediments and can be uprooted. Additionally, eelgrass beds expand through vegetative growth of rhizomes and the chance of long-range dispersal of seeds is very low. Thus, its ability to naturally spread over long distances happens only over a very long time scale. Evidence from genetic studies suggest that the largest eelgrass beds around the Channel Islands are mostly clonal and may be thousands of years old (Coyer *et al.* 2007).

Expeditions of the Channel Islands Research Program (CIRP) in the 1980s and 1990s yielded information on location and size estimates of major eelgrass meadows around the Channel Islands, as well as data on associated fish and invertebrate density (Engle and Miller 2005). These meadows (along with several along the mainland coast) were then re-surveyed in 2007-9 by some of the same research cruise participants.

Up until the mid 1980s, eelgrass had been abundant at multiple Anacapa Island locations from Frenchy's Cove to Cathedral Cove. An unusual recruitment event of the white urchin *Lytechinus anemesus* following the 1983 el Niño led to over-grazing and extirpation of eelgrass from all of Anacapa. In 2002, a trial restoration project was initiated to test whether or not eelgrass recruitment could be 'jump-started' by using vegetative material from nearby Santa Cruz Island. Over ten years, a meadow coalesced, expanded, and spread from within the Anacapa Special Closure and State Marine Conservation Area (SMCA), towards the east into the State Marine Reserve (SMR). The project was deemed a success with eelgrass spreading most of the length of Middle Anacapa Island (Altstatt *et al.* 2014).

Observations and data collected at the restoration site in 2011 and 2012 suggested that something was impacting the soft bottom habitat within Frenchy's Cove. Information gained from mariners and National Park rangers confirmed that the cove was being targeted by trap fishing during the commercial season months of November and December.

MPAs are even more critical for providing resilience and refuge within a changing ocean. Eelgrass habitat, limited by water clarity and exposure, faces very real threats from climate change-related physical disruption from increased wave activity and storm severity. In addition, sea level rise may reduce the resiliency of some beds due to steep shore topography and reflection from waves.

2016-2019 Project Purpose

We assessed eelgrass condition, density and abundance within major beds at Santa Cruz and Santa Rosa Islands, and along the north side of Anacapa Island that include our restoration site and "downstream" areas of restored meadows (seeded from the restored population). We also gathered information on density and abundance of associated invertebrate and fish species. Information gathered was then compared to that from large-scale, multi-island surveys performed in 1994-1997 (Engle,

CIRP) and in 2007- 2009 (Altstatt, CIRP). Additional opportunistic surveys occurred at various sites between this range of dates.

Anacapa and eastern Santa Cruz island sites were visited in 2016 but survey scope was limited. Enough information was gathered, however, to determine that the commercial lobster trap fishery had severely impacted the epicenter of our restored eelgrass bed within the Anacapa State Marine Conservation Area at Frenchy's Cove. Eelgrass occurring within the neighboring marine reserve was flourishing. This unexpected and very interesting result needs focus, as it has implications for soft-bottom (and other) habitats that fall just outside of marine reserves. In light of the recent years of unprecedented warm water, the health of the beds is unknown and potentially facing dramatic change due to disease, increased predation from recruitment of warmer water species, or physical disruption from increased wave activity during el Niño storms.

We envisioned that the 2019 season of surveys could be the first in a much larger multi-year effort, that will collect information needed to conduct stock assessments for threatened species, the ability of specific seagrass meadows to adapt to changes in sea levels and storm damage due to climate change, and could help address the capacity of eelgrass meadows to buffer changing pH levels.

Primarily, this study was conducted to address the following questions:

- -how stable over time are shoot density and meadow extent in naturally occurring eelgrass beds?
- -how similar in size and density are the meadows at Anacapa to naturally occurring beds at Santa Cruz and Santa Rosa?
- -do the restored eelgrass meadows at Anacapa perform at the same habitat level as naturally occurring beds at Santa Cruz?

Additional questions include:

- -does eelgrass extent/coverage/patchiness affect determine fish and invert species richness, abundance?
- -do eelgrass beds within Marine Reserves and their associated fish and invertebrates differ from those outside?
- -are there implications for management of Marine Protected Areas, and what are the recommendations?

Methods

Site Descriptions

We surveyed thirteen island eelgrass meadows between April 24 and July 27 2019. We chose meadows that were known to be temporally stable, and/or that had been sampled repeatedly since the 1990s. One site was at Santa Rosa Island, eight sites at Santa Cruz Island, and four sites at Anacapa Island including the original restoration site within Frenchy's Cove (Figure 1).

We also chose two locations that we suspected may have changed (East Prisoners) or that had been mapped in 2015 (Merkel 2015) that we wanted to ground-truth (East Scorpion). In general, the most protected sites were closest to shore and those sites subject to wave action were deeper and farther offshore. Specific dive locations were chosen with the help of our previous maps and notes to ensure that a full survey could fall within eelgrass meadow rather than sandy plain.

Most sites were visited at least twice; Old Ranch, Eagle Canyon, East Scorpion, and Smugglers, only once.

Divers mapped the western and inner meadow edge at Scorpion, and this data was then provided to the National Park Service (NPS) to assist in their process planning for construction of the new pier. The trackline created by this dive is shown in Figure 2.

Santa Rosa Island

Old Ranch

This expansive eelgrass meadow was not known to CIRP during the 1990s. It is far enough offshore that it escaped detection until we were alerted by a commercial crab fisherman in 2002 who found his traps fouled with eelgrass. Dives occurred in 2002 and 2003 for mapping and general description, but no qualitative surveys were done. We surveyed this bed in August 2008, with additional scouting. Work in Fall 2009 was aborted after one dive as the current was too strong. The 2019 surveys did not reach the outer edge of the mapped eelgrass bed, which we estimated to be another 150-200m to the east, as it was approximately 600m offshore and thus subject to strong currents.

This eelgrass meadow is more than 800 meters long and at least 350m wide. The sediment is white clean sand and meadows occur from 35' to 50' depths. We sampled two sites each ~430m off of the beach.

Santa Cruz Island

Prisoners Harbor

Prisoners Harbor is perhaps the most sheltered location on the island, tucked inside a large bight on the north side of the island. The NPS maintains a pier and mooring can in shallow water (~17'). This is a popular location with pleasure boats, especially northwest of the pier. Holes in the eelgrass bed from anchoring are evident in this area. The western headland protects the nearshore habitat from even strong westerly swells. The area is only rarely affected by strong Santa Ana winds that produce steep wind waves from the NE. These meadows are 135m off the beach and 80m off the western headland. The eelgrass bed to the west of the pier extends roughly N-S for hundreds of meters and in to 11' depth inside of the pier. The sediment in the inner harbor is fine and dark. We sampled two areas (~60m apart) in 2019.

In the surveys of the 1990's, it was thought that a separate bed lay 2 km to the east at Cañada del Agua. During our 2009 mapping study, we swam this stretch of coastline and documented that a solid band of eelgrass extends the entire distance. This bed is fairly defined both on the shallow and deep edge. Moving easterly from the pier, the north side of the island becomes more exposed to prevailing swell and current, and the eelgrass meadows are in deeper water.

East Prisoners

This site is east of the pier off to the first headland. The sediment immediately offshore of the Cañada del Puerto wetlands and creek mouth bears evidence of occasional terrestrial inputs of branches, cobbles and boulders. There has been a narrow canyon carved out from previous heavy flows that is up to 10' deeper than surrounding areas. The creek mouth is closed off from the ocean most of the time but it is evident that when the creek is discharging, eelgrass habitat is affected. In 2001 the eelgrass was described in this area as very patchy (Richards 2001), but was more continuous and uniform when mapped in 2009. It is unknown what the long-term effects of the on-going Cañada del Puerto watershed restoration by NPS will be, although it is possible that the wetlands will prevent the 'flashiness' of previous high water years, and thus could reduce scouring in the nearshore environment.

This area is 110m - 150m offshore.

There are several minor headlands to the east of Prisoners that provide protection from prevailing swell. We sampled three of these areas in 2019. The locations in the eastern lee of these headlands are Eagle Canyon, Cañada del Agua and Aguaje Escondido.

Eagle Canyon

The only time that we dove here in the past was for mapping in 2009. The eelgrass meadow is 90 meters offshore.

Cañada del Agua

In 1997, Cañada del Agua meadows were described as isolated and no grass was detected to the east. In 2001, it was noted that this area was the east end of roughly 1.5 km of eelgrass patches and meadows stretching from the Prisoners pier. In 2003 using the ship's fathometer, the bed was estimated at between 1-10 hectares with 0.5 km or less of shoreline. In 2009, during diver surveys it appeared that eelgrass tapered off past the cove and was not continuous to the east.

The eelgrass meadows are 130 meters off the headland and roughly 100 meters wide, centered at 28' depth.

Aguaje Escondido

This area was not surveyed in the 1990s, as at that time it was limited to several small patches. In 2003, eelgrass habitat at this location was less 2.5 acres and less than 500 meters of shoreline. It did not appear that the area was contiguous with eelgrass to the west.

During the cruises conducted 2008-09, based on these earlier observations, we did not chose to resurvey or map here. The 2015 NMFS sonar surveys found that this bed had expanded and was now a continuous band with eelgrass to the west.

The eelgrass meadows are 110 meters off of the headland and are up to 250 meters wide.

Scorpion

There has been a meadow in this sheltered location as least as far back as 1981 (Engle, personal communication). Grazing by white urchins occurred in the late 1980s and surveys in 1994 found the bed to be 0.1-1 hectare with less than 0.5 km of shoreline. A flash flood in December 1997 caused extreme flooding within Scorpion Canyon, leading to deposition of sediment and debris into the cove, leading to an estimated reduction in eelgrass by 30% or more (Richards, personal communication). In 2001, the eelgrass bed was a series of very dense patches 3-8 meters in diameter. This eelgrass bed is in a heavily used anchorage in font of the National Park island headquarters and popular visitor area. Two mooring balls were placed within Scorpion for use by NPS and concessionaire vessels in the 1990s. Since then, the bed has been a mosaic of meadows with circular open areas resulting from periodic relocation of the NPS mooring anchors and chain, and old anchor scars. Advocacy work in 2007-8 temporarily resulted in NPS suspending the chain off the sea floor by using a sub-surface float. Within a few years, however, the subsurface floats were removed by maintenance staff and the chain once again was on the bottom. This Marine Protected Area will continue to be affected by the chains on the bottom, and routine maintenance of the mooring chain every time the anchors are pulled up and redeployed in a new location, until NPS decides to modify their practices.

This eelgrass meadow is approximately 300 meters long and at least 74 m wide. The bed was mapped as 5.8 acres in 2009.

East Scorpion

This site is 500 meters east of Scorpion and is somewhat less protected. We chose to survey this location as it had been mapped as a solid eelgrass meadow (130 x 100 meters) in 2015 (Merkel 2015). The area is 130 meters offshore and 100 meters west of Scorpion Rock.

Smugglers Cove

Smugglers Cove, at the east end of Santa Cruz Island, is a wide embayment sheltered from prevailing northwest swell. The bay is exposed to long-period south swells which are common during the summer and fall months. During such events, sediments are suspended near shore and the visibility drops to near zero. Smugglers is both the farthest offshore and the deepest bed at Santa Cruz Island. To the south, there are eelgrass meadows closer to Yellowbanks, but that area is even more susceptible to bad visibility due to the fine sediment and much of this eelgrass is interspersed with low-lying rocky reefs.

Based on previous mapping efforts, the Smugglers eelgrass meadow is more than 1,300 meters long and up to 265 meters wide, and nearly 500 meters offshore. occurring from 38'-50' depths

Anacapa Island

CIRP records of eelgrass at Anacapa in 1979-1981 found extensive eelgrass meadows of 1-10 hectares along the north side of all three islets, and at Cat Rock on the south side of West Anacapa. All the Anacapa beds disappeared in the late 1980's, due to overgrazing by the white urchin, *Lytechinus anemesus* following an extraordinary post- el Niño recruitment event (Engle et al., unpublished data). By 1991 all eelgrass was gone (with the exception of a small patches at Cat Rock and Cathedral Cove, which persisted for a few more years). In April 2003, the entire north side of Anacapa became either a State Marine Reserve or State Marine Conservation Area.

The boundary between the Marine Protected Area (no take, to the east) and the Anacapa Marine Conservation Area (to the west, which allows for take of pelagic fin fish and lobster) runs N-S through Frenchy's Cove. Our two sites straddle this line. There is also a Special Closure to the west of the line for Brown Pelican breeding that closes the area within 1000' of shore to vessel traffic from January through October, but historically it has not been regularly enforced.

Frenchy's Cove, West Anacapa

Historic beds here in the 1980's ranged from 20-45' depths (Engle and Miller 2008). In 1981 this extremely sheltered location area supported the largest bed at Anacapa. By 1991, the eelgrass had been extirpated and CIRP established a permanent transect to monitor yearly for recovery. In 2001 we developed a trial restoration plan for this location with a site within the Seasonal Pelican Closure in the western part of the cove (Altstatt, 2005, Altstatt et al. 2014) with regular monitoring in subsequent years (with the exception of 2013-2015). In 2009 the bed was mapped as 2.9 acres.

Frenchy's Cove is the most protected area at Anacapa Island, offering moderate protection from NW winds and swell. Inshore of about 20' the sand turns to gravel, cobble and shell hash, which limits the inshore distribution of eelgrass. In deeper water, the parchment tube worm *Chaetopterous* has been common to abundant here, building 'reefs' of tubes at or just under the sediment surface. Offshore to the east, there is a rocky outcrop in 60-75' which is at least 100 meters offshore of the eelgrass bed. In cool water years, there is seasonal recruitment of giant kelp and other brown algae onto worm tubes, pebbles and cobble, but this algae rarely persists year-round. The historic eelgrass bed was 100m from shore.

East Frenchy's

This area is just 300 meters to the southeast of the restoration site. Within the first year of restoration planting at Frenchy's, most of the shoots had been dislodged and carried away by water motion. Upon surveying East Frenchys, we found single shoots with new growth, and we realized that these resulted from our work up-current. The eelgrass spread initially from vegetative material that re-rooted, and then from both seed dispersal and vegetative extension of rhizomes. We have monitored growth and spread in to patches here and to the east since 2004.

Current meadows are 90 meters from shore.

Keyhole, Middle Anacapa

This location is ~ 1 km to the east from East Frenchy's. In 1980 eelgrass was dominant here at 25' - 40' depths. We first observed single eelgrass shoots here in 2004. Eelgrass meadows are 85 meters from shore.

East NPS, Middle Anacapa

In 1982, substantial eelgrass meadows were found here from 30-40'. There was no eelgrass here in 2004 or 2005, but by 2011 and 2012 there were scattered patches in 33' to 40' depths. Eelgrass meadows are 150 meters from shore.

Cathedral Cove, East Anacapa (scouting only)

A few small patches of eelgrass persisted here during the urchin over-grazing until 1998. Diver observations through 2012 did not find any remaining eelgrass here. Sonar mapping suggested that sparse eelgrass was present (Merkel 2015).

2019 Survey protocols

The amount of effort at each site varied, but was designed to collect the minimum information needed for site characterization.

A full survey consisted of the following:

- quantitative fish transect 30m x 2m band
- band transect for large invertebrates and algae 30m x 2m band
- 0.25m² quadrats for eelgrass leaf shoot, flowering shoot and seedling density, urchin counts, % cover tubeworms and other sessile invertebrates.
- point-intercept for eelgrass extent and cover along transect line (10cm intervals)

General Dive Plan

All SCUBA activities were approved either by the University of California, Santa Barbara Diving Safety Officer, NOAA scientific diving program, or both. Divers were either NOAA or American Academy of Underwater Scientists (AAUS)-certified and familiar with species identification and survey protocols.

Dive sites were chosen based on our knowledge of preexisting eelgrass bed locations and conditions (Table 1). We planned for one central dive location at the smaller sites and two dive sites at the larger beds (Prisoners, Smugglers, Scorpion, Old Ranch). The anchor was dropped on predetermined GPS coordinates. Transects generally were laid out in cardinal directions (headings of 360, 90, 180 and 270 degrees) starting at the boat's anchor location, resulting in transects that generally ran alongshore, offshore and onshore. A complete survey required two teams of diver buddy-pairs. The first team laid out the tape while doing the fish survey and then conducted band transects and eelgrass extent point intercept survey on way back, leaving the tape in place. The second team scored quadrats and reeled in the tapes. The depth was measured along the transect at each quadrat location.

A typical survey at one dive location would yield four 30m fish transects + up to four extra 30m transects as extensions from the core transects, four 60m² bands, and fifteen 0.25m² quadrats per core transect for 60 quadrats total.

Although the site locations were chosen generally for the probability that they were within the last known extent of eelgrass, once on the bottom we did not abandon or re-route the transects to choose areas of higher density or extent.

Quadrat method

Quadrats were 0.25m² area (0.5m square) and were placed at set locations (every other meter) along the tape, yielding 15 per transect. Counts were conducted within each quadrat for the number of eelgrass turions (shoots), seedlings, and reproductive (flowering) shoots. Divers also searched for urchins and

estimated percent cover of brittlestars and parchment tube worms. Depth was recorded for each quadrat.

Point-intercept method

We performed point-intercept counts every 10cm along each transect in order to estimate how much of the transect fell within an eelgrass patch or meadow. We scored the extent of eelgrass beneath the transect line by assessing the substrate at 10cm intervals along the transect. This yielded a percent of each 30m transect that was either eelgrass bed, bare sand, or other (e.g. worm tubes). These points were tallied and the categories were converted to percentages. For analysis and comparison with previous survey years where detailed point-cover was not consistently recorded for all transects, point-cover was converted to a 1-4 density scale (Orth et al 2021) where 0-10% cover is Very Sparse, 10-40% is Sparse, 40-70% is Moderate, and 70-100% is Dense. This measure gives an idea of the 'patchiness' of the eelgrass at a dive location, and potential compatibility with other seagrass studies.

Quantitative Fish transects

The diver performing the fish survey would slowly swim in the designated direction, extending the meter tape until 30 meters was reached. Any fish observed within the 2m wide transect corridor would be recorded. Fish were scored into four size categories: young of the year (YOY), <15cm, 15-30cm, and >30cm. The diver could pause during the count while recording in order not to miss other fish. Divers usually completed the transect within 3-5 minutes. Most surveys included additional fish transects that extended an additional 30m past the end of each main transect, on the same heading.

Roving Diver Fish Counts

We conducted 30-minute roving diver fish counts (CINP Kelp Forest Monitoring Program 1997) to determine indices of species presence, abundance and diversity. Fish species were scored both on the 5-minute time intervals during which they were encountered, and on abundances recorded during the overall 30-minute survey which were scored into four categories (single [1], few [2-10], common [11-100], and many [>100]). For analysis, we created a weighted abundance index that combined the 'Time Interval Code' and 'Abundance Code' (if a species was not tallied the Abundance Code was zero). The index was the (TIC/10)*AC. This gives more weight to fish seen earlier in the 30-min count, so for example a species with an overall abundance of common (3) seen in the second time interval (9) would have a weighted index of 2.7.

At least one Roving Diver Fish survey was performed at all but two of the dive locations (due to time constraints no Roving Diver Fish surveys were performed at Eagle Canyon or East Scorpion).

Band Transects

The dive team would visually search within 1m bands to each side of the main transect tape and record any major invertebrate or macroalgae encountered, yielding 60m² search area per transect. We did not

sample sediments for infauna other than for obvious bivalves, tube anemones and tube worms extending above the surface. Epifauna was only scored if larger taxa (urchins, sea hares, etc).

In addition to the core methodology, notes, photos and video were taken as time allowed.

2016 Surveys

We did an abbreviated suite of diver surveys at six sites in the summer of 2016 (Table 3). This included quantitative fish transects, invertebrate band transects, and quadrats for eelgrass metrics. In addition we scouted and mapped eelgrass along Middle Anacapa and ground-truthed some reports of eelgrass from a 2015 National Marine Fisheries Service-contracted acoustical mapping effort (Merkel 2015).

2008-2009 Surveys

We collected monitoring data at six islands beds during the 2008-09 field seasons, using methods as described above. During the twelve days of these cruises, between four and seven divers participated each day, collecting the following information: 865 ¼ m² quadrats for shoot density and sessile invertebrates, 200 30m quantitative fish transects, and 133 30m band transects for motile invertebrates.

A total 156 individual dives were performed.

1990s Surveys

Three dedicated soft-bottom survey Channel Islands Research Program multi-day cruises to the northern Channel Islands took place in August of 1994, 1995, and 1997. Surveys targeted known or suspected eelgrass beds to determine areal extents, depth ranges, plant density, and community composition, and were repeated at three core sites (Prisoners, Scorpion, Smugglers) in subsequent years to assess annual and multi-year changes. Surveys included detailed eelgrass meadow infaunal and epibiont surveys, and comparisons with non-eelgrass bed sandy habitats. Results were complied in a draft report to the California Coastal Commission in 1998 and major findings were published in Engle and Miller 2005. The density, meadow extent, and fish and major invertebrate transect data are used in the current study to determine meadow function and stability over time.

Statistical Analysis

To account for differences in sampling effort, eelgrass abundance was scaled to the same spatial unit across sites and years. Due to challenges with some transects located almost entirely outside of eelgrass meadows, only quadrats with eelgrass present were included in statistical analysis. To address small sample sizes and non-normal distributions, non-parametric statistics, including median, confidence interval, and interquartile range were included. The Kruskall-Wallace test was used as a nonparametric test between two samples (Conover 1999). All statistics and graphing were conducted in R version

4.0.3 (ref), using packages ggplot2, using packages *ggplot2*, *PerformanceAnalytics*, *tidyverse*, and *Hmisc*.

Results

In general, eelgrass meadows at the largest sites appeared unchanged in location or scale, with the expected suite of species present. Highlights and exceptions are noted in the following sections.

Quadrats Results

A total of 1,095 quadrats were scored during the 2019 study.

Eelgrass Shoot Density

As the dive locations were not adjusted once underwater, some transects ran through patchy or sparse meadows or across bare sand rather than through a dense bed. We excluded those quadrats that fell onto bare sand outside of meadows from analysis of shoot density. The 2019 mean shoot density for 11 sites is shown in Figure 3 (East Scorpion and Frenchy's are excluded as density was \sim 0%). In general, density ranged from 31 to 65 shoots/m².

Sites grouped by similarity in density. Prisoners (65/m²), Eagle Canyon (65/m²) and Scorpion (58/m²) were the highest in density and not significantly different. The three Anacapa SMR sites were not significantly different from each other in density, with a mean of 46/m². Smugglers and Old Ranch (42/m²) were similar, and East Prisoners, Cañada del Agua, and Aguaje Escondido were similar (~33/m²).

Variation in density with depth

At each site, our design ensured that we scored quadrats along 60m of transect that was parallel to shore at a constant depth, and along 60m of transects that crossed the bed from shallow to deep. Depending on the site, the cross-section transects may have captured the inshore edge of the eelgrass, the offshore edge, both, or neither. Two Anacapa beds, East NPS and Keyhole, are shown in Figure 4. The width of the bed at East NPS was ~120m, while at Keyhole the bed was 68m wide. In both cases, eelgrass shoot density tended to increase in shallower water.

Eelgrass patchiness and extent

Mean point-intercept and a four-point density scale for eelgrass are summarized in Figures 5 and 6. Old Ranch, Prisoners, Cañada del Agua, Scorpion, Smugglers, Keyhole and East NPS were categorized as mostly or entirely dense meadows. Eagle Canyon, Aguaje Escondido and East Frenchy's were categorized as moderately dense. East Scorpion and East Prisoners were mostly very sparse. Frenchy's was entirely bare sand but categorized as very sparse (0-10% cover).

Site Conditions

Frenchy's, the original restoration site, had no remaining eelgrass meadows and only a couple of single shoots were observed. Across the cove at East Frenchy's, there were good eelgrass meadows to the east but much of the permanent transect line towards the west and close to the marine reserve boundary was denuded. We did observe meadows off the transect in shallower water.

The greatest increase in meadow extent was found at East NPS, where by 2016 there were extensive uniform (100% cover) meadows in 30-40'. Keyhole was slightly less uniform and similar density. There was no significant difference in shoot density between East NPS, Keyhole and East Frenchy's, although East Frenchy's meadows were the most fragmented. All three Anacapa sites had higher shoot density than Smugglers, which was one of the original donor material locations. Smugglers was extremely uniform in meadow extent (100%) but with moderate density (42 shoots/m²).

Large bare scars were observed just off the transect corridors at Scorpion, near each of the two mooring anchors, and the mooring cans were no longer held up by sub-surface floats. The NW and inner edge of the bed was similar to previous years. Our tracklines from June 2019 (green) are shown with bed extent mapped by SCUBA in 2009 (purple) and eelgrass delineated by sonar in 2015 (red) in Figure 2. It appears that the bed may have expanded from 2009 to 2015 in all directions, and then contracted by 2019.

The meadows at Aguaje Escondido also expanded from 2009-2019, but were moderately patchy compared to Cañada del Agua. We sampled two locations at each of these sites, and patchiness differed more between the two dive sites at Aguaje Escondido than at Cañada del Agua.

At Eagle Canyon, one of three transects fell entirely on bare sand, but the eelgrass on the other two was the highest mean density observed during the study, 65 shoots/m² with a single quadrat at 112/m².

Another big change was that the meadow at East Prisoners (in front of the wetland and canyon mouth) had mostly disappeared and the eelgrass that we did encounter was the lowest mean density of the study- 31/m².

Both Prisoners and Old Ranch at Santa Rosa Island have remained fairly uniform in cover.

Our site-checks at Cathedral Cove on East Anacapa found no evidence of eelgrass returning to this location (ship's fish finder and by SCUBA on 9/20/2016, and by ship's fish finder on 6/20/2019).

Flowering and Seedlings

Eelgrass flowering was detected at varying density within quadrats at nine sites (Figure 7). The greatest densities were found at Keyhole $(4/m^2)$, Smugglers $(2.9/m^2)$ and East NPS $(1.53/m^2)$. Seedlings were found at seven sites, with the highest density at East NPS $(1.13/m^2)$ and Keyhole $(0.6/m^2)$. No flowers

or seedlings were found within quadrats at Prisoners Harbor, although developing flowers were documented at the site by photograph in April. Neither flowers nor seedlings were found at Frenchy's, East Scorpion, or East Prisoners.

Other quadrat categories

The white urchin *Lytechinus* was present in 16% of quadrats at Frenchy's (1.14/m²), and a single urchin was found at East Prisoners. Parchment tube worms (mostly *Chaetopterus sp.*) were present in low numbers at all sites but were greatest at predominantly sandy sites (Frenchy's, East Scorpion, East Prisoners). The small red sea cucumber *Pachythione rubra* was found at two sites, Aguaje Escondido and Old Ranch, where they were only in a few of the quadrats but in especially high numbers at Old Ranch.

Fish Results

During site visits, sea lions were observed at Anacapa Island (East NPS and East Frenchy's) and harbor seals at Eagle Canyon, Santa Cruz Island.

Quantitative Transects

We completed 136 quantitative fish transects during the study. Each 30m x2m transect took 4-6 minutes to complete. Data for all transects are summarized in Table 4.

Size

Fish were generally recorded in 3 size categories (>30cm, 15-30cm, <15 cm), plus young of the year (YOY) but the three sizes have been lumped for density analysis, with the exception of a discussion of kelp bass sizes below.

Species

39 different species categories were found in total across all transects and all sites (Table 3). Density of the eight most common fish are shown in Figure 6. The two most commonly encountered species were kelp bass, *Paralabrax clathratus*, which were scored at all sites except for Frenchy's and East Frenchy's and in 65% of all transects; and senorita, *Oxyjulis californica*, which occurred in 40% of all transects. The third most common fish was black perch, *Embiotica jacksonii*, found at six sites and in 20% of all transects.

12 species were only encountered once. 9 of these fish taxa were bottom-dwellers.

YOY species

Surveys occurred too early in the year to catch many young of the year (YOY) fish. Fall surveys would have captured recent recruitment of typical species such as kelp bass, senorita, rockfishes and perches. Our surveys found YOYs of 4 categories: kelp bass, unidentified rockfish, black eye goby and giant kelpfish. Of these, giant kelpfish were by far the most common, occurring in 12.5% of all fish transects and at 6 of the 12 sites.

Kelp bass

The size classes of kelp bass found at all sites are shown in Figure 7. Size classes could help distinguish between legal and sub-legal size of kelp bass, a popular recreationally-fished species. However, in 2013 the DFG commission increased the minimum harvest size from 12" (~30cm) to 14" (35.6cm) length over all. We did not change our estimated size categories after this regulation was enacted, but it is not clear whether it would make a difference in results.

The greatest density of kelp bass overall (nearly twice that of other sites) was found at Scorpion. This SMR site had fish of all three size categories plus YOYs, and the largest fraction of small and medium kelp bass at any site. The lowest densities of kelp bass were found at the sites with little to no eelgrass, with the exception of East Frenchy's. A large sea lion was observed there during the monitoring, perhaps contributing to the general lack of fish seen on this particular survey as kelp bass were commonly encountered during the roving diver fish counts on a later date. The largest proportion of legal-sized (or close to legal) kelp bass were found at Keyhole and Scorpion, both within State Marine Reserves.

Perch

We encountered seven species of perch. The most perch and four out of the six most common species were found at Prisoners Harbor. Large schools of shiner perch were present over the transects at Prisoners, accounting for 27% of the total fish observed. Rainbow perch only were found at the two deep sites, Smugglers and Old Ranch. Black perch were at six sites, and white perch at four sites. No perch were seen at the predominantly sand habitat sites (East Frenchy's, Frenchy's, East Scorpion). No YOY perch were observed.

Elasmobranchs

We found three taxa of elasmobranchs along quantitative transects: horn sharks, leopard sharks and bat rays. Horn sharks were scored at East Frenchy's, Scorpion, and Aguaje Escondido; leopard sharks at Aguaje Escondido, Cañada del Agua, and Prisoners. Bay rays were scored at Scorpion, Cañada del Agua, East Prisoners and Old Ranch.

Sheephead

Sheephead were found at seven sites. The greatest density was at Scorpion (0.86/transect). Males were only seen along transects at Scorpion and Cañada del Agua. No YOY sheephead were found.

Schooling Fish

We found three taxa of schooling fish: jack mackerel (two sites), topsmelt (three sites) and barracuda (three sites). All three occurred at both Scorpion and Cañada del Agua.

Senorita

Senorita were the most numerous common fish found and occurred at six sites and all three islands. The greatest number were found at Old Ranch SRI (22/transect).

Miscellaneous Fish

We found ~ a dozen taxa that were represented by single individuals at one or more sites. Scorpion had four of these species. Of note was the orangethroat pikeblenny, a benthic fish that shelters in empty shells or parchment worm tubes. In 1994 the published northern-range limit of this pikeblenny was extended to Frenchy's Cove, Anacapa Island, as reported by CIRP researchers. In April 2019, we found them at two locations on Anacapa (East Frenchy's, Frenchy's), and at East Prisoners, Santa Cruz Island where they were common on and off transects. At Prisoners we scored a moray eel and a white seabass, both unusual for a quantitative transect.

Roving Diver Fish Counts

A total of 33 combined species were recorded from Roving Diver Fish Counts at ten sites (Figure 10). Due to the restricted level of field effort, Roving Diver (RD) counts were not performed at all sites in replicate numbers and no surveys occurred at East Prisoners, Eagle Canyon, or East Scorpion. RD surveys were done in late June and July. A single survey was performed at two sites (Scorpion, Old Ranch), while the rest had 2-4 surveys each. Results shown are the Fish Average Abundance Index averaged for all observations at that site. The Fish Average Abundance Index takes into account the number of a particular fish seen and the time during the dive that the fish is first observed.

Anacapa eelgrass sites had 13-14 species, with the exception of Frenchy's Cove (no eelgrass) which reported 6 species. Santa Cruz sites ranged from 10 (Smugglers) to 17 species at Aguaje Escondido, the most species observed during a RD survey. Old Ranch at Santa Rosa had 8 species. The greatest number of species within an individual single 30 min count were recorded at East Frenchy's. It should be noted that on the day that the quantitative surveys were done at East Frenchy's, there was a sea lion actively swimming through the area and fish were scarce. The lowest number of fish species observed was at the Frenchy's restoration site, over barren sand.

Kelp bass and Senoritas were universal across all sites. Opaleye, the only predominantly herbivorous fish seen, were found at all sites except for Frenchy's and Old Ranch. Sheephead were common within the SMR at Scorpion. They were uncommon along middle Anacapa SMR sites, rare at Northern SCI sites and absent from Prisoners and Old Ranch.

Shiner surfperch are schooling fish. They were common to abundant at Scorpion, Prisoners, and Old Ranch, and rare at East NPS, Aguaje, and Cañada del Agua. Black perch were found at all sites except at Frenchy's. They were common at Smugglers and Prisoners. White perch were only found at the four northern SCI sites, where they ranged from rare to common. Pile perch were found at all sites except at Frenchy's and Smugglers.

Many taxa were only recorded as individuals and/or at one site, or in one survey at a particular site.

These include schooling fish such as yellowtail (Frenchy's), barracuda (Scorpion, Aguaje) and salema (Prisoners). The stand-out was giant sea bass, where two individuals were seen at the end of the fish count at Keyhole, Middle Anacapa Island in June 2019.

Four taxa of flatfish were observed. Three of these were found at only Anacapa sites (halibut, c-o turbot, sand dab), while one fantail sole was observed at Old Ranch.

Four taxa of elasmobranchs were observed during RD counts, with most seen at Prisoners, Cañada del Agua, and Aguaje Escondido. Angel sharks were seen at East NPS and Cañada del Agua.

Comparison of Methods

Both Roving Diver (RD) and Quantitative transects were performed at ten of the thirteen sites. At six of these, RD yielded more species. Because the observer swims throughout the eelgrass meadow during the count, Roving Diver surveys, at 30 minutes in length, may constitute a more comprehensive snapshot of fish assemblages. Transect surveys only record those fish that swim within the transect corridor. The two methods, while distinct, are complementary in describing fish assemblages.

Fish Species Richness

We calculated fish species richness as the total number of fish taxa seen at a site considering all methods (Figure 8). By far the greatest number of taxa (22) and the most fish per transect (44.43) were found at Scorpion, followed by Cañada del Agua and Aguaje Escondido. Eagle Canyon and East Scorpion had the fewest fish and were the least diverse.

2019 Band transects results

Invertebrates

76 individual band transects were counted, for a total of 4,560m² of sea floor habitat. 34 different taxa were recorded across all band transects during the study. Most taxa were not found at every site; sites varied in species richness and composition (Table 5).

In general, the major invertebrates found within eelgrass meadows are species that may also be present on bare sandy bottoms or on rocky reefs. This is not surprising, given that rocky reefs are bordered by sand and many of the smaller eelgrass sites are close to rock habitat. The eight most commonly encountered species are shown in Figure 11.

The most numerous animal found at any site was *Pachycerianthus fimbriatus*, a tube-dwelling cerianthid anemone, which was extremely common at the four northern SCR sites from East Prisoners to Aguaje Escondido. The highest mean density occurred at Eagle Canyon with 128/60m², followed by 96/60m² at East Prisoners. Surprising, there were only 2/60m² at nearby Prisoners Harbor. Low densities occurred elsewhere, and none occurred at Smugglers or Scorpion.

The wavy top snail *Megastraea undosa* was common at all but three sites (East Scorpion, Scorpion and Old Ranch). The greatest density was found at East Frenchy's, at 45 snails/60m² transect.

Bivalves were also common at several sites, this category was comprised of at least 3 different genera (*Tresus*, *Zirfaea* and *Panopea*; species not always scored separately and so were lumped for this report). Bivalves were reported at eight out of the thirteen sites.

The sand star *Astropectin armatus* was found at eight study sites, with the greatest density at Frenchy's. The only other star found in our transects was the bat star *Patira miniata*, which was found at Old Ranch and in low abundances at Frenchy's and Aguaje Escondido.

The warty sea cucumber *Parastichopus parvimensis* was found at seven sites, and was the most common at Frenchy's and Eagle Canyon.

Seven taxa of crabs were found (Table 3) but in low numbers. They are shown combined for the category 'all crabs' in Figure 11. No crabs were found at any of the Anacapa sites in 2019.

The only sea urchin found during our surveys was the white urchin *Lytechinus anemesus*, found at Frenchy's at 28.2 per 60m² transect (equaling 0.47 per m²).

The sea pen *Stylatula* and sea pansy*Renilla* were generally co-occurring. Sea pansies were the most common at Aguaje Escondido and Eagle Canyon.

Brown macroalgae were also scored in band transects (data not shown). Three taxa were found. The invasive *Sargassum horneri* was found at all four Anacapa Island locations, but individuals were very small and were growing on either small rocks or shells. Giant kelp recruits were found at East NPS and at Old Ranch, while *Stephanocystis osmundacea* was found at Smugglers and Prisoners. All brown algae were growing on hard surfaces.

By Site Comparisons of Invertebrates

We sampled three pairs of sites, that resulted with one a dense eelgrass meadow and the nearby second site mostly or all sand plain. This difference in eelgrass habitat appeared to make a difference in major invertebrate taxa. Prisoners and East Prisoners are 250 meters apart, but only shared four invertebrate species in common. There were nearly twice as many taxa found at East Prisoners than within the dense eelgrass bed within the cove. East Prisoners had been a continuation of the Prisoners meadow tens year prior (the sites are ~ 300 meters apart). It is possible that the sediment grain size and organic content is different between the two sites, due to the river mouth or along-island current patterns, as East Prisoners had very high densities of tube anemones.

Scorpion and East Scorpion, although 500 meters apart only shared rare wavy turban snails in common. The day that Scorpion surveys occurred, there was a lot of drift algae obscuring the bottom for much of the transects. We attempted to move it aside but it made surveys more difficult. We found no evidence that there had been a moderate size eelgrass meadow at East Scorpion. The sediment seemed fairly coarse, with scattered rocks, and the area is more exposed. We have no historical information on an eelgrass bed in this location.

Frenchy's and East Frenchy's, 265 meters apart, shared six species in common, but wavy turbans and bivalves were much more common at East Frenchy's. White urchins *Lytechinus* were only present at Frenchy's, at similar densities to wavy-top snails.

Major invertebrate composition and density were consistent throughout the larger sites that had two sampling locations similarly spaced (Smugglers, 560 meters apart, and Old Ranch, 260 meters apart), and that were moderate or dense eelgrass cover.

Invertebrate Species Richness

Invertebrate species richness at all dive sites is shown in Figure 13. The richest locations were East Prisoners and Aguaje Escondido, followed by Eagle Canyon. These three sites fall within a 1,200 meter stretch of of coastline.

Results and discussion of comparison with Reef Check

Our assumption was that the density and species richness of fish and invertebrates associated with eelgrass would be less than at near-by kelp beds, even when sampled at the coarse scale of this study. We compared our data to that collected by Reef Check, a program that has been monitoring rocky reefs inside and outside of Marine Protected Areas throughout California, including at the Channel Islands, since 2006, and that uses similar methods to those used in this study to score a set list of species. We compared means for several common species from three Reef Check sites (summarized in their Final Report, South Coast MPA Baseline Monitoring Report (data 2011-2014) with one of our nearby eelgrass sites. Kelp bass were three times as dense within Scorpion eelgrass, and four times as dense within Anacapa eelgrass, as on the corresponding rocky reefs. There were 35 times more wavy turban snails in the Anacapa eelgrass than on the rock reef. Overall, though, there were more taxa of major invertebrates on the reefs.

Data Correlations

We ran a Spearman's rank correlation to create a matrix of meadow extent, fish richness, and invertebrate richness, to examine and test for any relationships (Figure 14). The factors considered were Site ID (from west to east, representing gradient across channel), Meadow Percent (percent cover along transect), Meadow Class (density scale 1-4), Fish Species from Quantitative transects, Fish Species Richness Total, and Invertebrate Species Richness. There was a strong and significant positive correlation between Meadow Percent and Meadow Class, which was expected. There was also a strong positive correlation between Meadow Class and Fish Total Richness, with a weaker positive correlation between Fish Total Richness and Meadow Percent. There was a significant negative relationship between Invertebrate Richness and Meadow Class, and Meadow Percent.

To further examine these correlations, we ran regressions separately for species richness as a function of eelgrass meadow extent (percent cover), for fish and invertebrates (Figure 15). In both cases, there was a significant relationship between species richness and eelgrass meadow extent (positive for fish, negative for invertebrates).

We compared shoot density between six natural beds at Santa Cruz Island and three restored beds at Anacapa Island that resulted from our 2002 restoration effort (Figure 16). There was no significant difference based on overlap of the 95% confidence interval around the median.

We compared species richness between six natural beds at Santa Cruz Island and three restored beds at Anacapa Island that resulted from our 2002 restoration effort, for fish (Figure 17) and invertebrates (Figure 18). In both cases, there was no significant difference (Kruskal-Wallace test) between the mean species richness at restored meadows and natural meadows, even though there was a greater range in diversity at natural beds.

Finally, we compared eelgrass shoot density at six sites across multiple years (Figure 19).

Discussion

It is clear from our surveys that eelgrass madows create lush, three-dimensional habitat for a range of other species large and small. The majority of eelgrass meadows at Santa Cruz Island appear to be stable over time in location and scale, even after two years of elevated water temperature from el Niño and marine heatwaves in 2014-216.

How stable over time are shoot density and meadow extent in naturally occurring eelgrass beds?

We compared quadrat data from sites 1-3, 5, 7, 9 in 2019 to 2016, 2008-9, and 1994, 1995, 1997 (Figure 19). Not all sites were sampled at every period. Overall, there was a trend of declining and partially rebounding shoot density, with some sites more severe or significant than others. The most dramatic decline over the period was at Scorpion, where density has declined by two-thirds since 1997, and from a record high of 188 shoots/m² in 2001 (data not shown). We also compared eelgrass cover along transects at four Santa Cruz Island sites in 1994, 1995, 1997, 2009 and 2019 (Figure 20). Three of the sites are remarkably stable over time. East Prisoners, although only sampled twice, suffered massive losses of eelgrass habitat in addition to density over ten years. This site is in front of the river mouth at Cañada del Puerto.

How similar in size and density are the restored meadows at Anacapa to naturally occurring beds at Santa Cruz and Santa Rosa?

We compared quadrat data from pooled Anacapa sites 11-13 to pooled sites 1, 2, 5, 6, 7, 9 in order to test for differences between eelgrass meadow density (Figure 13). There was no significant difference in density between the two groups.

Do the restored eelgrass meadows at Anacapa perform at the same habitat level as naturally occurring beds at Santa Cruz?

To address this question, we compared the fish and invertebrate species richness levels at pooled Anacapa sites 11-13 to pooled SCR sites 2, 5, 6, 7, and 9 (Figures 17 and 18). There was no significant difference between total species richness of either fish or invertebrates between the sites. However, there was a greater range in fish diversity at Santa Cruz sites. The eastern Santa Barbara Channel experiences warmer currents coming up from the south and it is well known that the assemblages of fish and invertebrates are structured by the current regime, with assemblages more similar to southern islands than to the more western islands (as summarized in Airamé 2003). All of the eelgrass meadows within this study, with the exception of Old Ranch at Santa Rosa (removed from this analysis), fall within the eastern Channel regime and California Province (Hamilton et al. 2010), with Prisoners falling a few kilometers to the east of the accepted cold/warm current boundary. It is not too surprising that similar assemblages of fish and invertebrates were found at all sites. However, there were some differences, most noticeable with surf perch. Roving diver surveys found that pile and black perch were present at both islands but more common at Santa Cruz, while white and shiner were almost entirely absent from Anacapa. Our study did not sample for epifauna such as copepods, amphipods, and small mollusks, which are an important part of the food chain especially for fish predators. We hope to do this additional work in the future.

Do eelgrass beds within reserves and their associated fish and invertebrates differ from those outside?

We encountered more but rays at Scorpion than at any other site. Interestingly, there were very few wavy turban snails within transects at Scorpion. At other locations, wavy turban snails are a major herbivore within eelgrass meadows. We have observed remnants of crushed turban snail shells within

bat ray feeding pits at other sites, so it may be that rays can break apart the thick shell of even large turban snails with their stout jaws. Other known predators include seastars, lobsters, and fish such as sheephead and cabezon (mostly likely preying on smaller, younger snails). Scorpion also had the highest abundance of sheephead. Our findings suggest that the protective SMR status at Scorpion has fostered the survival and growth of large predators, allowing eelgrass to be released from grazing pressure.

Does eelgrass extent/coverage/patchiness affect determine fish and invert species richness, abundance?

There is evidence from seagrasses world wide that patchiness can affect both recruitment and survival of organisms living within (Bell *et al.* 2001, Healey and Hovel 2004, Lefcheck *et al.* 2016). From the present study, no fish were counted along 18% of the total core transects, and 83% of those transects without fish also had little to no eelgrass cover. We plan to compare species assemblage to eelgrass density categories (dense and moderate areas to sparse and very sparse) but this analysis has not concluded at the time of writing.

Implications for location of marine protected areas/ fishing boundaries

During the process of designating reserves in Federal waters around the Channel Islands, it was stated that "The existing State marine zones protect a variety of species of interest, including marine algae, seagrasses, invertebrates, and fishes... Eelgrass and surfgrass beds, which serve important roles as nursery habitat for young invertebrates and fishes, are protected in North Anacapa Island SMCA..." (54 FINAL_Resources_FEIS_4_13_07_v5, CINMS). The decision to create an area open to trap fishing was justified with "All extractive activities and injury to Sanctuary resources would be prohibited in the marine conservation area with the exception of lobster harvest." At the time of the initial island reserve designation process (2002-04), our eelgrass restoration project was underway but success was uncertain. The fact that the geographic orientation of Frenchy's Cove allowed for the historic persistence of the largest eelgrass bed throughout all of Anacapa Island, was not considered. There was intense pressure from the fishing industry to keep some part of the north side of Anacapa open, and the resulting boundary line was drawn within Frenchy's Cove at the separation between North and Middle Anacapa.

The effect of trap fisheries on the benthos has been examined mainly for rocky habitat with most researchers concluding that deployment of traps results in little lasting damage (Shester and Micheli 2011) especially when considering the value of the fishery (SCS 2004). As seagrass systems worldwide are targeted for a variety of trap-caught fishes and invertebrates, there has been interest in determining the environmental cost of fishing over soft-bottom habitat. The effect of trap fishing on two different species of Atlantic seagrass was investigated within the Florida Keys National Marine Sanctuary (Uhrin and Fonseca 2005). A key finding was that the two species within the study, which differed in root and rhizome structure, responded differently to the disturbance. The shallow rooted seagrass was more easily dislodged and slower to recover. Another consequence of frequent

disturbance to seagrass is fragmentation of the bed. If the seagrass cannot respond through vegetative growth to keep up with or outpace the disturbance, then the fragments may continue to shrink until they lose the capacity to function as a cohesive habitat and drop below a sustainable threshold. Studies in the Mediterranean Sea have found that constant anthropomorphic disturbance leads to higher fragmentation of meadows (Montefalcone *et al.* 2010) which has implications for meadow function and recovery.

In California, fishermen are required to raise and service traps at intervals not exceeding 96 hours, weather permitting (FGC § 9004, revised from 72 hours). The trap is hauled, serviced and redeployed while the boat drifts out of gear (Altstatt, personal observation). At the beginning of the season, traps may be pulled and redeployed daily. *Zostera pacifica* is shallow rooted with rhizomes extending only a few centimeters in to the sediment. There is ample evidence of significant damage from vessel anchors, which, like traps, are heavy metal objects that are frequently deployed and redeployed, in all of the Channel Islands eelgrass sites. Based on the total loss of our restoration site within an area that has only recently become heavily fished, and decades of other observations, we surmise that *Z. pacifica* is extremely susceptible to disturbance from trap fishing.

The California Department of Fish and Wildlife acknowledges that the recent increase in commercial fishing effort has raised questions about the... 'negative consequences on the fishing grounds and associated ecosystems from increased gear usage' (California Spiny Lobster Fishery Management Plan, April 2016). The Plan states that hard bottom is the primary lobster habitat and that traps are set on the bottom in rocky areas. There does not appear to be any expectation that traps will be set in areas that are not hard bottom, and especially not in sensitive seagrass habitat.

In 2014, we learned from mariners that Frenchy's Cove was being fished heavily during the two months (November, December) that the brown pelican Special Closure was open. We were unable to return for dive surveys until the summer of 2016, four years after our last survey visit in 2012. In the summer and fall of 2016, we marked and reported 4 abandoned lobster traps within Frenchy's Cove, with one along the boundary with the SMR. The other three traps were within the 2012 mapped footprint of the eelgrass restoration site, where there was no longer any eelgrass remaining. On November 4 2016, NPS rangers reported "hundreds of traps" within the SMCA. In June 2019, we discovered an abandoned trap "ghost fishing" and filled with live lobsters along the SMR boundary line. In November 2019, CINMS staff reported at least 100 traps along the SMR boundary line, with another 100 to the west further within the SMCA, some as shallow as 17' (note that DFW prohibits commercial trapping in water depths shallower than 20'). Eelgrass continues to thrive within the SMR, 200 meters to the east.

The marine reserve network at the Channel Islands went in to effect in 2003. Frenchy's Cove was not traditionally an area targeted by lobster fisherman as nearly all of the shallow bottom substrate is soft rather than rocky (Altstatt, personal observation). However, a network of reserves was establish on the mainland in 2012, excluding fishers from no-take areas and concentrating that effort elsewhere. Fishing block data for the mainland showed that effort more than doubled within blocks containing fishing

areas adjacent to SMRs (Lenihan *et al.* 2021). Visual inspection of the trap marker floats in November 2019 reveal that at least nine different fishermen set traps along the SMR/SMCA boundary and within Frenchy's Cove. Even though California's marine reserve system may be 'an integrated, well-enforced network of no-fishing zones designed to protect productive subtidal rocky reefs that are essential habitat to populations of many target species' (Lenihan *et al.* 2021) it is apparent that the intentional and dramatic increase in fishing effort along all SMR boundaries (regardless of bottom type) has degraded the eelgrass meadow habitat and has extirpated eelgrass from within the Anacapa SMCA. Although we had originally chose a location that we believed to be protected for 10 months out of the year (within the Anacapa Special Closure), the intensity of the fishing effort during the open two months was enough to disturb, and eventually eliminate, the restored eelgrass meadow within the SMCA. This unexpected finding showcases the need and value of marine reserves and has serious implications for habitats that are exposed to trapping. Although our restoration work has restored more than 30 acres of eelgrass meadows, it could have failed had there not been a SMR established adjacent to our original site, and if the implementation of the mainland reserves occurred sooner.

A next step to further understand how fishing has changed around Anacapa after the mainland reserves went in to effect, and the resulting impact to the seafloor, would be to analyze the catch data from reporting block 684 (North Anacapa Island). This information has been requested from the Department of Fish and Wildlife (March 2021).

Changing Climatic Regime

Zostera beds at the Channel Islands face increasing threats from multiple stressors, including increasing frequency and severity of storms, as seen by the dramatic change in eelgrass bed size, density and extent at East Prisoners between 2009 and 2019. Factors may have included a combination of big rainfall years and change in hydrological function of Cañada del Puerto following NPS wetland and canyon restoration. There was evidence of scour, evidence of deposition of cobbles and tree limbs into the eelgrass meadow habitat immediately offshore of the canyon mouth as far as 30' depth. Google Earth photo shows extreme turbidity where we had mapped eelgrass in 2009 and where is lacking now. We witnessed a similar event happen at Scorpion in December 1997, where a historic micro-burst created a flood within Scorpion Canyon leading to sediment deposition and loss of more than a third of the eelgrass bed (data not shown).

Warm water events

Multiple large-scale warm water events have occurred during the time frame of our eelgrass monitoring, beginning with the 1983 el Niño. The long-term trend of increasing sea surface temperatures (SST) apparently contribute to the duration and intensity of marine heatwaves events (MHW) (Fumo *et al.* 2020). In 2014 a large MHW event known as 'the Blob' persisted and combined with warming from the 2015-2016 el Niño to create one of the strongest and longest-lasting SST warming events on record (SCCOOS). Indeed, positive temperature anomalies persisted in to 2020.

Depth may not be a refugia from such events as glider data found that the temperature anomaly extended to more than 100m in the water column.

Lab studies have shown that for the sympatric species, *Z. marina*, plants exposed to elevated temperatures (7C above ambient) respond with significantly reduced growth, shoot density, productivity and biomass (Kim *et al.* 2019). The MHW event in Southern California produced longlasting temperatures elevated 4C above ambient, but similar studies have not been done for *Z. pacifica* nor did the authors test a range of elevated temperatures. Our photos of eelgrass from 2016 clearly show a progression of yellowing in leaves that is more pronounced in September of that year. Yellowing can be related to loss of tissue and chlorophyll and is an indication of overall stress. It has been shown that depth may serve as a refugia (Aoki *et al.* 2020) for intertidal and shallow subtidal *Zostera marina* in Virginia USA, but whether that holds for our much deeper, subtidal *Z. pacifica* when confronted by longer lasting, more extreme MHW events remains unclear.

Implications for disease

Several years of sustained unusually warm water resulting in bleached and yellowish *Z. pacifica* leaves with black spots of disease increasing throughout the summer of 2016 (Plate # 10). Anacapa sites look particularly bad by September, with leaves cropped, black and decomposing. This condition was documented throughout all Santa Cruz major eelgrass meadows to a lesser degree.

As reviewed in Sullivan *et al.* (2017) the risk to seagrasses from disease may be amplified by stressors from climate change. However, the possibility of a genetic component to resiliency to warming waters (Franssen *et al.* 2011) cannot be overlooked, especially at the Channel Islands where large meadows of *Z. pacifica* have likely existed for many thousands of years since diverging from *Z. marina* (Coyer *et al.* 2007).

Loss of Blue Carbon

Arias-Ortiz *et al.* (2018) found that 36% of the largest expanse of Australian seagrass meadows were damaged by a MWH event in 2010/2011, leading to potential massive losses of stored 'blue carbon' from the sediment. In Virginia, documented declines in seagrass density and extent as a result of marine heatwaves led to the loss of stored carbon (Aoki et al 2021). To date, there have been no sediment analyses done in or near eelgrass meadows at the Channel Islands, but the contribution of stored carbon by eelgrass could be significant.

Vulnerability to mass recruitment events

Following the 1982-83 el Niño, white urchins and brittlestars recruited to mid-depth rocky reefs around Anacapa and the eastern end of Santa Cruz. The white urchins also settled on sand, which led to eventual over-grazing of Anacapa eelgrass meadows in the late 1980s. In 1991, urchin density remained high at $60/m^2$ at Frenchy's even though the eelgrass was gone, but had declined to $0/m^2$ by the time our restoration began in 2003. Since then, subsequent warm water events have led to migration

or recruitment of warm-water invertebrates such as pelagic red crabs, white urchins and wavy turban snails. All three of these were observed at Anacapa in 2016. Size frequencies of white urchins in 2019 at Frenchy's revealed smaller urchins (compared with historic CIRP data), most likely resulting from the prior wave of recruitment 3-4 years before. Even though urchin densities were the highest at Frenchy's out of all of the 13 sites surveyed in 2019, their numbers were still quite low when compared to the densities that persisted following the late 1980s eelgrass over-grazing event. Other seagrass overgrazing events have been linked to persistent urchin densities greater than >22/m² (Rose *et al.* 1999). Recruitment to this area may be tied to small-scale very localized hydrology as white urchin numbers were extremely low only 200 meters away across the cove.

Recommendations and Conclusions

Science

The scope of the present study was extremely limited, but given the findings, additional work is both warranted and necessary to help resource managers prioritize future conservation measures.

- quantify the contribution of seagrass to carbon storage—perform sediment/CN grain size analysis for all eelgrass bed sites- old beds vs young beds;
- re-survey the 3 main beds at SCR plus ANA sites using detailed survey methods from CIRP 1994-97 cruises to quantify complete ecosystem function of restored beds, and whether main beds are still serving same role as 25 years ago—collect infauna/sediment cores, and perform detailed epifaunal survey at each site;
- primary production and biomass estimates;
- fish surveys in fall to capture recruitment events;
- C-14 analysis of fish and inverts in and out of eelgrass beds to quantify contribution.
- Using finding from this report, and from future work, identify island eelgrass meadows that provide most ecosystem benefit and those that are at highest risk from climate change.

Policy

We recommend specific actions that would have immediate and direct positive impact on eelgrass meadows.

- 1. **Re-classify the shallow soft-sediment bottom within the Frenchy's SMCA as SMR or No Entry (it is already a Special Closure 10 months out of the year).** Suitable habitat for eelgrass within Frenchy's Cove only exists within certain hydrodynamic and depth parameters (20'-45'), and over soft bottom not rock. This area historically sustained the largest eelgrass meadow at all of Anacapa Island. Our restoration work showed that eelgrass will rapidly colonize and thrive if anthropogenic disturbance (trapping) were to cease.
- 2. Act to reduce damage from anchoring and mooring within eelgrass beds, particularly within SMRs (Scorpion). This is surely the easiest and most cost-effective way to reduce anthropogenic disturbance, especially where it is as well documented as the eelgrass meadow within the Marine Protected Area at Scorpion.
- 3. Use adaptive management to protect the meadows providing greatest ecosystem benefit and are at highest risk from climate change, and consider restoration in key locations that may provide refugia from a changing ocean environment.

The majority of nearshore habitat around the northern Channel Islands is sandy, and yet only a small fraction of that can sustain persistent eelgrass meadows due to exposure, depth and sediment gain size/nutrient content. Eelgrass meadows, like kelpbeds, provide a suite of functions that greatly enhance their value far past that factored only on sea floor extent. Our surveys show that island beds contribute food, shelter and habitat to fish and invertebrate species, this function has been stable over decades at the largest beds, and that restored beds (15+ years post restoration) are providing the same function at Anacapa. This study should serve as justification for more in-depth work to look at long-term food chain biodiversity, nutrient cycling, resiliency to changing climatic factors, and carbon storage. And, as eelgrass is universally valued as Essential Fish Habitat, every effort must be made to protect it both inside and outside of SMRs.

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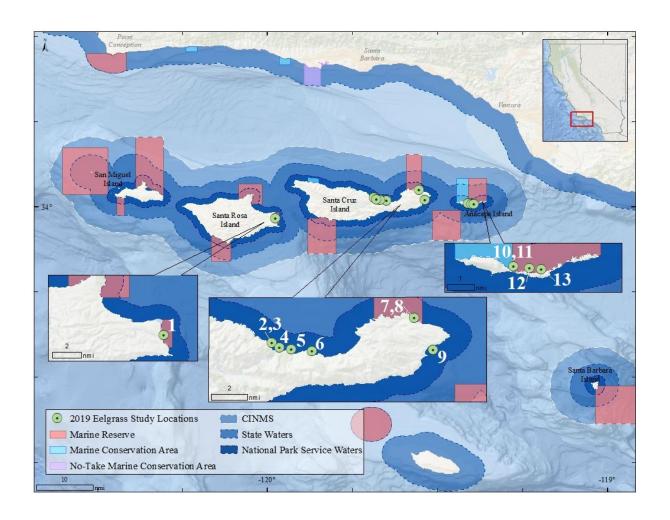


Figure 1. Location of study sites for 2019 eelgrass surveys. Sites are numbered 1-13 from west to east. Numbers refer (in order) to site names: Old Ranch SRO, Prisoners SCR, East Prisoners SCR, Eagle Canyon SCR, Cañada Agua SCR, Aguaje Escondido SCR, Scorpion SCR, East Scorpion SCR, Smugglers SCR, Frenchy's ANA, East Frenchy's ANA, Keyhole ANA, East NPS ANA. SRO= Santa Rosa, SCR= Santa Cruz, ANA= Anacapa. Other known locations of eelgrass not shown.

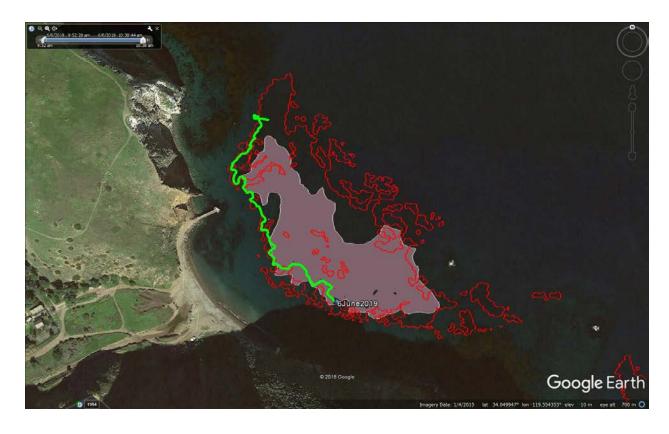


Figure 2. Trackline of meadow edge at Scorpion in June 2019 (green) compared with 2015 sonar mapping (red) and 2009 diver surveyed and mapped area (pink).

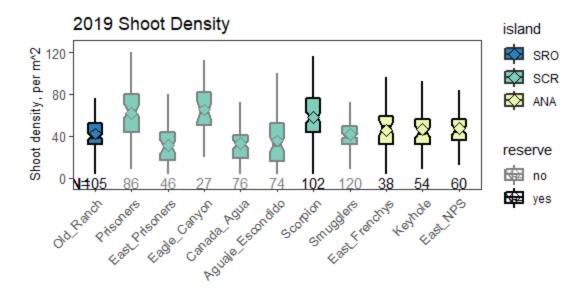
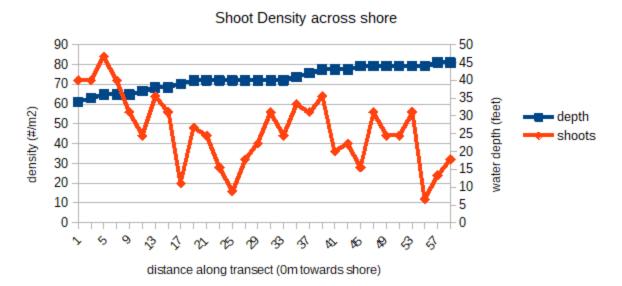


Figure 3. Boxplot of shoot density in quadrats with eelgrass present in 2019. N refers to the number of quadrats with eelgrass present per site. Boxplots are presented as follows: boxes show the interquartile range, whiskers represent the upper and lower quartiles, horizontal lines represent the median, diamonds mark the means, and notches show the 95% confidence interval of the median. Shading denotes island and outline denotes reserve status. Outliers not shown. Frenchys (N=0) and East Scorpion (N=3) not shown.

East NPS



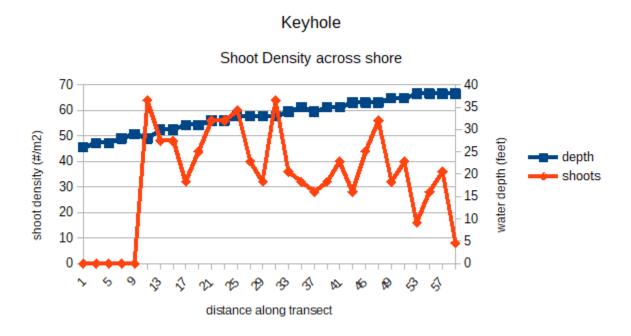


Figure 4. Eelgrass shoot density and depth from across shore (shallow to deep) 60m transects at two Anacapa locations.

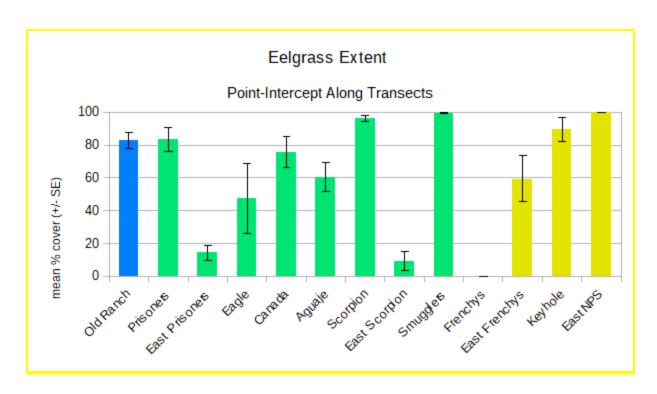


Figure 5. Mean eelgrass cover from point-intercept data for all core transects. Number of transects by site N= 8,7,9,3,5,8,8,4,8,5,4,4,4.

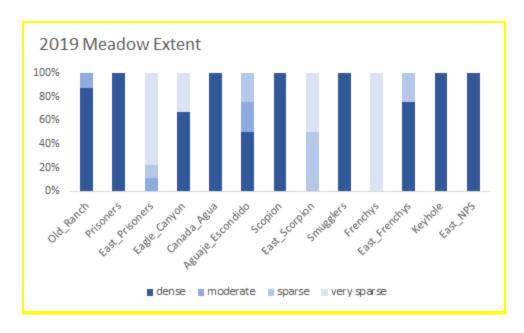


Figure 6. Eelgrass meadow extent as measured by point-intercept along core transects. Percent cover converted to density scale (Very Sparse= 0-10%, Sparse=10-40%, Moderate= 40-70%, Dense = 70-100%. Number of transects by site= 8,7,9,3,5,8,8,4,8,5,4,4,4.

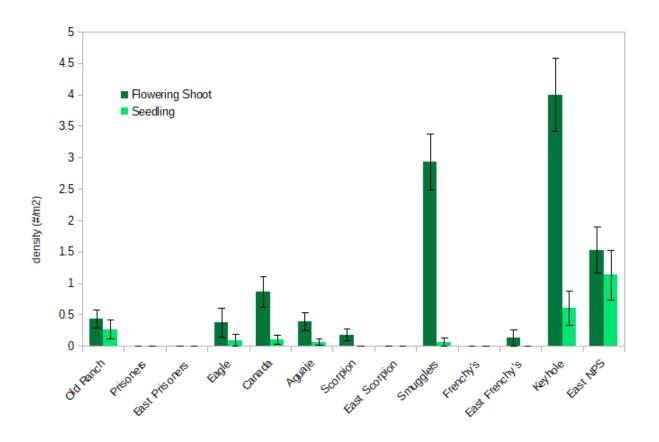


Figure 7. Density (means +/- standard error) of eelgrass flowering shoots and seedings from quadrat data.

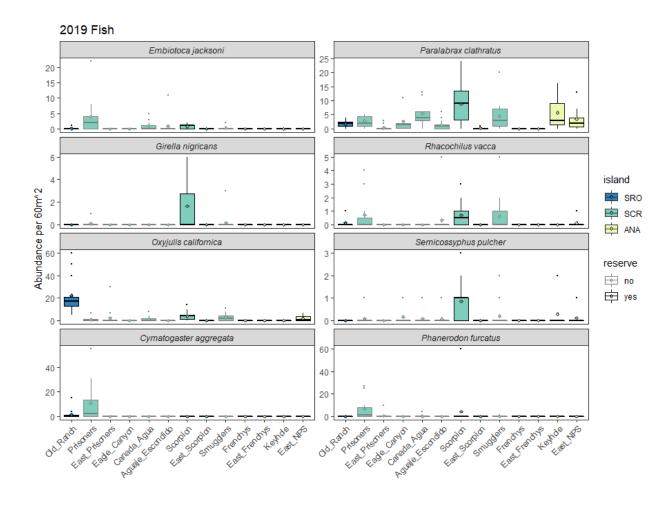


Figure 8. Fish abundance (per 60m²) across sites for select taxa in 2019. Bars represent average value of band 60m² transects (core plus extra).

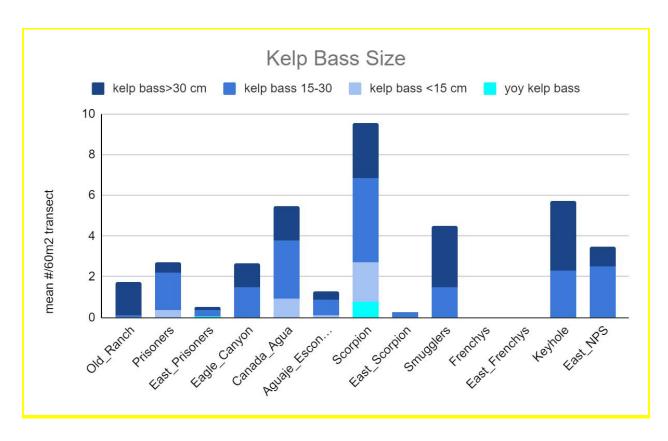


Figure 9. Density of kelp bass by four size classes at all 13 sites. Data are means of quantitative fish transects (core plus extra).

Site	Old_Ranch	Prisoners	Canada_Agua	Aguaje_Escondic	Scorpion	Smugglers	Frenchys	East_Frenchys	Keyhole	East_NPS
angel shark			0.60	-0.00000						1.00
barracuda				1.80	0.90					
bat ray			0.93	1.37	2.00					
black surfperch	1.00	3.00	1.96	1.03	2.00	3.00		1.47	1.10	1.27
blackeye goby	33,000	10000			-51/000	302.33	0.70	100000	70000	
blacksmith								1.80		
c-o turbot								1.00	0.90	0.70
fantail sole	0.70									
giant kelpfish		2.53	1.93	2.03	0.50			1.20	1.33	
giant sea bass									0.80	
giant seabass									1.60	
halfmoon			2.05	1.60		0.80		1.80	0.60	1.50
halibut			-			2003410	1.00		1.05	1.20
hom shark		0.50		0.60				0.95		
jack mackerel				2.85						2.60
kelp bass	3.00	3.00	3.20	3.20	3.00	2.90	2.00	2.53	3.50	3.22
leopard shark		1.25	1.80	1.28				0.55		
ocean whitefish					1.00				0.70	
opaleye		1.60	2.10	0.60	1.80	2.00		1.60	0.95	1.30
pile perch	2.00	1.80	2.50	0.85	2.00	1.53		1.20	1.65	1.03
rainbow surfperd	2.00					3.00				
rock wrasse		1.00	1.60	1.87	2.00	1.53		1.80	1.55	1.77
rubberlip seapere	ch		1.60							
salema		2.00								
sand dab							1.80			
sarcastic fringehe	ead						0.00			
sargo					0.60					
senorita	3.00	1.30	1.80	1.67	3.00	4.00		1.00	3.00	3.00
sheephead			0.70	1.40	2.50	1.17		1.80	1.59	1.12
shiner surfperch	3.00	4.00	0.70	1.50	3.60	*******		100000		1.30
topsmelt		3.00			2.70					
tube-snout	0.80			1.00		2.40				
white surfperch		3.00	1.85	1.90	2.70		4			
yellowtail				-			2	-		

Figure 10. Roving Diver Fish Surveys summarized for all sites surveyed by the Average Fish Abundance Index (0-4, with 4 as the most common and seen earliest in the dive). Details are in text.

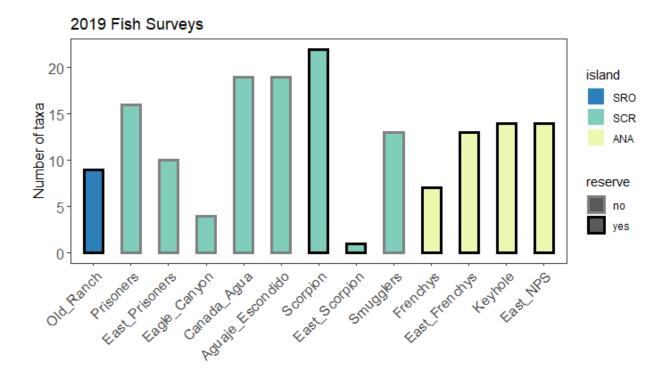


Figure 11. Total Fish Species Richness. Data are for the total number of fish taxa observed at each site (combination of quantitative transects, Roving Diver, and other observations during surveys).

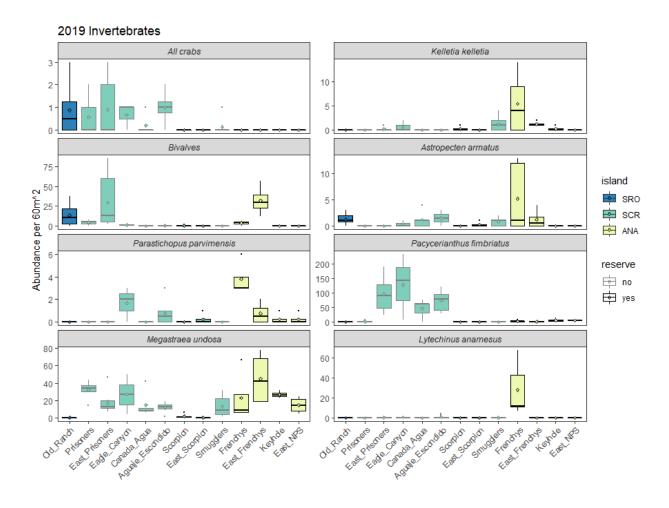


Figure 12. Invertebrate abundance (per 60m²) across sites for select taxa in 2019. Bars represent average value of (n=3-15) band 60m² transects.

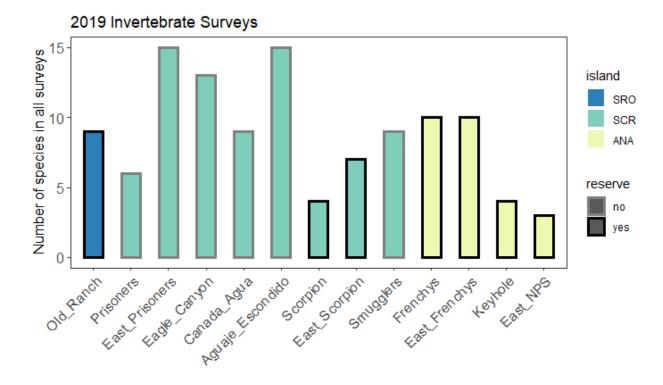


Figure 13. Total Invertebrate Species Richness. Data are for the total number of invertebrate taxa observed at each site along band transects.

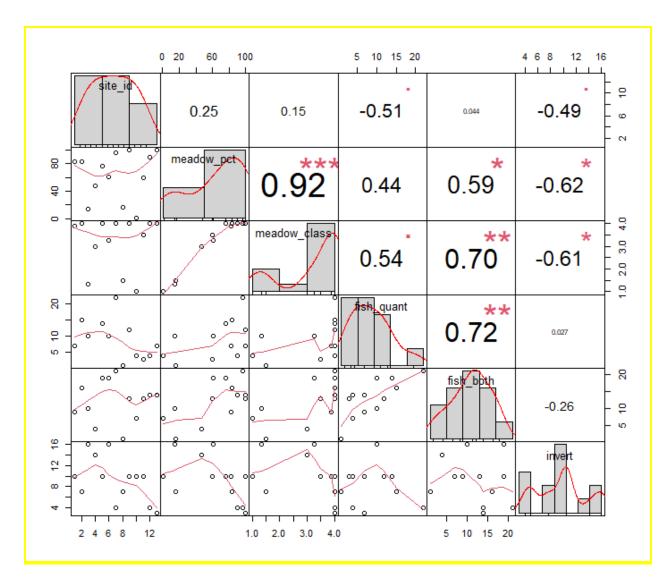


Figure 14. Correlation matrix of meadow extent, fish richness, and invertebrate richness in 2019. Spearman's rank correlation computed due to non-normal distributions and small sample sizes. ***, p<0.001; ** p<0.01; *,p<0.05;• <0.1). Red lines represent smoothing of raw data and histograms. Font size in upper panels relates to correlation strength.

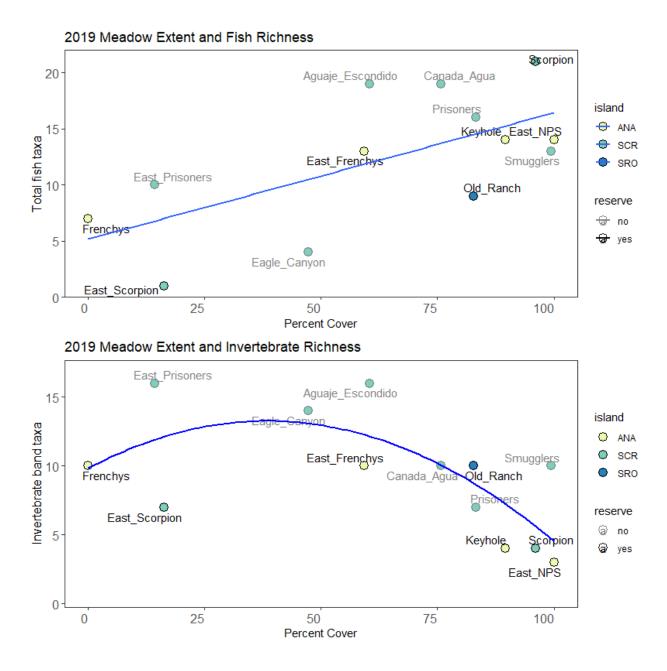


Figure 15. Species richness as a function of eelgrass meadow extent in 2019. Each data point represents averages for each site. Taxa data are total species richness, percent cover data are from point intercept data along transects. Top panel: fish species richness for band and roving diver transects. Line shows fitted linear regression ($r^2=0.42$, p=0.01). Bottom panel: invertebrate species richness for band transects. Line represents fitted second order polynomial regression ($r^2=0.49$, p=0.03), which explains more variance than a linear regression ($r^2=0.26$, p=0.07).

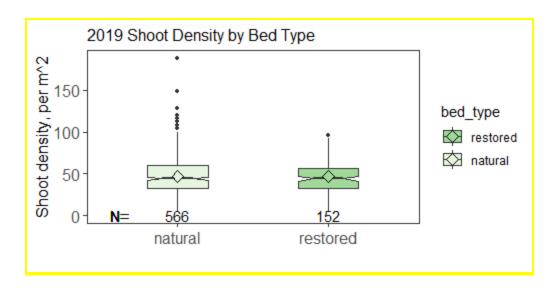


Figure 16. Comparison of shoot density in natural vs restored beds in 2019. Bed types are not significantly different based on overlap of 95% confidence interval around the median.

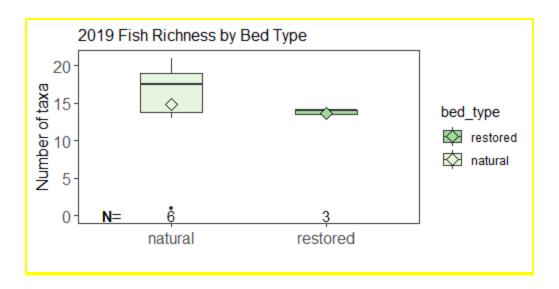


Figure 17. Comparison of fish richness in natural vs restored beds in 2019. Bed types are not significantly different (Kruskal-Wallace test, p=0.54). N is the number of sites in each category. Averages are the same, greater range for natural.

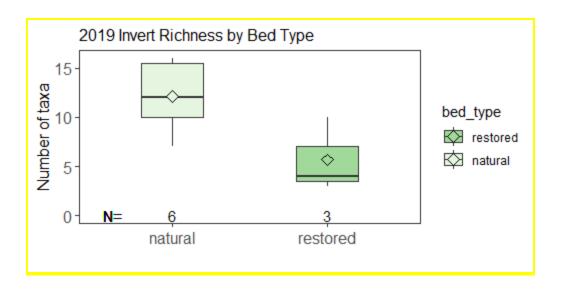


Figure 18. Comparison of invertebrate richness in natural vs restored beds in 2019. Bed types are not significantly different (Kruskal-Wallace test, p=0.40). N is the number of sites in each category.

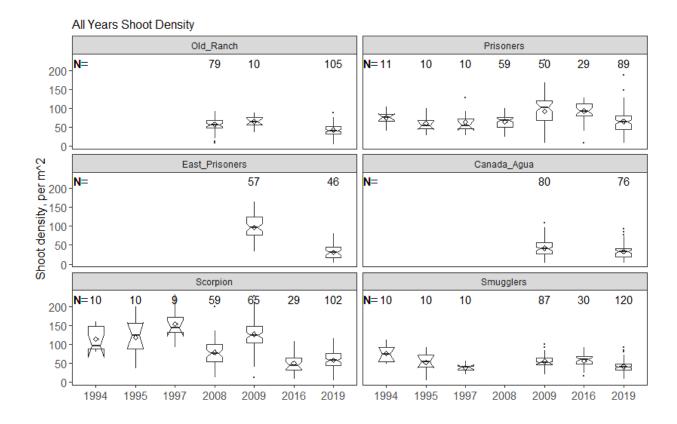


Figure 19. Boxplots of shoot density in quadrats with eelgrass present for sampled years, for select sites. N refers to the number of quadrats with eelgrass per year. For each year: box shows the interquartile range, whiskers represent the upper and lower quartiles, horizontal line represents the median, the diamond marks the mean, dots represent outliers, and notches ascribe the 95% confidence interval of the median.

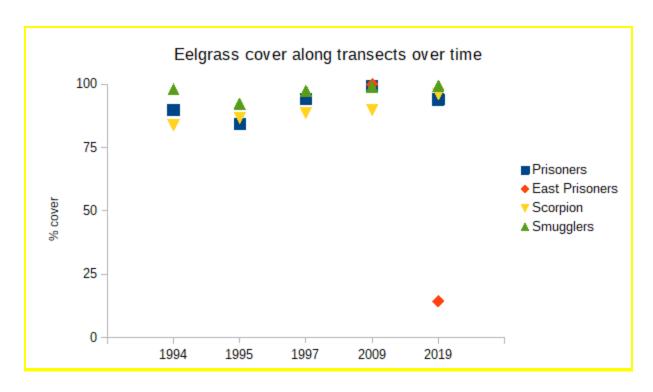


Figure 20. Eelgrass cover along transects at four Santa Cruz Island sites. East Prisoners not sampled in 1994, 1995, and 1997.

Site_name	site_id	Island	General Coordinates	Date Surveyed					
Old_Ranch	1	SRO	34.96351 -119.97329	20190624					
Prisoners	2	SCR	34.02090 -119.68586	20190424, 20190724					
East_Prisoners	3	SCR	34.02087 -119.68201	20190424, 20190509					
Eagle_Canyon	4	SCR	34.02033 -119.67372	20190509					
Canada_Agua	5	SCR	34.01807 -119.66876	20190606, 20190626, 20190724					
Aguaje_Escondido	6	SCR	34.01783 -119.64918	20190606, 20190626, 20190724					
Scorpion	7	SCR	34.04970 -119.55496	20190514, 20190606, 20190727					
East_Scorpion	8	SCR	34.04772 -119.54955	20190514					
Smugglers	9	SCR	34.02076 -119.53563	20190625					
Frenchys	10	ANA	34.00918 -119.41086	20190523, 20190620					
East_Frenchys	11	ANA	34.00763 -119.40873	20190523, 20190620					
Keyhole	12	ANA	34.00736 -119.39976	20190524, 20190620					
East_NPS	13	ANA	34.00796 -119.39227	20190524, 20190626					
Table 2. Channel Isla	ands Eelgrass M	eadows 2016 Su	urvey Sites						
Site_name	site_id	Island	General Coordinates	Date Surveyed					
Prisoners	2	SCR	34.02090 -119.68586	20160808					
Scorpion	7	SCR	34.04970 -119.55496	20160808					
Smugglers	9	SCR	34.02076 -119.53563	20160808, 20160929					
Yellowbanks		SCR		20160808					
Frenchys	10	ANA	34.00918 -119.41086	20160624, 20160929*					
East_Frenchys	11	ANA	34.00763 -119.40873	20160701, 20160929*					
Keyhole	12	ANA	34.00736 -119.39976	20160920*, 20160628*					
East_NPS	13	ANA	34.00796 -119.39227	20160920*, 20160628*					
		1	1						

ANA

Cathedral Cove

20160920*

Table 4. 2019 fish transect summary data

2019 Fish Band Transects

	Abundance per 60 m ² 2 Num Sites Avg Rept. Rept.															
					_		Prisorer Each	Carryon	ada Agua	d	No.	Scarpion Smi			Lienon Les	
		Num			35	460	ephe.	SUNO	Palife	520)		albjo.	a(S)	6	ough	, so
		Sites	Avg		53/1	Wels "	34,	ر می	308	% × 3	NOV.	Sc.	agle .	dillo	ξ ⁽⁶⁾ ,	40 Th
Scientific name	common name	Present	Abund	0/0	Panch Prise	ners Las	£ 48	g Cg	E POIN	M Coo	, 18 ₀	SILI	idles the	ે	5.7	nde East Mes
Paralabrax clathratus	kelpbass	11	3.2	1.7	2.1	0.4	2.1	0.0				4.0	0.0	0.0	0.1	0.0
Paralabrax clathratus YOY	kelp bass yoy	2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	8.0	0.0	0.0	0.0			
Oxyjulis californica	senorita	7	3.8	22.1	0.9	2.3	0.0	1.4	0.0	4.1	0.0	2.8	0.0	0.0	0.0	2.0
Oxyjulis californica YOY	senorita yoy	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Halichoeres semicinctus	rock wrasse	6	0.3	0.0	0.3	0.0	0.0	0.4	0.2	0.8	0.0	0.1	0.0	0.0	0.0	1.9
Embiotoca jacksoni Embiotoca jacksoni YOY	black perch black perch yoy	6 0	0.6 0.0	0.1	4.0 0.0	0.0	0.0	1.0 0.0	0.8	0.8	0.0	0.3	0.0	0.0	0.0	0.0
Rhacochilus vacca	pile perch	6	0.0	0.0	0.7	0.0	0.0	0.0	0.3	0.7	0.0	0.6	0.0	0.0	0.0	0.0
Rhacochilus vacca YOY	pile perch yoy	ő	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hypsurus caryi	rainbow perch	2	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
Hypsurus caryi YOY	rainbow perch yoy	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rhacochilus toxotes	rubberlip perch	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Cymatogaster aggregata	shiner perch	2	1.1	1.5	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phanerodon furcatus	white perch	5	1.0	0.0	6.1	0.6	0.0	0.3	0.0	4.3	0.0	0.1	0.0	0.0	0.0	0.0
Phanerodon furcatus	white perch yoy	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sebastes sp. YOY	yoy rockfish UNID	1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Myliobatis californica	bat ray	4 3	0.1 0.2	0.3	0.0	0.1	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Girella nigricans Semicossyphus pulcher	opaleye sheephead F	7	0.2	0.0	0.1	0.0	0.0	0.0	0.0	1.6 0.6	0.0	0.2	0.0	0.0	0.0	0.0
Semicossyphus pulcher	sheephead M	2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Semicossyphus pulcher	sheephead all	8	0.2	0.0	0.1	0.0	0.0	0.1	0.1	0.9	0.0	0.0	0.0	0.0	0.3	0.0
Heterostichus rostratus	giant kelpfish	5	0.1	0.0	0.1	0.0	0.0	0.2	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0
Heterostichus rostratus	YOY giant kelpfish	6	1.6	0.0	7.5	0.4	0.0	2.8	0.3	0.0	0.0	1.0	0.0	11.7	0.0	0.0
Aulorhynchus flavidus	tubesnout	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rhinogobiops nicholsii	black eye goby	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Rhinogobiops nicholsii	black eye goby yoy	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Chaenopsis alepidota	Orange-throat	3	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0
Medialuna californiensis	halfmoon	4	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.7	0.0	0.0	0.0	0.0	0.1	0.1
Paralichthys californicus	halibut	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Synodus lucioceps	lizardfish flatfish unid	1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0 0.1	0.0	0.0	0.0	0.0
flatfish unid Trachurus symmetricus	iack mackerel	2	2.2	0.0	0.0	0.0	0.0	15.4	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0
Atherinops affinis	top smelt	3	1.4	0.0	6.4	0.0	0.0	5.8	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0
Sphyraena argentea	barracuda	3	1.3	0.0	0.0	2.2	0.0	1.5	0.0	8.2	0.0	0.0	0.0	0.0	0.0	0.0
Atractoscion nobilis	white seabass	1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Anisotremus davidsonii	Sargo	1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Caulolatilus princeps	ocean whitefish	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Triakis semifasciata	leopard shark	3	0.0	0.0	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Scorpaena guttata	CA scorpionfish	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Heterodontus francisci	Hornshark	3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.2	0.0	0.0
Leiocottus hirundo	lavender sculpin	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Pleuronichthys coenosus Citharichthys stigmaeus	CO turbot sanddab	1 3	0.0 0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gymnothorax mordax	moray eel	1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Neoclinus blanchardi	sarcastic fringehead	i	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sebastes rastrelliger	grass rockfish	ò	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brachvistius frenatus	kelp perch	Ö	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hyperprosopon argenteum	walleye perch	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Embiotoca lateralis	striped perch	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sebastes serranoides YOY	olive rockfish yoy	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Squatina californica	angel shark	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Scorpaenichthys	cabezon	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sardinops sagax	sardines	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sebastes serranoides	olive rockfish	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sebastes paucispinis YOY	boccacio yoy	U	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 5. 2019 Invertebrate summary data.

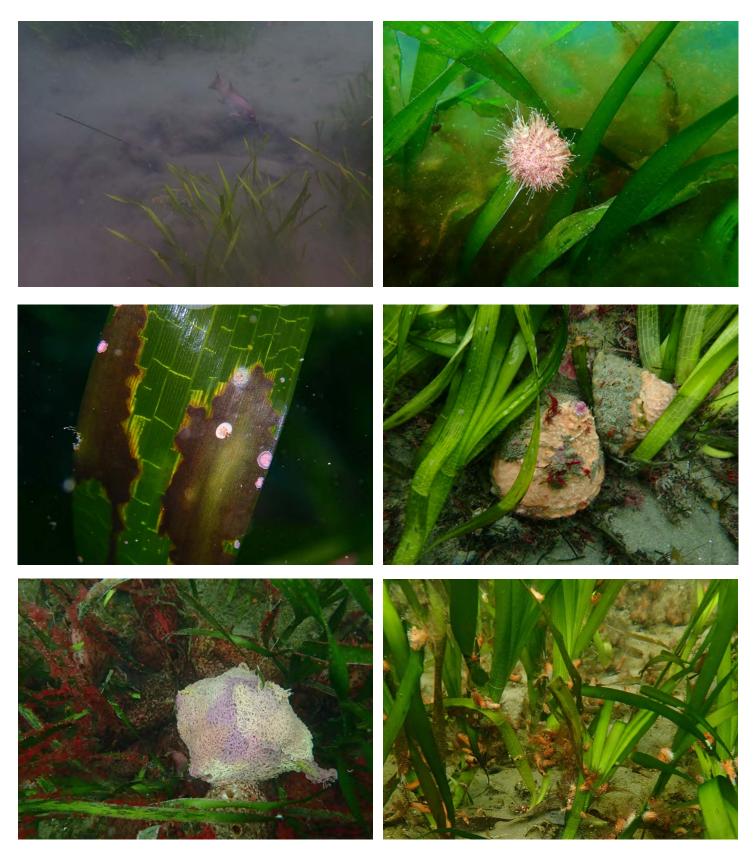
Table. Invertebrate abundance in 2019 surveyes.

Abundance per 60 m^2

			Siles Present							Brage Co	06/8						
			as Pros	Abund O	A Rand		sl Prisorer	300° C00°	anada As	NO 25	om	sel Solid	Or of		SELECTED A	July .	sl.WS
		.0	Sille	POUL	Sam	isolete	13m	78 Co.	nada)	196	dion	3500	on C.	endry's	2510	ellege Es	"The
Scientific name	common name	Hin		, Q	5, 4	6 63	<u>م </u>	<u>‱ (</u>	8. V	3 ₈ c	D. 6	<u>م ج</u>	···· 4	(e, (c)	80 A	<u>ي دي</u>	۶
Anthopluera sola	solitary anemone		0.002	0.0	0.0	U. I	0.0	U.U	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pacycerianthus fimbriatus	tube_anemone	11	7.236	0.1	2.0	96.1	128	47	74	0.0	0.3	0.0	2.4	1.0	5.5	5.0	
Renilla koellikeri	sea_pansy	5	0.152	0.0	0.0	0.0	2.7	0.2	2.5	0.0	1.8	0.5	0.0	0.0	0.0	0.0	
Phyllactis sp	sand_anemone	2	0.023	0.0	0.0	0.0	0.7	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Stylatula elongata	sea_pen	6	0.073	0.0	0.0	0.0	1.0	0.2	0.6	0.0	0.3	0.4	1.2	0.0	0.0	0.0	
Eudistyla sp	feather duster worm	1	0.003	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Bivalves	misc_bivalves	8	1.652	13.4	2.6	29.7	1.0	0.0	0.1	0.3	0.0	0.0	3.6	32.0	0.0	0.0	
Megastraea undosa	wavy_turban_snail	13	4.570	0.1	32.3	17.3	27.0	15.0	12.3	1.8	0.3	13.0	23.0	45.0	26.8	14.8	
Aplysia californica	sea_hare	3	0.022	0.0	0.0	0.0	0.0	0.2	0.3	0.0	0.0	0.6	0.0	0.0	0.0	0.0	
Kelletia kelletia	kellet_whelk	7	0.186	0.0	0.0	0.2	0.7	0.0	0.0	0.3	0.0	1.3	5.4	1.3	0.3	0.0	
Bula/Haminoea	bubble_snail	1	0.284	0.0	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Neverita lewisii	moon_snail	3	0.015	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	
Pluerobranchus sp	Pluerobranchus sp	1	0.020	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Navanax inermis	Navanax inermis	4	0.063	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.3	0.0	1.0	1.0	0.0	0.0	
Rixtaxis	snail	1	0.033	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Octopus sp	octopus	1	0.005	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	
Nomisia nomisii	kelp_snail	0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Conus californicus	cone_snail	0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Crossata californica	California frog shell	1	0.003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	
other_snail	other_snail	1	0.004	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Loxorhynchos grandis	sheep_crab	2	0.005	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Cancer sp.	cancer crab	3	0.020	0.5	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Portunus xantusii	swimming crab	1	0.002	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pagurus/Paguristes	hermit_crab	6	0.042	0.0	0.3	8.0	0.3	0.2	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	
Pugettia/Taliepus	kelp crab	2	0.005	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Heterocrypta occidentalis	elbow_crab	1	0.008	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Cancer gracilis	slender crab	1	0.005	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Panulirus interruptus	lobster	1	0.004	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Randallia ornata	globe crab	0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
unid crab	other_crab	Ō	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
all crabs	all crabs	7	0.087	0.9	0.6	0.9	0.7	0.2	1.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	
Phoronida	phoronid	0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Parastichopus parvimensis	sea cucumber	7	0.154	0.0	0.0	0.0	1.7	0.0	0.8	0.0	0.3	0.0	3.8	0.8	0.3	0.3	
Astropecten armatus	sand_star	8	0.237	1.3	0.0	0.0	0.3	1.2	1.5	0.0	0.3	0.9	5.2	1.3	0.0	0.0	
Pisaster sp.	giant-spined sea star	1	0.005	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	
Dendraster excentricus	sand dollar	i	0.009	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Arbacia stellata	Arbacia urchin	i	0.004	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lytechinus anamesus	white urchin	5	0.608	0.0	0.0	0.6	0.7	0.0	0.9	0.0	0.0	0.1	28.2	0.0	0.0	0.0	
Strongylocentrotus franciscanus	_	0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Strongylocentrotus purpuratus	purple_urchin	1	0.002	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Patiria miniata	bat_star	3	0.039	1.5	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.2	0.0	0.0	0.0	
unidentified cucumber	unidentified cucumber	0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Luidia foliolata	deep sand star	ő	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pvcnopodia	sunflower star	ő	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pachythione rubra	small red cucumber	Õ	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
r auryunone rubra	amair reu cucumber	U	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	



Anthropogenic disturbances to eelgrass. CW from UL: Mooring anchor and chain in 2016 and 2019 (Scorpion SCR); small vessel anchor (East NPS ANA); debris from land (Scorpion SCR); fishing gear (Frenchys ANA); sunken vessel (Keyhole ANA).



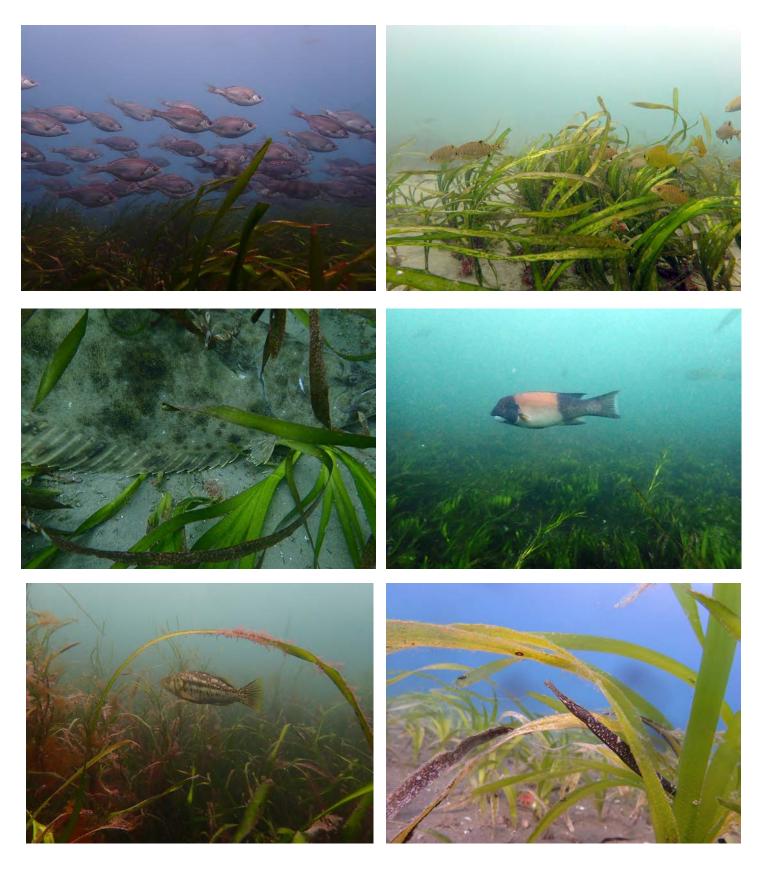
Natural disturbances to eelgrass meadows. CW from UL: Bat ray feeding pits (Scorpion SCR); urchin grazing (Eagle Canyon SCR); wavy turban snail grazing (Smugglers SCR); invertebrate mobbing (*Pachythione rubra* Old Ranch SRO); sea hare mass spawning (Aguaje Escondido SCR); disease (East Frenchys ANA).



Major invertebrates found in eelgrass beds. CW from UL: Sea cucumber (Prisoners SCR); Cancer crabs (Prisoners SCR); sand star (East Frenchys ANA); lobster (Frenchys ANA); sand tube anemone (Canada Agua SCR); clam (Aguaje Escondido SCR).



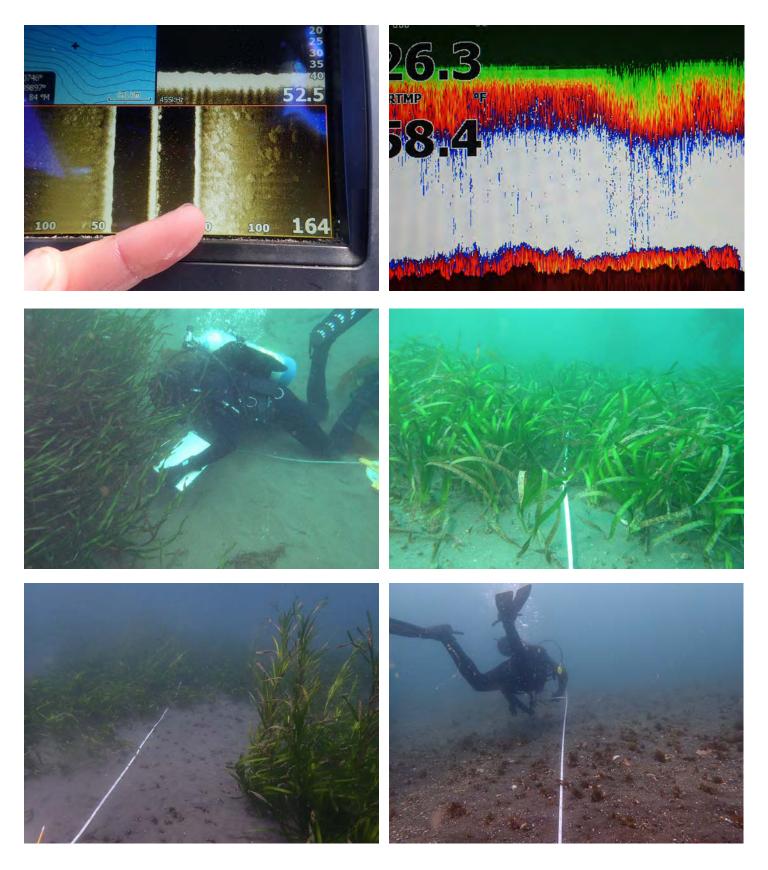
Reproductive phases in *Zostera pacifica*. CW from UL: New reproductive shoots developing in late spring (Keyhole ANA; and at East Frenchys ANA); close-up of an open spathe with male flowers (Prisoners SCR); ripening seeds (Aguaje Escondido SCR); a seedling (Canada Agua SCR); senescing reproductive shoot in late July (Prisoners SCR).



Common fishes in eelgrass. CW from UL: White and pile perch (Scorpion SCR); rainbow and black perch (Smugglers SCR); sheephead (Scorpion SCR); bay pipefish (East Frenchys ANA); kelp bass (Keyhole ANA); halibut (East NPS ANA).



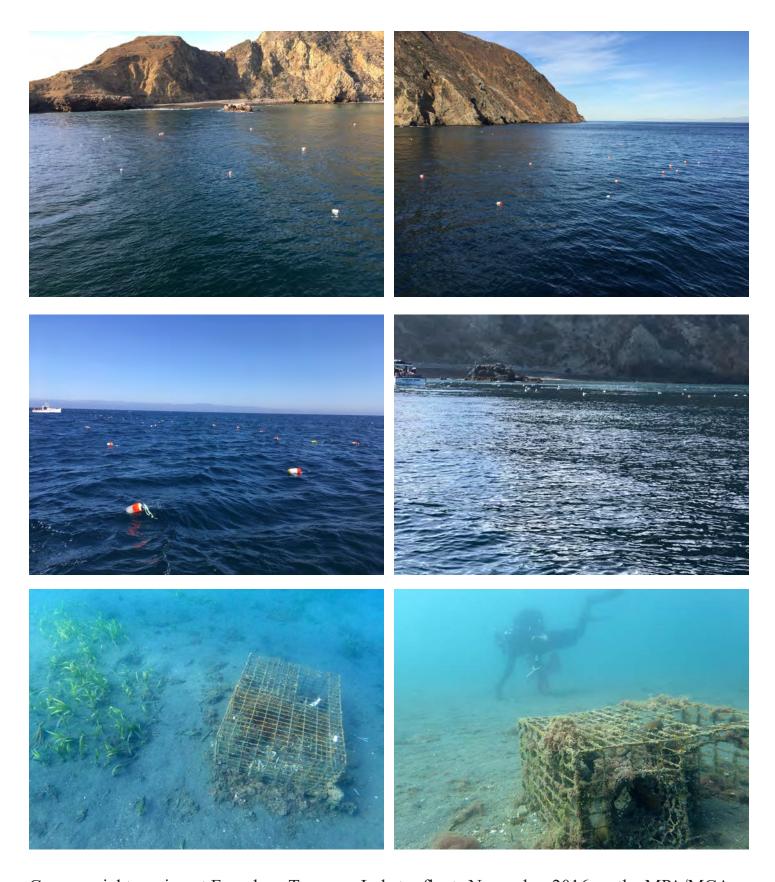
Fish reproductive use of eelgrass meadows. CW from UL: Black perch exhibiting courtship behavior; juvenile horn shark (both East Frenchys ANA); young of the year (YOY) giant kelpfish (Canada Agua SCR); gravid shiner perch (Scorpion SCR); topsmelt eggs on eelgrass (Frenchys ANA) kelp bass YOY recruit (Frenchys ANA).



Mapping and quantifying eelgrass meadows. CW from UL: Eelgrass along Middle Anacapa imaged on ship's sounder (2016); imaged on fish finder (2019); Frenchys restoration transect within MCA (2006); and same restoration transect in 2019; control transect at East Frenchys within MPA (2019); diver mapping patch along same control transect in 2009.



Interesting observations during 2016 and 2019 surveys. CW from UL: Giant sea bass (2019 East Frenchys ANA); moray eel (2019 Prisoners SCR); sea sweet potato (2016 Prisoners SCR), pelagic red crab (2016 East Frenchys ANA); juvenile white seabass (2019 Prisoners SCR); black sea hare (2016 East Frenchys ANA, the largest of all sea slug species).



Commercial trapping at Frenchys. Top row: Lobster floats November 2016 on the MPA/MCA bounday (left) and in the MCA (right); Middle row: November 2019 on the MPA/MCA boundary, facing north (left), December 2020 looking south in to the cove along the boundary , > 2 dozen visible (right); Bottom row: abandoned trap within MPA September 2016 (left); abandoned trap on the restoration transect (diver touching marker stake) in MCA September 2016.



Physiological stress in eelgrass following warm-water events, compared to cooler years. Top row L and R: Eelgrass in late June 2019 (cooler) and late June 2016, el Nino (both East Frenchys ANA); Center and bottom rows: left, mid- September 2007 (cold) and right, 2016, el Nino (both at East Frenchys ANA).



November 30, 2023

Eric Sklar, President California Fish and Game Commission 715 P Street, 16th Floor Sacramento, CA 95814

Re: <u>Decadal Management Review Marine Protected Areas Petition Process:</u>
<u>Anacap SMCA at Anacapa Island</u>

Dear President Sklar and Honorable Commissioners:

The undersigned organizations have decades of combined experience and interest working on Marine Protected Area ("MPA") management, research, compliance, outreach, and education efforts. We submit this letter to support the submission of an MPA petition for the Anacapa State Marine Conservation Area ("SMCA") as a part of the Decadal Management Review ("DMR") process. This petition seeks to reclassify the Anacapa SMCA as a State Marine Reserve ("SMR") or at a minimum reclassify the portion of the SMCA from shore to at least 30 meters depth to better protect eelgrass habitat.

The DMR is a momentous step in adaptive and community-based conservation. We commend the California Fish and Game Commission, California Department of Fish and Wildlife, and California Ocean Protection Council for the enormous effort undertaken to

<u>Decadal Management Review Marine Protected Areas Petition Process: Anacapa SMCA at Anacapa Island</u> Page 2 of 3

complete this first 10-year review. The MPA Network was designed to function as an ecological network to ensure the protection of California's diverse coastal ecosystems. Eelgrass meadows are one of the may habitats protected by MPAs. The eelgrass found in California and at Anacapa Island is *Zostera marina*. This subspecies of eelgrass used to be abundant at multiple sites at Anacapa island until white urchin (*Lytechinus anemesus*) populations increased and invaded the area following the 1983 El Nino. Transplantation efforts at Anacapa Island have had some success, however the shift of spiny lobster trapping to soft bottom habitat has led to a decline in the transplanted eelgrass population at Frenchy's Cove.

Anacapa Island Historic Eelgrass Cover

Eelgrass plays an important role in many marine systems like species survival, reducing coastal erosion, acting as a carbon sink, etc. Globally eelgrass populations have declined during the past 25 years through a combination of natural and anthropogenic deterioration. By 1995, only 2 small eelgrass patches were present at East Anacapa Island, and both disappeared by 1999. Past research at Anacapa Island found that there had been no sign of recruitment at Frenchy's Cove since 1991 up until the 2000s when efforts were made to reintroduce eelgrass into the area. The annual surveys conducted from 1991 to 2001 at Frenchy's Cove revealed no eelgrass seedlings, adult plants, or drift material, underlining the limited long-distance dispersal capabilities of this species.

Impacts to Anacapa SMCA Eelgrass Meadows

Follow up surveys in 2014 and 2016, after the transplantation effort in the early 2000s, found the transplanted eelgrass meadows at the Anacapa SMCA to be damaged and greatly reduced. Information gained from mariners and National Park rangers revealed that Frenchy's Cove was being fished heavily during the two months (November, December) that the brown pelican Special Closure was open. Fishing block data for the mainland showed that effort more than doubled within blocks containing fishing areas adjacent to SMRs. Notably, eelgrass continues to thrive within the Anacapa SMR, 200 meters to the east.

Before the shift in fishing efforts for spiny lobster, in 2012 the research team responsible for the transplantation in the early 2000s found additional patches 200 meters to the east of the transplant site and scattered shoots were observed at the west end of East Anacapa Island. The unintended differences in usage of the SMCA and SMR showed that eelgrass will rapidly colonize and thrive if anthropogenic disturbance (i.e., trapping) were to cease.

The impact of fishing for spiny lobster during the two months allowed is destroying the eelgrass meadows. Research shows that recruitment of new eelgrass is a long process, but it is possible when the ideal habitat is left undisturbed. Currently the SMCA allows for recreational take of spiny lobster and pelagic finfish and commercial take of spiny lobster. The Brown Pelican special closure allows for lobster traps in November and December. We ask that the SMCA be reclassified as a SMR or reclassifying the portion of the SMCA from shore to at least 30 meters depth.

Conclusion

We celebrate the success of the MPA network in a time when ocean conservation wins are more important than ever. While we rely on oceans to contribute to many of our societal needs, from food to energy, we must remain committed to protection of our shared resources, not only for future generations but also for the intrinsic value of a thriving ocean. This petition to reclassify the Anacapa SMCA as an SMR or reclassifying the portion of the SMCA from shore to at least 30 meters depth will allow Anacapa Island to recover its historic eelgrass meadow.

Thank you for your consideration of the MPA petition. If you have any questions, please contact Azsha Hudson, ahudson@environmentaldefensecenter.org.

Sincerely,

Azsha Hudson, Marine Conservation Analyst Environmental Defense Center

Richard Smalldon, Director Santa Barbara Museum of Natural History, Sea Center

Robert Mazurek, Executive Director California Marine Sanctuary Foundation

Tomas Valadez, California Policy Associate Azul

Elizabeth Purcell, Policy and Communications Intern Turtle Island Restoration Network

Ted Morton, Executive Director Santa Barbara Channel Keeper

Jim Taylor, Group Chair Sierra Club, Santa Barbara – Ventura

Robert Vergara, Roger Arliner Young (RAY) Ocean Conservation Fellow Natural Resources Defense Council

Ashley Eagle-Gibbs, Interim Executive Director & Legal and Policy Director Environmental Action Committee of West Marin (EAC)

Tracking Number: (2023-28MPA)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1.	Person or organization requesting the change (Required)
	Name of primary contact person: Lisa Suatoni, National Resources Defense Counc
	Address:

Telephone number:
Email address:

- 2. Rulemaking Authority (Required) Authority cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code.
- 3. Overview (Required) We propose the designation of a new State Marine Reserve in the waters around Point Sal, Central California to 1) protect this rich and productive ecosystem and biodiversity found within, 2) protect an important larval retention zone and enhance the connectivity dynamics within the region, and 3) enhance the climate resilience of the broader state MPA network.

The proposed area aligns with state MPA design and feasibility guidelines provided by CDFW, and is bounded by the mean high tide line, the 3 nm state waters boundary, and straight lines connecting the following points in the order listed:

- 34.880667518 N lat. 120.726433061 W long. (SW corner)
- 34.929894739 N lat. 120.727488272 W long (NW corner)
- 34.930008197 N lat. 120.666597401 W long. (NE corner)
- 34.880979714 N lat. 120.639473286 W long. (SE corner)

We propose regulations aligned with current State Marine Reserves: "It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource."



However, we recommend that the state consult with local Indigenous communities and Tribes before designation, to determine whether a State Marine Conservation Area with exemptions for cultural and subsistence use of relevant Indigenous communities and Tribes in the area is warranted.

4. Rationale (Required) - Located in Santa Barbara County, Point Sal is an ecologically rich and relatively remote promontory along the coastline that supports a diverse marine ecosystem and provides critical habitat for seabirds and marine mammals alike. The nutrient-rich waters found at this site allow for a diversity of ocean life to thrive here, with kelp beds, rich tidepools, and productive waters that support humpback whales, gray whales, a variety of sea lions and seals, sea otters, and a biologically important feeding area for endangered blue whales nearby. Offshore, Lion Rock is a significant roosting site for seabirds like the Brown pelican and Brandt's cormorant, and also acts as a relatively undisturbed haul out for sea lions, seals, and other pinnipeds, underlining the area's conservation value for these animals as the California coastline becomes increasingly developed. In addition, the leeward waters of Point Sal act as a larval retention zone, which are known to be highly beneficial areas for recruitment of fish and invertebrate larvae in wind-driven upwelling zones while promoting the biodiversity of the surrounding ecosystem. Historically, Point Sal also holds cultural significance for the Chumash people, with evidence of their occupation as recently as 250 years ago and as far back as 4,800 years ago; Chumash artifacts are visible throughout Point Sal, and analyses of burial sites from the area demonstrate the rich cultural ties to the traditional stewards of this land.

Protecting the waters of Point Sal aligns strongly with the goals set by the California Marine Life Protection Act (MLPA), especially with regards to the protection of natural biodiversity found in relatively undisturbed marine ecosystems. Given the remote nature of Point Sal, its relative lack of human disturbance, and increasing threats to the California MPAs found nearby, there is an urgent need to protect the ecological merits and maximize the biological benefits that Point Sal provides to the marine species that inhabit the area and to the broader Central California region. As development of the state's coastline and seascape progresses, protecting these untouched areas will add to the resilience of the MPA network by providing refugia for marine life from encroaching threats. Furthermore, designating an MPA in the proposed area will improve recreational, educational, and study opportunities at Point Sal and support equitable access to coastal resources moving forward into the future.

See Petition Narrative for full rationale.

SECTION II: Optional Information	n
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5. Date of Petition: 11/30/2023

6. Category of Proposed Change

☐ Sport Fishing

☐ Commercial Fishing

☐ Hunting

Other, please specify: MPAs, Section 632.



PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 3 of 4

7. The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs)

Amend Title 14 Section(s): Westlaw regulations.

☐ Add New Title 14 Section(s): Click here to enter text.

☐ Repeal Title 14 Section(s): Click here to enter text.

- 8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition

 Or Not applicable.
- 9. Effective date: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency:
- **10. Supporting documentation:** Identify and attach to the petition any information supporting the proposal including data, reports and other documents:
 - a. Proposed Point Sal SMR petition narrative
 - b. Figure 1 Proposed Point Sal SMR habitat map
 - c. Appendix A Climate-smart MPA design guidelines met by proposed Point Sal SMR
 - d. Appendix B Proposed Point Sal SMR letter of support
- 11. Economic or Fiscal Impacts: Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing:

Current fishing in the proposed area is limited, likely due to its considerable distance from nearest port areas of Morro Bay and Santa Barbara. The proposed Point Sal MPA overlaps with 14% of California fishing block 631, and 11% of California fishing block 632. According to the Marine Fisheries Data Explorer, annual landings reported from these blocks over a ten year period from 2012 to 2022 were an average of 231,460 lbs by weight and \$678,632 by value per year. This represents just 0.11% of the landings by weight, and 1.1% of landings by value, reported for the Central Coast region over the same 10 year period. For this reason, and due to the relatively small proposed size of the MPA, we believe the establishment of an SMR in this area would have minimal economic impact to commercial fisheries.

Our request to CDFW for recreational fishing data from this area was being processed at time of submission; we will evaluate the potential impact to recreational fishers and submit it to the state following receipt of the requested data.

12. Forms: If applicable, list any forms to be created, amended or repealed:

SECTION 3: FGC Staff Only

Date received: 11/30/2023



State of California – Fish and Game Commission PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 4 of 4

FGC staff action:
☐ Accept - complete
□ Reject - incomplete
☐ Reject - outside scope of FGC authority
Tracking Number
Date petitioner was notified of receipt of petition and pending action:
Meeting date for FGC consideration:
FGC action:
☐ Denied by FGC
☐ Denied - same as petition
Tracking Number
☐ Granted for consideration of regulation change

Petition to Designate a New State Marine Reserve at Point Sal, Central California PETITION NARRATIVE

Point Sal is located in Santa Barbara County, California, roughly 50 miles (80 kilometers) to the northwest of Point Conception. The nearest city to Point Sal is Guadalupe, located about six miles to the northeast, and Vandenberg Space Force Base is located to the south. Known for its scenic beauty, rugged cliffs, and stunning ocean views, Point Sal is a relatively remote and undeveloped area along California's coastline. Its waters are home to rich biodiversity, productive oceanographic features, and intact food webs that are worth protecting. This petition calls for the designation of a new State Marine Reserve or State Marine Conservation Area allowing for cultural and subsistence use by Tribes and Indigenous communities in this area, to advance the goals of California's network of marine protected areas (MPAs) in the face of climate change and threats from increased human activities and threats in the future.

Goals

The overall goals of this new MPA are to 1) protect this rich and productive ecosystem and the biodiversity found within, 2) to protect this larval retention zone and the connectivity dynamics within the region, and 3) to enhance the climate resilience of the broader state MPA network.

Proposed boundaries

In keeping with state MPA design and feasibility guidelines provided by CDFW, the proposed area is bounded by the mean high tide line and straight lines connecting the following points in the order listed:

- a. 34.880667518 N lat. 120.726433061 W long. (SW corner)
- b. 34.929894739 N lat. 120.727488272 W long (NW corner)
- c. 34.930008197 N lat. 120.666597401 W long. (NE corner)
- d. 34.880979714 N lat. 120.639473286 W long. (SE corner)

The proposed boundaries were drawn to align with visible landmarks and natural geographies as much as possible, with the northern boundary beginning at Mussel Point, and the southern boundary drawn at the end of Brown's Beach. The eastern boundary aligns with the mean high tide line, and the western boundary extends out to the edge of state waters as recommended by state feasibility guidelines.

The proposed area is 14.22 square miles with an alongshore span of 3.2 miles, which meets the state's minimum size guidelines and design recommendations. The proposed area is located 19 miles alongshore from Point Buchon SMR/SMCA, the nearest MPA to the north, which meets the state's minimum spacing recommendations, and 6.5 miles from Vandenberg SMR, the nearest MPA to the south.

Ecological significance of the area

The coastal waters around Point Sal in California support a diverse and dynamic marine ecosystem. The rocky coast is home to abundant and rich tidepools. The kelp beds found in waters leeward of the point provide habitat for endangered Southern sea otters and many other kelp-associated species. The rocks and coastal habitats around the point provide critical roosting and foraging habitats for multiple species of seabirds. State waters surrounding the point are home to a variety of feeding and migrating marine mammals, including bottlenose and common dolphins, harbor porpoises, humpback and gray whales, California sea lions, harbor seals, elephant seals, and Steller sea lions.¹

An analysis of species, habitats, threats, and existing protections within the California Current found that the waters around Point Sal are among the top 5% in conservation value in the California Current.² Notably, the area remained within the top 5% regardless of whether conservation value was being measured utilizing the species richness index or the rarity index, with a significant portion of these areas falling into the top 2%. This region of California is also well-known as a marine biogeographic 'transitional zone' for ocean and coastal biota. Many species reach the southern or northern limits of their ranges here, making it an important biogeographic boundary along California's coast.³

The nutrient-rich waters in this region support a productive food web. Upwelling, where nutrient-rich deep waters rise to the surface, enhances primary productivity, providing ample food resources for a variety of marine organisms, from plankton to larger predators. A krill hotspot⁴ and Biologically Important Area (BIA) for blue whale foraging are located just outside the proposed area,⁵ indicating that these waters are productive enough to support feeding blue whales, which ingest up to 16 tons of krill per day.⁶ The state waters within the proposed area are home to several other BIAs for marine mammal species, including a BIA for humpback whale foraging, a BIA for migrating gray whales, and BIA for resident harbor porpoises.⁷

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¹ Condor Environmental Planning Services, "Point Sal Reserve Revised Management Plan" (Santa Barbara County Parks Department, July 2002), https://ryono.net/pointsal/ptsalreserve.pdf.

² Nathan Elliott et al., "Assessment of Marine Protected Areas in the California Current" (Petaluma, CA: Point Blue, June 5, 2020),

https://www.pointblue.org/wp-content/uploads/2020/09/MPA-Assessment Final.pdf.

³ Ronald S. Burton, "Intraspecific Phylogeography Across the Point Conception Biogeographic Boundary," *Evolution* 52, no. 3 (June 1998): 734–45, https://doi.org/10.1111/j.1558-5646.1998.tb03698.x.

⁴ Jarrod A. Santora et al., "Mesoscale structure and oceanographic determinants of krill hotspots in the California Current: Implications for trophic transfer and conservation," *Progress in Oceanography* 91, no. 4 (December 2011): 397-409, https://doi.org/10.1016/j.pocean.2011.04.002

⁵ National Oceanic and Atmospheric Administration, "Biologically Important Area Map," Web map, Cetacean & Sound Mapping, accessed November 20, 2023,

https://cetsound.noaa.gov/biologically-important-area-map.

⁶ Matthew S. Savoca et al., "Baleen Whale Prey Consumption Based on High-Resolution Foraging Measurements," *Nature* 599, no. 7883 (November 2021): 85–90,

https://doi.org/10.1038/s41586-021-03991-5.

⁷ NOAA, "Biologically Important Area Map."

Lion Rock haul out and roosting site

Lion Rock, located off the southern coast of Point Sal, is an important haul out site for sea lions and other marine mammals. As many as 883 sea lions have been observed on the rock on a single day, and the site is also occasionally used by Steller sea lions and elephant seals. Haulouts are critical to the behavioral cycles of foraging, resting, and breeding for pinnipeds. However, these species are highly sensitive to visual and auditory disturbance and will leave haulouts when they become stressed – even abandoning them permanently, if disturbances occur frequently. Undisturbed haulouts are thus necessary for the protection of these species. Given Point Sal's remote location, Lion Rock currently experiences little to no human-caused disturbance and may be one of the few remaining undisturbed haulouts along the busy California coastline – making it especially important for the conservation of these marine mammals.

Lion Rock is also an important roosting site and breeding site for many seabird species. Roosting is a vital behavior for seabirds, providing essential rest, social interaction, protection, and nesting opportunities, thereby enhancing their energy conservation, reproductive success, and overall well-being in the dynamic marine environment. Seabirds like cormorants do not have oil-producing glands to help their feathers repel water, making roosting especially critical for these species to dry after foraging. Thousands of cormorants have been observed roosting on Lion Rock,¹⁰ and it is also a roost site of significant importance for Brown Pelicans, which until recently were listed as endangered species.¹¹ Finally, Lion Rock is a breeding site of growing importance for Brandt's cormorants, with as many as 14 breeding pairs observed on the rock in recent years.¹²

Connectivity and larval retention zone

Although wind-driven upwelling is a vital source of nutrients for California ecosystems, this large-scale offshore transport of coastal ocean water poses a significant challenge to larval stages of marine organisms that must recruit to coastal environments. Headlands, such as found at Point Sal, can help to mitigate this effect by slowing down or recirculating ocean currents, and research has shown waters on the leeward sides of coastal promontories or headlands provide refuge for fish and invertebrate larvae against offshore transport during

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Mugu Study Area of the Seabird Protection Network."

⁸ NMFS, NOAA, and Department of Commerce. Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Weapons Testing at Vandenberg Air Force Base; California. 87 FR 762 (Jan. 6, 2022). Available at

https://www.federalregister.gov/documents/2022/01/06/2022-00032/takes-of-marine-mammals-incidental-to-specified-activities-taking-marine-mammals-incidental-to.

⁹ Dan Robinette, Sara Acosta, and Julie Howar, "Year 1 Results of Baseline Monitoring Within the Point Sur to Point Mugu Study Area of the Seabird Protection Network" (Petaluma, CA: PRBO Conservation Science, November 15, 2012).

¹⁰ Condor Environmental Planning Services, "Point Sal Reserve Revised Management Plan."

Dan Robinette and Julie Lanser, "Brown Pelican Roost Utilization Along the Coastal Margin of Vandenberg Air Force Base, 2004" (Stinson Beach, CA: PRBO Conservation Science, May 3, 2006).
 Robinette, Acosta, and Howar, "Year 1 Results of Baseline Monitoring Within the Point Sur to Point

upwelling events.¹³ These "larval retention zones" are critical for enhanced recruitment, and help to ensure that adult populations are supplied with larvae in recruitment-limited upwelling regions.¹⁴ Larval retention zones also serve as biological hotspots, where upwelling delivers nutrients that then fuel phytoplankton growth and support marine food webs. This effect has been shown even for small headlands like Point Sal (e.g., Bodega Headland).¹⁵

Point Sal's leeward waters are known to serve as a larval retention zone in this stretch of the Central Coast. One study used seabird foraging rates as a proxy for juvenile fish recruitment to explore whether seabird foraging and geographic indicators can be used to identify larval retention zones, in order to help inform MPA network spatial design. The findings show that both long and short headlands—including Point Sal—lead to higher juvenile fish abundance, and that coastal orientation was an important determinant of juvenile fish abundance. Pelagic cormorant foraging rates were also found to be higher at south-facing coasts like Point Sal's compared to other coastal orientations. This is due to weaker offshore advection caused by coastal upwelling along south-facing coasts, and eddies forming in the lee of the south-facing coasts of embayments. The service of the south-facing coasts of embayments.

This biological evidence for local retention zones is supported by physical oceanography data. Multiple studies of oceanographic currents in the area show that within the Santa Barbara Channel, ocean currents primarily run from east to west. ¹⁸ Just north of Point Conception there is strong seasonal equatorward flow heading south. Around the area of Point Sal, the interaction of these westward and southward surface currents cause convergence. ¹⁹ Additionally, the region experiences episodic periods of wind relaxation in the spring, leading to less vigorous upwelling with important biological consequences for larval retention and surface productivity. ²⁰

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¹³ Amber J. Mace and Steven G. Morgan, "Larval Accumulation in the Lee of a Small Headland: Implications for the Design of Marine Reserves," *Marine Ecology Progress Series* 318 (August 3, 2006): 19–29, https://doi.org/10.3354/meps318019.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Dan Robinette, Nadav Nur, and Jaime Jahncke, "Spatial Patterns in Nearshore Juvenile Fish Abundance Throughout the California Network of Marine Protected Areas as Revealed by Seabird Foraging Rates," *California Cooperative Oceanic Fisheries Investigations* 60 (2019).

¹⁷ Ibid.

¹⁸ Clinton D. Winant, Edward P. Dever, and Myrl C. Hendershott, "Characteristic Patterns of Shelf Circulation at the Boundary between Central and Southern California," *Journal of Geophysical Research: Oceans* 108, no. C2 (2003), https://doi.org/10.1029/2001JC001302.

¹⁹ Sutara H. Suanda et al., "Wind Relaxation and a Coastal Buoyant Plume North of Pt. Conception, CA: Observations, Simulations, and Scalings," *Journal of Geophysical Research: Oceans* 121, no. 10 (2016): 7455–75, https://doi.org/10.1002/2016JC011919.

²⁰ Louis W. Botsford et al., "Effects of Variable Winds on Biological Productivity on Continental Shelves in Coastal Upwelling Systems," *Deep Sea Research Part II: Topical Studies in Oceanography*, The Role of Wind-Driven Flow in Shelf Productivity, 53, no. 25 (December 1, 2006): 3116–40, https://doi.org/10.1016/j.dsr2.2006.07.011.

Historical and cultural use

Point Sal holds significant cultural and historical ties to the Chumash people, who have inhabited the region for thousands of years. There is abundant evidence of Chumash occupation of Point Sal as recently as 250 years ago and as far back as 4,800 years ago. Rock rings where homes once stood, grinding stones, and other Chumash artifacts are easily visible. Human remains found at Chumash burial sites indicate that the diet of ancient peoples living at Point Sal was high in marine protein, demonstrating the strong link between coastal peoples and marine resources. Protecting the marine waters and coastal resources of Point Sal would help to recognize its value as a cultural heritage site that still contributes to the identity and sense of place for many of the tribal people of Central California today.

Habitat

Since the creation of the California MPA network, a new dataset that allows for detailed delineation of the habitat categories used in the design of the MPA network for all California state waters has been completed and made available through the California State Mapping Program (CSMP). Using this dataset, we characterized the habitat types present in the area proposed for protection around Point Sal (Figure 1).²³

The proposed area is characterized by a large amount of sandy bottom, with some rocky substrate south of the point and in the northeast portion of the area (8.3% shallow (0-30m) rocky bottom, 41.9% shallow sandy bottom, 1.2% deeper (30-100m) rocky bottom, and 48.6% deeper sandy bottom). Kelp beds are present on the shallow rocky bottom substrate (personal communications, Dan Robinette), supporting numerous marine species like rockfish and sea otters.²⁴

Adding this area to the California state MPA network would increase the number of replicate sites for these four important habitat types, as recommended by the science-based guidelines for the MLPA planning process and recent peer-reviewed guidelines for the design of climate-smart MPA networks.²⁵

²¹ Bureau of Land Management, "Point Sal," Visit Point Sal, accessed November 20, 2023, https://www.blm.gov/visit/point-sal.

²² Theresa M. Schober and J. Eldon Molto, "Marine Resource Consumption in Ancient California," *Pacific Coast Archaeological Society Quarterly* 45, no. 1 & 2 (n.d.): 31–47.

²³ California State University, Monterey Bay, Seafloor Mapping Lab. 2014. California Seafloor Mapping Project - Undersea Imagery Archive 2007-2014. https://csumb.edu/undersea/seafloor-maps Accessed 2023.

²⁴ Condor Environmental Planning Services, "Point Sal Reserve Revised Management Plan."

²⁵ Nur Arafeh-Dalmau et al., "Integrating Climate Adaptation and Transboundary Management: Guidelines for Designing Climate-Smart Marine Protected Areas," *One Earth* 6, no. 11 (November 17, 2023): 1523–41, https://doi.org/10.1016/j.oneear.2023.10.002.

Land-sea connection

Conservation efforts focused on addressing ocean-based threats alone are often compromised by land-based impacts that affect coastal ecosystems, such as nutrient runoff, organic and inorganic pollutants, and the direct impacts associated with high levels of human traffic and visitation.²⁶ Planning for and designating MPAs that are linked with terrestrial reserves or adjacent to areas with little to no human impact can therefore considerably improve MPA conservation outcomes.²⁷ The proposed SMR is adjacent to Point Sal State Beach, which currently protects approximately 80 acres and includes just over 1 1/2 miles of ocean frontage. Due to its remote location, and possibly these terrestrial protections, Point Sal's terrestrial habitats remain relatively undisturbed and free of negative human impacts,²⁸ making the waters around Point Sal a particularly valuable area to protect.

Access and recreation

The coastline of the proposed SMR is currently accessible through Point Sal State Beach and Point Sal Trail. Recreational activities at Point Sal State Beach include fishing, beach combing, hiking, nature study, photography, picnicking, and sunbathing.

In 1998, heavy rains destroyed Point Sal Road in several places, which was the main access road for Point Sal State Beach. The road was closed until May 2008, when Air Force and County officials announced they had reached an interim agreement to provide access. They have since been "coordinating to place informational signs, fix fences and repair washed-out sections of the County road", though progress has been extremely slow. The road remains closed, although according to California's State Parks Department, efforts to develop a long-term access plan to Point Sal State Beach are ongoing.²⁹

Point Sal State Beach is currently best accessed via Point Sal Trail, which is located at the end of Brown Road. This moderately challenging trail is approximately 12 miles round trip to the beach and back,³⁰ and is open year-round. It provides unparalleled access to untouched coastal wilderness, traversing astonishingly beautiful coastal habitats such as dunes, chaparral, windswept bluffs, and rocky cliffs. The trail is described as "a very popular area for hiking".³¹

²⁶ David M. Stoms et al., "Integrated Coastal Reserve Planning: Making the Land–Sea Connection," *Frontiers in Ecology and the Environment* 3, no. 8 (2005): 429–36, https://doi.org/10.1890/1540-9295(2005)003[0429:ICRPMT]2.0.CO;2.

²⁷ Arafeh-Dalmau et al., "Integrating Climate Adaptation and Transboundary Management."

²⁸ Robinette, Acosta, and Howar, "Year 1 Results of Baseline Monitoring Within the Point Sur to Point Mugu Study Area of the Seabird Protection Network."

²⁹ California State Parks, "Point Sal SB," CA State Parks, accessed November 20, 2023, https://www.parks.ca.gov/.

³⁰ County of Santa Barbara California, "Point Sal," County of Santa Barbara Parks, accessed November 20, 2023, https://www.countyofsb.org/900/Point-Sal.

³¹ All Trails, "Point Sal Overlook," Travel Website, AllTrails.com, accessed November 20, 2023, https://www.alltrails.com/trail/us/california/point-sal-overlook.

By making the ocean more productive and resilient to climate change, stronger marine protections like the proposed Point Sal SMR can enhance shore-based recreation. When combined with efforts to increase access and connect more people to nature, additional state MPAs can give those from marginalized communities more equitable access to the ocean's resources and benefits. California's MPAs have been shown to increase the biomass of fishery-targeted species and promote "spillover" into nearby coastal areas, benefitting nearby fishing grounds.³² The California Environmental Protection Agency identifies the adjacent city of Guadalupe as "disadvantaged" under CA Senate Bill 535, and their synthesis of environmental and socioeconomic indicators further reveals that Guadalupe – alongside Santa Maria and Lompoc – are underprivileged communities that experience significant cumulative impacts from pollution.³³ Given these communities' close proximity to Point Sal, implementing an SMR at the proposed site could enhance access for disadvantaged populations to valuable coastal resources and fishing opportunities. In addition to the designation of a new Point Sal SMR, we urge the state to redouble its efforts to provide access to Point Sal State Beach by reopening Point Sal Road.

Socioeconomic impacts

Current fishing in the proposed area is limited, likely due to its considerable distance from nearest port areas of Morro Bay and Santa Barbara. The proposed Point Sal MPA overlaps with 14% of California fishing block 631, and 11% of California fishing block 632. According to the Marine Fisheries Data Explorer, annual landings reported from these blocks over a ten year period from 2012 to 2022 were an average of 231,460 lbs by weight and \$678,632 by value per year. This represents just 0.11% of the landings by weight, and 1.1% of landings by value, reported for the Central Coast region over the same 10 year period. For this reason, and due to the relatively small proposed size of the MPA, we believe the establishment of an SMR in this area would have minimal economic impact to commercial fisheries.

Our request to CDFW for recreational fishing data from this area was being processed at time of submission; we will evaluate the potential impact to recreational fishers and submit it to the state following receipt of the requested data.

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³² Hunter S. Lenihan et al., "Increasing Spillover Enhances Southern California Spiny Lobster Catch along Marine Reserve Borders," *Ecosphere* 13, no. 6 (2022): e4110, https://doi.org/10.1002/ecs2.4110.

³³ OEHHA, "CalEnviroScreen 4.0," Text, CA.Gov, September 20, 2021,

https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40; OEHHA, "Final Designation of Disadvantaged Communities Pursuant to Senate Bill 535" (CalEPA, May 2022).

³⁴ Assuming equal distribution of effort and value across all years. Because smaller timescales resulted in confidential data outputs from the Marine Fisheries Data Explorer, we aggregated 10 years of landings data from both blocks to calculate average annual landings data. However, the state should look into the confidential data to find more detailed estimates of fisheries landings from this area.

³⁵ We defined the Central Coast region as all fishing blocks from Point Ano Nuevo to Point Conception: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=144496&inline

³⁶ California Department of Fish and Wildlife, "Marine Fisheries Data Explorer," database, MFDE, accessed November 21, 2023,

https://wildlife.ca.gov/Conservation/Marine/Data-Management-Research/MFDE.

Historical context

During the MLPA planning process, a large SMR around Point Sal was proposed in External Proposed MPA Package AC. The proposed SMR was 21.92 mi², with an alongshore span of 6.1 miles and depth range of 0-192 feet. Based upon a review of the historical documents provided by the Fish & Game Commission in October 2023, it is not clear why the state chose not to designate this proposed SMR at that time.

Future stressors may compromise California's coastal waters and nearby MPAs

There is increasing pressure to develop resources in and otherwise utilize California's coastal waters. For example, as efforts intensify to mitigate and adapt to climate change, the state is investing in offshore wind and desalination plants. Interest in ocean-based carbon dioxide removal (CDR) is growing, and aquaculture activities are proliferating. Scientists warn that a rising wave of ocean industrialization, such as underway in California's waters, will pose additional strain on marine biodiversity.³⁷

MPAs along the central coast of California will likely experience these types of stressors in the coming decade. Vandenberg SMR, located 17 km to the south of this proposed area, and the Point Buchon SMR/SMCA complex, located 50 km to the north, are both sited near potential future offshore wind development projects. The proposed California Demonstration Project (CADEMO) seeks to place four floating offshore wind turbines in state waters just outside the boundaries of Vandenberg SMR, and would deliver power via a subsea cable traveling under the seafloor to an onshore cable landing site at Vandenberg Space Force Base. The Morro Bay Wind Energy Area is located in federal waters just outside Point Buchon SMCA, and two leases have recently been issued to commercial wind developers to begin planning for offshore wind development. Offshore wind construction and operations are expected to impact the marine environment through increased ocean noise, collisions with turbines, entanglements, the introduction of electromagnetic fields, alterations to existing habitats and hydrodynamics, and the possible release of contaminants.³⁸ While the state of California is working closely with developers and the federal government to minimize the environmental impacts of these projects as much as possible, it stands to reason that the region, including Vandenberg SMR and the Point Buchon SMR/SMCA complex, will experience some level of adverse impact related to the development of heavily industrialized renewable energy projects.

In addition, Point Buchon SMR/SMCA is located just north of the Diablo Canyon Power Plant, which uses seawater for its once-through cooling process. The plant's intake pipes draw in more than 2.5 billion gallons of water per day. This large and continuous seawater withdrawal is estimated to kill roughly 1.5 billion fish in early life stages each year, as creatures are sucked

³⁷ Douglas J. McCauley et al., "Marine Defaunation: Animal Loss in the Global Ocean," *Science* 347, no. 6219 (January 16, 2015): 1255641, https://doi.org/10.1126/science.1255641.

³⁸ NOAA Fisheries, "Offshore Wind Energy: Protecting Marine Life," Protecting Marine Life, National, accessed November 20, 2023,

https://www.fisheries.noaa.gov/topic/offshore-wind-energy/protecting-marine-life.

into the cooling systems or become impinged against the screens on the open-water pipes.³⁹ The cooling water is also discharged back into the ocean water at a warmer temperature, which can cause additional harm to kelp, fish, and other marine life in the area.⁴⁰ While Diablo Canyon's intake is not directly within the Point Buchon SMR/SMCA cluster, the area of source water being drawn into the plant likely overlaps with the MPA boundaries and has the potential to withdraw marine life out of the protected area.

As the increase of local stressors are likely to strain resources in the Vandenberg and Point Buchon MPAs, a new MPA at Point Sal could help to protect similar habitat not subject to these local stressors, adding a helpful replicate MPA to serve as an insurance policy for the region's MPA network.

Climate resilient MPA networks

Changing ocean conditions, such as warming temperatures, acidification, and reduced oxygen. combined with increasing crowding, and pressure on our ecosystems, will compound local stressors mentioned above - putting California's spectacular marine biodiversity at elevated risk. MPAs are increasingly recognized as an important ocean-climate solution. Fully protected MPAs can allow for disturbed and degraded areas to recover, and also promote and retain complex, intact food webs and ecosystems that are better at resisting future stressors. 41 A recent meta-analysis of more than 22,000 peer-reviewed studies spanning more than 200 MPAs around the world demonstrated that marine reserves can significantly enhance carbon sequestration, coastal protection, biodiversity, and the reproductive capacity of marine organisms as well as fishers' catch and income. 42

Further, when designed with climate resilience in mind, MPA networks can provide greater resilience than single MPAs on their own. 43 A new analysis focused on the California Bight has identified 21 actionable guidelines for the design of climate-smart MPA networks across large geographies and international boundaries.⁴⁴ The designation of a new MPA at Point Sal would meet or help to advance at least 11 of these climate-smart MPA design guidelines (Appendix A). Specifically, a new MPA at Point Sal would help to increase habitat representation and

³⁹ Mackenzie Shuman, "How California's Last Remaining Nuclear Power Plant Transformed Marine Life off the Coast," San Luis Obispo Tribune, March 25, 2022, https://www.sanluisobispo.com/news/local/environment/article258804173.html.

⁴⁰ Ibid.

⁴¹ Lewis A.K. Barnett, Marissa L. Baskett, and Louis W. Botsford, "Quantifying the Potential for Marine Reserves or Harvest Reductions to Buffer Temporal Mismatches Caused by Climate Change," Canadian Journal of Fisheries and Aquatic Sciences 72, no. 3 (March 2015): 376-89, https://doi.org/10.1139/cjfas-2014-0243; Lewis A. K. Barnett and Marissa L. Baskett, "Marine Reserves

Can Enhance Ecological Resilience," ed. Peter Mumby, Ecology Letters 18, no. 12 (December 2015): 1301-10, https://doi.org/10.1111/ele.12524; Callum M. Roberts et al., "Marine Reserves Can Mitigate and Promote Adaptation to Climate Change," Proceedings of the National Academy of Sciences 114, no. 24 (June 13, 2017): 6167-75, https://doi.org/10.1073/pnas.1701262114.

⁴² Juliette Jacquemont et al., "Ocean Conservation Boosts Climate Change Mitigation and Adaptation," One Earth 5, no. 10 (October 2022): 1126–38, https://doi.org/10.1016/j.oneear.2022.09.002.

⁴³ Roberts et al., "Marine Reserves Can Mitigate and Promote Adaptation to Climate Change."

⁴⁴ Arafeh-Dalmau et al., "Integrating Climate Adaptation and Transboundary Management."

replication; protect critical and unique areas relevant to the life histories of important California species; incorporate and enhance connectivity across the broader MPA network; provide permanent protections better suited for the maintenance of ecosystem function and resilience at relevant timescales for climate resilience, and; enhance the MPA network's protections for healthy and relatively undisturbed habitats (Appendix A). In the face of increasing impacts related to climate change, it is critical that the state adaptively manage its MPA network with climate resilience in mind.

Relevance to MLPA Goals and DMR Recommendations

This proposed Point Sal SMR contributes directly to MLPA Goals 1, 2, 3, and 6 (California Marine Life Protection Act). Protecting the rich biodiversity, relatively undisturbed habitats, and important larval retention zone found in the relatively undisturbed waters around Point Sal would help to protect the state's marine life and habitats, marine ecosystems, and marine natural heritage, as well as improve recreational, educational and study opportunities provided by marine ecosystems subject to minimal human disturbance.

In addition, this petition helps to advance DMR Recommendation 4.b.) "Identify and utilize best science-based approaches to inform potential changes to the MPA Network in order to enhance Network performance." New and groundbreaking peer-reviewed guidelines for the design of climate-smart MPA networks have recently been developed, and the proposed MPA at Point Sal aligns strongly with these guidelines. ⁴⁵ We recommend the state consider these guidelines for the review and implementation of additional proposals to enhance and expand California's MPA network.

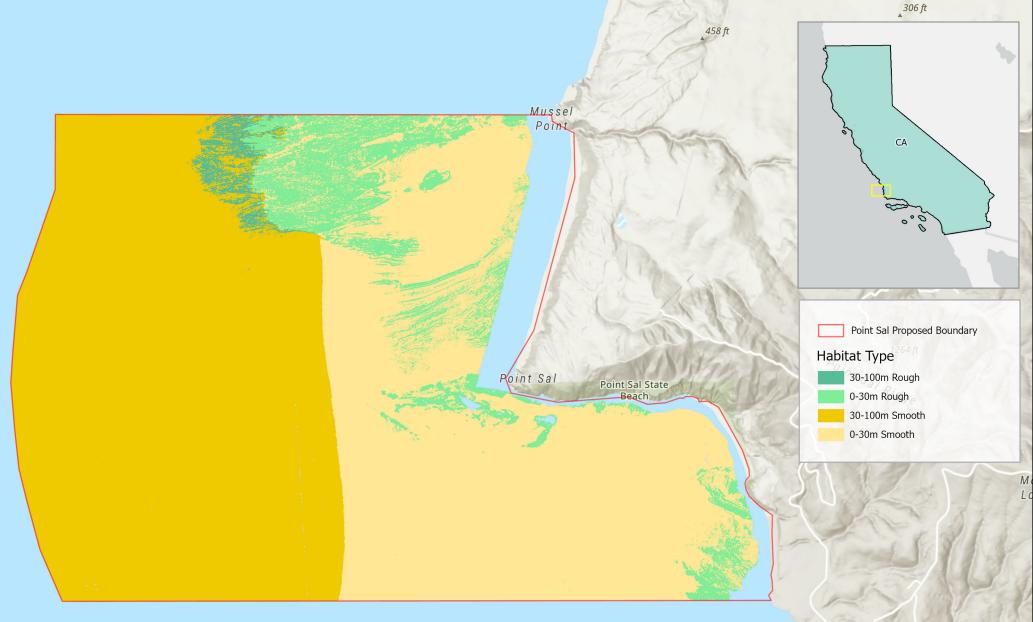
We must pass on a healthier ocean for future generations to experience, benefit from, and enjoy. California has the opportunity now to protect the conservation legacy of our iconic coastal state, including its rich and diverse marine wildlife. We urge the state to designate a new MPA at Point Sal to enhance the protection and climate resilience of our coastal and ocean resources, for the benefit of current and future generations of Californians.

10

⁴⁵ Ibid.

Benthic Habitat Type in Proposed Point Sal MPA





Appendix A - Climate-smart MPA guidelines identified by Arafeh-Dalmau et al. 2023 met or advanced by the proposed Point Sal MPA

Category	Specific guideline (with California Bight-specific guideline in italics)	Rationale
Habitat representation and replication	1. Represent at least 30% of each habitat type in each biogeographic subregion. Ensure representation of the variation in biodiversity across geographic gradients. Habitat representation targets should consider habitat rarity and vulnerability, and fishing pressure and management outside reserves. Habitat types include intertidal, subtidal, biogenic (e.g., kelp forests, seagrass beds), and deep-sea habitats.	Pt. Sal protections would increase representation and replication of nearly all habitat types along the central coast of California, including intertidal, subtidal, kelp forests, deep and shallow rocky bottom, and deep and shallow sandy plains. If designated as described in this petition, the new Point Sal MPA would contribute 36 square miles, or 0.68%, toward California's goal to protect 30% of coastal waters by 2030, and increase MPA coverage in the Central Coast ahead of potential large-scale disturbances to the region related to offshore wind development.
	3. Represent at least three examples of each habitat type in widely separated reserves to reduce the chance that they will all be impacted by a large-scale disturbance.	
	4. Represent habitats used by focal species for ecosystem resilience.	Protections would increase representation and coverage of kelp forest habitat used by sea otters, an important and iconic California predator that contributes to ecosystem resilience.
Protecting critical and unique areas	5. Protect critical areas in the life history of focal species in marine reserves. Critical areas include spawning, nesting, or breeding areas, nursery habitats (e.g., estuaries and seagrass beds), and resting and feeding areas.	Pt. Sal proposal would protect larval retention zone for commercially important fish and invert species, a biologically important area (BIA) for feeding humpback whales, a BIA for migrating gray whales, roosting habitat for the Brown pelican (endangered until only recently), Brandt's cormorants, and other seabirds, an important haul-out for resting and breeding pinnipeds, and protections for kelp beds which are critically important for endangered Southern sea otters and many other important California marine species.
	7. Protect areas with special and unique biodiversity in marine reserves. Protect special and unique features including areas with remaining populations of rare species, protected species, unique habitats, healthy habitats, high species richness, and endemic species.	Pt. Sal is a remote and relatively untouched area. Proposal would protect special and unique features such as healthy habitats far from human impacts.
Incorporating connectivity	10. Consider movement patterns of adult and juvenile organisms when determining the size of marine reserves.	This proposal meets the state of California's minimum size guidelines, which took connectivity dynamics and the

Appendix A - Climate-smart MPA guidelines identified by Arafeh-Dalmau et al. 2023 met or advanced by the proposed Point Sal MPA

	Ensure marine reserves extend from intertidal to deeper habitats.	movement patterns of species with small home ranges into account for design. Proposed MPA extends from shallow intertidal to deeper habitats, up to a depth of 100m.
	11. Consider transboundary larval dispersal to replenish populations within marine reserves and in adjacent areas, enhance metapopulation persistence, and support fisheries in adjacent areas. Consider larval dispersal distances for transboundary management. Marine reserves should be separated by no more than 25–100 km to ensure connectivity of species with short dispersal distances (e.g., abalone)	The Pt. Sal proposal meets the minimum spacing guidelines provided here. California's system of MPAs was designed as an interconnected network, with MPAs alternately serving as sources and sinks for marine life. These meta-dynamics are expected to buffer natural and human-caused fluctuations in populations of marine species. The addition of a new strongly protected MPA in this region of the coast could strengthen the network dynamics in this region, allowing ecosystems to resist and adapt to changing ocean conditions and recover from disaster events.
	13. Consider changes in larval duration and habitat availability due to changes in climate and ocean chemistry. Simulations suggest that a decrease in planktonic larval duration and giant kelp availability due to climate change will weaken the number and geographic scale of connections, decreasing transboundary connectivity and increasing isolation.	Pt. Sal contains a larval retention zone in the leeward waters south of the point. Larval retention zones are especially important for larval recruitment in wind-driven upwelling areas, and may provide critical recruitment hotspots should larval duration and connectivity decrease overall.
	14. Facilitate range shifts of species driven by climate change. Distribute reserves across geographic, latitudinal, and depth gradients to facilitate the latitudinal and depth shifts of species in response to climate change	Pt. Sal lies within an important transitional zone for marine and coastal biota. Many species reach the southern or northern limits of their ranges here, making it an important biogeographic boundary along California's coast. As temperatures warm and southern species shift their range northward, protections will help to facilitate range shifts.
Allowing time for recovery	15. Establish marine reserves for the long term (>25 years), preferably permanently, to allow populations of focal species to recover and replenish adjacent areas and maintain ecosystem functioning and resilience.	California's MPAs are permanent.
Minimizing and avoiding local threats	20. Establish marine reserves in areas with lower levels of cumulative threats for each biogeographic region.	Pt. Sal is a remote and relatively untouched area. Proposal would protect special and unique features such as healthy habitats far from human impacts.

































November 30, 2023

Eric Sklar, President California Fish and Game Commission 715 P Street, 16th Floor Sacramento, CA 95814

Re: <u>Decadal Management Review Marine Protected Areas Petition Process:</u> <u>Point Sal, CA</u>

Dear President Sklar and Honorable Commissioners:

Thank you for the opportunity to submit recommendations for the adaptive management of California's Marine Protected Area (MPA) network as part of the Decadal Management Review process. The undersigned organizations strongly support the designation of a new State Marine Reserve or a State Marine Conservation Area with exceptions for cultural and subsistence take by local Indigenous communities and/or Tribes around Point Sal.

Located in Santa Barbara County, Point Sal is an ecologically rich and relatively remote promontory along the coastline that supports a diverse marine ecosystem and provides critical habitat for seabirds and marine mammals alike. The nutrient-rich waters found at this site allow for a diversity of ocean life to thrive here, with kelp beds, rich tidepools, and productive waters that support humpback whales, gray whales, a variety of sea lions and seals, sea otters, and a biologically important feeding area for endangered blue whales nearby. Offshore, Lion Rock is a significant roosting site for seabirds like the recently endangered Brown pelican, and also acts as an undisturbed haul out for sea lions, seals, and other pinnipeds, underlining the area's conservation value for these animals as the California coastline becomes increasingly developed. In addition, the leeward waters of Point Sal act as a larval retention zone, which are highly

beneficial areas for enhancing the recruitment of fish and invertebrate offspring in upwelling zones while promoting the biodiversity of the surrounding ecosystem. Historically, Point Sal also holds cultural significance for the Chumash people, with evidence of their occupation being as recent as 250 years ago and as far back as 4,800 years ago. Chumash artifacts are visible throughout Point Sal, and analyses of burial sites from the area demonstrate the rich cultural ties to the traditional stewards of this land.

Protecting the waters of Point Sal aligns strongly with the goals set by the California Marine Life Protection Act (MLPA), especially with regards to the protection of natural biodiversity found in relatively undisturbed marine ecosystems. Given the remote nature of Point Sal, its relative lack of human disturbance, and increasing threats to the California MPAs found nearby, there is an urgent need to protect the ecological merits and maximize the biological benefits that Point Sal provides to the marine species that inhabit the area and to the broader Central California region. As development of the state's coastline and seascape progresses, protecting these untouched areas will add to the resilience of the MPA network by providing refugia for marine life from encroaching threats. Furthermore, designating an MPA in the proposed area will improve recreational, educational, and study opportunities at Point Sal and support equitable access to coastal resources moving forward into the future.

We commend the continued work of the Commission to advance the conservation of our state's valuable and unique marine resources. Designating a protected area at Point Sal will further bolster the strength of California's MPA network, advance the goals of the MLPA, and safeguard our coastal ecosystems against future stressors such as climate change. Thank you for your consideration of this petition and the opportunity to contribute our input on this historic process.

Sincerely,

Dennis Arguelles Southern California Director National Parks Conservation Association

Steve Bardwell President Morongo Basin Conservation Association

Andrew Christie Chapter Director Sierra Club Santa Lucia Chapter

Joe Connett Member Sierra Club Santa Barbara-Ventura Chapter

Laura Deehan State Director Environment California Research and Policy Center Rikki Eriksen Director of Marine Spatial Ecology California Marine Sanctuary Foundation

Pamela Flick California Program Director Defenders of Wildlife

Pamela Heatherington Board of Directors Environmental Center of San Diego

Azsha Hudson Marine Conservation Analyst Environmental Defense Center

Susan Jordan Executive Director California Coastal Protection Network

Sharon Musa Urban to Wild Los Angeles Program Manager The Wilderness Society

Manuel Oliva Chief Executive Officer Point Blue Conservation

Robin Pelc Principal Scientist SeaChange Scientific Consulting, LLC

Teresa Romero President Native Coast Action Network

Dan Silver Executive Director Endangered Habitats League

Tomas Valadez California Policy Associate Azul Robert Vergara Roger Arliner Young (RAY) Ocean Conservation Fellow Natural Resources Defense Council

Erin Woolley Senior Policy Strategist Sierra Club California

Tracking Number: (2023-29MPA)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1. Person or organization requesting the change (Required)

Name of primary contact person: Lisa Suatoni

Address: Natural Resources Defense Council

Telephone number:

Email address:

Co-sponsors: Sam Cohen - Santa Ynez Band of Chumash Indians, Azsha Hudson - Environmental Defense

Center

- 2. Rulemaking Authority (Required) Reference to the statutory or constitutional authority of the Commission to take the action requested: Authority cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code.
 - **3. Overview (Required)** The attached document describes a proposal for an additional California-Chumash co-management SMCA in the south coast region to be named Mishopshno, following the ancestral Chumash village located in the area. The proposed MPA would prohibit the injury, damage, take, or possession of all living, geological, or cultural marine resources; and allow for enhanced access to the shoreline and marine resources for traditional, ceremonial, cultural, and subsistence purposes for the federally recognized tribe of the Santa Ynez Band of Chumash Indians, who will work to extend access to other non-federally recognized Chumash people.

The proposed area aligns with state MPA design and feasibility guidelines provided by CDFW, and is bounded by the mean high tide line, the 3 nm state waters boundary, and straight lines connecting the following points in the order listed:

34.365392908 N lat. 119.6000000 W long. (SW corner) 34.419698650 N lat. 119.6000000 W long. (NW corner)

34.393513965 N lat. 119.525777354 W long. (NE corner)

34.336952256 N lat. 119.525777354 W long. (SE corner)



4. Rationale (Required) - Describe the problem and the reason for the proposed change: The intent of the SMCA is to 1) help meet the science guidelines for spacing between protected habitats, promoting connectivity in the network and representation of habitat types, 2) protect habitat attractive to marine wildlife, such as juvenile white sharks, and 3) allow enhanced access to the shoreline and marine resources for traditional, ceremonial, cultural, and subsistence purposes for the federally recognized tribe of the Santa Ynez Band of Chumash Indians, who will work to extend access to other non-federally recognized Chumash people. See attached documentation for further details.

5.	TION II: Optional Information Date of Petition: 11/30/2023
6.	Category of Proposed Change ☐ Sport Fishing ☐ Commercial Fishing ☐ Hunting ☐ Other, please specify: MPAs, Section 632
7.	The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs) Amend Title 14 Section(s): Westlaw Regulations □ Add New Title 14 Section(s): Click here to enter text. □ Repeal Title 14 Section(s): Click here to enter text.
8.	If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition Not applicable.
•	Effect and a detail for a Park to the effective destands for the end to a fifther and the effective

- 9. **Effective date**: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: At the discretion of the Commission.
- 10. **Supporting documentation:** Identify and attach to the petition any information supporting the proposal including data, reports and other documents: See attached.
 - a. Proposed Mishopshno SMCA petition narrative
 - b. Appendix A Expanded synthesis of juvenile white shark aggregation at proposed Mishopshno SMCA
 - c. Appendix B Proposed Mishopshno SMCA letter of support
- 11. Economic or Fiscal Impacts: Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing: Unknown. However, this region is a popular fishing spot for spiny lobster and preventing take in the region may not be welcomed by recreational fishers in the area. Yet, research has shown an increase in lobster populations within MPAs and a resulting increase in lobster catch in neighboring zones. Recent work found that a 35% reduction in fishing area was compensated for by a 225% increase in total catch after 6-years, demonstrating local scale trade-offs provided benefits to fisheries.

12.	Forms: If applicable, list any forms to be created, amended or repealed: Click here to enter text.
SECT	TION 3: FGC Staff Only
Date	received: 11/30/2023
	staff action: ☐ Accept - complete ☐ Reject - incomplete ☐ Reject - outside scope of FGC authority Tracking Number petitioner was notified of receipt of petition and pending action:
Meeting date for FGC consideration:	
FGC	action: □ Denied by FGC □ Denied - same as petition

Tracking Number

 $\hfill\Box$ Granted for consideration of regulation change

Overview

The intent of this MPA is to 1) help meet the science guidelines for spacing between protected habitats, promoting connectivity in the network and representation of habitat types, 2) protect habitat attractive to marine wildlife, such as juvenile white sharks, and 3) allow enhanced access to the shoreline and marine resources for traditional, ceremonial, cultural, and subsistence purposes for the federally recognized tribe of the Santa Ynez Band of Chumash Indians, who will work to extend access to other non-federally recognized Chumash people.

We propose a new SMCA named for a prominent Chumash coastal village that was historically proximate to the marine area to be protected – Mishopshno. This village was an important coastal site in the ancestral lands of the diverse Chumash people. It was the site of boatbuilding and a close connection to the marine environment. It was described by members of the Portolá expedition who encountered the town on August 17, 1769 as "...at the very edge of the sea a large village or very regular town here at this point, appearing at a distance as though it were a shipyard, because at the moment they were building a canoe that still had its topmost plank lacking from it (dubbed by soldiers La Carpinteria, the Carpenter Shop)." The canoes described here were Tomol, Chumash watercraft built using sophisticated techniques for production of wooden planks and waterproofing with specialized local clay.²

Designation of a new Tribal MPA supports recent California and federal initiatives. To ensure 30% of state waters are fully protected by 2030 and to foster Tribal co-management, this petition proposes this additional Tribal co-management SMCA for the South Coast Region.³ This petition is co-sponsored by the federally recognized Santa Ynez Band of Chumash Indians, the Natural Resources Defense Council, and Environmental Defense Center.

Rationale

1. Habitat, Spacing, & Connectivity

The MPA Network was designed to function as an ecological network to ensure the protection of California's diverse coastal ecosystems.⁴ During the design and planning phase, a science advisory team identified the key metrics needed to achieve this connectivity, including MPA size, spacing, and key habitat representation and replication.⁵ Currently, mainland coastal MPAs in the Santa Barbara region, Campus Point and Point Dume, are approximately 64 nautical miles (nm) apart, 10 nm further than the recommended maximum MPA spacing distance of 54 nm to ensure ecological connectivity (Figure 1). This proposal aims to address that gap by adding a protected area around what is now called Carpinteria, CA and is the ancestral home of the Santa Ynez band of the Chumash Indians.

1

¹ "Chapter 4: Historic Chumash Settlements on the Mainland Coast," in *The Chumash World at European Contact: Power, Trade, and Feasting Among Complex Hunter-Gatherers*, by Lynn H. Gamble, 2011.

² John Peabody Harrington et al., *TOMOL: Chumash Watercraft as Described in the Ethnographic Notes of John P. Harrington*, Ballena Press Anthropological Papers; No. 9 (Socorro, N.M.: Ballena Press, 1978).

³ McGinnis, M.V. and R. Cordero. Tribal Marine Protected Areas: Protecting Maritime Ways and Tribal Practices. A White Paper produced by the Wishtoyo Foundation. 2004.

⁴ California Department of Fish and Wildlife, "California's Marine Protected Area Network Decadal Management Review," 2022, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=209209&inline.

⁵ California Department of Fish & Wildlife, Master Plan for MPAs. 2008, 2016

⁶ Emily Saarman et al., "The Role of Science in Supporting Marine Protected Area Network Planning and Design in California," *Ocean & Coastal Management* 74 (March 1, 2013): 45–56, https://doi.org/10.1016/j.ocecoaman.2012.08.021.

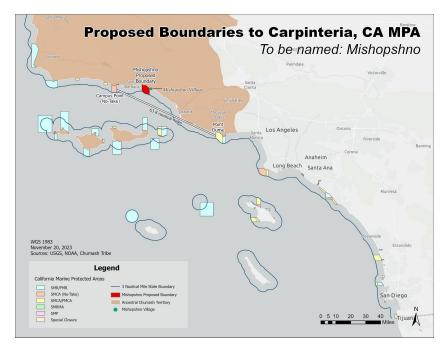


Figure 1: Map of southern California MPAs with the proposed SMCA near Carpinteria (to be called Mishopshno) shown in red.
Distance between two existing MPAs at Campus Point and Point Dume (64nm) is indicated. This distance is greater than the maximum suggested spacing to ensure ecological connectivity.
Mishopshno was one of the many Chumash villages in the region at the time of European colonization.

Carpinteria, initially proposed to be the site for an MPA in the original planning stages for the network, lies on the mainland coast north of the Channel Islands. Within a relatively small area, the

proposed region includes rocky reef, rocky intertidal, sandy habitats, sandy beaches, kelp forests, and surfgrass beds. Associated with these habitat features are higher trophic level species including halibut, lobster, grunion, nearshore sharks and rays, and multiple harbor seal haulouts. Research shows that MPAs with diversity of habitat types and depths facilitate increased connectivity among habitats.

The proposed SMCA would include Carpinteria Salt Marsh Reserve, which protects a critically important Southern California estuary. The marsh lies adjacent to a sandy beach, subtidal rocky reef, and kelp beds enabling exchange of nutrients and a regional nursery for halibut and other marine and estuarine fish, which supports a productive nearshore marine ecosystem. Carpinteria Reef, which would also be within the SMCA's boundaries, is a large area of rocky reef and kelp bed. The reef supports one of the more abundant marine life communities and persistent kelp beds in Santa Barbara County. 10

Ecological connectivity modeling has advanced since the initial Network design process and has confirmed that the system is generally functioning as a network with high MPA to MPA connectivity that varies by habitat type. 11 Model outputs show that rocky intertidal, kelp forest,

⁷ California MLPA South Coast Study Region, Description of Marine Protected Areas (MPAs) in Revised External MPA Proposal C (Round 2) Created May 14, 2009.

⁸ Mark H. Carr et al., "The Central Importance of Ecological Spatial Connectivity to Effective Coastal Marine Protected Areas and to Meeting the Challenges of Climate Change in the Marine Environment," *Aquatic Conservation: Marine and Freshwater Ecosystems* 27, no. S1 (2017): 6–29, https://doi.org/10.1002/aqc.2800; Charlotte R. Hopkins et al., "Evaluating Whether MPA Management Measures Meet Ecological Principles for Effective Biodiversity Protection," *Acta Oecologica* 108 (October 1, 2020): 103625, https://doi.org/10.1016/j.actao.2020.103625.

^{9 &}quot;Carpinteria Salt Marsh Reserve," July 9, 2015, https://ucnrs.org/reserves/carpinteria-salt-marsh-reserve/.

¹⁰ Levenbach, Stuart. "Community-wide ramifications of an associational refuge on shallow rocky reefs." Ecology 89.10 (2008): 2819-2828.

¹¹ California Department of Fish and Wildlife, "California's Marine Protected Area Network Decadal Management Review."

and mid-depth rocky reef habitats inside MPAs provide more larvae to each other, as well as to areas outside MPAs, compared to non-MPA sites. The habitat within the proposed Mishopshno site includes these representative habitat types and would thus contribute an additional node to the network thereby further increasing MPA-MPA connectivity. The south coast MPAs protect a lower proportion of rocky intertidal habitat than other regions. Incorporation of the Mishopshno SMCA would expand the representation of rocky intertidal and rocky reef habitat in the region.

MPAs are particularly important as sources for kelp forests, which are a foundational species and present in the Mishopshno proposed boundaries. ¹⁴ The demographic connectivity of kelp patches is highly influenced by oceanography. In the region of Carpinteria and the Santa Barbara Channel, high resolution data on circulation and current patterns show that 1) there is rapid transport of water and associated larvae and propagules nearshore (within 1km of shore) which moves from east to west¹⁵ and 2) the dominant current structure does not create strong connectivity from the Channel Island MPAs to the mainland. ¹⁶ Thus, proper spacing of mainland MPAs is needed to support connectivity for kelp and associated species.

Southern coast MPAs are likely to experience many warming events in the coming years. Inclusion of a diversity of upwelling regimes and habitat types in the network, such as those in the mainland and Channel Island MPAs, is thought to offer additional insurance against changing conditions. ^{13,16} As a general matter, ensuring proper spacing, placement, and consequently connectivity of southern mainland MPAs is increasingly important in light of climate change.

2. Habitat attractive to White Sharks (see Appendix A for further detail)

The habitat distribution for the northeast Pacific population of white sharks is broad, spanning from Baja California to a point northwest in the Bering Sea off the Aleutian Islands.¹⁷ However, research suggests that juveniles of this population are utilizing a more narrow band of coastal waters for nursery habitat, stretching from the Southern California Bight to Baja.¹⁸ Spatial data of white shark movements show that in areas off Carpinteria, CA, juvenile white sharks (JWS) form aggregations for periods of weeks to months.¹⁹ These spatial patterns suggest that this habitat attracts JWS, frequently serving as an important white shark nursery, and thus warrants additional protections given the iconic status and vulnerability of the species.

¹² California Department of Fish and Wildlife, "Decadal Management Review Appendix B: Science Guidance," January 2023, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=207752&inline.

¹³ Jennifer E. Caselle et al., ^aA Synthesis of Ecological and Social Outcomes from the California MPA Network (NCEAS Working Group Final Report)," text/xml (California Ocean Protection Council Data Repository, 2022), https://doi.org/10.25494/P6430V.c

¹⁴ California Department of Fish and Wildlife, "DMR Appendix B," 8.

¹⁵ Daniel P. Dauhajre, James C. McWilliams, and Lionel Renault, "Nearshore Lagrangian Connectivity: Submesoscale Influence and Resolution Sensitivity," *Journal of Geophysical Research: Oceans* 124, no. 7 (July 2019): 5180–5204, https://doi.org/10.1029/2019JC014943; S. Mitarai et al., "Quantifying Connectivity in the Coastal Ocean with Application to the Southern California Bight," *Journal of Geophysical Research: Oceans* 114, no. C10 (2009), https://doi.org/10.1029/2008JC005166.

¹⁶ Shelby L. Ziegler et al., "Marine Protected Areas, Marine Heatwaves, and the Resilience of Nearshore Fish Communities," *Scientific Reports* 13, no. 1 (January 25, 2023): 1405, https://doi.org/10.1038/s41598-023-28507-1. ¹⁷Office of National Marine Sanctuary, "White Shark Conservation, White Shark Stewardship Project," Government Website, Greater Farallones National Marine Sanctuary, accessed November 17, 2023, https://farallones.noaa.gov/eco/sharks/sharks_conservation.html.

https://www.frontiersin.org/articles/10.3389/fmars.2021.645142/full

James M. Anderson et al., "Interannual nearshore habitat use of young of the year white sharks off Southern California." *Frontiers in Marine Science* 8 (2021): 238.; Emily Spurgeon et al., "Quantifying Thermal Cues That Initiate Mass Emigrations in Juvenile White Sharks," *Scientific Reports* 12, no. 1 (November 18, 2022): 19874, https://doi.org/10.1038/s41598-022-24377-1.

White sharks are listed under Appendix II of the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES).²⁰ The species is slow to reach reproductive maturity and produces only a small number of young each year, making it vulnerable to human stressors.²¹ Research conducted in the Southern California Bight has found that fisheries bycatch is likely the main source of mortality for JWS.²² Another factor threatening white sharks is a warming climate and ocean that has led to many species' historic distribution changing. Changes in aggregation spots could place JWS young of the year in areas with greater threats from predation and human interactions.

Juvenile white sharks inhabit a narrow habitat range, choosing shallow habitats (< 1000 m deep) close to land (< 30 km of the shoreline) in waters ranging from 14 to 24°C.²³ They can form aggregations at these ideal locations and display a high degree of residency.²⁴ Historically, Southern California was a suitable habitat eight months of the year, while coastal habitats in Baja California were suitable year-round.²⁵ Recent research shows that the average observed white shark density in Carpinteria increased significantly across three years beginning in 2019.²⁶ Utilizing detection data, a study found a JWS hot spot at Padaro Beach in Carpinteria in the months from May to December in 2020.²⁷ In this study, the tagged individuals were observed across a stretch of coastline from Loon Point south to Carpinteria State Beach.²⁸ Padaro Beach was classified as an ideal JWS aggregation spot due to its sandy beach with a rocky reef adjacent to an estuary inlet and low wave energy compared to many of the other nursery habitats available.²⁹ Although it was previously believed that JWS do not show site fidelity, there is growing evidence that the Southern California Bight is a region of primary nursery habitat, with specific "hotspots" like Carpinteria beach attracting fairly stable aggregations, and that the suitability of the habitat has been increasing relative to areas further south as a result of climate change.

Conclusion

Recent research emphasizes that 1) mainland MPAs are unlikely to be well connected to Channel Island MPAs, 2) habitat types represented in the proposed Mishopshno MPA would contribute to connectivity and representation in the Network, and 3) decreasing spacing between mainland MPAs would increase ecological connectivity with direct impact on conservation success. Research focused on JWS has shown the waters off Carpinteria are a frequent hotspot for juvenile white sharks, offering specific habitat features that support this critical life stage. Finally, designation of the proposed MPA would add a Tribal MPA in the

²⁰ Office of National Marine Sanctuary, "White Shark Conservation, White Shark Stewardship Project," Government Website, Greater Farallones National Marine Sanctuary, accessed November 17, 2023, https://farallones.noaa.gov/eco/sharks/sharks_conservation.html.

²¹ Ibid.

²² John F. Benson et al., "Juvenile Survival, Competing Risks, and Spatial Variation in Mortality Risk of a Marine Apex Predator," ed. Andre Punt, *Journal of Applied Ecology* 55, no. 6 (November 2018): 2888–97, https://doi.org/10.1111/1365-2664.13158.

²³ White, et al. Quantifying habitat selection and variability in habitat suitability for juvenile white sharks.

²⁴ Lyons, et al. The degree and result of gillnet fishery interactions with juvenile white sharks in southern California. ²⁵ Ibid.

²⁶ John K. Parsons, "Using Unoccupied Aerial Vehicles to Uncover Patterns of Density, Size Structure, and Distribution of White Sharks (Carcharodon Carcharias) at a Southern California Coastal Aggregation Site" (UC Santa Barbara, 2022), https://escholarship.org/uc/item/2f74m5fz.

²⁷Spurgeon, E., Anderson, J.M., Liu, Y. et al. Quantifying thermal cues that initiate mass emigrations in juvenile white sharks. Sci Rep 12, 19874 (2022). https://doi.org/10.1038/s41598-022-24377-1

²⁸ Ibid.

²⁹ Ibid.

region, strengthening the role of the Tribes in co-management, monitoring, and marine education activities.

Boundary Description



Northern boundary is located at the 119.60 W longitudinal line extending from the shore at Summerland, north of Loon Point out to the 3 nm state boundary. The southern boundary of the proposed MPA lies at the northern end of Carpinteria State Beach.

Area: 67.85 km²

Shore adjacent distance: 9.75km

MPA coordinates:

- 1. 34.365392908 N lat. 119.6000000 W long. (SW corner)
- 2. 34.419698650 N lat. 119.6000000 W long (NW corner)
- 3. 34.393513965 N lat. 119.525777354 W long. (NE corner)
- 4. 34.336952256 N lat. 119.525777354 W long. (SE corner)

Suggested Regulations

This petition proposes an SMCA for the region north of Carpinteria State Beach outlined above. Take of all living, geological, or cultural marine resources is prohibited except:

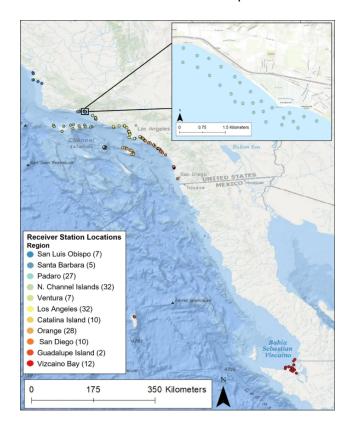
1. The following federally recognized tribe is exempt from the area and take regulations found in subsection 632(b)(9) of these regulations and shall comply with all other existing regulations and statutes:

The federally recognized tribe of the Santa Ynez Band of Chumash Indians. Within the proposed SMCA, the Chumash would be allowed to fish with the use of hand-based equipment. The proposed exemptions would be consistent with allowing tribal take exemptions as currently defined in Title 14, §632(a)(11), which identify how a member of a federally recognized tribe may be authorized to take living marine resources from an MPA with site-specific take restrictions. Members taking living marine resources under this provision are subject to current seasonal, bag, possession, gear and size limits in existing Fish and Game Code statutes and regulations of the Commission, except otherwise provided for in Title 14, §632(b).

2. Scientific research pursuant to the MLPA regulations for SMCAs. (14 C.F.R. section 632(a)(1)(C).

Appendix A – Expanded synthesis of juvenile white shark aggregation at proposed Mishopshno SMCA

The habitat distribution for the northeast Pacific population of white sharks is broad, spanning from Baja California to a point northwest in the Bering Sea off the Aleutian Islands. However, research suggests that juveniles of this population are utilizing a more narrow band of coastal waters for nursery habitat, stretching from the Southern California Bight to Baja. In particular, spatial data of white shark movement show that in areas off Carpinteria, California, juvenile white sharks (JWS) form aggregations for periods of weeks to months. These spatial patterns suggest that this region is serving as an important white shark nursery and thus warrants additional protections for this iconic and vulnerable species.



The locations of acoustic receivers along the California and Mexican coastline. Each color represents a region where (n) receivers are located. The inset map shows the higher density receiver array at Padaro Beach, CA. Map was produced using ArcMap™ version 10.8.1 with the "Ocean" basemap. https://www.arcgis.com/home/item.html?id=5ae9e138a17842688b0b79283a4353f6.⁴

¹"White Shark Conservation, White Shark Stewardship Project | Greater Farallones National Marine Sanctuary," accessed November 30, 2023,

https://farallones.noaa.gov/eco/sharks/sharks conservation.html.

²James M. Anderson et al., "Interannual Nearshore Habitat Use of Young of the Year White Sharks Off Southern California," Frontiers in Marine Science 8 (2021), https://www.frontiersin.org/articles/10.3389/fmars.2021.645142.

³ Emily Spurgeon et al., "Quantifying Thermal Cues That Initiate Mass Emigrations in Juvenile White Sharks," *Scientific Reports* 12, no. 1 (November 18, 2022): 19874, https://doi.org/10.1038/s41598-022-24377-1.

⁴ Spurgeon, E., Anderson, J.M., Liu, Y. *et al.* Quantifying thermal cues that initiate mass emigrations in juvenile white sharks. *Sci Rep* 12, 19874 (2022). https://doi.org/10.1038/s41598-022-24377-1

White Sharks are listed under Appendix II of the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES).⁵ The species is slow to reach reproductive maturity and produces only a small number of young each year, making it vulnerable to human stressors.⁶ One of the largest threats to white shark survival rates is the impact from fisheries as bycatch. Many studies have indicated white sharks are caught as bycatch from fisheries in the northeastern Pacific.⁷ Research conducted in the Southern California Bight has shown that fisheries bycatch is the main source of mortality for JWS in this region.⁸ Juvenile survival rate is critical to the growth of white shark populations.⁹ Another factor threatening white sharks is a warming climate and ocean that has led to many species' historic distribution changing. Juvenile white sharks have a narrow temperature range that they inhabit, and known aggregation spots are no longer viable or preferred due to changing oceans.¹⁰ Changes in aggregation spots could place JWS and young of the year (YOY) in areas with greater threats from predation and human interactions.

Habitat selection differs greatly between adult and juvenile white sharks, which can be explained by differences in diet, size, and temperature preferences. Young white sharks can be classified into three classes: neonate, YOY, and juvenile. Newborn white sharks are about 4-5 feet in size and JWS range from 6-9 feet. Compared to an adult white shark, whose size ranges from 10-20 feet, YOY and JWS likely lack sufficient body mass and thermal inertia required to maintain a warmer body temperature. This may indicate a sensitivity to temperature lending some explanation for YOY and JWS near-shore habitat preference. Adult white sharks travel further from coastal areas and make deeper dives compared to JWS. Juvenile white sharks (JWS) choose shallow habitats (< 1000 m deep) close to land (< 30 km of the shoreline) in waters ranging from 14 to 24°C. They can form aggregations at these ideal locations and display a high degree of residency.

California.

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⁵ "White Shark Conservation, White Shark Stewardship Project | Greater Farallones National Marine Sanctuary."

⁶ Ibid.

⁷ Kady Lyons et al., "The Degree and Result of Gillnet Fishery Interactions with Juvenile White Sharks in Southern California Assessed by Fishery-Independent and -Dependent Methods," *Fisheries Research* 147 (October 1, 2013): 370–80, https://doi.org/10.1016/j.fishres.2013.07.009; "Status Review of the Northeastern Pacific Population of White Sharks (Carcharodon Carcharias) under the Endangered Species Act," accessed November 30, 2023, https://repository.library.noaa.gov/view/noaa/17705.

⁸ John F. Benson et al., "Juvenile Survival, Competing Risks, and Spatial Variation in Mortality Risk of a Marine Apex Predator," *Journal of Applied Ecology* 55, no. 6 (2018): 2888–97, https://doi.org/10.1111/1365-2664.13158.

⁹ Enric Cortés, "Incorporating Uncertainty into Demographic Modeling: Application to Shark Populations and Their Conservation," *Conservation Biology* 16, no. 4 (2002): 1048–62, https://doi.org/10.1046/j.1523-1739.2002.00423.x.

¹⁰ Bowlby, H. D., Dicken, M. L., Towner, A. V., Waries, S., Rogers, T., & Kock, A. (2023). Decline or shifting distribution? A first regional trend assessment for white sharks (Carcharodon carcharias) in South Africa. *Ecological Indicators*, *154*, 110720.

¹¹ Dewar, H., Domeier, M. & Nasby-Lucas, N. Insights into young of the year white shark, Carcharodon carcharias, behavior in the Southern California Bight. Environ. Biol. Fishes https://doi.org/10.1023/B:EBFI.0000029343.54027.6a.pdf (2004).

¹² Hoyos-Padilla, E.M., Klimley, A.P., Galván-Magaña, F. et al. Contrasts in the movements and habitat use of juvenile and adult white sharks (Carcharodon carcharias) at Guadalupe Island, Mexico. Anim Biotelemetry 4, 14 (2016). https://doi.org/10.1186/s40317-016-0106-7

¹³ White, et al. Quantifying habitat selection and variability in habitat suitability for juvenile white sharks. ¹⁴ Lyons, et al. The degree and result of gillnet fishery interactions with juvenile white sharks in southern

Young of year and juvenile white sharks have been observed to reside in California waters during the summer months and migrate south to Baja during the winter months. However, anecdotal evidence suggests that the distribution and/or migratory patterns of JWSs may be shifting northward – with more individuals staying in southern California throughout the entire year. 16

Recent research shows that the average observed white shark density in the Carpinteria area increased significantly across three years beginning in 2019.¹⁷ Utilizing detection data, a study found a JWS hot spot at Padaro Beach off Carpinteria in the months from May to December in 2020.¹⁸ In this study, the tagged individuals were observed across approximately a 5.5 km stretch of coastline from the area of Loon Point south to Carpinteria State Beach.¹⁹ Padaro Beach was classified as an ideal JWS aggregation spot due to its sandy beach with a rocky reef adjacent to an estuary inlet and is considered to have low wave energy compared to many of the other nursery habitats available.²⁰

Historically, Southern California was a suitable habitat eight months of the year, while coastal habitats in Baja California were suitable year-round.²¹ A warming climate and ocean has redefined the oceanographic conditions of the Southern California Bight. Point Conception is defined as a terrestrial headland that sharply separates the warmer waters of the southern California Bight from the northern remnant of the California Current Ecosystem. From 2014 to 2020, the mean position of this oceanographic demarcation moved 240 km north of Point Conception to 36.3° N.²² Current climate projections for the future indicate this shift will likely become stable.²³ This area is known to have different species assemblages due to the significant temperature difference between the two currents, with habitat composition also reflecting this. Scientists anticipate that a shift in the boundary of current temperatures will lead to a shift in distribution and presence of adult and juvenile white sharks, potentially making the Southern California Bight even more important to successful white shark recruitment.

Juvenile aggregation spots generally provide an appropriate food supply, ideal physical conditions, and reduced predation for immature individuals, thereby increasing survival rates compared to other habitats.²⁴ There is growing evidence that the Southern California Bight is

¹⁵ Weng, K., O'Sullivan, J., Lowe, C., Winkler, C., Blasius, M., Loke-Smith, K., et al. (2012). "Back to the wild," in Global Perspectives on the Biology and Life History of the White Shark, ed. M. Domeier (Boca Raton, FL: CRC Press), 419–446. doi: 10.1201/b11532-32

Spurgeon, E., Anderson, J.M., Liu, Y. et al. Quantifying thermal cues that initiate mass emigrations in juvenile white sharks. Sci Rep 12, 19874 (2022). https://doi.org/10.1038/s41598-022-24377-1
 John K. Parsons, "Using Unoccupied Aerial Vehicles to Uncover Patterns of Density, Size Structure, and Distribution of White Sharks (Carcharodon Carcharias) at a Southern California Coastal Aggregation Site" (UC Santa Barbara, 2022), https://escholarship.org/uc/item/2f74m5fz.

¹⁸Spurgeon, E., Anderson, J.M., Liu, Y. et al. Quantifying thermal cues that initiate mass emigrations in juvenile white sharks. Sci Rep 12, 19874 (2022). https://doi.org/10.1038/s41598-022-24377-1 ¹⁹ Ibid.

²⁰ Ibid.

²¹ Ibid.

²² Kisei R. Tanaka et al., "North Pacific Warming Shifts the Juvenile Range of a Marine Apex Predator," *Scientific Reports* 11, no. 1 (February 9, 2021): 3373, https://doi.org/10.1038/s41598-021-82424-9.

²³ Jie Cao et al., "A Novel Spatiotemporal Stock Assessment Framework to Better Address Fine-Scale Species Distributions: Development and Simulation Testing," *Fish and Fisheries* 21, no. 2 (2020): 350–67, https://doi.org/10.1111/faf.12433.

²⁴ Michelle R. Heupel, John K. Carlson, and Colin A. Simpfendorfer, "Shark Nursery Areas: Concepts, Definition, Characterization and Assumptions," *Marine Ecology Progress Series* 337 (May 14, 2007):

becoming an increasingly important habitat for juvenile white sharks, with specific locations like the Carpentaria beach being especially suitable, attracting fairly stable aggregations.

Recent research focused on JWS has shown they have site loyalty to the Carpinteria area, and specific habitat needs that are present in the Carpinteria waters. An additional MPA in this area would offer further insurance against the impacts of anthropogenic disturbance, reducing bycatch risk in the face of warming water temperatures and changing habitat suitability.

287–97, https://doi.org/10.3354/meps337287; Maria J. Rocha, ed., *Fish Reproduction* (Boca Raton: CRC Press, 2011), https://doi.org/10.1201/b10747.



































November 30, 2023

Eric Sklar, President California Fish and Game Commission 715 P Street, 16th Floor Sacramento, CA 95814

Re: <u>Decadal Management Review Marine Protected Areas Petition Process:</u> Carpinteria, CA

Dear President Sklar and Honorable Commissioners:

Thank you for the opportunity to submit recommendations for the adaptive management of California's Marine Protected Area (MPA) network as part of the Decadal Management Review (DMR) process. The undersigned organizations submit this letter in strong support of the designation of a new State Marine Conservation Area (SMCA) in Carpinteria beginning at Loon Point to the western end of Carpinteria State Beach.

Proposed as an MPA site in the initial Marine Life Protection Act (MLPA) planning process, Carpinteria, lies on the mainland coast north of the Channel Islands. Carpinteria holds deep cultural significance for the Chumash people, whose territory once spanned from Malibu to Paso Robles. Given the rich cultural ties that the traditional stewards of this land and waters have to this day, we support naming the SMCA after a Chumash coastal village from the region – Mishopshno. In addition, we support regulations that allow access to the shoreline and marine resources for traditional, ceremonial, cultural, and subsistence purposes for the Chumash, within proposed SMCA boundaries.

The Carpinteria area is ecologically rich and diverse. Carpinteria Reef supports one of the more abundant marine life communities and persistent kelp beds in Santa Barbara County. The Carpinteria Reef and Salt Marsh are biologically linked with crucial exchange of nutrients and extensive interaction between marine and estuarine organisms. The Carpinteria Salt Marsh Reserve protects a critically important Southern California estuary and serves as an important

regional nursery for halibut and other marine and estuarine fish. Carpinteria is also an important habitat for the north Pacific population of white sharks. Recent research has shown that juvenile white sharks (JWS) have site loyalty to Carpinteria and specific habitat needs that are present in the Carpinteria waters. Padaro Beach, located within the proposed SMCA boundaries, can be classified as an ideal JWS aggregation spot due to its sandy beach with a rocky reef adjacent to an estuary inlet and low wave energy compared to many of the other nursery habitats available. White sharks are slow to reach reproductive maturity and produce only a small number of young each year, making them highly susceptible to the threats of fishing and other human activities. Designating an SMCA that restricts commercial and recreational fishing in this location will reduce threats faced by this keystone species and help reach California's goal to protect and grow the white shark population.

In addition, the Carpinteria Reef is recognized as one of the most popular recreational diving and kayaking destinations in Santa Barbara County. There are also extensive community outreach efforts in place at both the Salt Marsh and the State Beach, including an on-site interpretative center, teaching amphitheater, and nature trail. As well as extensive ongoing research and educational activities like University courses, monthly bird surveys, habitat restoration and removal of invasive exotic plants, frequent local school visits, weekly docent tours, and field trips by the Santa Barbara Museum of Natural History.

Protecting Carpinteria's waters will not only improve recreational, educational, and research opportunities for the local community but also help ensure the overall MPA network remains a viable and useful tool to ensure coastal ecosystem conservation. Currently, the closest coastal MPAs to the Santa Barbara region are Campus Point SMCA and Point Dume State Marine Reserve (SMR). These are 64 nautical miles apart—10 nautical miles further than the recommended distance (27-54 nautical miles) identified by the science advisory team to ensure network ecological connectivity. Creating this MPA will protect critical nearshore shallow and intertidal habitats and help meet the science guidelines for spacing between protected habitats and representation of habitat types. Furthermore, we believe this petition strongly aligns with the goals set by the California Marine Life Protection Act (MLPA).

Our organizations celebrate the success of the MPA network and the Commission's continued work to protect our state's biodiversity at a time when ocean conservation wins are more important than ever. Thank you for the opportunity to express our strong support for this proposal that aims to fill a current gap in network design to improve ecological connectivity throughout the region, provide additional resilience in the face of climate change, and protect a critical marine habitat.

Sincerely,

Dennis Arguelles Southern California Director National Parks Conservation Association Steve Bardwell President Morongo Basin Conservation Association

Joe Connett Member Sierra Club Santa Barbara-Ventura Chapter

Laura Deehan State Director Environment California Research and Policy Center

Rikki Eriksen Director of Marine Spatial Ecology California Marine Sanctuary Foundation

Pamela Flick California Program Director Defenders of Wildlife

Pamela Heatherington Board of Directors Environmental Center of San Diego

Azsha Hudson Marine Conservation Analyst Environmental Defense Center

Susan Jordan Executive Director California Coastal Protection Network

Ted Morton Executive Director Santa Barbara Channelkeeper

Kristie Orosco Tribal Partnerships Senior Manager The Wilderness Society

Robin Pelc Principal Scientist SeaChange Scientific Consulting, LLC Harry Rabin Founder, Reef Guardians Program Director, Heal the Ocean

Teresa Romero President Native Coast Action Network

Dan Silver Executive Director Endangered Habitats League

Tomas Valadez California Policy Associate Azul

Robert Vergara Roger Arliner Young (RAY) Ocean Conservation Fellow Natural Resources Defense Council

Erin Woolley Senior Policy Strategist Sierra Club California

Tracking Number: (2023-30MPA)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1. Person or organization requesting the change (Required)

Name of primary contact person: Robert Jamgochian

Address: 41569 Little Lake Rd. Mendocino

Telephone number: 707.684.9384 Email address: rjamgoch@mcn.org

- Rule making Authority: Authority cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code.
- 3. **Overview -** In Big River SMCA make the proposed changes in regulations: CCR, T14, Section 29.80(c). Gear Restrictions for Recreational Take of Saltwater Crustaceans part (b)(1). Change gear restrictions to allow only Type A hoop nets that are collapsible and eliminate the hoop net Type B option rigid frame from general provisions.
 - (6) Trap Limits: (A) Reduce the number of set traps to 5 from ten.

CCR, T14 Section 29.85 - crabs. (2) Open Season (b) Dungeness crabs (Cancer magister): Part (3) Limit: Reduce from 10 crab per person to 5 per person

Rationale - The Mendocino MPA Collaborative Vetted Regulations Recommend that data on Big River SMCA crab fishery is needed to determine whether current crab take allowances and methods are allowing a vigorous and sustainable population.

1. Big River Estuary SMCA serves as important nursery for many recreationally and commercially harvested fishery species. Dungeness crab are the largest macro invertebrate in Big River Estuary and play an important role in the health of the ecosystem. They are keystone species providing food for seals, otters, Blue Herons, and numerous fish. Their larvae are planktonic and provide food for numerous filter feeders that live in the muddy sandy bottoms of Big River Estuary. Crabs nutrient cycle, reclaim and help purify the water helping to maintain the overall vitality of the estuary.

- 2. A decline in the crab population effects the entire estuary ecosystem.
- 3. There have been no biometric studies done to assess the population dynamics of Dungeness crabs in Big River Estuary. It is prudent to reduce the take now before numbers are unsustainable - rather than let the outdated 10 bag limit/10 traps per person continue
- 4. The size of the MPA Estuary is quite small 2-6 meters deep only 30 meters wide which makes it very easy to take crab
- 5. The number of people crabbing has increased exponentially in the last 5 years putting unsustainable toll on the crab population.
- 6. Warden enforcement is minimal

SECTION II: Optional Information

4. Date of Petition: 11/30/2023

5. Category of Proposed Change

Sport Fishing

- □ Commercial Fishing
- ☐ Hunting

X Other, please specify: MPAs, Section 632

- 6. **The proposal is to:** Amend CCR, T14, Section 29.80(c) and CCR, T14 Section 29.85
- 7. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition

 Not applicable.
- 8. Effective date: ASAP
- 9. Supporting documentation: See attached North Coast MPA Collaborative Vetted Regulation Recommendations (Mendocino Big River SMCA section)
- 10. Economic or Fiscal Impacts: Big River Estuary SMCA serves as important nursery for many recreationally and commercially harvested fishery species. Dungeness crab population would be sustained bringing fishing license monies to DFW. Health of estuary would be improved through the presence of the Dungeness, adding to the vitality of species such as Salmonids, rockfish and others that use the estuary as a rearing ground and rookery.
- 11. **Forms:** If applicable, list any forms to be created, amended or repealed:

SECTION 3: FGC Staff Only	
Date received: 11/30/2023	
FGC staff action: □ Accept - complete □ Reject - incomplete □ Reject - outside scope of FGC authority Tracking Number Date petitioner was notified of receipt of petition and pending action:	
Meeting date for FGC consideration:	
FGC action: □ Denied by FGC □ Denied - same as petition	
Tracking Number	

☐ Granted for consideration of regulation change

County	MPA	Current Regs Summarized	Compliance concerns and/or management problem identified	Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
Del Norte	Pyramid Point SMCA	Rec take of surf smelt by dip net or Hawaiian type throw net. Tolowa Dee-ni' exempt	Onshore and offshore hook and line fishing, collecting sand crabs as bait, kayak fishers, violations from boaters registered in both CA and OR	Remove allowance for surf smelt by dip net or Hawaiian type throw net; Change to No-Take SMCA with Tribal exemption for Tolowa Dee-ni'	Yes	Smelt is culturally important species to Tolowa and No Take designation will be clearer to public, reducing violations	Signs being vandalized, ripped out. Outreach to gain compliance needed (Guardian Watchmen)	Tolowa Dee-ni' Nation	rosa.laucci@tolowa.com	Take Allowance Change	Yes, from SMCA to No-Take SMCA with Tribal exemption
Del Norte	Pyramid Point SMCA	Rec take of surf smelt by dip net or Hawaiian type throw net. Tolowa Dee-ni' exempt	Elk Valley Rancheria is interested in exploring the possibility of being included in exempt status	Add Elk Valley Rancheria to exempt Tribes if requested by Tribal Council	Yes	Elk Valley Rancheria has ancestral ties to the area				Take Allowance Change	
Del Norte	Pyramid Point SMCA	Rec take of surf smelt by dip net or Hawaiian type throw net. Tolowa Dee-ni' exempt	Boundary is in Oregon	Change northern boundary to align with recognized California/Oregon state line	Yes	Original boundary used a mapping system that does not align with on-the- ground state line.		Tolowa Dee-ni' Nation	rosa.laucci@tolowa.com	Boundary Change	
Del Norte	Point St. George Offshore Reef SMCA	Rec take of salmon by trolling and Dungeness crab by trap. Commercial take of salmon with troll fishing gear and Dungeness crab by trap. Elk Valley and Tolowa Dee-ni' exempt		No change	Yes						
Del Norte	Sea Lion Rock Special Closure	300'	No data	No change	Yes						
Del Norte	Castle Rock Special Closure	300'	Poke poling at Preston Island and Battery Point and Hook Finger Point during extremely low tides. Kayaks near closure	No change	Yes						
Del Norte	False Klamath Rock Special Closure	300' from 3/1-8/31	Low flyovers by US Coast Guard helicopter. Kayaks near closure, kaking kelp. Dogs off leash	No change	Yes		Signs needed at Wilson Creek. Potential site for CoastSnap to crowdsource changes around rock				
Humboldt		Rec take of salmon by trolling; surf smelt by dip net or Hawalian type throw net; Dungeness crab by trap, hoop net or hand. Commercial take of salmon with troll fishing gear; surf smelt by dip net; Dungeness crab by trap. Trinidad, Resighini and Yurok exempt	Hook and line fishing and take of sand crabs regularly occur, especially at southern boundary Gold Bluffs beach traditional smelt camp Track amount of surf smelt taken (25 lbs current limit). Hawaiian Type throw net inappropriate	Work with California Tribes and indigenous people to change "Hawaiian type throw net" to a term that is more reflective of Indigenous Californian net based take methods	Yes		Monitor Surf smelt as a part of state monitoring plan.			Language Change	
Humboldt		Rec take of salmon by trolling; surf smelt by dip net or Hawaiian type throw net; Dungeness crab by trap, hoop net or hand. Commercial take of salmon with troll fishing gear; surf smelt by dip net; Dungeness crab by trap. Trinidad, Resighini and Yurok exempt		Recommend implementing limits on commercial take of surf smelt	Yes	Culturally important species				Take Allowance Change	
			Drifting commercial	No change							

County	MPA	Current Regs Summarized	Compliance concerns and/or management problem identified	Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
Humboldt	Samoa SMCA	Rec take of salmon by trolling; surf smelt by dip net or Hawaiian type throw net; Dungeness crab by trap, hoop net or hand. Commercial take of salmon with troll fishing gear; surf smelt by dip net; Dungeness crab by trap. Wiyot exempt	Difficult to determine boundaries	Work with California Tribes and indigenous people to change "Hawaiian type throw net' to a term that is more reflective of Indigenous Californian net based take methods	Yes	Reference to Hawaiian nets when indigenous terms exist for this take type is inappropriate and disrespectful	Monitor recreational and commercial (through landing/block reports) take of salmon by troll and surf smelt by dip net and assess effect on population; Signs with you are here map at Mad River			Language Change	
Humboldt	South Humboldt Bay SMRMA	No Take except waterfowl may be taken. Wiyot exempt	Invasive grasses, loss of eelgrass, general threats to habitat. Non Tribal members clamming. Difficult to identify boundaries within South Humboldt Bay	Determine reason it does not extend to southern water's edge and extend if no reason	Yes	Clearer for outreach purposes to say from southern end of bay to 2nd hunter pull out	Direct enforcement to look for unlawful clamming			Boundary Change	
Humboldt	Sugarloaf Island Special Closure	300'		No change	Yes						
Humboldt	South Cape Mendocino SMR	No Take	Minimal patrol	No change	Yes		Develop a plan for evaluating remote area MPAs to determine impact, such as temporary M2 radar/drone surveillance; support southern Humboldt patrol by LED				
Humboldt	Steamboat Rock Special Closure	300' 3/1-8/31	Confusion on when it is open to swim out to and when it is closed	No change	Yes		Sign that highlights special closure and closure dates				
Humboldt	Mattole Canyon SMR	No Take	Minimal patrol. Some commercial crab pots observed during USCG flyover	No change	Yes		Develop a plan for evaluating remote area MPAs to determine impact, such as temporary M2 radar/drone surveillance; support southern Humboldt patrol by law enforcement division				
Humboldt	Sea Lion Gulch SMR	No Take	Backpackers harvest mussels along entire Lost Coast Trail; people getting too close to new elephant seal colony. No cell connectivity to determine boundaries of MPA	Move southern boundary south to Cooskie Creek	BLM support but need fisher input	Creek is more identifiable feature for land based outreach to fishers hiking the Lost Coast Trail				Boundary Change	
Humboldt	Big Flat SMCA	Rec take of salmon by trolling and Dungeness crab by trap, hoop net or hand. Commercial take of salmon with troll fishing gear and Dungeness crab by trap. Multiple Tribes exempt	Backpackers harvest mussels along entire Lost Coast Trail; surf fishing occurs at Miller Flat. No cell connectivity to determine boundaries of MPA	No change	Yes		More outreach needed for fishers hiking lost coast. Include more detailed information in BLM Lost Coast map				
Mendocino	Double Cone Rock SMCA	Rec take of salmon by trolling; Dungeness crab by trap, hoop net or hand. Commercial take of salmon with troll fishing gear and Dungeness crab by trap	Unknown. Limited patrol. Report of excessive urchin and need for grazer suppression.	Reassess restoration policy in SMCAs impacted by climate change/kelp loss	Yes	Loss of kelp habitat needs to be addressed in this SMCA	Allow for restoration work/grazer suppression to address urchin barrens (reds and purples)	California Sea Urchin Commission - allow for commercial take of urchin		Other	
Mendocino	Vizcaino Rock Special Closure	300' 3/1-8/31		No change	Yes						

County	MPA	Current Regs Summarized	Compliance concerns and/or management problem identified	Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
Mendocino	Ten Mile SMR	No Take	Primary concern is shore-based fishing (rod and reel at seaside creek beach). Recreational fishers take rockfish and lingcod, crab pots "walk themselves" into MPA at southern boundary. Dogs off leash	No change	Yes		OK/boundary sign needed at northern boundary. Simplify outreach language around MPA clusters				
Mendocino	Ten Mile Beach SMCA	Rec take of Dungeness crab by trap, hoop net or hand. Commercial take of Dungeness crab by trap. Many Tribes exempt	Unlawful take of fish (rockfish, lingcod); dogs off leash in snowy plover habitat. Potential sand dump site south side of Ten Mile Beach	No change	Yes		Simplify outreach language around MPA clusters				
Mendocino	Ten Mile Estuary SMCA	Waterfowl may be taken. Many Tribes exempt	Limited access for fishers	No change	Yes		Simplify outreach language around MPA clusters				
Mendocino	MacKerricher SMCA	All rec take allowed. Commercial take allowed except for bull kelp and glant kelp	Multiple violations occur daily since closest to Fort Bragg city center (general fish and game code violations). North boundary (Laguna Point) hotspot for intertidal take	Add protection for intertidal zone, per State Parks, in support for protection of the resource and ease of enforcement/outreach	Many in support but no full consensus	There are limited areas in the county to lawfully take intertidal animals such as mussels, turban snails, limpets, etc.	More enforcement support needed due to limited State Parks personnel. Focus on tidepool education. Intertidal specific take signs are needed	State Parks pending review		Take Allowance Change	
Mendocino	Point Cabrillo SMR	No Take	Lighthouse sees lots of boats fishing offshore of Frolic Cove on northern end of Point Cabrillo SMR or inside	No change	Yes		OK boundary signs would be beneficial on both boundaries for kayak fishing				
Mendocino	Russian Gulch SMCA	All rec take allowed. Commercial take allowed except for bull kelp and giant kelp	General fish and game code violations	No change	Yes						
Mendocino	Big River Estuary SMCA	Rec take of surfperch by hook and line from shore only and Dungeness crab by hoop net or hand. Many Tribes exempt. Waterfowl may be taken	Increased use for swimming and recreation has led to safety concerns, including close calls between swimmers and hunters. Swimmers mixing with motorized boats may lead to accidents	Hunting should be prohibited due to high public use/public safety issues, per State Parks	Yes	Community reported incidents of near misses between hunters/boaters and swimmers		State Parks pending review		Allowed Activity Change	
Mendocino	Big River Estuary SMCA	Rec take of surfperch by hook and line from shore only and Dungeness crab by hoop net or hand. Many Tribes exempt. Waterfowl may be taken	Can MPA restrict motorized vessels if not ecological reserve?	Restrict all motorized vessels with allowance for public safety, per State Parks	Yes, with clarification that motorized vessels are only restricted going east (up river)	West access from launch should be allowed for boaters going out to ocean	Data on crab fishery is needed to determine whether allowance is sustainable. Need clear signage restricting snare traps. Pick up after dog signs needed	State Parks pending review		Allowed Activity Change	
Mendocino	Van Damme SMCA	All rec take allowed. Commercial take allowed except for bull kelp and giant kelp	Overtake and take of undersize fish	No change	Yes						
Mendocino	Navarro River Estuary SMCA	Rec take of salmonoids by hook and line. Many Tribes exempt. Waterfowl may be taken	People illegally breach sandbar (but outside MPA?)	No change	Yes						
Mendocino	Point Arena SMR	No Take	Fishing in SMR reported by lighthouse manager	No change	Yes		OK boundary signs needed				
Mendocino	Point Arena SMCA	Rec take of salmon by trolling. Commercial take of salmon with troll fishing gear		No change	Yes						

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Mendocino	Sea Lion Cove	Rec and commercial take of finfish	Urchin barrens	Reassess restoration policy in SMCAs impacted by climate change/kelp loss	Yes		Allow for restoration work/grazer suppression to address urchin barrens (reds and purples)	California Sea Urchin Commission - allow for commercial take of urchin		Other	
Mendocino	Saunders Reef SMCA	Rec take of salmon by trolling. Commercial take of salmon with troll fishing gear and urchin	Citations issued for people diving and taking at Schooner Gulch; illegal shore fishing from Hearn Gulch	No change	Yes		Additional enforcement personnel/efforts are needed				
Sonoma	Del Mar Landing SMR	No Take	Fishing at north end	No change	Yes		Trail pamphlets with MPA information				
Sonoma	Stewarts Point SMR	No Take	Poaching at 3 mile line. Difficult for fishers to determine where 3 mile line is and difficult to enforce from land	Allow for trolling of salmon. Change to SMCA?	No. Discussed with no strong opposition but more info needed	Impact to commercial salmon fishing can be addressed with minimal impact to other resources	More signage needed at public access points			Take Allowance Change	Yes, would change SMR to SMCA. No consensus
Sonoma	Stewarts Point SMCA	Rec take from shore only of marine aquatic plants other than sea palm, marine invertebrates, finfish by hook and line, surf smelt by beach net, species authorized by hand-held dip net	Tribal based MPA	Prohibit all take and add Kashia Pomo to Tribal exemptions to make affirmative rights of Tribal Members re: collection, harvesting, and research	Yes	MPA is only accessed by Kashia Tribal members from shore (owned by Tribe) so would be same protection while acknowledging Tribal rights				Take Allowance Change	Yes, change from SMCA to No-Take SMCA with Tribal exemption
Sonoma	Salt Point SMCA	Recreational take of abalone and finfish allowed	Take of abalone during closure; poaching of intertidal species. Confusion regarding intertidal take	No change	Yes		Needs more signage on collecting/take of shellfish and other non finfish				
Sonoma	Gerstle Cove SMR	No Take	Excessive intertidal take. Rec fishers fishing the line	No change	Yes		Need for good tidepooler rules signs to address harmful tidepooling				
Sonoma	Russian River SMRMA	No take except waterfowl may be taken	Marine mammal disturbance occurring. County of Sonoma needs to conduct restoration work as part of management plan	Allow for restoration work in SMRMA	Yes	Restoration will not impact haul out sites, marine mammals or birds				Other	
Sonoma	Russian River SMCA	Rec take of Dungeness crab by trap, and surf smelt by hand-held dip net or beach net. Commercial take of Dungeness crab by trap	Illegal onshore and offshore fishing; seal disturbance "seal selfies" near Goat Rock. Trash/dogs off leash	No change	Yes		More outreach for out of town fishers/permanent signage				
Sonoma	Bodega Head SMR	No Take	Take of rockfish and trolling for salmon; fishing on northern boundary off rocks Difficult "fan" shape and hard to identify northern boundary makes enforcement difficult	No change	Yes	Would require new outreach					
Sonoma/Marin	Bodega Head SMCA	Rec take of pelagic finfish by trolling, Dungeness crab by trap, and market squid by hand-held dip net. Commercial take of pelagic finfish by troll fishing gear and round haul net, Dungeness crab by trap, and market squid by round haul net	Take of rockfish and trolling for salmon; fishing on northern boundary off rocks Difficult "fan" shape and hard to identify northern boundary makes enforcement difficult	No change	Yes						

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Sonoma/Marin	Estero Americano SMRMA	No take except waterfowl may be taken	Confusion as to boundary "high tide line" and who manages strip of beach between ocean and estuary that is often closed, Difficulty identifying eastern boundary. No way to see boundary from shore	No change	Yes		More signs needed at access points here to address compliance concerns				
Marin	Estero de San Antonio SMRMA	No take except waterfowl may be taken	Some take (animal remains) and illegal fishing	No change	Yes						
Marin	Point Reyes SMR	No take	Sand dollar and fossil take, rod and reel fishing from vessels, party boats troll for salmon; violations are limited offshore	No change	Yes		Signage and more enforcement needed, especially at Drakes Beach and Coast Guard Station. Consolidated mixed messaging signs, with dog information.				
Marin	Point Reyes_SMCA	Rec take of salmon by trolling and Dungeness crab by trap. Commercial take of salmon with troll fishing gear and Dungeness crab by trap	Commercial crabbers set coonstripe shrimp traps on top of crab traps; Boundaries in MPA cluster hard to identify; NPS jurisdiction limited to 0.25 miles.	No change	Yes						
Marin	Point Reyes Headlands Special Closure	No access from mean high tide line to a distance of 1000 feet seaward	Recreational vessels fishing in summer; Disturbance spiked in 2020; USFW continues to monitor this area	No change at this time	Yes	Might need to revisit making adjustments in the future if data shows changes/increases in disturbance					
Marin	Estero de Limantour SMR	No take	Difficult to determine boundary between SMR and Drakes Estero SMCA makes enforcement difficult. There are suspicions that poaching of clams occurs in the SMR from people on kayaks from Drakes Estero	Extend SMR designation all the way into Drakes Estero	Yes	NPS in support of expanding SMR because federally designated wilderness, major harbor seal haul out, and critical nursery habitat for leopard shark and bay rays		EAC Marin with NPS letter of support		Boundary Change	
Marin	Drakes Estero SMCA	The recreational take of clams is allowed	Difficult to determine boundary line between Drakes Estero SMCA and Estero de Limantour SMR leading to poaching. Cows accessing/pooping from NPS ranch leased land	Prohibit clamming in Drakes Estero SMCA. Merge with Estero de Limantour SMR.	Yes	SMCA designation was originally due to oyster farm that is no longer there. NPS in support of making into a SMR due to federally designated wilderness area	Give people direction/ outreach materials on where they CAN clam safely	EAC Marin with NPS letter of support		Take Allowance Change	Yes, change from SMCA to SMR
Marin	Point Resistance Rock Special Closure	No access from mean high tide line to a distance of 300 feet seaward of rock	Seabird flushing by vessels. USFW monitoring area.	No change	Yes	GFNMS thinks current regulations are good, very important to their mission and public outreach					
Marin	Double Point/Stormy Stack Special Closure	No access from mean high tide line to a distance of 300 feet seaward of rock	Seabird flushing by vessels and surfers, who enter harbor seal rookery. Increased visitation due to people hiking to Alamere Falls	No change	Yes	GFNMS thinks current regulations are good, very important to their mission and public outreach and don't want to extend to shore to allow shore access	Put signs with regulations and text about importance of special closure at trailhead; more outreach to boaters about special closures needed				

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Marin	Duxbury Reef SMCA	Recreational take of finfish from shore and abalone* is allowed	Difficult to enforce and outreach about why you can take finfish but not invertebrates. Beach Watch data at this site for 30 years show slight decrease in activities in last 10 years, but take of invertebrates has been observed, and the Greater Farallones National Marine Sanctuary Superintendent has provided information about the need to consider additional conservation measures at Duxbury Reef. Maria Brown (NMS) submitted a letter saying Duxbury Reef would benefit from increased protection of unique and important habitat of entire reef (largest shale reef in N. America). EAC MPA Watch data shows increased activities, including take and poaching incidents.	Double Point to fully	No	No agreement on extending boundaries to cover the reef and changing to SMR. More research needed on benefits of changing existing ribbon from SMCA to SMR; Might be important fishing access point for public	More signs needed and more support for onsite education and enforcement from CDFW to agate beach and land-side terrestrial Duxbury	EAC Marin		Take Allowance Change	Yes, would change SMCA to SMR. No consensus
Marin	Duxbury Reef SMCA	Recreational take of finfish from shore and abalone* is allowed	Heavy use and impacts, intertidal take – buckets and tools (e. g., crow bars, tire jacks) used to take black turban snails and purple urchin that are nestled into cracks. People need to break the reef to get to purple ur	Potential compromise would be to add specific tidepool protections, similar to OC	TBD	NMS would like to continue conversation to explore potential compromises	Research other tidepool docent programs in MPAs with mixed use of allowed fishing/idepool protections			Language Change	
San Francisco	North Farallon Islands SMR	No Take	Commercial crab case here	No change	Yes	More data needed for this MPA cluster	Increase CDFW LED patrols during peak months. Need for CCFRP program here				
San Francisco	North Farallon Islands Special Closure	No vessel shall be operated or anchored at any time from the mean high tide line to a distance of 1000 feet seaward of the mean lower low tide line of any shoreline of North Farallon Island, or to a distance of 300 feet seaward of the mean lower low tide line of nor low tide line of the remaining three southern islets		No change	Yes						
San Francisco	Southeast Farallon Islands SMR	No Take	Small recreational boats. A number of encroachments occur into SMR during better weather months	No change	Yes		Increase patrols from LED and consider M2 radar at this location				
San Francisco	Southeast Farallon Islands SMCA	Recreational take of salmon by trolling and commercial take of salmon by troll fishing gear	Salmon fishers use salmon gear to fish for halibut	No change	Yes						

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San Francisco	Southeast Farallon Islands Special Closure	Closed 300 feet seaward year-oan's except Fisherman's Bay to East Landing, southeastern tip of the island and southeastern side of Saddle (Seal) Rock, which is closed from December 1 through September 14. 5 mile per hour speed limit 1000 ft seaward of mean lower low tide of any shoreline Exhaust system requirements lower to commercial dive boats		No change	Yes	Predates MLPA process, careful consideration went into crafting special closure regulations					
San Mateo	Egg (Devii's Slide) Rock to Devii's Slide Special Closure	A special closure is designated from the mean high tide line to a distance of 300 feet seaward of the mean lower low tide line of any shoreline of any shoreline of any of the three rocks comprising Egg (Devil's Slide) Rock; Transit in between the rock and the mainland between these points is prohibited at any time.	Reported violations include fishing boats inside boundaries and low flying aircraft/drones	Change name to "Devil' s Slide Special Closure"	Yes	Egg rock is no longer a name used/recognized locally. Devil's Slide is more appropriate and simpler for outreach				Language Change	
San Mateo	Montara SMR	No Take	A top cited MPA in Central Coast, highest in San Mateo; fishing offshore and tidepool take; Difficulty interpreting southern boundary	Move Montara SMR onshore southern boundary to current Pillar Point SMCA southern boundary (north end of Maverick' s Beach), then extending out to current offshore southern SMR boundary point	Yes	Easier for enforcement and makes SMR boundaries consistent with Fitzgerald Marine Reserve boundaries				Boundary Change	
San Mateo	Pillar Point SMCA	The recreational take of pelagic finfish by trolling, Dungeness crab by trap, and market squid by handheld dip net is allowed. The commercial take of pelagic finfish by troll or round haul net Dungeness crab by trap, and market squid by round haul net is allowed.	Unclear boundary leads to poaching in intertidal Difficult for local law enforcement to ensure	Extend southern SMCA boundary further south	Yes	Would cover entire reef in MPA for ease of allied agency outreach and enforcement.				Boundary Change	
San Mateo	Pillar Point SMCA	The recreational take of pelagic finfish by trolling, Dungeness crab by trap, and market squid by handheld dip net is allowed. The commercial take of pelagic finfish by troll or round haul net Dungeness crab by trap, and market squid by round haul net is allowed.		Change regulations to allow for recreational hook and line take of finfish from shore and take of mussels, crabs, snails and seaweeds for equity and access purposes	Yes	Allowing for shore based hook and line and some intertidal take maintains access for consumptive users while applying some protection for a heavily impacted habitat				Take Allowance Change	
San Mateo/Santa Cruz	Año Nuevo SMR	No Take	Unlawful take of snails; fishing; wildlife disturbance. Boats driving squid out of MPA. Confusion because sign at top of trail to Greyhound Rock says fishing beach but must go left at bottom to legally fish	Move southern boundary line to have whole of Greyhound Rock in SMR	Yes, at both Santa Cruz and San Mateo Collaborative meetings	Clearer boundary makes enforcement easier	Ensure sign with map at bottom of trail. Utilize social/digital/traditional media for public outreach	State Parks pending review		Boundary Change	

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San Mateo/Santa Cruz	Greyhound Rock SMCA	Rec take of giant kelp by hand harvest only, market squid, salmon. Other finfish by hook and line only from shore. Commercial take of giant kelp by hand harvest only, salmon and market squid	Take of mussels at southern boundary Confusion with Aflo Nuevo SMR boundary/whether fishing is allowed at Greyhound Rock Split between 2 countles	Move northern boundary line to have whole of Greyhound Rock outside of SMCA and in SMR; Move southern boundary south to beginning of Scott Creek bridge	Yes, at both Santa Cruz and San Mateo Collaborative meetings	Reef should be fully protected or fully open. Preference to cover reef but either way will have clearer boundary for outreach/enforcement. Move of southern boundary would cover reef to address intertidal impacts	Need for sign with map at Scotts Creek	State Parks pending review		Boundary Change	
San Mateo/Santa Cruz	Greyhound Rock SMCA	Rec take of giant kelp by hand harvest only, market squid, salmon. Other finfish by hook and line only from shore. Commercial take of giant kelp by hand harvest only, salmon and market squid	Confusing regulations	Replace comma with semi-colon in regulations after "giant kelp by hand harvest only", or otherwise edit	Yes	Clearer language needed to clarify you are not required to catch salmon and squid by hand harvest only		State Parks pending review		Language Change	Section 100 change
Santa Cruz	Natural Bridges SMR	No Take	Hard to identify boundaries; safety concerns with fishers and swimmers at Natural Bridges State Park beach	Shift both boundaries south to more identifiable features (4 mile point and Natural Bridge)	Yes	State Parks would like SMR to cover the beach at Natural Bridges SP for public safety reasons	Need for interpretive signs with maps/good tidepooler rules, why MPAs, etc.	State Parks pending review		Boundary Change	
Santa Cruz	Soquel Canyon SMCA	Rec and commercial take of pelagic finfish	Split between 2 counties	No change	Yes						
Monterey	Elkhom Slough SMR	No Take	Fishing occurs regularly at Kirby Park pier/dock,	Move northern boundary south of Kirby Park pier/dock. Shift entire MPA to maintain size	Yes, at both Santa Cruz and Monterey Collaborative meetings	Opens fishing area as originally intended to limit poaching; supports increased enforcement presence in area	If Kirby is open, must be concerted cross- jurisdictional effort to enforce shore waste of fish/debris and other F&G Code violations. Need for good fishing practices outreach	Elkhorn Slough Foundation		Boundary Change	
Monterey	Eikhorn Slough SMCA	The recreational take of finfish by hook and line only and clams is allowed. Clams may only be taken on the north shore of the slough in the area adjacent to the Moss Landing State Wildlife Area [subsection 550 (a)].	Difficult to determine where SMR/SMCA boundary is (i.e., where kayak fishers can no longer fish).	Move SMR line to bird watching platform (eastern side)	Yes, at both Santa Cruz and Monterey Collaborative meetings	Bird watching platform provides a clear boundary for shore and kayak fishers and would maintain size of SMR with shift off Kirby		Elkhorn Slough Foundation		Boundary Change	
Monterey	Eikhorn Slough SMCA	The recreational take of finfish by hook and line only and clams is allowed. Clams may only be taken on the north shore of the slough in the area adjacent to the Moss Landing State Wildlife Area [subsection 550 (a)].	Clamming disturbs sea ofter rafts. Huge amounts of trash (fishing receptacles full)	Removing allowance for clamming to address impact to otters and human health considerations	Maybe?	Need more info on impact to recreational clammers and safety of consuming clams	Need for more trash receptacles/removal	Elkhorn Slough Foundation		Take Allowance Change	
Monterey	Moro Cojo Slough State Marine Reserve	No take	Some access on eastern end. Agricultural influence. Elkhorn Slough NERR in support of no change	No change	Yes						
Monterey/Santa Cruz	Soquel Canyon State Marine Conservation Area	Recreational and commercial take of pelagic finfish is allowed	Many violations, especially illegally set crab traps (commercial) and rockfish take (recreational). Whale disturbance. More impact due to depth restrictions lifted	No change	Yes						
Monterey	Portuguese Ledge State Marine Conservation Area	Recreational and commercial take of pelagic finfish is allowed	Many violations, especially rockfish take (recreational). Whale disturbance	No change	Yes						

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Monterey	Edward F. Ricketts State Marine Conservation Area	Recreational take of finfish by hook and line. Commercial take of giant kelp and bull kelp by hand	Fishing debris from Coast Guard pier. Abalone and other intertidal poaching at breakwater	Explore regulations to limit fishing gear loss from Coast Guard pier (such as requiring use of breakaway leaders or no braided line)	Yes	Fishing gear loss impacts wildlife, habitat, and safety of divers due to entanglement	Partner with MBNMS on outreach of litter/derelict fishing gear			Language Change	
Monterey	Edward F. Ricketts State Marine Conservation Area	Recreational take of finfish by hook and line. Commercial take of giant kelp and bull kelp by hand	New regulations may restrict fishing for rockfish from boat close to shore after October 1	Change to SMR and join with Lovers Point-Julia Platt SMR	Maybe	No strong opposition but no fishing reps present		Giant Giant Kelp Restoration Project (G2KR)		Take Allowance Change	Yes, would change from SMCA to SMR
Monterey	Edward F. Ricketts State Marine Conservation Area	Recreational take of finfish by hook and line. Commercial take of giant kelp and bull kelp by hand		Allow restoration/urchin culling without requiring SCP	No	May lead to destruction of healthy urchins		Giant Giant Kelp Restoration Project (G2KR) - applies to Ed Ricketts, PG Gardens, and Carmel Bay SMCAs, and will include suggestion for buoys on sites		Other	
Monterey	Lovers Point- Julia Platt State Marine Reserve	No Take	Fishing off Lovers Point rocks, undersize and immature fish, spearfishers and fishing boats catch halibut, illegal tidepool take; confusion around northern boundary line	Move southern boundary line so Lovers Point is either all in or all out (with preference for all in reserve)	No	Disagreement about where to move line	Boundary marker or fishing/no fishing arrow sign needed if boundary doesn't change			Boundary Change	
Monterey	Lovers Point- Julia Platt State Marine Reserve	No Take		Move southern boundary to end of Lovers Point, splitting point equally in half	Yes	Fishing/No fishing arrow signs would make sense/be more accurate	Fishing/no fishing arrow sign needed at Lovers Point			Boundary Change	
Monterey	Pacific Grove Marine Gardens State Marine Conservation Area	Recreational take of finfish. Commercial take of giant kelp and bull kelp by hand	Spearfishing violations, especially from kayaks and dinghies; illegal take of scallops and crustaceans; undersize and immature fish taken Point Pinos is key oystercatcher nesting habitat	Move both boundary lines so Lovers Point and Point Pinos are all out of SMCA and in SMRs because both are key oystercatcher nesting sites	No	Rock outcropping and buoy at Point Pinos (southern boundary) are currently good boundary indicators for boaters				Boundary Change	
Monterey	Pacific Grove Marine Gardens State Marine Conservation Area	Recreational take of finfish. Commercial take of giant kelp and bull kelp by hand		Move northern boundary to end of Lovers Point	Yes	Fishing/No fishing arrow signs would make sense/be more accurate	Fishing/no fishing arrow sign needed at Lovers Point and Point Pinos			Boundary Change	
Monterey	Pacific Grove Marine Gardens State Marine Conservation Area	Recreational take of finfish. Commercial take of giant kelp and bull kelp by hand	New regulations may restrict fishing for rockfish from boat close to shore after October 1	Change to SMR, join with Lovers Point SMR	Maybe	No strong opposition but no fishing reps present		Giant Giant Kelp Restoration Project (G2KR)		Take Allowance Change	Yes, would change from SMCA to SMR
Monterey	Asilomar State Marine Reserve	No Take	Onshore and offshore fishing common, hook and line from nooks and crannies; harmful tidepooling, tidepool take; wildlife disturbance common Northern boundary at Point Pinos is confusing, splits rocks in half	No change	Yes		Fishing/No Fishing arrow signs needed at Point Pinos				
Monterey	Carmel Pinnacles State Marine Reserve	No Take	Offshore violations common	No change	Yes						
Monterey	Carmel Bay State Marine Conservation Area	Recreational take of finfish. Commercial take of giant kelp and bull kelp by hand	Intertidal take common, including abalone and mussels. Golf balls go into MPA and are not collected. Some kelp take at Stillwater Cove	No change	Yes		Work with Pebble Beach on reducing golf ball litter either through requiring biodegradable balls at key holes or ensuring balls are collected by divers				
Monterey	Point Lobos State Marine Reserve	No Take	Take occurs. Boundaries are confusing	No change	Yes						
Monterey	Point Lobos State Marine Reserve	No Take		Allow restoration/urchin culling	No	Difficult for enforcement/interpretati on in no-take area		Giant Giant Kelp Restoration Project (G2KR)		Other	

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Monterey	Point Lobos State Marine Conservation Area	Recreational take of salmon and albacore and the commercial take of salmon, albacore, and spot prawn is allowed		No change	Yes						
Monterey	Point Sur State Marine Reserve	No Take	Violations common between SMR and SMCA, southern corner is hard to enforce. Abalone case reported	Encompass the whole coastline of Point Sur in MPA	No	Keep boundaries as is				Boundary Change	
Monterey	Point Sur State Marine Conservation Area	Recreational and commercial take of salmon and albacore		Add bluefin tuna to list of species allowed for take	No	Lessens protection				Take Allowance Change	
Monterey	Big Creek State Marine Reserve	No Take	L-shape of SMR within SMCA is confusing	No change	Yes						
Monterey	Big Creek State Marine Conservation Area	Recreational take of salmon and albacore. Commercial take of salmon, albacore and spot prawn	Potential unlawful fishing off Marine Lab	No change	Yes						
San Luis Obispo	Piedras Blancas State Marine Reserve	No take	Missing signs. Onshore fishing violations (poaching mussels at Point Sierra Nevada). Wildlife disturbance. Extreme angle makes kayak fishers look like they are fishing in SMR	No change	Yes		Use boundary images on signs to help reference angle at pullout.				
San Luis Obispo	Piedras Blancas State Marine Conservation Area	Recreational and commercial take of salmon and albacore	Occasional poaching observed. Fishing for rockfish. No albacore, limited salmon observed by fishers/wardens	No change	Yes						
San Luis Obispo	Cambria State Marine Conservation Area	All recreational take is allowed	Harmful tidepooling occurring throughout MPA. Difficult to message good tidepooler rules without designated protections	Add tidepool protection language similar to Crystal Cove and Dana Point SMCAs	Yes	Would make it easier to message about responsible tidepooling and reduce inadvertent take	Tools for existing SP tidepool docent program needed here, such as Natural Bridges State Park tidepool cart	State Parks pending review; Environment California?		Take Allowance Change	
San Luis Obispo	Cambria State Marine Conservation Area	All recreational take is allowed	Boundary between Cambria SMCA and White Rock SMCA is confusing, leading to accidental poaching by kayak fishers putting in at boundary at Wedgewood	Shift White Rock SMCA northern boundary to end of neighborhood at Lampton Park. Shift southern boundary south 1/2 mile accordingly to not lose any protection and cover some kelp habitat	Yes	May be some pushback from commercial live rockfish fishery for southern shift but recreational anglers in support		Environment California?		Boundary Change	
San Luis Obispo	Cambria State Marine Conservation Area	All recreational take is allowed	No commercial take allowed but there is an existing kelp lease?	Remove kelp lease 209 OR clarify that lease holder cannot harvest within Cambria SMCA	Yes	Commercial harvest of kelp is incompatible with MPA regulations that allow recreational take only		Environment California?		Other	
San Luis Obispo	White Rock State Marine Conservation Area	Commercial take of giant kelp and bull kelp with valid lease	Boundary between Cambria SMCA and White Rock SMCA is confusing, leading to accidental poaching of kayak fishers putting in at boundary at Wedgewood	Shift White Rock SMCA northern boundary to end of neighborhood at Lampton Park. Shift southern boundary south 1/2 mile accordingly to not lose any protection	Yes	May be some pushback from commercial live rockfish fishery for southern shift but recreational anglers in support		Environment California?		Boundary Change	
San Luis Obispo	White Rock State Marine Conservation Area	Commercial take of giant kelp and bull kelp with valid lease		Prohibit commercial take of giant kelp and bull kelp with valid lease and change to an SMR	Yes	Original intent was a reserve but there was existing kelp lease. Current lease holder is fine with relinquishing/ disallowing take of kelp		Environment California?		Take Allowance Change	Yes, would change from SMCA to SMR

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San Luis Obispo	Morro Bay State Marine Recreational Management Area	Waterfowl hunting allowed. Recreational take of finfish north of line at Pasadena Point. Aquaculture allowed	outreach materials.	Shift no fishing boundary 150 yds north to public access at Pasadena Park (between Santa Ysabel and Baywood Way)	Yes	Makes it easier for county to manage and educate more accurately about fishing/no fishing line	Signs needed, especially at Blue Pier. County can install sign at Pasadena Park			Boundary Change	
San Luis Obispo	Morro Bay State Marine Recreational Management Area	Waterfowl hunting allowed. Recreational take of finfish north of line at Pasadena Point. Aquaculture allowed	Hunting "within" a bird sanctuary (City of Morro Bay) is confusing, safety concerns for paddlers with increased visitors who are unaware hunting is allowed. Concern about safety issues around hunting around neighborhoods. Trampling of plants occur on shoreline in Baywood Park.	No change to regulations at this time	Yes	Important hunting area. Confusion should be addressed through outreach	Overlay hunting map on SMRMA for outreach purposes Mixed message signs/more education needed about estuary impacts/erosion: "tread lightly" in Los Osos				
San Luis Obispo	Morro Bay State Marine Reserve	No Take	Some hunting violations, hugging line; Boardwalks work to protect birds! Might be good to have one at Baywood Park at 1st Street	No change (reluctantly)	Yes	Some desire to extend SMR west and into bottom part of bay beneath Baywood Peninsula but do not want to impede on aquaculture	More education and outreach needed				
San Luis Obispo	Point Buchon State Marine Reserve	No Take	Regular poaching offshore, trolling, and stopping to drop a line in water. Busiest MPA in SLO, most violations observed/cited	Move northern boundary to actual Point Buchon	Yes	Clearer boundary for fishers coming from Port San Luis	Boundary marker needed here. Make "flagpole" more visible (hang flag?) if boundary doesn't change	State Parks pending review		Boundary Change	
San Luis Obispo	Point Buchon State Marine Conservation Area	Recreational and commercial take of salmon and albacore allowed	Regular poaching, rockfish and lingcod, maybe some squid boats?	No change	Yes						
Santa Barbara and Ventura (Santa Barbara Channel)	Vandenberg SMR	No Take	Vandenberg Space Force Base (VSFB) allows active-duty officers, their dependents/families, and guests to fish off Vandenberg. Leads to confusion since officially a no-take area. Regulations should match take allowed. Petition has been submitted by City of Lompoc to allow shore fishing at Surf Beach	Change designation to SMCA that allows hook and line for finfish from shore only	Yes	Would increase actual protection due to past 5 Base Commanders' decision to allow all legal take on base and would address equity concerns by allowing access for non-military at Surf Beach		Greg Helms to propose intertidal ribbon		Take Allowance Change	Yes, would change from SMR to SMCA
Santa Barbara and Ventura (Santa Barbara Channel)	Vandenberg SMR	No Take		Revaluate MOA with VSFB that is being interpreted as allowing for full military recreational take in a no-take SMR	No, not needed if designation is changed to SMCA	Vandenberg conservation officer will enforce updated take regs on military personnel				Other	
Santa Barbara and /entura (Santa Barbara Channel)	Point Conception SMR	No Take	Recent groundfish case. Difficult for enforcement to access from land through Dangermond Preserve. M2 radar at Pt. Conception shows a lot of boating activity, may be surf related	No change	Yes		Provide continued support for M2 radar with ground truthing and continued coordination/info sharing between agencies				

County	MPA	Current Regs Summarized	Compliance concerns and/or management problem identified	Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
Santa Barbara and Ventura (Santa Barbara Channel)	Kashtayit SMCA	Rec take of finfish, invertebrates (except rock scallops and mussels) and giant kelp by hand harvest. Santa Ynez band of Chumash exempt	Illegal and dangerous access down the bluffs on Gaviota. Fishing without a license. Access issues for pier fishers with Gaviota pier closed. Difficult to interpret regulations	Reword regulations for clarity of outreach: "Recreational take of finfish, invertebrates, and giant kelp allowed"	Yes	Simpler regulations will make outreach easier, increasing compliance, with minimal impacts to the resources	Have FGC/State push for pier repair at Gaviota Pier (SB County/State Parks) for safety/access reasons	State Parks pending review/Greg Helms		Language Change	Section 100 change
Santa Barbara and Ventura (Santa Barbara Channel)	Naples SMCA	Rec take by spearfishing of white seabass and pelagic finfish. Commercial take of giant kelp by hand or mechanical harvest. Santa Ynez Band of Chumash exempt	Hook and line fishing and access issues occur here, and most days there are at least two vehicles for fishing or surfing parked near Naples. Impact to hook and line fishers	Add hook and line to allowed method of take	No	Numbers/impact/level of take different between hook and line and spearfishing. Would drastically reduce protection				Take Allowance Change	
Santa Barbara and Ventura (Santa Barbara Channel)	Campus Point No-Take SMCA	No Take	Onshore and offshore hook and line fishing continues to be observed	Change purple to red for outreach purposes	Yes	Easier to explain "no take" if consistent with red SMR		Greg Helms		Other	
Santa Barbara and Ventura (Santa Barbara Channel)	Goleta Slough No-Take SMCA	No Take	Trespassing (e.g., illegal swimming, dogs). People occasionally use nets to fish here and/or fish off bridges at the finger boundaries of the slough. Dumping of sediment still occurs in Goleta Bay	Consider water quality designation for Goleta Bay	Yes	Goleta Bay is between two MPAs and there is a need to address impacts of sediment dumping to subsistence fishers off Goleta Pier		Greg Helms		Other	
Santa Barbara and Ventura (Santa Barbara Channel)	Goleta Slough No-Take SMCA	No Take		Change purple to red for outreach purposes	Yes	Easier to explain "no take" if consistent with red SMR		Greg Helms		Other	
Santa Barbara and Ventura (Santa Barbara Channel)	Richardson Rock SFMR	No Take		No change	Yes						
Santa Barbara and Ventura (Santa Barbara Channel)	San Miguel Island Special Closure	Allowance for sea urchin divers between Castle Rock and Judith Rock SMR western boundary (Point Bennet) between 3/15- 4/30 and 10/1-12/15.	Commercial urchin poaching. Purpose to reduce disturbance to pinniped populations. Is closure still necessary? Point Bennet has one of the largest pinniped (six species) rookeries on the West Coast of North America		Yes		M2 radar at NMFS marine mammal station	Greg Helms		Language Change	
Santa Barbara and Ventura (Santa Barbara Channel)	Harris Point SFMR	No Take	CDFW sees some fishers that are taking from shore, although it is not common	No change	Yes		Use land-based range markers (e.g., O & K) to mark boundaries				
Santa Barbara and Ventura (Santa Barbara Channel)	Judith Rock SFMR	No Take		No change	Yes		Use land-based range markers (e.g., O & K) to mark boundaries				
Santa Barbara and Ventura (Santa Barbara Channel)	Carrington Point SMR	No Take	Confusing angle relative to pier	No change	Yes	NPS outreach on angle has been good	More permanent boundary markers/signage is needed				
Santa Barbara and Ventura (Santa Barbara Channel)	Skunk Point SMR	No Take	Difficult to determine how far offshore boats are (in or out)	No change	Yes						
Santa Barbara and Ventura (Santa Barbara Channel)	South Point SFMR	No Take		No change	Yes						
Santa Barbara and Ventura (Santa Barbara Channel)	Painted Cave SMCA	Rec take of spiny lobster and pelagic finfish	People are taking non- pelagic fish species, rockfish, California sheephead, and live fish	No change	Yes						
Santa Barbara and Ventura (Santa Barbara Channel)	Gull Island SFMR	No Take	-	Have state discuss with NMS changing federal area to FMCA to allow for take of pelagics	No	More data/justification needed				Take Allowance Change	Yes, would turn federal MRs into federal MCAs. No consensus

County	MPA	Current Regs Summarized	Compliance concerns and/or management problem identified	Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
Santa Barbara and Ventura (Santa Barbara Channel)	Scorpion SFMR	No Take	Fishing/take in little coves at eastern boundaries. Lobster traps	No change	Yes		More on-island enforcement presence needed				
Santa Barbara and Ventura (Santa Barbara Channel)	Anacapa Island Special Closure	No net or trap may be used in waters less than 20 feet deep. Brown Pelican closure from Portuguese Rock to Frenchy's Cove 1/1- 10/31	Brown pelican area makes it difficult for Island Packers and others to land legally at Frenchy's	Add exemption to allow access/landing Frenchy's Cove	Yes	Intent was to allow landing at Frenchy's Cove but aligning brown pelican closure with SMR/SMCA boundary closed off access to safe landing		Greg Helms		Allowed Activity Change	
Santa Barbara and Ventura (Santa Barbara Channel)	Anacapa Island Special Closure	No net or trap may be used in waters less than 20 feet deep. Brown Pelican closure from Portuguese Rock to Frenchy's Cove 1/1- 10/32	Depth hard to enforce due to sheer drop off from island	Reassess need for Special Closure and consider removing if not justified	Yes	May only need brown pelican closure rather than full island special closure to protect seabirds		Greg Helms		Allowed Activity Change	Yes, would remove special closure
Santa Barbara and Ventura (Santa Barbara Channel)	Anacapa Island SFMCA	Rec take of spiny lobster and pelagic finfish. Commercial take of spiny lobster. Santa Ynez Band of Chumash exempt	Confusion regarding what "pelagic" means may lead to unlawful take	No change	Yes		Outreach needed around pelagics				
Santa Barbara and Ventura (Santa Barbara Channel)	Anacapa Island SFMR	No Take	Violations for unlawful take	No change	Yes						
Santa Barbara and Ventura (Santa Barbara Channel)	Footprint SFMR	No Take	Lots of violations. Boats drift in because they cannot anchor	Have state discuss with NMS changing federal area to FMCA to allow for take of pelagics	No	More data/justification needed				Take Allowance Change	Yes, would turn federal MRs into federal MCAs. No consensus
Santa Barbara and Ventura (Santa Barbara Channel)	Begg Rock SMR	No Take	The MPA violations here are commercial and come from experienced mariners	No change	Yes						
Santa Barbara and Ventura (Santa Barbara Channel)	Santa Barbara Island SFMR	No Take	Osborne Bank. CPFV/commercial lobster poaching. Overlapping jurisdictions	Have state discuss with NMS changing federal area to FMCA to allow for take of pelagics	No	More data/justification needed	M2 radar needed to monitor remote MPA			Take Allowance Change	Yes, would turn federal MRs into federal MCAs. No consensus
Los Angeles (Mainland)	Point Dume SMCA	Rec take by spearfishing of white seabass and pelagic finfish. Commercial take of swordfish by harpoon and coastal pelagic species by round haul net, brail gear, and light boat. Santa Ynez band exempt	Frequent noncompliance with MPAs and limited enforcement	Delete allowance for commercial take of Swordfish by harpoon	Yes	Swordfish fishing does not occur that close to shore	Additional enforcement personnel/efforts are needed	State Parks pending review; Heal the Bay		Take Allowance Change	
Los Angeles (Mainland)	Point Dume SMCA	Rec take by spearfishing of white seabass and pelagic finfish. Commercial take of swordfish by harpoon and coastal pelagic species by round haul net, brail gear, and light boat. Santa Ynez band exempt		Allow hook and line fishing for allowed method of take of white seabass and pelagic finfish	No	Lessening of protection/unclear impacts				Take Allowance Change	
Los Angeles (Mainland)	Point Dume SMR	No Take	Angle of eastern boundary is confusing/extends due west and is close to shore	No change	Yes		Use of surveyed boundary images in outreach can help address confusion with eastern boundary at Paradise Cove				
Los Angeles (Mainland)	Point Vicente No-Take SMCA	No Take	Frequent noncompliance with MPAs and limited enforcement	No change	Yes		Additional enforcement personnel/efforts are needed				

County	MPA	Current Regs Summarized	Compliance concerns and/or management problem identified	Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
Los Angeles (Mainland)	Point Vicente No-Take SMCA	No Take	Confusion of significance of purple designation	Keep allowance for maintenance but change color from purple to red for ease of public interpretation	Yes	Easier to explain "no take" if consistent with red SMR				Other	
Los Angeles (Mainland)	Abalone Cove SMCA	Rec take by spearfishing of white seabass and pelagic finfish; and market squid by hand-held dip net. Commercial take of swordfish by harpoon and coastal pelagic species by round haul net, brail gear, and light boat	Harmful tidepooling impacts/take from tidepools. Frequent noncompliance with MPAs and limited enforcement	Delete allowance for commercial take of swordfish by harpoon	Yes	Swordfish fishing does not occur that close to shore	Additional enforcement personnel/efforts are needed	Heal the Bay		Take Allowance Change	
Los Angeles (Mainland)	Abalone Cove SMCA	Rec take by spearfishing of white seabass and pelagic finfish; and market squid by hand-held dip net. Commercial take of swordfish by harpoon and coastal pelagic species by round haul net, brail gear, and light boat		Allow hook and line fishing for allowed method of take of white seabass and pelagic finfish	No	Lessening of protection/unclear impacts				Take Allowance Change	
Los Angeles (Catalina Island)	Arrow Point to Lion Head Point SMCA	All rec and commercial take allowed. Take of invertebrates prohibited	Poaching lobster and abalone. Hoop nets. Difficult to identify 1,000 feet from shore at Indian/Endemic Rock	No change	Yes		Need for a locally managed (research) buoy to mark 1,000 feet point				
Los Angeles (Catalina Island)	Blue Cavern Onshore No-Take SMCA	No Take. No anchor area in original refuge boundaries	Fishing/using hoop nets close to shore at Big Fisherman Cove. Poaching at Yellowtail Point and Bird Rock; Confusion around no anchor zone	Change purple to red for outreach purposes	Yes, only if all current maintenance/access activities are still allowed	Easier to explain "no take" if consistent with red SMR	Need for some boundary marker at Yellowtail Point. MPA Watch transect would help identify use/ compliance issues here			Other	
Los Angeles (Catalina Island)	Blue Cavern Offshore SMCA	Rec take of pelagic finfish by hook and line and spearfishing and white seabass by spearfishing and market squid by hand held dip net. Commercial take of pelagic finfish by hook and line and swordfish by harpoon	Take via illegal gear types	No change	Yes						
Los Angeles (Catalina Island)	Long Point SMR	No Take	Trolling through MPA occurs. Misconception that MPA is only close to shore. Rental boats go past Long Point and fish	Make a distance from shore rather than lat/long for ease of outreach. Cut off corner and flip and move west (offshore) to maintain size	Yes	Clearer outreach to trollers to stay certain distance from shore, IF maintains size				Boundary Change	
Los Angeles (Catalina Island)	Lover's Cove SMCA	Rec take by hook and line from the Cabrillo Mole is allowed. Feeding fish allowed	Fishing from shore at the ramp near the Mole. Angle is difficult at eastern boundary. Food torpedoes are shot from tourist subs to attract fish to windows	Remove allowance for feeding of fish	Yes	Against intent of MLPA, affecting behavior of fish/habitat; public safety issue as fish become more aggressive and bite				Allowed Activity Change	
Los Angeles (Catalina Island)	Casino Point No-Take SMCA	No Take. Feeding fish allowed	Boundaries don't match dive park buoys. Feeding fish may be incompatible use. 40- 50' depth at MPA line.	Remove allowance for feeding of fish.	Yes	Against intent of MLPA, affecting behavior of fish/habitat; public safety issue as fish become more aggressive and bite	Might need to utilize a weaning off process for fish used to being fed			Allowed Activity Change	
Los Angeles (Catalina Island)	Casino Point No-Take SMCA	No Take. Feeding fish allowed		Change purple to red for outreach purposes for outreach	Yes	Easier to explain "no take" if consistent with red SMR				Other	

County	MPA	Current Regs Summarized		Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
Los Angeles (Catalina Island)	Farnsworth Onshore_ SMCA	Rec take by spearfishing of white seabass and pelagic finfish; marline, tunas and dorado by trolling and market squid by hand held dip net. Commercial take of swordfish by harpoon, coastal pelagics by roundhaul net, brail gear and light boat	More difficult to assess whether poaching is occurring on the backside. Challenging/confusing for fishers	No change	Yes		More outreach to fishers needed on why deep habitat/fish are protected here				
Los Angeles (Catalina Island)	Earnsworth Offshore_ SMCA	Rec take of pelagic finfish by hook and line or by spearfishing; white seabass by spearfishing; marin, tunas and dorado by trolling and market squid by hand held dip net. Commercial take of swordfish by harpoon, coastal pelagics by roundhaul net, brail gear and light boat	CPFVs (party boats) are seen illegally fishing in Farnsworth Offshore SMCA, moving out if they see the CDFW patrol boat approaching. Regs restricting take of rockfish can be confusing for fishers/challenging to prove rockfish on board was taken outside	No change	Yes						
Los Angeles (Catalina Island)	Cat Harbor SMCA	Rec take of finfish by hook and line or by spearfishing, market squid by hook and line, and spiny lobster and sea urchin. Commercial take of sea cucumbers by diving only and spiny lobster and sea urchin. Aquaculture of finfish	Some take of undersized fish	No change	Yes						
Orange	Bolsa Bay SMCA	Rec take of finfish by hook and line from shore in designated areas only	Confusion between Bolsa Bay and Bolsa Chica Basin MPAs	Potentially combine Bolsa Bay with Bolsa Chica Basin MPAs?	No	State Lands requirement to have fishing				Boundary Change	Yes, would change from SMCA to SMR. No consensus
Orange	Bolsa Chica Basin No- Take SMCA	No Take. Allows for maintenance of artificial structures	Water management infrastructure is failing - needs management and repairs. Shoaling and potential closing of inlet - need cost effective alternative to dredging and \$ to implement. Could ultimately change boundaries of MPAs	MPA should cover all waters in ecological reserve. Move northeastern boundary to Graham	Yes	Makes enforcement easier so CDFW can cite for unlawful fishing using 632 instead of no trespassing		OC Coastkeeper	Wendy Berube	Boundary Change	
Orange	Bolsa Chica Basin No- Take SMCA	No Take. Allows for maintenance of artificial structures	Confusion between Bolsa Bay and Bolsa Chica Basin MPA regulations and whether take is allowed. Bridge inconsistency	Change purple to red for outreach purposes	Yes	Easier to explain "no take" if consistent with red SMR		OC Coastkeeper	Wendy Berube	Other	
Orange	Upper Newport Bay SMCA	Rec take of finfish by hook and line from shore in designated areas only	Ecological Reserve and MPA overlapping jurisdiction. Fishing from floats by PCH bridge and using gill nets at Jamboree Bridge; kayak fishing	No change	Yes		Harbor and estuary signs needed at Newport Dunes. Additional enforcement personnel/efforts are needed				
Orange	Crystal Cove SMCA	Rec take of finfish by hook and line or by spearfishing and spiny lobster and sea urchin. Commercial take of sea urchin, spiny lobster by trap, and coastal pelagic species by round haul net, brail gear and light boat	Harmful tidepooling and undersized lobster. Nighttime poaching. Angle is difficult at southern boundary	Better define tidepool definition to encompass rocky intertidal habitat	Yes	"Area encompassing the rocky pools" is confusing, makes it sounds like it is only the pools, not intertidal zone when dry	Night vision for State Parks officers to address nighttime poaching	State Parks pending review; OC Coastkeeper	Wendy Berube	Language Change	

County	MPA	Current Regs Summarized	Compliance concerns and/or management problem identified	Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
Orange	Crystal Cove SMCA	Rec take of finfish by hook and line or by spearfishing and spiny lobster and sea urchin. Commercial take of sea urchin, spiny lobster by trap, and coastal pelagic species by round haul net, brail gear and light boat		Add "non-living, geological or cultural" marine resource to tidepool take prohibition for consistency with 632(a)1(C)	Yes	Clarifies tidepool protections to include rocks and shells		State Parks pending review; OC Coastkeeper	Wendy Berube	Language Change	
Orange	Laguna Beach SMR	No Take	Poaching in gated/private communities; angle is difficult at northern boundary	No change	Yes		More enforcement needed in private community. Bring back community scientist/anglers (i.e., CCFRP) to OC				
Orange	Laguna Beach No-Take SMCA	No Take. Maintenance allowed	Angle is difficult at southern boundary	Change purple to red for outreach purposes	Yes	Easier to explain "no take" if consistent with red SMR	Produce map that has layer that shows allowed maintenance/artificial structures and scientific take	OC Coastkeeper	Wendy Berube	Other	
Orange	Dana Point SMCA	Rec take of finfish by hook and line or by speaffshing and spiny lobster and sea urchin. Commercial take of sea urchin, spiny lobster by trap, and coastal pelagic species by round haul net, brail gear and light boat. Tidepools protected	Fishing without a license. Night poaching at 3 Arch. Take of limpets at north end. Shift in fishing pressure. Angle is difficult at southern boundary. Harmful tidepooling	Add "non-living, geological or cultural" marine resource to tidepool take prohibition for consistency with 632(a)1(C)	Yes	Clarifies tidepool protections to include rocks and shells		OC Coastkeeper	Wendy Berube	Language Change	
Orange	Dana Point SMCA	Rec take of finfish by hook and line or by speaffishing and spiny lobster and sea urchin. Commercial take of sea urchin, spiny lobster by trap, and coastal pelagic species by round haul net, brail gear and light boat. Tidepools protected		Better define tidepool definition to encompass rocky intertidal habitat or utilize a different term.	Yes	Tidepools are specific to pools but intertidal habitats protected can be free of pools in some cases. "Area encompassing the rocky pools" is unclear whether all rocky intertidal habitat is included here.		OC Coastkeeper	Wendy Berube	Language Change	
San Diego	Batiquitos Lagoon No- Take SMCA	No take. Boating, swimming, wading and diving prohibited	Confusion between ecological reserve regulations west of 5 and MPA regulations east of 5	Expand SMCA west of I-5 bridge to encompass all of ecological reserve	No	Expands MPA size, unclear on impacts to recreational fishing				Boundary Change	
San Diego	Batiquitos Lagoon No- Take SMCA	No take. Boating, swimming, wading and diving prohibited		Change to blue SMCA with designated fishing areas	Maybe	If does not reduce fishing opportunities under I-5 and 101 bridges, or lessen existing protections				Take Allowance Change	Yes, would change from No-Take SMCA to SMCA
San Diego	Batiquitos Lagoon No- Take SMCA	No take. Boating, swimming, wading and diving prohibited		Change purple to red for outreach purposes if boundaries remain the same	Yes	Easier to explain "no take" if consistent with red SMR				Other	
San Diego	Swami's SMCA	Rec take by hook and line from shore and rec take by spearfishing of white seabass and pelagic finfish	Harmful tidepooling, especially at Seaside reef. Enforcement for take of lobster is hard at southern boundary since it splits 2 jurisdictions and the reef (hard to know where they are actually taking from and who is responsible for enforcing what.)	Move southern boundary to jurisdictional boundary between State Parks and City of Solana Beach for full tidepool protection of reef	No	Increases size of MPA, reducing fishing access, and may impact take of halibut				Boundary Change	
San Diego	Swami's SMCA	Rec take by hook and line from shore and rec take by spearfishing of white seabass and pelagic finfish	,	Shift entire shape south (lifeguard tower to state/Solana Beach line to cover tidepool on south side)	Yes	Compromise. Keeps same size MPA but covers impacted tidepool area on southern boundary. Lifeguard tower clear boundary at north end		State Parks pending review; Wildcoast		Boundary Change	

County	MPA	Current Regs Summarized	Compliance concerns and/or management problem identified	Regulation Recommendation for Adaptive Management	Consensus?	Justification	Supporting Management Suggestion	Petitioner Lead	Contact Information	Recommendation Category	Designation Change?
San Diego	San Elijo Lagoon No Take SMCA	No take. Boating, swimming, wading and diving prohibited	Lots of people fishing at entrance to San Elijo lagoon under bridge and in channel	Move boundary to west side of the bridge (prohibiting fishing under the bridge) as long as accommodations are allowed for dredging	Yes	Signs are currently posted on west side of bridge to prohibit people from entering the San Elijo Lagoon. Makes outreach clearer		State Parks pending review; Wildcoast		Boundary Change	
San Diego	San Elijo Lagoon No Take SMCA	No take. Boating, swimming, wading and diving prohibited		Change purple to red for outreach purposes	Yes	Easier to explain "no take" if consistent with red SMR				Other	
San Diego	San Dieguito Lagoon SMCA	Rec take of finfish by hook and line from shore. Boating, swimming, wading and diving prohibited	Confusion between ecological reserve boundaries and regulations and MPA boundaries and regulations. Speculation that extent of water has changed since restoration. Original intent of 632 was to align with 630 in overlapping waters. Non-MPA areas are more restrictive which leads to confusion.	Have MPA cover all water within ecological reserve.	Need more information	Check with Joint Power authority because would lessen protections if SMCA (that allows fishing) is expanded to all state waters	Sea level rise impacts should be considered			Boundary Change	
San Diego	San Diego-Scripps Coastal SMCA	Rec take of coastal pelagic species, except market squid, by hook and line only	Harmful tidepooling. People using gear types for fishing for species other than coastal pelagics but gear type cannot assume intent. Makes enforcement difficult. Also safety concerns with surf casters into high use swim/surf area	Add, "except from shore" to prohibit surf hook and line	Yes	Surf fishing from shore causes safety concerns (hooks getting caught on surfers/swimmers). Still allows kayakers to fish for bait fish on way out, which was original intent				Take Allowance Change	
San Diego	Matlahuayl SMR	No Take	Harmful tidepooling. Kayak fishing. Caves are being defaced/ graffitied	Add place name (La Jolla) to traditional Kumeyaay name (Matlahuayl)	No	Keep Kumeyaay name only for Tribal acknowledgement. Would also add confusion between other La Jolla MPAs	More focused patrols on caves in La Jolla to address littering/defacement of MPA			Language Change	
San Diego	South La Jolla SMR	No Take	Most highly cited MPA. Poaching of lobster and offshore fishing. Harmful tidepooling. Challenges of parking and access (coastline related challenges due to sea level rise, climate disturbance)	No change	Yes	Focus on local management/outreach/ enforcement	Need for more focus on tidepools (outreach/ enforcement). More staff for allied agencies to help enforce. Encourage city to maintain safe accessways and deal with coastal erosion problems. More education on marine mammal disturbance				
San Diego	South La Jolla SMCA	Rec take of pelagic finfish by hook and line only		No change	Yes						
San Diego	Famosa Slough No Take SMCA	No Take	Homeless encampments. Construction run-off. Dogs and cats disturbing birds	Change purple to red for outreach purposes	Yes	Easier to explain "no take" if consistent with red SMR				Other	
San Diego	<u>Cabrillo SMR</u>	No Take	Harmful tidepooling. Offshore boats but NPS unable to contact other than through megaphone	Work with Kumeyaay to rename MPA to traditional Kumeyaay name	Yes	Kumeyaay name exists for this location. Need to confirm spelling	Additional enforcement personnel/efforts are needed			Language Change	
San Diego	Tijuana River Estuary SMCA	Rec take of coastal pelagic species, except market squid, by hand held dip net. Commercial take of coastal pelagics, except market squid by round haul net	Difficult take regulations to interpret in the field and take by hand held dip net not really occurring, per Imperial Beach lifeguards	No change							

Tracking Number: (2023-31MPA)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1. Person or organization requesting the change (Required)

Name of primary contact person: Ashley Eagle-Gibbs, Environmental Action Committee of West Marin (EAC)

Address: 65 3rd St Suite 12, Point Reyes Station, CA 94956

Telephone number: (415) 663-9312 Email address: ashley@eacmarin.org

- 2. **Rulemaking Authority (Required) -** Reference to the statutory or constitutional authority of the Commission to take the action requested: Authorities cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code.
- 3. **Overview (Required) -** EAC requests the Commission subsume Drakes Estero State Marine Conservation Area (SMCA) into Estero de Limantour State Marine Reserve (SMR) to create a single SMR for Estero de Limantour and Drakes Estero.

Applying an SMR designation to the area currently known as Drakes Estero SMCA is consistent with the original goals of the Marine Life Protection Act (MLPA) including goals 1, 2, 3, and 4 related to preserving natural diversity, sustaining marine life populations, protecting marine habitats for their intrinsic value, and improving recreational and educational opportunities while minimizing human disturbance. This change would also make state regulation consistent with federal regulation of Drakes Estero, and it is supported by regional partners including consensus at the August 24, 2023 Golden Gate Collaborative meeting.¹ This would remove the allowance for recreational clamming.

¹ See rows 50-51, https://docs.google.com/spreadsheets/d/1Eu1efUliHZ2bazdKM5lK5UKzsIEluHEU9k9HdR1oudo/edit#gid=0



State of California – Fish and Game Commission

PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 2 of 4

4. **Rationale (Required) -** Describe the problem and the reason for the proposed change:

From a review of the historical documents, in 2008, the Integrated Preferred Alternative presented by the Blue Ribbon Task Force stated "if at any time it becomes feasible to create an SMR at Drakes Estero, this proposal recommends doing so." Today, it is feasible and appropriate to create an SMR in the area currently designated as Drakes Estero SMCA.

The Estero is one of the last fully intact wetlands in the state of California and is a biologically rich estuary that consists of extensive eelgrass beds, tidal flats, wetlands, sand bars, and open water that supports a variety of fish, invertebrates, shorebirds, waders, waterfowl, and mammals including harbor seals and river otters.

Drakes Estero SMCA was established at a time when a commercial aquaculture operation was in business. Historic aquaculture operations have damaged some of the eelgrass habitat in Drakes Estero, and it is also known that human activity has already destroyed 90 percent eelgrass habitat statewide. The commercial operator closed in 2012, and the offshore and onshore infrastructure has been removed. The existence of commercial aquaculture at the time of the designation left a legacy of two separate Marine Protected Areas (MPAs) with differing designations within one body of water, leading to inconsistency.

The biologically rich habitat of Drakes Estero is very sensitive to disturbance and is ecologically contiguous with the neighboring Estero de Limantour SMR. The arbitrary boundary separation between Drakes Estero SMCA and Estero de Limantour SMR causes confusion and harms the SMR. This is because 14 CCR § 632(b)(47)(B) currently allows for the recreational take of clams in Drakes Estero SMCA. EAC's Marin MPA Watch monitoring data (a program in partnership with the Point Reyes National Seashore and the California Academy of Sciences) shows that people leaving the boat launch on kayaks or canoes at Drakes Estero with buckets is not uncommon. It is unknown where they are headed, but it is also difficult for clammers to determine the boundary line between Drakes Estero SMCA and Estero de Limantour SMR, because they are located in the same body of water. This leads to individuals who wish to take clams in Drakes Estero SMCA to sometimes take clams in Estero de Limantour SMR. This is despite 14 CCR § 632(b)(46)(A) prohibiting any take in the Estero de Limantour SMR.

Further, the entirety of Drakes Estero was designated as Marine Wilderness in 2012 following the closure of the commercial operation in its waters. The Marine Wilderness Area stretches across Drakes Estero SMCA and into Estero de Limantour SMR. Wilderness areas are expected to receive the highest levels of protection from human activity.³ Following the Marine Wilderness designation, the Point Reyes National Seashore completed an expensive restoration project (\$4 million) in the waters of Drakes Estero to remove the aquaculture infrastructure, thereby allowing eelgrass to recover.⁴

² Copies of the historic documents were obtained via the MPA Collaborative Network team from the Fish and Game Commission, see p. 13 of https://drive.google.com/file/d/15PQ-D1sPJ94dnUBy8o_tBAHgkP96YcY6/view?usp=sharing & p. 5 of https://drive.google.com/file/d/132etwbkrP5zkNhsBqn_mxAlVtWk8e69a/view?usp=sharing.

³ Public Law 94-544 § 4(a).

⁴ https://www.pressdemocrat.com/article/news/oyster-racks-pulled-in-cleanup-of-drakes-estero/ and see also National Park Service letter, November 14, 2022, Attachment 2.

The National Park Service is in support of merging Drakes Estero SMCA and Estero de Limantour into a unified State Marine Reserve because the entire area contains a federally designated wilderness area (see November 14, 2022 letter, attachment 2).

During the <u>Golden Gate MPA Collaborative meeting on August 24, 2023</u>, consensus between meeting participants in support of this proposal was also achieved.⁵

SEC	CTION II: Optional Information
5.	Date of Petition: 11/30/23
6.	Category of Proposed Change ☐ Sport Fishing ☐ Commercial Fishing ☐ Hunting ☐ Other, please specify: MPA Section 632.
7.	The proposal is to: (<i>To determine section number(s)</i> , see current year regulation booklet or https://govt.westlaw.com/calregs) Amend Title 14 Section(s): 632(b)(46); 632(b)(47). □ Add New Title 14 Section(s): □ Repeal Title 14 Section(s):

- 8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition. Not applicable.
- 9. **Effective date**: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: As soon as possible.
- Supporting documentation: Identify and attach to the petition any information supporting the proposal including data, reports and other documents:
 See index and attachments including letters of support from the National Park Service, Marin County Supervisor Dennis Rodoni, and Dr. Sarah Allen, as well as previously submitted EAC letters. We may further supplement this petition as additional information becomes available.
- 11. **Economic or Fiscal Impacts:** *Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing:*

Fiscal impacts from this proposed change are expected to be minimal but could include lost recreational take opportunities, as well as costs associated with updating signage and outreach materials.

⁵ Rows 50-51, https://docs.google.com/spreadsheets/d/1Eu1efUliHZ2bazdKM5lK5UKzsIEluHEU9k9HdR1oudo/edit#gid=0

12. Forms: If applicable, list any forms to be created, amended or repealed: N/A

SECTION 3: FGC Staff Only
Date received: 11/30/2023
FGC staff action: Accept - complete Reject - incomplete Reject - outside scope of FGC authority Tracking Number Date petitioner was notified of receipt of petition and pending action: Meeting date for FGC consideration:
FGC action: □ Denied by FGC □ Denied - same as petition Tracking Number □ Granted for consideration of regulation change

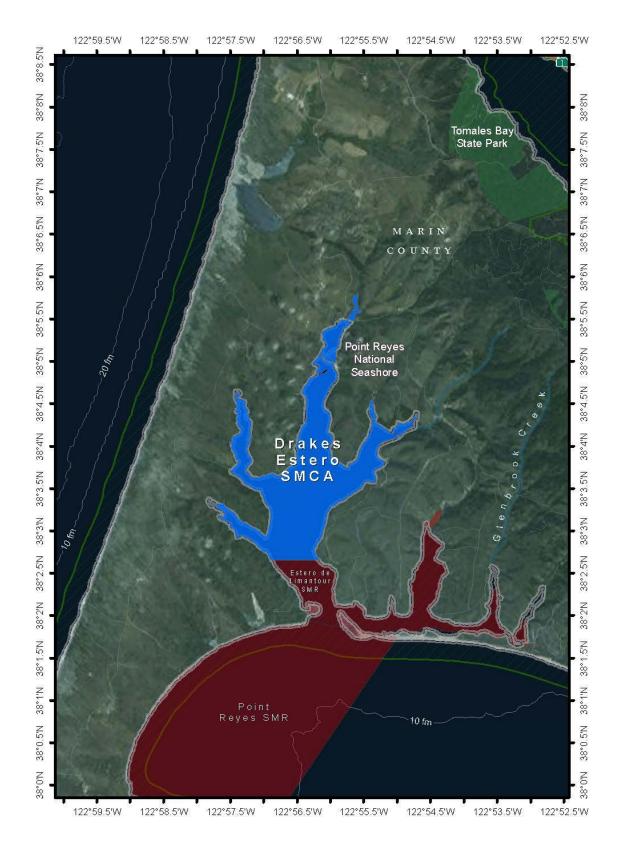
Index of	Attachments Submitted re.	Drakes Este	ro Petition by EAC	, November 30, 2	023

Attachment #	Date	Sender/Preparer	Description	Previously Submitted to FGC	FGC Meeting Document Link
1	11/30/23	Prepared by Environmental Action Committee of West Marin (EAC)	Map Attached to EAC's Petition re. Drakes Estero (1 page)	No	N/A
2	7/5/2023	EAC including attached letter from the National Park Service	EAC Comments to Fish and Game Commission re. MRC Agenda Item 5: MPA DMR Petition for Modification of Duxbury Reef and Drakes Estero MPAs including attachment (1) EAC April 6, 2023, comments to Fish and Game Commission including EAC March 13, 2023 letter and November 14, 2022 letter from National Park Service	Yes (Comment 7 to July MRC meeting documents, pp. 78-97 of meeting documents)	https://nrm.dfg. ca.gov/FileHan dler.ashx?Docu mentID=21354 6&inline
3	11/30/23	Prepared by Environmental Action Committee of West Marin (EAC)	Summary of MPA Watch Camera Data at Drakes Estero July 16 - Aug 16, 2022 (4 pages)	No	N/A
4	11/21/23	Marin County Supervisor Dennis Rodoni	Support for Environmental Action Committee (EAC) Petition to the California Fish and Game Commission for regulation change at Drakes Estero (2 pages)	No	N/A
5	11/25/23	Sarah G. Allen, PhD, Retired Senior Science Advisor National Park Service	Decadal Review Recommendations for the California North Central Marine Protected Areas (3 pages)	Yes	N/A - Was submitted 11/25/23
6	11/29/23	NGOs	Support for Environmental Action Committee (EAC) Petition to the California Fish and Game Commission for regulation change at Drakes Estero (2 pages)	No	N/A

ATTACHMENT 1

Attachment 1

Figure 1: Map Attached to EAC's Petition re. Drakes Estero Prepared for Submission November 30, 2023 Sourced from historic documents



ATTACHMENT 2



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Leslie Adler-Ivanbrook Program Director

Jessica Reynolds Taylor Development Director

Grace Milstein Communications Associate

Patricia Wimpfheimer *Bookkeeper*

July 5, 2023

California Fish and Game Commission P.O. Box 944209
Sacramento, CA 94244-2090
Sent via Email: fgc@fgc.ca.gov

Re. Fish and Game Commission MRC Agenda Item 5: MPA DMR
Petition for Modification of Duxbury Reef and Drakes Estero MPAs

Dear President Sklar and Honorable Commissioners,

The Environmental Action Committee of West Marin (EAC) has been working to protect the unique lands, waters, and biodiversity of coastal Marin County since 1971. We are deeply committed to California's marine protected area (MPA) network and have been actively supporting MPAs through outreach, education, and community science activities since the first regional stakeholder meetings that would eventually establish the network of 124 MPAs.

We submit this letter to request that the letter we previously addressed to the Fish and Game Commission (Commission) in support of the MPA decadal management review (DMR), submitted on April 6, 2023, also be considered a petition to the Commission submitted pursuant to California Fish & Game Code Section 2861(a), for addition to and modification of the MPAs at Duxbury Reef and Drakes Estero. A copy of that letter is enclosed herewith. This request is being made to ensure we are compliant with any additional procedures that are entailed in the presentation to the Commission of a "petition" as contemplated in Fish and Game Code Section 2861(a), which might not have been satisfied by the April 6 DMR comment letter submittal.

Furthermore, this letter also serves as a comment on the MPA DMR (Marine Resources Committee Agenda Item 5) for the July 20th meeting. We commend the Commission for the vision of the draft prioritized recommendations dated June 12, 2023. We thank the Department of Fish and Wildlife (Department) for their hard work on this prioritization, and we generally agree with the prioritization and timelines.

As an overall comment related to the prioritization, we urge the Commission to institutionalize climate-cognizant adaptive management to ensure that management of the MPA network can respond to sea-level rise and other climate changes. We also hope that the Commission will broadly embrace recommendation 4 and support changes to the MPA network and management program. We were pleased to see that recommendation 4 was identified as a near-term priority.

As requested in our prior comments, specifically, we petition for the Commission to recommend the following additions to and modifications of the

Drakes Estero State Marine Conservation Area (SMCA) and the Duxbury Reef SMCA, as currently described in California Code of Regulations Title 14, Section 632(b)(47) and (50), respectively:

- 1. Change the designation of Drakes Estero SMCA to a "State Marine Reserve" as described in California Code of Regulations (CCR) Title 14 § 632(a)(1)(A).
- 2. Change the designation of the Duxbury Reef SMCA to a "State Marine Reserve."
- 3. Extend the southern boundary of the Duxbury MPA to the most southerly tip of Duxbury Reef exposed at mean lower low water, that is, to a point at approximately 37 deg. 53.1315' N. lat, 122 deg. 41.7549' W. long.
- 4. Extend the northern boundary of the Duxbury MPA to the Double Point/Stormy Stack Special Closure as described in CCR Title 14 § 632(b)(49).

We also request that: (1) the letter to the Commission dated April 15, 2023, from the Greater Farallones and Cordell Bank National Marine Sanctuaries (copy enclosed) be made a part of the record in support of this petition; and (2) that EAC and others be allowed to submit further written evidence and testimony in support of this petition.

Please advise us if there is any further step(s) that should be taken by EAC and/or others to present a "petition" to the Commission pursuant to California Fish & Game Code Section 2861(a). Finally, please do not hesitate to ask for any further information that the Commission believes will assist it in addressing this petition.

We also request that the Commission clarify the process of public engagement regarding the DMR going forward. A more streamlined and intuitive comment and petition system would allow for easier public engagement and would further the justice, equity, diversity, and inclusivity goals of the Commission. Clarity would be especially helpful regarding what type of regulation changes could be considered in the DMR and what types would require their own petition.

While we understand that this may be forthcoming, it would also be helpful to have clarity related to the focus of future meetings and the Department and Commission's proposed work plan with some additional specificity related to how the public and stakeholders can participate most effectively.

Thank you for your consideration of our comments and all your work on the DMR process. We look forward to continuing to engage including review of the staff report and participation at the July 20th meeting.

Sincerely,

XEagust -

Ashley Eagle-Gibbs

Legal & Policy Director

cc: Susan Ashcraft, Marine Advisor, Fish and Game Commission Becky Ota, Marine Habitat Conservation Program Manager, Department of Fish and Wildlife

Attachments: (1) EAC April 6, 2023, comments to Fish and Game Commission

(2) Greater Farallones and Cordell Bank National Marine Sanctuaries April 15, 2023, comments to Fish and Game Commission



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Executive Director

Ashley Eagle-Gibbs, Esq. Legal and Policy Director

Leslie Adler-Ivanbrook Program Director

Jessica Reynolds Taylor Development Director

Grace Milstein Communications Associate

Patricia Wimpfheimer Bookkeeper April 6, 2023

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090 Via Electronic Mail: fgc@fgc.ca.gov

Re. Agenda Item 25. Marine protected areas decadal management review

Dear President Sklar and Honorable Commissioners,

The Environmental Action Committee of West Marin (EAC) has been working to protect the unique lands, waters, and biodiversity of coastal Marin County since 1971. We are deeply committed to California's marine protected area (MPA) network and have been actively supporting MPAs through outreach, education, and community science activities since the first regional stakeholder meetings that would eventually establish the network of 124 MPAs.

We submitted written comments dated March 13th in advance of the Fish and Game Commission (Commission) Marine Resources Committee (MRC) meeting (attached to this letter), as well as providing oral comments at the March 16th MRC meeting related to the decadal management review. We appreciated the hybrid meeting format, which allowed us to participate remotely.

We submit this follow up letter with locally specific boundary and designation change requests to the full Commission to facilitate discussion at the April meeting. Related to our previously submitted requests (March 13 and 16), we highlight our key requests here for discussion and prioritization at the April meeting:

- 1) Request evaluation of Drakes Estero State Marine Conservation Area (SMCA) for a designation change to a State Marine Reserve,
- 2) Request evaluation of Duxbury Reef State Marine Conservation Area for a designation change to a State Marine Reserve and extension of the southern boundary to fully encompass the reef habitat area, and

3) Request a science-based analysis to review a northern extension of the Duxbury Reef SMCA to Double Point Special Closure based on increased visitation by the public to the Area of Special Biological Significance.

This letter and our prior letter are also supported by prior written comments submitted by the National Park Service dated (November 14, 2022, also attached).

As a final request, we would like to gain clarity on the process for boundary and designation changes.

1) Specifically, is it necessary to submit a formal petition related to these aforementioned requests and correspondence? It was not entirely clear at the March MRC meeting whether a petition is required or if the Department of Fish and Wildlife is able to recommend adaptive management strategies based on the Decadal Review and submitted comments. We respectfully request clarification to facilitate effective public participation in this process.

Thank you for your dedication to adaptive management, and we look forward to the April Commission meeting and more collaboration on the adaptive management prioritization and recommendations as we approach the July MRC meeting.

A Eaglet

Sincerely,

Morgan Patton, Executive Director

Ashley Eagle-Gibbs, Legal and Policy Director



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March 13, 2023

Fish and Game Commission Marine Resources Committee California Fish and Game Commission P.O. Box 944209

Sacramento, CA 94244-2090

Via Electronic Mail: fgc@fgc.ca.gov

Re. MRC Agenda Item 9: Marine Protected Areas (MPA) Decadal Management

Review

Dear President Sklar and Commissioner Murray,

The Environmental Action Committee of West Marin has been working to protect

would eventually establish the network of 124 MPAs.

the unique lands, waters, and biodiversity of coastal Marin County since 1971. We are deeply committed to California's marine protected area (MPA) network and have been actively supporting MPAs through outreach, education, and Director community science activities since the first regional stakeholder meetings that

We continue our support for the network as members of the Golden Gate MPA Collaborative Network, collecting human-use activity data through our local MPA Watch program, Marin MPA Watch, with partners at the Point Reyes National Seashore, and we have created a team of local volunteers who provide outreach

and education as intertidal docents at Duxbury Reef State Marine Conservation **Staff and Consultants** Area (SMCA).

> Thank you for this opportunity to submit comments on the MPA Decadal Review. We want to thank the Department of Fish and Wildlife (CDFW) and Fish and Game Commission staff and partners for the momentous achievement related to the completion of the Decadal Review and accompanying report. The report highlights the effectiveness and importance of our state's unique and precedent

setting MPA network.

Before our specific comments, we would like to note that due to the flooding in Patricia Wimpfheimer Monterey County, our team is unable to travel to the in-person meetings, including the Decadal Management Review Forum. We are grateful the Marine

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Grace Milstein Communications Associate

Bookkeeper

Resources Committee meetings will have the opportunity for hybrid participation and the Monterey County emergency highlights the continued need for hybrid meetings to ensure broad-based public engagement opportunities in the future. We look forward to viewing the Decadal Management Review Forum online and we are disappointed we will not be able to ask questions or contribute to the discussion in person.

In general, we are supportive of many of the recommendations and future steps outlined in Chapter 6; however, we have included some specific comments related to our geographic area in coastal Marin County for additional consideration. We have organized our comments by the MPA Network Performance categories noted in Chapter 6.

1. MPA Network Design / Boundaries and MPA Designation Changes

We have included three specific requests below related to designation and boundary changes with additional discussion following.

Request 1: Include condition and use change data for MPAs to provide an assessment of changed conditions (i.e. on-shore and offshore activities and uses) that would inform the need for adapting the MPA Network Design that would include boundaries and designation changes that are in alignment with today's conditions and circumstances.

Request 2: Request evaluation of Drakes Estero State Marine Conservation Area for a designation change to a State Marine Reserve.

Request 3: Request evaluation of Duxbury Reef State Marine Conservation Area for a designation change to a State Marine Reserve and extension of the southern boundary to fully encompass the reef habitat area.

The Decadal Review needs to include a reference of site conditions of the 124 MPAs from the date of MPA designation compared to current-day conditions that include changes in surrounding on-shore or offshore commercial/recreational consumptive and non-consumptive uses, and visitation data. This information would be beneficial when analyzing information for boundary and designation changes based on changed conditions. We highlight two Marin County examples below:

Example 1: Drakes Estero State Marine Conservation Area

Drakes Estero State Marine Conservation Area (SMCA) was established at a time when a commercial aquaculture operation was in business. The commercial operator closed in 2012, and offshore and on-shore infrastructure has been removed. Drakes Estero was designated as Marine Wilderness in 2012 following the

closure of the commercial operation in its waters. Following the Marine Wilderness designation, the Point Reyes National Seashore completed an expensive restoration project (\$4 million) in the waters of Drakes Estero. The Estero is one of the last fully intact wetlands in the state of California, is an Area of Special Biological Significance, and a biologically rich estuary that consists of extensive eelgrass beds, tidal flats, wetlands, sand bars, and open water that supports a variety of fish, invertebrates, shorebirds, waders, waterfowl, and mammals including harbor seals and river otters.

On November 14, 2022, the Point Reyes National Seashore¹ submitted a letter to Dr. Craig Shuman, California Department of Fish and Wildlife Marine Region Manager, and to Samantha Murray, Fish and Game Commissioner, that supports a MPA designation change of Drakes Estero from a SMCA to State Marine Reserve (SMR) for the below reasons:

2010 designation as SMCA relied on presence of commercial aquaculture operation. DOI authorization of commercial aquaculture ended in 2012, and operations ceased in 2014. Area is now Congressionally Designated Wilderness, \$4m estuary restoration completed in 2017. Recreational take of shellfish appears to be very rare, requires long kayak trips in wilderness area with no cell service and limited emergency response. Increased protections for eelgrass, estuarine biodiversity, and marine wilderness. If converted to an SMR, join Estero de Limantour into a single SMR for naming and outreach purposes.

Example 2: Duxbury Reef SMCA

Duxbury Reef SMCA was established at a time when visitation to this area was very low and not many people were visiting the intertidal area. However, visitation to this MPA has been steadily and significantly increasing as previously unknown trails and beaches of Point Reyes National Seashore have begun to attract visitors to locations such as Alamere Falls.

Since 2017, MPA Watch volunteers documented approximately a 70 percent increase in visitation to Duxbury Reef that continued to increase in 2020 and 2021 during the pandemic.

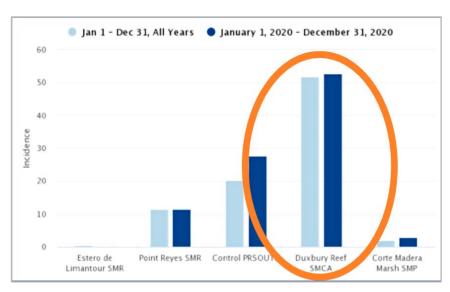


Figure 1.

MPA Watch Recreational and Consumptive Activity 2014-2020 and 2020

¹ Letter from Point Reyes National Seashore to California Department of Fish and Wildlife, November 14, 2022

A comparison of the MPA visitation trends across all designated MPAs in coastal Marin County, Duxbury has the highest overall visitation count of all MPA Watch transects in Marin, the smallest area, and is a highly sensitive intertidal habitat.

Our MPA Watch 2020 Annual Report notes the rise in visitation in 2020:

This MPA [Duxbury Reef State Marine Conservation Area] recorded a use rate of 29.4 activities per mile surveyed. This is an increase of 79% compared to the prior year. 11% of the observations in the MPA are on-shore consumptive. 305 incidents of hand collection of biota in the intertidal were observed in the months of June, July, and August 2020 (emphasis added). Duxbury Reef SMR has the highest use count [66%] of all MPAs surveyed by Marin MPA Watch ... in one of the smallest survey areas. Duxbury Reef is a sensitive intertidal habitat where human impacts (trampling and collecting) may have long-term negative impacts to habitat and species.

In 2022, we established the Duxbury Docent program in partnership with Marin County Parks and Open Space which provides visitor education and collects MPA Watch human-use data. On the ground, our docents are engaging with the public and have first-hand experience in the confusion of the designation of the MPA that is leading to unintended compliance issues at this location. Specifically, we summarized below our docent experiences while interacting with visitors,

The allowance of finfish fishing from shore and notice about the allowance of abalone take at Duxbury generates confusion in the community and among visitors about what is and is not allowed.

At Duxbury Reef SMCA, our experience on the ground is that the permitted allowance of recreational finfish and abalone from shore is confusing to the public, and with increased visitation since 2017 this tends to lead to non-compliance that may be hindering the goals of the MLPA at this site.

The inclusion of community science data on human use, activities, and visitation data from overlapping jurisdictions, like the Point Reyes National Seashore in coastal Marin County, would provide a wealth of data that could assist in informing the adaptive management strategies of the MPA Network.

This would be especially beneficial when analyzing information for boundary and designation changes that would provide up-to-date information on changing conditions that would ensure the management of the MPAs are meeting the goals of the Marine Life Protection Act (MLPA)'s six goals².

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² MLPA Goals: Protect the natural diversity and abundance of marine life, and the structure, function and integrity of marine ecosystems. 1) Help sustain, conserve and protect marine life populations, including those of economic value, and rebuild those that are depleted. 2) Improve recreational, educational and study opportunities provided by marine ecosystems that are subject to minimal human disturbance, and to manage these uses in a manner consistent with protecting biodiversity. 3) Protect marine natural heritage, including protection of representative and unique marine life habitats in CA waters for their intrinsic values. 4) Ensure California's MPAs have

2. Regulatory and Framework Review / MPA Network Design:

Request 4: Need for inclusion of biological and environmental condition status, community science data, and ecological habitat mapping when analyzing a need for MPA designation and boundary changes.

We support Recommendation #4 and request as part of the identification of science-based approaches to inform analysis that biological and environmental conditions, ecological habitat maps, and environmental designations (like Marine Wilderness, Areas of Special Biological Significance, etc.) are included.

We provide two examples below, Duxbury Reef and Double Point, related to immediately connected habitat areas excluded from MPA boundaries.

Example 1: Duxbury Reef SMCA

The current MPA boundaries of Duxbury Reef SMCA fail to encompass the entire reef that is exposed at a low tide. At low tide, people can walk to the portion that is outside the MPA, making it fully accessible. Figure 2 highlights the area that is part of the intertidal ecological habitat area but has been excluded from the MPA boundary.

In addition, the regulations state that the MPA seaward boundary is 1,000 feet from the seaward of mean, low, low tide, but the MPA boundary designation includes 1,000 feet from high tide. This language is ambiguous and confusing to the public.



Figure 2.

Overlay of Duxbury Reef SMCA with an orange outline of the portion of the reef that is exposed at low tide that is not currently included in the MPA. A southern boundary extension of Duxbury Reef is needed to fully connect the ecological habitat area and reduce confusion for the public on what activities are allowed.

clearly defined objectives, effective management measures and adequate enforcement and are based on sound scientific guidelines. 5) Ensure the State's MPAs are designed and managed, to the extent possible, as a network.

Example 2: Double Point

North of Duxbury Reef SMCA is a Special Closure Area (Double Point) that is ecologically significant and connected to Duxbury Reef. In the November 2022 letter from Point Reyes National Seashore, they note there are concerns about the protection of seabirds, marine mammals, and concerns with kayaking disturbances of harbor seals. A longestablished harbor seal monitoring program by Point Reyes National Seashore at this location includes datasets on harbor seal pupping and movements. At the time the Special Closure was established, there was little human activity and disturbance in this area until about 2017 when hiking to Alamere Falls became very popular.

A science-based analysis to review whether it would make sense to extend the Duxbury Reef MPA further north to the Special Closure should be considered with data provided by the Point Reyes National Seashore on the presence of marine mammals and disturbance events. A review of this type would inform whether there is a need to extend the Duxbury MPA boundary north or expand the Double Point Special Closure, which we think is likely warranted based on our current understanding and available data.

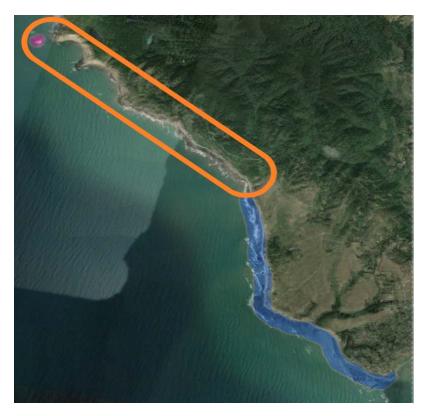


Figure 3.

Image of Double Point Special Closure and Duxbury Reef SMCA boundary. The orange highlight indicates the area outside of the MPA network that is interconnected and includes an additional Area of Special Biological Significance (cove near Double Point closure).

3. Enforcement and Compliance:

Request 5: Need for enforcement volunteer programs in rural areas, specifically an extension of CDFW-trained enforcement volunteers piloted in 2020 at Pillar Point due to the high visitation and poaching incidents.

Duxbury Reef SMCA is located within a nexus of overlapping jurisdictional authority, including the CDFW, Greater Farallones National Marine Sanctuary, Point Reyes National Seashore, and Marin County Parks and Open Space. However, the only agencies who can issue citations in the areas where most people visit at Duxbury Reef are the CDFW and the Marin County Sheriff.

Duxbury Reef SMCA is a rural location with limited signage and a lack of cellular service. Prior to 2022 and the creation of our program, there was no established outreach and education program for visitors to learn about the intertidal environment and limited oversight from regulatory agencies to ensure compliance with MPA regulations.

MPAs, like Duxbury Reef SMCA, need additional resources to enhance outreach and educational efforts, otherwise, the area becomes an MPA only in name and is not meeting MLPA goals.

Since 2014, the MPA Watch program has collected human-use data including potential violation data that is not reflected in the public enforcement violation data. Specifically, the MPA Watch and Duxbury Docent programs have collected data on increased visitation prior to the noted influx of visitation due to the pandemic in 2020:

Since 2017, MPA Watch volunteers documented approximately a 70 percent increase in visitation to Duxbury Reef, and in 2020, more than 300 observations of hand-collection of biota were documented at Duxbury Reef over a three-month period along with a 79 percent increase in visitation compared to 2019.

In 2022, the Duxbury Docent program completed 65 shifts. Docents engaged with more than 1,000 members of the public and successfully deterred 37 potential consumptive use violations (hand-collection of biota) during those shifts through outreach and education.

While establishing the Duxbury Docent program is an important step, additional resources are needed from CDFW to help meet the goals of the MLPA at this MPA. For example, establishing a partnership program like the pilot program of CDFW-trained outreach volunteers at Pillar Point in 2020 would benefit the Duxbury Docent program as a partnership to improve outreach, education, and MPA regulatory compliance.

4. Enforcement and Compliance:

Request 6: Need for transparency in violation tracking and numbers of visits by wardens to specific MPAs.

It would be beneficial to the public to have a quarterly report available that lists the number of cited violations at each MPA and the number of visits by CDFW wardens to that location. This information would assist with reconciling the community science data collected by programs like MPA Watch with the enforcement data. This would assist with finding compliance and enforcement gaps and subsequently allocating resources for increased capacity, or establishing community partnerships for outreach and educational programs in the future.

5. Outreach and Education:

Request 7: Need for up-to-date signage that incorporates information/access to seasonal fishing regulations.

Throughout the MPAs located in coastal Marin County, signage continues to be a challenge. Locations within the Point Reyes National Seashore sometimes include signage that an area is an MPA and closed to fishing and collecting, while other locations include do not have signage. If there are other pressing public noticing requirements like during the pandemic, MPA signage was removed and replaced.

As CDFW analyzes what is useful for MPA signage and effectiveness related to compliance and education, it would be helpful to include options for the public to obtain up-to-date information using QR codes, including current fishing regulations and definitions. This is especially important in areas where there are overlapping jurisdictional responsibilities and within SMCAs where regulations may differ on what is allowed or not allowed. Specifically, as noted previously by our Duxbury Docent program volunteers,

Signage is not kept up to date to reflect specific closures and hyperlinks to Fish and Game Code is not included for visitors to reference and look up current regulations.

In general, much of the public is not up to date on the fishing seasons or what fisheries are open or closed, and the lack of information at access points creates confusion. Information for outreach and education also needs to be designed for the average recreational MPA visitor, and special signage for intertidal areas should be shared collaboratively throughout the state with intertidal groups to standardize messaging.

6. Tribal Coordination:

Request 8: Need for pathways to increased tribal coordination and inclusion.

We recommend increased and meaningful tribal engagement and co-management across all aspects of the MPA network including community science, building tribal capacity, improved coordination, and outreach and inclusion of all tribes, federal and non-federally recognized tribes.

7. Climate Resilience and Adaptation:

Request 9: Need to develop pathways to integrate with California's 30x30 Initiative, climate resilience, and adaptation goals.

We are actively engaged in coastal resiliency planning and the state's 30x30 implementation. Related to 30x30, we hope to continue the dialogue around how our MPA network intersects with California's 30x30 goals. Careful coordination is required between all these goals and planning processes to ensure the best outcome.

The Fish and Game Commission should work towards climate-resilient MPAs through an equitable, science-based process that is adaptive and includes additional monitoring metrics, connecting to the state's long-term monitoring goals. Our MPAs must be climate ready. It is important that the CDFW and the Fish and Game Commission consider the need for our MPA network to adapt to sea level rise, as wetland and public trust boundaries shift. The MPAs can also serve as important climate refugia sites.

8. Public Engagement and Timeline:

Request 10: Outline the opportunities for public engagement and timeline for consideration of incorporation of public comments on the Decadal Review.

We are grateful for the opportunity to comment on the Decadal Review but would like clarification from CDFW and the Fish and Game Commission on the recommended pathways to ensure that concerns raised in this comment letter are considered for inclusion in the adaptive management plans.

We also raise specific boundary and designation change requests that are localized to our geographic region and clarification on how those items will be considered and if it is appropriate as part of this process or would need to be raised independently of the Decadal Review.

Summary of Requests

Request 1: Include condition and use change data for MPAs to provide an assessment of changed conditions (i.e. on-shore and offshore activities and uses) that would inform the need for adapting the MPA Network Design that would include boundaries and designation changes that are in alignment with today's conditions and circumstances.

Request 2: Request evaluation of Drakes Estero State Marine Conservation Area for a designation change to a State Marine Reserve.

Request 3: Request evaluation of Duxbury Reef State Marine Conservation Area for a designation change to a State Marine Reserve and extension of the southern boundary to fully encompass the reef habitat area.

Request 4: Need for inclusion of biological and environmental condition status, community science data, and ecological habitat mapping when analyzing a need for MPA designation and boundary changes.

Request 5: Need for enforcement volunteer programs in rural areas, specifically an extension of CDFW-trained enforcement volunteers piloted in 2020 at Pillar Point due to the high visitation and poaching incidents.

Request 6: Need for transparency in violation tracking and numbers of visits by wardens to specific MPAs.

Request 7: Need for up-to-date signage that incorporates information/access to seasonal fishing regulations.

Request 8: Need for pathways to increased tribal coordination and inclusion.

Request 9: Need to develop pathways to integrate with California's 30x30 Initiative, climate resilience, and adaptation goals.

Request 10: Outline the opportunities for public engagement and timeline for consideration of incorporation of public comments on the Decadal Review.

Conclusion

Thank you for the opportunity to comment on the Decadal Review and for your consideration of our comments. We look forward to additional dialogue in the coming months as the public can comprehensively engage and participate in the pathways forward that will inform the future adaptive management decisions that help to ensure an inclusive, responsive, and resilient MPA Network.

Sincerely,

Morgan Patton

Executive Director

Environmental Action Committee of West Marin

cc: Susan Ashcraft, Senior Environmental Scientist and Marine Advisor, California Fish and Game Commission; Melissa A. Miller-Henson, Executive Director, California Fish and Game Commission; Becky Ota, Marine Habitat Conservation Program Manager, California Department of Fish and Wildlife; Craig Shuman, Marine Region Manager, California Department of Fish and Wildlife; and Dennis Rodoni, Marin County Supervisor District 4



United States Department of the Interior



NATIONAL PARK SERVICE Point Reyes National Seashore 1 Bear Valley Road Point Reyes Station, CA 94956 Department of the Interior Region 10

IN REPLY REFER TO:

L7617

November 14, 2022

Craig Shuman, Marine Region Manager, CDFW craig.shuman@wildlife.ca.org
Samantha Murray, President, California Fish and Game Commission samanthamurrayfge@gmail.com

Dear Mr. Shuman and President Murray:

The National Park Service (NPS) strongly supports the continued science-based and stakeholder driven designation and management of the most significant biodiversity focused Marin Protected Area (MPA) network in the United States. We anticipate the 10-year review will strengthen and reinforce the unparalleled benefits to protecting California's unique ecologically and economically important and irreplaceable marine biodiversity.

The NPS participated in the 2008 – 2009 stakeholder working groups recommending proposed Network of MPAs for the North-Central Coast. Since that time, NPS continues to support and conduct protection, education, monitoring, and research in the four State MPAs that overlap with the boundaries of Point Reyes National Seashore: Estero de Limantour State SMR, Drakes Estero SMCA, the Point Reyes SMR, and Duxbury Reef SMCA. Similarly, we also protect and monitor seabird and marine mammal populations in the three special closures within park boundaries: Point Reyes Headlands, Point Resistance Rock, and Double Point/Stormy Stack. We are proud to help protect and monitor these MPAs that both stakeholder subgroups overwhelmingly concurred on the Commission enacted MPA designations along the Marin County coastline.

The biodiversity protections established by these seven MPAs within the boundaries of Point Reyes National Seashore are key components in the NPS mission to "...preserve unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations." Importantly, the majority of Point Reyes National Seashore's outer coast out to ¼ mile from shore is Congressionally designated as Potential Wilderness, which restricts commercial activities (including commercial fishing) and motorized equipment (including motorboats). These federal marine wilderness areas overlap partially or entirely with all seven State MPAs in Marin County.

Our continued support and engagement with the State MPA designations is summarized below where NPS, in collaboration with many partners, conducts ecological restoration, ecological monitoring, human use monitoring, research, protection, and education.

Table 1: Summary of National Park Service programs and projects in the seven State MPAs that overlap with NPS waters at Point Reyes National Seashore.

State MPA	Ecological Restoration	Ecological Monitoring	Human Use Monitoring	Research	Education	Protection
Drakes Estero SMCA	X	X	X	X	X	X
Estero de Limantour SMR				X	X	X
Point Reyes SMR	X	X	X	X	X	X
Duxbury Reef SMCA		X	X	X	X	X
Point Reyes Headlands Special Closure		X	X	X	X	X
Point Resistance Rock Special Closure		X	X		X	X
Double Point/Stormy Stack Special Closure		X	X	X	X	X

Recent and ongoing NPS investments in these State MPAs include:

- \$4m restoration of the Drakes Estero SMCA in 2016-2017 removing 3.6m lbs. of aquaculture debris and continued annual monitoring of eelgrass restoration.
- Annual harbor seal and/or elephant seal monitoring in all the MPAs (except Estero de Limantour).
- NPS Visitor and Resource Protection patrol and response at all MPA sites, including vessel response and coordination with Marin County Sheriff and CDFW game wardens.
- NPS rocky intertidal monitoring at the Duxbury Reef SMCA as well as additional reference sites throughout the park
- NPS and Partner Rocky Intertidal habitat mapping for oil spill response and climate change tracking.
- Ashy Storm-Petrel Monitoring at the Double Point/Stormy Stack Special Closure
- Logistical support for USFWS Seabird Monitoring at five of the seven MPAs.
- \$250,000 in funding to match OPC funded ROV fish and invertebrate surveys at the Point Reyes Headlands SMR (via UCSD).
- Funding to supplement and support seafloor habitat mapping between Tomales Point and Duxbury Reef to support the MPA stakeholder working groups and science teams (via Moss Landing Marine Lab).
- Funding supporting UC Davis research developing MPA larval dispersal models (Botsford Lab) in the Point Reyes region used by the MPA Science advisory Team.
- Endangered Black Abalone Restoration research (with UCSC) at the Point Reyes SMR and Point Reyes Headlands Special Closure.
- Hosting regular joint law enforcement trainings on MPA law, science, policy, and emerging issues.
- Co-development and support for of an MPA Watch program for Marin County that covers all the MPAs.

- Advising on an MPA-intertidal docent program at Duxbury Reef SMCA.
- MPA science, policy, and protection education at NPS visitor centers, interpretive programs and media.

NPS scientists, interpreters, law enforcement and partners regularly work and perform outreach, research and monitoring in these seven State MPAs. Based on our intimate long-term understanding of these areas and to continue support for the NPS Mission and Federal wilderness policies, we respectfully submit our MPA designation recommendations in Table 2 as CDFW and the Commission undergoes the 10-Year MPA review.

Table 2: National Park Service's State MPA recommendations for MPA 10-year review.

	NPS	
State MPA	Recommendation	Rationale
		2010 designation as SMCA relied on presence of commercial aquaculture operation. DOI authorization of commercial aquaculture ended in 2012, and operations ceased in 2014.
Drakes Estero SMCA	Convert from SMCA to SMR	Area is now Congressionally Designated Wilderness, \$4m estuary restoration completed in 2017. Recreational take of shellfish appears to be very rare, requires long kayak trips in wilderness area with no cell service and limited emergency response. Increased protections for eelgrass, estuarine biodiversity, and marine wilderness. If converted to an SMR, join with Estero de Limantour
		into a single SMR for naming and outreach purposes.
Estero de Limantour SMR	No Change/or merge with proposed Drakes Estero SMR	Protection of eelgrass and estuarine biodiversity.
Point Reyes SMR	No Change	Continued protection of marine biodiversity, including Seabirds, Marine Mammals, Black Abalone
Duxbury Reef SMCA	Continue as SMCA or Convert to SMR	NPS staff observe periodic illegal take of invertebrates after 12 years despite SMCA status. Full SMR status would clarify regulations and ease enforcement/education needs. Premier site for intertidal and ocean education in Marin County. NPS and UCSC long-term intertidal monitoring sites.
Point Reyes Headlands Special Closure	No Change	Protection of Seabirds, Marine Mammals, Black Abalone
Point Resistance Rock Special Closure	No Change	Protection of Seabirds. NPS has concerns about boating and kayaking disturbances. However, these are generally due to the public not following existing regulations.
Double Point/Stormy		Protection of Seabirds, Marine Mammals. NPS has concerns about boating and kayaking disturbances. However, these are generally due to the public not following existing regulations. NPS continues to monitor
Stack Special Closure	No Change	harbor seals outside the special closure for disturbance events.

Please contact NPS Cooperative Ecosystems Studies Unit Science Advisor Ben Becker at ben_becker@nps.gov if you would like any additional supporting information on NPS MPA support activities or our MPA recommendations.

Sincerely,

Anne Altman Acting Superintendent

ATTACHMENT 3

Attachment 3 Prepared for Submission November 30, 2023 with EAC's Petition re. Drakes Estero

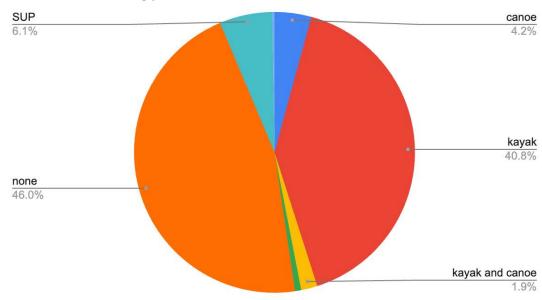
Summary of MPA Watch Camera Data at Drakes Estero July 16 - Aug 16, 2022

Drakes Estero is a destination for harvest and collection by visitors. Environmental Action Committee of West Marin installed wildlife cameras (Plotwatcher Pro) at Drakes Estero as part of the Marin MPA Watch program, in order to assess the usage of the boat launch and activity in the Estero. Between July 16th and August 16th of 2022, camera data was analyzed and recorded, providing counts of boat and recreational usage and are reported here as follows. A number of the boat observations included people bringing buckets and coolers, returning again on consecutive days. Buckets, together with coolers are indicative of use for harvest and collection of marine life, rather than pure recreation. Clamming is currently allowed by MPA regulations in the SMCA, but we are unable to see whether they enter the SMR for clamming and how the people conduct their activities because of the remote setting. Drakes Estero is now a Marine Wilderness, but was not so when the MPA was created.

426 Uses Observed In One Month, July 16 - August 16, 2022:

Kayak	174
Canoe	18
SUP	26
No boat	196
Kayak and Canoe	8
Kayak and SUP	3
Wind Surf	1



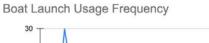


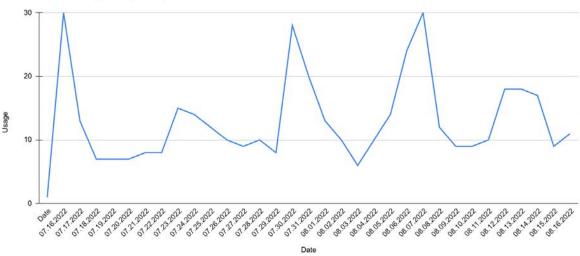
468 Boats Observed Using the Boat Launch In Total:

(some parties leaving and launching are the same on the same day, but each were counted here as distinct observations.)

- 220 launching
- 224 leaving
- 5 N/A

196 Recreation Visitors (not using boats)





Possible Harvesting occurs in Drakes Estero as evidenced by presence of buckets and coolers. They would be potentially poaching if they harvested in the SMR portion of Drakes Estero or if they harvest anything other than clams in the SMCA.:

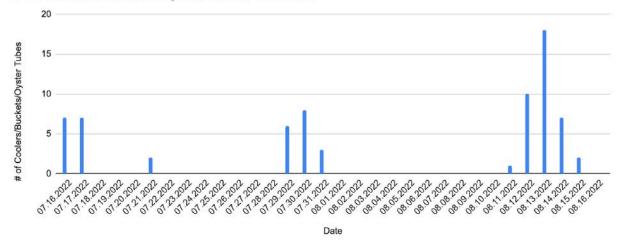
44 Boats Observed With Use of Buckets/Coolers/Oyster tubes:

Kayak	23
Kayak and Canoe	18
Canoe	3
None	1

- 35 boats counted leaving the Estero
- 9 counted launching

Roughly 74 buckets/coolers/oyster tubes observed





11 days of potential harvesting observed out of 31 days = 35.5%

23 potential harvesting observations among 426 uses of boat ramp = 5.4%

Multiple of the same groups reported:

- Multiple occurrences of large white SUV and minivan group with buckets/coolers (raises a question of whether it could be small scale commercial activity)
- Same group of 2/3 green canoes and yellow/blue kayaks
- Two occurrences of possibly small, motored boats

Mostly every two weeks for a couple days in a row, the majority of buckets and coolers were observed during the presence of large groups. These groups usually had 2-4 cars with kayaks and canoes. They appear to be repeated visitations by the same groups, most likely 2-3 different groups with common occurrences of the same boats, cars and gear. Most buckets and activity observed was leaving the boat launch, and frequently the camera never caught the arrival of the cars/boats using these buckets to the boat launch. This implies a very early start, before 6:00 am when the camera is set to begin recording photos each day. Most incidents occurred between 6:00-8:00 am for launches and 10:00 am -1:00 pm for leaving the boat ramp. The scale and pattern of the incidents and the frequency of events in one month appears significant. The Estero had high visitation (426 occurrences of Boat Launch use), and while the percent of possible harvesting in the Estero is low when comparing the overall launch usage, there were 11 days when buckets and coolers were present resulting in a 35.5% frequency of days where potential harvesting is occurring.

Screenshot example of camera data review showing people exiting Drakes Estero with buckets. Captured on July 30, 2022, at Drakes Estero Boat Launch.



ATTACHMENT 4

Fourth District



Marin County Civic Center 3501 Civic Center Drive Suite 329 San Rafael, CA 94903 415 473 7331 T 415 473 3645 F 415 473 6172 TTY DRodoni@marincounty.org/bos

November 21, 2023

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Support for Environmental Action Committee (EAC) Petition to the California Fish and Game Commission for regulation change at Drakes Estero

Dear President Sklar and Commissioner Murray,

I am pleased to extend my support for the Environmental Action Committee of West Marin's Petition to the Fish and Game Commission for a regulation change at Drakes Estero State Marine Conservation Area (Drakes Estero SMCA).

Drakes Estero contains one of the last fully intact wetlands in the state of California and is a biologically rich estuary consisting of extensive eelgrass beds, tidal flats, wetlands, sand bars, and open water that supports a variety of fish, invertebrates, shorebirds, waders, waterfowl, and mammals including harbor seals and river otters.

Currently, in Drakes Estero, it is lawful to harvest clams recreationally. To more effectively protect Drakes Estero's biologically rich marine life for the enjoyment, education, and inspiration of current and future generations, and to minimize the negative impacts of "take" (e.g., harvest, disturbance, and collection) to Drakes Estero's habitat and species, we urge the California Fish and Game Commission to modify the existing SMCA regulation by changing the designation of Drakes Estero from SMCA to State Marine Reserve (SMR) as described in California Code of Regulations (CCR) Title 14 § 632(a)(1)(A), in which no take is allowed.

Drakes Estero SMCA was established in 2010 when a commercial aquaculture operation was in business. As referenced in the National Park Service support letter, the 2010 designation as SMCA relied on the presence of commercial aquaculture operations. Department of Interior authorization of commercial aquaculture ended in 2012, and operations ceased in 2014. Drakes Estero was designated as Marine Wilderness in 2012. Following the Marine Wilderness designation, the Point Reyes National Seashore completed an expensive restoration project in the waters of Drakes Estero.

My office strongly supports efforts to align regulations across jurisdictions to protect resources that align agency enforcement, education, and public safety initiatives for the general public.

My office enthusiastically supports California's Marine Protected Area (MPA) Network and its goals for increasing MPA awareness and understanding, facilitating MPA regulatory compliance, supporting enforcement, and encouraging informed enjoyment and stewardship of MPAs.

Sincerely,

Dennis Rodoni

Marin County Supervisor, District 4

ATTACHMENT 5

November 25, 2023

To:

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244 fgc@fgc.ca.gov

From:

Sarah G. Allen, PhD P.O. Box 527 Inverness, CA 94937 sallen520@gmail.com

Re: Decadal Review Recommendations for the California North Central Marine Protected Areas

Dear President Sklar and Honorable Commissioners:

The California Marine Life Protection Act has been a model for other states and countries on how to establish a network of MPAs and provide protection to critical species and ecosystems that are fundamental to the biodiversity and economic health of California. Designation also involves periodic reevaluation and adaptive management of the sites. You are currently reviewing the North Central Coast Marine Protected Areas (MPAs) for the first decadal evaluation, and I wish to comment on and contribute to your review. For 50 years, I have studied marine life in California with an emphasis on marine birds and mammals, and was a scientist on the Scientific Advisory Team with expertise in marine mammals during the initial selection of sites within the North Central Coast Region. Twenty-six of those years, I was employed with the U.S. National Park Service as an ecologist and later as Science Program Lead for the Pacific West Region. During that time, I served on numerous federal/state collaborative committees and working groups, including, but not limited to, representative for the National Park Service on the staff committee for the California Biodiversity Council and for the nascent Parks and Protected Areas working group. While still working with and since retiring from the National Park Service in 2019, I have continued to study marine birds and mammals throughout the region, and am co-author of the University of California Press Field Guide on Marine Mammals of the Pacific.

My recommendations based on professional experience and continued study of pinniped and seabird colonies are as follows:

1. **Expand all Special Closure Areas** in the North Central Coast Region from 300 ft. to 1000 ft. to provide better protection for nesting seabirds including at North and Southeast Farallon Islands, Point Reyes Headlands, Point Resistance Rock, Double Point/Stormy Stack, and Egg Rock. From my years of studying nesting seabirds, I have noted that birds may begin reacting to boats as far as 1000 ft. away by head bobbing, and will leave eggs and chicks at shorter distances. Additionally, during surveys over the past several years, I have directly observed fishing boats disturbing nesting seabirds beyond 300 ft. at Double Point/Stormy Stack, and violating the 300 ft. buffer. When disturbing nesting seabirds, boats expose eggs and chicks to predators such as ravens and gulls, and a single disturbance can affect the productivity for an entire nesting season if seabirds do not return.

2. **Expand the Duxbury Reef MPA north** to include the Double Point/Stormy Stack Special Closure. The marine ecosystems of this area are exceptional as documented in its designation as an Area of Special Biological Significance (see Chan 1979). Double Point is home to one of the largest harbor seal (*Phoca vitulina*) breeding colonies in the state of California and to a significant seabird nesting site on Stormy Stack and the adjacent mainland cliffs. Ashy Storm Petrels (*Hydrobates homochroa*) a species of Conservation Concern in California, nest at this site, one of only a few breeding sites in the state. Black Oystercatchers (*Haematopus bachmani*), also nest there and are designated by the California Audubon Society as a Climate Endangered species because of their vulnerability to sea level rise. Other significant seabirds include >1000 Common Murres (*Uria aalge*), hundreds of cormorants, and tens of Pigeon Guillemots (*Cepphus Columba*), an indicator species of MPA recovery because of their delimited foraging/nesting habitat. Additionally, several hundred Brown Pelicans (*Pelecanus occidentalis*) roost at the site during the year.

Current protections of Stormy Stack and Double Point are insufficient. During surveys over the past several years, I have observed commercial party and recreational fishing boats violating the 300 ft. buffer and also disturbing nesting seabirds even beyond 300 ft. Fishing party boats on occasion produce noise through loud speakers as they circle around the area, which disturbs seabirds and seals at distances greater than 300 ft. By flushing nesting seabirds, boats expose eggs and chicks to predators such as ravens and gulls. One disturbance can affect the productivity for an entire breeding season if seabirds do not return to lay another egg.

- 3. **Expand the Duxbury Reef MPA south** to include the southern extension of Duxbury Reef that currently is not protected from people walking over and harvesting invertebrates and algae. There is a small but significant harbor seal colony on the southern extension of the reef that serves as a way station for seals to rest while traveling north to Point Reyes from San Francisco Bay and out to the Farallon Islands (Green et al. 2006). The seals are present consistently year round, and every year several pups occur there.
- 4. **Elevate the expanded Duxbury-Double Point MPA to State Marine Reserve**. The sensitivity and biological diversity of both Duxbury Reef and Double Point/Stormy Stack deserve full Marine Reserve status, as described in above points 1-3. Current marine reserves in California protect only approximately 9% of the state waters from harvest. The area has a long scientific history documenting biodiversity and significance, and consequently, is a good candidate for elevating to full reserve status (Chan 1979). Recently, the College of Marin broke ground to rebuild the historical Bolinas Field Station, which will continue and expand on the long history of scientific research about the coastal ecology of the area.
- 4. Combine Drakes Estero SMCA with the Estero de Limantour State Marine Reserve in order to extend reserve status protection to the middle and upper reaches of Drakes Estero. Drakes and Limantour esteros form a complex of tidal sand bars where harbor seals give birth and rest onshore year round, and is one of the largest concentrations of seals in California (Codde & Allen 2015). Recreational take of clams is the only activity allowed in this SMCA. Currently under this designation, seals are regularly disturbed by recreational clam diggers who come by kayak to dig for clams on the sand bars where the seals haul out. These sandbars are inaccessible to people on foot from the mainland and are only exposed and accessible to the seals during medium to low tides. During the harbor seal pupping season (March 1-June 30), non-motor boat access in the estero is restricted by Point Reyes National Seashore regulations, and restricted to all motor boats year round because Drakes Estero is within federally designated Wilderness. Nevertheless, there is no restriction to non-motor boats after June 30 when seals are hauling out to molt their fur. The molt (June-August) is energetically costly to the seals, requiring longer times to rest

onshore. The National Park Service supported conversion from SMCA to SMR to California Fish and Game Commission in a detailed letter dated November 14, 2022.

5. **Create a Special Closure** of 1000 ft. at Northwest Cape Rocks, north of Fort Ross. These rocks have significant seabird nesting colonies and have one of the few Steller sea lion (*Eumetopias jubatus*) breeding colonies in the state (https://www.fortross.org/animals/steller-sea-lion). Steller sea lions were delisted from the federal endangered species list several years ago; however, the California subpopulation continues to decline with an estimate of only around 2,000 (NOAA Stock Assessment 2020). The site was proposed for MPA and Special Closure designation when I was an advisor on the Science Advisory Team, but was not included at that time. Since then, the Steller sea lion colony has continued to decline at this location and state-wide.

California has been able to rebuild some of the unique and critically significant coastal ecosystems over the past decade through the establishment of an MPA network. Nevertheless, only 16% of state waters are designated as MPAs and there are only 14 Special Closures statewide. The 30x30 California Initiative advocates for 30% of the state be protected by 2030. Increasing the number and areal extent of MPAs in state waters will be a positive action to meet the goals of the initiative and a prudent management strategy to meet the immense challenges from changes in climate that already are harming California's marine resources.

Thank you for your service to protect the exceptional resources of California.

Sincerely,

Sarah G. Allen, PhD

Retired Senior Science Advisor

Surah Allen

National Park Service

Sallen520@gmail.com

cc: Ashley Eagle-Gibbs, Environmental Action Committee of West Marin

References

Chan, G. 1979. California Marine Waters Aras of Special Biological Significance Reconnaissance survey reports. Double Point and Duxbury Reef. California State Water Resources Control Board. Water Quality Monitoring Report No. 79-14 and 15.

Green, D.E., Grigg, E., Allen, S., & Markowitz, H. 2006. Monitoring the potential impact of the seismic retrofit construction activities at the Richmond-San Rafael Bridge on harbor seals (*Phoca vitulina*): May 1, 1998 – December 31, 2004. Final Report, IHA 11/19/03-11/18/04. 100pp.

Codde, S. & S. Allen. 2015. Pacific harbor seal (*Phoca vitulina richardsi*) monitoring at Point Reyes National Seashore and Golden Gate National Recreation Area: 2013 annual report. Natural Resource Report NPS/SFAN/NRR—2015/919. National Park Service, Fort Collins, Colorado.

ATTACHMENT 6



















November 29, 2023

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Support for Environmental Action Committee (EAC) Petition to the California Fish and Game Commission for regulation change at Drakes Estero

Dear President Sklar and Commissioner Murray,

The undersigned organizations submit these comments in support of EAC's petition regarding changes to the regulations for Drakes Estero State Marine Conservation Area (SMCA). The undersigned organizations are committed to coastal protection and the marine protected area (MPA) network.

Drakes Estero contains one of the last fully intact wetlands in the state of California, is a biologically rich estuary that consists of extensive eelgrass beds, tidal flats, wetlands, sand bars, and open water that supports a variety of fish, invertebrates, shorebirds, waders, waterfowl, and mammals including harbor seals and river otters.

Currently, in Drakes Estero, it is lawful to recreationally harvest clams. To more effectively protect Drakes Estero's biologically rich marine life for the enjoyment, education, and inspiration of current and future generations, and to minimize the negative impacts of "take" (e.g., harvest, disturbance, and collection) to Drakes Estero's habitat and species, we urge the California Fish and Game Commission to modify the existing SMCA regulation by **changing the designation of Drakes Estero from SMCA to State Marine Reserve (SMR)** as described in California Code of Regulations (CCR) Title 14 § 632(a)(1)(A), in which no take is allowed.¹

Drakes Estero SMCA was established in 2010 at a time when a commercial aquaculture operation was in business. As referenced in the National Park Service support letter, the 2010 designation as SMCA relied on the presence of commercial aquaculture operations. Department of Interior authorization of commercial aquaculture ended in 2012, and operations ceased in 2014. Drakes Estero was designated as Marine Wilderness in 2012. Following the Marine Wilderness designation, the Point Reyes National Seashore completed an expensive restoration project in the waters of Drakes Estero.

The SMCA regulations at Drakes Estero allow for the harvest of clams. Currently, recreational take of

¹ Protection of Resources in MPAs and MMAs, as defined in Public Resources Code Section 36710: (A) State Marine Reserves: In a state marine reserve, it is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource, except under a scientific collecting permit issued by the department pursuant to Section 650 or specific authorization from the commission for research, restoration, or monitoring purposes.

Page 2 of 2 Sign-on to Support EAC Petition Drakes Estero November 29, 2023

shellfish sometimes occurs, though it requires long kayak trips in the wilderness area with no cell service and limited emergency response. Because the commercial aquaculture no longer exists, stronger protection afforded by establishing it as an SMR would align with its pristine condition and its connectivity with adjacent Estero de Limantour SMR and Point Reyes SMR and would protect the highly sensitive estuarine ecosystem, including extensive harbor seal pupping and haul out areas.

We enthusiastically support California's MPA Network. In the case of Drakes Estero, we assert that strengthened protection is urgently needed to preserve the estuary's marine life and habitat for future generations.

Sincerely,

Chance Cutrano Director of Programs Resource Renewal Institute	Laura Deehan State Director Environment California Research and Policy Center
Neal Desai	Suzanne Hume
Senior Program Director, Pacific Region	Educational Director & Founder
National Parks Conservation Association	CleanEarth4Kids.org
Megan Isadore	Scott D. Sampson, Ph.D.
Executive Director	Executive Director
River Otter Ecology Project	California Academy of Sciences
Terri Thomas	Tomas Valadez
President	CA Policy Associate
Marin Conservation League	Azul
Robert Vergara Roger Arliner Young (RAY) Ocean Conservation Fellow Natural Resources Defense Council	

Tracking Number: (2023-32MPA)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1. Person or organization requesting the change (Required)

Name of primary contact person: Ashley Eagle-Gibbs, Environmental Action Committee of West Marin (EAC)

Address: 65 3rd St Suite 12, Point Reyes Station, CA 94956

Telephone number: (415) 663-9312 Email address: ashley@eacmarin.org

- 2. **Rulemaking Authority (Required) -** Reference to the statutory or constitutional authority of the Commission to take the action requested: Authorities cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code.
- 3. Overview (Required) EAC requests the Commission change the status of Duxbury Reef from a State Marine Conservation Area (SMCA) to a State Marine Reserve (SMR) because of documented difficulty of interpretation and enforcement of current regulations and the resulting large incidence of take. In addition, declines have been observed in marine life abundance and biodiversity. EAC also requests the Commission extend the southern boundary further south and the northern boundary to Double Point Special Closure to increase habitat protections to fully cover the entirety of the contiguous reef habitat.

Applying an SMR designation to the area currently known as Duxbury Reef SMCA and expanding that new SMR north and south so as to encompass the entirety of the Duxbury Reef habitat is consistent with the original goals of the Marine Life Protection Act (MLPA) including goals 1, 2, 3, and 4 related to preserving natural diversity, sustaining marine life populations, protecting marine habitats for their intrinsic value, and improving recreational and educational

opportunities while minimizing human disturbance.¹ It is also supported by regional partners including the Greater Farallones and Cordell Bank National Marine Sanctuaries.

4. **Rationale (Required) -** Describe the problem and the reason for the proposed change:

Duxbury Reef is the largest shale reef in California, and one of the largest in North America. The extensive tidepool network hosts a rich diversity and abundance of marine species, many of which are sheltered in numerous holes and crevices made possible because of the relatively soft shale that composes it. Invertebrates, algae, fish, and visiting land, shore, and seabirds thrive and feed there, and are interconnected with highly productive rocky and kelp habitats just offshore. Unfortunately, the entire habitat of Duxbury Reef is not actually within the current boundaries of the Duxbury Reef SMCA. In 2008, there was a proposal to create the Double Point SMCA which would include more of the Duxbury Reef habitat north of the current Duxbury Reef SMCA. Double Point SMCA was never created, leaving that critical habitat outside of any Marine Protected Area (MPA). Today, ongoing observations of take and current federal designations of the areas around the Duxbury Reef habitat demonstrate that protections provided by the MPLA for the entirety of the Duxbury Reef habitat must be reconsidered. In that goal, EAC would like to make three requests regarding Duxbury Reef SMCA.

Three parts of this request include:

- 1. **Change SMCA to SMR**: Current regulation 14 CCR § 632(b)(50)(B) allows for the recreational take of finfish from shore and abalone when allowed by the California Department of Fish and Wildlife (CDFW) (currently the abalone fishery is closed until 2026).
 - A) Current regulations cause confusion and result in more take than the regulations allow. In other words, the allowance of some take at Duxbury Reef is confusing to many visitors and results in a high count of take violations. People are confused about why you can take finfish and abalone, but not other invertebrates or algae. Most people also do not read the existing signs. Confusion is generated especially when visitors see people fishing from shore by hook and line or with the poke pole and bucket used to fish monkeyface eel (*Cebidichthys violaceus*) in the tidepools. In addition, Duxbury Docents² have observed fisher people collecting mussels from the reef to use as bait for fishing. According to feedback provided during the August 24, 2023 Golden Gate Collaborative meeting, damage to the reef also results when people have been observed using crowbars and tire jacks to take purple sea urchins (*Strongylocentrotus purpuratus*),³ which have nestled in holes they have carved in the rock.
 - B) Increased visitation and violations: Marin MPA Watch data shows significantly greater visitation and potential violations relative to other monitored MPA sites in Marin County, including take and potential poaching incidents. The rate of visitation and potential poaching increased significantly since 2017. Visitation declined somewhat after the

² In collaboration with Marin County Parks and Open Space, EAC runs a docent program at Duxbury Reef.

¹ https://wildlife.ca.gov/Conservation/Marine/MPAs/MLPA

³ See row 55, https://docs.google.com/spreadsheets/d/1Eu1efUliHZ2bazdKM5lK5UKzsIEluHEU9k9HdR1oudo/edit#gid=0

COVID pandemic emergency but remains elevated and potential poaching incidents remain high.

C) Loss of diversity and biomass: Professionals, local community members, and visitors have commented that they have noticed a loss in diversity and number of organisms at Duxbury Reef in the past 10 years, especially the area that is most heavily visited. Partly this is due to an increase in visitation, but the harvest of organisms is a contributor to loss that adds undue stress on a vulnerable reef community.

To protect this highly vulnerable and biologically rich intertidal community, also designated as an Area of Special Biological Significance, it is of vital importance that the designation for Duxbury Reef should change to State Marine Reserve, where all take is prohibited. This will reduce confusion, make educating visitors easier and compliance easier for visitors, and will better protect marine life. Damage to the marine populations is compounded by increasing threats due to climate change and the loss of habitat from sea level rise, which together are creating changed ocean conditions since the MPA was first designated.

- Expand the boundaries: The current boundaries of Duxbury Reef SMCA defined by 14 CCR § 632(b)(50)(A) do not cover the entirety of the Duxbury Reef habitat.
 - A) **Expand MPA south**: Duxbury Reef habitat extends south of the MPA boundary into an intertidal area that is not currently protected by the MPA. People access this area at very low tide, or by boat. Fisher people can fish near the intertidal reef and collectors can walk back through the protected part of the reef with their buckets of collected marine life, causing an enforcement challenge. There is also a regular, daily harbor seal haul out on this southern section of the reef. It has been reported that boaters (fishers, collectors, and recreational) have been observed in this area flushing harbor seals into the water from their haul-out resting site. This southern extension area is contiguous and ecologically connected with the Duxbury Reef MPA habitat. Many rocky intertidal species move about on the reef at high tide, especially young larval stages that repopulate areas on different parts of the reef. Equal protection of the entire reef habitat is of vital importance to the ecological health of Duxbury Reef.
 - B) **Expand MPA north**: The reef ecosystem also extends north of the current MPA boundary and includes rocky intertidal areas and some bluff-faced sandy beach areas north to Double Point Cove. Double Point Cove is designated as an Area of Special Biological Significance and is a harbor seal haul-out and pupping site. It is also adjacent to the Stormy Stack Special Closure on the north end of the cove, which prohibits access within 300 feet around the rock island. According to individual reports, boaters, including some fishing, have been observed close to the bird colony on Stormy Stack, and flushing the harbor seals at their haul outs at the south rock and in the Double Point Cove. This area is currently unprotected by the MPA network, yet is ecologically sensitive and continuous with sensitive reef and beach habitat that is currently protected. Incorporating this northern section ensures that this unique reef habitat is fully protected in its entirety from take and disturbance to marine mammals, seabirds, intertidal, and subtidal species. In the past, there was a proposal to create an MPA

between the current Double Point Special Closure and the current Duxbury Reef SMCA. The MPA would have satisfied goals 1, 2, 3, and 5 of the MLPA. An MPA in this area would specifically protect diverse areas in close proximity to each other, protect critical habitat that species of economic value rely upon, ensure minimal human disturbance occurs in sensitive habitats, and utilize scientific guidelines in the *California MLPA Master Plan for Marine Protected Areas*.

As the largest intertidal shale reef in North America, with abundant and diverse marine life, Duxbury Reef deserves the additional attention of the Commission and increased protection against ongoing take and poaching activity. This type of rocky intertidal habitat is rare. This is especially critical in consideration of the combined impacts of dramatically increased visitation, ocean acidification, and sea level rise which will increasingly impact the biodiversity of the reef.

This proposal was discussed at the <u>Golden Gate MPA Collaborative meeting on August 24, 2023</u>⁴, although a consensus was not reached. Key use concerns raised included those discussed above, as well as support from the Superintendent of the Greater Farallones and Cordell Bank National Marine Sanctuaries, which is included in Attachment 3.

SECTION II: Optional Informa	ation
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6. Category of Proposed Change

- □ Sport Fishing
- □ Commercial Fishing
- ☐ Hunting
- Other, please specify: MPA Section 632.

7. The proposal is to: (*To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs*)

Amend Title 14 Section(s): 632(b)(50).

- □ Add New Title 14 Section(s):
- □ Repeal Title 14 Section(s):
- 8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition Not applicable.
- 9. **Effective date**: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: As soon as possible.
- 10. **Supporting documentation:** *Identify and attach to the petition any information supporting the proposal including data, reports and other documents:* Numerous letters from community members and experts including Maria Brown, Greater Farallones and Cordell Bank National Marine Sanctuaries Superintendent, have provided significant information about the need to

⁴ See rows 54-55, https://docs.google.com/spreadsheets/d/1Eu1efUliHZ2bazdKM5lK5UKzsIEluHEU9k9HdR1oudo/edit#gid=0



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□ Denied by FGC

PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 5 of 6

consider additional conservation measures at Duxbury Reef. Information in these letters explains how Duxbury Reef would benefit from increased protection of the unique and important habitat of the entire reef. See the following index of attachments which includes maps, letters of support, Marin MPA Watch data, and previously submitted EAC letters. We may further supplement this petition as additional information becomes available.

11. Economic or Fiscal Impacts: Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing: Known impacts from the three proposed changes (designation change, extension south, and extension north) may result in fewer people able to harvest food (fish and invertebrates, commercially and recreationally) on the intertidal reef and beach, and offshore of Duxbury Reef. However, currently, the Wilderness Act prohibits recreational and commercial motorboats and all commercial enterprises within 1/4 mile of the Phillip Burton Wilderness Area (16 U.S.C. sec. 1133(c); Point Reyes National Seashore, "Superintendent's Compendium"), which includes the area offshore of the entire extent of the requested northern extension of the Duxbury MPA. Therefore, the economic impact of the northern extension may be relatively minor, as there are existing complementary regulations. The proposed MPA change to SMR and expansion north including the cove at Double Point would serve to strengthen the protections on the state level, making them consistent with federal protections. The additional layer of protection to the extension area under California state law would, as a consequence of being under the MPA umbrella, have the benefit of the information on take limitations reaching more people as it would then be available through the state's MPA outreach publications. We believe that this would significantly enhance compliance even with current protections as enforcement resources and abilities are currently limited.

Additionally, there will be an additional cost to CDFW to update the official signage at Agate Beach Marin County Park which hosts the access trail and parking lot for Duxbury Reef, as well as costs for updated outreach publications.

12. Forms: If applicable, list any forms to be created, amended or repealed: N/A

SECTION 3: FGC Staff Only
Date received: 11/30/2023
FGC staff action: □ Accept - complete □ Reject - incomplete □ Reject - outside scope of FGC authority Tracking Number
Date petitioner was notified of receipt of petition and pending action:
Meeting date for FGC consideration:
FGC action:



□ Denied - same as petition	
•	Tracking Number
☐ Granted for consideration	of regulation change

Attachment #	Date	Sender/Preparer	ents Submitted re. Duxbury Reef Petition Description	Previously Submitted to FGC	FGC Meeting Document Link
1	11/30/23	Prepared by Environmental Action Committee of West Marin (EAC)	Maps depicting ASBS and proposed changes (4 pages)	No	N/A
2	11/30/23	Prepared by EAC	Summarized data from mpawatch.org Marin MPA Watch (3 pages)	No	N/A
3	7/5/2023	EAC including attached letters from Greater Farallones and Cordell Bank National Marine Sanctuaries and National Park Service	EAC Comments to Fish and Game Commission re. MRC Agenda Item 5: MPA DMR Petition for Modification of Duxbury Reef and Drakes Estero MPAs including attachments 1 + 2 ((1) EAC April 6, 2023, comments to Fish and Game Commission including EAC March 13, 2023 letter and November 14, 2022 letter from National Park Service (2) Greater Farallones and Cordell Bank National Marine Sanctuaries April 15, 2023, comments to Fish and Game Commission)	Yes (Comment 7 to July MRC meeting documents, pp. 78-101 of meeting documents)	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213546&inline
4	11/21/23	Marin County Supervisor Dennis Rodoni	Support for Environmental Action Committee (EAC) Petition to the California Fish and Game Commission for regulation change at Duxbury Reef (2 pages)	No	N/A
5	November 2023	Max Korton, Marin County Parks	Support for Environmental Action Committee's Petition for Regulation Change at Duxbury Reef (2 pages)	Unsure	N/A
6	11/25/23	Sarah G. Allen, PhD, Retired Senior Science Advisor National Park Service	Decadal Review Recommendations for the California North Central Marine Protected Areas (3 pages)	Yes	N/A - Was submitted 11/25/23
7	11/29/23	Josh Churchman	Petition for Modification of Duxbury Reef Marine Protected Area (2 pages)	Yes	N/A - Was submitted 11/29/23

Attachment #	Date	Sender/Preparer	Description	Previously Submitted to FGC	FGC Meeting Document Link
8	11/29/23	NGOs	Support for Environmental Action Committee's Petition for Regulation Change at Duxbury Reef (2 pages)	No	N/A
9	7/3/23	Kent Khtikian	Petition for Modification of Duxbury Reef Marine Protected Area (4 pages)	Yes (Comment 1 to July MRC meeting documents, pp. 33-36 of meeting documents)	https://nrm.dfg.ca.gov/FileHan dler.ashx?DocumentID=21354 6&inline
10	7/3/23	Joe Mueller, College of Marin	Petition for Modification of Duxbury Reef Marine Protected Area (3 pages)	Yes (Comment 1 to July MRC meeting documents, pp. 37-39 of meeting documents)	https://nrm.dfg.ca.gov/FileHan dler.ashx?DocumentID=21354 6&inline
11	7/6/23	Lily Rosenman	Petition for Modification of Duxbury Reef Marine Protected Area (2 pages)	Yes (Comment 1 to July MRC meeting documents, pp. 40-41 of meeting documents)	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213546&inline
12	7/5/23	Bridget Bartholome	Petition for Modification of Duxbury Reef Marine Protected Area (3 pages)	Yes (Comment 1 to July MRC meeting documents, pp. 42-44 of meeting documents)	https://nrm.dfg.ca.gov/FileHan dler.ashx?DocumentID=21354 6&inline
13	7/6/23	Laura Lee Miller	Petition for Modification of Duxbury Reef Marine Protected Area (3 pages)	Yes (Comment 1 to July MRC meeting documents, pp. 45-47 of meeting documents)	https://nrm.dfg.ca.gov/FileHan dler.ashx?DocumentID=21354 6&inline
14	7/1/23	150 individuals	Group letter supporting Duxbury Reef petition (30 pages)	Yes but it appears that only one page of the thirty pages was included (Comment 1 to July MRC meeting documents, p. 48 of meeting documents)	https://nrm.dfg.ca.gov/FileHan dler.ashx?DocumentID=21354 6&inline
15	7/6/23	Courtney Barend	Petition for Modification of Duxbury Reef Marine Protected Area (2 pages)	I believe this was submitted to FGC, but I do not see it in the July packet.	N/A
16	11/30/23	Jeffrey R. Boehm, The Marine Mammal Center	Petition for modification of Duxbury Reef Marine Protected Area	Yes	N/A - Submitted 11/30/23

ATTACHMENT 1

Attachment 1

Figure 1: First Map Attached to EAC's Petition re. Duxbury Reef Prepared for Submission November 30, 2023. California Department of Fish & Wildlife Marine Region Map Sourced from CDFW¹



Description: Map showing current boundaries of Duxbury Reef SMCA, Double Point Special Closure Area, and designated Areas of Special Biological Significance.

1

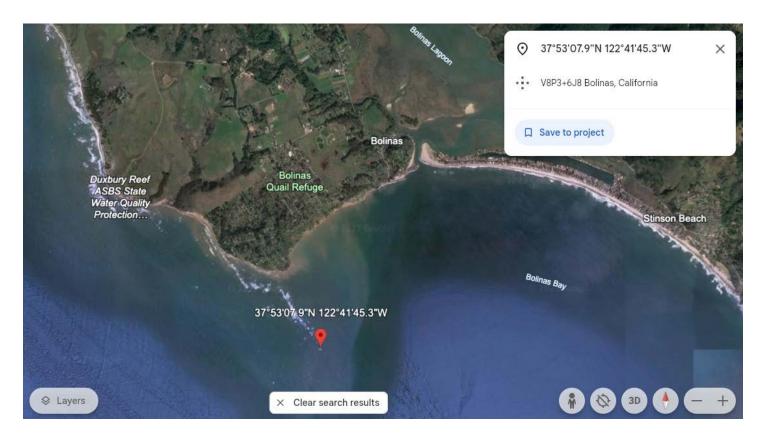
¹ https://cdfwmarine.wordpress.com/tag/stormy-stack-rock/

Figure 2: Second Map Attached to EAC's Petition re. Duxbury Reef Prepared for Submission November 30, 2023, also submitted in EAC's March 13, 2023 letter to FGC



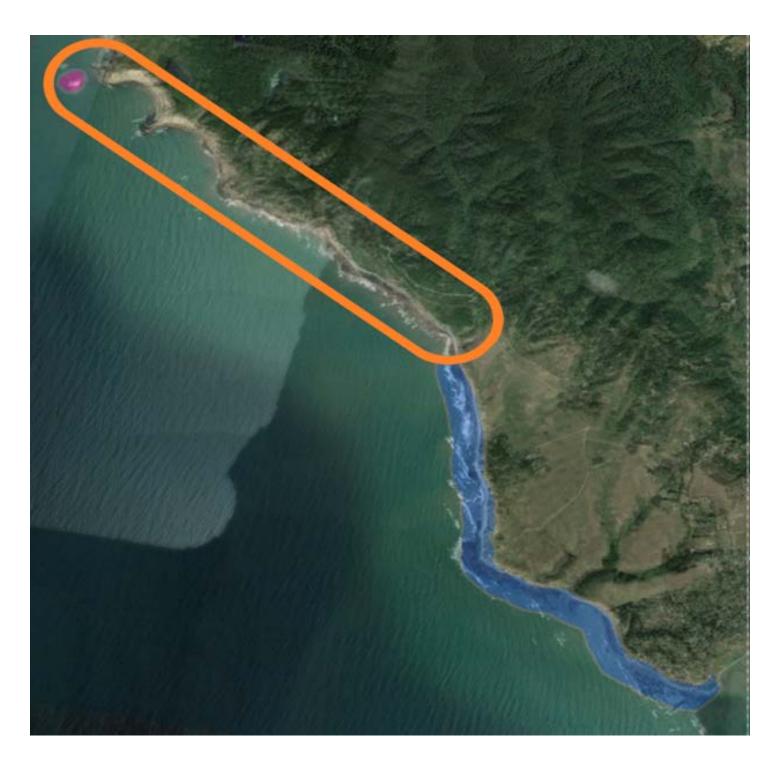
Description: Overlay of Duxbury Reef SMCA with an orange outline of the portion of the reef that is exposed at low tide that is not currently included in the MPA. A southern boundary extension of Duxbury Reef is needed to fully connect the ecological habitat area, protect vulnerable species, and reduce confusion for the public on what activities are allowed. The orange overlay shows the approximate location of our southern boundary extension request.

Figure 3: Third Map Attached to EAC's Petition re. Duxbury Reef Prepared for Submission November 30, 2023. Satellite map of Duxbury Reef SMCA Southern Boundary Sourced from Google Maps



Description: Coordinate of southernmost point of the intertidal Duxbury Reef habitat.

Figure 4: Fourth Map Attached to EAC's Petition re. Duxbury Reef Prepared for Submission November 30, 2023, also submitted in EAC's March 13, 2023 letter to FGC



Description: Image of Double Point Special Closure and Duxbury Reef SMCA boundary. The orange highlight indicates the area outside of the MPA network that is interconnected and includes an additional Area of Special Biological Significance (cove near Double Point closure highlighted in pink). The blue area is the current Duxbury Reef SMCA. The orange overlay shows the approximate location of our northern boundary extension request.

ATTACHMENT 2

Attachment 2 Prepared for Submission November 30, 2023 with EAC's Petition

Data From Marin MPA Watch (mpawatch.org)

The following tables and graphs were downloaded from the MPA Watch (mpawatch.org) data portal, which holds all the statewide data for MPA Watch surveys. The portal automatically generates tables and graphs for managers to use in their yearly reports. The tables were generated from Marin MPA Watch survey sites in Marin County, which is administered by the Environmental Action Committee of West Marin in partnership with Point Reyes National Seashore and California Academy of Sciences.

Count of Potential Violations from Marin MPA Watch

2019 Compared with All Years (since 2014)

MPA	January 1 December 31 All Years	January 1, 2019 through December 31, 2019
Estero de Limantour SMR	4	2
Point Reyes SMR	38	10
Control PRSOUTH	0	0
Duxbury Reef SMCA	1,273	40
Corte Madera Marsh SMP	18	0
All MPAs Combined	1,333	52

2020 Compared with All Years (since 2014)

MPA	January 1 December 31 All Years	January 1, 2020 through December 31, 2020
Estero de Limantour SMR	4	0
Point Reyes SMR	38	2
Control PRSOUTH	0	0
Duxbury Reef SMCA	1,273	299
Corte Madera Marsh SMP	18	0
All MPAs Combined	1,333	301

2021 Compared with All Years (since 2014)

MPA	January 1 December 31 All Years	January 1, 2021 through December 31, 2021
Estero de Limantour SMR	4	0
Point Reyes SMR	38	0
Control PRSOUTH	0	0
Duxbury Reef SMCA	1,273	126
Corte Madera Marsh SMP	18	9
All MPAs Combined	1,333	135

2022 Compared with All Years

MPA	January 1 December 31 All Years	January 1, 2022 through December 31, 2022
Estero de Limantour SMR	4	0
Point Reyes SMR	38	6
Control PRSOUTH	0	0
Duxbury Reef SMCA	1,273	188
Corte Madera Marsh SMP	18	3
All MPAs Combined	1,333	197

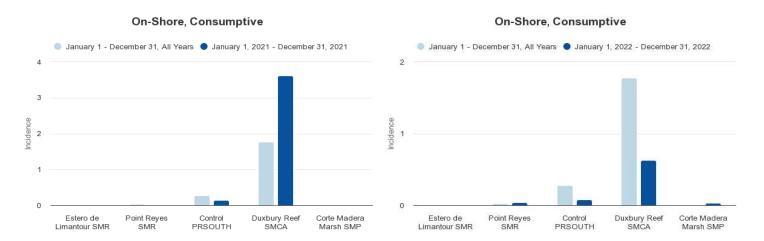
In both 2021 and 2022, Duxbury Reef counts of potential violations (termed "potential" because violations observed by MPA Watch volunteers have not been investigated and confirmed by the California Department of Fish and Wildlife (CDFW)) are much greater than any of the other survey locations covered by Marin MPA Watch. The violations consist of hand collection of marine life for removal, but can also include picking up/collecting for temporary observations (e.g. kids with buckets). Violations also include fishing by boat within 1,000 feet offshore, however, this is much less common than hand collection. Fishing by hook and line from shore is allowed in the MPA.

Incidence of Consumptive Uses

Consumptive uses and visitation rate at Duxbury Reef are significantly greater than the other Marin MPA Watch survey sites. On-shore Consumptive uses include hand collection and fishing from shore with hook and line which is allowed in the SMCA. However, much more frequent at Duxbury Reef are hand collection activities, which are a violation of the regulations.

2021 Compared with All Years

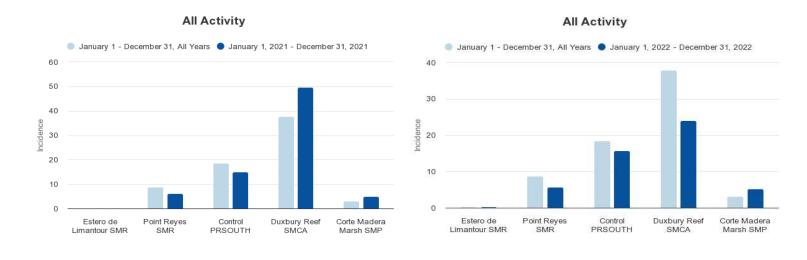
2022 Compared with All Years



Visitation Rate

2021 Activity Compared with All Years

2022 Activity Compared with All Years



ATTACHMENT 3



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Ashley Eagle-Gibbs, Esq. Legal and Policy Director

Leslie Adler-Ivanbrook Program Director

Jessica Reynolds Taylor Development Director

Grace Milstein Communications Associate

Patricia Wimpfheimer *Bookkeeper*

July 5, 2023

California Fish and Game Commission P.O. Box 944209
Sacramento, CA 94244-2090
Sent via Email: fgc@fgc.ca.gov

Re. Fish and Game Commission MRC Agenda Item 5: MPA DMR
Petition for Modification of Duxbury Reef and Drakes Estero MPAs

Dear President Sklar and Honorable Commissioners,

The Environmental Action Committee of West Marin (EAC) has been working to protect the unique lands, waters, and biodiversity of coastal Marin County since 1971. We are deeply committed to California's marine protected area (MPA) network and have been actively supporting MPAs through outreach, education, and community science activities since the first regional stakeholder meetings that would eventually establish the network of 124 MPAs.

We submit this letter to request that the letter we previously addressed to the Fish and Game Commission (Commission) in support of the MPA decadal management review (DMR), submitted on April 6, 2023, also be considered a petition to the Commission submitted pursuant to California Fish & Game Code Section 2861(a), for addition to and modification of the MPAs at Duxbury Reef and Drakes Estero. A copy of that letter is enclosed herewith. This request is being made to ensure we are compliant with any additional procedures that are entailed in the presentation to the Commission of a "petition" as contemplated in Fish and Game Code Section 2861(a), which might not have been satisfied by the April 6 DMR comment letter submittal.

Furthermore, this letter also serves as a comment on the MPA DMR (Marine Resources Committee Agenda Item 5) for the July 20th meeting. We commend the Commission for the vision of the draft prioritized recommendations dated June 12, 2023. We thank the Department of Fish and Wildlife (Department) for their hard work on this prioritization, and we generally agree with the prioritization and timelines.

As an overall comment related to the prioritization, we urge the Commission to institutionalize climate-cognizant adaptive management to ensure that management of the MPA network can respond to sea-level rise and other climate changes. We also hope that the Commission will broadly embrace recommendation 4 and support changes to the MPA network and management program. We were pleased to see that recommendation 4 was identified as a near-term priority.

As requested in our prior comments, specifically, we petition for the Commission to recommend the following additions to and modifications of the

Drakes Estero State Marine Conservation Area (SMCA) and the Duxbury Reef SMCA, as currently described in California Code of Regulations Title 14, Section 632(b)(47) and (50), respectively:

- 1. Change the designation of Drakes Estero SMCA to a "State Marine Reserve" as described in California Code of Regulations (CCR) Title 14 § 632(a)(1)(A).
- 2. Change the designation of the Duxbury Reef SMCA to a "State Marine Reserve."
- 3. Extend the southern boundary of the Duxbury MPA to the most southerly tip of Duxbury Reef exposed at mean lower low water, that is, to a point at approximately 37 deg. 53.1315' N. lat, 122 deg. 41.7549' W. long.
- 4. Extend the northern boundary of the Duxbury MPA to the Double Point/Stormy Stack Special Closure as described in CCR Title 14 § 632(b)(49).

We also request that: (1) the letter to the Commission dated April 15, 2023, from the Greater Farallones and Cordell Bank National Marine Sanctuaries (copy enclosed) be made a part of the record in support of this petition; and (2) that EAC and others be allowed to submit further written evidence and testimony in support of this petition.

Please advise us if there is any further step(s) that should be taken by EAC and/or others to present a "petition" to the Commission pursuant to California Fish & Game Code Section 2861(a). Finally, please do not hesitate to ask for any further information that the Commission believes will assist it in addressing this petition.

We also request that the Commission clarify the process of public engagement regarding the DMR going forward. A more streamlined and intuitive comment and petition system would allow for easier public engagement and would further the justice, equity, diversity, and inclusivity goals of the Commission. Clarity would be especially helpful regarding what type of regulation changes could be considered in the DMR and what types would require their own petition.

While we understand that this may be forthcoming, it would also be helpful to have clarity related to the focus of future meetings and the Department and Commission's proposed work plan with some additional specificity related to how the public and stakeholders can participate most effectively.

Thank you for your consideration of our comments and all your work on the DMR process. We look forward to continuing to engage including review of the staff report and participation at the July 20th meeting.

Sincerely,

XEagust -

Ashley Eagle-Gibbs

Legal & Policy Director

cc: Susan Ashcraft, Marine Advisor, Fish and Game Commission Becky Ota, Marine Habitat Conservation Program Manager, Department of Fish and Wildlife

Attachments: (1) EAC April 6, 2023, comments to Fish and Game Commission

(2) Greater Farallones and Cordell Bank National Marine Sanctuaries April 15, 2023, comments to Fish and Game Commission



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David Wimpfheimer Director

Staff and Consultants

Morgan Patton
Executive Director

Ashley Eagle-Gibbs, Esq. Legal and Policy Director

Leslie Adler-Ivanbrook Program Director

Jessica Reynolds Taylor Development Director

Grace Milstein Communications Associate

Patricia Wimpfheimer Bookkeeper April 6, 2023

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090 Via Electronic Mail: fgc@fgc.ca.gov

Re. Agenda Item 25. Marine protected areas decadal management review

Dear President Sklar and Honorable Commissioners,

The Environmental Action Committee of West Marin (EAC) has been working to protect the unique lands, waters, and biodiversity of coastal Marin County since 1971. We are deeply committed to California's marine protected area (MPA) network and have been actively supporting MPAs through outreach, education, and community science activities since the first regional stakeholder meetings that would eventually establish the network of 124 MPAs.

We submitted written comments dated March 13th in advance of the Fish and Game Commission (Commission) Marine Resources Committee (MRC) meeting (attached to this letter), as well as providing oral comments at the March 16th MRC meeting related to the decadal management review. We appreciated the hybrid meeting format, which allowed us to participate remotely.

We submit this follow up letter with locally specific boundary and designation change requests to the full Commission to facilitate discussion at the April meeting. Related to our previously submitted requests (March 13 and 16), we highlight our key requests here for discussion and prioritization at the April meeting:

- 1) Request evaluation of Drakes Estero State Marine Conservation Area (SMCA) for a designation change to a State Marine Reserve,
- 2) Request evaluation of Duxbury Reef State Marine Conservation Area for a designation change to a State Marine Reserve and extension of the southern boundary to fully encompass the reef habitat area, and

3) Request a science-based analysis to review a northern extension of the Duxbury Reef SMCA to Double Point Special Closure based on increased visitation by the public to the Area of Special Biological Significance.

This letter and our prior letter are also supported by prior written comments submitted by the National Park Service dated (November 14, 2022, also attached).

As a final request, we would like to gain clarity on the process for boundary and designation changes.

1) Specifically, is it necessary to submit a formal petition related to these aforementioned requests and correspondence? It was not entirely clear at the March MRC meeting whether a petition is required or if the Department of Fish and Wildlife is able to recommend adaptive management strategies based on the Decadal Review and submitted comments. We respectfully request clarification to facilitate effective public participation in this process.

Thank you for your dedication to adaptive management, and we look forward to the April Commission meeting and more collaboration on the adaptive management prioritization and recommendations as we approach the July MRC meeting.

A Eaglet

Sincerely,

Morgan Patton, Executive Director

Ashley Eagle-Gibbs, Legal and Policy Director



ESTABLISHED 1971

March 13, 2023

Fish and Game Commission Marine Resources Committee California Fish and Game Commission P.O. Box 944209

Sacramento, CA 94244-2090

Via Electronic Mail: fgc@fgc.ca.gov

Re. MRC Agenda Item 9: Marine Protected Areas (MPA) Decadal Management

Review

Dear President Sklar and Commissioner Murray,

The Environmental Action Committee of West Marin has been working to protect

would eventually establish the network of 124 MPAs.

the unique lands, waters, and biodiversity of coastal Marin County since 1971. We are deeply committed to California's marine protected area (MPA) network and have been actively supporting MPAs through outreach, education, and Director community science activities since the first regional stakeholder meetings that

We continue our support for the network as members of the Golden Gate MPA Collaborative Network, collecting human-use activity data through our local MPA Watch program, Marin MPA Watch, with partners at the Point Reyes National Seashore, and we have created a team of local volunteers who provide outreach

and education as intertidal docents at Duxbury Reef State Marine Conservation **Staff and Consultants** Area (SMCA).

> Thank you for this opportunity to submit comments on the MPA Decadal Review. We want to thank the Department of Fish and Wildlife (CDFW) and Fish and Game Commission staff and partners for the momentous achievement related to the completion of the Decadal Review and accompanying report. The report highlights the effectiveness and importance of our state's unique and precedent

setting MPA network.

Before our specific comments, we would like to note that due to the flooding in Patricia Wimpfheimer Monterey County, our team is unable to travel to the in-person meetings, including the Decadal Management Review Forum. We are grateful the Marine

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Bookkeeper

Resources Committee meetings will have the opportunity for hybrid participation and the Monterey County emergency highlights the continued need for hybrid meetings to ensure broad-based public engagement opportunities in the future. We look forward to viewing the Decadal Management Review Forum online and we are disappointed we will not be able to ask questions or contribute to the discussion in person.

In general, we are supportive of many of the recommendations and future steps outlined in Chapter 6; however, we have included some specific comments related to our geographic area in coastal Marin County for additional consideration. We have organized our comments by the MPA Network Performance categories noted in Chapter 6.

1. MPA Network Design / Boundaries and MPA Designation Changes

We have included three specific requests below related to designation and boundary changes with additional discussion following.

Request 1: Include condition and use change data for MPAs to provide an assessment of changed conditions (i.e. on-shore and offshore activities and uses) that would inform the need for adapting the MPA Network Design that would include boundaries and designation changes that are in alignment with today's conditions and circumstances.

Request 2: Request evaluation of Drakes Estero State Marine Conservation Area for a designation change to a State Marine Reserve.

Request 3: Request evaluation of Duxbury Reef State Marine Conservation Area for a designation change to a State Marine Reserve and extension of the southern boundary to fully encompass the reef habitat area.

The Decadal Review needs to include a reference of site conditions of the 124 MPAs from the date of MPA designation compared to current-day conditions that include changes in surrounding on-shore or offshore commercial/recreational consumptive and non-consumptive uses, and visitation data. This information would be beneficial when analyzing information for boundary and designation changes based on changed conditions. We highlight two Marin County examples below:

Example 1: Drakes Estero State Marine Conservation Area

Drakes Estero State Marine Conservation Area (SMCA) was established at a time when a commercial aquaculture operation was in business. The commercial operator closed in 2012, and offshore and on-shore infrastructure has been removed. Drakes Estero was designated as Marine Wilderness in 2012 following the

closure of the commercial operation in its waters. Following the Marine Wilderness designation, the Point Reyes National Seashore completed an expensive restoration project (\$4 million) in the waters of Drakes Estero. The Estero is one of the last fully intact wetlands in the state of California, is an Area of Special Biological Significance, and a biologically rich estuary that consists of extensive eelgrass beds, tidal flats, wetlands, sand bars, and open water that supports a variety of fish, invertebrates, shorebirds, waders, waterfowl, and mammals including harbor seals and river otters.

On November 14, 2022, the Point Reyes National Seashore¹ submitted a letter to Dr. Craig Shuman, California Department of Fish and Wildlife Marine Region Manager, and to Samantha Murray, Fish and Game Commissioner, that supports a MPA designation change of Drakes Estero from a SMCA to State Marine Reserve (SMR) for the below reasons:

2010 designation as SMCA relied on presence of commercial aquaculture operation. DOI authorization of commercial aquaculture ended in 2012, and operations ceased in 2014. Area is now Congressionally Designated Wilderness, \$4m estuary restoration completed in 2017. Recreational take of shellfish appears to be very rare, requires long kayak trips in wilderness area with no cell service and limited emergency response. Increased protections for eelgrass, estuarine biodiversity, and marine wilderness. If converted to an SMR, join Estero de Limantour into a single SMR for naming and outreach purposes.

Example 2: Duxbury Reef SMCA

Duxbury Reef SMCA was established at a time when visitation to this area was very low and not many people were visiting the intertidal area. However, visitation to this MPA has been steadily and significantly increasing as previously unknown trails and beaches of Point Reyes National Seashore have begun to attract visitors to locations such as Alamere Falls.

Since 2017, MPA Watch volunteers documented approximately a 70 percent increase in visitation to Duxbury Reef that continued to increase in 2020 and 2021 during the pandemic.

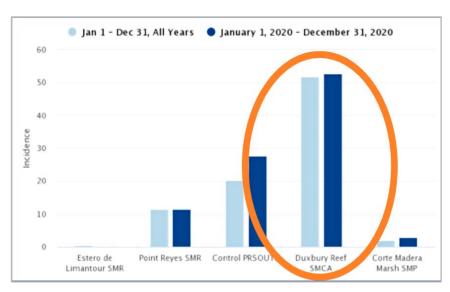


Figure 1.

MPA Watch Recreational and Consumptive Activity 2014-2020 and 2020

¹ Letter from Point Reyes National Seashore to California Department of Fish and Wildlife, November 14, 2022

A comparison of the MPA visitation trends across all designated MPAs in coastal Marin County, Duxbury has the highest overall visitation count of all MPA Watch transects in Marin, the smallest area, and is a highly sensitive intertidal habitat.

Our MPA Watch 2020 Annual Report notes the rise in visitation in 2020:

This MPA [Duxbury Reef State Marine Conservation Area] recorded a use rate of 29.4 activities per mile surveyed. This is an increase of 79% compared to the prior year. 11% of the observations in the MPA are on-shore consumptive. 305 incidents of hand collection of biota in the intertidal were observed in the months of June, July, and August 2020 (emphasis added). Duxbury Reef SMR has the highest use count [66%] of all MPAs surveyed by Marin MPA Watch ... in one of the smallest survey areas. Duxbury Reef is a sensitive intertidal habitat where human impacts (trampling and collecting) may have long-term negative impacts to habitat and species.

In 2022, we established the Duxbury Docent program in partnership with Marin County Parks and Open Space which provides visitor education and collects MPA Watch human-use data. On the ground, our docents are engaging with the public and have first-hand experience in the confusion of the designation of the MPA that is leading to unintended compliance issues at this location. Specifically, we summarized below our docent experiences while interacting with visitors,

The allowance of finfish fishing from shore and notice about the allowance of abalone take at Duxbury generates confusion in the community and among visitors about what is and is not allowed.

At Duxbury Reef SMCA, our experience on the ground is that the permitted allowance of recreational finfish and abalone from shore is confusing to the public, and with increased visitation since 2017 this tends to lead to non-compliance that may be hindering the goals of the MLPA at this site.

The inclusion of community science data on human use, activities, and visitation data from overlapping jurisdictions, like the Point Reyes National Seashore in coastal Marin County, would provide a wealth of data that could assist in informing the adaptive management strategies of the MPA Network.

This would be especially beneficial when analyzing information for boundary and designation changes that would provide up-to-date information on changing conditions that would ensure the management of the MPAs are meeting the goals of the Marine Life Protection Act (MLPA)'s six goals².

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² MLPA Goals: Protect the natural diversity and abundance of marine life, and the structure, function and integrity of marine ecosystems. 1) Help sustain, conserve and protect marine life populations, including those of economic value, and rebuild those that are depleted. 2) Improve recreational, educational and study opportunities provided by marine ecosystems that are subject to minimal human disturbance, and to manage these uses in a manner consistent with protecting biodiversity. 3) Protect marine natural heritage, including protection of representative and unique marine life habitats in CA waters for their intrinsic values. 4) Ensure California's MPAs have

2. Regulatory and Framework Review / MPA Network Design:

Request 4: Need for inclusion of biological and environmental condition status, community science data, and ecological habitat mapping when analyzing a need for MPA designation and boundary changes.

We support Recommendation #4 and request as part of the identification of science-based approaches to inform analysis that biological and environmental conditions, ecological habitat maps, and environmental designations (like Marine Wilderness, Areas of Special Biological Significance, etc.) are included.

We provide two examples below, Duxbury Reef and Double Point, related to immediately connected habitat areas excluded from MPA boundaries.

Example 1: Duxbury Reef SMCA

The current MPA boundaries of Duxbury Reef SMCA fail to encompass the entire reef that is exposed at a low tide. At low tide, people can walk to the portion that is outside the MPA, making it fully accessible. Figure 2 highlights the area that is part of the intertidal ecological habitat area but has been excluded from the MPA boundary.

In addition, the regulations state that the MPA seaward boundary is 1,000 feet from the seaward of mean, low, low tide, but the MPA boundary designation includes 1,000 feet from high tide. This language is ambiguous and confusing to the public.



Figure 2.

Overlay of Duxbury Reef SMCA with an orange outline of the portion of the reef that is exposed at low tide that is not currently included in the MPA. A southern boundary extension of Duxbury Reef is needed to fully connect the ecological habitat area and reduce confusion for the public on what activities are allowed.

clearly defined objectives, effective management measures and adequate enforcement and are based on sound scientific guidelines. 5) Ensure the State's MPAs are designed and managed, to the extent possible, as a network.

Example 2: Double Point

North of Duxbury Reef SMCA is a Special Closure Area (Double Point) that is ecologically significant and connected to Duxbury Reef. In the November 2022 letter from Point Reyes National Seashore, they note there are concerns about the protection of seabirds, marine mammals, and concerns with kayaking disturbances of harbor seals. A longestablished harbor seal monitoring program by Point Reyes National Seashore at this location includes datasets on harbor seal pupping and movements. At the time the Special Closure was established, there was little human activity and disturbance in this area until about 2017 when hiking to Alamere Falls became very popular.

A science-based analysis to review whether it would make sense to extend the Duxbury Reef MPA further north to the Special Closure should be considered with data provided by the Point Reyes National Seashore on the presence of marine mammals and disturbance events. A review of this type would inform whether there is a need to extend the Duxbury MPA boundary north or expand the Double Point Special Closure, which we think is likely warranted based on our current understanding and available data.

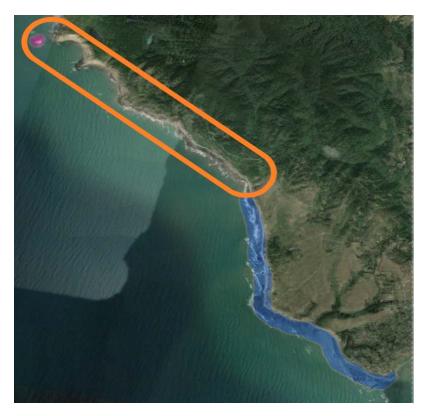


Figure 3.

Image of Double Point Special Closure and Duxbury Reef SMCA boundary. The orange highlight indicates the area outside of the MPA network that is interconnected and includes an additional Area of Special Biological Significance (cove near Double Point closure).

3. Enforcement and Compliance:

Request 5: Need for enforcement volunteer programs in rural areas, specifically an extension of CDFW-trained enforcement volunteers piloted in 2020 at Pillar Point due to the high visitation and poaching incidents.

Duxbury Reef SMCA is located within a nexus of overlapping jurisdictional authority, including the CDFW, Greater Farallones National Marine Sanctuary, Point Reyes National Seashore, and Marin County Parks and Open Space. However, the only agencies who can issue citations in the areas where most people visit at Duxbury Reef are the CDFW and the Marin County Sheriff.

Duxbury Reef SMCA is a rural location with limited signage and a lack of cellular service. Prior to 2022 and the creation of our program, there was no established outreach and education program for visitors to learn about the intertidal environment and limited oversight from regulatory agencies to ensure compliance with MPA regulations.

MPAs, like Duxbury Reef SMCA, need additional resources to enhance outreach and educational efforts, otherwise, the area becomes an MPA only in name and is not meeting MLPA goals.

Since 2014, the MPA Watch program has collected human-use data including potential violation data that is not reflected in the public enforcement violation data. Specifically, the MPA Watch and Duxbury Docent programs have collected data on increased visitation prior to the noted influx of visitation due to the pandemic in 2020:

Since 2017, MPA Watch volunteers documented approximately a 70 percent increase in visitation to Duxbury Reef, and in 2020, more than 300 observations of hand-collection of biota were documented at Duxbury Reef over a three-month period along with a 79 percent increase in visitation compared to 2019.

In 2022, the Duxbury Docent program completed 65 shifts. Docents engaged with more than 1,000 members of the public and successfully deterred 37 potential consumptive use violations (hand-collection of biota) during those shifts through outreach and education.

While establishing the Duxbury Docent program is an important step, additional resources are needed from CDFW to help meet the goals of the MLPA at this MPA. For example, establishing a partnership program like the pilot program of CDFW-trained outreach volunteers at Pillar Point in 2020 would benefit the Duxbury Docent program as a partnership to improve outreach, education, and MPA regulatory compliance.

4. Enforcement and Compliance:

Request 6: Need for transparency in violation tracking and numbers of visits by wardens to specific MPAs.

It would be beneficial to the public to have a quarterly report available that lists the number of cited violations at each MPA and the number of visits by CDFW wardens to that location. This information would assist with reconciling the community science data collected by programs like MPA Watch with the enforcement data. This would assist with finding compliance and enforcement gaps and subsequently allocating resources for increased capacity, or establishing community partnerships for outreach and educational programs in the future.

5. Outreach and Education:

Request 7: Need for up-to-date signage that incorporates information/access to seasonal fishing regulations.

Throughout the MPAs located in coastal Marin County, signage continues to be a challenge. Locations within the Point Reyes National Seashore sometimes include signage that an area is an MPA and closed to fishing and collecting, while other locations include do not have signage. If there are other pressing public noticing requirements like during the pandemic, MPA signage was removed and replaced.

As CDFW analyzes what is useful for MPA signage and effectiveness related to compliance and education, it would be helpful to include options for the public to obtain up-to-date information using QR codes, including current fishing regulations and definitions. This is especially important in areas where there are overlapping jurisdictional responsibilities and within SMCAs where regulations may differ on what is allowed or not allowed. Specifically, as noted previously by our Duxbury Docent program volunteers,

Signage is not kept up to date to reflect specific closures and hyperlinks to Fish and Game Code is not included for visitors to reference and look up current regulations.

In general, much of the public is not up to date on the fishing seasons or what fisheries are open or closed, and the lack of information at access points creates confusion. Information for outreach and education also needs to be designed for the average recreational MPA visitor, and special signage for intertidal areas should be shared collaboratively throughout the state with intertidal groups to standardize messaging.

6. Tribal Coordination:

Request 8: Need for pathways to increased tribal coordination and inclusion.

We recommend increased and meaningful tribal engagement and co-management across all aspects of the MPA network including community science, building tribal capacity, improved coordination, and outreach and inclusion of all tribes, federal and non-federally recognized tribes.

7. Climate Resilience and Adaptation:

Request 9: Need to develop pathways to integrate with California's 30x30 Initiative, climate resilience, and adaptation goals.

We are actively engaged in coastal resiliency planning and the state's 30x30 implementation. Related to 30x30, we hope to continue the dialogue around how our MPA network intersects with California's 30x30 goals. Careful coordination is required between all these goals and planning processes to ensure the best outcome.

The Fish and Game Commission should work towards climate-resilient MPAs through an equitable, science-based process that is adaptive and includes additional monitoring metrics, connecting to the state's long-term monitoring goals. Our MPAs must be climate ready. It is important that the CDFW and the Fish and Game Commission consider the need for our MPA network to adapt to sea level rise, as wetland and public trust boundaries shift. The MPAs can also serve as important climate refugia sites.

8. Public Engagement and Timeline:

Request 10: Outline the opportunities for public engagement and timeline for consideration of incorporation of public comments on the Decadal Review.

We are grateful for the opportunity to comment on the Decadal Review but would like clarification from CDFW and the Fish and Game Commission on the recommended pathways to ensure that concerns raised in this comment letter are considered for inclusion in the adaptive management plans.

We also raise specific boundary and designation change requests that are localized to our geographic region and clarification on how those items will be considered and if it is appropriate as part of this process or would need to be raised independently of the Decadal Review.

Summary of Requests

Request 1: Include condition and use change data for MPAs to provide an assessment of changed conditions (i.e. on-shore and offshore activities and uses) that would inform the need for adapting the MPA Network Design that would include boundaries and designation changes that are in alignment with today's conditions and circumstances.

Request 2: Request evaluation of Drakes Estero State Marine Conservation Area for a designation change to a State Marine Reserve.

Request 3: Request evaluation of Duxbury Reef State Marine Conservation Area for a designation change to a State Marine Reserve and extension of the southern boundary to fully encompass the reef habitat area.

Request 4: Need for inclusion of biological and environmental condition status, community science data, and ecological habitat mapping when analyzing a need for MPA designation and boundary changes.

Request 5: Need for enforcement volunteer programs in rural areas, specifically an extension of CDFW-trained enforcement volunteers piloted in 2020 at Pillar Point due to the high visitation and poaching incidents.

Request 6: Need for transparency in violation tracking and numbers of visits by wardens to specific MPAs.

Request 7: Need for up-to-date signage that incorporates information/access to seasonal fishing regulations.

Request 8: Need for pathways to increased tribal coordination and inclusion.

Request 9: Need to develop pathways to integrate with California's 30x30 Initiative, climate resilience, and adaptation goals.

Request 10: Outline the opportunities for public engagement and timeline for consideration of incorporation of public comments on the Decadal Review.

Conclusion

Thank you for the opportunity to comment on the Decadal Review and for your consideration of our comments. We look forward to additional dialogue in the coming months as the public can comprehensively engage and participate in the pathways forward that will inform the future adaptive management decisions that help to ensure an inclusive, responsive, and resilient MPA Network.

Sincerely,

Morgan Patton

Executive Director

Environmental Action Committee of West Marin

cc: Susan Ashcraft, Senior Environmental Scientist and Marine Advisor, California Fish and Game Commission; Melissa A. Miller-Henson, Executive Director, California Fish and Game Commission; Becky Ota, Marine Habitat Conservation Program Manager, California Department of Fish and Wildlife; Craig Shuman, Marine Region Manager, California Department of Fish and Wildlife; and Dennis Rodoni, Marin County Supervisor District 4



United States Department of the Interior



NATIONAL PARK SERVICE Point Reyes National Seashore 1 Bear Valley Road Point Reyes Station, CA 94956 Department of the Interior Region 10

IN REPLY REFER TO:

L7617

November 14, 2022

Craig Shuman, Marine Region Manager, CDFW craig.shuman@wildlife.ca.org
Samantha Murray, President, California Fish and Game Commission samanthamurrayfgc@gmail.com

Dear Mr. Shuman and President Murray:

The National Park Service (NPS) strongly supports the continued science-based and stakeholder driven designation and management of the most significant biodiversity focused Marin Protected Area (MPA) network in the United States. We anticipate the 10-year review will strengthen and reinforce the unparalleled benefits to protecting California's unique ecologically and economically important and irreplaceable marine biodiversity.

The NPS participated in the 2008 – 2009 stakeholder working groups recommending proposed Network of MPAs for the North-Central Coast. Since that time, NPS continues to support and conduct protection, education, monitoring, and research in the four State MPAs that overlap with the boundaries of Point Reyes National Seashore: Estero de Limantour State SMR, Drakes Estero SMCA, the Point Reyes SMR, and Duxbury Reef SMCA. Similarly, we also protect and monitor seabird and marine mammal populations in the three special closures within park boundaries: Point Reyes Headlands, Point Resistance Rock, and Double Point/Stormy Stack. We are proud to help protect and monitor these MPAs that both stakeholder subgroups overwhelmingly concurred on the Commission enacted MPA designations along the Marin County coastline.

The biodiversity protections established by these seven MPAs within the boundaries of Point Reyes National Seashore are key components in the NPS mission to "...preserve unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations." Importantly, the majority of Point Reyes National Seashore's outer coast out to ¼ mile from shore is Congressionally designated as Potential Wilderness, which restricts commercial activities (including commercial fishing) and motorized equipment (including motorboats). These federal marine wilderness areas overlap partially or entirely with all seven State MPAs in Marin County.

Our continued support and engagement with the State MPA designations is summarized below where NPS, in collaboration with many partners, conducts ecological restoration, ecological monitoring, human use monitoring, research, protection, and education.

Table 1: Summary of National Park Service programs and projects in the seven State MPAs that overlap with NPS waters at Point Reyes National Seashore.

State MPA	Ecological Restoration	Ecological Monitoring	Human Use Monitoring	Research	Education	Protection
Drakes Estero SMCA	X	X	X	X	X	X
Estero de Limantour SMR				X	X	X
Point Reyes SMR	X	X	X	X	X	X
Duxbury Reef SMCA		X	X	X	X	X
Point Reyes Headlands Special Closure		X	X	X	X	X
Point Resistance Rock Special Closure		X	X		X	X
Double Point/Stormy Stack Special Closure		X	X	X	X	X

Recent and ongoing NPS investments in these State MPAs include:

- \$4m restoration of the Drakes Estero SMCA in 2016-2017 removing 3.6m lbs. of aquaculture debris and continued annual monitoring of eelgrass restoration.
- Annual harbor seal and/or elephant seal monitoring in all the MPAs (except Estero de Limantour).
- NPS Visitor and Resource Protection patrol and response at all MPA sites, including vessel response and coordination with Marin County Sheriff and CDFW game wardens.
- NPS rocky intertidal monitoring at the Duxbury Reef SMCA as well as additional reference sites throughout the park
- NPS and Partner Rocky Intertidal habitat mapping for oil spill response and climate change tracking.
- Ashy Storm-Petrel Monitoring at the Double Point/Stormy Stack Special Closure
- Logistical support for USFWS Seabird Monitoring at five of the seven MPAs.
- \$250,000 in funding to match OPC funded ROV fish and invertebrate surveys at the Point Reyes Headlands SMR (via UCSD).
- Funding to supplement and support seafloor habitat mapping between Tomales Point and Duxbury Reef to support the MPA stakeholder working groups and science teams (via Moss Landing Marine Lab).
- Funding supporting UC Davis research developing MPA larval dispersal models (Botsford Lab) in the Point Reyes region used by the MPA Science advisory Team.
- Endangered Black Abalone Restoration research (with UCSC) at the Point Reyes SMR and Point Reyes Headlands Special Closure.
- Hosting regular joint law enforcement trainings on MPA law, science, policy, and emerging issues.
- Co-development and support for of an MPA Watch program for Marin County that covers all the MPAs.

- Advising on an MPA-intertidal docent program at Duxbury Reef SMCA.
- MPA science, policy, and protection education at NPS visitor centers, interpretive programs and media.

NPS scientists, interpreters, law enforcement and partners regularly work and perform outreach, research and monitoring in these seven State MPAs. Based on our intimate long-term understanding of these areas and to continue support for the NPS Mission and Federal wilderness policies, we respectfully submit our MPA designation recommendations in Table 2 as CDFW and the Commission undergoes the 10-Year MPA review.

Table 2: National Park Service's State MPA recommendations for MPA 10-year review.

	NPS	
State MPA	Recommendation	Rationale
		2010 designation as SMCA relied on presence of commercial aquaculture operation. DOI authorization of commercial aquaculture ended in 2012, and operations ceased in 2014.
Drakes Estero SMCA	Convert from SMCA to SMR	Area is now Congressionally Designated Wilderness, \$4m estuary restoration completed in 2017. Recreational take of shellfish appears to be very rare, requires long kayak trips in wilderness area with no cell service and limited emergency response. Increased protections for eelgrass, estuarine biodiversity, and marine wilderness.
		If converted to an SMR, join with Estero de Limantour into a single SMR for naming and outreach purposes.
Estero de Limantour SMR	No Change/or merge with proposed Drakes Estero SMR	Protection of eelgrass and estuarine biodiversity.
Point Reyes SMR	No Change	Continued protection of marine biodiversity, including Seabirds, Marine Mammals, Black Abalone
Duxbury Reef SMCA	Continue as SMCA or Convert to SMR	NPS staff observe periodic illegal take of invertebrates after 12 years despite SMCA status. Full SMR status would clarify regulations and ease enforcement/education needs. Premier site for intertidal and ocean education in Marin County. NPS and UCSC long-term intertidal monitoring sites.
Point Reyes Headlands Special Closure	No Change	Protection of Seabirds, Marine Mammals, Black Abalone
Point Resistance Rock Special Closure	No Change	Protection of Seabirds. NPS has concerns about boating and kayaking disturbances. However, these are generally due to the public not following existing regulations.
Double Point/Stormy		Protection of Seabirds, Marine Mammals. NPS has concerns about boating and kayaking disturbances. However, these are generally due to the public not following existing regulations. NPS continues to monitor
Stack Special Closure	No Change	harbor seals outside the special closure for disturbance events.

Please contact NPS Cooperative Ecosystems Studies Unit Science Advisor Ben Becker at ben_becker@nps.gov if you would like any additional supporting information on NPS MPA support activities or our MPA recommendations.

Sincerely,

Anne Altman Acting Superintendent



UNITED STATES DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Greater Farallones and Cordell Bank
National Marine Sanctuaries

991 Marine Drive, The Presidio, San Francisco, CA 94129

California Fish and Game Commission P.O. Box 944209
Sacramento, CA 94244-2090
Sent Via Email: fgc@fgc.ca.gov

April 15, 2023

RE: Adaptive Management of California's Marine Protected Area Network

Dear President Sklar and Members of the Fish and Game Commission:

Greater Farallones National Marine Sanctuary (sanctuary) includes the state waters designated between Marin County and Point Arena. In addition, Greater Farallones National Marine Sanctuary staff (GFNMS) manage the northern portion of the Monterey Bay National Marine Sanctuary between Año Nuevo and Marin County. As such, GFNMS' management area aligns with the California Marine Life Protection Act (MLPA) North Central California Region providing an opportunity for shared management of the waters overlapping 25 state MPAs and 6 special closures. Since the designation of these protected areas, we have worked to support the statewide network through education, outreach, enforcement, and research. We look forward to continuing to work together to protect these nationally important marine areas, and appreciate the opportunity to provide comments to the Commission on adaptive management of the statewide MPA network.

This letter is intended to share information about the importance of Duxbury Reef, the need to consider additional conservation measures to effectively protect it, and to support a community-based process to recommend enhanced protections at Duxbury Reef State Marine Conservation Area.

The Importance of Duxbury Reef

Duxbury Reef is a place of special significance to California's coast. Its shale reef ecosystem is the largest in California, and supports over 100 species of invertebrates and marine plants. Accessible tidepools are frequently used to teach the next generation of marine scientists how to monitor ecosystem health and to engage the public in responsible wildlife watching. Since 2000, Duxbury has been a survey site of GFNMS and Greater Farallones Association's LIMPETS program, in which Bay Area students conduct intertidal monitoring of the reef. For many, Duxbury is their first experience visiting a marine protected area. In addition to its state and federal protections, Duxbury is part of the Golden Gate Biosphere Network, a United Nations' World Network of Biosphere Reserves established as sites of excellence. At less than three quarters of a square mile in area, it is one of the smallest MPAs in the statewide network.

The Need to Consider Additional Conservation Measures at Duxbury Reef

With rising sea levels intertidal animals need the space and time to adapt and build resilience to climate change. Duxbury Reef, an easy-to-access, popular coastal location in the Bay Area, is highly impacted by increased visitation. The impacts of increased visitation since its designation as an SMCA in 2010 have been well documented by agencies and partner organizations. Preliminary findings from the GFNMS Condition Report, an assessment of the health of the sanctuary over the last 10 years, revealed that Duxbury is the most easily accessed reef within the sanctuary. Although visitor use occurs at multiple rocky reef locations throughout the sanctuary, documented trampling and collecting of intertidal species at Duxbury reef makes it the location of highest concern for intertidal impacts in the sanctuary. These activities can cause long-term negative impacts to sanctuary habitat and species and reduce the resilience of species to adapt to changing ocean conditions.

The 2020 MPA Community Compliance Forum Report¹ offers details about illegal collections at Duxbury. Community members observed visitors using buckets, small nets and tools to collect reef animals including purple urchins and turban snails. They also expressed concern about increased visitation and impacts to tidepools from trampling, moving rocks for viewing, and crushing animals.

Data from Marin MPA Watch supports observations about increased visitation and illegal take. Marin MPA Watch has conducted surveys at Duxbury Reef since 2013 documenting significant increases in visitation, as well as human impacts to the reef. In recent annual reports, they noted the following use patterns at Duxbury²:

- In spite of being the smallest MPA, Duxbury has the highest use count (visitation) of all MPAs surveyed in 2022, accounting for 49% of total human activities in Marin MPA Watch locations.
- 16 observations were made of illegal hand collection of biota in 2022, as well as 62 observations of hand collection of biota in 2021.
- 305 incidents of hand collection of biota in the intertidal were observed in the months of June, July, and August 2020.

Duxbury's SMCA designation allows for certain kinds of take, which may confuse visitors that are not familiar with the regulations. Current regulations allow for "recreational take of finfish from shore and abalone", which is an unusually broad definition for an SMCA. Most SMCA designations include specific gear types (e.g. hook and line, dip net), but at Duxbury, the lack of specificity implies all gear types used to target finfish from shore, including hook and line, poke poles, and other gear are permissible. Poke poles used to target eels on the reef are a common

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¹ Golden Gate Compliance Forum Report, 2020. see https://www.mpacollaborative.org/goldengate/

² MPA Watch Regional Report, Marin County, 2022 and 2020.

sight and are permitted under current regulations. Seeing legal take of finfish by various gear types occurring on a busy day may cause uninformed visitors to Duxbury to think that other forms of collection are legal. This confusion may be resulting in illegal take, which has been frequently observed on the reef by MPA Watch volunteers and docents.

Another potential source of confusion amongst coastal visitors may be from the allowed take at the southernmost extent of Duxbury Reef, which is unprotected by the current SMCA. This southern boundary area is accessible at low tide via the main parking lot, as well as a goat trail accessed at the end of Ocean Boulevard and Maple Road in Bolinas. Since collection is allowed at this part of the reef, unfamiliar visitors may see legal take occurring and assume that it is allowed on all areas of the reef.

Community Input on Adaptive Management of MPAs

GFNMS supports a community-based approach to recommending additional conservation tools to ensure the Duxbury Reef ecosystem thrives and is offering to help support such an effort. GFNMS is offering to propose to our Sanctuary Advisory Council (SAC) a GFNMS-CDFW working group composed of community members and science experts to recommend conservation measures and tools to address concerns about the health of Duxbury Reef. A joint working group of GFNMS and CDFW could provide a meaningful forum for community members and scientists to discuss and propose adaptive management recommendations to ensure a healthy State and Federal MPA.

Community-led processes to manage and protect our ocean are a valuable way to achieve community support, which in turn can promote better compliance. GFNMS is committed to attending future meetings of the Fish and Game Commission and Marine Resources Committee for our shared areas in which adaptive management of MPAs will be discussed and will participate in community processes that the state chooses to undertake in our region.

Thank you in advance for considering a Duxbury Reef community process whether led through GFNMS, CDFW, or a NGO to ensure that our shared resources thrive.

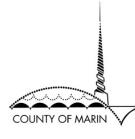
Sincerely,

Maria Brown, Superintendent

Maria Grown

Greater Farallones and Cordell Bank National Marine Sanctuaries

Fourth District



Marin County Civic Center 3501 Civic Center Drive Suite 329 San Rafael, CA 94903 415 473 7331 T 415 473 3645 F 415 473 6172 TTY DRodoni@marincounty.org/bos

November 21, 2023

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Support for Environmental Action Committee (EAC) Petition to the California Fish and Game Commission for regulation change at Duxbury Reef

Dear President Sklar and Commissioner Murray,

I am pleased to extend my support for the Environmental Action Committee of West Marin's Petition to the Fish and Game Commission for a regulation change at Duxbury Reef State Marine Conservation Area (Duxbury SMCA).

Duxbury Reef's shale reef supports a complex and rich ecosystem of over 100 species of invertebrates, marine algae, plants, associated finfish, and avian species. Its broad, flat slope affords easy access to rocky intertidal tidepool for the general public and as an outdoor classroom for students.

Currently, Duxbury Reef SMCA is only open for recreational finfish fishing and closed to any hand collection of biota. Over the last several years, my office has been made aware of compliance and regulation issues related to confusion on what is allowed and not allowed at Duxbury Reef based on the MPA regulatory designation and the mapping that does not include the southern portion of the reef that is exposed at low tied. In addition, concerns have been received about the northern boundary public visitation increases near Double Point and Stormy Stack where regulations are inconsistent with the southern intertidal areas.

My office strongly supports efforts to align regulations across jurisdictions to protect resources that align agency enforcement, education, and public safety initiatives for the public.

To reduce public confusion about what is allowed and not allowed at this location, we support the petition to adaptively manage regulations at Duxbury Reef and support the request to modify the existing Duxbury Reef SMCA regulations with the following changes proposed by EAC:

PG. 2 OF 2

- 1. Change the Duxbury Reef SMCA designation to State Marine Reserve (SMR),
- 2. Extend the southern boundary of the Duxbury MPA to the most southerly tip of Duxbury Reef exposed at mean lower low water.
- 3. Extend the northern boundary of the Duxbury Reef MPA protections to the Double Point/Stormy Stack Special Closure to protect contiguous, more pristine reef habitat to the north, which is ecologically connected to the current SMCA, but which is at risk of being degraded.

My office enthusiastically supports California's Marine Protected Area (MPA) Network and its goals for increasing MPA awareness and understanding, facilitating MPA regulatory compliance, supporting enforcement, and encouraging informed enjoyment and stewardship of MPAs.

Sincerely,

Dennis Rodoni

Marin County Supervisor, District 4



Preservation • Recreation



MARIN COUNTY
PARKS
PRESERVATION RECREATION



- OPEN SPACE DISTRICT - REGIONAL PARKS & PATHWAYS
- COMMUNITY PARKS
 LANDSCAPE SERVICES

Max Korten
DIRECTOR AND
GENERAL MANAGER

Marin County Civic Center 3501 Civic Center Drive Suite 260 San Rafael, CA 94903 415 473 6387 T 415 473 3795 F 415 473 2495 TTY www.marincountyparks.org California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Support for Environmental Action Committee's Petition for Regulation Change at Duxbury Reef

Dear President Sklar and Commissioner Murray,

Marin County Parks submits these comments in support of the Environmental Action Committee of West Marin (EAC)'s petition regarding changes to the regulations for the Duxbury Reef State Marine Conservation Area (SMCA). Marin County Parks is committed to coastal protection, the marine protected area (MPA) network, and the state's 30x30 goals.

Duxbury Reef's shale reef supports a complex and rich ecosystem of over 100 species of invertebrates, marine algae, and plants, plus associated fin fish and avian species. Its broad, flat slope affords easy access to rocky intertidal tidepools which are visited by many people throughout the year and used as outdoor classrooms for students from primary school to the university level. On some days, there can be hundreds of visitors at Duxbury Reef, including many visitors from other states and countries.

To help preserve the ecosystem of Duxbury Reef for the enjoyment, education, and inspiration of current and future generations, and to minimize the negative impacts of "take" to Duxbury Reef's vulnerable intertidal habitat and species, we urge the California Fish and Game Commission to modify the existing Duxbury Reef SMCA regulations with the following changes proposed by EAC:

- Change the Duxbury Reef SMCA designation to State
 Marine Reserve (SMR) in which no take would be allowed, to
 more fully protect vulnerable marine species at risk of impacts
 from take. This would eliminate the existing public confusion
 and enforcement challenge related to the current allowance of
 some take. Redesignating Duxbury to an SMR is of vital
 importance.
- 2. Extend the southern boundary of the Duxbury MPA to the most southerly tip of Duxbury Reef exposed at mean lower low water. That is, protect the whole reef to a point at approximately 37° 53.1315' N. latitude, 122° 41.7549' W. longitude, to include the southern reef area which is contiguous with the rest of the MPA, and ecologically sensitive yet currently unprotected.

PG. 2 OF 2

3. Extend the northern boundary of the Duxbury Reef MPA protections to the Double Point/Stormy Stack Special Closure as described in CCR Title 14 § 632(b)(49) to protect contiguous, more pristine reef habitat to the north which is ecologically connected to the current SMCA, but which is at risk of being degraded.

We support California's MPA Network. In the case of Duxbury Reef, we assert that these changes would help to preserve the reef's biodiverse marine life for future generations, reduce public confusion about allowable take, protect the southern and northern sections of the reef habitat, all in combination with changing ocean and climate conditions including sea level rise that add further stress on sensitive marine creatures and alter the habitat.

Sincerely,

Max Korten

Director and General Manager

Marin County Parks

November 25, 2023

To:

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244 fgc@fgc.ca.gov

From:

Sarah G. Allen, PhD

Inverness, CA 94937

Re: Decadal Review Recommendations for the California North Central Marine Protected Areas

Dear President Sklar and Honorable Commissioners:

The California Marine Life Protection Act has been a model for other states and countries on how to establish a network of MPAs and provide protection to critical species and ecosystems that are fundamental to the biodiversity and economic health of California. Designation also involves periodic reevaluation and adaptive management of the sites. You are currently reviewing the North Central Coast Marine Protected Areas (MPAs) for the first decadal evaluation, and I wish to comment on and contribute to your review. For 50 years, I have studied marine life in California with an emphasis on marine birds and mammals, and was a scientist on the Scientific Advisory Team with expertise in marine mammals during the initial selection of sites within the North Central Coast Region. Twenty-six of those years, I was employed with the U.S. National Park Service as an ecologist and later as Science Program Lead for the Pacific West Region. During that time, I served on numerous federal/state collaborative committees and working groups, including, but not limited to, representative for the National Park Service on the staff committee for the California Biodiversity Council and for the nascent Parks and Protected Areas working group. While still working with and since retiring from the National Park Service in 2019, I have continued to study marine birds and mammals throughout the region, and am co-author of the University of California Press Field Guide on Marine Mammals of the Pacific.

My recommendations based on professional experience and continued study of pinniped and seabird colonies are as follows:

1. **Expand all Special Closure Areas** in the North Central Coast Region from 300 ft. to 1000 ft. to provide better protection for nesting seabirds including at North and Southeast Farallon Islands, Point Reyes Headlands, Point Resistance Rock, Double Point/Stormy Stack, and Egg Rock. From my years of studying nesting seabirds, I have noted that birds may begin reacting to boats as far as 1000 ft. away by head bobbing, and will leave eggs and chicks at shorter distances. Additionally, during surveys over the past several years, I have directly observed fishing boats disturbing nesting seabirds beyond 300 ft. at Double Point/Stormy Stack, and violating the 300 ft. buffer. When disturbing nesting seabirds, boats expose eggs and chicks to predators such as ravens and gulls, and a single disturbance can affect the productivity for an entire nesting season if seabirds do not return.

2. **Expand the Duxbury Reef MPA north** to include the Double Point/Stormy Stack Special Closure. The marine ecosystems of this area are exceptional as documented in its designation as an Area of Special Biological Significance (see Chan 1979). Double Point is home to one of the largest harbor seal (*Phoca vitulina*) breeding colonies in the state of California and to a significant seabird nesting site on Stormy Stack and the adjacent mainland cliffs. Ashy Storm Petrels (*Hydrobates homochroa*) a species of Conservation Concern in California, nest at this site, one of only a few breeding sites in the state. Black Oystercatchers (*Haematopus bachmani*), also nest there and are designated by the California Audubon Society as a Climate Endangered species because of their vulnerability to sea level rise. Other significant seabirds include >1000 Common Murres (*Uria aalge*), hundreds of cormorants, and tens of Pigeon Guillemots (*Cepphus Columba*), an indicator species of MPA recovery because of their delimited foraging/nesting habitat. Additionally, several hundred Brown Pelicans (*Pelecanus occidentalis*) roost at the site during the year.

Current protections of Stormy Stack and Double Point are insufficient. During surveys over the past several years, I have observed commercial party and recreational fishing boats violating the 300 ft. buffer and also disturbing nesting seabirds even beyond 300 ft. Fishing party boats on occasion produce noise through loud speakers as they circle around the area, which disturbs seabirds and seals at distances greater than 300 ft. By flushing nesting seabirds, boats expose eggs and chicks to predators such as ravens and gulls. One disturbance can affect the productivity for an entire breeding season if seabirds do not return to lay another egg.

- 3. **Expand the Duxbury Reef MPA south** to include the southern extension of Duxbury Reef that currently is not protected from people walking over and harvesting invertebrates and algae. There is a small but significant harbor seal colony on the southern extension of the reef that serves as a way station for seals to rest while traveling north to Point Reyes from San Francisco Bay and out to the Farallon Islands (Green et al. 2006). The seals are present consistently year round, and every year several pups occur there.
- 4. **Elevate the expanded Duxbury-Double Point MPA to State Marine Reserve**. The sensitivity and biological diversity of both Duxbury Reef and Double Point/Stormy Stack deserve full Marine Reserve status, as described in above points 1-3. Current marine reserves in California protect only approximately 9% of the state waters from harvest. The area has a long scientific history documenting biodiversity and significance, and consequently, is a good candidate for elevating to full reserve status (Chan 1979). Recently, the College of Marin broke ground to rebuild the historical Bolinas Field Station, which will continue and expand on the long history of scientific research about the coastal ecology of the area.
- 4. Combine Drakes Estero SMCA with the Estero de Limantour State Marine Reserve in order to extend reserve status protection to the middle and upper reaches of Drakes Estero. Drakes and Limantour esteros form a complex of tidal sand bars where harbor seals give birth and rest onshore year round, and is one of the largest concentrations of seals in California (Codde & Allen 2015). Recreational take of clams is the only activity allowed in this SMCA. Currently under this designation, seals are regularly disturbed by recreational clam diggers who come by kayak to dig for clams on the sand bars where the seals haul out. These sandbars are inaccessible to people on foot from the mainland and are only exposed and accessible to the seals during medium to low tides. During the harbor seal pupping season (March 1-June 30), non-motor boat access in the estero is restricted by Point Reyes National Seashore regulations, and restricted to all motor boats year round because Drakes Estero is within federally designated Wilderness. Nevertheless, there is no restriction to non-motor boats after June 30 when seals are hauling out to molt their fur. The molt (June-August) is energetically costly to the seals, requiring longer times to rest

onshore. The National Park Service supported conversion from SMCA to SMR to California Fish and Game Commission in a detailed letter dated November 14, 2022.

5. **Create a Special Closure** of 1000 ft. at Northwest Cape Rocks, north of Fort Ross. These rocks have significant seabird nesting colonies and have one of the few Steller sea lion (*Eumetopias jubatus*) breeding colonies in the state (https://www.fortross.org/animals/steller-sea-lion). Steller sea lions were delisted from the federal endangered species list several years ago; however, the California subpopulation continues to decline with an estimate of only around 2,000 (NOAA Stock Assessment 2020). The site was proposed for MPA and Special Closure designation when I was an advisor on the Science Advisory Team, but was not included at that time. Since then, the Steller sea lion colony has continued to decline at this location and state-wide.

California has been able to rebuild some of the unique and critically significant coastal ecosystems over the past decade through the establishment of an MPA network. Nevertheless, only 16% of state waters are designated as MPAs and there are only 14 Special Closures statewide. The 30x30 California Initiative advocates for 30% of the state be protected by 2030. Increasing the number and areal extent of MPAs in state waters will be a positive action to meet the goals of the initiative and a prudent management strategy to meet the immense challenges from changes in climate that already are harming California's marine resources.

Thank you for your service to protect the exceptional resources of California.

Sincerely,

Sarah G. Allen, PhD

Retired Senior Science Advisor

Surah Allen

National Park Service

cc: Ashley Eagle-Gibbs, Environmental Action Committee of West Marin

References

Chan, G. 1979. California Marine Waters Aras of Special Biological Significance Reconnaissance survey reports. Double Point and Duxbury Reef. California State Water Resources Control Board. Water Quality Monitoring Report No. 79-14 and 15.

Green, D.E., Grigg, E., Allen, S., & Markowitz, H. 2006. Monitoring the potential impact of the seismic retrofit construction activities at the Richmond-San Rafael Bridge on harbor seals (*Phoca vitulina*): May 1, 1998 – December 31, 2004. Final Report, IHA 11/19/03-11/18/04. 100pp.

Codde, S. & S. Allen. 2015. Pacific harbor seal (*Phoca vitulina richardsi*) monitoring at Point Reyes National Seashore and Golden Gate National Recreation Area: 2013 annual report. Natural Resource Report NPS/SFAN/NRR—2015/919. National Park Service, Fort Collins, Colorado.

Josh Churchman
email:
telephone:

November 29, 2023

via email (fgc@fgc.ca.gov) & U.S. Mail

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Petition for modification of Duxbury Reef Marine Protected Area

Dear President Sklar and Honorable Commissioners,

I am writing to you in support of the petition submitted to you by the Environmental Action Committee of West Marin ("EAC") regarding the Duxbury Reef Marine Protected Area.

My experience/background relevant to this matter.

I am a fisherman in Bolinas for sixty seven years. I started as a sport fisherman and progressed into commercial fishing as I got older. I am now and have been a member of the Bolinas Rod & Boat Club for fifty years and I was a stakeholder on the long and painful road to forming MPA's along our coast.

For the enjoyment, education and inspiration of current and future generations, and to minimize the negative impacts of the ever increasing number of visitors to Duxbury Reef's intertidal habitat, all three of the following additions and modifications of the Duxbury Reef State Marine Conservation Area ("SMCA") which EAC has requested should be approved by the Commission.

1. Change the designation of the Duxbury Reef State Marine Conservation Area to a "State Marine Reserve".

Designating the entirety of the Duxbury MPA as a State Marine Reserve is upon us. It is time for us to prohibit all taking of anything, including all fishing from shore (except under a scientific collecting permit for authorized research, restoration or monitoring).

2. Extend the southern boundary of the Duxbury Marine Protected Area to the most southerly tip of Duxbury Reef exposed at mean lower low water (the "Southern Reef Extension")

I understand that the Southern Reef Extension is at this time outside of and unprotected

by the current MPA boundaries. This part of the reef should be included in the new boundaries.

3. Extend the northern boundary of the Duxbury MPA to the Double Point/Stormy Stack Special Closure, that is the northern point of the area known as Double Point (the "Northern Reef Extension")

I understand that the Northern Reef Extension is outside of and unprotected by the current SMCA. It is my understanding that this unprotected area commences at the North boundary of the current SMCA, roughly at the outfall of Arroyo Hondo Creek, and would extend to the northern point of Double Point. This is a much more abundant reef area and should have been included long ago.

No New Exclusions of Offshore Commercial Fishing

Finally, I wish to clearly state that while I am strongly in favor of providing full protection as a State Marine Reserve to the entire Duxbury intertidal reef, I am concerned that a thousand foot outer boundary is excessively punitive to the Bolinas fishing community. If the regulations would exclude the taking of Salmon and Halibut, or the outer boundary could be moved in to three hundred feet it would still protect the intertidal zone and not adversely impact the local fishermen as dramatically. Salmon and Halibut are "pelagic" and they do not influence the health of the reef in any significant way. However, there are times when both congregate along that shoreline and in very close to the beach.

Summary

I think it is time to exercise "adaptive management". Increase the intertidal protections and, at the same time, protect the future of a healthy Bolinas fishing community. Respectfully submitted,

Josh Churchman

cc. Kent Khtikian





















November 29, 2023

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Support for Environmental Action Committee's Petition for Regulation Change at Duxbury Reef

Dear President Sklar and Commissioner Murray,

The undersigned organizations submit these comments in support of the Environmental Action Committee of West Marin (EAC)'s petition regarding changes to the regulations for the Duxbury Reef State Marine Conservation Area (SMCA). The undersigned organizations are committed to coastal protection, the marine protected area (MPA) network, and the state's 30x30 goals.

Duxbury Reef's shale reef supports a complex and rich ecosystem of over 100 species of invertebrates, marine algae, and plants, plus associated finfish and avian species. Its broad, flat slope affords easy access to rocky intertidal tidepools which are visited by many people throughout the year, and used as outdoor classrooms for students from primary school to the university level. On some days, there can be hundreds of visitors at Duxbury Reef, including many visitors from other states and countries.

To help preserve the ecosystem of Duxbury Reef for the enjoyment, education, and inspiration of current and future generations, and to minimize the negative impacts of "take" to Duxbury Reef's vulnerable intertidal habitat and species, we urge the California Fish and Game Commission to modify the existing Duxbury Reef SMCA regulations with the following changes proposed by EAC:

- 1. Change the Duxbury Reef SMCA designation to State Marine Reserve (SMR) in which no take would be allowed, to more fully protect vulnerable marine species at risk of impacts from take. This would eliminate the existing public confusion and enforcement challenge related to the current allowance of some take. Redesignating Duxbury to an SMR is of vital importance.
- 2. Extend the southern boundary of the Duxbury MPA to the most southerly tip of Duxbury Reef exposed at mean lower low water. That is, protect the whole reef to a point at approximately 37° 53.1315' N. latitude, 122° 41.7549' W. longitude, to include the southern reef area which is contiguous with the rest of the MPA, and ecologically sensitive yet currently unprotected.
- 3. Extend the northern boundary of the Duxbury Reef MPA protections to the Double Point/Stormy Stack Special Closure as described in CCR Title 14 § 632(b)(49) to protect contiguous, more pristine reef habitat to the north which is ecologically connected to the current SMCA, but which is at risk of being degraded.

Page 2 of 2 Sign-on to Support EAC Petition Duxbury Reef November 29, 2023

We enthusiastically support California's MPA Network. In the case of Duxbury Reef, we assert that strengthened protections are urgently needed to preserve the reef's biodiverse marine life for future generations, considering public confusion about allowable take, as well as the lack of any protection of the southern and northern sections of the reef habitat, all in combination with changing ocean and climate conditions including sea level rise that add further stress on sensitive marine creatures and alter the habitat.

Sincerely,

Chance Cutrano Director of Programs Resource Renewal Institute	Laura Deehan State Director Environment California Research and Policy Center
Neal Desai	Suzanne Hume
Senior Program Director, Pacific Region	Educational Director & Founder
National Parks Conservation Association	CleanEarth4Kids.org
Megan Isadore	Scott D. Sampson, Ph.D.
Executive Director	Executive Director
River Otter Ecology Project	California Academy of Sciences
Terri Thomas	Tomas Valadez
President	CA Policy Associate
Marin Conservation League	Azul
Robert Vergara Roger Arliner Young (RAY) Ocean Conservation Fellow Natural Resources Defense Council	

	Ker	nt Khtikia	n
email			
te	lephone	e:	
	Ju	ly 3, 2023	3

via email (fgc@fgc.ca.gov) & U.S. Mail

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Petition for modification of Duxbury Reef Marine Protected Area

Dear President Sklar and Honorable Commissioners,

I am writing to you in support of the petition submitted to you by the Environmental Action Committee of West Marin ("EAC") regarding the Duxbury Reef Marine Protected Area.

For the reasons stated below, I believe that in order to preserve unimpaired the ecosystem of Duxbury Reef for the enjoyment, education and inspiration of current and future generations and to minimize the negative impacts of visitors to Duxbury Reef's intertidal habitat and species all three of the following additions to and modifications of the Duxbury Reef State Marine Conservation Area ("SMCA") should be approved by the Commission.

1. Change the designation of the Duxbury Reef State Marine Conservation Area to a "State Marine Reserve".

Designating the entirety of the Duxbury MPA as a State Marine Reserve is imperative, whether or not the boundaries of the current MPA re expanded as urged below.

I have observed a very large increase in the visitation to the Duxbury MPA over the course of the last 12 years. (The increase over the prior 35 years was not nearly as large in absolute numbers; indeed, the increase during that prior 35 year period was hardly noticeable.) I have also observed that there is now, as compared to 12 years ago, a corresponding large increase in both commercial and recreational collection. This includes collection of fauna and flora, for consumption as well as for non-consumption purposes. When speaking with visitors, who have

I understand that a designation as a "State Marine Reserve" will prohibit all taking, damage, injury or possession of any living, geological or cultural marine resource, except under a scientific collecting permit or authorized research, restoration or monitoring, whereas in a SMCA some species are unprotected. I am a retired attorney and I have read and am familiar with all sections of the Marine Life Protection Act (Fish & Game § 2850 et seq.) and the regulations promulgated thereunder (14 C.C.R. §632).

been engaged in non-consumptive, casual or recreational collecting, I have consistently heard confusion about what is or is not allowed within the current SMCA. Visitors see legal taking occurring within the current SMCA and assume that taking of anything is allowed. In addition, when permitted taking is observed, the ability of docents to protect the SMCA from not only recreational collecting, but also to minimize the usually unintended negative impacts of trampling, moving rocks for viewing, and temporarily removing animals from tide pools (this causes injury as the animal may have been in a location where it's food was present, or where it was tending eggs, or where it had a required or preferred exposure to or protection from tidal currents and wave shock²). Visitors compare, rationalize and measure their own trampling, invertebrate handling or collecting, and rock-overturning activity against the permitted taking. Simply put, continuing to permit some taking from Duxbury undermines the realization of the Commission's proscription that "it is unlawful to injure, damage, take, or possess any living ... marine resource" (14 C.C.R. § 632(a)(1)) that is not otherwise excepted from taking in the Duxbury SMCA.

2. Extend the southern boundary of the Duxbury Marine Protected Area to the most southerly tip of Duxbury Reef exposed at mean lower low water (the "Southern Reef Extension")

a. Direct Impacts on the Southern Reef Extension. The Southern Reef Extension is outside of and unprotected by the current SMCA. This unprotected area constitute about 5/6's of that portion of Duxbury Reef extending off the southern tip of the Bolinas peninsula. It is accessible at low tide from 3 points: the Agate Beach County parking lot; the Bolinas beach boat ramps at the ends of Brighton Road and Wharf Roads; and, a "local" trail down the bluff on the southern point of the Bolinas mesa. While the Southern Reef Extension does not have as many visitors as other parts of Duxbury Reef, it is an area on which I have observed an increasing number of incidents of collecting. The Southern Reef Extension has many species not found on, or rarer on, those portions of Duxbury that are more heavily visited. Its relatively pristine state is at risk of being degraded. Many of the species I have seen on the Southern Reef Extension have always been, or are now, absent or comparatively relatively rare on those parts of the SMCA most heavily visited by humans (for example, Lissothuria nutriens (Dwarf Sea Cucumber), Nuttallina californica (Nuttall's Chiton), Mopalia ciliata (Hairy Chiton), Oligocottus snyderi (Fluffy Sculpin) a number of species of nudibranch such as Diaulua sandiegensis (Ringspotted Dorid) and Dendrodoris albopunctata (Salted Dorid). Other species I have seen on the Southern Reef Extension are now relatively rare, but had once been more numerous, on the more frequently visited part of the reef - within the current SMCA - due to collecting/poaching of that species itself (e.g. Lottia gigantea (Owl Limpet)) or loss from the trampling, handling or collecting of what a species (e.g. Octopus dofleini and Octopus rubescens) feeds on. Finally I have observed since the early 1980's, at roughly the midpoint of the Southern Reef Extension, a continuous colony of Phoca vitulina (Harbor Seals) that is easily flushed into the water by approaching humans.

² I would be happy to testify as to specific impacts of these kinds on specific species.

b. Impacts on the Existing SMCA. In addition to the direct impacts on the unprotected Southern Reef Extension itself, the collection in the Southern Reef Extension has at least two negative impacts on the intertidal habitat of the current SMCA. First, visitors unfamiliar with the existence of the SMCA or, if knowing it exists, unfamiliar with its boundaries see legal taking occurring on the unprotected Southern Reef Extension, where there is no limitation to only the taking of finfish, and assume that broader taking (e.g. taking bivalves for bait, collecting invertebrates, harvesting algae) is allowed in the area within the current SMCA. Second, it negatively impacts the complex and rich ecosystem of the entire reef by removing from the less visited areas (the Northern & Southern Reef Extensions) those species that could otherwise repopulate the more heavily visited areas (the current SMCA).

3. Extend the northern boundary of the Duxbury MPA to the Double Point/Stormy Stack Special Closure, that is the northern point of the area known as Double Point (the "Northern Reef Extension")

The Northern Reef Extension is outside of and unprotected by the current SMCA. This unprotected area commences at the North boundary of the current SMCA (roughly the outfall of Arroyo Hondo Creek) and would extend to the northern point of Double Point. It is accessible from 6 points: the Agate Beach County parking lot (at low tide); two trails down from the Commonweal area; a trail down from a small parking area on Mesa Road North of Point Blue's Palomarin Field Station; a trail that commences about 200 yards North of the Palomarin trailhead (branching off the Coast Trail); and, at low tide from the beach from Alamere Falls. The number of visitors at the Palomarin trailhead has increased many-fold. Ten years ago it was rare to have more than 15 cars in the trailhead parking lot on a Saturday or Sunday during the Summer; now parking fills that lot at any time of the year, and often extends down Mesa road - on occasion nearly to Point Blue's field station. The Northern Reef Extension has many species not found on, or now rarer on, those portions of Duxbury that are more heavily visited. Its relatively pristine state is at risk of being degraded. Perhaps the most memorable (to me) two species I have seen in the Northern Reef Extension, but not in the SMCA, are Anarrhichthys ocellatus (Wolf Eel), and Scorpaenichthys marmoratus (Giant Marbled Sculpin or Giant Sculpin) protecting its eggs, a species I have seen in the intertidal area only twice in over 30 years in tidepools which was protecting eggs and potentially could be easily captured. Obviously, like the collecting activity in the Southern Reef Extension, that same activity in the unprotected Northern Reef Extension, negatively impacts the complex and rich ecosystem of the entire reef.

My experience/background relevant to this matter.

I was a part-time resident of Bolinas from 1976 to 1985. From 1986 to the present I have continuously been a full-time resident of Bolinas. During that period I have observed Duxbury Reef, keeping field and laboratory notes of my observations over that time. I am a rocky shores naturalist, trained as part of the rocky shores partnership between California Academy of Sciences and the Gulf of the Farallones National Marine Sanctuary, and in marine biology course work at the College of Marin (as examples). Two days a month for over 3 years I was a volunteer docent at the California Academy of Sciences, specializing in marine invertebrates.

Each year for the past 10 years I have performed surveys of intertidal invertebrates in the more untouched areas of the Marin Coast (4 sites including one on Duxbury Reef) and Alcatraz Island as part of the Multi-Agency Rocky Intertidal Network (MARINe). For 8 years I surveyed and tagged pinnipeds in Pt. Reyes National Seashore. I participated in MPA Watch from 2013 to 2021. I have spent over 100 hours a year docenting at Duxbury Reef, including taking school groups on the reef from primary school to college classes, over the past12 years. In 2022 I created the docent program on Duxbury Reef in partnership with EAC, I taught the docent volunteers the biology and the identification of species found on Duxbury, and trained them in docenting protocols. I was previously named volunteer of the year by the National Park Service, by the Greater Farallones National Marine Sanctuary, and by EAC. I am also a member of the Bolinas Rod & Boat Club.

Summary

Duxbury Reef's side-shelf shale reef supports a complex and rich ecosystem. Its tidal pools are easy to access and are frequently used as outdoor classrooms for students from primary school to the university level and for recreation. On some days there are 100s of visitors to Duxbury Reef, including many visitors from other States and countries, for tide pool exploration and wildlife watching.

In order to preserve without further impairment, and to correct harm that has been previously done to, the ecosystem of Duxbury Reef for the enjoyment, education and inspiration of current and future generations all three of the above-described additions to and modifications of the Duxbury Reef State Marine Conservation Area proposed should be approved by the Commission.

Respectfully submitted,

Kent Khtikian

cc. Morgan Patton, EAC

Date: July 3, 2023

To: California Fish and Game Commission

P.O. Box 944209

Sacramento, CA 94244-2090

via email (fgc@fgc.ca.gov) & U.S. Mail

From: Joe Mueller

College of Marin

Dept. of Life and Earth Sciences

835 College Ave Kentfield, CA 94904

Re: Petition for modification of Duxbury Reef Marine Protected Area

Dear President Sklar and Honorable Commissioners.

I am writing to you in support of the petition submitted to you by the Environmental Action Committee of West Marin ("EAC") dated April 6, 2023 regarding the Duxbury Reef Marine Protected Area.

For the reasons stated below, I believe that in order to preserve the ecological integrity of the Communities of Duxbury Reef for the recreational use, education and scientific modeling opportunities of current and future generations and to minimize the damaging impacts of visitors to Duxbury Reef's rocky intertidal communities all three of the following additions to and revisions of the Duxbury Reef State Marine Conservation Area ("SMCA") should be approved by the Commission.

My experience/background relevant to this matter.

As a Professor of Marine Biology at College of Marin for 33 years I have been studying Duxbury Reef and leading marine biology field trips to the reef for all of these years. I have been part of conducting invertebrate population assays on the reef since 1985. Recently I have led a research project to follow through on invertebrate studies that have been monitoring biodiversity trends since the early 1970s.

1. Change the designation of the Duxbury Reef State Marine Conservation Area to a "State Marine Reserve". $^{\rm I}$

Designating the entirety of the Duxbury MPA as a State Marine Reserve is of vital importance,

¹ I understand that a designation as a "State Marine Reserve" will prohibit all taking, damage, injury or possession of any living, geological or cultural marine resource, except under a scientific collecting permit or authorized research, restoration or monitoring, whereas in a SMCA some species are unprotected.

July 3, 2023

whether or not the boundaries of the current MPA are expanded as urged below. Over my 33 years of teaching college level courses on Duxbury Reef I have observed a significantly large increase in the visitation to the Duxbury MPA over the course of the last 12 years or so. Additionally, I have observed that there is a corresponding significant increase in both commercial and recreational collecting/fishing as compared to 12 or so years ago. This includes collecting of both invertebrates, vertebrates and algae for food as well as for general collecting purposes. Most importantly I've notice a precipitous drop and reef invertebrate diversity and biomass. It is in my professional opinion that continuing to permit some taking from Duxbury undermines the realization of the Commission's proscription that "it is unlawful to injure, damage, take, or possess any living ... marine resource" (14 C.C.R. § 632(a)(1)) that is not otherwise excepted from taking in the Duxbury SMCA.

2. Extend the southern boundary of the Duxbury Marine Protected Area to the most southerly tip of Duxbury Reef exposed at mean lower low water (the "Southern Reef Extension")

a. Direct Impacts on the Southern Reef Extension. The Southern Reef Extension is outside of and unprotected by the current SMCA. This unprotected area constitutes about 5/6's of that portion of Duxbury Reef extending off the southern tip of the Bolinas peninsula. It is accessible at low tide from 3 points: the Agate Beach County parking lot; the Bolinas beach boat ramps at the ends of Brighton Road and Wharf Roads; and, a "local" trail down the bluff on the southern point of the Bolinas mesa. While the Southern Reef Extension does not have as many visitors as other parts of Duxbury Reef, it is an area on which I have observed an increasing number of incidents of collecting over the last few years. The Southern Reef Extension has a significantly higher biodiversity than those regions of Duxbury that are more heavily visited due to easier access. This is due to the diverse microhabitats found in this area as well as other abiotic variables. The reef's relatively pristine state is at risk of being degraded. If needed I would be happy to provide your office with a list of invertebrate and vertebrate species historically found within the Southern Reef Extension that are now, absent or comparatively rare on those parts of the SMCA most heavily visited. Other species I have seen on the Southern Reef Extension are now relatively rare, but had been more numerous in the past, on the more frequently visited part of the reef - within the current SMCA - due to collecting/poaching of that species, e.g. Lottia gigantea or most likely loss from the trampling, handling or collecting of what some species (e.g. Octopus dofleini and Octopus rubescens) feed on. I have also observed colonies of Harbor Seals that are easily frightened into the water by approaching humans in this area.

b. <u>Impacts on the Existing SMCA</u>. In addition to the direct impacts on the unprotected Southern Reef Extension, the collection in the Southern Reef Extension has at least two negative impacts on the intertidal habitat of the current SMCA. First, visitors unfamiliar with the existence of the SMCA or, if knowing it exists, unfamiliar with its boundaries see legal taking occurring on the unprotected Southern Reef Extension, where there is no limitation to only the taking of finfish, and assume that broader taking (e.g. taking bivalves for bait, collecting invertebrates, harvesting algae) is allowed in the area within the current SMCA. Second, it negatively impacts the

July 3, 2023

complex and rich ecosystem of the entire reef by removing from the less visited areas (the Northern & Southern Reef Extensions) those species that could otherwise repopulate the more heavily visited areas (the current SMCA).

3. Extend the northern boundary of the Duxbury MPA to the Double Point/Stormy Stack Special Closure, that is the northern point of the area known as Double Point (the "Northern Reef Extension")

The Northern Reef Extension is outside of and unprotected by the current SMCA. This unprotected area commences at the North boundary of the current SMCA (roughly the outfall of Arroyo Hondo Creek) and would extend to the northern point of Double Point. It is accessible from 6 points: the Agate Beach County parking lot (at low tide); two trails down from the Commonweal area; a trail down from a small parking area on Mesa Road North of Point Blue's Palomarin Field Station. I'm told by expert National Park staff that there has been a significant increase in visitation and is due to social media. The Northern Reef Extension has a richer biodiversity than areas of Duxbury that are more heavily visited. Its relatively pristine state is at risk of being degraded. As you're aware, the collecting activity in the Southern Reef Extension is the same activity in the unprotected Northern Reef Extension and negatively impacts the complex and rich ecological communities of the entire reef system

Summary

Duxbury Reef's side-shelf shale reef supports complex and rich ecological communities. Its tidal pools are easy to access and are frequently used as outdoor classrooms for students from primary school to the university level as well as for recreation. On many days I have counted more than 150 visitors using Duxbury Reef, that have come to explore the rocky intertidal community.

In order to preserve without further damage, and to allow the reef to heal so it can provide enjoyment, education and inspiration for current and future generations I strongly recommend that all three of the above-described additions to and revisions of the Duxbury Reef State Marine Conservation Area proposed should be approved by the Commission.

Please feel free to contact me for any clarification or questions. jmueller@marin.edu

Respectfully submitted.

Joe Mueller

Professor of Marine Biology

College of Marin Kentfield, CA 94904 imueller@marin.edu

cc. Morgan Patton, EAC

California Fish and Game Commission July 6, 2023

	Lily Rosenman	
email:		

July 6, 2023

via email (fgc@fgc.ca.gov) & U.S. Mail

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Petition for modification of Duxbury Reef Marine Protected Area

Dear President Sklar and Honorable Commissioners,

I am writing to you in support of the petition submitted to you by the Environmental Action Committee of West Marin ("EAC") regarding the Duxbury Reef Marine Protected Area.

For the reasons stated below, I believe that in order to preserve unimpaired the ecosystem of Duxbury Reef for the enjoyment, education and inspiration of current and future generations and to minimize the negative impacts of visitors to Duxbury Reef's intertidal habitat and species all three of the following additions to and modifications of the Duxbury Reef State Marine Conservation Area ("SMCA") should be approved by the Commission.

- 1. Change the designation of the Duxbury Reef State Marine Conservation Area to a "State Marine Reserve".
- 2. Extend the southern boundary of the Duxbury Marine Protected Area to the most southerly tip of Duxbury Reef exposed at mean lower low water.
- 3. Extend the northern boundary of the Duxbury MPA to the Double Point/Stormy Stack Special Closure, that is the northern point of the area known as Double Point.

Rationale for my support of the above actions.

My comments below are premised upon my following experience. I have continuously been a full-time resident of Bolinas since 2021. Since moving to Bolinas I have spent many hours on Duxbury Reef. I am currently taking classes at the College of Marin to obtain a Natural History Certificate and have completed 4 of the 7 courses for that certification. I completed the docent training class for the Duxbury Reef docent program in January 2022. I have been an active docent on Duxbury Reef since January 2022, and I have spent many hours on the reef as a docent. I have been visiting and exploring Duxbury reef since the 1980s, and the experiences

¹¹ I understand that a designation as a "State Marine Reserve" will prohibit all taking, damage, injury or possession of any living, geological or cultural marine resource, except under a scientific collecting permit or authorized research, restoration or monitoring, whereas in a SMCA some species are unprotected.

California Fish and Game Commission July 6, 2023

tidepooling there throughout my childhood have directly influenced my current path to learning more about Ecology and Marine Biology.

As a docent I have talked to visitors who were engaged in casual, recreational collecting. From numerous interactions with visitors, it is apparent that visitors often feel that their own activity of turning over rocks, walking through tide pools, or recreational collecting is less harmful than whatever fishing that they either see occurring on the reef or they read as being permitted on the signage in the Agate Beach parking lot.

When fishermen are in the SMCA, I am too uncomfortable as a volunteer docent, to try to stop - or even dissuade - fishermen from using mussels as bait or from removing other invertebrates either for consumption or for bait.

If Duxbury was designated as a State Marine Reserve, there would be no question that the taking or possessing is not permitted. Nor would there be permitted taking occurring, against which visitors could compare, rationalize and justify their own trampling, invertebrate handling, and rock-overturning activity.

I have also observed that there are large parts of Duxbury Reef, both to the North and South of the boundaries of the current area designated as the Duxbury Reef State Marine Conservation Area which are increasingly visited. Those areas are outside of the Duxbury marine protected area. Consequently, there is no attempt to dissuade or even report harmful conduct in the parts of the reef which are now relatively pristine. The risk of the degradation of those areas would be reduced by expanding the boundaries of Duxbury marine protected area to include them and by designating the entirety as a State Marine Reserve. Moreover, unless someone was posted out beyond the current boundaries of the SMCA (and there are not enough volunteers to do that), it is impossible to tell if people who are walking back from more remote parts of the reef to the County's Agate Beach parking area who are carrying buckets, collected the contents of those buckets inside the current boundaries of the Duxbury SMCA or in those larger unprotected areas of Duxbury Reef outside of its current protected boundaries.

Sincerely,

Lily Rosenman

cc. Morgan Patton, EAC

Bridget Bartholome

email:

telephone:

July 5, 2023

via email (fgc@fgc.ca.gov) & U.S. Mail

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Petition for modification of Duxbury Reef Marine Protected Area

Dear President Sklar and Honorable Commissioners,

I am writing to you in support of the petition submitted to you by the Environmental Action Committee of West Marin ("EAC") dated April 6, 2023 regarding the Duxbury Reef Marine Protected Area.

For the reasons stated below, I believe that in order to preserve unimpaired the ecosystem of Duxbury Reef for the enjoyment, education and inspiration of current and future generations and to minimize the negative impacts of visitors to Duxbury Reef's intertidal habitat and species all three of the following additions to and modifications of the Duxbury Reef State Marine Conservation Area ("SMCA") should be approved by the Commission.

- 1. Change the designation of the Duxbury Reef State Marine Conservation Area to a "State Marine Reserve". 1
- 2. Extend the southern boundary of the Duxbury Marine Protected Area to the most southerly tip of Duxbury Reef exposed at mean lower low water.
- 3. Extend the northern boundary of the Duxbury MPA to the Double Point/Stormy Stack Special Closure, that is the northern point of the area known as Double Point.

Rationale for my support of the above actions.

¹ I understand that a designation as a "State Marine Reserve" will prohibit all taking, damage, injury or possession of any living, geological or cultural marine resource, except under a scientific collecting permit or authorized research, restoration or monitoring, whereas in a SMCA some species are unprotected.

My comments below are premised upon my following experience. I have continuously been a full-time resident of Bolinas since 2006. Since moving to Bolinas I have spent many hours on Duxbury Reef. I am currently taking classes at the College of Marin to obtain a Natural History Certificate and have completed 6 of the 7 classes for that certification. I took the docent training class for the Duxbury Reef docent program in January 2022 and I have been continually participating in that program on Duxbury Reef since that date. I was also resident choreographer for Bolinas Bay Performing Arts 2014-2020, and taking young people to the reef to learn and explore was an integral part of our production of "The Little Mermaid". I have also been a member of the Bolinas Rod and Boat Club since 2020. For the past year I have also been assisting in performing invertebrate surveys in several areas within the current Duxbury SMCA.

I have observed a very large increase in the visitation to the Duxbury SMCA over the course of the last 7 years. As a docent I have talked to visitors who were engaged in casual, recreational collecting. On those occasions when others on the reef were fishing, the visitors would ask me why fishing with lines and hooks, or with poke poles, was permitted, but taking other animals (bivalves, snails, urchins) from the reef, or turning over rocks, or splashing through tide pools (and, for example, potentially destroying egg deposits or crushing juvenile crabs taking refuge in tide pools when the tide retreats) was prohibited. Docents are volunteers, and are present on the reef for only a small percentage of the time. It is apparent to me that despite the signs in the Agate Beach parking lot, many people believe that their activity is less impactful than the taking by others that is permitted. In addition, when people are walking back from one of the more distant parts of Duxbury's protected area to the County's Agate Beach parking lot carrying fishing rods and buckets, it is very uncomfortable for docents to try to peer in the buckets to determine if they are carrying off anything other than finfish or abalone; indeed, it is uncomfortable to the point that the observation is rarely attempted. Consequently, if Duxbury was designated as a State Marine Reserve, there would be no question that the taking or possessing is not permitted. Nor would there be permitted taking occurring, against which visitors could compare, rationalize and justify their own trampling, invertebrate handling, and rock-overturning activity.

I have also observed that there are large parts of Duxbury Reef, both to the North and South of the boundaries of the current area designated as the Duxbury Reef State Marine Conservation Area which are increasingly visited. Those areas are outside of the Duxbury marine protected area. Consequently, there is no attempt to dissuade or even report harmful conduct in the parts of the reef which are now relatively pristine. The risk of the degradation of those areas would be reduced by expanding the boundaries of Duxbury marine protected area to include them and by designating the entirety as a State Marine Reserve. Moreover, unless someone was posted out beyond the current boundaries of the SMCA (and there are not enough volunteers to do that), it is impossible to tell if people who are walking back from more remote parts of the reef to the County's Agate Beach parking area who are carrying buckets, collected the contents of those buckets inside the current boundaries of the Duxbury SMCA or in those larger unprotected areas of Duxbury Reef outside of its current protected boundaries.

Sincerely,

Bridget Bartholome

cc. Morgan Patton, EAC

ATTACHMENT 13

Laura Lee Miller

July 6, 2023

via email (fgc@fgc.ca.gov) & U.S. Mail

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Petition for modification of Duxbury Reef Marine Protected Area

Dear President Sklar and Honorable Commissioners,

I am writing to you in support of the petition submitted to you by the Environmental Action Committee of West Marin ("EAC") regarding the Duxbury Reef Marine Protected Area.

For the reasons stated below, I believe that in order to preserve unimpaired the ecosystem of Duxbury Reef for the enjoyment, education and inspiration of current and future generations and to minimize the negative impacts of visitors to Duxbury Reef's intertidal habitat and species all three of the following additions to and modifications of the Duxbury Reef State Marine Conservation Area ("SMCA") should be approved by the Commission.

- Change the designation of the Duxbury Reef State Marine Conservation Area to a "State Marine Reserve".
- Extend the southern boundary of the Duxbury Marine Protected Area to the most southerly tip of Duxbury Reef exposed at mean lower low water.
- Extend the northern boundary of the Duxbury MPA to the Double Point/Stormy Stack Special Closure, that is the northern point of the area known as Double Point.

Rationale for my support of the above actions.

My comments below are premised upon my following experience. I have continuously been a full-time resident of Bolinas since 2001, and am a lifelong resident of Marin County. Since moving to Bolinas I have spent many hours on Duxbury Reef. In both Bolinas waters and Tomales Bay, as a Red Cross certified swimming instructor I have taught open water safety

¹¹ I understand that a designation as a "State Marine Reserve" will prohibit all taking, damage, injury or possession of any living, geological or cultural marine resource, except under a scientific collecting permit or authorized research, restoration or monitoring, whereas in a SMCA some species are unprotected.

skills, for both West Marin Community Services and Bolinas Stinson School. I received a naturalist certificate from the College of Marin after completing 12 courses, including marine biology. I have volunteered at the Point Blue Conservation Marine Lab, specializing in krill ID from Cordell Bank surveys. I took the docent training class for the Duxbury Reef docent program in January 2022 and I have been continually participating in that program on Duxbury Reef since that date. I have spent many hours on the reef as a docent since January 2022. For the past 3 years I have also been performing invertebrate surveys in several areas within the current Duxbury SMCA. I am also an active member of the Bolinas Rod and Boat Club.

I have observed a very large increase in the visitation to the Duxbury SMCA over the course of the last 20 years but especially the past 4 years. As a docent I have talked to visitors who were engaged in casual, recreational collecting. From numerous interactions with visitors, it is apparent that visitors often feel that their own activity of turning over rocks, walking through tide pools, or recreational collecting is less harmful than whatever fishing that they either see occurring on the reef or they read as being permitted on the signage in the Agate Beach parking lot. They are almost always confused by this mix of regulations, with some species allowed to be collected and or consumed, and others not.

I have also noticed the disappearance of long-lived invertebrate species from those parts of the Duxbury SMCA frequented by fishermen, from which there is a good fishing access to the surf, for example owl limpets, which are edible. It is very awkward, in fact uncomfortable as a volunteer, to try to peer in a fisherman's bucket(s) to determine if they are carrying off anything other than finfish, or to try to dissuade them from using mussels as bait or from removing other invertebrates either for consumption or for bait.

In sum, if Duxbury was designated as a State Marine Reserve, there would be no question that the taking or possessing is not permitted. Nor would there be permitted take occurring, against which visitors could compare, rationalize and justify their own trampling, invertebrate handling, and rock-overturning activity.

I have also observed that there are large parts of Duxbury Reef, both to the North and South of the boundaries of the current area designated as the Duxbury Reef State Marine Conservation Area which are increasingly visited. Those areas are outside of the Duxbury marine protected area. Consequently, there is no attempt to dissuade or even report harmful conduct in the parts of the reef which are now relatively pristine. The risk of the degradation of those areas would be reduced by expanding the boundaries of Duxbury marine protected area to include them and by designating the entirety as a State Marine Reserve. Moreover, unless someone was posted out beyond the current boundaries of the SMCA (and there are not enough volunteers to do that), it is impossible to tell if people who are walking back from more remote parts of the reef to the County's Agate Beach parking area who are carrying buckets, collected the contents of those buckets inside the current boundaries of the Duxbury SMCA or in those larger unprotected areas of Duxbury Reef outside of its current protected boundaries.

Thank you for considering these critical designation and boundary recommendations for Duxbury Reef, to the benefit of all our west coast fisheries and wildlife.

Laura La Malla

Laura Lee Miller

cc. Morgan Patton, EAC

ATTACHMENT 14

Re: Fish and Game Marine Resources Committee Agenda Item 5: MPA DMR Petition for modification of Duxbury Reef Marine Protected Area

Dear President Sklar and Honorable Commissioners,

This is submitted to you in support of the petition submitted to you by the Environmental Action Committee of West Marin ("EAC") dated April 6, 2023.

Duxbury Reef's shale reef supports a complex and rich ecosystem of over 100 species of marine invertebrates, vertebrates and flora. Its tidal pools are easy to access and are frequently used as outdoor classrooms for students from primary school to the university level. On some days there are 100s of visitors at Duxbury Reef, including many visitors from other States and countries, for tide pool exploration and wildlife watching.

- 1. Change the designation of the Duxbury Reef State Marine Conservation Area to a "State Marine Reserve". I understand that a designation as a "State Marine Reserve" will prohibit all taking, damage, injury or possession of any living, geological or cultural marine resource, except under a scientific collecting permit or authorized research, restoration or monitoring.
- 2. Extend the southern boundary of the Duxbury Marine Protected Area to the most southerly tip of Duxbury Reef exposed at mean lower low water
- 3. Extend the northern boundary of the Duxbury MPA to the Double Point/Stormy Stack Special Closure, that is the northern point of the area known as Double Point.

Name	Residence Address
Kelly Cardosa	
Koly Green	
Nik Bertulis	
Noah Dailey	
Folm GLAVIS	

Re: Fish and Game Marine Resources Committee Agenda Item 5: MPA DMR Petition for modification of Duxbury Reef Marine Protected Area

Dear President Sklar and Honorable Commissioners.

This is submitted to you in support of the petition submitted to you by the Environmental Action Committee of West Marin ("EAC") dated April 6, 2023.

Duxbury Reef's shale reef supports a complex and rich ecosystem of over 100 species of marine invertebrates, vertebrates and flora. Its tidal pools are easy to access and are frequently used as outdoor classrooms for students from primary school to the university level. On some days there are 100s of visitors at Duxbury Reef, including many visitors from other States and countries, for tide pool exploration and wildlife watching.

We believe that in order to preserve unimpaired the ecosystem of Duxbury Reef for the enjoyment, education and inspiration of current and future generations and to minimize the negative impacts of collecting to Duxbury Reef's intertidal habitat and species all three of the following additions to and modifications of the Duxbury Reef State Marine Conservation Area should be approved by the Commission.

- 1. Change the designation of the Duxbury Reef State Marine Conservation Area to a "State Marine Reserve". I understand that a designation as a "State Marine Reserve" will prohibit all taking, damage, injury or possession of any living, geological or cultural marine resource, except under a scientific collecting permit or authorized research, restoration or monitoring.
- 2. Extend the southern boundary of the Duxbury Marine Protected Area to the most southerly tip of Duxbury Reef exposed at mean lower low water
- 3. Extend the northern boundary of the Duxbury MPA to the Double Point/Stormy Stack Special Closure, that is the northern point of the area known as Double Point.

Name
Residence Address

Charles

George Turner

Mills Tong

Manay Torrey

Trans

Re: Fish and Game Marine Resources Committee Agenda Item 5: MPA DMR Petition for modification of Duxbury Reef Marine Protected Area

Dear President Sklar and Honorable Commissioners,

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- 1. Change the designation of the Duxbury Reef State Marine Conservation Area to a "State Marine Reserve". I understand that a designation as a "State Marine Reserve" will prohibit all taking, damage, injury or possession of any living, geological or cultural marine resource, except under a scientific collecting permit or authorized research, restoration or monitoring.
- 2. Extend the southern boundary of the Duxbury Marine Protected Area to the most southerly tip of Duxbury Reef exposed at mean lower low water
- 3. Extend the northern boundary of the Duxbury MPA to the Double Point/Stormy Stack Special Closure, that is the northern point of the area known as Double Point.

Name	Residence Address
LINDA MEIRE	
Letting MCN AMARA Jeluister MacPhen	
Cothein Marthail	
Cianpiero Canalla	

Re: Fish and Game Marine Resources Committee Agenda Item 5: MPA DMR Petition for modification of Duxbury Reef Marine Protected Area

Dear President Sklar and Honorable Commissioners,

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We believe that in order to preserve unimpaired the ecosystem of Duxbury Reef for the enjoyment, education and inspiration of current and future generations and to minimize the negative impacts of collecting to Duxbury Reef's intertidal habitat and species all three of the following additions to and modifications of the Duxbury Reef State Marine Conservation Area should be approved by the Commission.

- 1. Change the designation of the Duxbury Reef State Marine Conservation Area to a "State Marine Reserve". I understand that a designation as a "State Marine Reserve" will prohibit all taking, damage, injury or possession of any living, geological or cultural marine resource, except under a scientific collecting permit or authorized research, restoration or monitoring.
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Name

MICHAEL LIGHT	
proofe wareschar	
Kimmy Haines	
Dale Polissur	
Vohn Hotchinsm	

Re: Fish and Game Marine Resources Committee Agenda Item 5: MPA DMR Petition for modification of Duxbury Reef Marine Protected Area

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Name

Laces Moserito

CHRKITHON MORABINO

GADE

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En Marabito

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Name
Residence Address

Vanessa Marcotte

Apollo Burton

[ODD D. Smith

Mille Luclett

Ram Fabory

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Residence Address

PAULETTE BILGART

Gregory Shelley

Dante Eilippeto

Sother Teng

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Scell Keule
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Luapmulto
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Name	Residence Address
Lerve Comiccep	
Pavais Zero	
Michael Tar	
Morin Borb	
Alison Wells	

Name

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	Residence Address
BRUCE LOVEY	
Jennier Peter	
Sandy Dierks	
anni Sands	
Labour Lodus	
Jan Long	

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<u>Name</u>	Residence Address
Loa Kelley	
Lam anas	
M & 2 A	
Christine nazto	
Cheryl Ruggiero	
EMILY OZEX	

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Bonnie M. Jones
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ZOE GALLATE	
ABX Golfes	
Jannier Brahm	
Tim Morray	
NICK BOGIE	

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Steve Howell	
Sam Switt	
Milk BAKER	
Mackenzie Price	
Will Scott Keith Rosenthal	

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Pegan Brooke	
David I, Mority	
Wilmer Lanfman	
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Mother 8/18/57	

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Eustoche de Soint Phile	
Mogque Richardson	
TREVOK RICHARDSUM	
Sergio Pineda	
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Meg Simonds
Ed Chiera
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Dawn Balestren	
Ramora Zero	
Kathy Harris	
Clawic Harris	
Jamel Harrison	

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CHERYL MOTHERSHEAD	
STEVE MOTHERSHEAD	
Jenny Jacox	
Mike Jacox	
Haley Winter	

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Wendy Taffe	
Eckely Y	
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Thurs Kreen	
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Elle Grailey

Simon Barrad

GAIL REITANO

Kevn Hunter

Cathy Sander Obr

> Re: Fish and Game Marine Resources Committee Agenda Item 5: MPA DMR Petition for modification of Duxbury Reef Marine Protected Area

Dear President Sklar and Honorable Commissioners,

This is submitted to you in support of the petition submitted to you by the Environmental Action Committee of West Marin ("EAC") dated April 6, 2023.

Duxbury Reef's shale reef supports a complex and rich ecosystem of over 100 species of marine invertebrates, vertebrates and flora. Its tidal pools are easy to access and are frequently used as outdoor classrooms for students from primary school to the university level. On some days there are 100s of visitors at Duxbury Reef, including many visitors from other States and countries, for tide pool exploration and wildlife watching.

We believe that in order to preserve unimpaired the ecosystem of Duxbury Reef for the enjoyment, education and inspiration of current and future generations and to minimize the negative impacts of collecting to Duxbury Reef's intertidal habitat and species all three of the following additions to and modifications of the Duxbury Reef State Marine Conservation Area should be approved by the Commission.

1. Change the designation of the Duxbury Reef State Marine Conservation Area to a "State Marine Reserve". I understand that a designation as a "State Marine Reserve" will prohibit all taking, damage, injury or possession of any living, geological or cultural marine resource, except under a scientific collecting permit or authorized research, restoration or monitoring.

2. Extend the southern boundary of the Duxbury Marine Protected Area to the most southerly tip of Duxbury Reef exposed at mean lower low water

3. Extend the northern boundary of the Duxbury MPA to the Double Point/Stormy Stack Special Closure, that is the northern point of the area known as Double Point.

Name	Residence Address
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Carro Szaworzenski	
Carol Fagan	-
Lewis Stringer	
Lakshmi Karn	

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Name	
Jesse Potter	- N
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Sam Blake	
PHIL Butler	
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John Lum

Scott Palmer

Svan Gle

Marcen Marchall

Name

Residence Address

28/30

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Fish and Game Marine Resources Committee Agenda Item 5: MPA DMR Petition for modification of Duxbury Reef Marine Protected Area

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Name	Residence Address
J-Zeno	
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Richard Keem	
ALLISON EVANS	
Ann Viille	

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

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Name	Residence Address
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Pay Helzen Rokas Armoua	
Covery Block	
TOPPET D.II	

ATTACHMENT 15

Courtney Barend

July 6, 2023

via email (fgc@fgc.ca.gov) & U.S. Mail

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Petition for modification of Duxbury Reef Marine Protected Area

Dear President Sklar and Honorable Commissioners,

I am writing to you in support of the petition submitted to you by the Environmental Action Committee of West Marin ("EAC") regarding the Duxbury Reef Marine Protected Area.

For the reasons stated below, I believe that in order to preserve unimpaired the ecosystem of Duxbury Reef for the enjoyment, education and inspiration of current and future generations and to minimize the negative impacts of visitors to Duxbury Reef's intertidal habitat and species all three of the following additions to and modifications of the Duxbury Reef State Marine Conservation Area ("SMCA") should be approved by the Commission.

- 1. Change the designation of the Duxbury Reef State Marine Conservation Area to a "State Marine Reserve". 1
- 2. Extend the southern boundary of the Duxbury Marine Protected Area to the most southerly tip of Duxbury Reef exposed at mean lower low water.
- 3. Extend the northern boundary of the Duxbury MPA to the Double Point/Stormy Stack Special Closure, that is the northern point of the area known as Double Point.

Rationale for my support of the above actions.

My comments below are premised upon my following experience. I have continuously been a full-time resident of Bolinas since 2020. Since moving to Bolinas I have spent many hours on Duxbury Reef. I am currently taking classes at the College of Marin for an associate's degree in Natural Sciences and have obtained a Natural History Certificate. I completed the docent training class for the Duxbury Reef docent program in January 2022. I have been an active docent on Duxbury Reef since January 2022, and I have spent many hours on the reef as a docent. I am currently employed as an intern with California Academy of Sciences as a Marine Mammal Intern and have been regularly assisting them with the collection of marine mammal

¹ I understand that a designation as a "State Marine Reserve" will prohibit all taking, damage, injury or possession of any living, geological or cultural marine resource, except under a scientific collecting permit or authorized research, restoration or monitoring, whereas in a SMCA some species are unprotected.

specimens that have been found deceased on the beaches in some of these MPA zones. I have previously worked with the National Park Service as well as the Monterey Bay Aquarium helping to educate the public in various ways about conservation of sensitive ecological systems.

As a docent I have talked to visitors who were engaged in casual, recreational collecting. From numerous interactions with visitors, it is apparent that visitors often feel that their own activity of turning over rocks, walking through tide pools, or recreational collecting is less harmful than whatever fishing that they either see occurring on the reef or they read as being permitted on the signage in the Agate Beach parking lot.

When fishermen are in the SMCA, I am too uncomfortable as a volunteer docent, to try to stop - or even dissuade - fishermen from using mussels as bait or from removing other invertebrates either for consumption or for bait.

If Duxbury was designated as a State Marine Reserve, there would be no question that the taking of or possessing is not permitted. Nor would there be permitted taking occurring, against which visitors could compare, rationalize and justify their own trampling, invertebrate handling, and rock-overturning activity.

I have also observed that there are large parts of Duxbury Reef, both to the North and South of the boundaries of the current area designated as the Duxbury Reef State Marine Conservation Area which are visited. Those areas are outside of the Duxbury marine protected area. Consequently, there is no attempt to dissuade or even report harmful conduct in the parts of the reef which are now relatively pristine. The risk of the degradation of those areas would be reduced by expanding the boundaries of Duxbury marine protected area to include them and by designating the entirety as a State Marine Reserve. Moreover, unless someone was posted out beyond the current boundaries of the SMCA (and there are not enough volunteers to do that), it is impossible to tell if people who are walking back from more remote parts of the reef to the County's Agate Beach parking area who are carrying buckets, collected the contents of those buckets inside the current boundaries of the Duxbury SMCA or in those larger unprotected areas of Duxbury Reef outside of its current protected boundaries.

mushey Baren & Courtney Barend

cc. Morgan Patton, EAC

ATTACHMENT 16



November 30, 2023

via email (fgc@fgc.ca.gov) & U.S. Mail

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Petition for modification of Duxbury Reef Marine Protected Area

Dear President Sklar and Honorable Commissioners,

I am writing on behalf of The Marine Mammal Center (the Center) in support of the petition submitted by the Environmental Action Committee of West Marin (EAC) regarding the Duxbury Reef Marine Protected Area.

As the world's largest marine mammal teaching hospital, the central mission of the Center is to advance global ocean conservation through marine mammal rescue, scientific research and education. The Center's federally authorized response operations includes over 600 miles of California's coast from Mendocino to San Luis Obispo counties, as well as in Hawai'i, from the main Hawaiian Islands, northwest through the entire archipelago.

In California, one of the three primary marine mammal species the Center responds to is the harbor seal (*Phoca vitulina*). Harbor seal females are attentive to their pups for several weeks after birth but are easily startled or flushed from their birthing sites, leading to abandonment of their pups. This occurs many times each birthing season throughout our range, and is a risk across the Point Reyes peninsula, including the shoreline of Duxbury Reef.

In light of the risk to harbor seals, and concern for the health of the reef, in general, and for the reasons stated below, the Center believes that to preserve unimpaired the ecosystem of Duxbury Reef for the enjoyment, education and inspiration of current and future generations, and to minimize the negative impacts of visitors to its intertidal habitat and species, all three of the requests of EAC regarding the Duxbury Reef State Marine Conservation Area (SMCA) should be approved by the Commission.

1. Extend the northern boundary of the Duxbury MPA to the Double Point/Stormy Stack Special Closure (the "Northern Reef Extension")

The proposed Northern Reef Extension commences at the North boundary of the current

SMCA, roughly at the outfall of Arroyo Hondo Creek, and would extend to the northern point of Double Point, to take in all of the Double Point cove and to include the Stormy Stack Special Closure. Double Point is the home of one of the largest breeding colonies of harbor seals in California. The cove, the large rock off of the south point and the tide pools at Double Point are used for birthing, nursing and raising pups by harbor seals. Harbor seals are easily flushed by recreational and commercial boats approaching these seal haul outs. Unfortunately, the special closure area currently protects only the area within 300 feet of Stormy Stack (the rock formation off of the northern tip of Double Point). However, the parts of the Double Point cove most frequented by harbor seals are well outside of that 300 foot Stormy Stack special closure zone.

2. Extend the southern boundary of the Duxbury Marine Protected Area to the most southerly tip of Duxbury Reef exposed at mean lower low water (the "Southern Reef Extension")

The Southern Reef Extension is at this time outside of and unprotected by the current SMCA. I understand that this unprotected area constitutes about 5/6's of that portion of Duxbury Reef extending off the southern tip of the Bolinas peninsula.

On the Southern Reef Extension there is a harbor seal haul out which has been used year-round by harbor seals for decades as both a resting haul out for both adults and pups and as a minor birthing location. In addition, the intertidal area in the Southern Reef Extension is truly exceptional and there is currently no law protecting its invertebrates and algae from harvesting or casual collecting, thus encouraging foot traffic disruptive to harbor seals.

3. Change the designation of the Duxbury Reef State Marine Conservation Area to a "State Marine Reserve."

Designating the entirety of the Duxbury MPA as a State Marine Reserve is imperative, whether or not the boundaries of the current MPA are expanded as urged above. A designation of Duxbury Reef as a "State Marine Reserve" will prohibit all taking (including all fishing from shore), damage, injury or possession of any living, geological or cultural marine resource, except under a scientific collecting permit for authorized research, restoration or monitoring. Under Duxbury's current designation as a State Marine Conservation Area fishing from shore is permitted and some species are unprotected. Again, this encourages greater foot traffic, disrupting harbor seals and leading to resource damage and depletion.

Within the current Duxbury SMCA there is a harbor seal haul out which has been used daily in moderate and low tides by harbor seals for many decades. It is a haul out that is disturbed by visitors to the reef during low tides. Although shore-based fishing from Duxbury is reported to have become less popular over the years, harbor seal flushing in the current SMCA is nevertheless usually the consequence of shore-based fishermen venturing out to the further areas of the current designation. Prohibiting shore-based fishing, I believe, would substantially reduce disturbance to that harbor seal haul out. In addition, the elimination of shore-based fishing from the entire reef would remove a source of confusion on the part of visiting casual visitors as to the propriety of their own trampling, invertebrate handling or collecting, and rock-overturning activity, as they currently witness these actions while be guided to act otherwise.

We believe that designating an expanded Duxbury MPA as a State Marine Reserve will serve the objectives of California's 30x30 Initiative and place under protection California's largest intertidal reef ecosystem, its resident marine mammals and other sensitive marine resources that are under pressure from multiple sources.

Thank you for your consideration of these points.

Respectfully submitted,

Jeffrey R. Boehm, DVM, ACAW Chief External Relations Officer

cc. Ashley Eagle-Gibbs, Environmental Action Committee of West Marin

November 25, 2023

To:

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244 fgc@fgc.ca.gov

From:

Sarah G. Allen, PhD P.O. Box 527 Inverness, CA 94937 sallen520@gmail.com

Re: Decadal Review Recommendations for the California North Central Marine Protected Areas

Dear President Sklar and Honorable Commissioners:

The California Marine Life Protection Act has been a model for other states and countries on how to establish a network of MPAs and provide protection to critical species and ecosystems that are fundamental to the biodiversity and economic health of California. Designation also involves periodic reevaluation and adaptive management of the sites. You are currently reviewing the North Central Coast Marine Protected Areas (MPAs) for the first decadal evaluation, and I wish to comment on and contribute to your review. For 50 years, I have studied marine life in California with an emphasis on marine birds and mammals, and was a scientist on the Scientific Advisory Team with expertise in marine mammals during the initial selection of sites within the North Central Coast Region. Twenty-six of those years, I was employed with the U.S. National Park Service as an ecologist and later as Science Program Lead for the Pacific West Region. During that time, I served on numerous federal/state collaborative committees and working groups, including, but not limited to, representative for the National Park Service on the staff committee for the California Biodiversity Council and for the nascent Parks and Protected Areas working group. While still working with and since retiring from the National Park Service in 2019, I have continued to study marine birds and mammals throughout the region, and am co-author of the University of California Press Field Guide on Marine Mammals of the Pacific.

My recommendations based on professional experience and continued study of pinniped and seabird colonies are as follows:

1. **Expand all Special Closure Areas** in the North Central Coast Region from 300 ft. to 1000 ft. to provide better protection for nesting seabirds including at North and Southeast Farallon Islands, Point Reyes Headlands, Point Resistance Rock, Double Point/Stormy Stack, and Egg Rock. From my years of studying nesting seabirds, I have noted that birds may begin reacting to boats as far as 1000 ft. away by head bobbing, and will leave eggs and chicks at shorter distances. Additionally, during surveys over the past several years, I have directly observed fishing boats disturbing nesting seabirds beyond 300 ft. at Double Point/Stormy Stack, and violating the 300 ft. buffer. When disturbing nesting seabirds, boats expose eggs and chicks to predators such as ravens and gulls, and a single disturbance can affect the productivity for an entire nesting season if seabirds do not return.

2. Expand the Duxbury Reef MPA north to include the Double Point/Stormy Stack Special Closure. The marine ecosystems of this area are exceptional as documented in its designation as an Area of Special Biological Significance (see Chan 1979). Double Point is home to one of the largest harbor seal (*Phoca vitulina*) breeding colonies in the state of California and to a significant seabird nesting site on Stormy Stack and the adjacent mainland cliffs. Ashy Storm Petrels (*Hydrobates homochroa*) a species of Conservation Concern in California, nest at this site, one of only a few breeding sites in the state. Black Oystercatchers (*Haematopus bachmani*), also nest there and are designated by the California Audubon Society as a Climate Endangered species because of their vulnerability to sea level rise. Other significant seabirds include >1000 Common Murres (*Uria aalge*), hundreds of cormorants, and tens of Pigeon Guillemots (*Cepphus Columba*), an indicator species of MPA recovery because of their delimited foraging/nesting habitat. Additionally, several hundred Brown Pelicans (*Pelecanus occidentalis*) roost at the site during the year.

Current protections of Stormy Stack and Double Point are insufficient. During surveys over the past several years, I have observed commercial party and recreational fishing boats violating the 300 ft. buffer and also disturbing nesting seabirds even beyond 300 ft. Fishing party boats on occasion produce noise through loud speakers as they circle around the area, which disturbs seabirds and seals at distances greater than 300 ft. By flushing nesting seabirds, boats expose eggs and chicks to predators such as ravens and gulls. One disturbance can affect the productivity for an entire breeding season if seabirds do not return to lay another egg.

- 3. **Expand the Duxbury Reef MPA south** to include the southern extension of Duxbury Reef that currently is not protected from people walking over and harvesting invertebrates and algae. There is a small but significant harbor seal colony on the southern extension of the reef that serves as a way station for seals to rest while traveling north to Point Reyes from San Francisco Bay and out to the Farallon Islands (Green et al. 2006). The seals are present consistently year round, and every year several pups occur there.
- 4. **Elevate the expanded Duxbury-Double Point MPA to State Marine Reserve**. The sensitivity and biological diversity of both Duxbury Reef and Double Point/Stormy Stack deserve full Marine Reserve status, as described in above points 1-3. Current marine reserves in California protect only approximately 9% of the state waters from harvest. The area has a long scientific history documenting biodiversity and significance, and consequently, is a good candidate for elevating to full reserve status (Chan 1979). Recently, the College of Marin broke ground to rebuild the historical Bolinas Field Station, which will continue and expand on the long history of scientific research about the coastal ecology of the area.
- 4. Combine Drakes Estero SMCA with the Estero de Limantour State Marine Reserve in order to extend reserve status protection to the middle and upper reaches of Drakes Estero. Drakes and Limantour esteros form a complex of tidal sand bars where harbor seals give birth and rest onshore year round, and is one of the largest concentrations of seals in California (Codde & Allen 2015). Recreational take of clams is the only activity allowed in this SMCA. Currently under this designation, seals are regularly disturbed by recreational clam diggers who come by kayak to dig for clams on the sand bars where the seals haul out. These sandbars are inaccessible to people on foot from the mainland and are only exposed and accessible to the seals during medium to low tides. During the harbor seal pupping season (March 1-June 30), non-motor boat access in the estero is restricted by Point Reyes National Seashore regulations, and restricted to all motor boats year round because Drakes Estero is within federally designated Wilderness. Nevertheless, there is no restriction to non-motor boats after June 30 when seals are hauling out to molt their fur. The molt (June-August) is energetically costly to the seals, requiring longer times to rest

onshore. The National Park Service supported conversion from SMCA to SMR to California Fish and Game Commission in a detailed letter dated November 14, 2022.

5. Create a Special Closure of 1000 ft. at Northwest Cape Rocks, north of Fort Ross. These rocks have significant seabird nesting colonies and have one of the few Steller sea lion (*Eumetopias jubatus*) breeding colonies in the state (https://www.fortross.org/animals/steller-sea-lion). Steller sea lions were delisted from the federal endangered species list several years ago; however, the California sub-population continues to decline with an estimate of only around 2,000 (NOAA Stock Assessment 2020). The site was proposed for MPA and Special Closure designation when I was an advisor on the Science Advisory Team, but was not included at that time. Since then, the Steller sea lion colony has continued to decline at this location and state-wide.

California has been able to rebuild some of the unique and critically significant coastal ecosystems over the past decade through the establishment of an MPA network. Nevertheless, only 16% of state waters are designated as MPAs and there are only 14 Special Closures statewide. The 30x30 California Initiative advocates for 30% of the state be protected by 2030. Increasing the number and areal extent of MPAs in state waters will be a positive action to meet the goals of the initiative and a prudent management strategy to meet the immense challenges from changes in climate that already are harming California's marine resources.

Thank you for your service to protect the exceptional resources of California.

Sincerely,

Sarah G. Allen, PhD

Retired Senior Science Advisor

Surah Allen

National Park Service

Sallen520@gmail.com

cc: Ashley Eagle-Gibbs, Environmental Action Committee of West Marin

References

Chan, G. 1979. California Marine Waters Aras of Special Biological Significance Reconnaissance survey reports. Double Point and Duxbury Reef. California State Water Resources Control Board. Water Quality Monitoring Report No. 79-14 and 15.

Green, D.E., Grigg, E., Allen, S., & Markowitz, H. 2006. Monitoring the potential impact of the seismic retrofit construction activities at the Richmond-San Rafael Bridge on harbor seals (*Phoca vitulina*): May 1, 1998 – December 31, 2004. Final Report, IHA 11/19/03-11/18/04. 100pp.

Codde, S. & S. Allen. 2015. Pacific harbor seal (*Phoca vitulina richardsi*) monitoring at Point Reyes National Seashore and Golden Gate National Recreation Area: 2013 annual report. Natural Resource Report NPS/SFAN/NRR—2015/919. National Park Service, Fort Collins, Colorado.



November 30, 2023

via email (fgc@fgc.ca.gov) & U.S. Mail

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

Re: Petition for modification of Duxbury Reef Marine Protected Area

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As the world's largest marine mammal teaching hospital, the central mission of the Center is to advance global ocean conservation through marine mammal rescue, scientific research and education. The Center's federally authorized response operations includes over 600 miles of California's coast from Mendocino to San Luis Obispo counties, as well as in Hawai'i, from the main Hawaiian Islands, northwest through the entire archipelago.

In California, one of the three primary marine mammal species the Center responds to is the harbor seal (*Phoca vitulina*). Harbor seal females are attentive to their pups for several weeks after birth but are easily startled or flushed from their birthing sites, leading to abandonment of their pups. This occurs many times each birthing season throughout our range, and is a risk across the Point Reyes peninsula, including the shoreline of Duxbury Reef.

In light of the risk to harbor seals, and concern for the health of the reef, in general, and for the reasons stated below, the Center believes that to preserve unimpaired the ecosystem of Duxbury Reef for the enjoyment, education and inspiration of current and future generations, and to minimize the negative impacts of visitors to its intertidal habitat and species, all three of the requests of EAC regarding the Duxbury Reef State Marine Conservation Area (SMCA) should be approved by the Commission.

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2. Extend the southern boundary of the Duxbury Marine Protected Area to the most southerly tip of Duxbury Reef exposed at mean lower low water (the "Southern Reef Extension")

The Southern Reef Extension is at this time outside of and unprotected by the current SMCA. I understand that this unprotected area constitutes about 5/6's of that portion of Duxbury Reef extending off the southern tip of the Bolinas peninsula.

On the Southern Reef Extension there is a harbor seal haul out which has been used year-round by harbor seals for decades as both a resting haul out for both adults and pups and as a minor birthing location. In addition, the intertidal area in the Southern Reef Extension is truly exceptional and there is currently no law protecting its invertebrates and algae from harvesting or casual collecting, thus encouraging foot traffic disruptive to harbor seals.

3. Change the designation of the Duxbury Reef State Marine Conservation Area to a "State Marine Reserve."

Designating the entirety of the Duxbury MPA as a State Marine Reserve is imperative, whether or not the boundaries of the current MPA are expanded as urged above. A designation of Duxbury Reef as a "State Marine Reserve" will prohibit all taking (including all fishing from shore), damage, injury or possession of any living, geological or cultural marine resource, except under a scientific collecting permit for authorized research, restoration or monitoring. Under Duxbury's current designation as a State Marine Conservation Area fishing from shore is permitted and some species are unprotected. Again, this encourages greater foot traffic, disrupting harbor seals and leading to resource damage and depletion.

Within the current Duxbury SMCA there is a harbor seal haul out which has been used daily in moderate and low tides by harbor seals for many decades. It is a haul out that is disturbed by visitors to the reef during low tides. Although shore-based fishing from Duxbury is reported to have become less popular over the years, harbor seal flushing in the current SMCA is nevertheless usually the consequence of shore-based fishermen venturing out to the further areas of the current designation. Prohibiting shore-based fishing, I believe, would substantially reduce disturbance to that harbor seal haul out. In addition, the elimination of shore-based fishing from the entire reef would remove a source of confusion on the part of visiting casual visitors as to the propriety of their own trampling, invertebrate handling or collecting, and rock-overturning activity, as they currently witness these actions while be guided to act otherwise.

We believe that designating an expanded Duxbury MPA as a State Marine Reserve will serve the objectives of California's 30x30 Initiative and place under protection California's largest intertidal reef ecosystem, its resident marine mammals and other sensitive marine resources that are under pressure from multiple sources.

Thank you for your consideration of these points.

Respectfully submitted,

Jeffrey R. Boehm, DVM, ACAW Chief External Relations Officer

cc. Ashley Eagle-Gibbs, Environmental Action Committee of West Marin

Tracking Number: (2023-33MPA)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1. Person or organization requesting the change: Environment California Research and Policy Center and Azul

Name of primary contact person: Laura Deehan, Environment California

Address: 3435 Wilshire Blvd., Suite 385, Los Angeles, CA, 90010

Telephone number: (415) 420-4710

Email address: Ideehan@environmentcalifornia.org

- 2. **Rulemaking Authority (Required) -** Reference to the statutory or constitutional authority of the Commission to take the action requested: Authority cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code.
- 3. **Overview (Required)** This joint petition from Environment California and Azul requests minor or modest expansions for 6 state MPAs and the designation of one new State Marine Park in order to enhance protections for California's kelp forests a critical ecosystem and habitat type that provides myriad benefits for both human and marine communities, and which has experienced significant declines in the last decade due to natural and human-related causes. In particular, the regulation changes put forth in this petition seek to enhance protections for resilient, stable, and persistent kelp forest patches as identified by recent analyses and peer-reviewed research. Proposed boundary and regulation changes include (see Table 1):
 - i. Cabrillo SMR expand westward and northward by 15.2 sq mi
 - ii. Point Dume SMCA expand westward by 4.6 sq mi
 - iii. South Point SMR expand westward by 26.3 sq mi
 - iv. Gull Island SMR expand northward by 1.8 sq mi
 - v. Point Conception SMR expand eastward by 14.6 sq mi
 - vi. Natural Bridges SMR expand southward by 13.7 sq mi
 - vii. Pleasure Point, Santa Cruz designate 3.2 sq mi as a new State Marine Reserve



4. Rationale (Required) - The state of California has experienced significant losses of its kelp forest cover since the designation of the MPA network. While we could not know which areas would persist in the face of extreme threats at the time the MPA network was originally established, new data and research has since helped to identify kelp beds that have persisted and are most resilient in the face of climatic and other disturbances. Enhancing protections for the state's most resilient, stable, and persistent kelp forest patches now will allow us to preserve what we have left, and increase our chances of restoration in the future. Removing, to the extent possible, direct human impacts on these resilient kelp forests that are potential climatic refuges will not only help these areas persist, but will also enhance the state's restoration efforts for other kelp forests in decline. By focusing resources on the immediate protection of already identified important areas with outsized conservation benefits, the state can advance the goals of the Marine Life Protection Act, advance the new 30x30 target, and take a cost-effective approach to kelp restoration by protecting the natural regeneration potential of kelp forest ecosystems statewide.

See Petition Narrative attached for comprehensive rationale and methods behind site selection.

Primary contacts:

Laura Deehan, Environment California, (415) 420-4710, <u>Ideehan@environmentcalifornia.org</u> Marcela Gutiérrez-Graudiņš, Azul, <u>mar@azul.org</u>

SECTION II: Optional Information

5.	Date of Petition: 11/29/23
6.	Category of Proposed Change
	☐ Sport Fishing
	☐ Commercial Fishing☐ Hunting
	Other, please specify: MPAs, Section 632.
7.	The proposal is to: (To determine section number(s), see current year regulation booklet or
	https://govt.westlaw.com/calregs)
	Amend Title 14 Section(s): Westlaw regulations.
	☐ Add New Title 14 Section(s): Click here to enter text.
	☐ Repeal Title 14 Section(s): Click here to enter text.

- 8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition Click here to enter text.

 Or Not applicable.
- 9. **Effective date**: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: As soon as is practicable for the State of California.

- 10. **Supporting documentation:** Identify and attach to the petition any information supporting the proposal including data, reports and other documents:
 - Petition Narrative
 - Appendix A Highly persistent kelp beds and "medium priority" restoration sites warranting protection with expanded California MPAs, as identified by Ospina-Giraldo et al. 2023 and Arafeh-Dalmau et al. 2021
 - Table 1 Proposed Boundary and Regulation Changes
 - Appendix B Letters of support:
 - Petitioner's letter of support
 - Joint letter from Drs. Nur Arafeh-Dalmau, Fiorenza Micheli, Kyle Cavanaugh, Dawn Murray, and Carolina Olguin-Jacobson
 - Letter from Dr. Tom Bell, Woods Hole Oceanographic Institute
 - Letter from Hannah Nevins, Santa Cruz seabird biologist
 - Joint letter from 27 scientists, researchers, and educators
 - Letter from Assemblymember Dawn Addis, 30th District
 - Letter from Fred Keeley, Mayor of Santa Cruz
 - Joint letter from 21 NGOs
 - Letter from Environmental Action signed by 2,487 member of the public
 - Letter signed by 214 CALPIRG students
 - Letter from 4 California college student leaders
 - Petition signed by over 7,000 members of the public
- 11. **Economic or Fiscal Impacts:** Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing:

Enhanced, long-term protection of highly resilient kelp forest areas will bolster the diverse stakeholders, interests and industries that benefit from our coastal marine resources. Low-impact, non-consumptive recreational activities such as diving, snorkeling, and surfing will be unaffected - and even enhanced - by expanded MPAs, which will also provide enhanced research and education opportunities. Short-term impacts to recreational and commercial fishermen will be outweighed by larger benefits in the future, as has been demonstrated here in California and around the world (Bucaram et al. 2018, Medoff et al 2022). For example, an analysis of CDFW fisheries data found that regional and statewide fishery landings and values do not appear to have been negatively impacted by MPAs (Murray and Hee 2019), and an analysis of California spiny lobster fishery found that short-term losses were compensated for by a 225% increase in total catch after 6 years of MPA designation (Lenihan et al. 2021).

12. **Forms:** If applicable, list any forms to be created, amended or repealed:

Date received: Click here to enter text.
FGC staff action: ☐ Accept - complete
☐ Reject - incomplete

SECTION 3: FGC Staff Only



State of California – Fish and Game Commission PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 4 of 4

☐ Reject - outside scope of FGC authority	
Tracking Number	
Date petitioner was notified of receipt of petition and pending action:	
Meeting date for FGC consideration:	_
FGC action:	
□ Denied by FGC	
☐ Denied - same as petition	
Tracking Number	
☐ Granted for consideration of regulation change	

Petition to Modify the CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests

Joint Submission by Environment California and Azul

PETITION NARRATIVE

Overview

California has experienced severe losses of its kelp forests since the designation of its statewide MPA network. At the time the MPA network was established, we could not know which kelp beds would be most resilient in the face of climate-related threats. However, in light of new data and research identifying the location of the state's persistent and stable kelp beds, adaptive management of the MPA network to better protect these kelp areas is therefore of critical importance.

This petition seeks to strengthen the statewide MPA network's protections for California's most resilient, stable, and persistent kelp forest patches – preserving what we have left now, to increase our chances of successful restoration in the future. Removing, to the extent possible, direct human impacts on these resilient kelp forests that are potential climatic refuges will not only help these areas persist, but will also enhance the state's restoration efforts for other kelp forests in decline. These efforts will also benefit kelp-forest dependent species, such as endangered Southern sea otters and threatened species of abalone. By focusing resources on the immediate protection of already identified important areas with outsized conservation benefits, the state can advance the goals of the Marine Life Protection Act, advance the new 30x30 target, and take a cost-effective approach to kelp restoration by protecting the natural regeneration potential of kelp forest ecosystems statewide.

Importance and decline of California's kelp forests

California's kelp forests provide numerous and invaluable ecological and environmental benefits. These underwater ecosystems serve as critical nurseries for a wide variety of marine species, providing shelter and food for numerous fish, invertebrates, and marine mammals, including the endangered Southern sea otter. Kelp acts as a natural water filter, as it absorbs excess nutrients and helps maintain water quality by reducing the risk of harmful algal blooms. Kelp forests may also play a role in carbon sequestration, capturing atmospheric carbon dioxide and helping to mitigate climate change. In addition to their ecological importance, kelp forests offer enormous cultural and economic benefits to California. They hold enormous cultural and economic significance for many of the Tribes and Indigenous communities that call California's coastal waters home. They support thriving commercial and recreational fisheries, contributing to the state's economy. The beauty and biodiversity of these forests attract tourists and divers, bolstering the state's tourism industry. Moreover, kelp can act as a buffer against coastal erosion, protecting shorelines from the damaging impacts of storms and waves.

However, kelp forests in California have experienced a significant decline in recent years due to a combination of natural and human-induced factors. One of the most important drivers of this decline is the warming of ocean waters, which has been linked to climate change. Sustained elevated sea temperatures known as "marine heatwaves" have caused significant stress to kelp populations, leading to widespread loss of kelp stands, increased susceptibility of key urchin predators to disease, and exploding populations of herbivorous sea urchins. The recent 2014-2016 marine heatwave left California's kelp forests decimated, with over 90% of bull kelp reported lost in Northern California and significant losses reported across the state (Bell et al. 2023, Arafeh-Dalmau et al. 2023). Human activities have also played a role in the degradation of kelp forests. Overfishing and removal of key predators like sea otters, predatory fishes, California spiny lobster, rock crab, and sea stars have disrupted food webs and resulted in trophic cascades in these ecosystems, allowing herbivorous species to graze on kelp unchecked. Additionally, coastal development, pollution, and nutrient runoff degrade water quality and promote the growth of invasive species that outcompete native kelp. The loss of kelp cover across the state has widespread economic and ecological impacts, has led to the closure of the recreational red abalone fishery in Northern California and has hindered Southern sea otter population expansion, as great white shark bite mortalities increase where kelp cover has declined at the northern and southern edges of this iconic species' range (Nicholson et al. 2018, Moxley et al. 2019).

The decline of California's kelp forests since the time the MPA network was completed seriously threatens the state's marine biodiversity, fisheries, and overall ecological health and undermines the goals of the Marine Life Protection Act. This adaptive management review cycle is critically timed to respond to kelp loss. It is vital to increase protections immediately to confer as much resilience as possible to future disruptions.

MPAs and kelp forest conservation

Around the world, MPAs have been found to enhance the overall health and resilience of ocean ecosystems (Edgar et al. 2014, Jacquemont et al. 2022), and to promote long-term kelp forest stability (Peleg et al. 2023). By providing long-term protections for predator species within their boundaries - such as southern sea otters, California spiny lobster, rock crabs, wolf eels, and predatory fishes like California sheephead - MPAs help to regulate local populations of kelp consumers, thereby having cascading positive impacts on kelp growth and persistence (Eisaguirre et al. 2020, Kawamata & Taino 2021, House & Allen 2022, Heineke et al. 2023). Promoting intact food webs and natural ecological processes can also help to improve overall resilience in the face of other natural and man-made stressors that MPAs cannot directly mitigate, such as warming ocean temperatures and nutrient runoff (Roberts et al. 2017, Arafeh-Dalmau et al. 2023). Noting these benefits and abilities, the California MLPA specifically identified kelp forests as one of the habitats requiring greater protection (MLPA Section 2856(a)(2)(A)).

We have seen the benefits of long-term protection of California's kelp forests. The Decadal Management Review of the statewide MPA network found that, while kelp species across the

state experienced large-scale declines during the 2014-2016 marine heatwave, "overall, kelp canopy was more stable and appeared to be more resilient inside MPAs" (CA MPA DMR 2022). The South Coast region's kelp forests, in particular – where fishing pressure was highest before the implementation of the MLPA – seem to have benefited from protections, with increases in California sheephead and California spiny lobster within MPAs thought to help facilitate grazer suppression and lead to more stable giant kelp abundance during and after the marine heatwave (DMR Kelp Forest Technical Report 2021).

MPAs can also serve as a complementary management measure for kelp restoration. While California's MPAs were not explicitly designed with the restoration of kelp forests in mind, MPAs in general are considered a form of indirect kelp restoration due to their ability to promote intact food webs through reduced fishing pressure, which in turn helps to reduce kelp grazing pressure, as described above (Hopf et al. 2022). In addition, stable kelp forests help to promote natural regeneration of nearby areas, by providing a supply of propagules to recovering populations close by (Arafeh-Dalmau et al. 2021, Giraldo-Ospina et al. 2023). A recent global synthesis of kelp restoration found that the most successful restoration projects are those located near existing stable kelp forests (Eger at al. 2022). MPAs that protect these stable kelp forests can help to promote their continued persistence by removing extractive or destructive activities, and potentially further boost kelp restoration efforts by promoting healthy predator populations that "spillover" into nearby areas (e.g. Lenihan et al. 2021), helping to reduce grazer pressure in a broader area (Kawamata & Taino 2021). Harnessing the power of these dense, stable, and resilient kelp beds for the natural regeneration of nearby areas using area-based protection can also free up much-needed resources needed for intensive, direct restoration efforts elsewhere.

Based on this new and growing scientific evidence base, the state should protect more of California's most stable and resilient kelp forests now, in order to enhance the conservation benefits and ability of our statewide MPA network to meet the goals of the MLPA while giving kelp restoration efforts a leg up in the future.

Identifying resilient kelp forests in California

Since the creation of California's MPA network, new research has emerged utilizing satellite and in-situ data over a decades-long year timescale to identify the kelp forests exhibiting higher levels of persistence and stability in California.

A multi-institution team of researchers used satellite data to provide high-resolution maps of the most persistent giant kelp and bull kelp patches in California during the last 35 to 38 years (Arafeh-Dalmau et al. 2021, Arafeh-Dalmau et al. 2023). Importantly, these studies analyzed the extent to which highly persistent kelp patches are protected within the state's MPA network, and found that these important kelp forest areas are currently not adequately protected among regions. Only 20.9 % of the most highly persistent giant kelp forests in Central California, 8.4% in Southern California, and less than 1% in Northern California are fully protected in MPAs (Arafeh-Dalmau et al. 2021). Bull kelp is even less well protected – only 3.4% of the the most

highly persistent bull kelp forests in Northern Central California, and 0.1% of those in Northern California are fully protected in MPAs (Arafeh-Dalmau et al. 2023). The authors of these studies recommend increasing protections for these important and highly persistent kelp forest areas.

In addition, the Ocean Protection Council recently funded the development of an ecologically-focused, spatially explicit prioritization tool to identify priority kelp restoration sites in California waters (Giraldo-Ospina et al. 2023). Notably, this research used in-situ data as well as satellite imagery to determine the stability and current status of kelp forests across California's coastline, making the resulting prioritization index particularly robust. Of particular importance to this petition, the tool identifies kelp beds that have been historically stable, that persisted or bounced back quickly during the 2014-2016 marine heatwave, and that are currently doing well compared to other kelp forests – namely, the most stable and resilient kelp forest areas in state waters. Characterized as "medium priority" restoration sites – that is, historically stable kelp beds that are currently in good condition – these areas have a large potential for enhancing the natural regeneration and/or successful restoration actions of nearby kelp beds. The authors suggest potential actions: "Monitor these sites for triggers that may warrant intervention; Defend these sites from current or future threats; and Study these sites to understand the mechanisms of resistance to the marine heatwave."

In light of these new studies, and in line with the site classifications put forth by Giraldo-Ospina et.al, we strongly recommend the state take action to protect as much of these newly-identified, stable, highly resilient kelp forest patches as possible with well-protected MPAs in the coming years. Protecting these iconic, dense kelp beds is one of California's best shots at preserving – and eventually restoring – our critically important kelp forest ecosystems quickly and cost-effectively.

Proposed areas for additional or enhanced MPA protections

Using spatially-explicit data detailing where highly persistent kelp beds and "medium priority" restoration sites overlap, as outlined by Arafeh-Dalmau et al. 2021, 2023, and Giraldo-Ospina et al. 2023, we identified areas where additional protections are necessary to promote the continued persistence and stability of California's healthiest kelp forests (see Table 1).

Preference was given to areas already within or adjacent to existing California MPAs, recognizing the substantial scientific and stakeholder input involved in creating the original network through the MLPA process, and in order to adhere as much as possible to the original intent and science-based spacing guidelines provided by the SAT during the creation of the network. We recommend reducing spacing between MPAs in some places is necessary to increase the representation of these highly persistent and resilient kelp beds that have a greater chance of persisting into the future in our state MPA network. We also encourage the state to consider whether there are other areas of highly persistent and resilient kelp not included in this proposal that would be good candidates for new or expanded MPA protections.

To develop the proposal further, we collected information through interviews and other personal

communications with scientists including Dr. Anita Giraldo-Ospina and Dr. Nur Arafeh Dalmau, who graciously provided data, assisted with the interpretation of results to identify the recommended areas, and reviewed the proposal for accuracy. We also gathered expert input and data from individuals, local community groups, MPA Collaborative Network members, conservation organizations, and more. While their cooperation should not be taken as an endorsement, we greatly appreciate the information and guidance provided by these individuals which contributed to the overall accuracy and scientific validity of this proposal.

We did not focus on "high priority" restoration sites identified by Giraldo-Ospina et al. 2023, in order to avoid proposing MPA protections for areas that may require more intensive, direct restoration methods, such as grazer suppression activities, that are not currently permitted within MPA boundaries. However, we urge the state to consider what, if any, direct restoration activities might be compatible with different MPA designations within the state's network (e.g. line 20 of the MPA Collaborative Network's Vetted Regulation Recommendations), recognizing that the impacts of climate change may still degrade some kelp beds within MPAs in the future, and proactive restoration efforts may be warranted.

Finally, it should be noted that, while the general location and specific boundaries for proposed areas are listed in Table 1, we are happy to work with State and its partners to define the proposed areas and boundaries in more detail, keeping in mind CDFW MPA design guidelines and the state's interest in taking a holistic approach for reviewing petitions and enhancing the network to meet the statewide 30x30 goal.

Socioeconomic impacts

Enhanced, long-term protection of highly resilient kelp forest areas will bolster the diverse stakeholders, interests and industries that benefit from our coastal marine resources. Low-impact, non-consumptive recreational activities such as diving, snorkeling, and surfing will be unaffected – and even enhanced – by expanded MPAs, which will also provide enhanced research and education opportunities. Short-term impacts to recreational and commercial fishermen will be outweighed by larger benefits in the future, as has been demonstrated here in California and around the world (Bucaram et al. 2018, Lenihan et al. 2021, Medoff et al. 2022). For example, an analysis of CDFW fisheries data found that regional and statewide fishery landings and values do not appear to have been negatively impacted by MPAs (Murray and Hee 2019), and an analysis of California spiny lobster fishery found that any short-term losses were compensated for by a 225% increase in total catch after 6 years of MPA designation (Lenihan et al. 2021).

Relevance to MLPA Goals and DMR Recommendations

Enhancing the protection of kelp forests in California aligns strongly with Goals 1, 2, 3, and 4 of the California MLPA. By safeguarding California's most resilient and stable kelp forests, as detailed in this petition, we will preserve critical habitat for a diverse range of marine species, from endangered sea otters to commercially valuable fish species. Kelp forests play a crucial

role in the recovery and sustainability of marine life populations, as they serve as nurseries and refuges for many species, including those targeted by fisheries. These vibrant ecosystems also offer intrinsic value by supporting biodiversity and exceptional natural beauty, and their recreational and scientific use and enjoyment make them vital for the public (MLPA Section 2856(a)(2)(A)).

In addition, the regulation and boundary changes proposed by this petition specifically advance DMR Recommendation #4 - "Apply what is learned from the DMR to support proposed changes to the MPA Network and Management Program". The DMR found that California MPAs helped to promote kelp forest resilience and recovery during and after the severe 2014-2016 marine heatwave. In the face of increasing climate impacts and as we struggle to recover from recent kelp forest declines across the state, expanding the MPA network in key, targeted areas can help to ensure the continued persistence of our remaining, most resilient kelp forests.

Relevance to Broader State Processes, Policies, and Goals

We applaud the actions that the State of California has already taken to respond to the severe declines in kelp forest cover across the state, including recent commercial kelp harvest closures in Northern California, annual harvest limits in Northern California, and the initiation of a statewide Kelp Restoration and Management Plan. We strongly support taking a whole-ocean approach to ensuring sustainable and effective management of kelp in our state waters (Crowfoot et al. Objective 3.2).

The MPA changes proposed in this petition complement the state's ongoing kelp restoration and management work. They will also help to reduce the state's costs associated with kelp restoration – harnessing the ability of well-protected, resilient kelp beds to promote the natural regeneration of nearby areas, allowing the state to direct more of its much-needed resources and funding for intensive restoration efforts in harder-hit areas with little kelp cover left.

Finally, this petition aligns strongly with the statewide goal set by both Governor Newsom and the legislature to conserve 30% of our coastal waters by 2030. If implemented in its entirety, the actions proposed in this petition will see an additional ~1.5% of state waters protected in highly-to fully-protected areas, while helping the network to better achieve the goals set forth in the MLPA.

Bibliography

- Arafeh-Dalmau, Nur, et al. "Southward Decrease in the Protection of Persistent Giant Kelp Forests in the Northeast Pacific." *Communications Earth & Environment*, vol. 2, no. 1, 2021, pp. 1-7, https://doi.org/10.1038/s43247-021-00177-9.
- Arafeh-Dalmau, Nur, et al. "Integrating climate adaptation and transboundary management: Guidelines for designing climate-smart marine protected areas." *One Earth*, vol. 6, no. 11, 26 Oct. 2023, pp. 1523–1541, https://doi.org/10.1016/j.oneear.2023.10.002.
- Bell, Tom W., et al. "Kelpwatch: A New Visualization and Analysis Tool to Explore Kelp Canopy Dynamics Reveals Variable Response to and Recovery from Marine Heatwaves." *PLOS ONE*, vol. 18, no. 3, 2023, p. e0271477, https://doi.org/10.1371/journal.pone.0271477.
- Bucaram, Santiago J., et al. "Assessing Fishing Effects inside and outside an MPA: The Impact of the Galapagos Marine Reserve on the Industrial Pelagic Tuna Fisheries during the First Decade of Operation." *Marine Policy*, vol. 87, 2018, pp. 212-225, https://doi.org/10.1016/j.marpol.2017.10.002.
- California Department of Fish and Wildlife. California's Marine Protected Area Network Decadal Management Review. 2022
- Carr, Mark H., et al. California Sea Grant, 2021, *Monitoring and Evaluation of Kelp Forest Ecosystems in the MLPA Marine Protected Area Network*, https://caseagrant.ucsd.edu/sites/default/files/Kelp%20Forest%20Technical%20Report%20Narrative_v2.pdf.
- Crowfoot, Wade, et al. California Ocean Protection Council, *Strategic Plan to Protect California's Coast and Ocean 2020-2025*, https://opc.ca.gov/webmaster/ftp/pdf/agenda_items/ 20200226/OPC-2020-2025-Strategic-Plan-FINAL-20200228.pdf.
- Eger, Aaron M., et al. "Global Kelp Forest Restoration: Past Lessons, Present Status, and Future Directions." *Biological Reviews*, vol. 97, no. 4, 2022, pp. 1449-1475, https://doi.org/10.1111/brv.12850.
- Edgar, Graham J., et al. "Global Conservation Outcomes Depend on Marine Protected Areas with Five Key Features." *Nature*, vol. 506, no. 7487, 2014, pp. 216-220, https://doi.org/10.1038/nature13022.
- Eisaguirre, Jacob H., et al. "Trophic Redundancy and Predator Size Class Structure Drive Differences in Kelp Forest Ecosystem Dynamics." *Ecology*, vol. 101, no. 5, 2020, p. e02993, https://doi.org/10.1002/ecy.2993.
- Giraldo-Ospina., et al. "Where, when and how? A Guide to Kelp Restoration in California Using

- Spatio-temporal Models of Kelp Dynamics. A report to California Seagrant and California Ocean Protection Council. 2023. 72pp.
- Heineke, Marcella R., et al. "Harnessing Trophic Cascades to Improve Foundation Species Restoration: A Meta-analysis." *Ecosphere*, vol. 14, no. 10, 2023, p. e4675, https://doi.org/10.1002/ecs2.4675.
- Hopf, Jess K., et al. "No-take Marine Protected Areas Enhance the Benefits of Kelp-forest Restoration for Fish but Not Fisheries." *Ecology Letters*, vol. 25, no. 7, 2022, pp. 1665-1675, https://doi.org/10.1111/ele.14023.
- House, Parker H., and Larry G. Allen. "Differences in trophic and community structure of kelp forest fishes inside and outside of three long-standing mpas in the Southern California bight." *Bulletin, Southern California Academy of Sciences*, vol. 121, no. 1, 23 June 2022, https://doi.org/10.3160/0038-3872-121.1.1.
- Jacquemont, Juliette, et al. "Ocean conservation boosts climate change mitigation and adaptation." *One Earth*, vol. 5, no. 10, 2022, pp. 1126–1138, https://doi.org/10.1016/j.oneear.2022.09.002.
- Kawamata, Shigeru, and Seiya Taino. "Trophic Cascade in a Marine Protected Area with Artificial Reefs: Spiny Lobster Predation Mitigates Urchin Barrens." *Ecological Applications*, vol. 31, no. 6, 2021, p. e02364, https://doi.org/10.1002/eap.2364.
- Lenihan, Hunter S., et al. "Evidence That Spillover from Marine Protected Areas Benefits the Spiny Lobster (Panulirus Interruptus) Fishery in Southern California." *Scientific Reports*, vol. 11, no. 1, 2021, pp. 1-9, https://doi.org/10.1038/s41598-021-82371-5.
- Marine Life Protection Act. January 1, 2001. Stat. 1999.
- Medoff, Sarah, et al. "Spillover Benefits from the World's Largest Fully Protected MPA." *Science*, 2022, https://doi.org/abn0098.
- Moxley, Jerry H., et al. "Non-Trophic Impacts from White Sharks Complicate Population Recovery for Sea Otters." *Ecology and Evolution*, vol. 9, no. 11, 2019, pp. 6378-6388, https://doi.org/10.1002/ece3.5209.
- Murray, Samantha, and Tyler T. Hee. "A Rising Tide: California's Ongoing Commitment to Monitoring, Managing and Enforcing Its Marine Protected Areas." *Ocean & Coastal Management*, vol. 182, 2019, p. 104920, https://doi.org/10.1016/j.ocecoaman.2019.104920.
- Nicholson, Teri E., et al. "Gaps in Kelp Cover May Threaten the Recovery of California Sea Otters." *Ecography*, vol. 41, no. 11, 2018, pp. 1751-1762, https://doi.org/10.1111/ecog.

03561.

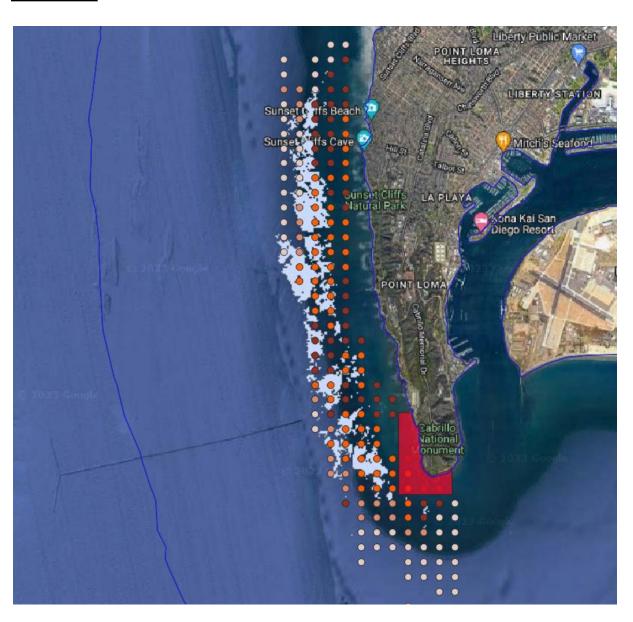
- Peleg, Ohad, et al. "Long-term Marine Protection Enhances Kelp Forest Ecosystem Stability." *Ecological Applications*, vol. 33, no. 7, 2023, p. e2895, https://doi.org/10.1002/eap.2895.
- Roberts, Callum M., et al. "Marine Reserves Can Mitigate and Promote Adaptation to Climate Change." *Proceedings of the National Academy of Sciences*, vol. 114, no. 24, 2017, pp. 6167-6175, https://doi.org/10.1073/pnas.1701262114.

Appendix A Distribution of Highly Persistent Kelp Beds Near State MPAs Proposed for Expansion

Highly persistent kelp beds identified by Arafeh-Dalmau et al. 2021 are depicted by light blue pixels. Priority kelp restoration sites characterized by Ospina-Giraldo et al. 2023 are shown using colored circles. "High priority" restoration sites are dark red, "medium priority" sites are bright orange, and "low" and "very low" priority sites are light and very light gray.

Existing California MPAs are denoted by red, purple, or blue polygons, and the 3 nm state waters limit is shown as a blue line.

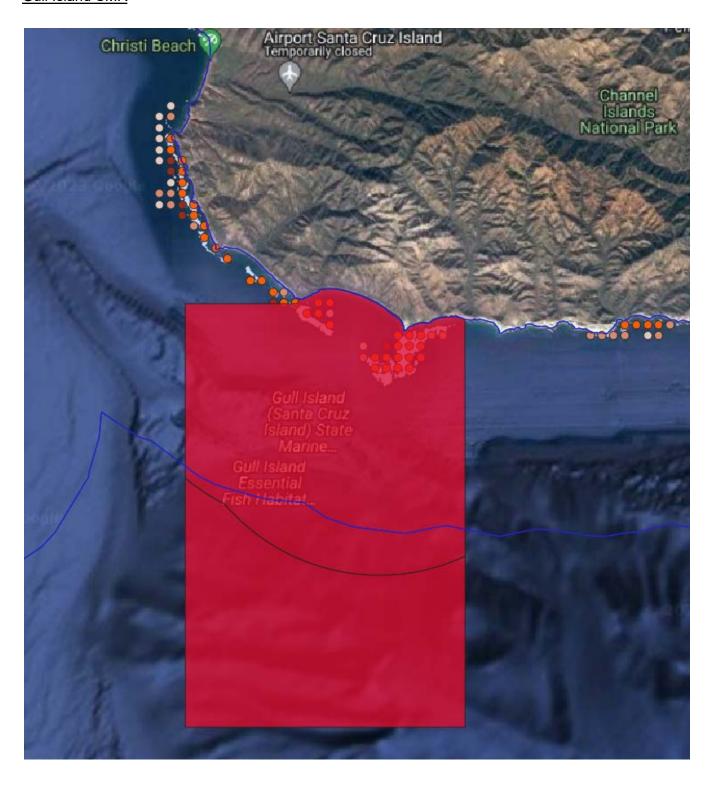
Cabrillo SMR



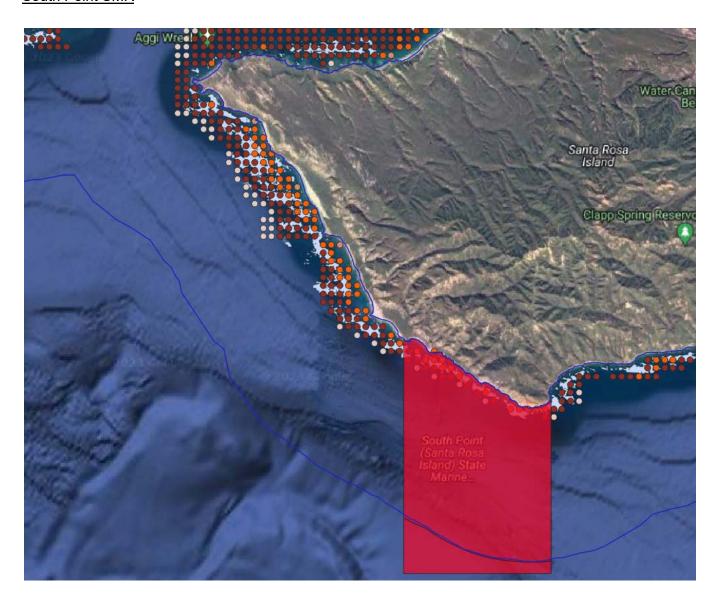
Point Dume SMCA



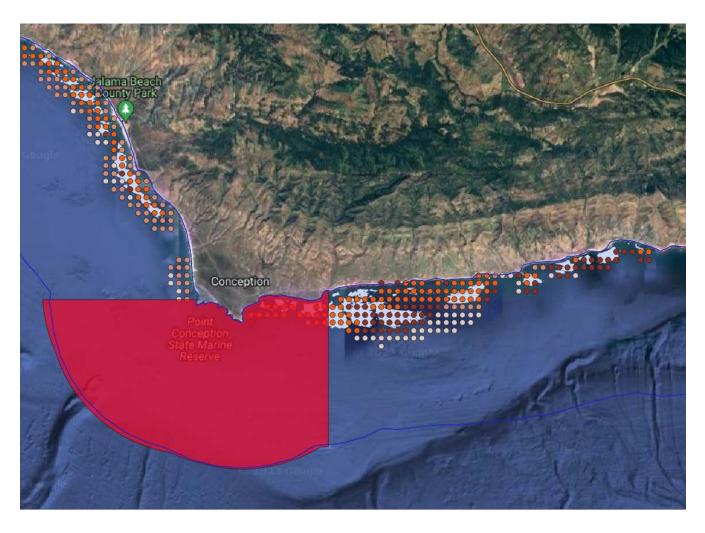
Gull Island SMR



South Point SMR



Point Conception SMR



Natural Bridges SMR



Pleasure Point, Santa Cruz

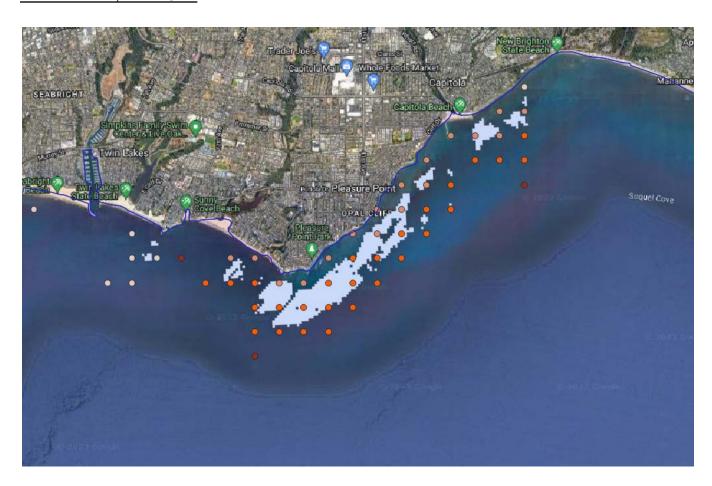


	TABLE 1 - Petition to Modify the CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests					
Name	Proposed action	Brief description	Proposed regulations and boundary change	Historical context	Notes	
Cabrillo State Marine Reserve (SMR)	Expand by 15.2 sq miles	Large patches of dense, stable kelp forests exist along a large stretch of coast along Point Loma to the north of the very small existing SMR. Expansion is compatible with Cabrillo SMR's current goal to "protect diverse kelp forest, surfgrass, sandy seafloor, and intertidal and nearshore rocky reef habitat". Approximately 1,000,000 people visit the area annually which provides access to the ocean for thousands of school children and other groups. Recreational and subsistence fishing is common here.	No change in regulations. Maintain existing eastern and southern boundaries. Shift the western boundary to the edge of state waters per state MPA design and size guidelines, and shift the northern boundary to a visible geographic landmark at Swordfish Point to bring resilient kelp beds along the western shore of Point Loma within MPA protections. The new proposed boundaries would form straight lines, follow the mean high tide line, and follow the state waters boundary from the current southeast corner of the SMR to approximately the following coordinates: - Southwest corner: 32° 66.223' N lat. 117° 30.345' W long Northeast corner: 32° 72.539' N lat. 117°31.664' W long Northeast corner: 32° 72.529' N lat. 117°25.836' W long.	This area was initially included in a large proposed SMR ("Point Loma SMR", Proposal C) in recognition that this is an area of greater biological diversity than other areas. However, the state opted for a reserve far smaller than the science-based minimum size guidelines to avoid conflict with fishing grounds offshore.	To balance kelp forets protectio with recreation and low-impact subsistence fishing, we are willing to consider the creation of a new SMCA alongside the existing SMR that allows for recreational hook-and-line fishir and spearfishing.	
Point Dume State Marine Conservation Area (SMCA)		A large, dense, resilient kelp bed is located immediately west of the current SMCA's boundaries. We propose a small expansion of the SMCA to protect this important kelp bed. Currently, the SMCA protects nearly 16 square miles of sandy beach and seafloor habitat, rocky shores, kelp forests, surfgrass beds, an upwelling zone, and less than a quarter square mile of deep submarine canyon, which together create an area of high biodiversity. This SMCA also provides for excellent surfing, diving, tidepooling, and whale watching opportunities.	No change in regulations. Shift the western boundary to the edge of El Sol County Beach to bring the highly resilient patch of dense kelp forest just west of the current SMCA into MPA protection. The proposed new western boundary forms a straight line extending southward from the mean high tide line to the 3 nm state waters limit at approximately the following coordinates: - Northwest corner: 34°0413' N lat. 118°9063' W long Southwest corner: 33°9899' N lat. 118°9063' W long.	The kelp beds within the proposed expansion area were part of a historic SMP proposal ("Lechuza SMP", Proposal C) that sought to protect these persistent kelp beds along the Malibu Coast. This proposed SMP was not taken up by the state at the time, likely in favor of designating the Point Dume SMR/SMCA complex just to the east and to maintain spacing guidelines. In addition, the Point Dume SMR/SMCA boundaries were placed to the west of Point Dume in order to leave waters to the east of the point open/unprotected to accomodate for heavy commercial and recreational use - suggesting that the western side of the point was seen as less desirable for commercial and recreational interests.		
South Point SMR	Expand by 26.3 sq mi	The Northern Channel Islands contain some of the largest remaining resilient kelp beds in state waters, although large portions of the islands have experienced die-offs and are rated as "high priority" sites by Ospina-Giraldo et al. 2023. The stretch of coastline to the northwest of South Point SMR on Santa Rosa Island contains one of the largest contiguous resilient kelp beds on the islands. The SMR currently protects around 13 square miles of ocean habitat including rocky reefs, sandy seafloor, surfgrass beds, and small patches of highly resilient kelp forests. Expansion would help to bring the large stretch of resilient kelp bed to the northwest under MPA protection, and is compatible with the SMR goal to "protect the rocky reef, kelp forest, sandy plain habitat found here". This area is remote and only accessible via boat. Backcountry beach camping along the South Point SMR shoreline is permitted from September 16 through December 3.		South Point SMR was established as one of the 13 Channel Islands MPAs in 2003 and re-established with no changes as part of the state MPA network in 2012.		
Gull Island SMR	Expand by	The Northern Channel Islands contain some of the largest remaining resilient kelp beds in state waters, although large portions of the islands have experienced die-offs and are rated as "high priority" sites by Ospina-Giraldo et al. 2023. A small area of unprotected coastline to the northwest of Gull Island SMR contains highly resilient kelp beds worth protecting. Expansion is compatible with the SMR goal to "protect the rocky reef, kelp forest, sandy plain habitat found here".	No change in regulations. Shift the northern boundary of the SMR to the mean high tide line along the southwest coastline of Santa Cruz Island, to bring the highly resilient kelp beds at Posa Anchorage under MPA protection. The new northern boundary should follow the mean high tide line until it joins with an extension of the existing western boundary, at approximately 34*000" N lat.	Gull Island SMR was established as one of the 13 Channel Islands MPAs in 2003 and re-established with no changes as part of the state MPA network in 2012.		
Point Conception SMR		A very large patch of resilient kelp forest exists just outside the current eastern boundary of Point Conception SMR. Ospina-Giraldo et al 2023 identified this patch as having a lower risk of future losses compared to nearby kelp patches, and being valuable for natural regeneration and long-term monitoring ("cluster 2" in Hypothetical Use Case #4). Data from an existing shore-based radar system that has been deployed at the site since 2020 shows the area immediately east of the currently MPA appears to be used largely for transit, rather than fishing. Access to this area is currently limited, allowing for additional protections to confer high conservation value while minimizing socioeconomic impacts.		The proposed expansion area appears to have been initially included in a larger proposed SMR during the MLPA planning process (South Coast Proposal C) in recognition of this area's biological and oceanographic importance. The rationale for the smaller current boundaries for Point Conception SMR is unclear from the historical documents provided.		

Natural Bridges SMR	Expand by 13.7 sq mi		No change in regulations. Maintain existing western and eastern boundaries, and shift southern boundary out to the 3nm state waters limit to protect the resilient kelp beds and deeper habitats and pelagic waters per CFDW design and feasibility guidelines, as well as recently published peer-reviewed guidelines for climate-resilient MPA design (Arafeh-Dalmau et al. 2023).	The Natural Bridges SMR was designed as an intertidal SMR, specifically to avoid socio-economic impacts. The preferred option of siting a SMR that extends to greater depth range (as identified in the IDC proposal) was not pursued in an effort to reduce socio-economic impacts by avoiding siting SMRs adjacent to Santa Cruz harbor.	
		A large, dense patch of resilient kelp forest exists just off Pleasure	We propose a no-take SMR to best protect this large kelp forest from all destructive and extractive activities. See Column F for an acceptable alternative, and additional consideration. Proposed regulations are as follows: "It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource." Proposed boundaries range from the northeastern edge of Trees Beach along		To balance kelp forest protection with recreation and low-impact subsistence fishing, we are willing to consider a new Pleasure Point SMCA that allows for recreational hook-and-line fishing and spearfishing. In addition, to better protect the ecologically rich and biologically important waters of Soquel Cove nearby, we strongly suggest the
Pleasure Point SMR	Designate ~3.2 sq mi	Point. The kelp beds of the northern Monterey Bay are some of the largest and most persistent in the state. This area in particular is a well-known and popular surfing location, with little commercial fishing taking place (pers. comms H. Nevins) and minimal recreational hook-and-line fishing and spearfishing occurring when surf conditions are flat. There are strong access points to the area, many educational and recreational opportunities, and a growing, colloquially named "shark park" nearby as the presence of juvenile white sharks increases. See letter from H. Nevins in Appendix B	the mean high tide line to the tip of Soquel Point. From the mean high tide line, the proposed boundary extends south (offshore) by 2.5 sq mi, in keeping with CDFW design guidelines and recent peer-reviewed guidelines for climate-resilient MPA design recommending a variety of habitats and depth ranges be represented within an MPA (Arafeh-Dalmau et al. 2023). While this area would not meet the state's minimum size guidelines, we recognize the importance of this area for recreational fishing and believe a strategically placed MPA of this size would protect as much of the kelp forest as possible while minimizing economic impact to the larger region, and providing conservation benefits to the broader region as detailed in Appendix A's letter from H. Nevins.	n/a	state consider designating a larger State Marine Park (or State Marine Conservation Area allowing for all recreational activities) alongside, or in tandem with, the Pleasure Point detailed here for enhanced recreational and ecological benefits (see Appendix A letter from H. Nevins).





California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 30th, 2023

Re: Petition to Modify CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests; Petition to Increase Level of Protection and Streamline Enforcement for Several California State MPAs

Dear President Sklar and Honorable Commissioners,

Environment California Research & Policy Center has one mission that drives everything we do: to protect our natural world. We envision a better, greener California: one that protects and restores more places where all life can thrive and offers us and our children the opportunity to live healthier, more enriching lives.

Azul is a grassroots organization working to conserve marine resources. We treasure the life-sustaining force of the ocean, as well as the physical and spiritual nourishment it provides us. We are a Gente powered and led effort, focused first on celebrating our rich Latino conservation traditions and connecting them to current solutions. Our work is based in authentic engagement, community building, and collaboration.

That's why we welcomed the goal set by Governor Newsom and his Administration of protecting 30% of lands and coastal waters by 2030 ('30x30'), which was codified with the passage of SB337 this Fall. This goal reflects the new scientific consensus that humanity must set aside much more of the ocean to sustain healthy marine life populations and ecosystems.

The State of California's network of Marine Protected Areas (MPAs), created by the Marine Life Protection Act (MLPA), has demonstrated that area-based marine protection works: during the state's recently completed Decadal Management Review (DMR), scientific analysis showed that the network has generally succeeded in protecting ocean habitats, increasing biomass of fishery-targeted species, and enhancing the climate resilience of California's coastal ecosystems.

However, the amount of coastal waters currently protected within the statewide MPA network falls far below the state's 30% goal. Only 12% of California state waters are covered in highly to fully protected areas – the types of protected areas known to provide the best conservation outcomes – and an additional 4% is covered in lightly protected areas that allow considerable human impacts within their boundaries. In total, 16% of state waters are currently protected within an MPA.

We must do more. Coastal and marine ecosystems face growing threats related to climate change and increased human use, as well as emerging threats from new ocean uses such as offshore wind and aquaculture. In the face of these threats, now is the time to make significant improvements to the existing MPA network via an adaptive management process to better protect our ocean and coastal resources in the future.

That is why we are submitting two petitions for rulemaking intended to strengthen the network's ability to conserve critical habitat types and better manage the network. Each of the two petitions stands on their own and are based on new and updated science that were not available to policymakers at the time of designating the original network. The areas we have proposed for expansion or strengthening are prime examples of where California's ocean life stands to benefit through new or updated permanent, area-based protections created under the MLPA.

The areas we are proposing are likely not the only areas that would fit the criteria for enhanced protection laid out in our petitions, nor are our criteria the only ecological criteria that could be used to systemically strengthen the existing network in line with the state's new 30x30 goal. We urge the Fish and Game Commission and all relevant state agencies to conduct analyses that will highlight the habitat types, species, and regions underserved by the current network, with an eye toward building a state MPA network that is resilient in the face of rising ocean temperatures, emerging threats, and continued pressure on endangered and threatened species.

Californians can be proud that we have led the way in ocean conservation over the past decades. It's time to take up the mantle of leadership once again, globally and nationally, not only to create a better future for the amazing life off of our own coasts, but also to inspire other decision makers to do so along every coastline, in every part of the ocean.

With your leadership, our groundbreaking marine protected area network can take its next leap forward.

Sincerely,

Laura Deehan Director Environment California Research & Policy Center

Marcela Gutiérrez-Graudiņš Founder / Executive Director Azul California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 29, 2023

Re: Petition to Modify CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests

Dear President Sklar and Honorable Commissioners,

We are writing in support of Environment California Research & Policy Center's petition to increase protections for remaining persistent kelp forests in California state waters through the Marine Life Protection Act (MLPA)'s adaptive management process. As kelp forests contend with increased threats from climate change, predator loss, and invasive species, taking action to preserve the highly persistent kelp forest areas that have so far withstood these threats will be critical to the state's efforts to conserve this essential ecosystem and achieve area-based conservation targets.

California's kelp forests provide numerous and invaluable ecological and environmental benefits. These underwater ecosystems serve as critical nurseries for a wide variety of marine species, providing shelter and food for numerous fish, invertebrates, and marine mammals. They support thriving commercial and recreational fisheries, attract tourists and divers, and can help dampen the impacts of coastal erosion and storm impacts. However, recent decades have seen a decline in kelp forest cover across the Pacific West Coast, including California, due to a combination of natural and human-induced factors such as a major marine heatwave and the loss of predators of kelp grazers by overfishing and disease.

Marine protected areas are a critical tool for increasing the resilience of kelp ecosystems in the face of these stressors. However, the state of California's MPA network has gaps in coverage for the state's most persistent kelp forests. Recent analyses identifying the extent of persistent giant kelp and bull kelp forests in California found only 20.9% of the most highly persistent forests in Central California, 8.4% in Southern California, and less than 1% in Northern California are fully protected. Improving the MPA network to better protect our remaining stable kelp forests will aid in increasing the resilience of these ecosystems and prevent further loss of kelp cover.

State officials should utilize all tools at their disposal to address the ongoing threats to kelp forests. Marine protected areas like those created through the California MLPA are a tool that

¹ Arafeh-Dalmau et al. 2021, Southward decrease in the protection of persistent giant kelp forests in the northeast Pacific. *Communications Earth & Environment*. https://doi.org/10.1038/s43247-021-00177-9
² Arafeh-Dalmau et al. 2023, Shortfalls in the protection of persistent bull kelp forests in the USA. *Biological Conservation*. https://doi.org/10.1016/j.biocon.2023.110133

has been underutilized in efforts to protect and restore our kelp forests—and one we cannot afford to ignore.

The state has an opportunity to incorporate these new scientific findings into the state network of marine protected areas, ensuring the network better addresses emerging threats to our kelp forests and provides the best possible support for restoration efforts. The petition submitted by Environment California RPC is supported by recent scientific analysis employing 35 years of satellite data to identify persistent kelp forests, and is based on extensive global research demonstrating the benefits of highly to fully protected areas.

As scientists who have spent decades studying our ocean ecosystems, we urge you to take swift action to protect and preserve our coastal and marine resources and natural heritage in the face of increasing climate impacts. Our future depends on it.

Thank you for your ongoing efforts to protect California's ocean heritage, and we look forward to engaging in this important work for years to come.

Sincerely,

Dr. Nur Arafeh-Dalamu Postdoctoral Scholar, Hopkins Marine Station, Stanford University Honorary Fellow, University of Queensland

Dr. Fiorenza Micheli David and Lucile Packard Professor of Marine Science, Stanford University

Dr. Kyle Cavanaugh
Professor, Department of Geography, University of California, Los Angeles

Dr. Dawn Murray
Professor Environmental Studies, Antioch University Santa Barbara

Dr. Carolina Olguin-Jacobson Postdoctoral Scholar, Hopkins Marine Station, Stanford University



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November 29, 2023

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

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Sincerely,

Dr. Tom Bell

Tom Bell

Scientist, Department of Applied Ocean Physics and Engineering, Woods Hole Oceanographic Institution

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 29, 2023

Re: Support for new MPA to protect kelp, seabirds, and sharks of Santa Cruz

Dear President Sklar and Honorable Commissioners,

As a local seabird and marine ecosystem biologist, I am writing in support of a new State Marine Reserve proposed by Environment California and Azul to protect kelp, seabirds, and sharks in coastal waters of Santa Cruz County, CA. As climate change impacts ocean conditions, corresponding shifts in fishing behavior will create new risks for forage fish and place increasing pressure on ocean wildlife. Providing protections now for forage fish within critical nearshore kelp forests and sandy bottom environments is essential for mitigating future threats to migratory seabirds, whales, and sharks.

The proposed MPA off Soquel Point in Santa Cruz is positioned within the northern Monterey Bay bight, a biologically rich and unique marine region encompassing nearshore kelp forests, sandy beach, and deeper soft-bottom habitats. Physically, these waters are influenced by the Año Nuevo upwelling front and the area is characterized by a broad shallow shelf. These features create a unique ocean circulation pattern where freshly upwelled and nutrient rich cold-water eddies become slower and recirculate within this semi-enclosed bay¹. These waters are ideal growing conditions for phytoplankton, crustaceans and cephalopods, larval fishes and forage fishes (anchovies, sardines, herring), which create the base of the food web for predatory sharks, seabirds, and whales.

This biologically diverse area is recognized as important to more than 100 species of marine seabirds and shorebirds, mammals and sea turtles (Harvey & Benson 1997², Henkel 2006³, Neuman et al. 2008⁴). In the summer months, enormous flocks of Sooty Shearwater travel 20,000 km from New Zealand 20,000 km to feed on the anchovy schools (Figure 1) within the

¹ Graham and Largier 1997. <u>Upwelling shadows as nearshore retention sites: the example of northern</u>
<u>Monterey Bay</u>. Continental Shelf Research, 1997

²Harvey and Benson 1997. Marine Bird and Mammal Distribution and Abundance in Monterey Bay, During 1996. Moss Landing Marine Laboratories Technical Publication 97-02, 80pp.

³ Henkel 2004. Seasonal Abundance of Marine Birds in Monterey Bay, California. Western Birds: 126-146.

⁴ Neuman, Henkel, and Page. 2008. <u>Shorebird use of sandy beaches in central California</u> Waterbirds.

northern bight of the Bay (Figure 2) (Adams et al. 2012⁵). This annual natural feeding frenzy phenomenon is described as the "River of Birds" and is fueled by the dense nearshore aggregations of anchovies, which are also host to iconic lunge-feeding humpback whales, ⁶ pelicans, and gulls.

An "Oasis Effect" has been described for these nearshore areas in California⁷ by which whales and other marine animals aggregate in large numbers to feed in nearshore "oases" of forage fish during times of poor food availability offshore. Similarly, Endangered Leatherback Sea Turtles travel from offshore areas to feed within the bight when ocean conditions nearshore favor jellyfish⁸. The connection between nearshore and offshore forage fish dynamics figures importantly in the future conservation of these globally connected migratory species⁹.

However, these areas are not protected from extractive uses including fisheries. Despite 30 years of protected designation within the Monterey Bay National Marine Sanctuary, Adelaars et al. 2012¹⁰ found that the relative level of conservation, particularly within the northern bay sandy shelf area of the Sanctuary, is low. The Sanctuary primarily protects the waters from offshore oil and gas exploitation, but does not protect against the impacts of fishing and many other human activities which may compromise thriving marine food webs. Large important areas of nearshore sandy-bottom and kelp forest habitats in Monterey Bay remain unprotected (see Figure 7 in Adelaars et al.).

In addition, over the past 10 years our coastal ecosystems have seen significant shifts in the face of a changing climate. Warming waters – including intense episodic marine heatwaves – have caused mobile species to temporarily shift their geographic ranges to remain within suitable environmental conditions,¹¹ often increasing the chances for harmful interactions with fisheries and other human activities. In the Monterey Bay, warming waters have led to habitat

⁵ Adams, MacLeod, Suryan, Hyrenbach and Harvey. 2012. <u>Summer-time use of west coast US National Marine Sanctuaries by migrating sooty shearwaters (Puffinus [=Ardennna] griseus)</u>. Biological Conservation 156: 105-116.

⁶ [video] <u>Sooty Shearwaters on Monterey Bay feeding with Humpback Whales</u> (MB Whale Watch)

⁷Benson, Croll, Marinovic, Chavez, and Harvey. 2002. Changes in the cetacean assemblage of a coastal upwelling ecosystem during El Niño 1997-98 and La Niña 1999. Prog. Oceanogr. 54:279-291.

⁸ Benson, Forney, Harvey, Carretta, and Dutton. 2007 Abundance, distribution, and habitat of leatherback turtles (*Dermochelys coriacea*) off California, 1990–2003. Fish. Bull. 105:337–347.

⁹ <u>International Agreement on the Conservation of Albatrosses and Petrels</u> (Conservation of Migratory Species).

¹⁰ Adelaars, Bassett, Donlou, Marks, Pardieck, and Lindholm. 2012. <u>Examining the Conservation Level of Marine management Areas within the Monterey Bay National Marine Sanctuary: How Protected is the Sanctuary?</u> Marine Sanctuaries Conservation Series ONMS-12-04. U.S. Department of Commerce, NOAA, Silver Spring, MD. 41 pp. [NB: Figure 7 - Soquel Cove area]

¹¹Pecl, Araju et al. 2017. <u>Biodiversity redistribution under climate change: Impacts on ecosystems and human well-being</u>. Science

compression for whales and other mobile marine species, causing them to move inshore more frequently to feed and resulting in record-high whale entanglements in fishing gear. Other species such as Common Murre, Rhinoceros Auklets and Brandt's Cormorant engage in prey switching as a strategy to buffer prey availability, utilizing species from kelp forests and nearshore ecosystems when offshore species are less abundant. Maintaining healthy nearshore environments with a diversity of prey sources for predators experiencing climatic stressors is critical for the climate resilience of the overall ecosystem. However, the very changes underpinning these shifts in wildlife behavior can also influence fisher behavior, putting pressure on these food webs at the very time that they're needed to maintain ecosystem resilience.

Conservation of healthy forage fish populations in the face of climate change is critical. A recent review highlighted the need for conservation of the prey base with regard to the seabird populations in California, noting that where humans and wild predators coexist, human fishers are far more efficient in their prey harvesting activities¹⁵. Further, a global review by Cury et al. 2011 suggested a precautionary approach of leaving one third of the fish biomass for the seabirds¹⁶. Both of these studies point to the need for establishing protections of forage fish for seabirds which are not exploited to full capacity. A new state MPA would strengthen protections for forage fish now, before shifting ocean conditions bring new threats to this area. The proposed MPA area is not currently not currently subject to any significant commercial take, making protecting this area now of minimal economic impact to existing fisheries.

Conservation in this area is aided by the participation of actively engaged citizen scientists. Citizens in Santa Cruz County are very concerned about marine conservation and actively participate in citizen science activities including water quality (Coastal Watershed Council), intertidal and subtidal monitoring (LIMPETS¹⁷, Reef Check California) and beach monitoring (BeachCOMBERS, Nevins et al. 2011¹⁸). Since 1997, citizen scientists have been monitoring

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¹²Santora, Mantua et al. 2020. <u>Habitat compression and ecosystem shifts as potential links between</u> marine heatwave and record whale entanglements. Nature

¹³ Warzybok et al. 2018 <u>Prey switching and consumption by seabirds in the central California Current</u> upwelling ecosystem: Implications for forage fish management. J Marine Systems

¹⁴ Pichegru et al. 2012. <u>Industrial fishing, no-take zones and endangered penguins.</u> Biol. Cons. 156:117-125.

¹⁵Ainley, Adams, Jahncke (eds). 2014 <u>Towards ecosystem-based fishery management in the California Current system-predators and the preyscape: a workshop.</u>

¹⁶Cury et al. 2011. Global Seabird Response to Forage Fish Depletion—One-Third for the Birds. Science

¹⁷ Pearse et al. 2015 <u>Long-term monitoring of surfgrass meadows in the Monterey Bay National Marine</u>
Sanctuary: recovery followed by stability after the termination of a domestic sewage discharge.

¹⁸Nevins, Benson, Phillips, de Marignac, DeVogelaere, Ames and Harvey. 2011. <u>Coastal Ocean Mammal and Bird Education and Research Surveys (BeachCOMBERS)</u>, 1997-2007: ten years of monitoring beached marine birds and mammals in the Monterey Bay National Marine Sanctuary.

impacts to marine birds and mammals in and around the proposed MPA, contributing significant evidence for understanding human impacts, documenting the recovery of species in the region, and complementing long-term monitoring efforts by the state.

Northern Monterey Bay is host to a multitude of ocean-focused activities and these have created a thriving nature-based economy: surfers treasure the waves of Pleasure Point from Soquel Point to Capitola; beachgoers enjoy tidepooling, birdwatching, fossil hunting, and fishing along the rocky and sandy shores of New Brighton and Seacliff Beaches. Recently, locals have called this area a "Shark Park", due to the increased use of the area by juvenile white sharks as seen by drones. This natural phenomenon has created a boon for shark-ecotourism businesses based out of Santa Cruz and Capitola (Figure 3). An established MPA in the area would help provide long-term protections for this oft-maligned species which requires nearshore sandy beaches for growth and survival, while supporting local nature-focused businesses.

The proposed MPA would also amplify nearby land-based protected areas, including four California State Parks (New Brighton, Seacliff Beach, Manresa and Sunset State Beaches). Establishing a land-sea connection between terrestrial and coastal protected areas will not only enhance broader ecological ecosystem function, but could connect users within the proposed MPA to interpretive aspects of state parks, which offer extensive access (trails, beach access, RV and tent camping) and interpretive resources (rangers and visitor centers).

In summary, the proposed MPA would provide multiple species and habitats ecological benefits and greater resilience in the face of climate-related impacts and shifting fishing behaviors, as well as leverage local citizen efforts to increase coastal protection and enhancements for marine species. This effort would enable future generations to enjoy firsthand the natural phenomena of the River of Birds by migratory Sooty Shearwaters and the nursery area found to be important for juvenile White Sharks by protecting the basis of the food web in this ecosystem.

Thank you for considering this proposed designation.

Sincerely,

Spumb In Jamis

Hannah Nevins, M.S. MSc., Seabird Biologist and Ecologist, Santa Cruz, CA



Figure 1. Shearwaters feed on small schooling fishes including anchovies in nearshore waters of northern Monterey Bay. (Photo: Ingrid Taylor, New Brighton Beach, CA)

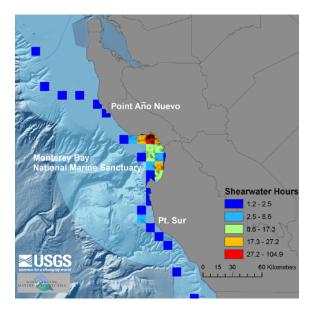


Figure 2. Satellite tracking of migratory Sooty Shearwaters indicate the valuable feeding area in northern Monterey Bay (red area). Northern area is proposed is for greater protection of forage fish important to migratory seabirds and sharks. (Data: USGS/MLML)



Figure 3. Soquel Cove is locally known as the "Shark Park." Passengers on a shark-watching tour based from Santa Cruz check out an approaching great white shark in the sandy bottom habitat off Seacliff Beach in northern Monterey Bay, CA. (Photo Kevin Painchard/Lookout Santa Cruz)

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Dear President Sklar and Honorable Commissioners,

As scientists, researchers, and educators who work to understand our changing oceans and inspire the next generation of ocean stewards, we write to express our support for the expansion and strengthening of California's network of Marine Protected Areas (MPAs) to help safeguard the state's diverse marine ecosystems and ensure the long-term resilience of our ocean habitats.

Globally, the ocean is at a critical juncture, with escalating global temperatures, declining biodiversity, and a growing number of endangered marine species. California's coastal ecosystems have not been spared these global trends: Northern California has lost more than 95% of its kelp forests since 2014, and kelp forests statewide have experienced declines over the past decade. Only an average of 55 Pacific leatherback turtles are now found foraging off California's coast every year, a notable decrease from the yearly average of 128 Pacific leatherbacks observed in the region from 1990 to 2003. Marine heatwaves have doubled over the last 30 years and have become more intense and longer in duration, putting stress on California's marine species and ecosystems.

Now, California has a unique opportunity to take bold, effective and science-based action to conserve its marine biodiversity by expanding its groundbreaking network of state MPAs. MPAs, like state parks on land, protect unique and important ocean habitats from destructive human activities that can damage the integrity of marine ecosystems. Globally and in California, strongly protected and well-enforced MPAs have been shown to be highly effective in conserving biodiversity, enhancing ecosystem resilience, and mitigating the impacts of climate

¹ Meredith McPherson et. al, <u>Large-scale shift in the structure of a kelp forest ecosystem co-occurs with an epizootic and marine heatwave</u>, Communications Biology, March 5, 2021

² Benson, Scott R., Karin A. Forney, Jeffrey E. Moore, Erin L. LaCasella, James T. Harvey, and James V. Carretta. "A Long-Term Decline in the Abundance of Endangered Leatherback Turtles, Dermochelys Coriacea, at a Foraging Ground in the California Current Ecosystem." Global Ecology and Conservation 24 November 2020.

³ IPCC (2021). Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte VP, Zhai A, Pirani SL, Connors C, Péan S, et al. (Eds.)].;

change on our oceans.⁴ Well-designed and well-implemented reserves better preserve natural interactions within ecosystems, allowing for greater resiliency in the face of rising global temperatures and changing environmental conditions.⁵

California's network of MPAs, established through the 1999 Marine Life Protection Act, celebrated its tenth anniversary last year. The state's recent Decadal Management Review (DMR) analyzed a decade of monitoring data and showed that the MPA network has generally been effective at protecting ocean habitats and increasing fisheries-targeted species' biomass.⁶ Now, in the face of increasing threats, we need to build on this system and maintain California's role as a national and global leader in the effort to protect our ocean habitats.

That's why we, as scientists, researchers, and educators, urge you to expand and strengthen our state's network of MPAs via the adaptive management process of the DMR.

Specifically, we support the expansion of the MPA network to include additional protections for California's most resilient kelp forests. While these vital and iconic ecosystems have faced declines statewide in recent years, kelp forests in some areas have persisted or bounced back quickly in the face of marine heatwaves and other disturbances. By expanding protections for these resilient forests under the MLPA, the state can minimize direct human impacts in these relatively healthy areas, helping to ensure their continued persistence and enhancing the effectiveness of restoration efforts for declining kelp ecosystems nearby. Globally, kelp restoration has been most successful in places adjacent to/contiguous with healthy kelp forest ecosystems.

It is also vital that existing California MPAs are able to achieve their stated goals of conserving biodiversity and ecosystem health. We encourage the state to consider increasing protections for MPAs that are currently only lightly or minimally protected, especially in places where weaker or more complicated regulations lead to poor compliance and enforcement. Research has shown that highly and fully protected areas, where few if any destructive or extractive activities are allowed, provide greater ecological benefits than lightly or minimally protected areas. The

⁴ James Horrox, Kelsey Lamp and Steve Blackledge. <u>New Life for the Ocean: How Marine Protections Keep Our Waters Wild</u>. Environment America Research & Policy Center & Frontier Group, February 3, 2021

⁵ Kirsten Grorud-Colvert *et al.*, The MPA Guide: A framework to achieve global goals for the ocean. *Science* **373** ,eabf0861(2021). DOI:10.1126/science.abf0861

⁶ California Department of Fish and Wildlife. (2022). California's Marine Protected Area Network Decadal Management Review.;

⁷ Arafeh-Dalmau et al., <u>Integrating climate adaptation and transboundary management: Guidelines for designing climate smart marine protected areas</u>, One Earth 6, 1–19 November 17, 2023 ^a 2023 Published by Elsevier Inc. ⁸ Eger, A.M., Marzinelli, E.M., Christie, H., Fagerli, C.W., Fujita, D., Gonzalez, A.P., Hong, S.W., Kim, J.H., Lee, L.C., McHugh, T.A., Nishihara, G.N., Tatsumi, M., Steinberg, P.D. and Vergés, A. (2022), Global kelp forest restoration: past lessons, present status, and future directions. Biol Rev, 97: 1449-1475.

⁹ Kirsten Grorud-Colvert *et al.*, <u>The MPA Guide: A framework to achieve global goals for the ocean</u>. *Science* **373** ,eabf0861(2021). DOI:10.1126/science.abf0861

state's network currently protects 12% of state waters in highly- or fully-protected MPAs, as defined by Grorud-Colvert et al. (2021), which leaves 4% of the network lacking the most effective conservation protections. By expanding the level of protection to areas already identified as ecologically important, we can ensure that the area's vulnerable marine resources have the chance to recover and flourish.

Our ocean is not just a source of clean air, wildlife, and natural beauty but also a mystery that beckons exploration and discovery. It is our moral imperative to lead the nation and the world in taking bold actions to preserve the sea, ensuring its future and the well-being of the communities that rely on it for their survival and prosperity.

President Sklar and Honorable Commissioners, you have a chance to take up this imperative and champion the expansion and strengthening of California's network of Marine Protected Areas. By doing so, you will leave a lasting legacy of marine stewardship that will keep California at the forefront of ocean conservation, nationally and globally.

Thank you for your unwavering commitment to the welfare of our ocean and for considering this urgent matter. Together, we can ensure a healthier, more abundant future for the unique marine ecosystems that define California.

Sincerely,

Michael Akresh Alice Alldredge
Faculty Professor Emeritus

Antioch University University of California, Santa Barbara

Steven Allison Anupa Asokan Professor Ocean advocate

University of California, Irvine

Peter Auster Nevé Baker Senior Research Scientist & Research Professor PhD Candidate

Emeritus University of California Santa Cruz

Mystic Aquarium & University of Connecticut

Leocadio Blanco Bercial Bailey Drechsler Assistant Professor Professor

Arizona State University - Bermuda Institute of Cuesta College

Ocean Sciences

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¹⁰ Kirsten Grorud-Colvert *et al.*, <u>The MPA Guide: A framework to achieve global goals for the ocean</u>. *Science* **373**,0861(2021). DOI:10.1126/science.abf0861

Michelle María Early Capistrán

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Dawn Murray Jacquelin Mutter

Professor National One Water Planning Lead

Antioch University HDR

Erin Naegle Hannahrose Nevins STEM Dean of Instruction Seabird Ecologist

Cuesta College Seabird Consultant

Gretchen North Carolina Olguin Jacobson Professor of Biology Postdoctoral fellow

Occidental College Hopkins Marine Station of Stanford University

Gorka Sancho Joanna Tang Professor PhD Candidate

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CHAIR: SERVING STUDENTS WITH DISABILITIES VICE CHAIR: JOINT COMMITTEE ON FISHERIES AND AQUACULTURE

CALIFORNIA

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 28th, 2023

Re: Strengthening and Expanding California's Marine Protected Area Network

Dear President Sklar and Honorable Commissioners,

As an Assemblymember and advocate for the health and vitality of California's coastal ecosystems, I write to express my support for the expansion of the state's network of Marine Protected Areas (MPAs) to include the expansion and strengthening of Point Buchon SMCA and Natural Bridges SMR. Protecting specific habitat areas, including the remaining areas of stable kelp forests, and increasing the rigor of existing marine protected areas are crucial steps in safeguarding our diverse marine species and ensuring the long-term well-being of the ecosystems off our shores.

The state of our ocean is at a critical juncture, with escalating global temperatures, declining biodiversity, and a growing number of endangered marine species. Northern California has lost more than 95% of its kelp forests since 2014, and kelp forests statewide have experienced declines over the past decade. Pollution, overfishing, offshore drilling and other human activities are threatening ocean habitat and marine species, while the changing climate increases the risk of extreme weather events and puts even greater stress on ocean ecosystems. On the past decade of the past

In the face of these mounting threats, California has a unique opportunity to take bold and effective action to conserve ocean habitats and ensure a greater abundance of life off our coast. Over two decades ago, the state passed the groundbreaking Marine Life Protection Act (MLPA), which called on the state to use one of the most powerful tools for ocean conservation: marine protected areas (MPAs).

¹ Meredith McPherson et. al, <u>Large-scale shift in the structure of a kelp forest ecosystem co-occurs with an epizootic and marine heatwave</u>, Communications Biology, March 5, 2021

² James Horrox, Steve Blackledge and Kelsey Lamp, "New Life for the Ocean: How marine protections keep our waters wild," Environment America Research and Policy Center & Frontier Group, February 2021.

³ Arafeh-Dalmau et al., <u>Integrating climate adaptation and transboundary management: Guidelines for designing climate smart marine protected areas</u>, One Earth 6, 1–19 November 17, 2023 ^a 2023 Published

by Elsevier Inc.

MPAs, like state parks on land, protect unique and important ocean habitats from activities that can damage ocean life. Areas that are strongly protected have been shown to be highly effective in conserving biodiversity, enhancing ecosystem resilience, and mitigating the impacts of climate change on our oceans. California's network of MPAs, foreseen in the MLPA, celebrated its tenth-anniversary last year, and the state's decadal management review showed that marine life in existing reserves better withstood recent marine heatwaves, and reserves across the state had higher biomass of commercially caught fish than areas lacking protection. Now, we need to build on this system and maintain California's role as a leader, both nationally and globally, in the fight to protect more ocean habitats.

That's why I urge you to expand our state's network of MPAs within the adaptive management process of the Decadal Management Review. In particular, I am writing in support of the strengthening and expansion of Point Buchon SMCA and Natural Bridges SMR off the coast of my community.

We, as Californians, have a deep love for our ocean and feel a profound responsibility to participate in decisions that impact our state's coastal waters. Our ocean is not just a source of clean air, wildlife, and natural beauty but also a mystery that beckons exploration and discovery. It is our moral imperative to lead the nation and the world in taking bold actions to preserve the sea in our own backyard, ensuring its future and the well-being of the communities that rely on it for their survival and prosperity.

In conclusion, we strongly urge you, Honorable Commissioners, to expand California's MPA network to encompass areas of persistent kelp, with a particular focus on safeguarding the strengthening and expansion of Point Buchon SMCA and Natural Bridges SMR.

Thank you for your unwavering commitment to the welfare of our ocean and for considering this proposal.

Sincerely,

DAWN ADDIS

Assemblymember, 30th District

⁴ James Horrox, Steve Blackledge and Kelsey Lamp, "New Life for the Ocean: How marine protections keep our waters wild," Environment America Research and Policy Center & Frontier Group, February 2021.

⁵ California Department of Fish and Wildlife. <u>California's Marine Protected Area Network Decadal Management Review</u>. 2022.



MAYOR AND CITY COUNCIL

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November 30, 2023

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

RE: Petition to Modify the CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests

Dear President Sklar and Honorable Commissioners:

As a mayor and advocate for the health and vitality of California's coastal ecosystems, I write to express my unwavering support for the expansion of the State's network of Marine Protected Areas (MPAs), including the expansion of Natural Bridges SMR and the implementation of a new MPA at Pleasure Point. Protecting specific habitat areas, including the remaining areas of stable kelp forests, and increasing the rigor of existing marine protected areas are crucial steps in safeguarding our diverse marine species and ensuring the long-term well-being of the ecosystems off our shores.

The state of our ocean is at a critical juncture, with escalating global temperatures, declining biodiversity, and a growing number of endangered marine species. Northern California has lost more than 95% of its kelp forests since 2014, and kelp forests statewide have experienced declines over the past decade.¹ Pollution, overfishing, offshore drilling, and other human activities are threatening ocean habitats and marine species, while the changing climate increases the risk of extreme weather events and puts even greater stress on ocean ecosystems.²

In the face of these mounting threats, California has a unique opportunity to take bold and effective action to conserve ocean habitats and ensure a greater abundance of life off our coast. Over two decades ago, the State passed the groundbreaking Marine Life Protection Act (MLPA), which called on the State to use one of the most powerful tools for ocean conservation: MPAs.

MPAs, like state parks on land, protect unique and important ocean habitats from activities that can damage ocean life. Areas that are strongly protected have been shown to be highly effective in conserving biodiversity, enhancing ecosystem resilience, and mitigating the impacts of climate change on our oceans.⁴

¹ Meredith McPherson et. al, <u>respective shift in the supporter of gleeb forest ecosystem co-occurs with an epizootic and marine heatway</u>, Communications Biology, March 5, 2021.

² James Horrox, Steve Blackledge and Kelsey Lamp, "<u>New Life for the Ocean: How marine protections keep our waters</u> wile," Environment America Research and Policy Center & Frontier Group, February 2021.

³ Arafeh-Dalmau et al., <u>Integrating climate adaptation and transhoundary management: Guidelines for designing climate smart marine projected area.</u> One Earth 6, 1–19 November 17, 2023 ^a 2023 Published by Elsevier Inc.

⁴ James Horrox, Steve Blackledge and Kelsey Lamp, "May Life for the Ocean: How marine protections keep our waters and," Environment America Research and Policy Center & Frontier Group, February 2021.

California Fish and Game Commission November 30, 2023 Page 2

California's network of MPAs, foreseen in the MLPA, celebrated its tenth anniversary last year, and the State's decadal management review showed that marine life in existing reserves better withstood recent marine heatwaves, and reserves across the State had higher biomass of commercially caught fish than areas lacking protection.⁵

Now, we need to build on this system and maintain California's role as a leader, both nationally and globally, in the fight to protect more ocean habitats.

That is why I urge you to expand our State's network of MPAs within the adaptive management process of the Decadal Management Review. In particular, I am writing in support of the expansion of the Natural Bridges SMR and the implementation of a new MPA at Pleasure Point off the coast of my community, Santa Cruz.

As the author of the Marine Life Management Act and the Marine Life Protection Act, I am fully supportive of Environment California's request for additional marine protected areas. When I was Speaker pro tempore of the California Assembly (1996–2002), I was deeply involved in this subject. In my last year, I also authored the California Ocean Trust Act, which created the California Ocean Science Trust (Cal-OST). Cal-OST has written extensively about the successes within the MPAs, and more would be a very good idea.

We, as Californians, have a deep love for our ocean and feel a profound responsibility to participate in decisions that impact our State's coastal waters. Our ocean is not just a source of clean air, wildlife, and natural beauty but also a mystery that beckons exploration and discovery. It is our moral imperative to lead the nation and the world in taking bold actions to preserve the sea in our own backyard, ensuring its future and the well-being of the communities that rely on it for their survival and prosperity.

In conclusion, we strongly urge you, Honorable Commissioners, to expand California's MPA network to encompass areas of persistent kelp, with a particular focus on safeguarding Natural Bridges State Marine Reserve and implementing a new MPA at Pleasure Point. By doing so, you will leave a lasting legacy of environmental stewardship.

Thank you for your unwavering commitment to the welfare of our ocean and for considering this proposal. Together, we can ensure a healthier, more abundant future for the unique marine ecosystems that define California.

Sincerely,

Fred Keeley

Mayor

P:\CMAD\Word(Wpfiles)\SUZANNEU\Mayorfk 2022-2026\Letters\CA Fish and Game - Kelp Forests.docx

⁵ California Department of Fish and Wildlife, California's Marine Protected Area Network Decadal Management Review, 2022.



California Fish and Game Commission 715 P Street, 16th floor, Sacramento, CA 95814

November 30th, 2023

RE: Petition to Modify CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests

Dear President Sklar and Honorable Commissioners:

Northern California has lost more than 95% of its kelp forests since 2014, and kelp forests statewide have experienced declines over the past decade. California sea otters are still listed as threatened under the Endangered Species Act, and one of the biggest barriers to this species recovery and range expansion is increased shark bites from a lack of kelp forest cover. Marine

¹ Meredith McPherson et. al, <u>Large-scale shift in the structure of a kelp forest ecosystem co-occurs with an epizootic and marine heatwave</u>, Communications Biology, March 5, 2021

heatwaves have doubled over the last 30 years, and have become more intense and longer in duration, putting stress on California's marine species and ecosystems.²

In the face of these mounting threats, California has a unique opportunity to take bold and effective action to conserve ocean habitats and ensure a greater abundance of life off our coast. Over two decades ago, the state passed the groundbreaking Marine Life Protection Act (MLPA), which called on the state to use one of the most powerful tools for ocean conservation: marine protected areas (MPAs).

MPAs, like state parks on land, protect unique and important ocean habitats from activities that can damage ocean life. Areas that are strongly protected have been shown to be highly effective in conserving biodiversity, enhancing ecosystem resilience, and mitigating the impacts of climate change on our oceans.³ By providing areas that serve as buffers against climate change, fully protected MPAs adapt to changing environmental conditions because they better preserve natural interactions within ecosystems, allowing for greater resiliency.⁴

California's network of MPAs, foreseen in the MLPA, celebrated its tenth anniversary last year, and the state's decadal management review showed that MPAs effectively protect ocean habitats and increase fishery-targeted species' biomass. Now, we need to build on this system and maintain California's role as a national and global leader in the fight to protect more ocean habitats.

Protecting specific habitat areas, including the remaining areas of stable kelp forests is a crucial step in safeguarding our diverse marine species and ensuring the long-term well-being of our ocean environments.

We support the expansion of the MPA Network to include some of the most resilient kelp forests along California's coastline, by expanding Cabrillo State Marine Reserve, Point Dume State Marine Conservation Area, South Point State Marine Reserve, Gull Island State Marine Reserve, Point Conception State Marine Reserve, Natural Bridges State Marine Reserve, and by creating a new MPA around the beautiful kelp forest off Pleasure Point near Santa Cruz. While kelp forests have faced declines statewide in recent years, in these areas they have persisted or bounced back quickly in the face of marine heatwaves and other disturbances. ⁵ By expanding protections for

² García-Reyes, Marisol, Andrew Leising, Rebecca Asch, Steven Bograd, and Tessa M Hill. Rep. Indicators of Climate Change in California, "Coastal Ocean Temperature", California Office of Environmental Health Hazard Assessment, 2022.

³ Arafeh-Dalmau et al., <u>Integrating climate adaptation and transboundary management: Guidelines for designing climate smart marine protected areas</u>, One Earth 6, 1–19 November 17, 2023 ^a 2023 Published by Elsevier Inc. ⁴ Jankowska, Emilia, et al. "<u>Climate Benefits from Establishing Marine Protected Areas Targeted at Blue Carbon Solutions</u>." *Proceedings of the National Academy of Sciences*, vol. 119, no. 23, 2022.

⁵ California Department of Fish and Wildlife. (2022). California's Marine Protected Area Network Decadal Management Review.

these resilient forests under the MLPA, the state can minimize direct human impacts in these relatively healthy areas, helping to ensure their continued persistence and enhancing the effectiveness of restoration efforts for declining kelp ecosystems nearby.

Enhancing the protection of California's kelp forests strongly aligns with Goals 1, 2, 3, and 4 of the MLPA by preserving natural diversity, sustaining marine life populations, protecting marine habitats for their intrinsic value, and improving recreational and educational opportunities while minimizing human disturbance. ⁶ Safeguarding resilient kelp ecosystems will ensure critical habitat preservation for diverse marine species, including endangered sea otters and commercially valuable fish.

Our ocean is a source of clean air, wildlife, and natural beauty, but also a mystery that beckons preservation and exploration. California has the opportunity to lead the nation and the world in taking bold action to preserve the sea, ensuring its future and the well-being of the communities that rely on it for their survival and prosperity.

Sincerely,

Laura Deehan State Director Environment California Research and Policy Center

Tomas Valadez CA Policy Associate Azul

Robert Vergara
Roger Arliner Young (RAY) Ocean Conservation Fellow
Natural Resources Defense Council

Clara Castronovo Board Chair CALPIRG Students

Keith Shattenkirk Program Officer, Healthy Lands and Waters Patagonia

⁶ "Marine Life Protection Act." CDFW. https://wildlife.ca.gov/Conservation/Marine/MPAs/MLPA.

Susan Jordan
Executive Director
California Coastal Protection Network

Ashley Eagle-Gibbs Interim Executive Director Environmental Action Committee of West Marin

Krista Rogers Program Manager Save Our Shores

Azsha Hudson Marine Conservation Analyst Environmental Defense Center

Chelsea Tu Executive Director Monterey Waterkeeper

Janet Cox President Climate Action CA

Pauline Seales
Organizer
Santa Cruz Climate Action Network

Dan Silver Executive Director Endangered Habitats League

Josefina Barrantes 30x30 Coordinator Environmental Protection Information Center (EPIC)

Martha Camacho Rodríguez Director SEE (Social Eco Education) Megan Shumway Member CHN, Sacramento Climate Coaltion, SacAct

Antonina Markoff Coordinator The Climate Reality Project California State Coalition

Robert Gould, MD President San Francisco Bay Physicians for Social Responsibility

Esperanza Vielma
Executive Director
Environmental Coalition for Water Justice

Daniel Chandler Steering Committee Member 350 Humboldt

Andria Ventura Legislative and Policy Director Clean Water Action/Clean Water Fund



California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 29, 2023

Re: Petition to Modify CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests; Petition to Increase Level of Protection and Streamline Enforcement for Several California State MPAs

Dear President Sklar and Honorable Commissioners,

Environmental Action was founded in 1970, on the first Earth Day, as a community of grassroots environmental activists working for a cleaner, greener world. We are submitting the following 2,487 signatures in support of Environment California Research & Policy Center's petitions for rulemaking in the state's adaptive management process for the California Marine Protected Area network.

Each of the 2,487 people signed the following letter:

Dear Governor Newsom,

Sea otters bobbing in the surf. Whales diving deep to feed. Seabirds flying above. Our state's coastline is home to wildlife, large and small. As Californians, we've taken steps to protect this ocean heritage by creating a network of marine protected areas that, just like state parks on land, help protect and restore ocean life.

I urge you to strengthen this network through the Decadal Management Review in line with your important goal of protecting 30 percent of our state waters by 2030. Specifically, I urge you to expand the network to protect the state's last remaining kelp forests, critical homes to fish and sea otters, and to strengthen existing areas that don't yet provide high levels of protection to ocean life.

With your support, California can expand this network of ocean parks to create a brighter future for the ocean life that calls our state home, and hopefully inspire others across the country and around the world to follow our lead.

Sincerely,

As a group that works to protect our most amazing and at risk wildlife across the country, we know that preserving and restoring habitats will be critical to seeing our ocean life thrive. Whether it's a return of sea otters to more of the coastline or more abundant seabirds flying above our heads, expanding and strengthening California's network of marine protected areas will create a more hopeful future for the wild animals that call the state's coastline home.

But the decisions made on California's coast will not only impact the state's wildlife: as with many environmental issues, California's actions here have the potential to reverberate far and wide. If the state acts with ambition during this adaptive management process to fulfill the state's 30 by 30 commitment, it can set the national standard for ocean conservation, leading the country and the globe forward to a better future for our oceans.

Sincerely,

Patrick Kelly-Fischer

Patrick Kelly-Fischer Board Member Environmental Action



Cathy Crum, Agoura Hills, CA

Roger Ewing, Agoura Hills, CA

Debra Lichstein, Agoura Hills, CA

Brian Jeffery, Aguanga, CA

Geralyn Gulseth, Alameda, CA

David Howard, Alameda, CA

Mike Kehl, Alameda, CA

Jamie Le, Alameda, CA

Andrew Mueckenberger, Alameda, CA

Donna Pedroza, Alameda, CA

Mana-Jean Wagnon, Alameda, CA

Michael Grant White, Alameda, CA

Joseph Woodard, Alameda, CA

Connie Diernisse, Alamo, CA

Ehren Mierau, Alamo, CA

Ana Black, Albany, CA

Llll D, Albany, CA

Christopher Hamilton, Albany, CA

Michael Sullivan, Albany, CA

Lisa Wenzel, Albany, CA

Barbara Williamson, Albany, CA

Dobby Sommer, Albion, CA

Annemarie Weibel, Albion, CA

Tom Atha, Alhambra, CA

Araceli Aviles, Alhambra, CA

Anjanette Caron, Alhambra, CA

David Gallardo, Alhambra, CA

Angel Orona, Alhambra, CA

Christine Sirias, Alhambra, CA

Laurie Barre, Altadena, CA

Vic Bostock, Altadena, CA

Timothy Callahan, Altadena, CA

G Devine, Altadena, CA

Beth Herndobler, Altadena, CA

Jennifer Herstein, Altadena, CA

Venetia Large, Altadena, CA

Annamarie Jones, Alturas, CA

Thomas Mccombs, American Canyon, CA

Robert Raven, American Canyon, CA

Nora Coyle, Anaheim, CA

Shauna Gonzalez, Anaheim, CA

Penelope Harms, Anaheim, CA

Jane Iacovetti, Anaheim, CA

Karen Malley, Anaheim, CA

Tim Maurer, Anaheim, CA

Natalie Blasco, Anderson, CA

Sharon Lieberman, Annapolis, CA

Melissa Brooks, Antelope, CA

Jessica Mitchell-Shihabi, Antelope, CA

John Nadolski, Antelope, CA

Leslie Clement, Antioch, CA

Lindsey Kalfsbeek, Antioch, CA

Dennis Cajas, Apple Valley, CA

Julia Deasley, Apple Valley, CA

Val Wren, Apple Valley, CA

Carol Easton, Aptos, CA

Michele Faia, Aptos, CA

Bonnie Gessler, Aptos, CA

Blaise Brockman, Arcadia, CA

Jana Harker, Arcadia, CA



Penn Patton, Arcadia, CA

Richard Wightman, Arcadia, CA

Jeannie Gunn, Arcata, CA

Connie Lindgren, Arcata, CA

Rudy Ramp, Arcata, CA

Sophie Rocheleau, Arcata, CA

Jane Spini, Arcata, CA

Kimberly Tays, Arcata, CA

Mary Finch, Aromas, CA

Barbara Frances, Aromas, CA

Paul Lapidus, Aromas, CA

Sherry Pennell, Aromas, CA

Mary Orcutt, Arroyo Grande, CA

Verona Rebow, Arroyo Grande, CA

Mary Simmons, Arroyo Grande, CA

Mitchell Falkenstern, Atascadero, CA

Tara Gonzales, Atascadero, CA

Helena Hernandez, Atascadero, CA

Kathleen Van Every, Atascadero, CA

Gabriele Miatkowski, Athens, CA

Marilyn Barthelow, Auburn, CA

Jana Boccalon, Auburn, CA

Kermit Carraway, Auburn, CA

Denise Redden, Auburn, CA

Shawn Jones, Avila Beach, CA

Jere Wilkerson, Avila Beach, CA

Silvia Rocha, Azusa, CA

Linda Alvarado, Bakersfield, CA

Jim Carnal, Bakersfield, CA

Jennifer Cartwright, Bakersfield, CA

Caryn Cowin, Bakersfield, CA

Maria Guzman, Bakersfield, CA

Steve Isenman, Bakersfield, CA

Judy Matusz, Bakersfield, CA

Tracy McCowan, Bakersfield, CA

Steve Sketo, Bakersfield, CA

Yolanda Berumen, Baldwin Park, CA

Jesse Calderon, Baldwin Park, CA

Khai Hang, Baldwin Park, CA

Vicki Sarnecki, Bangor, CA

Christopher Jennings, Banning, CA

Geneva Sherwood, Banning, CA

Linda Christenson, Beaumont, CA

Jon Sheehan, Bell Gardens, CA

Joan Alexander, Bellevue, CA

Yazmin Gonzalez, Bellflower, CA

Dennis Landi, Bellflower, CA

Jason Nolasco, Bellflower, CA

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Robert Quarrick, Benicia, CA

Rudy Zeller, Benicia, CA

Mimi Abers, Berkeley, CA

Inger Acking, Berkeley, CA

Rory Alden, Berkeley, CA

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Steve Berman, Berkeley, CA

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Janis Dairiki, Berkeley, CA

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Wendy Diamond, Berkeley, CA

Jonathan Eden, Berkeley, CA

Christopher Evans, Berkeley, CA

Mike Evans, Berkeley, CA

Ellen Franzen, Berkeley, CA

Rachel Gordon, Berkeley, CA

Caryn Graves, Berkeley, CA

Paul Gruber, Berkeley, CA

Stefanie Guynn, Berkeley, CA

D.H. Higgins, Berkeley, CA

Andrea Horbinski, Berkeley, CA

Kimi Hosoume, Berkeley, CA

Maggie Hughes, Berkeley, CA

Richard Huss, Berkeley, CA

Tasha Isolani, Berkeley, CA

Kate Kirkhuff, Berkeley, CA

Lola Leeman, Berkeley, CA

Robert Magarian, Berkeley, CA

Rachel Mayeda, Berkeley, CA

David Miotke, Berkeley, CA

Elaine Parker, Berkeley, CA

Dale Peterson, Berkeley, CA

Tawny Reynolds, Berkeley, CA

Bob Schildgen, Berkeley, CA

Wendy Stock, Berkeley, CA

Linda Tiffany, Berkeley, CA

Paul Vesper, Berkeley, CA

Jonathan Weinstock, Berkeley, CA

Stephanie Wellemeyer, Berkeley, CA

Suzanne Wood, Berkeley, CA

Scott Nelson, Bethel Island, CA

Michelle Arc, Beverly Hills, CA

Val Barri, Beverly Hills, CA

Suzi Beaton, Beverly Hills, CA

Meike Blanc, Beverly Hills, CA

Elizabeth Bona, Beverly Hills, CA

Verna Dentrey, Beverly Hills, CA

Antoinette Dusaid, Beverly Hills, CA

Sara Gernsbacher, Beverly Hills, CA

Sofia Hallgren, Beverly Hills, CA

Helen Hearfield, Beverly Hills, CA

Julia Ivanova, Beverly Hills, CA

Valeria Kobzak, Beverly Hills, CA

Kare M, Beverly Hills, CA

Rick Moffat, Beverly Hills, CA

Troy Munn, Beverly Hills, CA

Peter Nielsen, Beverly Hills, CA

Heather Parekh, Beverly Hills, CA

Allison Rensch, Beverly Hills, CA

Ken Rosen, Beverly Hills, CA

Craig Thompson, Big Bar, CA

Nancy Freedland, Big Bear City, CA



Karen Roseme, Bishop, CA

Barbara Inyan, Blairsden Graeagle, CA

Antonia Chianis, Blue Jay, CA

Pamela Dornfeld, Bodega Bay, CA

Robert Mizar, Bodega Bay, CA

Tina Ann, Bolinas, CA

Rene Flores, Bonita, CA

Leif Kristiansen, Bonita, CA

Cynthia McMath, Boonville, CA

Cristina Warren, Borrego Springs, CA

Ed Atkins, Boulder Creek, CA

Marivee Frayer, Boulder Creek, CA

Sally Fuess, Boulder Creek, CA

Karen Hillery, Boulder Creek, CA

Diane Knipe, Boulder Creek, CA

Kathryn St. John, Boulder Creek, CA

Ann Thryft, Boulder Creek, CA

Lynn Sentenn, Brea, CA

Donna Buessing, Brentwood, CA

Stephanie Glatt, Buellton, CA

D. Fachko, Buena Park, CA

Jennifer Jerlstrom, Buena Park, CA

Jessica Likens, Buena Park, CA

Nelson Molina, Buena Park, CA

Ruxandra Caranfil, Burbank, CA

Sandra Christopher, Burbank, CA

Chantal Dinnage, Burbank, CA

Olga D Grovic, Burbank, CA

Artineh Havan, Burbank, CA

Laura Herndon, Burbank, CA

Rhonda Kess, Burbank, CA

Lotti Knowles, Burbank, CA

Susan Magnus, Burbank, CA

Tyson Martin, Burbank, CA

William Mead, Burbank, CA

Tom Pitman, Burbank, CA

Ben Anderson, Burlingame, CA

Kendra Knight, Burlingame, CA

Amy Liebman, Burlingame, CA

Sam Morrison, Burlingame, CA

Laura Overmann, Burlingame, CA

Brent Woolsey, Burlingame, CA

Vivian Deutsch, Calabasas, CA

Beth Doshay, Calabasas, CA

Monica Wiesener, Calabasas, CA

David Burtis, Calistoga, CA

Scott Hester, Calistoga, CA

Macella O'Neill, Calistoga, CA

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Grace Cunningham, Camarillo, CA

Jeanette Desmond, Camarillo, CA

Cherie Garrett, Camarillo, CA

Tim Guisinger, Camarillo, CA

Susan Kittinger, Camarillo, CA

John Randle, Camarillo, CA

Charlie Tetoni, Camarillo, CA

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Julianne Dunkley, Cambria, CA

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Glenda Griffith, Cambria, CA



Lisa McGurrin, Cambria, CA

Katherine Bossange, Campbell, CA

Barbara Mason, Campbell, CA

Louise Perry, Campbell, CA

Anne Swanson, Campbell, CA

Judy Wang, Campbell, CA

George Steinitz, Campo, CA

Mark Giordani, Canoga Park, CA

Alan Johnson, Canoga Park, CA

Sheila Winston, Canoga Park, CA

Lynda Cook, Canyon Country, CA

Ramona Agin, Canyonville, CA

Tim Ryan, Capistrano Beach, CA

Matt Bender, Cardiff by the Sea, CA

Mercedes Benet, Carlsbad, CA

Angie G., Carlsbad, CA

Lois Ingber, Carlsbad, CA

Phyllis Lackey, Carlsbad, CA

Erica Murray, Carlsbad, CA

Alexa Pallas, Carlsbad, CA

Michael Parry, Carlsbad, CA

Avi Shaprut, Carlsbad, CA

Peter Brickey, Carmel, CA

Alyce Foster, Carmel, CA

Diana North, Carmel, CA

Lonni Trykowski, Carmel, CA

Julie Dalton, Carmel by the Sea, CA

Elizabeth Adan, Carmichael, CA

Nancy Bukowski, Carmichael, CA

Warren Hageman, Carmichael, CA

Lori Hubbart, Carnation, CA

Judith Falck-Madsen, Carpinteria, CA

Mary Wiener, Carpinteria, CA

G.Diane Matthews-Marcelin, Carson, CA

Lisa Tyree, Carson, CA

Gloria Aguirre, Castaic, CA

Michael Ames, Castro Valley, CA

Elisabeth Bathgate, Castro Valley, CA

Patricia Blackwell-Marchant, Castro Valley, CA

Glen Deardorff, Castro Valley, CA

Gina Gatto, Castro Valley, CA

Sue Hall, Castro Valley, CA

Pati Jio, Castro Valley, CA

Kerri McGoldrick, Castro Valley, CA

Reina Robinson, Castro Valley, CA

Greg Rosas, Castro Valley, CA

Pamela Sibley, Castro Valley, CA

Marci Spencer, Castro Valley, CA

Barbara Harper, Castroville, CA

John Hill, Castroville, CA

Sarah Sowambur, Caterham, CA

Phillip Cripps, Cathedral City, CA

Kelly Erwin, Cathedral City, CA

Hilary Simonetti, Cathedral City, CA

Stephanie Hagiwara, Cayucos, CA

Jon Anderholm, Cazadero, CA

Wallace Rhine, Cazadero, CA

James Costello, Ceres, CA

Marie Perry, Ceres, CA

Jon High, Cerritos, CA



Katherine Hsu, Cerritos, CA Karen Lull, Claremont, CA

James Lindgren, Cerritos, CA

Tanya Nieri, Claremont, CA

Cristel Cruz, Chatsworth, CA

Laurel Tucker, Claremont, CA

C Deguzman, Chatsworth, CA Erica Tyron, Claremont, CA

Lynette K Henderson, Chatsworth, CA Kathleen Love, Clearlake, CA

Sarah Suhich, Chatsworth, CA

Trina Bodine, Cloverdale, CA

Barbara Wasserman, Chatsworth, CA John Kwiatkowski, Cloverdale, CA

Garrett Alden, Chico, CA Barbara Matz, Cloverdale, CA

Paul Belz, Chico, CA

Cara Barnhill, Clovis, CA

Linda Calbreath, Chico, CA Gail Blank, Coarsegold, CA

Grace Dewar, Chico, CA Dianna Suarez, Colfax, CA

Kylee Smith, Chico, CA

Diane Hestich, Colton, CA

Steve Wolfe, Chico, CA Shakayla Thomas, Compton, CA

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Cindy Chic, Chino Hills, CA

Jennie Richards Jacob Blei, Concord, CA

Cyndee Gannon, Chino Hills, CA Eugene Jung, Concord, CA

Angela Barbee, Chula Vista, CA Susan King, Concord, CA

John Knox, Chula Vista, CA

Lisa Maker, Concord, CA

Alana-Patris Loyer, Chula Vista, CA

James R Monroe, Concord, CA

Gaby Ramirez, Chula Vista, CA

Lynette Ridder, Concord, CA

Alfa Santos, Chula Vista, CA Scott Tipton, Concord, CA

John Teevan, Chula Vista, CA

Carlene Visperas, Concord, CA

Carol Von Sederholm, Chula Vista, CA

Bonnie W, Concord, CA

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Sharon Hawkinson, Citrus Heights, CA
Shari Wildschutte, Concord, CA

Callie Riley, Citrus Heights, CA

Jane Bidinian, Cool, CA

Laura Riley, Citrus Heights, CA

Anne Spesick, Cool, CA

Brandy Schumacher, Citrus Heights, CA

Joseph White, Cool, CA

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Robert Ellwood, Claremont, CA Valerie Pelletier, Corona, CA



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Sanja Dimitrijevic, Coronado, CA

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Jennifer Lawson, Corte Madera, CA

Abigail Millikan States, Corte Madera, CA

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Rachelle Cox, Costa Mesa, CA

Michelle Fay, Costa Mesa, CA

Jacqueline Gait, Costa Mesa, CA

F. Carlene Reuscher, Costa Mesa, CA

Megan Snipes, Costa Mesa, CA

Lizzie Vierra, Costa Mesa, CA

Jane Lyon, Cotati, CA

Kelley Rico, Cottonwood, CA

Amanda Felt, Covina, CA

Wendy Monterrosa, Covina, CA

Sandy Williams, Covina, CA

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Paul Norup, Crescent City, CA

April Quigley, Crescent City, CA

Ronald Thompson, Crescent City, CA

Susannah Baxendale, Culver City, CA

Jane Nadeau, Culver City, CA

Brian Rutkin, Culver City, CA

Vi Waks, Culver City, CA

Peg Albrets, Cupertino, CA

Robert Jardine, Cupertino, CA

Helen Graham, Cypress, CA

Patricia Rudner, Cypress, CA

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Jeff Garner, Daly City, CA

Randy Gerlach, Daly City, CA

Noah H, Daly City, CA

Ramsey Jammal, Daly City, CA

Elena Orozco, Daly City, CA

Joanne Scott, Daly City, CA

Katya Siguenza, Daly City, CA

Diana Sutton, Daly City, CA

Mark Weinberger, Daly City, CA

Cheryl McCarthy, Dana Point, CA

Rick Edmondson, Danville, CA

Ramona Williams, Danville, CA

Sabrina Wong, Danville, CA

Christine K. Adams, Davis, CA

Philip Cooper, Davis, CA

Kristen Douglas, Davis, CA

Jon Erickson, Davis, CA

Sherrill Futrell, Davis, CA

Nancy Hiestand, Davis, CA

Autumn Marr, Davis, CA

Jack Milton, Davis, CA

Diane Moore, Davis, CA

Sherri Sandberg, Davis, CA

Nicole Slaton, Davis, CA

Elizabeth Hennessy Kyle, Del Mar, CA

Carol Kerridge, Del Mar, CA

Bea Cohen, Desert Hot Springs, CA

Maureen Mcdonald, Desert Hot Springs, CA

Michael McLaughlin, Desert Hot Springs, CA

Nancy Schelling, Desert Hot Springs, CA



Sarah Sultana, Desert Hot Springs, CA

Marilyn Eng, Diamond Bar, CA

Jeffrey Jenkins, Diamond Bar, CA

Seth Picker, Diamond Springs, CA

Melissa Villarreal, Dinuba, CA

Denise Russo, Discovery Bay, CA

Valerie Victorino, Discovery Bay, CA

Dan Vasile, Dodgertown, CA

Sharon Byers, Downey, CA

Michelle Fox, Downey, CA

Ivan Llata, Downey, CA

Dean Peppard, Downey, CA

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Sarah Sismondo, Duarte, CA

Juliet Flores, Dublin, CA

Nancy Nilssen, Dublin, CA

Jean Olds, Dublin, CA

Mohan Sakhrani, Dublin, CA

Anthony Totaro, Dublin, CA

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Kim Koch, El Cajon, CA

Linda Martin, El Cajon, CA

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Paul Hughes, El Cerrito, CA

Jan Jones, El Cerrito, CA

Michael Kenney, El Cerrito, CA

Robert Naumann, El Cerrito, CA

Carole Sartenaer, El Cerrito, CA

Anne Tuddenham, El Cerrito, CA

Cory Anttila, El Dorado Hills, CA

Mary Foley Foley, El Dorado Hills, CA

Karen Miner, El Dorado Hills, CA

Dorothy Pasquinelli, El Granada, CA

Susie Rose Tempesta, El Granada, CA

Terry Blount, El Segundo, CA

Matthew Lubs, El Segundo, CA

Stacy Smith, El Segundo, CA

Bruce Wimberley, El Segundo, CA

Martha Booz, El Sobrante, CA

Garth Casaday, El Sobrante, CA

Dan Cooley, El Sobrante, CA

Natasha Kaluza, El Sobrante, CA

Marsha Lowry, El Sobrante, CA

John Carroll, Elk Grove, CA

Donna Giddens, Elk Grove, CA

Shannon Kemena, Elk Grove, CA

Sumita Khanna, Elk Grove, CA

Carol Leuenberger, Elk Grove, CA

Vivian Leung, Emeryville, CA

Kaylah Sterling, Emeryville, CA

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June Evans, Encinitas, CA

Shawn Johnson, Encinitas, CA

Barbara Mintz, Encinitas, CA

Felicia Chase, Encino, CA

Lucy Hart, Encino, CA

Hillary Ostrow, Encino, CA

Andrew Russell, Encino, CA

Michael Tullius, Encino, CA

Brenda Bergstrom, Escondido, CA



Dale Crawford, Escondido, CA

Cindy Dupray, Escondido, CA

Candace Galvez, Escondido, CA

Deborah Iannizzotto, Escondido, CA

John Pasqua, Escondido, CA

Erika Porter, Escondido, CA

Peter Randolph, Escondido, CA

Ken Sanford, Escondido, CA

Joanne Tenney, Escondido, CA

Andy Tomsky, Escondido, CA

Rena Zaman-Zade, Escondido, CA

Kevin Goodwin, Eureka, CA

Mary Hurley, Eureka, CA

Edward Macan, Eureka, CA

Lynda McDaniel, Eureka, CA

Karynn Merkel, Eureka, CA

Gina Ness, Eureka, CA

Davin Peterson, Eureka, CA

Anne Pierson, Eureka, CA

Graciela Ramirez, Eureka, CA

Karen Steele, Eureka, CA

Susan Tatro, Eureka, CA

Beti Webb Trauth, Eureka, CA

Don W, Eureka, CA

C Emerson, Fair Oaks, CA

Dean Griswold, Fair Oaks, CA

Steven Holzberg, Fair Oaks, CA

John J McLaughlin Jr, Fair Oaks, CA

Sheila Nason, Fair Oaks, CA

James Sherrel, Fair Oaks, CA

Jeanne Carlson, Fairfax, CA

Cindi Darling, Fairfax, CA

Kathleen Jackson, Fairfax, CA

Gary Mononi, Fairfax, CA

Vakila ter Veld, Fairfax, CA

Samuel Durkin, Fairfield, CA

Mark Edgren, Fairfield, CA

Veronica Michael, Fairfield, CA

Jean Riehl, Fairfield, CA

Todd Musto, Fallbrook, CA

Alice Kelly, Felton, CA

Jim Franzi, Fiddletown, CA

S. Johnson, Fillmore, CA

David Brooks, Folsom, CA

Jessica Dardarian, Folsom, CA

Joan Normington, Folsom, CA

Julie Osborn, Folsom, CA

Benjamin Billhardt, Fontana, CA

James Kawamura, Fontana, CA

Trina Aurin, Foothill Ranch, CA

Janet Ju, Foothill Ranch, CA

Bob Flagg, Forestville, CA

Robert Harrison, Forestville, CA

Gilia Humrich, Forestville, CA

Eric Johnson, Fort Bragg, CA

Bill Lundeen, Fort Bragg, CA

Gary Warner, Fort Jones, CA

Dave Lyons, Fortuna, CA

Ray Bartlett, Fountain Valley, CA

Moktar Salama, Fountain Valley, CA



Mary Brooks, Frazier Park, CA

Catherine Stansell, Frazier Park, CA

Monique Soares, Freedom, CA

Elaine Chung, Fremont, CA

Lacey Hicks, Fremont, CA

Jennifer King, Fremont, CA

Janet Klein, Fremont, CA

David Lanker, Fremont, CA

Vince Lindain, Fremont, CA

Charles Modjeski, Fremont, CA

Meera P, Fremont, CA

Sharon Rodrigues, Fremont, CA

Christopher Ware, Fremont, CA

Christine Anderson, Fresno, CA

Michael Bordenave, Fresno, CA

Kyla Esqueda, Fresno, CA

Britani German, Fresno, CA

Robert Glover, Fresno, CA

Evelyn Johnson-Todd, Fresno, CA

Andrew Jones, Fresno, CA

Francine Keohi, Fresno, CA

Shawn Martinez, Fresno, CA

Nancy Mccormick, Fresno, CA

John Poss, Fresno, CA

Jacquelyn RIley, Fresno, CA

Haidie Simonet, Fresno, CA

Monica Yonangitti, Fresno, CA

John Ayala, Fullerton, CA

Donna Grampp, Fullerton, CA

Melodi Gulsen, Fullerton, CA

Lynn Hoang, Fullerton, CA

Winifred Hopkins, Fullerton, CA

Jaclyn Joy Lewis, Fullerton, CA

Evan McDermit, Fullerton, CA

Kent Morris, Fullerton, CA

Christine Doyka, Garberville, CA

Evelyn Ahumada, Garden Grove, CA

Laurie Kinnings, Garden Grove, CA

Dana May, Garden Grove, CA

Carol Tennyson, Garden Grove, CA

Deborah Burge, Garden Valley, CA

Suellen Carroll, Garden Valley, CA

Jennifer Walters, Gardena, CA

Deb Conant, Gilroy, CA

Lynne Long, Gilroy, CA

Carol Stafford, Gilroy, CA

Eleanor Decker, Glen Ellen, CA

Alejandro Artigas, Glendale, CA

A C, Glendale, CA

Carole Cooper, Glendale, CA

Barbara Cunningham, Glendale, CA

Lisa Deines, Glendale, CA

Claudia Hasenhuttl, Glendale, CA

Susi Higgins, Glendale, CA

Peter Hogan, Glendale, CA

Anita Liao, Glendale, CA

J. D. Lombardi, Glendale, CA

Jenette Paisley, Glendale, CA

Jeff Pollak, Glendale, CA

Victoria Shepherd, Glendale, CA



Rebecca Barker, Glendora, CA

Larissa Shen, Glendora, CA

Adriene Stutrud, Glenhaven, CA

Michael Beickel, Goleta, CA

Catherine Dishion Dishion, Goleta, CA

Amanda Heinrich, Goleta, CA

Martin Henderson, Goleta, CA

Kathy Kosinski, Goleta, CA

Patricia Moreno, Goleta, CA

Randall Parada, Goleta, CA

Z. Reisz, Goleta, CA

Joanna Tang, Goleta, CA

Dennis Hammermeister, Granada Hills, CA

Lisa Hammermeister, Granada Hills, CA

John Shell, Granada Hills, CA

Berna & Mark Nitzberg, Granite Bay, CA

Evette Andersen, Grass Valley, CA

Susanne Bader, Grass Valley, CA

Bonny Davis, Grass Valley, CA

Anna Drummond, Grass Valley, CA

John Everett, Grass Valley, CA

Steven Millard, Grass Valley, CA

Patricia Phillips, Grass Valley, CA

Robin Resovich, Grass Valley, CA

James Yonts, Graton, CA

Dixie Brown, Greenbrae, CA

Gordon Ehrman, Greenbrae, CA

Dennis McVey, Greenbrae, CA

Jill Mistretta, Greenbrae, CA

Joan Smith, Greenbrae, CA

Mark Escajeda, Gualala, CA

Querido Galdo, Gualala, CA

Teresa Bowden, Guerneville, CA

Russell Burke, Guerneville, CA

Kimo Cochran, Guerneville, CA

Andrea Kaufman, Guerneville, CA

Marilyn Wolters, Guerneville, CA

Arleen Zuniga, Guerneville, CA

Charles Elliott, Hacienda Heights, CA

Jean Howe, Hacienda Heights, CA

Michael Wisniewski, Hacienda Heights, CA

Debby Dernberger, Half Moon Bay, CA

Mariaelena Springsted, Half Moon Bay, CA

Amy Squires, Hawthorne, CA

Kelly Andrada, Hayward, CA

Gregory Fite, Hayward, CA

H. Gray, Hayward, CA

Rev. Jonathan Tan, Hayward, CA

Maria Daverede, Healdsburg, CA

Tessa Kraft, Healdsburg, CA

Elizabeth Rue, Healdsburg, CA

Ernst Mecke, Helsingfors, CA

Teresa Hensley, Hemet, CA

Larry LaPointe, Hemet, CA

Lily Mejia, Hemet, CA

Diane Schnitzer, Hemet, CA

Debra Shaw, Hemet, CA

Carson Yu, Hercules, CA

William Briggs, Hermosa Beach, CA

Margaret Harrell, Hermosa Beach, CA



Linda Monosmith, Hermosa Beach, CA Kelli Zusho, Irvine, CA

Tammyfa Fait, Hesperia, CA Mary Adams, Jackson, CA

Julie Knutson, Hesperia, CA J Cole, Joshua Tree, CA

Annie Phillips, Hesperia, CA Cody Dolnick, Joshua Tree, CA

Shanna Rojas, Hesperia, CA Rob Barnes, Junction City, CA

Juanita Westberg, Hesperia, CA Keith Christy, Jurupa Valley, CA

P Perry, Hidden Valley Lake, CA Vanessa Aguiar, Kelseyville, CA

Linda Albarran, Highland, CA

Janet Parks, Kensington, CA

Vanessa Kong, Hillsborough, CA Greg Nowell, Kenwood, CA

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Vicki Hughes, Huntington Beach, CA Gil Gaus, Kings Beach, CA

Audrey Mannolini, Huntington Beach, CA

Tom Feldman, La Canada Flintridge, CA

Michael McMahan, Huntington Beach, CA

John Hale, La Canada Flintridge, CA

Polly D Pitsker, Huntington Beach, CA

LouAnne Insprucker, La Canada Flintridge, CA

Fred Schloessinger, Huntington Beach, CA
Lisa Gee, La Crescenta, CA

Sheila Shane, Huntington Beach, CA Heather Parker, La Crescenta, CA

Enel Taylor, Huntington Beach, CA Barbara Poland, La Crescenta, CA

Stacie Umetsu, Huntington Beach, CA Linda Triplett, La Honda, CA

Elijah L., Huntington Park, CA Susan Mc Candless, La Jolla, CA

Sylvia Cardella, Hydesville, CA Suzi McCandless, La Jolla, CA

Jaimy Sprissler, Imperial Beach, CA Elizabeth Oliver, La Jolla, CA

Jayne Cerny, Inverness, CA Winke Self, La Jolla, CA

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Sarah Hoenicke, Irvine, CA

Judith Edwards, La Mesa, CA

Lisa Paynemiller, Irvine, CA Arthur Fink, La Mesa, CA

Tracy Shortle, Irvine, CA Steve Gross, La Mesa, CA

Shana Van Meter, Irvine, CA

Dan and Lilly Kittredge, La Mesa, CA

Teresita Vanderdys, Irvine, CA

Deborah Lancman, La Mesa, CA

Robin Weirich, Irvine, CA Cynthia McHugh, La Mesa, CA



Barbara Speidel, La Mesa, CA

Michael LaNoue, La Mirada, CA

Terrance Hutchinson, La Quinta, CA

Claudia Monahan, La Quinta, CA

Melissa Williams, La Quinta, CA

Susan Steube-Nordine, La Verne, CA

Jean Dimler, Ladera Ranch, CA

Katie Yu, Ladera Ranch, CA

Lisa Brahney, Lafayette, CA

Aaron Chan, Lafayette, CA

Nancy Hartman, Lafayette, CA

Lucinda Henderson, Lafayette, CA

Torunn Sivesind, Lafayette, CA

Blake Wu, Lafayette, CA

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Jo Baxter, Laguna Beach, CA

Suzy Capano, Laguna Beach, CA

Tiffany Casler, Laguna Beach, CA

Stacy Cornelius, Laguna Beach, CA

Anne Earhart, Laguna Beach, CA

Mirjam Luthe, Laguna Beach, CA

Robert Reed, Laguna Beach, CA

Sally Sanders, Laguna Beach, CA

Gila Wdowinski, Laguna Beach, CA

Connie Loveland, Laguna Hills, CA

Patti Mickelsen, Laguna Hills, CA

Lynne Jeffries, Laguna Niguel, CA

Erik Kemper, Laguna Niguel, CA

Melissa Waters, Laguna Niguel, CA

Maria Faur, Laguna Woods, CA

Richard Miller, Laguna Woods, CA

Kevin O'Brien, Laguna Woods, CA

Miriam Adler, Lake Balboa, CA

Travis Benneian, Lake Elsinore, CA

Kathy Engstrom, Lake Elsinore, CA

Kathy Monteleone, Lake Elsinore, CA

Julie Pearce, Lake Forest, CA

Linda Schulz, Lake Hughes, CA

Patrick Bernardino, Lakeside, CA

Mary Hicklin, Lakeside, CA

Irene Roos, Lakeside, CA

Michael Broad, Lakewood, CA

Leslie Gombrich, Lakewood, CA

Brenda Lee, Lakewood, CA

Margaret Tollner, Lakewood, CA

Kae Bender, Lancaster, CA

Suzanne Marcella Camarillo, Lancaster, CA

Stephanie Dennis, Lancaster, CA

Julia Ritter, Larkspur, CA

Valerie Nordeman, Laytonville, CA

Sharon Paltin, Laytonville, CA

Charlotte Randolph, Lee Vining, CA

Cynthia Brooks-Fetty, Lemon Grove, CA

Ked Garden, Lemon Grove, CA

Lisa Avila, Lincoln, CA

Nicole Fountain, Lincoln, CA

Sandy McFarlin, Lincoln, CA

Paula Cavagnaro, Livermore, CA

Jean King, Livermore, CA

Caroline Ko, Livermore, CA



Sally Marone, Livermore, CA

Todd Matz, Livermore, CA

Mary Perner, Livermore, CA

Laurie Sargent, Livermore, CA

Sarah Ryan, Liverpool, CA

Mari Dominguez, Lodi, CA

Elizabeth Eisenbeis, Lodi, CA

Kris Cordova, Loma Linda, CA

John Waller, Lompoc, CA

Donna Apodaca, Long Beach, CA

Kevin Bigelow, Long Beach, CA

Ian Bixby, Long Beach, CA

Frederick Cliver, Long Beach, CA

Erlinda Cortez, Long Beach, CA

Kurt Cruger, Long Beach, CA

Marie DiMassa, Long Beach, CA

Lee Eames, Long Beach, CA

Malina H, Long Beach, CA

Brenda Haig, Long Beach, CA

Rebecca Hanna, Long Beach, CA

Douglas Herrera, Long Beach, CA

Diana Kliche, Long Beach, CA

Andrew Kort, Long Beach, CA

Linda Lloyd, Long Beach, CA

Charles Lotstein, Long Beach, CA

Jane Mitchell, Long Beach, CA

Greg Perkins, Long Beach, CA

Melissa Rondilla, Long Beach, CA

Janice Sampson, Long Beach, CA

Lance Smith, Long Beach, CA

Michele Souza Zimmerman, Long Beach, CA

Melinda Taylor, Long Beach, CA

Daniel Wilkinson, Long Beach, CA

Marion Barry, Loomis, CA

Dawn Forcier, Loomis, CA

Jennifer Brooks, Los Altos, CA

Kinshuk Govil, Los Altos, CA

R. Marks, Los Altos, CA

James Patton, Los Altos, CA

Stephanie Reader, Los Altos, CA

Steven Acosta, Los Angeles, CA

Judith Antin, Los Angeles, CA

Valerie Apple, Los Angeles, CA

Soraya Barabi, Los Angeles, CA

Ann Bein, Los Angeles, CA

Jon Benneian, Los Angeles, CA

Adam Bernstein, Los Angeles, CA

Vicki Bingo, Los Angeles, CA

Paula Block-Levor, Los Angeles, CA

Deirdre Boland, Los Angeles, CA

Fabienne Bouville, Los Angeles, CA

Andrea Boyle, Los Angeles, CA

Jason Brock, Los Angeles, CA

Damon Brown, Los Angeles, CA

Robert Burk, Los Angeles, CA

Frank Burke, Los Angeles, CA

Ariel Chapman, Los Angeles, CA

William Cleary, Los Angeles, CA

Amber Cohn, Los Angeles, CA

John Crahan, Los Angeles, CA



Joseph Dadgari, Los Angeles, CA

Diana Davidson, Los Angeles, CA

Ellen Davis, Los Angeles, CA

Lesly Derbyshire, Los Angeles, CA

John DesJardin, Los Angeles, CA

Laura Divenere, Los Angeles, CA

Robert Drummond, Los Angeles, CA

Isabelle Du Soleil, Los Angeles, CA

Chris Eaton, Los Angeles, CA

Jason Eric, Los Angeles, CA

Gail Farina, Los Angeles, CA

Aixa Fielder, Los Angeles, CA

Alexander Fierro-Clarke, Los Angeles, CA

Thomas Fitzgerald, Los Angeles, CA

Sara Flamm, Los Angeles, CA

Reanna Flores, Los Angeles, CA

Darren Frale, Los Angeles, CA

Mark Gallegos, Los Angeles, CA

Kay Gallin, Los Angeles, CA

Julie Garcia, Los Angeles, CA

Enrica Gaspari, Los Angeles, CA

Patricia Gavigan, Los Angeles, CA

Janna Gelfand, Los Angeles, CA

Karen Ruth Getchell, Los Angeles, CA

Mary Glazer, Los Angeles, CA

Prisca Gloor, Los Angeles, CA

Luna Gooding, Los Angeles, CA

Carol Gordon, Los Angeles, CA

Steve Graff, Los Angeles, CA

Susan Grant, Los Angeles, CA

emma-louise hayley, Los Angeles, CA

Carla Holguin, Los Angeles, CA

Celeste Hong, Los Angeles, CA

Ted Hume, Los Angeles, CA

Elizabeth Johansen, Los Angeles, CA

Saran K., Los Angeles, CA

Kaija Keel, Los Angeles, CA

Sabrina Kemeny, Los Angeles, CA

Schuyler Kent, Los Angeles, CA

Mha Atma S Khalsa, Los Angeles, CA

Leslie Klein, Los Angeles, CA

Shirlee Kong, Los Angeles, CA

Anita Kuhn, Los Angeles, CA

David Kurz, Los Angeles, CA

Diane Lamont, Los Angeles, CA

Edward Landler, Los Angeles, CA

Kenneth Lapointe, Los Angeles, CA

Seth Laursen, Los Angeles, CA

Yolanda Leaird, Los Angeles, CA

Barbara Leake, Los Angeles, CA

Patricia Lewis, Los Angeles, CA

Andrea Lieberman, Los Angeles, CA

Adrian Loeb, Los Angeles, CA

Alexandria Luostari, Los Angeles, CA

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Pamela Magathan, Los Angeles, CA

Eugene Majerowicz, Los Angeles, CA

Stephen Markel, Los Angeles, CA

Tina Markowe, Los Angeles, CA

Patricia Marlatt, Los Angeles, CA



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Alexandra McCardell, Los Angeles, CA

Karen McCaw, Los Angeles, CA

Robert Meier, Los Angeles, CA

Myron Meisel, Los Angeles, CA

Tony Mendoza, Los Angeles, CA

Barbara Mesney, Los Angeles, CA

Helen Miller, Los Angeles, CA

Deimile Mockus, Los Angeles, CA

Maria Molund, Los Angeles, CA

Erica Munn, Los Angeles, CA

Joan Murray, Los Angeles, CA

Melvyn Nefsky, Los Angeles, CA

Frank Ortiz, Los Angeles, CA

Maaya Ota, Los Angeles, CA

Attilio Pandolfo, Los Angeles, CA

Margaret Phelps, Los Angeles, CA

Patti Pimento, Los Angeles, CA

Samuel Popailo, Los Angeles, CA

Kalpana Pot, Los Angeles, CA

Louis Priven, Los Angeles, CA

Brianda Puig, Los Angeles, CA

Sara Rabbani, Los Angeles, CA

Joseph Rinaldo, Los Angeles, CA

Araeia Robinson, Los Angeles, CA

Candace Rocha, Los Angeles, CA

Roni Rogers, Los Angeles, CA

Flora Rosas, Los Angeles, CA

Rina Rubenstein, Los Angeles, CA

Nicholas Rulli, Los Angeles, CA

Susan Ryan, Los Angeles, CA

Dalia Salgado, Los Angeles, CA

Antoinette Samardzic, Los Angeles, CA

Tom Sanchez, Los Angeles, CA

Benjamin Schlau, Los Angeles, CA

Mariam Shah-Rais, Los Angeles, CA

Joshua Stamberg, Los Angeles, CA

Mark Stannard, Los Angeles, CA

Neal Steiner, Los Angeles, CA

Audrey Stern, Los Angeles, CA

Stephen Stone, Los Angeles, CA

Patricia Strauss, Los Angeles, CA

Laura Strom, Los Angeles, CA

Amy Sullivan, Los Angeles, CA

Janice Tanaka, Los Angeles, CA

Tevet Tee, Los Angeles, CA

Cathy Thornburn, Los Angeles, CA

Glenna Traiger, Los Angeles, CA

Ivy Tran, Los Angeles, CA

Tia Triplett, Los Angeles, CA

Craig Tyron, Los Angeles, CA

Kimberly Uchida, Los Angeles, CA

Alexandra Vese, Los Angeles, CA

Virginia Watson, Los Angeles, CA

Lynne Weiske, Los Angeles, CA

R Wells, Los Angeles, CA

Neil Withnall, Los Angeles, CA

Chris Withrow, Los Angeles, CA

Amy Wolfberg, Los Angeles, CA

Kelly Wright, Los Angeles, CA



Mark Yackley, Los Angeles, CA

Kyle Yaskin, Los Angeles, CA

Anita Youabian, Los Angeles, CA

Esther Zepeda, Los Angeles, CA

Jan Albertie, Los Banos, CA

Judy Dutil, Los Gatos, CA

Thomas Ferrito, Los Gatos, CA

Rea Freedom, Los Gatos, CA

Lisa Gherardi, Los Gatos, CA

Theresa Gonzalez, Los Gatos, CA

Ron and Sandra Harder, Los Gatos, CA

Steven Hayashi, Los Gatos, CA

Rick Koury, Los Gatos, CA

Angela LaPlante, Los Gatos, CA

Joyce Schellenberg, Los Gatos, CA

Katie Franklin, Los Osos, CA

Susan S. Jones, Los Osos, CA

Leslie Spoon, Los Osos, CA

Kevin Branstetter, Lotus, CA

Lori White, Lower Lake, CA

Judy Madigan, Loyalton, CA

Yves DeCargouet, Lucerne, CA

Grace Bell, Mablethorpe, CA

Angela Price, Madera, CA

Deborah Collodel, Malibu, CA

Kelly Kessl, Malibu, CA

Lynne Miller, Malibu, CA

Rob Seltzer, Malibu, CA

Louis Spirito, Malibu, CA

Jimy Tallal, Malibu, CA

Kelly Tiefen, Malibu, CA

Loretta Tiefen, Malibu, CA

Patricia Savage, Mammoth Lakes, CA

D.G. Sifuentes, Mammoth Lakes, CA

Thomas Conroy, Manhattan Beach, CA

Karla Devine, Manhattan Beach, CA

Dan Esposito, Manhattan Beach, CA

Kathleen Goldman, Manhattan Beach, CA

Marisa Landsberg, Manhattan Beach, CA

Alice Neuhauser, Manhattan Beach, CA

Jennifer Yamamoto, Manhattan Beach, CA

James Liu, Manteca, CA

Jim Ricketts, Manteca, CA

MaryAnn Bomarito, Marina, CA

Creda Markham, Marina, CA

Susanne Cumming, Marina Del Rey, CA

Alexander Dunaev, Marina Del Rey, CA

Renee Klein, Marina del Rey, CA

Amanda Skerski, Marina del Rey, CA

Benjamin Teitelbaum, Marina Del Rey, CA

Judith Turner, Marina del Rey, CA

Bobbie Cavazos, Mariposa, CA

Gabriel Sheets, Mariposa, CA

Burney Stephens, Mariposa, CA

Scott Mason, Martinez, CA

Charlotte Sines, Martinez, CA

Betty Mello, Marysville, CA

Denise Comiskey, McKinleyville, CA

Robin Hamlin, McKinleyville, CA

Francesca Ciancutti, Mendocino, CA



Raven Deerwater, Mendocino, CA

John Wozniak, Mendocino, CA

Susan Alpern, Menifee, CA

Rob Gallinger, Menifee, CA

Pam Overholtzer, Menifee, CA

Michael Braude, Menlo Park, CA

Rebecca Eliscu, Menlo Park, CA

Connie Habash, Menlo Park, CA

Vickie Rozell, Menlo Park, CA

Carol Ohsiek, Middletown, CA

Alex Levine, Mill Valley, CA

Liz Marshall, Mill Valley, CA

Roberta Newman, Mill Valley, CA

Norman Pacula, Mill Valley, CA

Marilyn Price, Mill Valley, CA

Leonie Terfort, Mill Valley, CA

Gisella Castelluccio, Millbrae, CA

Jan Castle, Millbrae, CA

Richard Reale, Millbrae, CA

Mary Maher, Milpitas, CA

Denise Henyard, Mira Loma, CA

Rose Kabir, Mira Loma, CA

Rosa Strayer, Mira Loma, CA

Peggy Skomal, Mission Hills, CA

Denise Meadow, Mission Viejo, CA

Rochelle Phillips, Mission Viejo, CA

Carolyn Rhazi, Mission Viejo, CA

Robin Loewen, Modesto, CA

Linda Pemberton, Modesto, CA

Michelle Setaro, Modesto, CA

Christy Bolle, Monrovia, CA

Angela Galgocz, Monrovia, CA

Robert Ricewasser, Monrovia, CA

Heather Crow, Montague, CA

Samuel Dickson, Montara, CA

Jeanette Leinweber, Monte Rio, CA

Kristen Beck, Monterey, CA

Zoe Edington, Monterey, CA

Deb Federin, Monterey, CA

William Hubick, Monterey, CA

Patrick Maiorana, Monterey, CA

Shirley Tofte, Monterey, CA

Fiona Webb, Monterey, CA

Dave Whipple, Monterey, CA

Steve Tuttle, Monterey Park, CA

Karen Drake, Montrose, CA

Cheri Bly, Moorpark, CA

Thomas Filip, Moorpark, CA

Susie Gutowitz, Moorpark, CA

Marti Jurick, Moorpark, CA

Erica Ponce, Moorpark, CA

Art Stelair, Moorpark, CA

Kathryn Choudhury, Moraga, CA

Heidi Groom, Moreno Valley, CA

Christian Reyes, Moreno Valley, CA

Ilya Turov, Moreno Valley, CA

Greg Winton, Moreno Valley, CA

J.T. Averre, Morgan Hill, CA

Daniel Lebus, Morgan Hill, CA

Nannette Morgan, Morgan Hill, CA



Anita Manley, Morro Bay, CA

Tina Wener, Morro Bay, CA

Michelle Santy, Moss Beach, CA

Jim Curland, Moss Landing, CA

Greg D, Mount Shasta, CA

Cynthia Marconi, Mount Shasta, CA

Bill Wood, Mount Shasta, CA

Charles Fletcher, Mountain Center, CA

Caroline Bering, Mountain View, CA

Cyril Bouteille, Mountain View, CA

Christopher Cain, Mountain View, CA

Kermit Cuff, Mountain View, CA

Karin Jeffery, Mountain View, CA

Victoria Keoleian, Mountain View, CA

Ben Martin, Mountain View, CA

Rosa Bravo, Murrieta, CA

Dawn Burrell, Murrieta, CA

Daniel Davis, Murrieta, CA

Loan Nguyen, Murrieta, CA

Arianna Walsh, Murrieta, CA

Janet Wheeler, Murrieta, CA

Elizabeth Woodward, Murrieta, CA

Jan Gates, Napa, CA

Catherine George, Napa, CA

Charesa Harper, Napa, CA

Kathy Linale, Napa, CA

Robyn Little, Napa, CA

Katharine Mawer, Napa, CA

Barry Schwartz, Napa, CA

Evelyn Trevethan, Napa, CA

Susan Wheaton, Napa, CA

Ree Whitford, Napa, CA

Jim Wilson, Napa, CA

Dana Monroe, National City, CA

Micki Besancon, Nevada City, CA

Terry Charonnat, Nevada City, CA

Joan Griffin, Nevada City, CA

Judie Rae, Nevada City, CA

Glenn Smith, Nevada City, CA

Maureen Fry, Newark, CA

John Hawkins, Newbury Park, CA

Percy Hicks-Severn, Newbury Park, CA

Nemo Howton, Newbury Park, CA

Rodney Love, Newbury Park, CA

Joyce McIntire, Newbury Park, CA

Beth Merrill, Newbury Park, CA

Nicole Mikals, Newbury Park, CA

Matthew Page, Newbury Park, CA

Kathleen Pierce, Newbury Park, CA

Tracey Sands, Newbury Park, CA

Cindy Stein, Newbury Park, CA

Heidi Taylor, Newbury Park, CA

Jill Wiechman, Newbury Park, CA

Paula Willebrands, Newbury Park, CA

Kathrine Fegette, Newcastle, CA

Joan Peter, Newhall, CA

Alan Yamamoto, Newhall, CA

Elizabeth Edwards, Newport Beach, CA

Steve Iverson, Newport Beach, CA

Vic Paglia, Newport Beach, CA



Stephanie Aston, North Hills, CA

Janice Baxter, North Hills, CA

Christopher Geukens, North Hills, CA

Marian Gould, North Hills, CA

Jim Leske, North Hills, CA

Heidi Miller, North Hills, CA

Natalie Aharonian, North Hollywood, CA

Marilyn Carney, North Hollywood, CA

Kathleen Culp, North Hollywood, CA

Tracy Elliott, North Hollywood, CA

Fred Granlund, North Hollywood, CA

Larry Jasper, North Hollywood, CA

Cathy Kraus, North Hollywood, CA

Michael Marciano, North Hollywood, CA

Stu Nichols, North Hollywood, CA

Manuela Rollins, North Hollywood, CA

Grace Silva, North Hollywood, CA

Judith Vogelsang, North Hollywood, CA

Roslyn Jones, North Palm Springs, CA

Robert Chirpin, Northridge, CA

Lori Dixon, Northridge, CA

Ann Dorsey, Northridge, CA

Gail Camhi, Novato, CA

Mike Cass, Novato, CA

Hillary Davis, Novato, CA

Ian Dogole, Novato, CA

Gary Dowling, Novato, CA

Bonnie Grossman, Novato, CA

Toni Kim, Novato, CA

Lisa Moreno, Novato, CA

H. S. Nadler, Novato, CA

Robert Ortiz, Novato, CA

Thomas Ray, Novato, CA

Jay Rice, Novato, CA

Sheri Rollison, Novato, CA

Arlene Van Craeynest, Novato, CA

Marilyn Wada, Novato, CA

Greg Mull, Oak View, CA

Tree Wright, Oak View, CA

Claire Chambers, Oakdale, CA

John Fitzpatrick, Oakhurst, CA

Dee Allen., Oakland, CA

Jane Armbruster, Oakland, CA

Clara Bargellini, Oakland, CA

Rachel Beck, Oakland, CA

Richard Behrman, Oakland, CA

Julia Benson, Oakland, CA

Esther Boyd, Oakland, CA

Mary Ann Cramer, Oakland, CA

Judith E, Oakland, CA

Stan Fitzgerald, Oakland, CA

Dr A G, Oakland, CA

Rick Gaston, Oakland, CA

Rogelio Giron, Oakland, CA

Ruby Giron-Carson, Oakland, CA

MaryAnne Glazar, Oakland, CA

John Golding, Oakland, CA

Christiana Hart, Oakland, CA

Susan Herting, Oakland, CA

Sterling Hollins, Oakland, CA



Monika Holm, Oakland, CA

Kuanmei Huang, Oakland, CA

Allison Jones, Oakland, CA

Sara Katz, Oakland, CA

Paul Koehler, Oakland, CA

Laakea Laano, Oakland, CA

Jesus M. Maldonado, Oakland, CA

Heather McHugh, Oakland, CA

Caephren McKenna, Oakland, CA

Vasu Murti, Oakland, CA

April Parkins, Oakland, CA

Nancy Paskowitz, Oakland, CA

Rashid Patch, Oakland, CA

Nora Privitera, Oakland, CA

Christine Ranney, Oakland, CA

Ken Rice, Oakland, CA

Evelyn Riche, Oakland, CA

Clifford Robinson, Oakland, CA

Kate S, Oakland, CA

Rondi Saslow, Oakland, CA

Roberta Schear, Oakland, CA

Lesley Schultz, Oakland, CA

Ellen Schwartz, Oakland, CA

Karin Seid, Oakland, CA

Judith Smith, Oakland, CA

Leslie Smith, Oakland, CA

Martin Snapp, Oakland, CA

Madeline Stacy, Oakland, CA

Maria Steinmann, Oakland, CA

Kathleen Tandy, Oakland, CA

Nancy Taylor, Oakland, CA

Michele Tusinac, Oakland, CA

Pablo Voitzuk, Oakland, CA

Kim Walker, Oakland, CA

David Wasley, Oakland, CA

Gwen Weil, Oakland, CA

John Wills, Oakland, CA

Amy Zink, Oakland, CA

James TRUE, Oakland, CA

Molly Mendez, Oakley, CA

Robert Spotts, Oakley, CA

Longwillow Fudemberg, Occidental, CA

Sharon Mulkey, Oceano, CA

Charles Alger, Oceanside, CA

Kelly Brannigan, Oceanside, CA

Sarada Cleary, Oceanside, CA

Cynthia Davenport, Oceanside, CA

Darcy Duval, Oceanside, CA

Andrea Ferrari, Oceanside, CA

Tina Garner, Oceanside, CA

Cathy Gentry, Oceanside, CA

Holly Gilzow, Oceanside, CA

Alexis Grone, Oceanside, CA

Ronnie Huber, Oceanside, CA

Charlene Kerchevall, Oceanside, CA

Sherry Marsh, Oceanside, CA

Tamara Taunt, Oceanside, CA

Paula Thompson, Oceanside, CA

Carol Wanat, Oceanside, CA

Lisa Adair, Ojai, CA



Janine Comrack, Ojai, CA

Donna Freiermuth, Ojai, CA

Kathleen Medina, Ojai, CA

Valerie Shideler, Olivehurst, CA

Kelly Ayers, Ontario, CA

Valerie Carrick, Ontario, CA

Claudia Cook, Ontario, CA

Ron P, Ontario, CA

Lynn Baldini, Orange, CA

Ms Courtney, Orange, CA

Alexis Merz, Orange, CA

Raven Davis-King, Orangevale, CA

Nancy Polito, Orangevale, CA

Lucy Henderson, Orinda, CA

Patricia Moloney, Orinda, CA

Lori Bates, Oxnard, CA

Lynne Boyle, Oxnard, CA

Peggy Brown, Oxnard, CA

Angela C Embree, Oxnard, CA

Maree Penhart, Oxnard, CA

Barbara Piszczek, Oxnard, CA

April Toller, Oxnard, CA

Carolyn Boydston, Pacific Grove, CA

Gary Goetz, Pacific Grove, CA

Melissa Hutchinson, Pacific Grove, CA

Melissa Lippincott, Pacific Grove, CA

Celia Stauty Luis, Pacific Grove, CA

Jane Crist, Pacific Palisades, CA

Jake Gutman, Pacific Palisades, CA

Shannon Rhoades, Pacific Palisades, CA

Beth Schlaff, Pacific Palisades, CA

Ian Silverstein, Pacific Palisades, CA

Kathy Bede, Pacifica, CA

Brian Casey, Pacifica, CA

Ana Herold, Pacifica, CA

Deanna Nielsen, Pacifica, CA

Dita Ã.. kaliÃ,, •, Palm Desert, CA

Alexia Valdora, Palm Desert, CA

Sandra Kanela Barton, Palm Springs, CA

Michael Biers, Palm Springs, CA

Vito Degrigoli, Palm Springs, CA

Wayne Fellabaum, Palm Springs, CA

Fran $\tilde{A}f$ $\tilde{A}f$

 $f \tilde{A} f \tilde{A} f$ May, Palm Springs, CA

Bill McCarthy, Palm Springs, CA

Bill Munce, Palm Springs, CA

Maryellen Redish, Palm Springs, CA

Vivian Vaught, Palm Springs, CA

Mario Magpale, Palmdale, CA

Therese Ryan, Palmdale, CA

Karen Weston, Palmdale, CA

Debra Y, Palmdale, CA

Jaye Bergen, Palo Alto, CA

Jordan Briskin, Palo Alto, CA

Edward Cavasian, Palo Alto, CA

Ana Chou, Palo Alto, CA

Sheila Gholson, Palo Alto, CA

Nancy Leech, Palo Alto, CA

Marilyn Levine, Palo Alto, CA

Mary Lou Meeks, Palo Alto, CA



David Perry, Palo Alto, CA

Sara Van Dusen, Palo Alto, CA

Jan Gardner, Palos Verdes Peninsula, CA

Tajie Major, Palos Verdes Peninsula, CA

Sonia Noemi Cross, Paradise, CA

Marcie Ligammari, Paradise, CA

Joan Aebi, Pasadena, CA

Claude Alexander, Pasadena, CA

Cheryl Auger, Pasadena, CA

Linda B., Pasadena, CA

Catherine Beauchamp, Pasadena, CA

Darrell Clarke, Pasadena, CA

Linc Conard, Pasadena, CA

Richard Kornfeld, Pasadena, CA

Frances Liau, Pasadena, CA

Diane Miller, Pasadena, CA

Allison Moffett, Pasadena, CA

Jacqueline Pineda, Pasadena, CA

Charles Roth, Pasadena, CA

Pete Sloman, Pasadena, CA

Geoffrey Symcox, Pasadena, CA

Erinn Todd, Pasadena, CA

Susan Walp, Pasadena, CA

Joan Wickham, Pasadena, CA

Molly Bennett, Paso Robles, CA

Gail Ryland, Pebble Beach, CA

Mike Pasner, Penn Valley, CA

Jamie Sawtell, Penn Valley, CA

James Woods, Penn Valley, CA

Ernesto Marquez, Perris, CA

Chanda Scelsi, Perris, CA

M. Atkinson, Petaluma, CA

Arlene Baker, Petaluma, CA

Stephanie Charles, Petaluma, CA

Jerry Cook, Petaluma, CA

Stacey DeGooyer, Petaluma, CA

Wendy Denny, Petaluma, CA

Patti Fink, Petaluma, CA

Jamila Garrecht, Petaluma, CA

Diane Gentile, Petaluma, CA

Phoenix Giffen, Petaluma, CA

Elfi Gilford, Petaluma, CA

Michelle Letellier, Petaluma, CA

Ingeborg MacKay, Petaluma, CA

Annette Raible, Petaluma, CA

Chris Rose, Petaluma, CA

Gabrielle Swanberg, Petaluma, CA

Dennis Zerbo, Petaluma, CA

Barbara Wright, Phelan, CA

Susan Hathaway, Pico Rivera, CA

Philip Patino, Pico Rivera, CA

Peggy Holmes, Pinole, CA

Joan Nygaard, Pinole, CA

Carol Oller, Pinole, CA

Bob Leppo, Pismo Beach, CA

Randall Voss, Pismo Beach, CA

Dennis Young, Pismo Beach, CA

Annette Benton, Pittsburg, CA

Candy Bowman, Placerville, CA

Mike Rolbeck, Placerville, CA



Paulette Doulatshahi, Playa Del Rey, CA

Yvonne Fisher, Playa del Rey, CA

Barrett Braun, Pleasant Hill, CA

Mike Cluster, Pleasant Hill, CA

Joan Merrill, Pleasant Hill, CA

Francesca Rago, Pleasant Hill, CA

Deborah Santone, Pleasant Hill, CA

Renee Snyder, Pleasant Hill, CA

Barbara Norton, Pleasanton, CA

Daniel O'Brien, Pleasanton, CA

Urmila Padmanabhan, Pleasanton, CA

Vicki Tomola, Point Arena, CA

Twyla Meyer, Pomona, CA

Jenny Perez, Pomona, CA

Roxann Schaubhut, Pope Valley, CA

Veronica Goode, Porter Ranch, CA

Linda Bresnan, Portola Valley, CA

Karin Eckelmeyer, Portola Valley, CA

Mike Davis, Posey, CA

Joyce Heyn, Poway, CA

Kim Yirak, Poway, CA

Faith Strailey, Quincy, CA

Laura Bagley, Ramona, CA

Tammy Bullock, Ramona, CA

Don Miller, Ramona, CA

Nancy Hunter, Rancho Cordova, CA

Miriam Baum, Rancho Cucamonga, CA

Linda Bourg, Rancho Cucamonga, CA

Frederick Hamilton, Rancho Cucamonga, CA

Heidi Palmer, Rancho Cucamonga, CA

Judy Bradford, Rancho Palos Verdes, CA

Melina Paris, Rancho Palos Verdes, CA

Lin Penrose, Rancho Palos Verdes, CA

Linda Webb, Rancho Palos Verdes, CA

Andrea Abney, Rancho Santa Fe, CA

Alison Bassell, Rancho Santa Margarita, CA

Jack Schwartz, Receeda, CA

Cherie Gans, Redding, CA

Michael Koterba, Redding, CA

Harriet Miller, Redding, CA

Wayne Steffes, Redding, CA

Marianna Vanderklift, Redding, CA

Andrea Dixon, Redlands, CA

Carol Lynne Eyster, Redlands, CA

Sean Hagstrom, Redlands, CA

Doug Bender, Redondo Beach, CA

Laurel Cameron, Redondo Beach, CA

Michael Cavanaugh, Redondo Beach, CA

Maria Corvalan, Redondo Beach, CA

F. R. Eguren, Redondo Beach, CA

Glenn Embrey, Redondo Beach, CA

Stephane Ernoux, Redondo Beach, CA

Richard Esposito, Redondo Beach, CA

Kris Gata, Redondo Beach, CA

Amrit Khalsa, Redondo Beach, CA

M Montenegro, Redondo Beach, CA

Alie Rowen, Redondo Beach, CA

Anne M. Van Alstyne, Redondo Beach, CA

Jeri Fergus, Redway, CA

Erin Gellman, Redway, CA



Juliann Berman, Redwood City, CA

Michael House, Redwood City, CA

Lisa Jensen, Redwood City, CA

Tom Johnson, Redwood City, CA

Judith Kirk, Redwood City, CA

Thalia Lubin, Redwood City, CA

Chris Ouedec, Redwood City, CA

Robert Page, Redwood City, CA

Audrey Quintero, Redwood City, CA

Rush Rehm, Redwood City, CA

Margaret Rogers, Redwood City, CA

John West, Redwood City, CA

Joleen Siebert, Reedley, CA

Jl Angell, Rescue, CA

Rosa Baeza, Reseda, CA

Silvana Garcia, Reseda, CA

Carlos Nunez, Reseda, CA

Rachel Perlman, Reseda, CA

Tracy Gilbert, Rialto, CA

Vincent Bausano, Richmond, CA

Michael Eichenholtz, Richmond, CA

Melanie Hassel, Richmond, CA

Gail Jarocki, Richmond, CA

Kris Johnson Michiels, Richmond, CA

Peggy Mocine, Richmond, CA

Anne Oklan, Richmond, CA

Christine Peterson, Richmond, CA

Christine Peterson, Richmond, CA

Susan Archibald, Ridgecrest, CA

Penelope LePome, Ridgecrest, CA

Mary Loyd Shell, Ridgecrest, CA

Nancy Robinson, Ridgecrest, CA

Cheryl Davis, Rio Linda, CA

Tina Arnold, Rio Vista, CA

Susan Worden, Rio Vista, CA

Bonnie Arbuckle, Riverbank, CA

Sherry Fatzinger, Riverside, CA

Carolann Johnson, Riverside, CA

Harry Knapp, Riverside, CA

Abraham Oboruemuh, Riverside, CA

Henry Rosenfeld, Riverside, CA

Natacha Lascano, Rocklin, CA

Daniel McKeighen, Rocklin, CA

Vanessa Quintero, Rodeo, CA

Jeannie Boyd, Rohnert Park, CA

Elaine Cook, Rohnert Park, CA

Shannon Montoya, Rohnert Park, CA

Kyle Young, Rosamond, CA

Bob McCleary, Roseville, CA

Kevin Pierson, Roseville, CA

Lisa Steele, Roseville, CA

Julie Stinchcomb, Roseville, CA

Pat Thompson, Roseville, CA

Sandra Thompson, Roseville, CA

Dee Warenycia, Roseville, CA

Ann Wasgatt, Roseville, CA

Vicki L Smith, Running Springs, CA

James Adams, Sacramento, CA

Wayne Anderson, Sacramento, CA

Judith Anshin, Sacramento, CA



James Ashcraft, Sacramento, CA

Jennifer Bair, Sacramento, CA

Mark Allan Barath, Sacramento, CA

M Bennett, Sacramento, CA

Robert Boughton, Sacramento, CA

Maureen Burness, Sacramento, CA

Kimberly Carona, Sacramento, CA

Brendan Chan, Sacramento, CA

Sandy Commons, Sacramento, CA

BethAnn Coombs, Sacramento, CA

Deborah Cosentino, Sacramento, CA

Jim Deneff, Sacramento, CA

Cindy Ferguson, Sacramento, CA

Gilda Fusilier, Sacramento, CA

Camile Getter, Sacramento, CA

LuAnn Glatzmaier, Sacramento, CA

Susan Hood, Sacramento, CA

Karen Jacques, Sacramento, CA

Linda Karp, Sacramento, CA

Lily Lau-Enright, Sacramento, CA

Rebecca Martin, Sacramento, CA

Michael McGowan, Sacramento, CA

Marshal McKitrick, Sacramento, CA

Esther Mooncrest, Sacramento, CA

Dorothea Morgenstern, Sacramento, CA

Sharon Nicodemus, Sacramento, CA

Rosalind O'Brien, Sacramento, CA

Sheri Opp, Sacramento, CA

Joyce Ownbey, Sacramento, CA

Jana Perinchief, Sacramento, CA

Judith Poxon, Sacramento, CA

Penny Redman, Sacramento, CA

Susan Riseman, Sacramento, CA

LeAne Rutherford, Sacramento, CA

Gail Ryall, Sacramento, CA

Joseph Sebastian, Sacramento, CA

Aaron Stroh, Sacramento, CA

Erh-Yen To, Sacramento, CA

Tami Trearse, Sacramento, CA

Ellen Tubbs, Sacramento, CA

Jillian Unger, Sacramento, CA

Cara Vallot, Sacramento, CA

Lori White, Sacramento, CA

Kenneth Wilcox, Sacramento, CA

Bobbie Zawkiewicz, Sacramento, CA

Elizabeth Novak Milliken, Saint Helena, CA

Gerard Sewell, Saint Helena, CA

Alfred Gonzales, Salinas, CA

Lauren Keenan, Salinas, CA

Merlin Wilson, Salinas, CA

Alison Buist, San Anselmo, CA

Loren Carjulia, San Anselmo, CA

Ilene Malt, San Anselmo, CA

Renee Schofield, San Anselmo, CA

Herman Waetjen, San Anselmo, CA

C Leonard, San Bernardino, CA

Alicia Lomeli, San Bernardino, CA

Modell McEntire, San Bernardino, CA

Pamela Rogers, San Bernardino, CA

Pam Thomas-Hill, San Bernardino, CA



Eileen Cassidy, San Bruno, CA Elaine Durson, San Diego, CA

Luci Evanston, San Bruno, CA Cheryl Elkins, San Diego, CA

Elisse De Sio, San Carlos, CA Patricia J Flaherty, San Diego, CA

Kate Elsley, San Carlos, CA

Joan Fulton, San Diego, CA

Sharon Gong, San Carlos, CA Bruce Gardner, San Diego, CA

George Ruiz, San Carlos, CA Sharon Gaudette-Hieserich, San Diego, CA

Teri Yazdi, San Carlos, CA Michelle Grimes, San Diego, CA

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Robin Halliday, San Diego, CA

Suzanne Narducy, San Clemente, CA David Haskins, San Diego, CA

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Matt Reola, San Clemente, CA Mari Huff, San Diego, CA

Beth Rumph, San Clemente, CA Michael A. Johnston, San Diego, CA

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Terri Wiley, San Clemente, CA Diane Krell-Bates, San Diego, CA

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Cheryl Berkey, San Diego, CA
Patricia Law, San Diego, CA

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Debra Winthrop, San Diego, CA

Tansy Woods, San Diego, CA

Allen Yarowsky, San Diego, CA

Ken Young, San Diego, CA

Ray Ziegler, San Diego, CA

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Kathleen Bouvier, San Francisco, CA

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Luz Cobarrubias, San Francisco, CA

Sandi Covell, San Francisco, CA

Sarah Date, San Francisco, CA



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Sue Andarmani, San Jose, CA

Murielle Antoku, San Jose, CA

Thomas Arnold, San Jose, CA

Teresa Awtrey, San Jose, CA

Tim Barrington, San Jose, CA

Allan Campbell, San Jose, CA

Manou Cassel, San Jose, CA

Beng Chiu, San Jose, CA

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Ted Fishman, San Jose, CA

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Charlene Garcia, San Jose, CA

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Elaine Gould, San Jose, CA

Michael Hazelton, San Jose, CA

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Paula Kerrebijn, San Jose, CA

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Singgih Tan, San Jose, CA

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Susan Urang, San Jose, CA

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Gloria Eive, San Leandro, CA

Linda Gee, San Leandro, CA

Roberta LaFrance, San Leandro, CA

John Moreau, San Leandro, CA

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Sharon Rheingans, San Luis Obispo, CA

Nancy Walter, San Luis Obispo, CA

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Dianne Christ, San Marcos, CA

Laura Dufel, San Marcos, CA

Randy Gray, San Marcos, CA

Teri Kelly, San Marcos, CA

John Maxwell, San Marcos, CA

Joan Quinn, San Marcos, CA

Lois Ruble, San Marcos, CA

Brooke Scruggs, San Marcos, CA

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Evan Josa, San Mateo, CA

Evelyn Newman, San Mateo, CA

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Mariano Svidler, San Mateo, CA

Leyza Yardley, San Mateo, CA

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Petrina Long, San Pedro, CA

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Sandy Suttton, Santa Barbara, CA

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Bill Woodbridge, Santa Barbara, CA

Theresa Yandell, Santa Barbara, CA

Friend Friend, Santa Clara, CA

Alexis Georgiou, Santa Clara, CA

Kim Messmer, Santa Clara, CA

Judy Rees, Santa Clara, CA

Mushtaq Syed, Santa Clara, CA

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James McKelvey, Santa Clarita, CA

John Paladin, Santa Clarita, CA

David Soto, Santa Clarita, CA

Anita Wisch, Santa Clarita, CA

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Leslie Andrews, Santa Cruz, CA

Joyce Banzhaf, Santa Cruz, CA

Milo Barisof, Santa Cruz, CA

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Elaine Boles, Santa Cruz, CA

Martha Carrington, Santa Cruz, CA

Michael Cooper, Santa Cruz, CA

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MarianKitty Dennis, Santa Cruz, CA

Richard Gallo, Santa Cruz, CA

Barbara Ginsberg, Santa Cruz, CA

Bruce Grobman, Santa Cruz, CA

Jacob Huskey, Santa Cruz, CA

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Lizann Keyes, Santa Cruz, CA

Mary Kuntz-Cote, Santa Cruz, CA

Kevin Manning, Santa Cruz, CA

Karsten Mueller, Santa Cruz, CA

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Vivienne Orgel, Santa Cruz, CA

David Pierotti, Santa Cruz, CA

Elizabeth Potts, Santa Cruz, CA

David Ross, Santa Cruz, CA

Emmanuel Ross Hartway, Santa Cruz, CA

Lynda Sierra, Santa Cruz, CA

Bret Smith, Santa Cruz, CA

Erica Stanojevic, Santa Cruz, CA

Pela Tomasello, Santa Cruz, CA

Sylvia Vairo, Santa Cruz, CA

Russell Weisz, Santa Cruz, CA

Rachel Wolf, Santa Cruz, CA

Eric Anches, Santa Maria, CA

Jerid Anderson, Santa Maria, CA

Carlos Arnold, Santa Maria, CA

Nancy Heck, Santa Maria, CA

Nancy Miller, Santa Maria, CA

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John Barone, Santa Monica, CA

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Steven Chasen, Santa Monica, CA

Phyllis Chavez, Santa Monica, CA



Shelley Corwin, Santa Monica, CA

Guillemette Epailly, Santa Monica, CA

Deborah Fallender, Santa Monica, CA

Glenn and Alexandra Garrison, Santa Monica,

CA

Patricia Healy, Santa Monica, CA

Janet Heinle, Santa Monica, CA

Amelia Jones, Santa Monica, CA

Rachel Kelley, Santa Monica, CA

Chelsey Marsing, Santa Monica, CA

Anne Munitz, Santa Monica, CA

Ted Myers, Santa Monica, CA

Ruth Olafsdottir, Santa Monica, CA

Diane Olson, Santa Monica, CA

Jerry Persky, Santa Monica, CA

Mary Rojeski, Santa Monica, CA

Mary Romanek, Santa Monica, CA

D. Rowe, Santa Monica, CA

Myra Schegloff, Santa Monica, CA

Alex Sokolow, Santa Monica, CA

Shelley Sterrett, Santa Monica, CA

J Yudell, Santa Monica, CA

Louise Priest, Santa Paula, CA

Louise Rangel, Santa Paula, CA

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Gillian Anderson, Santa Rosa, CA

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Jerry Bernhaut, Santa Rosa, CA

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Deb Dearing, Santa Rosa, CA

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Janet Drew, Santa Rosa, CA

Louise Espinoza, Santa Rosa, CA

Mark Feldman, Santa Rosa, CA

Zora Hocking, Santa Rosa, CA

Jude Iam, Santa Rosa, CA

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Lucy Kenyon, Santa Rosa, CA

Bernard Lefson, Santa Rosa, CA

Ellen Lewis, Santa Rosa, CA

Lois Look, Santa Rosa, CA

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Bob Miller, Santa Rosa, CA

Jane Moad, Santa Rosa, CA

Lorilie Morey, Santa Rosa, CA

Jana Mariposa Muhar, Santa Rosa, CA

Josie Peluso, Santa Rosa, CA

Daniel Podell, Santa Rosa, CA

Joe Salazar, Santa Rosa, CA

Linda Thompson, Santa Rosa, CA

Ken Wilson, Santa Rosa, CA

Pam Zimmerman, Santa Rosa, CA

Gary Beckerman, Santa Ynez, CA

Vicki Call, Santee, CA

Elizabeth McCandless, Santee, CA

Rob Roberto, Santee, CA

Kelly Doyle, Sausalito, CA

Evan Jane Fletcher, Sausalito, CA



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Lonna Richmond, Sausalito, CA

Greg Thomson, Sausalito, CA

Gerald Cummings, Scotts Valley, CA

Rob Dun, Scotts Valley, CA

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Bernadette Meltzer, Seal Beach, CA

Natalija Sale, Seal Beach, CA

Brent Spencer, Seal Beach, CA

Enrico Verga, Seal Beach, CA

Scott Ames, Sebastopol, CA

Felicia Bander, Sebastopol, CA

Corey Barnes, Sebastopol, CA

Stacie Charlebois, Sebastopol, CA

Sharron Fisher, Sebastopol, CA

Kris Hall, Sebastopol, CA

Katharine Kehr, Sebastopol, CA

Deborah Kermode, Sebastopol, CA

Constance Miles, Sebastopol, CA

Kenneth Mooney, Sebastopol, CA

Lilith Rogers, Sebastopol, CA

Sharon Sadler, Sebastopol, CA

Julie Sicaud, Sebastopol, CA

Susan Stover, Sebastopol, CA

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Gene Arias, Sherman Oaks, CA

Carol Becker, Sherman Oaks, CA

Hilarey Benda, Sherman Oaks, CA

Stephanie Colet, Sherman Oaks, CA

Jeffrey Jones, Sherman Oaks, CA

Jodi Milstein, Sherman Oaks, CA

Patrick Pade, Sherman Oaks, CA

Patricia Ritter, Sherman Oaks, CA

Mox Ruge, Sherman Oaks, CA

Sheila Desmond, Shingle Springs, CA

Karen Neumeier, Shingle Springs, CA

John Lamb, Sierra Madre, CA

Marguerite Shuster, Sierra Madre, CA

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Patti Barto, Silverado, CA

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Christina Ciesla, Simi Valley, CA

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Frances Emanuel, Simi Valley, CA

James Johnson, Simi Valley, CA

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Madison Mitchell, Simi Valley, CA

Pam Morarre, Simi Valley, CA

Brad Parsa, Simi Valley, CA

Chuck Rocco, Simi Valley, CA

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Diana Shycoff, Simi Valley, CA

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Natasha Weaver, Solana Beach, CA

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Carol Lake, Solvang, CA



Andy Philpot, Solvang, CA

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Sonia King, Soquel, CA

Gary Landgrebe, Soquel, CA

Pamela Machutt, Soquel, CA

Marianna Mejia Contact, Soquel, CA

Sallye Steiner Bowyer, Soquel, CA

Diana Swisher, Soquel, CA

Hunter Wallof, Soulsbyville, CA

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Anne Roos, South Lake Tahoe, CA

Francie Stone, South Lake Tahoe, CA

Scott Jung, South Pasadena, CA

Yuliya Rudnik, South Pasadena, CA

Liz Ibarra, South San Francisco, CA

Ron Parsons, South San Francisco, CA

Heidi Behnke, Spring Valley, CA

Jennifer Bradford, Spring Valley, CA

Patricia Hadsall, Spring Valley, CA

Theodora Moriarty, Spring Valley, CA

Terrie Smith, Spring Valley, CA

Toni Watson, Spring Valley, CA

Joyce Kolasa, Springville, CA

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Stu Greenburg, Stevenson Ranch, CA

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Alisha Nickols, Stockton, CA

Barb Varellas, Stockton, CA

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Ines Glorian, Studio City, CA

Genevieve Guzman, Studio City, CA

Susan Lea, Studio City, CA

Ellen Little, Studio City, CA

David Norrell, Studio City, CA

Natalia Spornik, Studio City, CA

Inga Stanelun, Studio City, CA

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Chris Hernandez, Sun Valley, CA

Gerald Shaia, Sun Valley, CA

Katharine Warner, Sunland, CA

Scott Barlow, Sunnyvale, CA

Ernest Boyd, Sunnyvale, CA

John Cremin, Sunnyvale, CA

Krista Dana, Sunnyvale, CA

Marilyn Hall, Sunnyvale, CA



Rose Linn, Sunnyvale, CA

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Laura Robichek, Sunnyvale, CA

Lexie Cataldo, Thousand Oaks, CA

Marcia Sherman, Sunnyvale, CA Elaine Edell, Thousand Oaks, CA

Vira Confectioner, Sunol, CA Stephen Fitch, Thousand Oaks, CA

Sandra Hendricks, Sutter Creek, CA Mariana Mellor, Thousand Oaks, CA

Sally Lambert, Sutter Creek, CA Gary Raymond, Thousand Oaks, CA

Theo Dawson, Sylmar, CA

Joanne Sulkoske, Thousand Oaks, CA

Chad Johnson, Sylmar, CA Gerry Williams, Thousand Oaks, CA

Margarita Perez, Sylmar, CA Rochelle Adelman, Three Rivers, CA

Charles Wolfe, Sylmar, CA

Lyndell Pritchett, Three Rivers, CA

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Lulu LaRocca, Toluca Lake, CA

El. Pe., Talmage, CA

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Nilofar Amier, Tarzana, CA Jed Fuhrman, Topanga, CA

Louise Bianco, Tarzana, CA Kenneth Miller, Topanga, CA

Theresa Bucher, Tarzana, CA Jaime Nahman, Topanga, CA

Monica Freedman, Tarzana, CA Julie Ries, Topanga, CA

Roger Hollander, Tarzana, CA

Penelope Ward, Topanga, CA

Ken Bailey, Taylorsville, CA Kristina Wunder, Topanga, CA

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Missie Smith, Tehachapi, CA

Joyce M Campbell, Torrance, CA

Wendy Allen, Temecula, CA

Jeff Pierce, Torrance, CA

Richard Blain, Temecula, CA Faye Ryan, Torrance, CA

Holly Hall, Temecula, CA

Lynn Ryan, Torrance, CA

Jena Hallmark, Temecula, CA Diana Waters, Torrance, CA

Deborah McIntosh, Temecula, CA Shelley Zagars, Torrance, CA

John Peterson, Temecula, CA Elissa Babiuk, Trabuco Canyon, CA

Janet Rhodes, Temecula, CA Jinx Hydeman, Trabuco Canyon, CA

Linda Skorheim, Temple City, CA

Douglas McCormick, Trabuco Canyon, CA



Gail Krieger, Valley Springs, CA

Theresa Hundchen, Tracy, CA

Denice Eldridge, Vacaville, CA

Deborah Frame, Trinidad, CA

Lorraine Lowry, Vacaville, CA

Jen Gavin, Trinidad, CA

Debra Reuter, Vacaville, CA

Ron Melin, Trinidad, CA Janice Boyd, Valencia, CA

C E Mone, Trinidad, CA Sara Fogan, Valencia, CA

Glenn Ross, Trinidad, CA Jane Casey, Vallejo, CA

Brett Bell, Tujunga, CA Suzanne Connors, Vallejo, CA

Simone Boudriot, Tujunga, CA Victoria Humphrey, Vallejo, CA

Probyn Gregory, Tujunga, CA Alicia Jackson, Vallejo, CA

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Stephen Bohac, Twain Harte, CA

Lana Touchstone, Vallejo, CA

James McArdle, Ukiah, CA

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Olive Franklin, Ukiah, CA

Laura Diffenbaugh, Valley Springs, CA

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Eileen Mitro, Ukiah, CA Amy Fleiss, Valley Village, CA

Judi Walsh, Ukiah, CA

Cindee H, Valley Village, CA

Mark Winkler, Ukiah, CA Darynne Jessler, Valley Village, CA

George Wood, Ukiah, CA Kim Nicholson, Valley Village, CA

Shelley Abbate, Union City, CA Jennifer Wilson, Valley Village, CA

Ernest Walters, Union City, CA

Dudley and Candace Campbell, Van Nuys, CA

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Christine Hayes, Upland, CA Agnieszka Gocek, Van Nuys, CA

Jay Jones, Upland, CA Janet Laur, Van Nuys, CA

Jo Mandrell, Upland, CA Stephanie Proctor, Van Nuys, CA

Yvonne Smith, Upland, CA Ken Windrum, Van Nuys, CA

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Nicole Antonelli, Vacaville, CA

Jesse Croxton, Venice, CA



Linda Eberle, Venice, CA

Richard Horne, Venice, CA

Kenneth Howard, Venice, CA

Nan Lamb, Venice, CA

Deborah Rumens, Venice, CA

Ruth Seroussi, Venice, CA

Titiphan Vutiprichar, Venice, CA

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Kathleen Applen, Ventura, CA

Sherry Berry, Ventura, CA

David Cotner, Ventura, CA

Tim Covey, Ventura, CA

Barbara Dincau, Ventura, CA

Jamie Green, Ventura, CA

Mabel Gulovsen, Ventura, CA

Ms. Lilith, Ventura, CA

Nina Minsky, Ventura, CA

Kenneth Pennington, Ventura, CA

Sherry Schafer, Ventura, CA

Karen Socher, Ventura, CA

Mary Stanistreet, Ventura, CA

Melissa Vasconcellos, Ventura, CA

Barbara Whyman, Ventura, CA

Simone Fonseca, Victorville, CA

Paula Lopez, Victorville, CA

Carol Wiley, Victorville, CA

Laurie Gorman, Visalia, CA

Arlene Shayer, Visalia, CA

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Jennifer Ball, Vista, CA

Barbara Bernatovich, Vista, CA

Tamara Bond, Vista, CA

Ad Clayton, Vista, CA

Angela Clayton, Vista, CA

Tyler Fitzgerald, Vista, CA

Mary Gilman, Vista, CA

Chad Kapusta, Vista, CA

Marilyn Baldwin, Volcano, CA

Erfin Hartojo, Walnut, CA

Jackie Samallo, Walnut, CA

Richard Saretsky, Walnut, CA

Rita Thio, Walnut, CA

Ana Belle, Walnut Creek, CA

Constantine Bogios, Walnut Creek, CA

Colleena Brazen, Walnut Creek, CA

Thomas Brustman, Walnut Creek, CA

Colleen Dowd, Walnut Creek, CA

Dale Drouin, Walnut Creek, CA

Ruth Felix, Walnut Creek, CA

Julia Fuller, Walnut Creek, CA

Madelaine Georgette, Walnut Creek, CA

Marsha Goodman, Walnut Creek, CA

Janicedotherighthing Greenberg, Walnut Creek,

CA

Barbara Greenwood, Walnut Creek, CA

Helen Hays, Walnut Creek, CA

Barb Linc, Walnut Creek, CA

Michele Dawn Sanderson, Walnut Creek, CA

Karen Savelich, Walnut Creek, CA

J. Schaffell, Walnut Creek, CA



Andrea Schauer, Walnut Creek, CA

David Wendt, Walnut Creek, CA

Suzanne Nevins, Warner Springs, CA

Paul Cheney, Watsonville, CA

Michael Craib, Watsonville, CA

Mary Doane, Watsonville, CA

Monica Gordon, Watsonville, CA

Valerie Justus-Rusconi, Watsonville, CA

Sarah Peck, Watsonville, CA

Michael C. Ford and Richard B. Marks,

Watsonville, CA

Celeste Stanik, Watsonville, CA

Shireen Nickel, Weed, CA

Diana Sottana, Weed, CA

Maria Fraga, West Covina, CA

Georgina Perez, West Covina, CA

Consuelo Rovirosa, West Covina, CA

Jeanne Schuster, West Covina, CA

Shari Becker, West Hills, CA

Rebecca Clark, West Hills, CA

Linda Howie, West Hills, CA

Pilar Zorrilla, West Hills, CA

David Aronovitch, West Hollywood, CA

Abbie Bernstein, West Hollywood, CA

Howard H. Holmes, West Hollywood, CA

Susan Mathison, West Hollywood, CA

Tameka Murrain, West Hollywood, CA

Christina Nillo, West Hollywood, CA

Paul Stanley, West Hollywood, CA

Agnew Wilson, West Hollywood, CA

Signe Wetteland, West Sacramento, CA

Barbara E., Westlake Village, CA

Stacey Keller, Westlake Village, CA

Heather Kovach, Westlake Village, CA

Theron Akers, Westminster, CA

David Cristini, Westminster, CA

Brandon Lowentrout, Westminster, CA

Tina Colafranceschi, Whitethorn, CA

Walter Huitema, Whittier, CA

Vanessa Leal, Whittier, CA

Michaell Allen, Willits, CA

Stacey Rohrbaugh, Willits, CA

Sally Wieland, Willits, CA

Matthew Culmore, Windsor, CA

Claudia Piaseckyj, Winnetka, CA

Charles Raines, Winnetka, CA

Bita Edwards, Woodacre, CA

Susan Pelican, Woodland, CA

Bronwen Hughes, Woodland Hills, CA

Stephanie Larro, Woodland Hills, CA

Debra Lawrence, Woodland Hills, CA

Jollee Saphier, Woodland Hills, CA

Eva Thomas, Woodside, CA

Dianne Ostrow, Wrightwood, CA

C Rivera, X, CA

Susan Wayne, Xxx, CA

Marilyn Adams, Yorba Linda, CA

Kathleen Fernandez, Yorba Linda, CA

Barry Lovinger, Yorba Linda, CA

Gabriel Graubner, Yountville, CA



Charles Heinrichs, Yreka, CA

Linda Freeman, Yuba City, CA

Ashley Millard, Yuba City, CA

Norm Wilmes, Yuba City, CA

Gilbert Crabtree, Yucaipa, CA

Lundi Belleau, Yucca Valley, CA

Renaldo Gonzalez, Yucca Valley, CA

Darlene Morris, Yucca Valley, CA

Ardis Breslauer, CA

Yasmin Chitty, CA

Sophie Ciurlik Rittenbaum, CA

Gary Connaught, CA

Kim Ferlazzo, CA

Hope Hendricks, CA

Elizabeth Lehr, CA

Alvaro Reyes, CA

Sharon Steuer, CA

Alejandra Tolley, CA

James Yonts, CA

Morgan Folger, Denver, CO

Doug Flack, New York, NY

David Rauenzahn, Portland, OR

Rebecca Brown, Merion Station, PA

Michelle Barbour, Bullard, TX



California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 29, 2023

Re: Petition to Modify CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests; Petition to Increase Level of Protection and Streamline Enforcement for Several California State MPAs

Dear President Sklar and Honorable Commissioners,

CALPIRG Students is a statewide, student-run, and student-funded organization that works to protect the environment, make college affordable, and promote civic engagement. We have over 20,000 dues-paying members across the UC system and have been on campus for almost 50 years advocating for students on issues that students care about most. As part of our ongoing efforts to win better protections for California's ocean, we are submitting 214 signatures from our supporters on campuses across the state in support of Environment California Research & Policy's petitions for rulemaking in the state's adaptive management process for the California marine protected area network.

Each of the 214 people signed the following letter:

To: Governor Gavin Newsom

Sea otters bobbing in the surf. Whales diving deep to feed. Seabirds flying above. Our state's coastline is home to wildlife, large and small. As students and young people, we are proud to live in a state that has taken steps to protect this ocean heritage for future generations. California's network of marine protected areas are places that, just like state parks on land, help protect and restore ocean life.

I urge you to strengthen this network through the Decadal Management Review in line with your important goal of protecting 30 percent of our state waters by 2030. Specifically, I urge you to expand the network to protect the state's last remaining kelp forests, critical homes to fish and sea otters, and to strengthen existing areas that don't yet provide high levels of protection to ocean life.

With your support, California can expand this network of ocean parks to create a brighter future for the ocean life that calls our state home, and hopefully inspire others across the country and around the world to follow our lead.

As young people, we are working everyday to tackle the most pressing problems facing our ocean, our climate and our communities. That's why we are heartened to see state leaders like



Governor Newsom and the state legislature set bold and ambitious goals to protect more of our coastline.

But goals need to be followed by action to ensure the future health and abundance of our ocean wildlife and wild places. That's why our student members have been campaigning for better ocean protections, and why we are excited to have this opportunity in the Decadal Management Review to push our state's groundbreaking network of MPAs forward. An expanded, strengthened network will make our coasts more resilient in the face of climate change and give our ocean life a chance to thrive.

Thank you for this opportunity, and we look forward to working with you to continue to create a better future for California's coasts.

Sincerely,

Clara Castronovo State Board Chair

(1h-1A-

CALPIRG Students



Camellia Cartland, Alhambra, CA

Mary Ann Gutierrez, Alhambra, CA

Jaylene Madrid, Apple Valley, CA

Ainsley Wilkin, Apple Valley, CA

TREINA LE, Baldwin Park, CA

Erika Alfaro, Berkeley, CA

Erik Beahrs, Berkeley, CA

Sophia Brodie-Weisberg, Berkeley, CA

Julissa Esparza, Berkeley, CA

Ellen Franzen, Berkeley, CA

Olivia Hom, Berkeley, CA

Kaki Li, Berkeley, CA

Ryan Montis, Berkeley, CA

Stachi Thockchom, Berkeley, CA

Minqi Wang, Berkeley, CA

Caroline Yee, Berkeley, CA

Erinne Yoo, Berkeley, CA

Erik Hart, Bonny Doon, CA

Kofi Addo, Buena Park, CA

Taylor Keppel, Burbank, CA

Monica Wiesener, Calabasas, CA

Radha Jujare, Campbell, CA

Adrian Contreras, Capitola, CA

Jane Giza, Carmichael, CA

Eduardo Angel Hurtado, Chula Vista, CA

Roxanna Braganca, Chula Vista, CA

Rachel Burnett, Concord, CA

Alexis Hammond, Coronado, CA

Mark Danilak, Cupertino, CA

Marea Ayala, Davis, CA

Aster Basnick, Davis, CA

Harriet Chilton, Davis, CA

ReJenai Cloy, Davis, CA

Rena Cohen, Davis, CA

Olivia Lim, Davis, CA

Seth Marshall, Davis, CA

An Nguyen, Davis, CA

Trevor Ottoson, Davis, CA

Madelyn Parker, Davis, CA

Caitlin Perea, Davis, CA

Emmalie Perez, Davis, CA

Aaron Saint John, Davis, CA

Samuel Saxe-Taller, Davis, CA

Percival Singson, Davis, CA

Avery Thau, Davis, CA

Josue Velasquez, Davis, CA

Mackenna Weems, Davis, CA

hilary wang, Diamond Bar, CA

Ariadne meza-lopez, Diamond Springs, CA

Ria Dadia, Dublin, CA

Aziz Abdulahad, El Cajon, CA

Claire Wang, El Cajon, CA

Eythana Miller, Emeryville, CA

Rosina Miranda, Fair Oaks, CA

Michael Assmus, Fairfax, CA

julie park, Fountain Valley, CA



Jasmine Avila Soria, Fremont, CA

Baotran Nguyen, Fremont, CA

Alex Sanchez, Fresno, CA

Kelalani Luong-Kha, Garden Grove, CA

Toby Ngo, Garden Grove, CA

Ariaeli Hernandez, Gilroy, CA

Nathan Carbajal, Goleta, CA

Ana Cardenas Gasca, Goleta, CA

Kittamet Chanchaiworawit, Goleta, CA

Lizzie Harding, Goleta, CA

Lluvia Medina, Goleta, CA

Mariana Morton, Goleta, CA

Joanna Tang, Goleta, CA

joanna tang, Goleta, CA

Bradley Thomas, Goleta, CA

Henry Lindhurst, Granite Bay, CA

Peter Le, Hawthorne, CA

adriana zapotitla, Indio, CA

Kimberly Torres, Industry, CA

Andy Fleischer, Irvine, CA

Rhianna Heaster, Irvine, CA

Anisa Johnson, Irvine, CA

Nathaniel Jordan, Irvine, CA

Hudson Lee, Irvine, CA

Henson Ning, Irvine, CA

Ash Quan, Irvine, CA

Lucie Villata, Irvine, CA

Karen Yan, La Jolla, CA

Charlee Marlinga, La Quinta, CA

Gianna Wright, La Quinta, CA

Nathaniel Friedman, Lafayette, CA

Emma Contreras, Lemon Grove, CA

Samikshaya Auanthakrisknan, Lincoln, CA

Elina Dern, Lincoln, CA

Jennifer Gonzalez-Espinoza, Lindsay, CA

Kristi Copeland, Long Beach, CA

Liam Williams, Long Beach, CA

Lexi Crilley, Los Altos Hills, CA

Hoque Akter, Los Angeles, CA

Kimberly Barrueta, Los Angeles, CA

Gabby Ebrahimi, Los Angeles, CA

Bahar Farzaneh, Los Angeles, CA

Janine Fischer, Los Angeles, CA

Tyler Holmes, Los Angeles, CA

Kieran Johnson, Los Angeles, CA

Lucy Kaff, Los Angeles, CA

Daniel Lamas Sanchez, Los Angeles, CA

Dean Lewis, Los Angeles, CA

Kainoa MacDonald, Los Angeles, CA

Darla Marie Duffy, Los Angeles, CA

Alayah Marshall, Los Angeles, CA

Mireya Mondragon, Los Angeles, CA

Lilia Naylor, Los Angeles, CA

Alina Orendain-Calderon, Los Angeles, CA

Shannon Park, Los Angeles, CA

Owen Pogue, Los Angeles, CA



Lizbeth Rivera, Los Angeles, CA

Alondra Roque, Los Angeles, CA

Jonas Shladovsky, Los Angeles, CA

madelyn spence, Los Angeles, CA

Anita Theng, Los Angeles, CA

Nataly Villasenor, Los Angeles, CA

Rujin Yu, Los Angeles, CA

Jonathan Giang, Monterey Park, CA

Sam Strieter, Moreno Valley, CA

Samantha Strieter, Moreno Valley, CA

Lizzie Su, Mountain House, CA

Angel Parra, Murrieta, CA

Eleanor Vo, Oakland, CA

Alonzo Canete, Ontario, CA

Lori Shen, Ontario, CA

Jacqueline Barnes, Palo Alto, CA

Alicia Acevedo, Perris, CA

Morgen Guzman, Petaluma, CA

Ruth Simon, Placentia, CA

Danae Delgado-Diaz, Pomona, CA

Rachel Lucine, Rancho Cucamonga, CA

Kurubel Tesfay, Rancho Palos Verdes, CA

Cassidy Creighton, Redwood City, CA

Ren Romero, Redwood City, CA

Nicole Castillo, Richmond, CA

Lida Halilovic, Riverside, CA

Ryan LaCasse, Riverside, CA

Hannah Kae Monson, Riverside, CA

Katharine Pan, Riverside, CA

Paige Smith, Riverside, CA

Laurel Tennant, Riverside, CA

Esteban Torres, Riverside, CA

Jennifer Vo, Riverside, CA

Sage Prudente, Rocklin, CA

Olivia Teich, Rohnert Park, CA

Panka Kernacs, Sacramento, CA

Megyn Horton, San Anselmo, CA

Nox Keel, San Clemente, CA

Yingqi Cao, San Diego, CA

Mekayli Claros, San Diego, CA

Avamarie Fromm, San Diego, CA

Camila Gonzalez, San Diego, CA

Benjamin Greenstein, San Diego, CA

Xiaoyu Gui, San Diego, CA

Anne Huynh, San Diego, CA

Michael Iter, San Diego, CA

Katrina Mai, San Diego, CA

Lizard Merrick, San Diego, CA

Ava Ramirez-Brown, San Diego, CA

Dhruv Sehgal, San Diego, CA

Sarah Song, San Diego, CA

Isabella Wagner, San Diego, CA

Lucy Yang, San Diego, CA

Rachel, San Diego, CA

Nadia Nehme, San Francisco, CA

Caroline Sykes, San Francisco, CA



Tatiana Aguilera, San Leandro, CA

Anjuli Oey, San Leandro, CA

Lilly Wolf-Hoy, San Marcos, CA

Elise Won, San Mateo, CA

Yahir Alexis Leal, Santa Ana, CA

Belen Cordova, Santa Cruz, CA

Chaitan Butte, Santa Monica, CA

Nikolas Brandt, Sebastopol, CA

Natalie Bai, Stanford, CA

Sofia Perez, Temecula, CA

Elena Picinich, Temecula, CA

Jiovanni Esteveec, Temple City, CA

Brent Pitts, Torrance, CA

Eva Pullen, Truckee, CA

Audrey Robertson, Tustin, CA

samael yang, Union City, CA

Emily Arana, Vacaville, CA

melissa fryar, Vacaville, CA

Taylor Arrington, Vallejo, CA

Natalie Rodriguez, West Covina, CA

Sara Morris, Whittier, CA

Claire Griffiths, Yorba Linda, CA

Neilyn Alvarez-Rodriguez, CA

Diana Cardova, CA

Anna Chuang, CA

Dharma Gutierrez Romero, CA

Wafaa Lawai, CA

Markus Mantyvaara, CA

Nayeli Orozco, CA

Kenya Santamaria, CA

Maia Boell, Carroll, IA

Charlie Cronenwett, Leawood, KS

Michael Basmajian, Somerville, MA

Miranda Sih, Minneapolis, MN

Julianna Evinski, Linwood, NJ

John Dunn, Morristown, NJ

Benito Morales, , WA

Ava Png, Weston, WI

Shashank Uma Deepak

Titouan Faure,

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 28th, 2023

Re: Petition to Modify CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests; Petition to Increase Level of Protection and Streamline Enforcement for Several California State MPAs

Dear President Sklar and Honorable Commissioners,

In solidarity with the shared responsibility for the well-being of our planet, particularly the oceans and coastlines we hold dear, we are reaching out as college students to express our firm support for the amplification and extension of California's Marine Protected Area (MPA) network. Understanding the critical importance of maintaining stable kelp ecosystems and safeguarding conserved ocean areas, we are committed to ensuring the prolonged vitality of our oceans and the myriad marine species that inhabit them.

The state of our ocean is at a critical juncture, with escalating global temperatures, declining biodiversity, and a growing number of endangered marine species. Northern California has lost more than 95% of its kelp forests since 2014, and kelp forests statewide have experienced declines over the past decade. Only 50 Pacific leatherback turtles are now found foraging off California's coast, a notable decrease from the 178 Pacific leatherbacks observed from 1990 to 2003. Marine heatwaves have doubled over the last 30 years, and have become more intense and longer in duration, putting stress on California's marine species and ecosystems.

In the face of these mounting threats, California has a unique opportunity to take bold and effective action to conserve ocean habitats and ensure a greater abundance of life off our coast. Over two decades ago, the state passed the groundbreaking Marine Life Protection Act (MLPA), which called on the state to use one of the most powerful tools for ocean conservation: marine protected areas (MPAs).

¹ Meredith McPherson et. al, <u>Large-scale shift in the structure of a kelp forest ecosystem co-occurs with an epizootic and marine heatwave</u>, Communications Biology, March 5, 2021

² Benson, Scott R., Karin A. Forney, Jeffrey E. Moore, Erin L. LaCasella, James T. Harvey, and James V. Carretta. <u>"A Long-Term Decline in the Abundance of Endangered Leatherback Turtles, Dermochelys Coriacea, at a Foraging Ground in the California Current Ecosystem.</u>" *Global Ecology and Conservation* 24 (November 2020).

³ García-Reyes, Marisol, Andrew Leising, Rebecca Asch, Steven Bograd, and Tessa M Hill. Rep. Indicators of Climate Change in California, "Coastal Ocean Temperature", California Office of Environmental Health Hazard Assessment, 2022.

MPAs, like state parks on land, protect unique and important ocean habitats from activities that can damage ocean life. Areas that are strongly protected have been shown to be highly effective in conserving biodiversity, enhancing ecosystem resilience, and mitigating the impacts of climate change on our oceans.⁴ By providing areas that serve as buffers against climate change, fully protected MPAs adapt to changing environmental conditions because they better preserve natural interactions within ecosystems, allowing for greater resiliency.⁵

California's network of MPAs, foreseen in the MLPA, celebrated its tenth anniversary last year, and the state's Decadal Management Review (DMR) showed that MPAs effectively protect ocean habitats and increase fishery-targeted species' biomass. The DMR found that the older the MPA, the larger the increase in the biomass of fished species. Some ecological communities like kelp forests and rocky intertidal ecosystems within MPAs appeared more resilient and recovered more quickly after marine heatwaves than similar habitats outside MPAs.⁶ Now, we need to build on this system and maintain California's role as a national and global leader in the fight to protect more ocean habitats.

We support the expansion of the MPA Network to include critical, resilient kelp forests along California's coastline. While these vital and iconic ecosystems have faced declines statewide in recent years, kelp forests in some areas have persisted or bounced back quickly in the face of marine heatwaves and other disturbances. By expanding protections for these resilient forests under the MLPA, the state can minimize direct human impacts in these relatively healthy areas, helping to ensure their continued persistence and enhancing the effectiveness of restoration efforts for declining kelp ecosystems nearby.

It is also vital that existing California MPAs are able to achieve their stated goals of conserving biodiversity and ecosystem health. We encourage the state to consider increasing protections for MPAs that are currently only lightly or minimally protected, especially in places where weaker or more complicated regulations lead to poor compliance and enforcement. Research has shown that highly and fully protected areas, where few if any destructive or extractive activities are allowed, provide greater ecological benefits than lightly or minimally protected areas.⁸

As college students, we keenly feel the urgency to address the environmental crises, particularly along California's coast. Having grown up witnessing the impacts of climate change, it's clear

⁴ Arafeh-Dalmau et al., <u>Integrating climate adaptation and transboundary management: Guidelines for designing climate smart marine protected areas</u>, One Earth 6, 1–19 November 17, 2023 ^a 2023 Published by Elsevier Inc. ⁵ Jankowska, Emilia, et al. "<u>Climate Benefits from Establishing Marine Protected Areas Targeted at Blue Carbon Solutions</u>." *Proceedings of the National Academy of Sciences*, vol. 119, no. 23, 2022.

⁶ California Department of Fish and Wildlife. (2022). California's Marine Protected Area Network Decadal Management Review.

⁷ California Department of Fish and Wildlife. (2022). California's Marine Protected Area Network Decadal Management Review.

⁸Ibid Kirsten Grorud-Colvert *et al.*, <u>The MPA Guide: A framework to achieve global goals for the ocean.</u> *Science* **373** ,eabf0861(2021). DOI:10.1126/science.abf0861

that action is needed to limit harm to the environment. That's why we urge the Fish and Game Commission to make significant changes in preserving and protecting our vast ocean habitats, ensuring a meaningful and lasting impact for generations to come.

Our ocean is not just a provider of fresh air, diverse wildlife, and breathtaking scenery; it's also an enigma that calls us to explore and uncover its secrets. As college students, we believe it's our duty to be at the forefront of national and global efforts, taking bold steps to safeguard the ocean. This commitment ensures its future and the welfare of communities dependent on it for survival and prosperity.

In conclusion, we strongly urge you, Fish and Game Commissioners, to champion the expansion and fortification of California's network of Marine Protected Areas, with a particular focus on safeguarding kelp forests and reinforcing the protection of existing MPAs. By doing so, you will leave a lasting legacy of environmental stewardship.

Thank you for your unwavering commitment to the welfare of our ocean and for considering this urgent matter. Together, we can ensure a healthier, more abundant future for the unique marine ecosystems that define California.

Sincerely,

Clara Castronovo Board Chair CALPIRG Students

Brandi Sanchez President Ecology Behavior and Evolution Club at UC San Diego

Brandi Sanchez President Pollinator Club at UC San Diego

Aiden Ledbetter President Davis College Democrats

Hannah Hughes President 5C Plant-Based Mission at the Claremont Colleges







California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 30th, 2023

Re: Petition to Modify CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests; Petition to Increase Level of Protection and Streamline Enforcement for Several California State MPAs

Dear President Sklar and Honorable Commissioners.

From the foothills of the Sierras to the seaside of the Central Coast, Californians care about our ocean and the life that calls it home. That's why we are submitting the attached 7,549 signatures in support of our petitions for rulemaking in the Decadal Management Review adaptive management process.

Each of the 7,549 people signed the following letter:

Dear Governor Newsom,

California's coastline is home to stunning beaches, amazing wildlife, and is a true treasure for everyone who lives in or visits our state. That's why we've invested in protecting this ocean heritage through the creation of our state network of marine protected areas. Just like state parks on land, these areas help protect and restore ocean life.

Now we have an opportunity to strengthen this network through the Decadal Management Review. I urge you to use this process to advance your important goal of protecting 30% of our state waters by 2030. Specifically, I urge you to expand the network to protect the state's last remaining kelp forests, critical homes to fish and sea otters, and to strengthen existing areas that don't yet provide high levels of protection for ocean life.

With your leadership, California can expand this network of ocean parks to create a brighter future for our state's ocean life and continue to lead the country in ocean conservation.

Sincerely,

By expanding the state's MPA network to better protect areas of stable kelp and by strengthening protections for areas not currently achieving their conservation outcomes due to weak or confusing regulations, the state can help our coasts adapt and thrive in the face of rising temperatures and emerging threats.

With your leadership, we can create a better future for California's coastal ecosystems and the wildlife that calls them home.

Sincerely,

Laura Deehan Director Environment California Environment California Research & Policy Center



Betty Canter, Agoura Hills, CA

Cathy Crum, Agoura Hills, CA

Diane King, Agoura Hills, CA

Tamara Lesser, Agoura Hills, CA

Brian Jeffery, Aguanga, CA

Amber Bales, Alameda, CA

John Brooks, Alameda, CA

Barbara Cone, Alameda, CA

Zachary Gray, Alameda, CA

Mike Kehl, Alameda, CA

Angie Klein, Alameda, CA

Andre Kruglikov, Alameda, CA

Brian J McGuire, Alameda, CA

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Alexandra Mummery, Alameda, CA

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Kathryn Warner, Alameda, CA

Ehren Mierau, Alamo, CA

Sandra Beckley, Albany, CA

Linda Berkowitz, Albany, CA

Susan Burr, Albany, CA

Bart Grossman, Albany, CA

Tami Jordan, Albany, CA

Raymond Neutra, Albany, CA

Paula Rini, Albany, CA

Steven Schultz, Albany, CA

Kym Sterner, Albany, CA

Michael Sullivan, Albany, CA

Araceli Aviles, Alhambra, CA

Cindy Coty, Alhambra, CA

Lynda Harris, Alhambra, CA

Joseph Manza, Alhambra, CA

John Perez, Alhambra, CA

Alec Taratula, Alhambra, CA

Annetta Bettis, Aliso Viejo, CA

Andrea Bonnett, Altadena, CA

Jason Capell, Altadena, CA

Patrick Ela, Altadena, CA

Andre Ettinger, Altadena, CA

Beth Herndobler, Altadena, CA

Joan Kahn, Altadena, CA

Althea Kennedy, Altadena, CA

Carol Lachata, Altadena, CA

Linda Nishio, Altadena, CA

Julie Parker, Altadena, CA

Allan Wasserman, Altadena, CA

Christina Imhoof, An Diego, CA

Bruce Bluestein, Anaheim, CA

Drew Cartwright, Anaheim, CA

Thuan Do, Anaheim, CA

Robert Jansen, Anaheim, CA

Charles Richmond, Anaheim, CA

Michelle Smith, Anaheim, CA

Natalie Blasco, Anderson, CA

Donna Crane, Anderson, CA

lynmari calabi, Angwin, CA



Sharon Lieberman, Annapolis, CA

Jessica Mitchell-Shihabi, Antelope, CA

Shirene Saunby, Antelope, CA

Lindsey Kalfsbeek, Antioch, CA

Bernadine Sequeira, Antioch, CA

James Alfred Smith, Jr., Antioch, CA

Stanley Hodge, Apple Valley, CA

Norbert Benecke, Aptos, CA

LeAnn Bjelle, Aptos, CA

Katherine Doctor, Aptos, CA

Michele Faia, Aptos, CA

Jane Goddard, Aptos, CA

Jeanne Lance, Aptos, CA

Alan Schenck, Aptos, CA

Edward Shapiro, Aptos, CA

Denis Elliott, Arcadia, CA

Jason Park, Arcadia, CA

Jeanne Roberts, Arcadia, CA

Mikal Baker, Arcata, CA

Connie Lindgren, Arcata, CA

Sophie Rocheleau, Arcata, CA

Jerry McNamara, Arnold, CA

Brian Harris, Arroyo Grande, CA

Linda Kohler-Trott, Arroyo Grande, CA

Landon Neustadt, Arroyo Grande, CA

Joseph Read, Arroyo Grande, CA

Gregory Ross, Arroyo Grande, CA

Thomas Tucker, Arroyo Grande, CA

Corinne Huckaby, Atascaderi, CA

Scott Burgess, Atascadero, CA

Ellen Evans, Atascadero, CA

John Farhar, Atascadero, CA

Patti Frey, Atascadero, CA

Kelly Martin, Atherton, CA

James Neupert, Atherton, CA

Jena Norton, Atwater, CA

Marilyn Barthelow, Auburn, CA

Caralee Clarke, Auburn, CA

Roxanne Hill, Auburn, CA

David Hooper, Azusa, CA

Solomon Pulgar, Azusa, CA

Roger Anderson, Bakersfield, CA

Matthew Barajas, Bakersfield, CA

Jim Carnal, Bakersfield, CA

Caryn Cowin, Bakersfield, CA

Richard Reed, Bakersfield, CA

Yolanda Berumen, Baldwin Park, CA

Jesse Calderon, Baldwin Park, CA

Cherilyn Cibelli, Beaumont, CA

Mohamed Chahine, Bell Gardens, CA

Yazmin Gonzalez, Bellflower, CA

Jason Nolasco, Bellflower, CA

Shiela Cockshott, Belmont, CA

Giovannina Fazio, Belmont, CA

Valerie Gould, Belmont, CA

Kimberly Knapp, Belmont, CA

Tracy Molyneux, Belmont, CA

Robert Sharp, Belmont, CA

Angela Gantos, Belvedere Tiburon, CA

Barbara Meislin, Belvedere Tiburon, CA



Sandra Wolfe, Belvedere Tiburon, CA

Nancy Phillips, Ben Lomond, CA

ENVIRONMENT

Dorothy Renaud, Ben Lomond, CA

Raf Strudley, Ben Lomond, CA

Colleen Walter, Ben Lomond, CA

Judith Amlin, Benicia, CA

Cathy Bennett, Benicia, CA

Peter Bray, Benicia, CA

Dannys Cody, Benicia, CA

Joni Grisham, Benicia, CA

Nancy Lund, Benicia, CA

Twila Newey, Benicia, CA

Marylee Parr, Benicia, CA

Christian Phillips, Benicia, CA

Annina Puccio, Benicia, CA

Robert Quarrick, Benicia, CA

Jessica Smith, Benicia, CA

Mimi Abers, Berkeley, CA

Inger Acking, Berkeley, CA

Stephen Alpert, Berkeley, CA

Pamela Baird, Berkeley, CA

Robert Baird, Berkeley, CA

Karl Battenbowman, Berkeley, CA

James Blakly, Berkeley, CA

Lois Brubeck, Berkeley, CA

Nancy Carleton, Berkeley, CA

Eileen Cohen, Berkeley, CA

Craig Collins, Berkeley, CA

Alexandra Crisafulli, Berkeley, CA

Janis Dairiki, Berkeley, CA

Anya Davis, Berkeley, CA

Richard Entenman, Berkeley, CA

Christopher Evans, Berkeley, CA

Hyacinth Fleming, Berkeley, CA

Ellen Franzen, Berkeley, CA

Rachel Gordon, Berkeley, CA

Martha Griswold, Berkeley, CA

Stefanie Guynn, Berkeley, CA

Doug Hamilton, Berkeley, CA

Mary Harte, Berkeley, CA

Curran Honorah, Berkeley, CA

Holly Howard, Berkeley, CA

Marjory Keenan, Berkeley, CA

Betsy Kelly, Berkeley, CA

Morgan Lambert, Berkeley, CA

Catherine Lerza, Berkeley, CA

Alex Madonik, Berkeley, CA

Robert Magarian, Berkeley, CA

Rebecca Meyer, Berkeley, CA

Ann Myers, Berkeley, CA

Jaleh Niazi, Berkeley, CA

Kaveh Niazi, Berkeley, CA

Jonathan Packman, Berkeley, CA

Kristine Panik, Berkeley, CA

Heather Pierce, Berkeley, CA

Janet Ramsay, Berkeley, CA

Catherine Rauch, Berkeley, CA

Janette Reid, Berkeley, CA

Rachel Resnikoff, Berkeley, CA

Anthony Rhodes, Berkeley, CA



Bob Schildgen, Berkeley, CA

Sandra Smith, Berkeley, CA

Lenore Sorensen, Berkeley, CA

michael sullivan, Berkeley, CA

Debbie Tenenbaum, Berkeley, CA

Timothy Volz, Berkeley, CA

Dandelo Waters, Berkeley, CA

Jonathan Weinstock, Berkeley, CA

Helene Whitson, Berkeley, CA

John Wolfe, Berkeley, CA

Sara Zimmerman, Berkeley, CA

Lori Ginsburg, Beverly Hills, CA

Beverly Harris, Beverly Hills, CA

Ilene Proctor, Beverly Hills, CA

Trudie Haven, Big Bear City, CA

Valerie Hart, Big Pine, CA

Marianne Brettell-Vaughn, Bishop, CA

Michael Harris, Bodega Bay, CA

Tina Ann, Bolinas, CA

Betsyann Gallagher, Bolinas, CA

Sean Thackrey, Bolinas, CA

Vivian Sherrill, Bonita, CA

Ed Atkins, Boulder Creek, CA

Moira Bischoff, Boulder Creek, CA

Trudi James, Boulder Creek, CA

Ray Schwarz, Boulder Creek, CA

Kathryn St. John, Boulder Creek, CA

Jack Kline, Brentwood, CA

Chris Zahnd, Brentwood, CA

Stephanie Glatt, Buellton, CA

Jennifer Jerlstrom, Buena Park, CA

Jessica Likens, Buena Park, CA

Cathy Biermann, Burbank, CA

Sandra Christopher, Burbank, CA

Ryan Davis, Burbank, CA

Katyana Farzanrad, Burbank, CA

Jennifer Hurdle, Burbank, CA

Tyson Martin, Burbank, CA

Gina Richardson, Burbank, CA

Rosalie Salvato, Burbank, CA

Gilbert Saucedo, Burbank, CA

Lucinda Walker, Burbank, CA

Kenneth Aron, Burlingame, CA

Jeffrey Krolik, Burlingame, CA

Lara McDonald, Burlingame, CA

Kathryn Morton, Burlingame, CA

Laura Somers, Burlingame, CA

Judy Boeken, Calabasas, CA

Vivian Deutsch, Calabasas, CA

Claude Duss, Calabasas, CA

Veronica Pepe, Calabasas, CA

Kalyna Snylyk, Calabasas, CA

Terry Spellman, California City, CA

David Burtis, Calistoga, CA

Martha Casselman, Calistoga, CA

Scott Hester, Calistoga, CA

Susan Beil, Camarillo, CA

Nancy Borelli, Camarillo, CA

Catherine Burriss, Camarillo, CA

Carol Cressy, Camarillo, CA



Cherie Garrett, Camarillo, CA

Larry Gassan, Camarillo, CA

Deidre Leonard, Camarillo, CA

Carla Marting, Camarillo, CA

Jerami Prendiville, Camarillo, CA

Charlie Tetoni, Camarillo, CA

Ann Walker, Camarillo, CA

Ted Key, Cambria, CA

Linda Kierce, Cambria, CA

Richard Shepard, Cambria, CA

Lena Fine, Campbell, CA

Barbara Mason, Campbell, CA

Anne Swanson, Campbell, CA

Tony Vega, Campbell, CA

Mark Giordani, Canoga Park, CA

Debra Moss, Canoga Park, CA

Barbara Dinius, Canyon Country, CA

Yrineo Vasquez, Canyon Country, CA

Ben Brucker, Capistrano Beach, CA

John Glina, Capitola, CA

Edith Leni, Capitola, CA

Dana Herman, Cardiff, CA

William Stern, Cardiff, CA

Matt Bender, Cardiff by the Sea, CA

Suzanne Mindlin, Cardiff By The Sea, CA

Nance Robertson, Cardiff by the Sea, CA

Lisa Adamson, Carlsbad, CA

Shawna Bader, Carlsbad, CA

Judy Burzell, Carlsbad, CA

Chihwu Chang, Carlsbad, CA

Gerald Good, Carlsbad, CA

Kendra Haddock, Carlsbad, CA

Matthew Huber, Carlsbad, CA

Luis Jaramillo, Carlsbad, CA

Kevin Krause, Carlsbad, CA

Phyllis Lackey, Carlsbad, CA

ben steen, Carlsbad, CA

Greg Thomsen, Carlsbad, CA

Catherine Valadez, Carlsbad, CA

Damon Anderson, Carmel, CA

John Hall, Carmel, CA

Diana North, Carmel, CA

Rosalie Pinkert, Carmel, CA

judi zaches, Carmel, CA

Sheila Sheppard, Carmel By The Sea, CA

Herbert Aarons, Carmel Valley, CA

Janis Wilson-Pavlik, Carmel Valley, CA

Elizabeth Adan, Carmichael, CA

William Rasmussen, Carmichael, CA

Jo Souvignier, Carmichael, CA

Karen Taylor, Carmichael, CA

Jack Tolomei, Carmichael, CA

Jill Vanneman, Carmichael, CA

mary vollstedt, Carmichael, CA

Roxanne Coke, Carpinteria, CA

William Hornung, Carpinteria, CA

Gail Marshall, Carpinteria, CA

Amy Mcdonald, Carpinteria, CA

Linda Reimel, Carpinteria, CA

Scott Van Fossen, Carpinteria, CA





Glen Deardorff, Castro Valley, CA

Julie Greenfield, Castro Valley, CA

Sue Hall, Castro Valley, CA

Pati Jio, Castro Valley, CA

Harriet Skelly, Castro Valley, CA

Arthur Squillante, Castro Valley, CA

Barbara Harper, Castroville, CA

John Hill, Castroville, CA

Armando MacMillan, Castroville, CA

Phillip Cripps, Cathedral City, CA

Anne Gannon, Cathedral City, CA

Janis Michaels, Cathedral City, CA

Wallace Rhine, Cazadero, CA

Eric Hironymous, Cedarville, CA

Marie Perry, Ceres, CA

Meredith Cox, Cerritos, CA

James Lindgren, Cerritos, CA

Patti Boniface, Chatsworth, CA

Alejandra Castro, Chatsworth, CA

Miguel Loayza, Chatsworth, CA

Binh Tang, Chatsworth, CA

Barbara Wasserman, Chatsworth, CA

Mary Caulfield, Chicago Park, CA

Garrett Alden, Chico, CA

Valerie Fannin, Chico, CA

Dee Randolph, Chico, CA

Abigail Rizzo, Chico, CA

Sonya Rose, Chico, CA

Linda Sheppard, Chico, CA

Kate Transchel, Chico, CA

Dale Beaver, Chula Vista, CA

Denise Berrian, Chula Vista, CA

John Brown, Chula Vista, CA

Rita Clement, Chula Vista, CA

Alfa Santos, Chula Vista, CA

David Sorce, Chula Vista, CA

John Teevan, Chula Vista, CA

Susana Vega, Chula Vista, CA

Cari Chenkin, Citrus Heights, CA

Karen and Edward Osgood, Citrus Heights, CA

Aaron Shoup, Citrus Heights, CA

Robert Blackey, Claremont, CA

Christopher Hayes, Claremont, CA

Steven Hoelke, Claremont, CA

John Maher, Claremont, CA

Cheryllynne Ofstedahl, Claremont, CA

Laurel Tucker, Claremont, CA

Marsha Tudor, Claremont, CA

Erica Tyron, Claremont, CA

Victoria Verches, Claremont, CA

Patricia Goodson, Clearlake Oaks, CA

John Kwiatkowski, Cloverdale, CA

Kim Peterson, Cloverdale, CA

Dolores Amato, Clovis, CA

Tara Hagen, Clovis, CA

Thomas Kaschak, Clovis, CA

Diane Hestich, Colton, CA

Fred Wright, Colton, CA

Mindy Alegra, Concord, CA

Stephanie Clark, Concord, CA





Susan King, Concord, CA

Sheri Kuticka, Concord, CA

Robert Larsen, Concord, CA

Paul Lowry, Concord, CA

James R Monroe, Concord, CA

Nancy Pratt, Concord, CA

Cindy Sundberg, Concord, CA

Anne Spesick, Cool, CA

Jennifer Artunian, Corona, CA

Lisa Laflame, Corona, CA

Linda Oeth, Corona del Mar, CA

Tad Sullivan, Corona del Mar, CA

Sanja Dimitrijevic, Coronado, CA

Elizabeth Luning, Corralitos, CA

Ronald Gremban, Corte Madera, CA

Jennifer Lawson, Corte Madera, CA

Abigail Millikan States, Corte Madera, CA

Rachelle Cox, Costa Mesa, CA

Hieu Dang, Costa Mesa, CA

Sharon Daniel, Costa Mesa, CA

Victoria Gagniere, Costa Mesa, CA

Kathlyn Grabenstein, Costa Mesa, CA

Jennifer Greenwalt, Costa Mesa, CA

Rickie Moore, Costa Mesa, CA

Kim Nero, Costa Mesa, CA

Lisa Piner, Costa Mesa, CA

Lizzie Vierra, Costa Mesa, CA

Janice Emery, Cotati, CA

Jane Lyon, Cotati, CA

R Brancheau, Covina, CA

Wendy Monterrosa, Covina, CA

Angela Park, Covina, CA

Sandy Williams, Covina, CA

April Quigley, Crescent City, CA

Ronald Thompson, Crescent City, CA

Susannah Baxendale, Culver City, CA

Thomas Carlton, Culver City, CA

Jill Davine, Culver City, CA

Gwendoline Gansky, Culver City, CA

Vernette Griffee, Culver City, CA

Walter Lamb, Culver City, CA

Andrew Meyer, Culver City, CA

Patricia Morgan, Culver City, CA

Chris Nevil, Culver City, CA

Alicia Tan, Culver City, CA

Anita Thomason, Culver City, CA

Keil Albert, Cupertino, CA

Peg Albrets, Cupertino, CA

Nora Elsokkary, Cupertino, CA

Wallace Iimura, Cupertino, CA

Marte Thompson, Cupertino, CA

Lana Wertz, Cupertino, CA

Susie Leonard, Cypress, CA

Noah H, Daly City, CA

Susan Klingman, Daly City, CA

Bonnie Miyake, Daly City, CA

Katya Siguenza, Daly City, CA

earl west, Daly City, CA

John Goodman, Dana Point, CA

Nancy Amini, Danville, CA



Erlan Bliss, Danville, CA

Priscilla Rich, Danville, CA

Catherine Alexander, Davis, CA

Kristen Douglas, Davis, CA

Lisa Goldberg, Davis, CA

Daniel Gusfield, Davis, CA

Verne Harlan, Davis, CA

Nancy Hiestand, Davis, CA

Kathryn Litton, Davis, CA

Frances McChesney, Davis, CA

Jack Milton, Davis, CA

Katherine Muir, Davis, CA

Donna Russell, Davis, CA

Rebecca Ryland, Davis, CA

Penelope Shackelford, Davis, CA

Timothy Tutt, Davis, CA

Maryla Wade, Davis, CA

Arleene Antin, Del Mar, CA

Jean Balgrosky, Del Mar, CA

Bruce Bekkar, MD, Del Mar, CA

Laura Converse, Del Mar, CA

Lynne Small, Del Mar, CA

Judy Dotson, Denair, CA

Clyde Weston, Descanso, CA

Jacque Carlson, Desert Hot Springs, CA

Maureen Mcdonald, Desert Hot Springs, CA

Nancy Schelling, Desert Hot Springs, CA

Brian Chen, Diamond Bar, CA

Marilyn Eng, Diamond Bar, CA

Jeffrey Jenkins, Diamond Bar, CA

Ruth Buxman, Dinuba, CA

Sharon Byers, Downey, CA

Deborah Ross, Duarte, CA

Sarah Sismondo, Duarte, CA

Eloise Hamann, Dublin, CA

Mohan Sakhrani, Dublin, CA

Robert Baker, Dunlap, CA

Rev. Will Agee, El Cajon, CA

Kelley Bishop, El Cajon, CA

Anna Brzuza, El Cajon, CA

Christina Hartonczyk, El Cajon, CA

Meredith Kennedy, El Cajon, CA

Anna Salvatierra, El Cajon, CA

Sadie Sullivan-Greiner, El Cajon, CA

Elizabeth Bone, El Cerrito, CA

Byron Brown, El Cerrito, CA

Daniel Elkan, El Cerrito, CA

Emiliano Gomez, El Cerrito, CA

Paul Hughes, El Cerrito, CA

Jan Jones, El Cerrito, CA

Kin Jung, El Cerrito, CA

Judith Libow, El Cerrito, CA

Carol Long, El Cerrito, CA

Robert Naumann, El Cerrito, CA

Judith Rogers, El Cerrito, CA

Cynthia Williams, El Cerrito, CA

Tracy Bryan, El Dorado Hills, CA

Virginia Shaw, El Dorado Hills, CA

Judd Stark, El Dorado Hills, CA

David Marsland, El Granada, CA







Terry Blount, El Segundo, CA

Alison Hart, El Segundo, CA

Matthew Lubs, El Segundo, CA

Stacy Sealock, El Segundo, CA

Claudia Avila, El Sobrante, CA

Martha Booz, El Sobrante, CA

Garth Casaday, El Sobrante, CA

Katharine Handler, El Sobrante, CA

Julie Harris, El Sobrante, CA

Carol Kinser, Elk Grove, CA

Marta Williams, Elk Grove, CA

Kathleen Stutz, Elmira, CA

Amanda Caskey, Emeryville, CA

Claudia Garcia, Emeryville, CA

Maia Orr, Emeryville, CA

Vijaya Rogers, Emeryville, CA

Kimberley Sevcik, Emeryville, CA

Elizabeth Staton, Emeryville, CA

Cheryl Alexander, Encinitas, CA

Cathy Bacquet, Encinitas, CA

Brett Colby, Encinitas, CA

Brian Collins, Encinitas, CA

Caleb Fitzpatrick, Encinitas, CA

Devin Frei, Encinitas, CA

Victor Hernandez, Encinitas, CA

Shawn Johnson, Encinitas, CA

William Paxton, Encinitas, CA

Eric Pence, Encinitas, CA

Sheila Smith, Encinitas, CA

Steve White, Encinitas, CA

Lucy Hart, Encino, CA

Dale Crawford, Escondido, CA

Nancy Gangi, Escondido, CA

Ken Sanford, Escondido, CA

Andy Tomsky, Escondido, CA

Kristi Wilson, Escondido, CA

Delight Wisniewski, Escondido, CA

Rena Zaman-Zade, Escondido, CA

Melissa Birch, Eureka, CA

patricia kanzler, Eureka, CA

Gina Ness, Eureka, CA

Mary Schweickert, Eureka, CA

Susan Tatro, Eureka, CA

Beti Webb Trauth, Eureka, CA

Geraldine Card, Exeter, CA

Melissa Christopher, Fair Oaks, CA

Brian Mcclintock, Fair Oaks, CA

Teresa Rauschkolb, Fair Oaks, CA

Blair Reynolds, Fair Oaks, CA

Kathleen Jackson, Fairfax, CA

Aria Sternik, Fairfax, CA

Sagar Wanaselja, Fairfax, CA

William Lane, Fairfield, CA

Adriana Llamas, Fairfield, CA

Kathleen Morgan, Fallbrook, CA

Andrea Boone, Felton, CA

Alice Kelly, Felton, CA

Pamela Morgan, Felton, CA

Michelle Alex, Folsom, CA

Jessica Dardarian, Folsom, CA



Veronica Mohn, Foothill Ranch, CA

Larry Hanson, Forestville, CA

Thomas Hawkins, Fort Bragg, CA

Lonnie Mathieson, Fort Bragg, CA

Katherine Patterson, Fort Bragg, CA

Kathleen Gause, Fountain Valley, CA

Frances Morrison, Fountain Valley, CA

Kenneth Arnold, Fountain Vly, CA

Mary Brooks, Frazier Park, CA

Susan Schrager, Frazier Park, CA

Gina Jager, Fremont, CA

Michael Maddon, Fremont, CA

Utkarsh Nath, Fremont, CA

Erica Pace, Fremont, CA

Nancy Palmer, Fremont, CA

Adelle Regalia, Fremont, CA

Christopher Ware, Fremont, CA

Jack Whealen, Fremont, CA

Charlotte Alldredge, Fresno, CA

Gerald Bill, Fresno, CA

Michael Bordenave, Fresno, CA

Lynn Campbell, Fresno, CA

Joseph Catania, Fresno, CA

Gilda Cox, Fresno, CA

Elizabeth Fralicks, Fresno, CA

Rosemary Gastelo, Fresno, CA

Robert Glover, Fresno, CA

Yolanda Gomez, Fresno, CA

Nancy Mccormick, Fresno, CA

Gayle Mitchell, Fresno, CA

Emily Poulsen, Fresno, CA

Lynda Robinson, Fresno, CA

Walter Ullrich, Fresno, CA

Lowell Young, Fresno, CA

Donna Grampp, Fullerton, CA

Lynn Hoang, Fullerton, CA

Evan McDermit, Fullerton, CA

Colleen Wieghorst, Fullerton, CA

Christine Doyka, Garberville, CA

Ana Gonzalez, Garden Grove, CA

Laurie Kinnings, Garden Grove, CA

Dana May, Garden Grove, CA

Walter Reece, Garden Grove, CA

Suellen Carroll, Garden Valley, CA

Marcella Andrade, Gilroy, CA

Miguel Avila, Gilroy, CA

Mary Ludwick, Gilroy, CA

Jidith Seehafer, Gilroy, CA

Joe Mangiantini, Glen Ellen, CA

Alejandro Artigas, Glendale, CA

Carol Bennett, Glendale, CA

Timothy Brock, Glendale, CA

R. Leslie Choi, Glendale, CA

Michelle Colletti, Glendale, CA

James Grant, Glendale, CA

Dena Guerry Henriquez, Glendale, CA

Elise Kalfayan, Glendale, CA

Valerie Keiser, Glendale, CA

Denise Meyer, Glendale, CA

Faatui Panama, Glendale, CA



Patricia Pei, Glendale, CA

Bari Phillips, Glendale, CA

John Price, Glendale, CA

Ann Sattenspiel, Glendale, CA

Jordan Vanderlinde, Glendale, CA

Laura Flanders, Glendora, CA

Diana Lozano, Glendora, CA

Larissa Shen, Glendora, CA

Dawnielle Burich, Goleta, CA

Irene Cooke, Goleta, CA

Martin Henderson, Goleta, CA

Larry A Kaempf, Goleta, CA

Jennifer Matthews, Goleta, CA

Kevin McGarry, Goleta, CA

Wendy Morgan, Goleta, CA

Michelle Profant, Goleta, CA

Z. Reisz, Goleta, CA

Julie Rodgers, Goleta, CA

Deborah Williams, Goleta, CA

Dennis Hammermeister, Granada Hills, CA

Brook Hall, Granite Bay, CA

Evette Andersen, Grass Valley, CA

Kendra Anderson, Grass Valley, CA

Susanne Bader, Grass Valley, CA

Ellen Clephane, Grass Valley, CA

Bonny Davis, Grass Valley, CA

Anna Drummond, Grass Valley, CA

John Everett, Grass Valley, CA

Kathleen Shaffer, Grass Valley, CA

Mark Toelkes, Grass Valley, CA

Abbie Whitehead, Grass Valley, CA

Peter Yaholkovsky, Grass Valley, CA

Daniel Healy, Green Valley Lake, CA

Courtney Benham, Greenbrae, CA

patricia klein, Greenbrae, CA

Dennis McVey, Greenbrae, CA

Meredith Mill, Greenbrae, CA

Jill Mistretta, Greenbrae, CA

DYAN PIKE, Greenbrae, CA

Benjamin Rowe, Greenbrae, CA

Joan Smith, Greenbrae, CA

Kate Lunn, Grover Beach, CA

Marc Fuller, Guadalupe, CA

Carlos Madrigal, Hacienda Heights, CA

Edith Bella, Half Moon Bay, CA

Irene Madrid, Half Moon Bay, CA

Christine Olivero, Half Moon Bay, CA

Wade Painter, Half Moon Bay, CA

Tim Riley, Half Moon Bay, CA

L. Watson, Half Moon Bay, CA

Claire Jones, Hanford, CA

Nancy Plumer, Harbor City, CA

Deb B, Hawthorne, CA

Roberta Barr, Hawthorne, CA

Bonnie Maloney, Hawthorne, CA

Rachel Asturias, Hayward, CA

Elliott Betty, Hayward, CA

Gregory Fite, Hayward, CA

Evelyn Gonzalez, Hayward, CA

Sherman Lewis, Hayward, CA



Laurie Price, Hayward, CA

ENVIRONMENT

Rev. Jonathan Tan, Hayward, CA

Bretta Rambo, Healdsburg, CA

Elizabeth Rue, Healdsburg, CA

Paula Baeza, Hemet, CA

Lily Mejia, Hemet, CA

REBECCA DESMOND, Hercules, CA

Gloria Evans-Young, Hercules, CA

Linda Monosmith, Hermosa Beach, CA

Dency Nelson, Hermosa Beach, CA

Geri Shapiro, Hermosa Beach, CA

Julie Knutson, Hesperia, CA

Shanna Rojas, Hesperia, CA

Juanita Westberg, Hesperia, CA

P Perry, Hidden Valley Lake, CA

Renee ONeil, Highland, CA

Robert Vargas, Highland, CA

Kathleen Callaghan, Hollister, CA

Monica Sharp, Holtville, CA

Tina Moody, Hopland, CA

Paul Barkmeier, Huntington Beach, CA

Buffie Channel, Huntington Beach, CA

Carol Comparsi, Huntington Beach, CA

Laura Davidson, Huntington Beach, CA

Tim Denton, Huntington Beach, CA

Vicki Dipaolo, Huntington Beach, CA

Myrrha Eberly, Huntington Beach, CA

Kathy Hanson, Huntington Beach, CA

Beverly Heiberg, Huntington Beach, CA

Vicki Hughes, Huntington Beach, CA

Meaghan Jones, Huntington Beach, CA

Mike Kelly, Huntington Beach, CA

Thaddeus Kopacki, Huntington Beach, CA

Michael Marr, Huntington Beach, CA

Michael McMahan, Huntington Beach, CA

Michael Ozaki, Huntington Beach, CA

James Preston, Huntington Beach, CA

Peggy Rosen, Huntington Beach, CA

Brandon Ross, Huntington Beach, CA

Fred Schloessinger, Huntington Beach, CA

Rita Spira, Huntington Beach, CA

mary tindukasiri, Huntington Beach, CA

Carol Acosta, Idyllwild, CA

Jason Leichter, Imperial Beach, CA

Lindsay Erickson, Indio, CA

William Heagy, Indio, CA

Matthew Humphrey, Indio, CA

Robert Ikehorn, Indio, CA

Karen Seeberg, Indio, CA

Sheila Breeding, Inglewood, CA

Kathleen McConn, Inglewood, CA

Terri Mckown, Inyokern, CA

Charlotte Rolle, Ione, CA

James Beirne, Irvine, CA

Rosanne Bravo, Irvine, CA

Jill Dunham, Irvine, CA

Robert Glasser, Irvine, CA

Mehdi Jazayeri, Irvine, CA

Wendy Kleeb, Irvine, CA

Joseph Lambert, Irvine, CA







Robin Weirich, Irvine, CA

Alexander Acuna, Isla Vista, CA

Dee Leineke, Jackson, CA

Michael Anderson, Jamul, CA

Gillian Parrillo, Kelseyville, CA

Carmela Perez, Kelseyville, CA

Darcy Skarada, Kelseyville, CA

Steve Caramia, Kensington, CA

John Kramer, Kensington, CA

Nicole Bergman, La Canada Flintridge, CA

LouAnne Insprucker, La Canada Flintridge, CA

Nickolaos Mastrodemos, La Canada Flintridge, CA

Alison Brett, La Crescenta, CA

Ruth Jones, La Crescenta, CA

Kimberley Moreno, La Crescenta, CA

Ellen Segal, La Crescenta, CA

Linda Wright, La Crescenta, CA

Michael Rodriguez, La Habra, CA

Glenn Jones, La Honda, CA

Nathan Brenner, La Jolla, CA

Sharon Laabs, La Jolla, CA

Michele Lang-Hillyard, La Jolla, CA

Susan Mc Candless, La Jolla, CA

Howard Moss, La Jolla, CA

Dave Paterson, La Jolla, CA

Anita Speier, La Jolla, CA

Elyse Tierney, La Jolla, CA

Joanee Ude, La Jolla, CA

Michael Beam, La Mesa, CA

Sietse Peter Boersma, La Mesa, CA

Robert Buchanan, La Mesa, CA

Christina Jackson, La Mesa, CA

Brenda Thompson, La Mesa, CA

Richard Vestal, La Mesa, CA

Harlan Lebo, La Mirada, CA

David Maraszek, La Mirada, CA

Rodney Mcguire, La Quinta, CA

Claudia Monahan, La Quinta, CA

Rhonda Oliver, La Quinta, CA

Thomas McVay, Ladera Ranch, CA

Aaron Chan, Lafayette, CA

Sakti Das, Lafayette, CA

S Herold, Lafayette, CA

Elsa Ramos, Lafayette, CA

Alice Stauffer, Lafayette, CA

Patricia Appel, Laguna Beach, CA

Stacy Cornelius, Laguna Beach, CA

Daniel Haspert, Laguna Beach, CA

Adam Kaplan, Laguna Beach, CA

Robert Reed, Laguna Beach, CA

Leif Trondsen, Laguna Beach, CA

Margaret White, Laguna Beach, CA

Susan Wood, Laguna Beach, CA

Connie Loveland, Laguna Hills, CA

Phyllis Roberts, Laguna Hills, CA

Steven Allison, Laguna Niguel, CA

Suzanne Fliszar, Laguna Niguel, CA

Karyn Parvis, Laguna Niguel, CA

Lauren Linda, Laguna Woods, CA







Kevin O'Brien, Laguna Woods, CA

Sandra Van Horn, Laguna Woods, CA

David Reddy, Lake Arrowhead, CA

Richard Bejarano, Lake Elsinore, CA

Charles Decelles, Lake Elsinore, CA

Sean Brien, Lake Forest, CA

Bruce Cook, Lake Forest, CA

Bonnie Coomes, Lake Forest, CA

Shelley Logan, Lake Forest, CA

Darnell Montejano, Lake Forest, CA

Carman Broderick, Lakeport, CA

Patrick Bernardino, Lakeside, CA

Robert L Davenport, Lakewood, CA

Susan Brisby, Lancaster, CA

Patrisha Hodgman, Lancaster, CA

Eric Layton, Larkspur, CA

Rachael Richman, Larkspur, CA

Mona Bourell, Laytonville, CA

Sharon Paltin, Laytonville, CA

Ked Garden, Lemon Grove, CA

Jessica Fleischer, Lincoln, CA

Nicole Fountain, Lincoln, CA

Gail Marculescu, Lincoln, CA

Peggy Galusha, Live Oak, CA

Patricia MacLeod, Livermore, CA

Leo Mara, Livermore, CA

Sally Marone, Livermore, CA

Jerri Mcvicker, Livermore, CA

Stephen Stradling, Livermore, CA

Cindy Lashbrook, Livingston, CA

Elizabeth Eisenbeis, Lodi, CA

Audrey Lee, Lodi, CA

Patricia Maddock, Lodi, CA

Maribeth Ackerman, Lomita, CA

Mary Cook, Lomita, CA

Lise Fillion, Lomita, CA

Wendy Becker, Long Beach, CA

Frederick Cliver, Long Beach, CA

Thomas Crochet, Long Beach, CA

Kurt Cruger, Long Beach, CA

John Diaz, Long Beach, CA

Vanessa Dolan, Long Beach, CA

Mary Flint, Long Beach, CA

Debbie Flores, Long Beach, CA

Cheryl Follett, Long Beach, CA

Tamra Goris, Long Beach, CA

William Harte, Long Beach, CA

Genie Ideman, Long Beach, CA

Gail Karn, Long Beach, CA

Andrew Kort, Long Beach, CA

Gene Kumagai, Long Beach, CA

David Means, Long Beach, CA

Janmei Murdock, Long Beach, CA

Michsel Newey, Long Beach, CA

Greg Perkins, Long Beach, CA

Gail Powers, Long Beach, CA

Stanley Seeman, Long Beach, CA

Lance Smith, Long Beach, CA

Mark Sullivan, Long Beach, CA

Ryan Tilke, Long Beach, CA







Raymond Kraft, Loomis, CA

Sandy Friedman, Los Alamitos, CA

Tamara Madison, Los Alamitos, CA

Janice Apol, Los Altos, CA

Linda Brummer, Los Altos, CA

Gloria Dralla, Los Altos, CA

Linnea F, Los Altos, CA

Tracy Gibbons, Los Altos, CA

Kinshuk Govil, Los Altos, CA

Isabel Lee, Los Altos, CA

Jill Stone, Los Altos, CA

Leslie Abbott, Los Angeles, CA

Asad Abidi, Los Angeles, CA

Scott Acord, Los Angeles, CA

Marsha Alperin, Los Angeles, CA

Ernesto Alvarez, Los Angeles, CA

Richard Alvidrez, Los Angeles, CA

Stan Alvidrez, Los Angeles, CA

Raul Anorve, Los Angeles, CA

Raymond Aramburu, Los Angeles, CA

Thais Arata, Los Angeles, CA

Claudine Armand, Los Angeles, CA

Erika Armin, Los Angeles, CA

Lori Avalos, Los Angeles, CA

Soraya Barabi, Los Angeles, CA

Ann Bein, Los Angeles, CA

Linda Benjamin, Los Angeles, CA

Nancy Berman, Los Angeles, CA

Adam Bernstein, Los Angeles, CA

Mike Bievenouer, Los Angeles, CA

Vicki Bingo, Los Angeles, CA

Rollin Blanton, Los Angeles, CA

Paula Block-Levor, Los Angeles, CA

Jonathand Bogdanove, Los Angeles, CA

Daniel Boland, Los Angeles, CA

Deirdre Boland, Los Angeles, CA

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Michael Harrop, Riverside, CA

Susan Hemsley, Riverside, CA

Julie Holdridge-Prado, Riverside, CA

Patricia Knox, Riverside, CA

Catherine Mason, Riverside, CA

Pamela Mcdonald, Riverside, CA



Henry Rosenfeld, Riverside, CA

Pam Schmitt, Riverside, CA

James Toland, Riverside, CA

Nisa Wallace, Riverside, CA

Bernard Waltzer, Riverside, CA

Reta Davis, Rocklin, CA

Daniel McKeighen, Rocklin, CA

Elaine Wander Leclaire, Rodeo, CA

Alan Bosch, Rohnert Park, CA

Denise Brown, Rohnert Park, CA

Sandra Lee, Rohnert Park, CA

Susan Ott, Rohnert Park, CA

Lawrence Joe, Rosemead, CA

Abigail Davis, Roseville, CA

Natalie Grand, Roseville, CA

Glenda Hay, Roseville, CA

Jamie Smith, Roseville, CA

Ann Wasgatt, Roseville, CA

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Patty Dismukes, Sacramento, CA

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Renee Sankus, Sacramento, CA

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Fay Slaterp9, Sacramento, CA







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Roman Reardon, San Pedro, CA

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Susan Lea, Studio City, CA

Elisa Marsh, Studio City, CA

Aaron Mendelsohn, Studio City, CA

Suzanne Naegle, Studio City, CA

Julie Skille, Studio City, CA

Natalia Spornik, Studio City, CA

Jeremy Trimm, Suisun City, CA

Robin Van Tassell, Summerland, CA

Katharine Warner, Sunland, CA

Kimberly Zimmerman, Sunland, CA

Victoria Armigo, Sunnyvale, CA

Scott Barlow, Sunnyvale, CA

Ernest Boyd, Sunnyvale, CA

Lenore Cohen, Sunnyvale, CA

Susan Johnson, Sunnyvale, CA

Liana Laskin, Sunnyvale, CA

Iztok Marjanovic, Sunnyvale, CA

Robert Park, Sunnyvale, CA

Mark Philips, Sunnyvale, CA

Bryan Richter, Sunnyvale, CA

John Robbins, Sunnyvale, CA

Kris Stadelman, Sunnyvale, CA

Gerald Tinder, Sunnyvale, CA

Rose-Marie Twu, Sunnyvale, CA

Mary White, Sunnyvale, CA

Sandra Hendricks, Sutter Creek, CA

Delores Abramson, Sylmar, CA

Diane Boucher, Sylmar, CA

Paul Enders, Sylmar, CA

Robert Iaccino, Sylmar, CA

Nancy Nolen, Sylmar, CA

Vicki Smith, Sylmar, CA

Andrew Patton, Tahoe Vista, CA

Frank Watts, Tahoe Vista, CA

El. Pe., Talmage, CA



Louise Bianco, Tarzana, CA

Cecly Corbett, Tarzana, CA

Roger Hollander, Tarzana, CA

Beth Hamilton, Tehachapi, CA

Deborah Hand, Tehachapi, CA

Gary Baker, Temecula, CA

Richard Blain, Temecula, CA

Holly Hall, Temecula, CA

Sofia Okolowicz, Temecula, CA

Anthony Terich, Temecula, CA

Christine Lew, Temple City, CA

Linda Skorheim, Temple City, CA

Cassie A. Murphy, Templeton, CA

Deborah Filipelli, PhD, The Sea Ranch, CA

Victoria Behar, Thousand Oaks, CA

Bob Fryer, Thousand Oaks, CA

Ibia Gomez, Thousand Oaks, CA

Marc Orfanos, Thousand Oaks, CA

Katherine Strong, Thousand Oaks, CA

Richard Sugerman, Thousand Oaks, CA

Paul Teplitz, Thousand Oaks, CA

Karissa Turner, Thousand Oaks, CA

Douglas Foster, Three Rivers, CA

Lorraine Grace, Tiburon, CA

Timothy McCollum, Tollhouse, CA

Marti Hale, Toluca Lake, CA

Madelyn Hodges, Tomales, CA

Donna Cetorelli, Topanga, CA

Mae Hein, Topanga, CA

Jon Povill, Topanga, CA

Nora Slattery, Topanga, CA

Adrien Thein-Sandler, Topanga, CA

Penelope Ward, Topanga, CA

Ruth Ehrenberg, Torrance, CA

Joyce Harrington, Torrance, CA

Edwin Miller, Torrance, CA

Faye Ryan, Torrance, CA

Erin Suyehara, Torrance, CA

Mary Walker, Torrance, CA

Jinx Hydeman, Trabuco Canyon, CA

Deborah Mueller, Trabuco Canyon, CA

Karen Negus, Trabuco Canyon, CA

Gloria Sefton, Trabuco Canyon, CA

Vasuki Nijagal, Tracy, CA

David Freeman, Truckee, CA

Brett Bell, Tujunga, CA

Darlene Goguen, Tujunga, CA

Probyn Gregory, Tujunga, CA

Charleen Schendel, Turlock, CA

Everett A. Vieira III, Turlock, CA

Perry Gx, Tustin, CA

Veronica Noguer, Tustin, CA

Jim Estus, Twentynine Palms, CA

Jorge DeCecco, Ukiah, CA

Tisha Douthwaite, Ukiah, CA

Mary Gustafson, Ukiah, CA

Lisa Hillegas, Ukiah, CA

Judy Morgan, Ukiah, CA

Raymond Radell, Ukiah, CA

Ernest Walters, Union City, CA



Courtney Christoffer, Upland, CA

Kristen Osman, Upland, CA

Yvonne Smith, Upland, CA

Janet Sturgeon, Upland, CA

Becky Cecena, Vacaville, CA

Michael Heffernan, Vacaville, CA

Lorraine Lowry, Vacaville, CA

Adrianne. Micco, Vacaville, CA

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Donald Van Santen, Valencia, CA

Karen Black, Vallejo, CA

Valerie Duda, Vallejo, CA

Karen Eft, Vallejo, CA

Jocelyn Graef, Vallejo, CA

Ann Harrison, Vallejo, CA

Lorri Humberd, Vallejo, CA

David Macdonald, Vallejo, CA

Diane Merrick, Vallejo, CA

Marni Nacheff, Vallejo, CA

Nikki Nafziger, Vallejo, CA

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Carrie Trochet, Vallejo, CA

Lenette Weishaar, Vallejo, CA

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Gerald Vietor, Valley Springs, CA

Laura Holmes, Valley Village, CA

Darynne Jessler, Valley Village, CA

Anne Kurtzman, Valley Village, CA

Andrew Sigal, Valley Village, CA

Stokes Stanzi, Valley Village, CA

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Valerie Ferrante, Van Nuys, CA

Mark Heiliger, Van Nuys, CA

Susan Jones, Van Nuys, CA

Janet Laur, Van Nuys, CA

Vicki Modesti, Van Nuys, CA

Ana Reedy, Van Nuys, CA

P Soucek, Van Nuys, CA

Ken Windrum, Van Nuys, CA

Jesse Croxton, Venice, CA

Ann Ducommun, Venice, CA

Arnaud Dunoyer, Venice, CA

Zoe Friedman, Venice, CA

Frank Krentzman, Venice, CA

Linda Laisure, Venice, CA

Nancy Lombardi, Venice, CA

Brendan Miller, Venice, CA

Ruth Seroussi, Venice, CA

Chris Tilly, Venice, CA

Jamie Wolf, Venice, CA

Farrah Zeigler, Venice, CA

Robert Brunner, Ventura, CA

Gary Channer, Ventura, CA

David Cotner, Ventura, CA

Laura Elam, Ventura, CA

Jamie Green, Ventura, CA

Suzanne Guthrie, Ventura, CA

Helen Johnson, Ventura, CA

Erin Kraus, Ventura, CA

Elizabeth Ladiana, Ventura, CA





Jan Langer, Ventura, CA

Carrie Mc, Ventura, CA

Jane Niehaus-Tull, Ventura, CA

Mary Stanistreet, Ventura, CA

Wendy Steiger, Ventura, CA

Elaine Stephenson, Ventura, CA

Krista Stevenson, Ventura, CA

Chelsea Sutula, Ventura, CA

Mike Trivich Trivich, Ventura, CA

Melissa Vasconcellos, Ventura, CA

LeAnn Walters, Ventura, CA

Kathy Yeomans, Ventura, CA

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Alonna Farrar, Vista, CA

James Hagar, Vista, CA

Joleen Hirscher, Vista, CA

Trisha Pahmeier, Vista, CA

Constance Youens, Vista, CA

Keith Forrest, Volcano, CA

Michael Shapiro, W. Hollywood, CA

Chris Dissanayake, Walnut, CA

Erfin Hartojo, Walnut, CA

Rita Thio, Walnut, CA

Sarah Adams, Walnut Creek, CA

Ana Belle, Walnut Creek, CA

Nancy Bocanegra, Walnut Creek, CA

Susan Desmond, Walnut Creek, CA

Lu Einer, Walnut Creek, CA

Annette Eisenbergsmith, Walnut Creek, CA

Julia Fuller, Walnut Creek, CA

Janicedotherighthing Greenberg, Walnut Creek, CA

Barbara Greenwood, Walnut Creek, CA

Joan Johnston, Walnut Creek, CA

Emmanuel Lagpacan, Walnut Creek, CA

Barb Linc, Walnut Creek, CA

Anne M Stewart, Walnut Creek, CA

Ginger Megley, Walnut Creek, CA

Patricia Raso, Walnut Creek, CA

Stanley Smith, Walnut Creek, CA

Nancy Thursby, Walnut Creek, CA

Jan Warren, Walnut Creek, CA

David Wendt, Walnut Creek, CA

Virginia Wheaton, Walnut Creek, CA

Randall Wiley, Walnut Creek, CA

Pam Nelson, Warner Springs, CA

Marguerite Barragan, Watsonville, CA

Paul Cheney, Watsonville, CA

Joe Gallagher, Watsonville, CA

Ana Hernandez, Watsonville, CA

Roberta Krenz, Watsonville, CA

Laura Maitra, Watsonville, CA

Steffany Mccabe, Watsonville, CA

Sarah Peck, Watsonville, CA

Celeste Stanik, Watsonville, CA

Susan Hazard, Weaverville, CA

Randolph Yates, Weaverville, CA

John Brennan, Weed, CA

John Allen, West Covina, CA

Lauren Flahive, West Covina, CA





Meilee Langi, West Covina, CA

Donald Overlin, West Covina, CA

Fernando Ramirez, West Covina, CA

Susan Zaragoza, West Covina, CA

Rebecca Clark, West Hills, CA

Paul Hogan, West Hills, CA

Linda Howie, West Hills, CA

Abbie Bernstein, West Hollywood, CA

Howard H. Holmes, West Hollywood, CA

Susan Mathison, West Hollywood, CA

Christina Nillo, West Hollywood, CA

Kathy Scher, West Hollywood, CA

Dolores Scozzesi, West Hollywood, CA

Jon Sperry, West Hollywood, CA

Andrew Hamilton, West Sacramento, CA

Signe Wetteland, West Sacramento, CA

Barbara E., Westlake Village, CA

Jeanne Harrison, Westlake Village, CA

Lia Woodward, Westlake Village, CA

Michael Lawler, Westminster, CA

Brandon Lowentrout, Westminster, CA

Tina Colafranceschi, Whitethorn, CA

Jo Beede, Whittier, CA

Narcissa Enzmann, Whittier, CA

Vanessa Leal, Whittier, CA

Robert Palomino, Whittier, CA

Jose Rodriguez, Whittier, CA

Jan Joe, Windsor, CA

Barbara Lyon, Windsor, CA

Allison Mcconnell, Windsor, CA

Susan Bohannon, Winnetka, CA

Andre Plessis, Winnetka, CA

Caryn Banque, Woodland, CA

Kay Bogart, Woodland, CA

Donna Bousquet, Woodland, CA

Sheri Masterson, Woodland, CA

Ellie Slaven, Woodland, CA

Gretchen Smurr, Woodland, CA

Susan George-Rydberg, Woodland Hills, CA

Bobbi Goldin, Woodland Hills, CA

Michael Goldman, Woodland Hills, CA

Willie Hill, Woodland Hills, CA

Arax Lanman, Woodland Hills, CA

Stephanie Larro, Woodland Hills, CA

Lorraine Priceman, Woodland Hills, CA

Victoria Riskin, Woodland Hills, CA

Jollee Saphier, Woodland Hills, CA

Marc Tarpenning, Woodside, CA

Kathleen Fernandez, Yorba Linda, CA

Peggie Kirkpatrick, Yorba Linda, CA

Ben Mckinstry, Yorba Linda, CA

Gabriel Graubner, Yountville, CA

Carole Evers, Yucaipa, CA

Kt Gates-Waldrup, Yucaipa, CA

Jo Bollen, Yucca Valley, CA

Rose Bachman, CA 90001

Leonardo Corro, CA 90001

Penelope Daily, CA 90001

Adrian Juarez, CA 90001

Denise Miceli, CA 90001





Michele Carrizalez, CA 90002	M	[iche]	le Ca	rrizalez	, CA	900)()2
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Julio Robledo, CA 90003

Vanessa Bayer, CA 90004

Shirley Hey, CA 90004

Glen Morgan, CA 90004

Grant Sloss, CA 90004

Jeremy Tague, CA 90004

Candy Kaiser, CA 90005

David Mack, CA 90005

Henry Muniz, CA 90005

Jorge Valle-Artiga, CA 90005

Michelle Rito, CA 90006

Tripthi Kamath, CA 90007

Beth Palkovic, CA 90007

Joshua Yeargain, CA 90007

Gail Gentry, CA 90008

Fred Mosbey, CA 90008

Scott Baird, CA 90010

Jessie Hahn, CA 90010

Barbara Hoke, CA 90010

Hector Arroyo, CA 90011

Bruce Stout, CA 90011

Lisa Callahan, CA 90012

Wendy Vinglinsky, CA 90012

Narda Zacchino, CA 90012

Drex Heikes, CA 90013

Jolie Krance, CA 90013

J Magnuson, CA 90013

Adam Miller, CA 90013

Sigmund Palasek, CA 90013

Michael Vizcarrondo, CA 90013

Linda Desola, CA 90014

Andrew Matson, CA 90014

Glicelia Avila, CA 90015

Chad Sarver, CA 90015

Ricky Shum, CA 90015

Gary Williams, CA 90015

Theodore Burton, CA 90016

Michael Damanskis, CA 90016

Victoria Kemsley, CA 90016

Joan Benjamin, CA 90017

Lisa Shinavier, CA 90018

Jo Trigo, CA 90018

Sarah Boldt, CA 90019

Dejarne Bourne, CA 90019

Sharron Craig, CA 90019

Brian Dent, CA 90019

Uri Fleming, CA 90019

Jennifer Griffin, CA 90019

Julia Hasen, CA 90019

Ksenia Koban, CA 90019

Jane Martin, CA 90019

Jaimie Mullens, CA 90019

Thuyvan Nguyen, CA 90019

Kevin Proulx, CA 90019

Daniel Shapiro, CA 90019

Melody Thornton, CA 90019

Karen Tillman, CA 90019

Daniel Yoo, CA 90019

James Jackson, CA 90020





Gerald	l Park.	CA	90020

Alexandra Weinberger, CA 90020

Amishi Shah, CA 90021

Mills Davis, CA 90022

Steven Baaden, CA 90024

Geoffrey Bogeaus, CA 90024

Geoff Bywater, CA 90024

Susan Friedman, CA 90024

Janet Hirsch, CA 90024

Melodie Hollander, CA 90024

Kiera Kosciolek, CA 90024

Christine Oldenbrook, CA 90024

Kevin Poirier, CA 90024

Wendy Richmond, CA 90024

Phillip Savenick, CA 90024

Joel Smith, CA 90024

Jeremy Vernon, CA 90024

Joseph Ziomek, CA 90024

Philip Bartolf, CA 90025

Phyllis Gabriel, CA 90025

Kathryn Hyder, CA 90025

Harriet Levine, CA 90025

Rachel Mcclard, CA 90025

Harvey Myman, CA 90025

John Stapleton, CA 90025

Danielle Stclair, CA 90025

Rosie Alvarenga, CA 90026

Rochelle Bassarear, CA 90026

Hugo Chavez, CA 90026

Danika Choe, CA 90026

Henry Estrada, CA 90026

Jonathan Gibson, CA 90026

Melissa Jones, CA 90026

Margaret Kingsbury, CA 90026

Raen Malone, CA 90026

Frances Maloney, CA 90026

Rebecca Rufer, CA 90026

Toby Tannenbaum, CA 90026

Alison Waller, CA 90026

Paul Brittain, CA 90027

Devlyn Corrigan, CA 90027

Morgan Doverpearl, CA 90027

Terri Foster, CA 90027

Kathryn Nelson, CA 90027

Jb Popplewell, CA 90027

Autumn Reeser, CA 90027

Manuel Rodriguez, CA 90027

Michele Sohnen, CA 90027

Zackary Taylor, CA 90027

Lisa Wallace, CA 90027

Lisa Carney, CA 90028

Melissa Gelmo, CA 90028

Kendra Miller, CA 90028

Coleen Novak, CA 90028

Morgan Bleuel, CA 90029

Suzanne Carney, CA 90029

Andrew Gage, CA 90029

Jessica Rosen, CA 90029

Gustavo Torres, CA 90029

Audrey Arkins, CA 90031





Lourdes Beltran, CA 90031

Nathana Schooler, CA 90031

Misty Arceneaux, CA 90032

Tony Beck, CA 90032

Zoely Biel, CA 90032

Raymond Dangelo, CA 90032

Arturo Jauregui, CA 90032

George Torres, CA 90032

Jazmin Ortega, CA 90033

Mitchell Roberts, CA 90033

Annie Wong, CA 90033

Victoria Brago, CA 90034

Gonzalez Cani, CA 90034

Stanley Coleite, CA 90034

Cristina Cruz, CA 90034

Claudia Garcia, CA 90034

David Hawthorne, CA 90034

Elisa Iovine, CA 90034

Delia Lopez, CA 90034

Annie Orange, CA 90034

Nicole Pina, CA 90034

Tucker Poindexter, CA 90034

Michael Raileanu, CA 90034

Collin Reynolds, CA 90034

Elizabeth Rose, CA 90034

Frank Sorkin, CA 90034

Bernestine Taylor, CA 90034

Brandon Vineyard, CA 90034

Florence Williams, CA 90034

Tricia Berman, CA 90035

Mitchell Cohen, CA 90035

Andrew David, CA 90035

Marcy Kelly, CA 90035

Randall Leighton, CA 90035

Steven Luftman, CA 90035

Sara Mattison, CA 90035

Jordyn Ostroff, CA 90035

Brenda Ruttenberg, CA 90035

Joan Sobel, CA 90035

Crystal Us, CA 90035

Stacy Barninger, CA 90036

Lauren Bopp, CA 90036

Jennifer Brett, CA 90036

Anne Brilliant, CA 90036

Claire Castle, CA 90036

Paqueta Davis, CA 90036

Marisa Duarte, CA 90036

Alan Ehrlich, CA 90036

Thomas Gossard, CA 90036

Suzanna Griffith, CA 90036

Henry Johnson, CA 90036

Kevin Keenan, CA 90036

Chad Kenward, CA 90036

Anne Madariaga, CA 90036

Gabrielle Mahdesian, CA 90036





Eric Op	anga, CA	90036
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Bill Petrotta, CA 90036

Micah Pittard, CA 90036

Cherie Sandum, CA 90036

Rick Wartzman, CA 90036

Gregory Mitchell, CA 90037

Daniel Shaw, CA 90037

Ellynn Brown, CA 90038

Justin Horowitz, CA 90038

Kenneth Rincon, CA 90038

Dominick Romain, CA 90038

Reiss Clauson-Wolf, CA 90039

Sean Cooley, CA 90039

Melodie Mcdaniel, CA 90039

Paulina Quintana, CA 90039

Erik Rhey, CA 90039

Annelle Grajeda, CA 90040

Pablo Vargas, CA 90040

Francesca Fiorentini, CA 90041

Teru Kanazawa, CA 90041

Michael Nehring, CA 90041

Paul Vallejo, CA 90041

Jennifer Wilson, CA 90041

Martamaria Cross, CA 90042

Laura Cultrera, CA 90042

Vincent Delley, CA 90042

Ann Diederich, CA 90042

Austin Flack, CA 90042

Jacqueline Hardy, CA 90042

Brendan Hughes, CA 90042

James Knudsen, CA 90042

Michele Lavecchia, CA 90042

Nancy Sharrett, CA 90042

Yolanda Duvernay, CA 90043

Carla Huckaby, CA 90043

Janice Kingcade, CA 90043

Emma Rivera, CA 90043

Larry Roberson, CA 90043

Teraesa Vinson, CA 90043

Monique Browne, CA 90044

Michael Hall, CA 90044

Vincent Marzullo, CA 90044

Diane Corbin, CA 90045

Michael Eberly, CA 90045

Shay Gipson, CA 90045

Sasha Kushner, CA 90045

Jason Phillips, CA 90045

Robyn Rhinehart, CA 90045

Lilian Salvatore, CA 90045

Eleanor Schwartz, CA 90045

Shannon Algeo, CA 90046

sharon barber, CA 90046

Nicholas Barlow, CA 90046

Rusty Buchanan, CA 90046

Peter Burns, CA 90046

Laniesha Butler, CA 90046

Monique Caulfield, CA 90046

Sukee Chew, CA 90046

Lisa Crilley, CA 90046

Jonathan Darr, CA 90046





Kae Erickson,	CA	9004	6
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Taylor Forbes, CA 90046

Mary Haskell, CA 90046

Jason Hicks, CA 90046

Paula Hooks, CA 90046

Daniel Howell, CA 90046

Corey Jiannalone, CA 90046

Michael Kelleher, CA 90046

Rada Konvisser, CA 90046

Meredith Lovegrove, CA 90046

Christopher Mcfarland, CA 90046

Matthew Nolinleblanc, CA 90046

Nancy Priddy, CA 90046

Sydney Van Gorp, CA 90046

Linda Cryer, CA 90047

Claire Evans, CA 90047

Franklin Marline, CA 90047

Marvin Zacharie, CA 90047

Cayla Bonn, CA 90048

Lucy Bradley, CA 90048

James Forrester, CA 90048

Deborah Glass, CA 90048

Douglas Long, CA 90048

Eric Ortner, CA 90048

David Resnik, CA 90048

James Rounds, CA 90048

Stephen Viens, CA 90048

Charlene Williams, CA 90048

Susan Bleecher, CA 90049

Ronda Gomezquinones, CA 90049

Judith Gordon, CA 90049

Andrea Green, CA 90049

Nicole Hillebrandt, CA 90049

Steven Hitter, CA 90049

Theresa Kvale, CA 90049

Laurel Newbound, CA 90049

Katie Ng, CA 90049

Arnold Platzker, CA 90049

Paul Puri, CA 90049

Rebecca Sperber, CA 90049

Matthew Tolchin, CA 90049

Marshall King, CA 90056

Richard Krelle, CA 90056

Cynthia Mason, CA 90056

Andreda Pruitt, CA 90056

Sylvia Swilley, CA 90056

Carmencita Solidum, CA 90057

Cynthia Hawkins, CA 90059

Daniel Zepeda, CA 90059

Dana Hubert, CA 90061

Yanscy Flores, CA 90063

Beatriz Higuera, CA 90063

Kathy Rose, CA 90063

Nicole Bergelson, CA 90064

Thomas Byrnes, CA 90064

Shellie Collier, CA 90064

Karin Diskin, CA 90064

Karen Edgerton, CA 90064

Matthew Fillman, CA 90064

Jody Frank, CA 90064





Robert Gage, CA 90064	R	lol	bert	Gage,	CA	900	064	
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Mark Hembree, CA 90064

Linda Levy, CA 90064

Jennie Maguen, CA 90064

Michael Mcintyre, CA 90064

Susan Montgomery, CA 90064

Barbara Satinover, CA 90064

Michael Schaffer, CA 90064

Cindy Sison, CA 90064

Ruth Strauss MD, CA 90064

Barbara Trelease, CA 90064

Jill Uhlenkott, CA 90064

Julie Ahlberg, CA 90065

Maria Borden, CA 90065

Lamar Damon, CA 90065

Sarah Soquel Morhaim, CA 90065

Arthur Shapiro, CA 90065

Carlos Tobar, CA 90065

Maria Warmoth, CA 90065

Kelly Aeolan, CA 90066

Ethan Arnold, CA 90066

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Barbara Berney, CA 90066

Faith Brewer, CA 90066

Stephanie Davis Don, CA 90066

Sarah Epperson, CA 90066

Timothy Groff, CA 90066

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Akhil Gupta, CA 90066

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Luann Jaffe, CA 90066

Alex Kruglov, CA 90066

Danielle Loefflad, CA 90066

Sean Porter, CA 90066

Eileen Selogie, CA 90066

Sondra Yevette, CA 90066

Robert Zaugh, CA 90066

Morgan Chu, CA 90067

Laura Cordovano, CA 90067

Howard Fredman, CA 90067

Stephanie Marshall, CA 90067

Susan Rodriguez, CA 90067

Shelly Rothschild, CA 90067

Wesley Strick, CA 90067

Jason Wallach, CA 90067

Nancee Allen, CA 90068

Lynn Collings, CA 90068

Jodi Ehrlich, CA 90068

Brian Henson, CA 90068

Tim Long, CA 90068

Kay Morris, CA 90068

Shane Nguyen, CA 90068

Jimmy Wachtel, CA 90068

Wendy Alvarez, CA 90069

Frank Baquero, CA 90069

Daniel Cohen, CA 90069

Nicole Cutright, CA 90069

Wendy Lipin, CA 90069

Jennifer Martin, CA 90069

Kent McCallister, CA 90069





Jordan i	Rosen	berg,	CA	9006	59)
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Meir Shamy, CA 90069

Matthew Shields, CA 90069

Sara West, CA 90069

Tambi Yu, CA 90069

Robert Daly, CA 90077

Matthew Harrison, CA 90077

Richard Kipper, CA 90077

Francine Maisler, CA 90077

Stephen Sohmer, CA 90077

Amarjit Soni, CA 90077

Forrest Walsh, CA 90077

Jonathan Leahy, CA 90078

Kevin Chang, CA 90079

Jill Klein, CA 90093

Joan Shapiro, CA 90094

Laura Barajas, CA 90201

Juan Guerrero, CA 90201

Efrain Meda, CA 90201

Marie Sia, CA 90201

Lori Soto, CA 90201

Nestor Valencia, CA 90201

Sathara Duong, CA 90210

Jasmine Folden, CA 90210

Victoria Jahanmardi, CA 90210

Amir Kojoory, CA 90210

Eve Rodsky, CA 90210

Arnold Stiefel, CA 90210

Dawn Eliashiv, CA 90211

Alexandra Feldman, CA 90211

Marcie Alexander, CA 90212

Josh Millet, CA 90212

Shareef Aquil, CA 90220

Emily Ragobeer, CA 90220

Kelly Gardner, CA 90221

Stefanie Cleaver, CA 90222

Yolanda Melvinnelms, CA 90222

Brian Decato, CA 90230

Barbara Golbin, CA 90230

Patricia Hughes, CA 90230

Sharon Kerson, CA 90230

James Miller, CA 90230

Pat Nomura, CA 90230

Joanna Rowles, CA 90230

Glenn Stewart, CA 90230

Lilli Valtierra, CA 90230

Glenda Wina, CA 90230

Jeremy Zuniga, CA 90230

Bill Birdsall, CA 90232

Mark Galanty, CA 90232

Jonathan Glater, CA 90232

Jim Hornstein, CA 90232

Joy Kecken, CA 90232

Parisa Mirzadehgan, CA 90232

Helki Zeigler, CA 90239

Anita Boorman, CA 90240

Xavier Granados, CA 90240

Salvador Padill, CA 90240

Bernice Caan, CA 90241

Walter Connick, CA 90245





Rhond	la Hale	y, CA	90245
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Chris Miller, CA 90245

Sarah Mosseller, CA 90245

Judy Smith, CA 90245

Gloria Telles, CA 90245

Diane Trevizo, CA 90245

Josephine Baltazar, CA 90249

Marion Dwyer, CA 90250

Julio Gavio, CA 90250

Ellen King, CA 90250

Megan Klein, CA 90250

Maureen Kleinman, CA 90250

Viki Short, CA 90250

Carl Weibel, CA 90250

David Adler, CA 90254

Megan Bowers, CA 90254

Chas Costello, CA 90254

Caitlin Dahl, CA 90254

Martin Fogel, CA 90254

Ann Gotthoffer, CA 90254

Carol Horne, CA 90254

Alicia Jones, CA 90254

Kimberly Legrand, CA 90254

Rosanna Savone, CA 90254

Angel Alva, CA 90260

Anthony Owens, CA 90260

Zenaida Alfaro, CA 90262

Tabitha Dileo, CA 90264

Robert Adler, CA 90265

Maureen De Koff, CA 90265

Jeff Eisen, CA 90265

Marla Hosie, CA 90265

Constance Shafran, CA 90265

Georgia Cano, CA 90266

Bradley Dodge, CA 90266

Carol Dormer, CA 90266

Ralph Goldstein, CA 90266

Otto Gudiel, CA 90266

Brittany Hilgendorf, CA 90266

Lynn Smith, CA 90266

Lisa Taub, CA 90266

Sara Thaves, CA 90266

Lynn Werner, CA 90266

Irene White, CA 90266

Dorothy Yungman, CA 90266

Brooke Covington, CA 90272

Kimberly Michel, CA 90272

Weston Naef, CA 90272

Leo Perez, CA 90272

Nora Perricone, CA 90272

Peter Rogers, CA 90272

Ellie Ross, CA 90272

Patricia Sinclair, CA 90272

Paul Solomon, CA 90272

Christine Steele, CA 90272

Michael Chiado, CA 90274

Michael Eicher, CA 90274

Janis Fitzsimmons, CA 90274

Arthur Friedman, CA 90274

Yvonne Godfrey, CA 90274





Karen Govenar,	CA	90274
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Lawrence Maltz, CA 90274

Colleen Mullowney, CA 90274

Sandra Peck, CA 90274

Ellie Berkowitz, CA 90275

Virendra Kadakia, CA 90275

Louis Krouse, CA 90275

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Teri Perez, CA 90275

Jason Rosenfeld, CA 90275

Sandra Brilliant, CA 90277

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Nancy Bartolo, CA 90278

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Daniel Wallace-Brewster, CA 90278

Sandra Flores, CA 90280

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Cynthia Hodnett, CA 90290

Angela Mogg, CA 90290

Coon Bruno, CA 90291

Naomi Saldana, CA 90291

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Amy Bell, CA 90301

Debra Lockie, CA 90301

Dawn Sitahal, CA 90301

Annie Flowal, CA 90302

Maria Marchand, CA 90302





Roy Smith, CA 90302	Roy	Smith	ı, CA	90302
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Mar Sorell, CA 90302

Nathaniel Jemison, CA 90303

Cristobal Tostado, CA 90304

Kendall Dennis, CA 90305

Maria Morse, CA 90310

Claudine Gueniot, CA 90401

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Bryant Odega, CA 90501

Gloria Diaz, CA 90502

Rosemary Levenson, CA 90502





	Bobbi	Scoville,	CA	90502
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Wayne Prasertong, CA 91016

Christine Pregent, CA 91016





Jon Battler, Chi Jion	Jon	Sattler,	CA	91	01	6
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Juativa Spurlock, CA 91311

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Cindy Durian, CA 91316





Beth Kramer, CA 91320

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Peggy Streid, CA 91321

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Daniel Greenbaum, CA 91335

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Donna Silverman, CA 91335

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Gustavo Garcia, CA 91343

Robert Jones, CA 91343

Mohammed Manik, CA 91343

Chris Papio, CA 91343

Lewis Gruber, CA 91344

Lisa Jernagan, CA 91344

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Albert Campbell, CA 91350

Victoria Davis, CA 91350

Richard Davis, CA 91351

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Laura Lively, CA 91354

Zane Smythe, CA 91354

Monica Bellows, CA 91355

Julie Molinare, CA 91355

Mister Oshodi, CA 91355

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Sarah Skilton, CA 91355

Linda Swartz, CA 91355

John Trudell, CA 91355

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Tina Glantz, CA 91356

Aaron Katz, CA 91356



Brigitte Cox, CA 91362



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1 CtC1 1/1d1d1d1d1505, C11 / 1550	Peter Marafatsos	, CA 91356	Sara Hibbitts, CA 91362
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	Eve Newton Gill.	CA 91356	Carl Josefsson.	CA 91362
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Gary Schattl, CA 91360 Lisa Insana, CA 913
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Lewis Fairley, CA 91361	John Liddy, CA 91367

Suzan Kavusi, CA 91361 Christopher Matted, CA 91367

Cindy Masci, CA 91361 Luz Rockey, CA 91367

Marianne Reeves, CA 91361 Melinda Romeo, CA 91367

Andrea Richard, CA 91361 Daniel Zagayer, CA 91367

Ravi Sawhney, CA 91361 John Billesdon, CA 91377

Suzette Sheweloff, CA 91361 Margaret Han, CA 91377

Jana Hand, CA 91377

Karen Drees, CA 91362 Samantha Hart, CA 91377

Cyndi Ex, CA 91362 Amy Keys, CA 91377

Debra Gass, CA 91362 David Robinson, CA 91377



Miklos V	Wright,	CA	91384
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Rose Duarte, CA 91387

Lynn Farwell, CA 91387

Folahan Ogunyankin, CA 91387

Faith Jackson, CA 91394

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Rome Mendheim, CA 91403

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Hannah Mandel, CA 91436

David Miller, CA 91436

Katrina Parks, CA 91436





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Norma Long Smith, CA 91501

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Anthony Karlic, CA 91605





Rick	ıard	Kel	ley,	CA	91	605
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Myrna Garcia, CA 91606

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Demetria Johnson, CA 91730

Marva Taylor, CA 91730

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Tammy Wilson, CA 91737

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Wanda Peyton, CA 91739

Tedd Johnson, CA 91740

Andy Wang, CA 91740

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Kristine Nelson, CA 91741





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Hector Estrada, CA 91744

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Gabrielanthony Murillo, CA 91745

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Dale Gibboney, CA 91750

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Martha Smith, CA 91750

Kelly Whittington, CA 91750

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Yip Johnson, CA 91754

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So Pak, CA 91765

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Lynn Castro, CA 91780

Agustin Jimenez, CA 91780

Maria Skilbred, CA 91784

Jaymi Abusham, CA 91786

Socorro Garcia, CA 91786





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Jeff Mccal	11	ι Δ	91	/Xh
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Marco Ramirez, CA 91786

Ed Clemensen, CA 91789

Vilma Takamine, CA 91789

Carol Tang, CA 91789

Gregory Newcomer, CA 91790

Mary Silverstein, CA 91791

Jeanne Ambriz, CA 91792

Ariadna Arambula, CA 91801

Daniella Cota, CA 91801

Richard Spindler, CA 91801

Erika Kao, CA 91802

Lothar Imbior, CA 91803

Tiffany Wardloveland, CA 91803

Eduardo Becerra, CA 91902

Richard Hanks, CA 91902

France Williams, CA 91902

Soledad Boucree, CA 91910

Osadolor Godwin, CA 91910

Blanca Lopez, CA 91910

Jose Puente, CA 91910

Elizabeth Verastigue, CA 91910

Debra Ashley, CA 91911

Maurice Gray, CA 91911

Alan Palmer, CA 91911

Wendy Shurelds, CA 91911

Keith Hammond, CA 91913

Seoul Holloway, CA 91913

Hung Nguyen, CA 91913

Vilma Clariza, CA 91915

Fernando Delgado, CA 91915

George Hurt, CA 91915

Linda Petty, CA 91915

Kimberly Williams Kee, CA 91915

Kevin Collier, CA 91935

Fred Gordon, CA 91941

Bebi Rosa, CA 91941

John Barrios, CA 91942

Mary Fay, CA 91942

Mark Forte, CA 91942

Chelsea Halpine Berger, CA 91942

Susan Kawar, CA 91942

Mimi Lev, CA 91942

Barbara Lueder, CA 91942

Marjorie Mclaughlin, CA 91942

Susan Mullaney, CA 91942

Patricia Cortez, CA 91945

Matt Niles, CA 91945

Caitlin Wion, CA 91945

Josefina Alvarado, CA 91950

Patricia Salazar, CA 91950

David Valladolid, CA 91950

Angello Carlin, CA 91977

Jason Heil, CA 91977

Carrie Lopez, CA 91977

Karen Simpson, CA 91977

Delores Threatt, CA 91977

Cheryl Carr, CA 91978

Shawn Hanna, CA 92007

Alana Howell, CA 92007





Laure	l H	[ow	ard,	CA	92008
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Megan Rounds, CA 92008

William Betts, CA 92009

Linda Brenner, CA 92009

Rene Brunold, CA 92009

Megan Dewitt, CA 92009

Christine Dicken, CA 92009

Amal Ghazi, CA 92009

Tiffany Karnig, CA 92009

Judith King, CA 92009

Phillip Nguyen, CA 92009

Gina Pisello, CA 92009

Faramarz Rassouli, CA 92009

Jacqui Schneider, CA 92009

John Detreville, CA 92010

Veronica Glaser, CA 92010

Linda Vancea, CA 92010

Elizabeth Hamelin, CA 92011

Brenna Hardman, CA 92011

Cheryl Bianchi, CA 92014

Samuel Engel, CA 92014

John Erick, CA 92014

Janet Harris, CA 92014

Kay Hoeprich, CA 92014

Candace Lowry, CA 92014

Deanna Lucci, CA 92014

Rand Steiger, CA 92014

Marie Teehan, CA 92014

Kyle Williams, CA 92014

Robert Brandenburg, CA 92019

Tracy Clingan, CA 92019

Veronica Atilano, CA 92020

Dvora Fajerman, CA 92020

Frank Ferrone, CA 92020

Janet Kaiser, CA 92020

Edward Matus, CA 92021

Joan Monkman, CA 92021

Woody Wilson, CA 92021

Cynthia Clark, CA 92023

Misty Andersen, CA 92024

Caroline Augustine, CA 92024

Stephen Baldini, CA 92024

Michele Haber, CA 92024

Richard Hauger, CA 92024

Ann Irwin, CA 92024

Anand Janaswamy, CA 92024

Maureen Kowba, CA 92024

Sarah Mason, CA 92024

Laura Metzinger, CA 92024

Meaghan Oleary, CA 92024

Mark Sonnenshein, CA 92024

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Ellen Trester, CA 92024

Susan Giroux, CA 92025

Timothy Jarrett, CA 92025

Carmen Ivins, CA 92026

Kimberly Marin, CA 92026

Julie Choi, CA 92027

Mitchell Green, CA 92027

George Kliassov, CA 92027





Konstantin Sho	ayev,	CA 9	2027
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Susan Beld, CA 92028

Patricia Eastman, CA 92028

Ernest Holburt, CA 92028

Richard Mannino, CA 92028

Diane Parker, CA 92028

Samuel Pietrofeso, CA 92028

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Richard Beck, CA 92029

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Robert Knaier, CA 92029

Neal Henderson, CA 92030

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Barry Bloom, CA 92037

Elizabeth Boyer, CA 92037

Isabel Brown, CA 92037

Brian Campion, CA 92037

Gary Ferdman, CA 92037

Michelle Lerach, CA 92037

Megan Phelps, CA 92037

Oliver Polo, CA 92037

David Thompson, CA 92037

Christopher Jrfisher, CA 92038

Kirk Sword, CA 92040

Barbara Thompson, CA 92040

William Crawford, CA 92049

Thomas Gougherty, CA 92049

John Collins, CA 92052

Carolyn Boone, CA 92054

Susan Buckland, CA 92054

Joseph Calvino, CA 92054

Jason Edwards, CA 92054

John Engel, CA 92054

Patricia Hopper, CA 92054

Christopher Martin, CA 92054

Mark Minkler, CA 92054

Luke Tesluk, CA 92054

Rita Atkinson, CA 92056

William Boston, CA 92056

Rudy Carino, CA 92056

Thomas Labrot, CA 92056

Edward Mankowski, CA 92056

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Michael Caracappa, CA 92057

Mark Gillen, CA 92057

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Laurie Lister, CA 92057

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Anna Hamrick, CA 92058

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Michele Engel, CA 92064

Tom Fahrnkopf, CA 92064





Belinda Haire, CA 92064

Sharon Hanson, CA 92064

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Deborah Supergan, CA 92064

April West, CA 92064

Andrea Whitehill, CA 92064

Connie Bley, CA 92065

Eileen Coppola, CA 92065

Paul Firth, CA 92065

Sandra Smith, CA 92065

Michael Gelfand, CA 92067

Nannette Davis, CA 92069

Mary Houle, CA 92069

Howard Motyl, CA 92069

Christina Baumgardner, CA 92071

Darlene Jenkins, CA 92071

Hugo Lepur, CA 92071

Phillip Panuco, CA 92071

Viki Wong, CA 92071

Cathryn Bolt, CA 92075

Jean-Louis Saillot, CA 92075

Tauna Andreoli, CA 92078

Melanie Bennetts, CA 92078

Susan Bowers, CA 92078

Jessica Lynn, CA 92079

Alex Alavi, CA 92081

Annette Berg, CA 92081

Peter Boutte, CA 92081

Bonita Lang, CA 92081

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Michael Santucci, CA 92081

Rosemarie Bilandzija, CA 92082

Marcia Francis, CA 92083

Brenda Squires, CA 92083

Karen Eso, CA 92084

Marilyn Falsetti, CA 92084

Anne Ichord, CA 92084

Peter Jones, CA 92084

Shelley Markoscrivner, CA 92084

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Melissa Blackburn Joniaux, CA 92101

Christina Cole, CA 92101

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Drew Dunk, CA 92101

Joshua Gruenberg, CA 92101

Chana Grunvald, CA 92101

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Brad Herrin, CA 92101

Bruce Jaques, CA 92101

Jeff Jordan, CA 92101

Joshua Kuehler, CA 92101

Gregory Lockyer, CA 92101

Charley Myers, CA 92101

Henry Rosen, CA 92101

Jon Ruelle, CA 92101

Julie Smith, CA 92101

Kaylan Thornhill, CA 92101





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Christian Bulcao, CA 92103

Elise Curry, CA 92103

Bradley Foltz, CA 92103

Wayne Maxwell, CA 92103

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Jack Ray, CA 92103

Richard Thill, CA 92103

Judybeth Tropp, CA 92103

Viridiana Ayala, CA 92104

Sandrs Chambers, CA 92104

Amber Ferguson, CA 92104

Derek Floyd, CA 92104

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Christopher Rocha, CA 92105

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Luther Lewis, CA 92106

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Tasha White, CA 92106

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Jennifer Latta, CA 92110

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John Seymour, CA 92110

Barbara Thomas, CA 92110

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John Comes, CA 92111

Carolyn Floyd, CA 92111



Debra Frischer, CA 92111

Virginia Holcomb, CA 92111

Yael Kosta, CA 92111

Ana Saucedo, CA 92111

Yolanda Peraza, CA 92113

Yolandra Thrash, CA 92113

REBECCA CORREA, CA 92114

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Pfeiffer Ledjema, CA 92116

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Greg Wong, CA 92117

Anneilynn Wright, CA 92117

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Ann Posthill, CA 92119

Evangelina Woo, CA 92119

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Kristina Isberg, CA 92120

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Paula Fitzgerald, CA 92122

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Brandon Messerly, CA 92122

Marie Minnick, CA 92122

Rosemary Straley, CA 92122

Andrew Utley, CA 92122

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Loretta Lowery, CA 92123

Martha Romero, CA 92123

Arash Yarpezeshkan, CA 92123

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Charles Smith, CA 92126





Kathleen Nahman, CA 92127

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Pat Lampasso, CA 92128

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Manisha Varaiya, CA 92128

Jacob Wheatley, CA 92128

Cynthia Fehrenbach, CA 92129

Nathalie Gill Podgorski, CA 92129

Katherine Holvoet, CA 92129

Taylor Israel, CA 92129

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Lindsay Moon, CA 92129

Debra Sammon, CA 92129

Sue Berard, CA 92130

Donna Durlak, CA 92130

Betty Garbutt, CA 92130

Genevieve Goldstone, CA 92130

Michael Hartogs, CA 92130

Charles Holland, CA 92130

Mario Petrocco, CA 92130

Deborah Wheeler, CA 92130

Matthew Hetrick, CA 92131

Ethan Marcus, CA 92131

Edlene Mckenzie, CA 92131

James Mullen, CA 92131

Robert Shull, CA 92131

Mayra Arellano, CA 92154

Valerie Haas, CA 92154

Kimberly Morgan, CA 92154

Andrea Stella, CA 92154

Larosa Watson, CA 92154

Carolyn Hollins, CA 92160

Susan Blum, CA 92166

Alex Munguia, CA 92193

Maria Eustice, CA 92201

Linda Harris, CA 92201

Patrick Knox, CA 92201

Jacqueline Lopez, CA 92201

Rhona Bader, CA 92203

Lori Dermer, CA 92203

Kathleen Murray, CA 92203

Francis Fashing, CA 92211

Norene Fremont-Bloom, CA 92211

Cheryl Matthews-Fullerton, CA 92211

Donna Mccloudy, CA 92211

Pam Parker, CA 92211

Frederick Schmidt, CA 92211

Earle Wolfe, CA 92211

Cheryl Hopkins, CA 92220

Lyn Johnson, CA 92220

Misty Lane, CA 92220

William Mccloud, CA 92220

Susan Bonner, CA 92223

Loui Cronholm, CA 92223

Anita Finkelstein, CA 92223

Janet Reed, CA 92223

Lori Robillard, CA 92223





Sv]	lvia	Di	lego.	CA	92227

Chryssa Brazil, CA 92234

Heidi Holmes, CA 92234

Edith Lascola, CA 92234

Dale Meyer, CA 92234

Donald Moore, CA 92234

Scott Randall, CA 92234

Victor Rodriguez, CA 92234

Sydney Skosana, CA 92234

Kent Taylor, CA 92234

Sarah Vazquez, CA 92234

Lilian Velasquez, CA 92234

George Williamson, CA 92234

Zee Wong, CA 92234

Linda Bjornberg, CA 92240

Ronald Scheer, CA 92240

Victoria Escalante, CA 92243

Akbar Zadeh, CA 92243

Sandy Villa, CA 92251

Mary Hitchcock, CA 92252

Linda Perry, CA 92252

Thomas Burbank, CA 92253

Jackie Grenz, CA 92253

Emmett Lewis, CA 92253

Walter Nelson, CA 92253

Sharon Prentice, CA 92253

Jim Watson, CA 92253

Nancy Woodruff, CA 92253

Mark Chappell, CA 92256

Jayne Combs, CA 92256

Michael Foster, CA 92256

Gregory Bauer, CA 92260

Sharon Beckman, CA 92260

Frances Ferguson, CA 92260

Shirley Findlay, CA 92260

Genevieve Judge, CA 92260

Barbara Marx, CA 92260

Robert Nowie, CA 92260

Ilene Schimmel, CA 92260

Kimberly Valentine, CA 92260

Myriam Westendorf, CA 92260

Steven Bean, CA 92262

Clayton Blackburn, CA 92262

Robert Brandt, CA 92262

Justin Ceeko, CA 92262

Martin Foster, CA 92262

Brandon Hoskins, CA 92262

Brian Ingelson, CA 92262

John Mahoney, CA 92262

John Meyer, CA 92262

Victor Pellegrini, CA 92262

Vonne Ringle, CA 92262

Julian Smariga, CA 92262

David Wallace, CA 92262

Richard Witzel, CA 92262

Sally Goodman, CA 92263

Rosemarie Olecki, CA 92263

Jane Stampe, CA 92263

Deanne Anders, CA 92264

William Bodine, CA 92264



Mary Humfeld, CA 92264

Patricia Martin, CA 92264

Kathleen Mcelvarrgarrity, CA 92264

Philip Sacino, CA 92264

Mark Steffen, CA 92264

Leland Vandeventer, CA 92264

Abby Winston, CA 92264

Paul Addison, CA 92270

Shirelle Alexander, CA 92270

Judith Ankney, CA 92270

Bruce Flamenbaum, CA 92270

David Lacharite, CA 92270

Annamarie Viglizzo, CA 92270

Barbara Wiesen, CA 92270

Beth Windsor, CA 92270

Judy Wright, CA 92270

Susan Trexler, CA 92274

Lisa Ayres, CA 92276

Robert Hofmann, CA 92277

James Knight, CA 92277

Vanessa Souza, CA 92277

Laura Valentine, CA 92277

David Woods, CA 92277

Jace Ribblett, CA 92284

Ned Porter, CA 92308

Karen Proctor, CA 92313

Cindy Lalonde, CA 92315

Annette Johnson, CA 92316

Patricia Cuesta, CA 92317

Loretta Airaghi, CA 92321

Kofi Donkor, CA 92324

Megan Mescher, CA 92324

Kenneth Vandusen, CA 92325

Elsa Murdoch, CA 92333

Sunshyne Leyba, CA 92336

Franci Taylor, CA 92337

Margo Alexander, CA 92342

Holly Miller, CA 92345

Adriene Moore, CA 92345

Catherine Smith, CA 92345

Shelley Valadez, CA 92345

Nicholas Warino, CA 92345

Lynette Adelson, CA 92346

Barbara Leelhasuwan, CA 92346

Michela Ratto, CA 92346

Dean Sundquist, CA 92346

James Ferranti, CA 92352

David Bee, CA 92354

Richard Guth, CA 92354

Rivera Nivar, CA 92359

David Leonard, CA 92363

Urvashi Barua, CA 92373

Judith Whitehouse, CA 92373

Chris Clautice, CA 92374

Yolanda Garnicahickey, CA 92374

Keith Moore, CA 92374

Randy Morris, CA 92374

Alex Zhigimont, CA 92374

Toni Formby, CA 92376

Stephanie Gleason, CA 92376





Adeline Rosales, CA 9	Adeline	Rosales,	CA	92376
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Cheryl Pirih, CA 92378

Rosalie Redmile, CA 92382

Sarah Hatchell, CA 92386

Connie Harris, CA 92392

Juanita Murray, CA 92392

Linda Neumaier, CA 92392

Michael Oliver, CA 92392

Eddie Smith, CA 92392

Lydia Burks, CA 92394

Roberto Cardenas, CA 92394

Evelia Gomez, CA 92394

Lee Arvinger, CA 92395

Ariene Bennett, CA 92395

Marsha Owens, CA 92395

Sharon Dougherty, CA 92397

Kathryn Boatman, CA 92399

Gay Hardy, CA 92399

Heather Longyear, CA 92399

Helen Reynaud, CA 92399

Severiana Jordan, CA 92404

Susan Fleming, CA 92501

Dianne Hughes, CA 92501

Shavon Shegog, CA 92501

Gabriel Flores, CA 92503

Sandra Neal, CA 92503

Kathy Sutherland, CA 92503

Paula Allbeck, CA 92504

Melissa Banda, CA 92504

Jason Hackman, CA 92504

Ladanta Heriman, CA 92504

Martin Martinez, CA 92504

Tiffany Farr, CA 92505

Juanita Mckenzie, CA 92505

Kathy Mcneilly, CA 92505

Kimberly Romero, CA 92505

Jonathan Green, CA 92506

Debra Rivera, CA 92506

Robin Sinkhorn, CA 92506

Stephanie Stolzenberg, CA 92506

Glenn Williams, CA 92506

Michael Esparza, CA 92507

Nora Moti, CA 92507

Natalie Ralston, CA 92507

Emma Wilson, CA 92507

Shihui Yang, CA 92507

Ruth Lumsdon, CA 92508

Ellen Schaub, CA 92508

Suzanne Ramirez, CA 92509

Lorena Torres, CA 92509

Marty Torres, CA 92509

Jayson Sandoval, CA 92517

Ana Cotton, CA 92521

George Rolla, CA 92530

Linda Taylor, CA 92530

Au Ngo, CA 92532

Richard Provencio, CA 92532

Sylvia Ross, CA 92532

Debra Person, CA 92543

Margaret Marsden, CA 92544





Anthony	Moya,	CA	92544
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Lisa Ostrow, CA 92544

Mark Branyon, CA 92548

Charles Meece, CA 92549

Paul Martin, CA 92553

Lilia Salais, CA 92553

Monica Woodward, CA 92553

Timothy Cobos, CA 92555

Carola Fabiola Galvez, CA 92555

David Hyde, CA 92557

Renee Osburn, CA 92557

Carlos Morfin, CA 92561

Shawn Hug, CA 92562

Jan Principe, CA 92562

Marsha Burkhalter, CA 92563

Chanstay Corlew, CA 92563

Robert Decubellis, CA 92563

Dorothy Gerard, CA 92563

Wilbur Miller, CA 92563

Paul Smith, CA 92563

Billie Kelpin, CA 92567

Linda Adams, CA 92570

Johnny James, CA 92570

Valerie Jones, CA 92570

Fred Pedregon, CA 92570

Robert Gyngard, CA 92582

Angela Johnson, CA 92582

Chris Amestoy, CA 92584

Karen Marshall, CA 92584

Dolore Scorzo, CA 92584

Charlotte Shifflet, CA 92584

Laurie Stuart, CA 92585

Debra Hall, CA 92586

Carol Luevano, CA 92586

Sheila Monaghandavis, CA 92586

Shari Palmer, CA 92586

Veronica Poss, CA 92586

Eileen Snow, CA 92586

Linda Sproul, CA 92587

John Pozza, CA 92590

Michael Vantrojen, CA 92590

Patsy Calderon, CA 92591

Marcos Camacho, CA 92591

Dolores Esparza, CA 92591

Peggy Hagberg, CA 92591

Josie Madrid, CA 92591

Charyl Malanaphy, CA 92591

Bethany Rogers, CA 92591

Judi Thompson, CA 92591

Robert Audibert, CA 92592

Angelo Lingos, CA 92592

Michael Maginski, CA 92592

Dina Meir, CA 92592

Paul Randall, CA 92592

Danielle Shirley, CA 92592

Mary Vann, CA 92592

Robbin Abeer, CA 92595

Gene Aurand, CA 92596

Kathleen Marquez, CA 92596

Richard Alegre, CA 92602





Sarah Millerberg, CA 92602

Neda Moayedi, CA 92602

Phaeryn Sheehan, CA 92602

Tom Wiedemann, CA 92602

Youmin Zhao, CA 92602

Earl Biven, CA 92603

Paniz Ebrahimi, CA 92603

Debi Lambert, CA 92603

Jenny Lamott, CA 92603

Peggy Meadows, CA 92604

Gwen Oden, CA 92604

Justin Stone, CA 92604

Solaimani Ferri, CA 92606

Susan Leinberger, CA 92606

Douglas Mason, CA 92606

Patricia Messerly, CA 92606

Christine Penning, CA 92606

Nicole Kroesen, CA 92610

Kristen Allison, CA 92612

Karen Barnett, CA 92612

Paul Kiburis, CA 92612

Christina Krause, CA 92612

Frank Mcgill, CA 92612

Lynnann Williamson, CA 92612

Nira Brand, CA 92614

Maria Centeno, CA 92614

Raeleen Endo-Russell, CA 92614

Lin Hong, CA 92614

Tikiri Karunasundera, CA 92614

Steve Murow, CA 92614

Lori Wallace, CA 92614

Kathy White, CA 92614

Adriana Briscoe, CA 92617

Joanne Donovan, CA 92617

Tira Palmquist, CA 92617

Courtney Costello, CA 92618

Serap Frautschy, CA 92618

Jeffrey Reznic, CA 92618

Behraam Baqai, CA 92620

Michael Cobin, CA 92620

Adrienne Escoe, CA 92620

David Kapsner, CA 92620

Rieva Lesonsky, CA 92620

Mili Mehta, CA 92620

Clare Greene, CA 92624

Daniel Gil, CA 92625

Joanne Hunt, CA 92625

Patricia Mccormick, CA 92625

Bill Schenker, CA 92625

Ruth Silver, CA 92625

Tamar Wilson, CA 92625

Robert Getter, CA 92626

cristina mayer, CA 92626

Philip Mcgovern, CA 92626

Conor Sontag, CA 92626

Larry Weinheimer, CA 92626

Crystal Willis, CA 92626

Gerardo Ambriz, CA 92627

Steven Behrens, CA 92627





Susan Forbath,	CA 920	527
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Stephen Hennessey, CA 92627

Tracie Hoffman, CA 92627

Damian Perry, CA 92627

Laura Ricke, CA 92627

James Thomas, CA 92627

Donna Tranter, CA 92627

Axel Truwill, CA 92627

Janice Turner, CA 92627

Marie Wencel, CA 92627

Sherri Eaton, CA 92629

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Lisa Mckee, CA 92629

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Monte Yoder, CA 92629

Gretchen Adin, CA 92630

Linda Burkholder, CA 92630

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Michele Dinneen, CA 92630

irving engel, CA 92630

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Elaine Froome, CA 92630

Connie Martin, CA 92630

Shaiko Mukurazhizha, CA 92630

Dejbakhsh Nader, CA 92630

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Delilah Manary, CA 92637

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Mona Cortez, CA 92646

Kelly Elder, CA 92646

Ronald Gould, CA 92646

Steve Graham, CA 92646

Gabrielle Hass, CA 92646

Jennifer Jahnke, CA 92646

Sally Kanarek, CA 92646

suzanne lockhart, CA 92646

Maria Mastropaolo, CA 92646

Ginette Nourse, CA 92646

MOKHTAR SHAWKY, CA 92646

Kathy Wanchek, CA 92646

Lisa Welcher, CA 92646

Joseph Harris, CA 92647

Patrick Kennedy, CA 92647

David Kurien, CA 92647

Becky Roepke, CA 92647

Rosemary Rosales, CA 92647

Thomas Cammann, CA 92648

Kristine Cerone, CA 92648

Carole Fulford, CA 92648





Eleanor	Gruenebaum,	CA	92648

Amy Hanson, CA 92648

Karen Kettler, CA 92648

Shelley Lowrey, CA 92648

Lisa Martinez, CA 92648

Timothy Murphy, CA 92648

Priscilla Taylor, CA 92648

Cheri Atkinson, CA 92649

Sarah Gibson, CA 92649

Tam Glunt, CA 92649

Randall Keeth, CA 92649

Rick Orr, CA 92649

Sarah Pirch, CA 92649

Rick Shearer, CA 92649

Tom Stanton, CA 92649

Sandra Hartness, CA 92651

Jolie Jensen, CA 92651

Glenna Lovett, CA 92651

Elsa Mitani, CA 92651

George Ripley, CA 92651

Alexander Rounaghi, CA 92651

Wendy Tenebaum, CA 92651

Lauren Dibiase, CA 92653

Valerie Estrada, CA 92653

Ivo Gough Eschrich, CA 92653

Courtney Kim, CA 92653

Bertha Torres, CA 92653

Socorro Alvarez, CA 92655

Quy Bao, CA 92655

Martha Ramirez, CA 92655

Lorie Cohen, CA 92656

Anne Dalluge, CA 92656

Melissa Deveikis, CA 92656

Rachel Felix, CA 92656

Dru Kaplan, CA 92656

Elizabeth Mcgrath, CA 92656

Maria Perez, CA 92656

Todd Schoedel, CA 92656

Kevin Steele, CA 92656

Linda Westlake, CA 92656

Lawrence Kugelman, CA 92657

Eugene Spiritus, CA 92657

Kevin Vuchinich, CA 92657

Toni Antonacci, CA 92660

Goli Aydin, CA 92660

John Dickinson, CA 92660

Lauren Henry, CA 92660

Robert Herbst, CA 92660

Jan Luymes, CA 92660

Yolanda Mendiveles, CA 92660

Peggy Pugh, CA 92660

Robert Hampton, CA 92661

Cheryl Freeman, CA 92663

Gina Gunal, CA 92663

Bonnie Jeannette, CA 92663

Wiliam Kirwin, CA 92663

Holly Thibodeaux, CA 92663

Mike Willison, CA 92663

Sherry Price, CA 92672

Theresa Recht, CA 92672





Leongal	n Whee	ler, CA	92672
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Barbara Bernal, CA 92673

Amanda Einhorn, CA 92673

James Guilfoil, CA 92673

Anthony Hewes, CA 92673

Ronald Koby, CA 92673

Jessica Labbe, CA 92673

Janet Leger, CA 92673

Andrew Lichty, CA 92673

John Mairs, CA 92673

Steven Bellomo, CA 92675

Kirsten Mickelson, CA 92675

Mark Perez, CA 92675

Mark Rodrigues, CA 92675

Nicole Herold, CA 92676

Rhonda Baron, CA 92677

James Birdsall, CA 92677

Rosalind Chasman, CA 92677

Ellen Eber, CA 92677

Jacob Faigin, CA 92677

Thomas Fitch, CA 92677

Tina Freeland, CA 92677

Lara Horgan, CA 92677

Bahman Joorabchi, CA 92677

Gary Olson, CA 92677

Nader Peikar, CA 92677

Anne Perry, CA 92677

Jeanine Roche, CA 92677

Sadia Siddiqui, CA 92677

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Greg Young, CA 92677

Vicki Iacono, CA 92678

Marian Ballog, CA 92679

Peggy Calcagnie, CA 92679

Colleen Daniel, CA 92679

Jeffrey Dreyer, CA 92679

Michelle Graham, CA 92679

Stacy Hagen, CA 92679

Josefina Azcona, CA 92683

Regina Christ, CA 92683

Peter Haaker, CA 92683

John Parry, CA 92683

Viet Pham, CA 92683

Gina Thompson, CA 92683

Catherine Besselmanhuebscher, CA 92688

Robert Dorman, CA 92688

Purya Ghrabeti, CA 92688

Jennifer Jenrette, CA 92688

Erik Sandstrom, CA 92688

Phillip Woodham, CA 92688

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Carolyn Cohn-Morros, CA 92691

Wesley Jung, CA 92691

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Priscilla Monroe, CA 92691

John Mooney, CA 92691

Amy Moore, CA 92691

Michael Sappingfield, CA 92691

Paul Swanson, CA 92691

Jolanta Woog, CA 92691





Elizabeth Aronson, C	Α	920	59	2
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Dixie Auringer, CA 92692

Sher Azizi, CA 92692

Kenneth Ballan, CA 92692

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Jack Brumfield, CA 92692

Joy Chart, CA 92692

Hamid Fadavi, CA 92692

Mary Glackin, CA 92692

Robert Gonter, CA 92692

Rita Knisely, CA 92692

Diane Nixon, CA 92692

Annette Ohuche, CA 92692

Pamela Perry, CA 92692

James Tam, CA 92692

Mark Delaurence, CA 92694

Susan Knapp, CA 92694

Greg Prouty, CA 92694

Jamie Browning, CA 92698

Jesus Adorno, CA 92701

Eliza Martinez, CA 92701

Simone Ponce, CA 92701

Robert Unetic, CA 92701

Manuel Villalba, CA 92703

Angel Cardoza, CA 92704

Veronica Lopez, CA 92704

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Florence Bishop, CA 92705

Robert Bowman, CA 92705

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Kathleen Calder, CA 92705

Santos Cortez, CA 92705

Louise Davy, CA 92705

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Lydia Levin, CA 92705

Cherie Phipps, CA 92705

Maggie Ryan, CA 92705

Trisha Shipcott, CA 92705

Linda Warde, CA 92705

Laura Atkinson, CA 92706

Quan Dinh, CA 92706

Paula Gates, CA 92706

Natalie Rankin, CA 92706

Donna Drizin, CA 92707

Leanne Carter, CA 92708

Gayle Fenton, CA 92708

Heidi Nguyen, CA 92708

Eileen Powell, CA 92708

Gabriel Talavera, CA 92708

Lee Fink, CA 92780

Amy Greyson, CA 92780

Doris Kollias, CA 92780

Hillary Streichenberger, CA 92780

Gordon Thomson, CA 92780

Virginia Tibbetts, CA 92780

Patricia Schuck, CA 92781

Gonzalo Ferro, CA 92782

Ronald Imus, CA 92782

Susan Keefe, CA 92782



Quang	Wong,	CA 92782	
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Brian Dang, CA 92801

Mary Delgado, CA 92801

Schwanda Grant, CA 92801

Jolynn Ibanez, CA 92801

Farhana Rawnaq, CA 92804

Doug Benoit, CA 92805

Stephanie Butler, CA 92805

David Cartwright, CA 92806

C Ford, CA 92806

Mario Gerace, CA 92807

Kimberly Leshin, CA 92807

Debra Martin, CA 92807

K McDon, CA 92807

Barry Staymates, CA 92807

Lonnie Hahn, CA 92808

Carole Tamme, CA 92808

Linda Vanwormer, CA 92808

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Bruce Laclair, CA 92821

Shannon Morisako, CA 92821

Lauren Perkins, CA 92821

Joyce Wills, CA 92821

Peter Lin, CA 92823

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Maria Garcia, CA 92831

Joanna Johnson, CA 92831

Sandra Park, CA 92831

Leo Song, CA 92831

Kenny Tokusato, CA 92831

Bryan Barboz, CA 92832

Julie Dufau, CA 92832

Jennifer Egan, CA 92833

Teresa Franco, CA 92833

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Kenneth Green, CA 92835

Gavin Watt, CA 92835

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Cathleen Cardoz, CA 92840

Maria Espinoza, CA 92840

Taryn Waddle, CA 92840

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Gonzalo Ortega, CA 92844

Jennifer Vargas, CA 92845

Cuba Munsey, CA 92856

Green Charoletta, CA 92860

Rosa Marquez, CA 92860

Lorraine Gurnari, CA 92865

Barbara Nelson, CA 92866

Terry Nowotarski, CA 92866

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Kazuo Furusawa, CA 92867

Prarthana Mohan, CA 92867

Janice Shelton, CA 92867

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Tawny Robinson, CA 92868

Alan Aidekman, CA 92869

Ronald Dunbar, CA 92869

Kathryn England, CA 92869





Vicki James, CA 9286	59
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Saskia Knight, CA 92869

Gary Manulkin, CA 92869

Everett Martinez, CA 92869

Thomas Rapport, CA 92869

Charles Robinson, CA 92869

Patricia Duffie, CA 92870

Barbara Hearnes, CA 92870

Armando Morel, CA 92870

Jacqueline Olivier, CA 92870

David Hibbetts, CA 92879

Anne Johnson, CA 92879

Nora Gomez, CA 92880

JEANINE MAHONEY, CA 92880

Garrett Ball, CA 92881

Paul Carmichael, CA 92881

Charlie Lachance, CA 92881

Peggy Mutsch, CA 92881

Jill Ross, CA 92881

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Cynthia Chavez, CA 92882

Lance Frantzich, CA 92882

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Linda Limberg, CA 92883

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Heather Aebi, CA 93001

Mike Blacker, CA 93001

Caryn Carroll, CA 93001

Dennis Hall, CA 93001

Donald Hill, CA 93001

Barbara Urban, CA 93001

Timothy Vandehey, CA 93001

Jojo Alvarez, CA 93003

Bruce Barrios, CA 93003

Carl Clapham, CA 93003

Erica Connell, CA 93003

Dorian Guerrero, CA 93003

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Stephen Ginn, CA 93004

Rita Mercado, CA 93004

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Margaret Doten, CA 93010

Joan Handzel, CA 93010

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Bob Rust, CA 93010

Patricia Carney, CA 93012

Gloria Deaton, CA 93012

Dave Mclaughlin, CA 93012

Barbara Metier, CA 93012

Meleese Seigler, CA 93012

Kevin Smith, CA 93012

Gregory Speth, CA 93012

Margurite Stenberg, CA 93012

Linda Hernandez, CA 93013





Gene	Mil	ler,	CA	93	013
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Jeanne Cantaro, CA 93015

Marilyn Marme, CA 93021

Tom Martinez, CA 93022

Lanae Carter, CA 93023

Robert Dodge, CA 93023

Jan Helfrich, CA 93023

Jinx Mccune, CA 93023

Judy Rosenthal, CA 93023

Sandra Rowse, CA 93023

W Slaughter, CA 93023

James Null, CA 93024

Pearl Montorio, CA 93030

Silvano Pivato, CA 93030

Cheryl Daniels, CA 93033

Victoria Borjesson, CA 93035

Jennifer Clancy, CA 93035

Kara Gastelum, CA 93035

David Harper, CA 93035

Alison Norris, CA 93035

Dawn Oneill, CA 93035

Robert Rubin, CA 93035

Sylvia Salas, CA 93035

Ritchie Wimberly, CA 93035

Michael Combs, CA 93041

Cynthia Aguilar, CA 93060

Tony Luboff, CA 93060

Joseph Simpson, CA 93060

Claudia Eaton, CA 93063

Henrik Larsen, CA 93063

Christopher Mcadamis, CA 93063

Anthony Sgaraglino, CA 93063

William Sutton, CA 93063

Claude Cantin, CA 93065

Barbara Cieslak, CA 93065

Sandra Gill, CA 93065

Joanne Hewitt, CA 93065

Jamie Taylor, CA 93065

Sanford Weisberg, CA 93065

Kathleen Moacanin, CA 93066

Jeffrey Graham, CA 93067

Christine Dawkins, CA 93101

Cris Hamilton, CA 93101

Laura Knight, CA 93101

Alaina Kwasizur, CA 93101

Nancy Marriott, CA 93101

Rita Moya, CA 93101

Lin Rolens, CA 93101

John Skotchdopole, CA 93101

Barry Spector, CA 93101

Karen Atkins, CA 93105

Judy Cleary, CA 93105

Anthony Fischer, CA 93105

Kim Gross, CA 93105

Andrew Bermant, CA 93108

Amanda Berry, CA 93108

Burks Hamner, CA 93108

Patricia Hughes, CA 93108

Margaret Pearson, CA 93108

Dan Wright, CA 93108





Vicky B	lum, CA	93109
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Katherine Bonfilio, CA 93109

Ted Chiles, CA 93109

Carolyn Sacks, CA 93109

Susan Bell, CA 93110

claudette roehrig, CA 93110

Theresa Sanitate, CA 93110

Rosemary Fatano, CA 93111

Teena Grant, CA 93111

Joanna Lara, CA 93111

James Sirianni, CA 93111

Ana Citrin, CA 93117

Frank Farwell, CA 93117

Kyle Furlong, CA 93117

Anelise Salvo, CA 93117

Inez Provencio, CA 93202

Jennifer House, CA 93221

Jack Lara, CA 93221

John Peters, CA 93222

Circe Cox, CA 93225

Emily Burnias, CA 93230

Sylvia Cordero, CA 93230

Tasha Mcirvin, CA 93240

Tracy Nardiello, CA 93247

Evelina Huizar, CA 93256

Carol Jett, CA 93257

Bonnie Karlea, CA 93257

Theodore Pizanis, CA 93257

Lauri Adair, CA 93263

Elenora Moats, CA 93263

Jerry Hawley, CA 93274

Sally Carter, CA 93277

Darrell Chudej, CA 93277

Angelina Eich, CA 93277

Karen Kirkpatrick, CA 93277

Diane Post, CA 93277

Susan Radtke, CA 93277

Adria Warren, CA 93277

Carol Harrison, CA 93279

Colleen Brelje, CA 93283

Marian Kuster, CA 93291

Linda Swaim, CA 93291

Abel Tavarez, CA 93291

Benjamin Newcomer, CA 93292

Marlina Aran, CA 93304

Karen Cooley, CA 93304

Barbara Mattick, CA 93304

Donald Bender, CA 93306

Belva Bradshaw, CA 93308

Miguel Mariscal, CA 93308

Janet Cogdill, CA 93309

Michelle Roberts, CA 93309

Ernest Solano, CA 93309

Fredrick Turner, CA 93309

Valerie Black, CA 93311

Lori Braschler, CA 93311

Yvonne Cavanagh, CA 93311

Marklewisbrown Heckendorn, CA 93311

Elizabeth Primrose, CA 93311

Priscilla Wright, CA 93311





Becky Wright, CA 93312

Val Barron, CA 93313

Bonnie Gallegos, CA 93313

Brian Russom, CA 93313

Ricardo Salas, CA 93390

Erin Englund, CA 93401

Marilyn Farmer, CA 93401

Sandra Giberson, CA 93401

Vikas Jammalamadaka, CA 93401

Joann Merver, CA 93401

Susan Olson, CA 93401

Patricia Robinson, CA 93401

Judith Serafin, CA 93401

William Tuculet, CA 93401

Kara Woodruff, CA 93401

Carolyn Porco, CA 93402

Richard Schermerhorn, CA 93402

Michelle Turner, CA 93402

Christy Anderson, CA 93405

Germaine Casola, CA 93405

Thomas Flanigan, CA 93405

Dee Ann Hairgrove, CA 93405

Carol Sexton, CA 93405

Nancy Holman, CA 93420

Robin Werderits, CA 93420

Michele Coombs, CA 93422

Lynne Higgins, CA 93422

Denise Nickeson, CA 93422

Joseph Nickless, CA 93422

Rayna Ortizbochum, CA 93422

Crissa Pisa, CA 93422

Catherine Porter, CA 93422

Harry Williamson, CA 93422

Daniel Garcia, CA 93428

Janet Lyon, CA 93428

Suzann Love, CA 93430

Judy Guarnera, CA 93433

Judythe Guarnera, CA 93433

Jennifer Mangum, CA 93433

Peter Anderson, CA 93436

Genese Izuno, CA 93436

Frank Matela, CA 93436

Leilani Mccullough, CA 93436

Anita Withers, CA 93440

Kim Barrett, CA 93442

Robert Jonez, CA 93442

Caroline Brower, CA 93444

Lee Durard, CA 93444

Ryan Tafoya, CA 93444

Lynn Davis, CA 93446

Nancy Jambor, CA 93446

Robert Jordan, CA 93446

Del Olds, CA 93446

Dennis Olivier, CA 93446

Donna Raymond, CA 93446

Stuart Toomey, CA 93446

Gary Wray, CA 93446

Marcella Gelman, CA 93449

Paul Vangerwen, CA 93449





Gael	Muel	ler.	CA	934	-53
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Diana Corral, CA 93454

Erika Culley, CA 93455

Sharon Haneman, CA 93455

Judith Lazzarini, CA 93455

Pam Martin, CA 93455

Larry Mcduff, CA 93455

George Fischer, CA 93458

Loren Duffy, CA 93460

Michael Rhodes, CA 93460

Rona Barrett, CA 93463

Joyce Johnson, CA 93463

John Porter, CA 93465

Janet Kehlor, CA 93505

Michael Glavin, CA 93510

Sandra Gunther, CA 93510

Steven Sheffield, CA 93510

Karen Keehn, CA 93514

Karyle Tong, CA 93514

William Michael, CA 93526

Damien Jacotin, CA 93527

Joan Tetreault, CA 93531

Matthew Britton, CA 93535

Tiffany Countryman, CA 93535

Ian Guyton, CA 93535

Donna Mcnew, CA 93535

Tanisha Rodriguez, CA 93535

Carol Trees, CA 93535

Virginia Arcos, CA 93536

Clare Gmur, CA 93536

Gabriel Partida, CA 93536

Madeline Ramirez, CA 93536

Felicia Scott, CA 93536

Judy Wickman, CA 93545

Douglas Stewart, CA 93546

Hoang Baumann, CA 93550

Raymundo Perales, CA 93550

Bonnie Vaughan, CA 93550

Amina Vela, CA 93550

Olivia Carchi, CA 93551

Cuthbert Lawry, CA 93551

Dennis Carey, CA 93552

Cynthia Bradley, CA 93555

Ashton Dunn, CA 93555

Gaynell Schiller, CA 93555

James Stanford, CA 93555

Naomi Heinsma, CA 93556

Adelle Gruett, CA 93561

Denise Rowles, CA 93561

Raymond Vaughn, CA 93561

Duane Aitken, CA 93599

Diane Curfman, CA 93611

Elysia Dambrosia, CA 93611

Cindy Farris, CA 93611

Glen Westersund, CA 93611

Jerry Walker, CA 93612

Gale Okazaki Hugh, CA 93614

Jim Betts, CA 93619

Juan Garcia, CA 93619

Denise Gravano, CA 93619





Greg Griffin, CA 93619	Greg	Griffin,	CA	93619)
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Carolyn Kraft, CA 93619

Thomas Sims, CA 93619

Judie Visser, CA 93619

Julie Young, CA 93619

Valerie Spongberg, CA 93631

Judith Pucci, CA 93636

Ben Graham, CA 93638

Sharon Willy, CA 93643

Polly Rotan, CA 93654

Jordan Telford, CA 93657

Sandra Barbo, CA 93662

Gus Longoria, CA 93702

Kate Mcknight, CA 93703

Joseph Barron, CA 93704

Janet Bray, CA 93704

Ivy Darden, CA 93704

Michael Garcia, CA 93704

Adela Gonzalez, CA 93704

P Hansen, CA 93704

Joann Mccarthy, CA 93704

Emily Vega, CA 93704

Esperanza Velazco, CA 93704

Kiki Wells, CA 93704

Rene Cisneros, CA 93705

Elizabeth Madrigal, CA 93705

Paula Singer, CA 93705

Nancy Godwin, CA 93710

Elaine Cavitt, CA 93711

Marsha Conant, CA 93711

Fredricka Del Carlo, CA 93711

Geetanjali Srivastava, CA 93711

Anne Staley, CA 93711

Teddy Usude, CA 93711

Roberta Atkinson, CA 93720

Krista De La Torre, CA 93720

Juan Herrera, CA 93720

Cameron Rosso, CA 93720

Erin Smith, CA 93720

Doug Gordon, CA 93721

Hannah Degroot, CA 93722

Billie Hardcastle, CA 93722

Roxanne Hinds, CA 93722

Carla Manning, CA 93722

Manuel Graves, CA 93723

Mian Ijaz, CA 93725

Barbara Ortiz, CA 93725

Joyce Gonzalez, CA 93726

Michael Mathies, CA 93726

Bonnie Pavlovich, CA 93726

Warren Vang, CA 93726

Irma Vera, CA 93726

Dawn Williams, CA 93726

Samantha Perez, CA 93727

Carlos Sanchez, CA 93727

Lindsay Shaver, CA 93728

Victor Bergman, CA 93729

Leslie Hoyt, CA 93730

Lloyd Wamhof, CA 93730

Elaine Mcgraw, CA 93744





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Aramis	IVIIIICI,	C_{Λ}	ノンハエル

Kate Innis, CA 93901

Gary Jones, CA 93901

S Norris, CA 93901

Barbie Souter, CA 93901

Marisol Gonzalez, CA 93905

Ben Carrillo, CA 93906

Rosa Dozal, CA 93906

Ronald Genauer, CA 93906

Elena Lagrimas, CA 93906

Mary Vought, CA 93906

Carl Hazen, CA 93907

Weston Miller, CA 93907

Janice Mulvey, CA 93907

Patricia Arias, CA 93908

Catherine Fanoe, CA 93908

Mary Eileen Kiniry, CA 93908

Pamela Snyder, CA 93908

Michael Weaver, CA 93922

Myrna Brandwein, CA 93923

Gary Jepson, CA 93923

Jenny Lutes, CA 93923

Diane Woodend, CA 93923

Kenneth Mcclintock, CA 93926

Curtis Mukes, CA 93933

Laura Allen, CA 93940

Elaine Bachmann, CA 93940

Steven Crain, CA 93940

Colleen Devlin, CA 93940

Roseanne Fischer, CA 93940

Sandra Fowler, CA 93940

Christopher Kneisley, CA 93940

Barbara Marron, CA 93940

Regina Marshall, CA 93940

Juan Rodriguez, CA 93940

Nina Rosete, CA 93940

Niccole Tiffany, CA 93940

Maureen Vieth, CA 93940

Elizabeth Weber, CA 93940

Marianne Grover, CA 93950

Linda Hylle, CA 93950

Janet Mcgough, CA 93950

Donna Phillips, CA 93950

Angelique Simons, CA 93950

Maryadine Washington, CA 93955

Russell Kinley, CA 93960

Robert Gold, CA 94002

Robin Mckoy, CA 94002

Carol Molyneux, CA 94002

Kay Yoshida, CA 94002

Ann Whittemore, CA 94005

Mike Alleman, CA 94010

Maureen Boland, CA 94010

Peter Borocz, CA 94010

Sophie Colefoster, CA 94010

Richard Davis, CA 94010

Lynn Feeney, CA 94010

David Jen, CA 94010

Dotti Letourneau, CA 94010

Lenny Low, CA 94010





Ramon Maghsoudi, (CA	94()10
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Sidney Mobell, CA 94010

William Pace, CA 94010

Jennifer Parker, CA 94010

Charlotte Petri, CA 94010

Judy Swanson, CA 94010

Gary Toothman, CA 94010

Monroe Cooper, CA 94014

Edwin Lansang, CA 94014

Irene Marin, CA 94014

Ana Montes, CA 94014

Concepcion Cavales, CA 94015

Kathleen Cunnie, CA 94015

Kendra Elliott, CA 94015

Rosario Polis, CA 94015

Deborah Porter, CA 94017

Tricia Dell, CA 94018

Sabrina Jewell, CA 94019

Lisa Mccaffrey, CA 94019

Penny Oneal, CA 94019

Sharon Ruhland, CA 94019

Jenny Skoble, CA 94019

Stephen Friedman, CA 94022

Sheryl Heckman, CA 94022

Mary Mills, CA 94022

Elfi Montes, CA 94022

Pam Rasmussen, CA 94022

Francine Reynolds, CA 94022

Mary Hall, CA 94024

Barbara Mclellan, CA 94024

Cynthia Sweeney, CA 94024

Leslie Alston, CA 94025

Dimitra Anderson, CA 94025

John Beardslee, CA 94025

Nancy Bush, CA 94025

Kevin Collins, CA 94025

William Dower, CA 94025

Susan Freyberg, CA 94025

Judith Kleinberg, CA 94025

Jennie Kosko, CA 94025

Marissa Pike, CA 94025

Kathleen Riggins, CA 94025

Marilyn Spence, CA 94025

Polly Wingfield, CA 94025

Tom Gelbach, CA 94027

Tom Hutton, CA 94027

Stacey Kertsman, CA 94027

Anne Peterson, CA 94027

Deborah Pinkston, CA 94027

David Popowitz, CA 94027

Nina Else, CA 94028

Danielle Guttman, CA 94028

Paul Helce, CA 94028

Judy Klein, CA 94028

Helge Ternsten, CA 94028

Thomas Lightner, CA 94030

Ann Oleary, CA 94030

Yolanda Parker, CA 94030

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Choni Yangzom, CA 94501

Cynthia Brashaun, CA 94502

Andrew Cohen, CA 94502

Cheryl Jones, CA 94502





Frances S	hipilov,	CA 9	94505
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Lori Garcia, CA 94506

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Raymond Cocchi, CA 94507

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Yvonne Jones, CA 94546





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Akira Sasaki, CA 94582	Akira	Sasaki.	CA	94582
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Jane Smith, CA 94609

Abdulaziz Alkhamri, CA 94610

Dale Bachman, CA 94610

Joanna Black, CA 94610

Shannon Coleman, CA 94610

Tracey Corder, CA 94610

Dias Cynthia, CA 94610

Marilyn Flower, CA 94610

Jim Hickman, CA 94610

Jewel Jauregui, CA 94610

Patricia Littlefield, CA 94610

Sabrina Moreno, CA 94610

Yeh Ray, CA 94610

Molly Sims, CA 94610

Peter Takeuchi, CA 94610





Ceil 7	Γilney,	CA	94610
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Endrias Yohannes, CA 94610

David Arndt, CA 94611

Ada Burko, CA 94611

Blue Figueroa, CA 94611

Adella Gaston, CA 94611

Glen Hughes, CA 94611

Sarah Karlinsky, CA 94611

Michael Lamp, CA 94611

Meg Mcadam, CA 94611

Pamela Mercer, CA 94611

Daniel Newbrun, CA 94611

Terry Roemer, CA 94611

Suzanne Rowell, CA 94611

Dawn Warriner, CA 94611

Thomas Wright, CA 94611

Philip Zymet, CA 94611

Kevin Bean, CA 94612

Ernest Gundling, CA 94612

Penny Kreitzer, CA 94612

Lynda Morgan, CA 94612

Joseph Quisol, CA 94612

Peter Abel, CA 94618

Nicole Delger, CA 94618

Tracey Grossbach, CA 94618

Paula Hamilton, CA 94618

Lisa Kermish, CA 94618

Carl Resnikoff, CA 94618

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Elizabeth Vanbenschoten, CA 94618

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Diane Garner, CA 94619

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Jacqueline Joseph-Veal, CA 94619

John Lee, CA 94619

Stuart Liroff, CA 94619

Sylvia Mcdaniel, CA 94619

Erin Miller, CA 94619

Meagan Mitchell, CA 94619

Robin Rosario, CA 94619

Thomas Swift, CA 94619

Susan Kaplan, CA 94702

Devon Lake, CA 94702

Ary Amerikaner, CA 94703

Sarah Crabtree, CA 94703

Brian Linde, CA 94703

Katherine Paur, CA 94703

Leah Simonweisberg, CA 94703

Vicki Sommer, CA 94703

Moulitsas Markos, CA 94704

Paul Mccold, CA 94704

Rohit Agrawal, CA 94705

Chris Averett, CA 94705

Helen Kim, CA 94705

Thomas Leong, CA 94705

Lisa Valentine, CA 94705

William Veale, CA 94705

Miles Culpepper, CA 94706

Rande Johnson, CA 94706





Lise	Narath,	CA	94706

Richard Wong, CA 94706

Kenneth Hempel, CA 94707

Susanne Huttner, CA 94707

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Rose Morrell, CA 94708

David Bank, CA 94709

Nancy Denero, CA 94709

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Stephen Levine, CA 94709

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Summer Oram, CA 94710

Lydia Anderson, CA 94801

Frank Andrade, CA 94801

Susan Binder, CA 94801

Marsha Tomassi, CA 94801

Sharon Waterman, CA 94801

Lizabeth Asami, CA 94803

Diane Harris, CA 94803

Willie Jackson, CA 94803

Martha Acosta, CA 94804

Ian Carey, CA 94804

Shannon Erby, CA 94804

Gary Frank, CA 94804

Nancy Gruver, CA 94804

Raleigh Latham, CA 94804

Leatrice Lyon, CA 94804

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Lynne Maylath, CA 94804

Barbara Needell, CA 94804

Craig Parada, CA 94804

Marsha Vaughn, CA 94804

Amanda Bowens, CA 94805

Serena Donovan, CA 94805

Ruth Levin, CA 94805

Katherine Ralph, CA 94805

Michele Rappaport, CA 94805

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Patsy Stubbs, CA 94805

Darrione Glover, CA 94806

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Sam Maxie, CA 94806

Katherine Beacock, CA 94901

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Mari Johnson, CA 94901

Dorothy Jones, CA 94901

Veronica Kirkpatrick, CA 94901

Barbara Levinson, CA 94901

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Sara Marchi, CA 94901

Anna Melillo, CA 94901

Miguel Ohara, CA 94901

Kathleen Pallie, CA 94901

Craig Shinnefield, CA 94901

Richard Britton, CA 94903

Marilynne Chophel, CA 94903

Christopher Fadeff, CA 94903





Walter Searway,	CA	94903
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Constance Sewing, CA 94903

Adam Silver, CA 94903

Cathy Tennant, CA 94903

Alfred Wallace, CA 94903

Brian Gleeson, CA 94904

Richard Lawrence, CA 94904

Emily Neill, CA 94904

Tanja Ross, CA 94904

Laura Talmus, CA 94904

Janet Wiginton, CA 94904

Lisa Flannigan, CA 94912

Janet Weil, CA 94920

Godie Gale, CA 94923

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Glenda Corning, CA 94925

Candice Crider, CA 94925

Lori Saltveit, CA 94925

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Pamela Feltrop, CA 94928

Timothy Griesser, CA 94928

Deanna Harmon, CA 94928

Tyson Hill, CA 94928

William Patterson, CA 94928

Bill Uriarte, CA 94928

Connie Varela, CA 94928

Latonia Wilson, CA 94928

Radha Blackman, CA 94930

Derek Johnson, CA 94930

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Harry Boatright, CA 94931

Barbara Drago, CA 94931

Marilee Maertz, CA 94931

Ellen Miller, CA 94931

Janice Miskel, CA 94931

Deborah Prince, CA 94931

cindy wespestad, CA 94937

Monica Dehghan, CA 94939

Bugra Bakan, CA 94941

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Jack Clapper, CA 94941

David Crockett, CA 94941

Melissa Damore, CA 94941

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Marina Multhaup, CA 94941

Lauren Parsons, CA 94941

Fredric Sherman, CA 94941

Allison Youngling, CA 94941

Ben Zelazny, CA 94941

Melissa Armoza, CA 94945





	Francesca	Bell.	CA	94945
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Scott Kohn, CA 94945

Tamami Tokutake, CA 94945

Meredith Vecchio, CA 94945

Silverman Lj, CA 94947

Karen Lynch, CA 94947

Karen Marks, CA 94947

Pauline Ridyard, CA 94947

Heather Sargent, CA 94947

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Stephanie Fuelling, CA 94954

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jane hall, CA 94960

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Benhur Mesfin, CA 94960

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Aisha Stephenson, CA 94965

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Erin Rogers, CA 95005

Heather Vinson, CA 95006

Sandra Harrington, CA 95008

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Susan Rhodes, CA 95008

Amr Salahieh, CA 95008

Tena Taormina, CA 95008

Christine Weng, CA 95008

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Mary Reilly, CA 95010

Deborah Secrest, CA 95010

Mary January, CA 95014





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Don Sun, CA 95014

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Thuy Le, CA 95035

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David Ilumin, CA 95051

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Derrick Chang, CA 95054

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Mckenna Booth, CA 95060

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David Scott, CA 95070

Alayne Meeks, CA 95073

Bruno Casillas, CA 95076

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LOIS HAGEN, CA 95076

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Richard Saunders, CA 95110

Jason Syu, CA 95110

Rochelle Velazquez, CA 95110

Robert Hatch, CA 95111

Joel Wachs, CA 95111

Lori Gilliar, CA 95112

Una Mendoza, CA 95112

Katherine Mirassou, CA 95112

Armando Cabrales, CA 95116

Phuc Le, CA 95116

Olympia Williams, CA 95116

Marty Brill, CA 95117

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Rosario Herrera, CA 95117

Charles Beazell, CA 95118

Gloria Brown, CA 95118

Jill Levy, CA 95118



Thomas Logan, CA 95118

Medhat Matter, CA 95119

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Patricia Lockyer, CA 95120

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Lisa Ayala, CA 95121

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Le Tan, CA 95121

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Marcia Harper, CA 95123

Gbvivek Li, CA 95123

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Zachary Vaughn, CA 95123

Zonia Caceres, CA 95124

Fernando Chavez, CA 95124

Mark Jansen, CA 95124

Heather Peters, CA 95124

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Anette Reeves, CA 95124

David Sylvia, CA 95124

Jeromy Carssow, CA 95125

Denise Cranney, CA 95125

Larry Engstro, CA 95125

Mahmoud Gahrahmat, CA 95125

Julianita Maestas, CA 95125

Erin Sarpa, CA 95125

Sonja Scheelke, CA 95125

Benjamin Trumbull, CA 95125

Lindsey Adams, CA 95126

Fernando Chavez, CA 95126

Gregory Cohen, CA 95126

Frank Farris, CA 95126

Cecila Macias, CA 95126

Stephanie Taylor, CA 95126

Zeenat Vastrad, CA 95126

Laura Gambelin, CA 95127

Hossein Akbari, CA 95128

Rick Grassadonia, CA 95128

Candice Piper, CA 95128

Virginia Wilson, CA 95128

Akruti Gupta, CA 95129

Roseanne Becher, CA 95130

Amanda Micheli, CA 95130

Linda Kitchen, CA 95131

Erik Sanjurjo, CA 95132

Dominique Yarritu, CA 95132

Laura Bader, CA 95133

Greka Badilla, CA 95133

Elena Cacace, CA 95134

Cheryl Culclager, CA 95134

Susan Kincaid, CA 95134

Lawrence Tutino, CA 95134

Renee Delacruz, CA 95136

Douglas Easley, CA 95136

Rolwin Lewis, CA 95136





John Villaschol, C/1 JJ130	John	Villasenor,	CA	95136
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Yvonne French, CA 95138

Daphne Renelle, CA 95139

Jessica Lucas, CA 95148

Minda Vasquez, CA 95148

Halle Weingarten, CA 95148

David Saltman, CA 95150

Thomas Shephard, CA 95201

Cristina Villalvazo, CA 95203

James Mason, CA 95204

Dana Murdock, CA 95204

Ernest Vasti, CA 95204

Jose Duran, CA 95206

Walter Hastings, CA 95206

Oscar Hernandez, CA 95206

Becky Teberg, CA 95206

Helen Botiller, CA 95207

Paulette Castellanos, CA 95207

Cole Elliott, CA 95207

Rachel Lee, CA 95207

Ksybella Pope Sears, CA 95207

William Siegel, CA 95207

Cynthia Summers, CA 95207

Michael Gilayeneh, CA 95209

Evelyn Ryan, CA 95209

Gay King, CA 95210

Salvador Yadao, CA 95210

Joseph Cartagenas, CA 95212

William Fattarsi, CA 95219

Clinton Lukeroth, CA 95219

Damali Robertson, CA 95219

Thomas Cahill, CA 95223

Traci Adams, CA 95240

Michael Robinson, CA 95240

Randy Reeves, CA 95242

Charnette Boylan, CA 95249

Jessica Lindahl, CA 95257

Camilo Soto, CA 95301

Crystal King, CA 95305

Tanya Edwards, CA 95307

Margi Tanner, CA 95311

Thomas Bundy, CA 95316

Jamie Sims, CA 95320

Doral Gonzales, CA 95322

Julie Wilcox, CA 95327

Kathryn Gomes, CA 95336

Allen Wittenberger, CA 95336

Ron Bledsoe, CA 95337

John Hulbert, CA 95338

Jennifer Anderson, CA 95340

Janet Mccabe, CA 95340

Juan Villegas, CA 95340

Doreen Kuneck, CA 95341

Rebecca Graves, CA 95348

Lynn Kateley, CA 95348

Norene Austin, CA 95350

Vernon Hartwell, CA 95350

Ami Mishler, CA 95350

Randy Sanchez Landa, CA 95350

Leticia Venegas, CA 95351





Michael A	lbbott,	CA	95354
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Lisa Arnold, CA 95354

Regina Brennan, CA 95354

Emanuel Cardoso, CA 95354

Minerva Perez, CA 95354

Margaret Beck, CA 95355

Karole Britton, CA 95355

Wendy Bryson, CA 95355

Paula Crowther, CA 95355

Mark Wilbur, CA 95355

Carol Bulman, CA 95356

Jeri Johnson, CA 95356

Hugo Patino, CA 95356

Phillip Somers, CA 95356

Jerry Weimer, CA 95356

Eugenia Bentayeb, CA 95360

Lauren Noble, CA 95361

Leanne Baker, CA 95366

Misael Avila, CA 95367

Mike Jackson, CA 95367

Patrick Webster, CA 95368

Roy Bartholomew, CA 95370

Emily Branscum, CA 95370

Carol Mckee, CA 95370

Lavada Sullivan, CA 95370

Julie Harris, CA 95372

DAWN BILL, CA 95376

Anna Dearlove, CA 95376

Dave Groves, CA 95376

Vicki Ramirez, CA 95376

Ralph Jones, CA 95377

Keith Loche, CA 95377

Teri Hines, CA 95380

Kathleen Tullio, CA 95382

Catherine Jones, CA 95383

Chelsea Horvath, CA 95386

Javier Soliz, CA 95391

Randi Cornwall, CA 95401

Heather Hardcastle, CA 95401

Donna Parker, CA 95401

Lynn Sarrade, CA 95401

Viorica Sebestin, CA 95401

Ronald White, CA 95401

Charles Hughes, CA 95402

Pamela Benz, CA 95403

Kim Marbury, CA 95403

Carol Pagal, CA 95403

Sheila Robinson, CA 95403

Laurelyn Andrew, CA 95404

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Susan Gentile, CA 95404

Dennis Goodrow, CA 95404

Kelly Jenkins, CA 95404

Lawrence Natalini, CA 95404

Jennifer Vala, CA 95404

Kevin White, CA 95404

Michael Wilde, CA 95404

Peggy Albright, CA 95405

Sally Downs-Phoenix, CA 95405

Amy Forlan, CA 95405





Keith	Hallock,	CA	95405
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Nadenia Newkirk, CA 95405

Wayne Seden, CA 95405

Diana Rae, CA 95407

Renate Fassbender, CA 95409

Patricia Holladay, CA 95409

Frank Longoria, CA 95409

Alan Schackman, CA 95409

Paul Schwartz, CA 95409

Andrea Weinstein, CA 95409

Kaytlin Bennett, CA 95421

Karen Walker, CA 95436

Mary Desautels, CA 95437

Charles Fleischman, CA 95437

TIMOTHY HALL, CA 95437

Timothy Perry, CA 95437

Norma Watkins, CA 95437

Lana Karhu, CA 95444

Antoinette Lang, CA 95445

Paul Mcknight, CA 95446

Katherine Lacy, CA 95448

Garrick Maul, CA 95448

Bonita Munoz, CA 95448

Elizabeth Schuiling, CA 95448

Sharon Stinson, CA 95448

Sally Weed, CA 95448

paul carlsen, CA 95451

Robert Laubach, CA 95451

Kathleen Shanklin, CA 95452

Hedy Montoya, CA 95453

Barbara Mccoid, CA 95461

Lorin Mcclendon, CA 95464

Lori Platt, CA 95470

Diane Estrin, CA 95472

Kevin Kraynak, CA 95472

Devra Newhouse, CA 95472

Christopher Orsine, CA 95472

Gregory Bowman, CA 95476

Carlile Breeze, CA 95476

colleen carrano, CA 95476

Kimberly Enzensperger, CA 95476

Susan Lucas-Conwell, CA 95476

Rene Parker, CA 95476

Charles Williams, CA 95476

Adrienne Doss, CA 95492

Gary Johanson, CA 95492

Shirley Jones, CA 95492

Scott Snow, CA 95492

Crista Truex, CA 95501

Robert Pitts, CA 95503

Jill Williams, CA 95503

Charles Dory, CA 95519

Ashley Kane, CA 95519

Scott Sway, CA 95519

Virginia Rogers, CA 95521

Marian Bogdanyi, CA 95536

Emily Silver, CA 95536

Pamela Bellah, CA 95540

Michael Thompson, CA 95542

Pamela Lutchen, CA 95554





Jason	Hachtel,	CA	95562

Brian Dadisman, CA 95567

Karen Dillon, CA 95567

Fran Cvitkovich, CA 95570

Ellen Drury, CA 95570

Patricia Strepy, CA 95570

Joan Beesley, CA 95602

Thomas Neary, CA 95602

Nicolas Bellanca, CA 95603

Barbara Grandstaff, CA 95603

Glen Kramer, CA 95603

Helen Melick, CA 95603

Claude Davis, CA 95604

Terre Davis, CA 95604

Robyn Pask, CA 95604

Brian Belluomini, CA 95608

Tawasky Carter, CA 95608

Jamie Elverum, CA 95608

Sally Lee, CA 95608

George Leidy, CA 95608

Russell Lobue, CA 95608

Barbara Owens, CA 95608

Terry White, CA 95608

Linda Coffman, CA 95610

Pamela Rubitsky, CA 95610

Daniel Anderson, CA 95616

Helen Barbe, CA 95616

Carol Biancalana, CA 95616

Leslie Gordon, CA 95616

Rebecka Hagerty, CA 95616

Robert Halferty, CA 95616

Gautam Jagannath, CA 95616

Nancy Kirk, CA 95616

Barbara Renwick, CA 95616

Laura Routh, CA 95616

Charla Salcido, CA 95616

Sylvia Sensiper, CA 95616

Marilyn Stratton, CA 95616

Steven Weiss, CA 95616

Marian Zingaro, CA 95616

Colleen Clancy, CA 95618

James Danzer, CA 95618

Anett Evans, CA 95618

Joseph Green, CA 95618

Elaine Bishop, CA 95620

Katherine James, CA 95620

Miguel Oropeza, CA 95620

James Stevens, CA 95620

Linda Moffatt, CA 95621

Karen Perry, CA 95621

Georgia Tardy, CA 95621

Stephanie Batey, CA 95624

John Camarra, CA 95624

Erin Dant, CA 95624

David Quecke, CA 95624

Michael Radam, CA 95624

James Walls, CA 95624

Javier Lerma, CA 95626

Sandra Reed, CA 95627

Lynn Rolston, CA 95627





Benny	Barrios,	CA	95628

Albert Cheung, CA 95628

Carrie Culver, CA 95628

Darius Davenport, CA 95628

Karen Hallagan, CA 95628

Kathy Kilpatrick, CA 95628

Susan Neal, CA 95628

David Neff, CA 95628

Coleman Newell, CA 95628

Jonathan Sachs, CA 95628

Kirsten Votaw, CA 95628

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Soyab Huseinbhai, CA 95630

Frank Jacobs, CA 95630

Patrick Kelly, CA 95630

James Marsh, CA 95630

Michele Smith, CA 95630

John Thomas, CA 95630

Laural Hockenson, CA 95633

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Cheryl Bozzie, CA 95640

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Theodore Cohen, CA 95648

B Franks, CA 95648

Susan Hannah, CA 95648

Patricia Malberg, CA 95648

Donald Rives, CA 95648

Leslie Uyeno, CA 95648

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Janis Jones, CA 95650

Michael Neal, CA 95650

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Patrick Sayer, CA 95650

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Gloria Omania, CA 95651

Lorraine Osborn, CA 95660

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F Chalmers, CA 95661

Paul Fisher, CA 95661

Joyce Frederick, CA 95661

Sheryl Gray, CA 95661

Kia Hatch, CA 95661

Brooke Whitlock, CA 95661

Lynn Yamamoto, CA 95661

Dan Durrant, CA 95662

Judy Elston, CA 95662

Brett Pittman, CA 95664

Jacob Rosano, CA 95664

Mary Hickcox, CA 95665

William Dye, CA 95666

Shirley Trent, CA 95666

Susan Turner, CA 95666

Julie Collier, CA 95667

Alison Gimpel, CA 95667

Mark Thoma, CA 95667

Michaele Beebe, CA 95670

Dale Hatt, CA 95670

Jane Pearce, CA 95670





Mary	Purvis,	CA	95670

Mary Yaryan, CA 95670

Owen Davies, CA 95672

Cheryl Abernathy, CA 95673

Jennifer Wells, CA 95674

Lana Gartin, CA 95677

Jill Matney, CA 95677

Mary Pitcher, CA 95677

Melinda Wetzel, CA 95677

Ellen Debachriley, CA 95678

Donald Hall, CA 95678

Cheri Jump, CA 95678

Pamela Lundgren, CA 95678

Helane Seikaly, CA 95678

Sylvia Escobar, CA 95682

Patricia Felten, CA 95682

Diane Shoff, CA 95682

Sally White, CA 95683

James Perry, CA 95685

Teresa Cosper, CA 95687

Daunna Harris, CA 95687

Denise Peebles, CA 95687

Joyce Pippen, CA 95687

Richard Potts, CA 95687

Megan Kaufman, CA 95688

Mark Richard, CA 95688

Derek Backus, CA 95691

Terri Mccall, CA 95691

Brad Pedersen, CA 95691

Barbara Winter, CA 95691

Reuben Schilling, CA 95694

Deanna Petersen, CA 95695

Robert Pratt, CA 95695

Christine Russell, CA 95695

Lori Shaw, CA 95695

Jennifer Cantrell, CA 95701

Adrienne Arnold, CA 95722

Carol Bellamy, CA 95722

Michael Vonada, CA 95726

Cynthia Weight, CA 95741

Cindy Colosimo, CA 95742

Marcia Hager, CA 95742

Patricia Williams, CA 95742

Kristy Muller, CA 95746

Mona Reyes, CA 95746

Leanna Wedel, CA 95746

Rebecca Acosta, CA 95747

Anne Barrett, CA 95747

Susan Edie, CA 95747

Julie Galliano, CA 95747

Chinnaian Jawahar, CA 95747

Christopher Kent, CA 95747

Kathleen Maccoll, CA 95747

Jaclyn Moreno, CA 95747

Beverly Nesmith, CA 95747

Janine Preston, CA 95747

Frankie Schesser, CA 95747

Kim Anderson, CA 95758

John Caldwell, CA 95758

Rydell Gibson, CA 95758





Jen	Teyler,	CA	95758

Olivia Willis, CA 95758

Ross Woodman, CA 95758

Aaron Anderson, CA 95762

Mary Lou Gattuso, CA 95762

Lauren Gould, CA 95762

Rhonda Grider, CA 95762

Vikki Lewis, CA 95762

Cassandra Aceves, CA 95765

Susan Andrews, CA 95765

Kathleen Doerr, CA 95765

Kenneth Lembach, CA 95765

Tom Mcmahon, CA 95765

Richard Riley, CA 95765

Noreene Shaffer, CA 95765

David Kumar, CA 95776

Dennis Wilson, CA 95798

Gil Caravantes, CA 95811

Philip Harvey, CA 95811

Benjamin Lesenana, CA 95812

Monique Polk, CA 95812

Jacob Whitaker, CA 95812

Sherri Cizad, CA 95814

Arnold Holm, CA 95814

Karen Lemmons, CA 95814

John Weems, CA 95814

Katherine Craig, CA 95815

Lindsay Bennett, CA 95816

Patrice Davis, CA 95816

Janet Geiger, CA 95816

Walter H. Loving Iii, CA 95816

Barb Thalacker, CA 95816

Eric Waddell, CA 95816

Chris Weare, CA 95816

Haley Williams, CA 95816

Robert Yee, CA 95816

Judy Brush, CA 95818

Janet Cassie, CA 95818

Phoebe Celestin, CA 95818

Aaron Stillwell, CA 95818

William Aguirre, CA 95819

Kathleen Cook, CA 95819

Connie Emerson, CA 95819

Wayne Mcguirt, CA 95819

Kristina Palmer, CA 95819

Paul Hanson, CA 95820

Dale King, CA 95820

Samantha Ramsey, CA 95820

Sasha Wisotsky, CA 95820

Margaret Hodo, CA 95821

Patricia Lawson, CA 95821

Deniece Radan, CA 95821

Joan Batie, CA 95822

Matthew Carrigan, CA 95822

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Myriam Levy, CA 95822

Zak Venegas, CA 95822

Daniel Weitzman, CA 95822

Dayle Thompson, CA 95823

Frank Torres, CA 95824





Mary	Bear,	CA	95825
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Jerry Beeler, CA 95825

Linda Budd, CA 95825

Diane Delaney, CA 95825

Penny Ellison, CA 95825

Polly Kleinberg, CA 95825

Tim Reese, CA 95825

Julia Winston, CA 95825

Bibiana Alvarez, CA 95826

Brenda Heath, CA 95826

Linda Moulton, CA 95826

Gary Pennington, CA 95826

Cherise Zufelt, CA 95826

Sharon Craig, CA 95828

Maria Dedet, CA 95828

Victoria Mcilwain, CA 95828

Dale McKinney, CA 95828

Sara Mira, CA 95828

Elizabeth Adams, CA 95829

Johnny Chong, CA 95829

Erika Hughes, CA 95829

Charles Martin, CA 95831

Rella Remedios, CA 95831

Suzanne Thompson, CA 95831

Justin Wentzel, CA 95831

Susan Williams, CA 95831

Theresa Lose, CA 95832

Daniel Albert, CA 95833

Alain Conder, CA 95833

Sue Considine, CA 95833

Gina Dasilva, CA 95833

Justin Kennedy, CA 95833

Victor Mora, CA 95833

John Cronin, CA 95834

Roy Harrell, CA 95834

Mark Thorsell, CA 95834

Mark Viviano, CA 95834

Raymond Cadei, CA 95835

Alverta Harty, CA 95835

Bonnie March, CA 95835

Tammy Pappas, CA 95835

Susan Persons, CA 95835

Madalynn Rucker, CA 95835

Merry Gaskill, CA 95838

Michael Obrien, CA 95841

Lauren Musgrove, CA 95842

Ellen Read, CA 95842

Kathleen Rubin, CA 95842

Melissa Macias, CA 95843

Rob Woods, CA 95843

Robert Yount, CA 95843

Ayanna Crenshaw, CA 95852

Robyn Delong, CA 95864

Autumn Finnerty, CA 95864

Leslie Holzman, CA 95864

Mary Huttner, CA 95864

Gabriel Maiol, CA 95864

Hattie Bains, CA 95901

Denise Bays, CA 95901

Shelley Lehman, CA 95918





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Barbara Bertapelle, CA 95926

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Lynn Millon, CA 95926

Susan Prescott, CA 95926

Genevieve Smith, CA 95926

Richard Snodgrass, CA 95926

Gary Wilson, CA 95926

Darin Bolt, CA 95928

Rebecca Brunelli, CA 95928

Sonya Huss, CA 95928

Michelle Mcgivern, CA 95928

Cameron Pearson, CA 95928

Traci Burnham, CA 95937

Sharon Deal, CA 95945

Ella Lerche, CA 95945

Laura Morton, CA 95945

Terence Young, CA 95945

Lindsey Buis-Kelley, CA 95947

Susan Ingrey, CA 95947

Victor Doherty, CA 95949

Brian Kilcourse, CA 95949

Laura Mcnaughton, CA 95949

Patricia Loera, CA 95951

Linda Evans, CA 95953

Anita King, CA 95954

Sue Mcclinton, CA 95954

Jonathan Blinder, CA 95959

Stephanie Howerton, CA 95959

Marilyn Mociun, CA 95959

Tammi Taber, CA 95961

Terry Fountain, CA 95963

Linda Waddell, CA 95966

Robert Melera, CA 95968

David Nemat-Nasser, CA 95973

Melissa Wheeler, CA 95977

Ryan Mc Kindles, CA 95981

Jana Rigsby, CA 95991

Lynn Arp, CA 95993

Doug Gibbs, CA 95993

Marilyn Scott, CA 95993

Kathleen Lowrance, CA 96001

Nelda Mayo, CA 96001

Sara Nichols, CA 96001

Ashley Raimondi, CA 96001

Anna Ratner, CA 96001

Tammi Garber, CA 96002

Angelica Huerta, CA 96002

Keith Brookshaw, CA 96003

Jacquelyn Carr, CA 96003

Constance Laughlin, CA 96003

Keith Melton, CA 96003

Kim Tyler, CA 96003

John Hayes, CA 96007

Dalton Boecking, CA 96019

Debbie Bailey, CA 96022

Kathryn Richards, CA 96022

Toni Wyro, CA 96032

Valerie Allison, CA 96067





Karen Holmes, CA 96067

Jill Phillips, CA 96067

Paula Bibb, CA 96073

Kenneth Towle, CA 96073

Patricia Heiman, CA 96094

Randall Peterson, CA 96094

Martin Rosen, CA 96109

Barbar Bannar, CA 96150

Abby Pappenfus, CA 96150

Hailey Brewer, CA 96161

Carrie Haines, CA 96161

Ahrin Koppel, CA 96161

Violet Nakayama, CA 96161

James Wiesner, CO 92024

Janel Jung, IA 94107

Beth Rimanoczy, IN 948

Sandra Obrien, Anchorage, AK

Mela Arevalo, Juneau, AK

Lola Collins, Anniston, AL

Zakia Kator, Corona, AL

Roxanne Moran, Harrison, AR

Rita Redmond, Avondale, AZ

Jay Luna, Phoenix, AZ

John Stoneham, Prescott, AZ

Michelle Garcia, Prescott Valley, AZ

John Harrison, Scottsdale, AZ

Leslie Janik, Surprise, AZ

Catherine Studer, Tucson, AZ

Thomas Gordon, Denver, CO

Pat Kelly, Denver, CO

Torunn Sivesind, Denver, CO

Lael Mccoy, Golden, CO

Mark Selak, Parker, CO

Sarah Kincaid, Wheat Ridge, CO

Wendy Novick, Orange, CT

Jay Weinman, Redding, CT

Blair Bowie, Washington, DC

Lois Fishman, Washington, DC

Michael Kharfen, Washington, DC

Lauren Miller, Washington, DC

Betty Southard, Largo, FL

Pavelly Moure, Lehigh Acres, FL

Horacio Arce, Miami, FL

Glenn Joyner, Orlando, FL

Justina Powell, Pembroke Pines, FL

Ken Beer, Port Saint Lucie, FL

Edward Klein, Vero Beach, FL

Marilyn Saffer, West Palm Beach, FL

Alice Gray, Atlanta, GA

Kaiulani Conner, Haiku, HI

Tamara Todd, Hilo, HI

Linda Orr, Kailua Kona, HI

Elissa Kline, Hailey, ID

Sherry Chandos, Chicago, IL

John Garcia, Chicago, IL

Maureen Graves, Chicago, IL

Melissa Bailey, Columbus, IL

Jeffrey Scott, Granite City, IL

Robyn Donaldson, Hazel Crest, IL

Raymond Ryals, Libertyville, IL





Justin DeWaele, Wilmington, NC

Katrina Church, Winston Salem, NC

Kathleen Matz, East Hampstead, NH

Jonathan Stephenson, Lyndeborough, NH

Thomas Jesse, Wilton, NH

Melissa Campbell, Millburn, NJ

Kanan Gubins, Moorestown, NJ

John Fasone, Verona, NJ

Judy Acereto, Albuquerque, NM

Lance Hurtubise, Albuquerque, NM

Sarah Levalley, Albuquerque, NM

Emily J Stafford, Albuquerque, NM

John Fleischhauer, Corrales, NM

Arthur Barcinas, Santa Fe, NM

Marilyn Hood, Las Vegas, NV

Judith Anderson, Reno, NV

Valli Camiller, Verdi, NV

Omari Smith, Beacon, NY

Richard Knapp, Bronx, NY

Ray Dantuono, Brooklyn, NY

Ben Graney, Brooklyn, NY

Brandon Hall, Brooklyn, NY

Jason Weiss, Brooklyn, NY

Patty Cornell, Cazenovia, NY

Ronald Zumwalt, Chappaqua, NY

Richard Loftus, Cooperstown, NY

Carolyn Ramsay, New York, NY

Kelly Ford, Saint Albans, NY

Charles Knight, Seneca Falls, NY

Carolyn Abbey, Columbus, OH

David Fox, Wheaton, IL

Lilian Hsu, Amherst, MA

Matthew Dixon, Boston, MA

Jasi Walker, Boston, MA

Kori Hitchcock, Brookline, MA

Srivatsa Manjunath, Chelmsford, MA

Susana Carranza, Melrose, MA

Jeanne Markel, Osterville, MA

Jack Cheng, Waban, MA

Stefanie Moore, Baltimore, MD

Sangeetha Menon, Columbia, MD

Jim Arney, Ellicott City, MD

Paul Sivak, Parkville, MD

Susan Buck, Rockville, MD

Scott Jacobs, Takoma Park, MD

Heidi Turner, Calais, ME

Steven Shane, South Portland, ME

Gregory Fox, Ann Arbor, MI

Judy Rodrigues, Belmont, MI

Cheryl Vaughn, Brighton, MI

Michelle Moustakas, Canton, MI

Kate McClanaghan, Detroit, MI

Julio Marquez, Mount Pleasant, MI

Michael Cohen, Royal Oak, MI

Lisa Jacobs, Springport, MI

Eva Bagen, Eden Prairie, MN

Brian Breheny, Minneapolis, MN

Pearce Bunting, Minneapolis, MN

Alex Sachs, Kansas City, MO

Juanita Hennessey, Durham, NC



Christopher Burgess, Columbus, OH

Joyce Wagner, Dayton, OH

ENVIRONMENT

Jennifer Mariotti, Bend, OR

Edward Ehrhart, Eugene, OR

Ann Mounce, Grants Pass, OR

Kelly Villarreal, La Pine, OR

Sean Becker, Lake Oswego, OR

Caitlin French, Lake Oswego, OR

Tammy Carpenter, Portland, OR

Emily Howell, Portland, OR

Evan Ingle, Portland, OR

Patricia Iwata, Portland, OR

Kathryn Kucinski, Portland, OR

Ann Lyon, Portland, OR

Soohyen Park, Portland, OR

David Samuels, Portland, OR

Joseph Sharp, Portland, OR

Sally Travi, Portland, OR

Martin Vazquez, Portland, OR

Idabelle Fosse, Salem, OR

John Saffell, Tarzana, OR

Richard Colisch, Tualatin, OR

Judith Terry, Veneta, OR

Barbara Tabler, West Linn, OR

Travis Beller, Allentown, PA

Carl Griffin, Downingtown, PA

Jaime West, Greensburg, PA

Peter Dualacher, Havertown, PA

Kim Allen, Norristown, PA

Joyce Leasher, North Wales, PA

Jenny Littleton, Richboro, PA

M. Colette Plum, Rutledge, PA

Linda Hoffman, Telford, PA

Brian Houghtaling, Wellsboro, PA

LEROY BENNETT, Middletown, RI

Laurie Masterson, Warwick, RI

Maria Guillen, Bluffton, SC

Natilee Duning, Brentwood, TN

Ian Salter, Clarksville, TN

Lesley Wood, Knoxville, TN

James Nicol, Aledo, TX

Madelyn Bernstein, Austin, TX

Darryl Crawford, Austin, TX

Jessica Lorenzana, Austin, TX

Joe Nation, Austin, TX

Kristen Schumacher, Bandera, TX

Pamela Burnham, Cedar Park, TX

Richard Robinson, Corpus Christi, TX

Aaron Weinstein, Dallas, TX

Madalyn Martinez, Denton, TX

Michael Patton, Flatonia, TX

Pandora Angelisanti, Harker Heights, TX

Mason Jones, Lubbock, TX

Victoria Glass, McAllen, TX

David Schwartz, Sachse, TX

Pam Fox, San Antonio, TX

William Sibley, San Antonio, TX

Ed Nobis, Salt Lake City, UT

Elissa Smith, Alexandria, VA

Jerry Turney, Midlothian, VA



Danielle Sorahan, Vienna, VA

Jane Riedel, Orwell, VT

James Mackinnon, Richford, VT

Anne Bower, S Pomfret, VT

Caroline Coker Mckie, Bainbridge Island, WA

Michael Rosenthal, Bainbridge Island, WA

Pat Schaechter, Bellevue, WA

SHARYN MARTIN, Bellingham, WA

Larry Hejny, Grants Pass, WA

Andrew Struck, Kent, WA

Eric Simila, Kingston, WA

Turner Erin, Kirkland, WA

Chris Diehl, Mercer Island, WA

Karen Crum, Poulsbo, WA

Kevin Bertrand, Pullman, WA

Paul Jonas, Redmond, WA

Che Anselmo, Seattle, WA

Elisabeth Crabtree, Seattle, WA

David Dresser, Seattle, WA

Benjamin Park, Seattle, WA

Nina Simonds, Seattle, WA

Jonah Weikert, Seattle, WA

Lynn Johnson, Spokane, WA

Gwenvere Modica, Spokane, WA

Whitney Parker, Vancouver, WA

Kathy Wolchick, Vashon, WA

Kay Gore, White Salmon, WA

Laura Landreth, Balsam Lake, WI

Dorcas Jones, Fairfield, WI

Ruth Crump, Madison, WI

Earl Green, Madison, WI

Sam Egan, Milwaukee, WI

Alzina Davenport, Jackson, WY

Tracking Number: (2023-34MPA)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1. Person or organization requesting the change: Environment California Research and Policy Center and Azul

Name of primary contact person: Laura Deehan, Environment California Research and Policy Center

Address: 3435 Wilshire Blvd., Suite 385, Los Angeles, CA, 90010

Telephone number: (415) 420-4710

Email address: Ideehan@environmentcalifornia.org

- 2. **Rulemaking Authority (Required) -** Reference to the statutory or constitutional authority of the Commission to take the action requested: Authority cited: Sections 200, 205(c), 265, 399, 1590, 1591, 2860, 2861 and 6750, Fish and Game Code; and Sections 36725(a) and 36725(e), Public Resources Code..
- 3. **Overview (Required)** Summarize the proposed changes to regulations: In order to advance the goals of the California Marine Life Protection Act and better protect our ocean and coastal resources into the future, this joint petition submitted by Environment California RPC and Azul seeks to increase the level of protection and help to improve enforceability for three state MPAs. We request that the CA Fish & Game Commission: 1) upgrade Point Buchon State Marine Conservation Area (SMCA) to a no-take State Marine Reserve (SMR) to streamline and enhance enforcement and compliance and increase protection in the face of future stressors, and 2) modify the regulations of Farnsworth Onshore SMCA and Farnsworth Offshore SMCA to allow only recreational spearfishing within their boundaries, in order to better protect this highly sensitive, rare, and valuable ecosystem. There may be additional state MPAs in need of similar action, and we encourage the state to do its own analysis to identify existing MPAs in need of enhanced biodiversity conservation, streamlined enforcement, and increased ease of compliance.



State of California – Fish and Game Commission

PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 2 of 4

4. Rationale (Required) - Describe the problem and the reason for the proposed change:
According to law enforcement updates and the California Compliance Forums convened by the MPA Collaborative Network, compliance with Point Buchon SMCA/SMR and Farnsworth Onshore/Offshore SMCA regulations is very low. The Compliance Forums found that compliance is particularly compromised in areas with confusing regulations, boundaries, or jurisdictions, and these MPA clusters are prime examples. The offshore/onshore boundary divisions of these MPA clusters, along with the extremely complicated regulations for both Farnsworth SMCAs, make it difficult for stakeholders to understand the two most important compliance-related questions: where is the MPA, and what does it allow?

In addition, since the California MPA network's creation, extensive peer-reviewed research has underscored the differences in outcomes between strongly and lightly protected marine areas. With coastal and marine ecosystems facing growing threats related to climate change, increased human use, new ocean uses, and infrastructure projects such as offshore wind and aquaculture, significant improvements to the existing MPA network are warranted to better protect our ocean and coastal resources into the future. The regulation changes proposed herein seek to improve conservation outcomes for California SMCAs with compliance issues and low levels of protection.

See attached Petition Narrative for full rationale and site-specific information.

Primary contact info:

Laura Deehan, Environment California Research and Policy Center, (415) 420-4710, Ideehan@environmentcalifornia.org

Marcela Gutiérrez-Graudins, Azul, mar@azul.org

SECTION II: Optional Information

5.	Date of Petition: 11/29/2023
6.	Category of Proposed Change
	☐ Sport Fishing
	☐ Commercial Fishing
	☐ Hunting
	Other, please specify: MPAs, Section 632.
7.	The proposal is to: (To determine section number(s), see current year regulation booklet or
	https://govt.westlaw.com/calregs)
	Amend Title 14 Section(s): Westlaw regulations.
	☐ Add New Title 14 Section(s):
	☐ Repeal Title 14 Section(s):
	— Nopour Tillo 11 Gostion(o).

- 8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition
- 9. Or Not applicable.

State of California – Fish and Game Commission

PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 3 of 4

- 10. **Effective date**: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: As soon as is practicable for the State of California.
- 11. **Supporting documentation:** Identify and attach to the petition any information supporting the proposal including data, reports and other documents:
 - a. Petition Narrative
 - b. Appendix A Letters of support
 - i. Petitioner's letter of support
 - ii. Letter from Assemblymember Dawn Addis
 - iii. Joint letter from 9 leading scientists and co-authors of The MPA Guide
 - iv. Joint letter from 27 scientists, researchers, and educators
 - v. Joint letter from 20 NGOs
 - vi. Letter from Environmental Action signed by 2,487 member of the public
 - vii. Letter signed by 214 CALPIRG students
 - viii. Letter from 5 California college student leaders
 - ix. Petition signed by over 7,000 members of the public
- 12. **Economic or Fiscal Impacts:** Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing:

The Point Buchon SMCA currently allows for the recreational and commercial take of salmon and albacore. While it is possible there may be very minor short-term economic impacts associated with closing the area, depending on the level of albacore fishing conducted within the existing SMCA, they are expected to be negligible. Salmon fishing is presently closed for all state waters, and the extremely poor status of salmon stocks no longer appear to support specific allowances in the state's MPA network. In addition, we argue that the long-term benefits provided by an increased level of protection and streamlined enforceability for this area will outweigh the short-term costs, especially in the face of climate change, increasing ocean uses and competition, and potential impacts from offshore wind development.

We acknowledge that the proposed regulations change to the Farnsworth SMCAs to may have some impact on the commercial market squid fishery and recreational sportfishing. However, the risk of damage to this highly sensitive ecological area is too high to allow even for pelagic fishing activities, which can result in bottom disturbance and bycatch. For instance, party boat patrons have often been observed dropping weighted lines that interact with bottom habitat in the Onshore SMCA (pers. comms with local recreational fisher wishing to remain anonymous). Further, these proposed regulation changes strongly align with and help to promote the high intrinsic and recreational value of the area, improving the safety and quality of recreation for divers, underwater photographers, and spearfishers.

13. **Forms:** If applicable, list any forms to be created, amended or repealed:

SECTION 3: FGC Staff Only



State of California – Fish and Game Commission

PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 4 of 4

Date received: Click here to enter text.

FGC staff action:

Accept - complete
Reject - incomplete
Tracking Number

Date petitioner was notified of receipt of petition and pending action:

Meeting date for FGC consideration:

FGC action:
Denied by FGC
Denied - same as petition
Tracking Number
Granted for consideration of regulation change

Petition to Increase Level of Protection and Streamline Enforcement for Several California State MPAs

Joint Submission by Environment California and Azul

PETITION NARRATIVE

Overview

In order to advance the goals of the California Marine Life Protection Act (MLPA) and better protect our ocean and coastal resources into the future, this petition seeks to increase the level of protection and help to improve enforceability for three state MPAs. We request that the CA Fish & Game Commission: 1) upgrade Point Buchon State Marine Conservation Area (SMCA) to a no-take State Marine Reserve (SMR) to streamline and enhance enforcement and compliance and increase protection in the face of future stressors, and 2) modify the regulations of Farnsworth Bank Onshore SMCA and Farnsworth Bank Offshore SMCA to allow only for recreational spearfishing to take place within their boundaries, in order to better protect this highly sensitive, rare, and valuable ecosystem. There may be additional state MPAs in need of similar action, and we encourage the state to do its own analysis to identify existing MPAs in need of enhanced biodiversity conservation, streamlined enforcement, and increased ease of compliance.

Enforcement & compliance within California MPAs

The success of any MPA relies on effective enforcement and community support and understanding of regulations. A global synthesis of MPA outcomes identified being well-enforced as one of the five essential features predicting MPA success around the world (Edgar et al. 2014). Further, one of the explicit goals of the MLPA is to "ensure California's MPAs have...adequate enforcement" (Goal 5, California MLPA).

However, despite laudable investment in enforcement, outreach, and education from the state, there is a high level of illegal fishing and other FGC violations occurring in and near some of California's MPAs (California Statewide Compliance Forum 2022). The MPA Collaborative Network held over 15 virtual and in-person public fora gathering over 500 stakeholders from 2019 to 2020 to discuss MPA compliance concerns and to brainstorm ideas to address those concerns. The Forums found that compliance is particularly compromised in areas with confusing regulations, boundaries, or jurisdictions. Public awareness and understanding of MPA regulations is crucial for compliance, and confusing regulations and a lack of understanding of restrictions can contribute to unintentional violations. While some of California's State Marine Conservation Areas (SMCAs) have limited take allowances and provide a relatively high level of conservation value to most species, other SMCAs currently have extensive and confusing regulations, and several are paired with onshore no-take State Marine Reserves (SMRs) to form an MPA cluster – making it even more difficult for stakeholders to understand the two most

important compliance-related questions for MPAs: where are they, and what do they allow?¹ Proposed stakeholder solutions include potential regulatory changes for fishing and other activities along the coast, as well as greater investment in education and outreach.

Complicated regulations also make it exceedingly difficult for law enforcement officers or the public monitoring these areas to visually assess whether a vessel's occupants are complying with on-the-water regulations. For instance, if an officer sees a vessel in an SMCA using rod and reel gear where fishing for some pelagic species is allowed but fishing for other species is prohibited, it is virtually impossible for that officer to tell whether the boaters are complying without boarding the vessel to assess the boaters' catch. This only increases the amount of time, resources, and dollars necessary to ensure compliance in these areas, as California's enforcement officers also contend with limited staffing and budgets (Murray and Hee 2019). The same is true around the world – in fact, research has shown that areas with a mixture of partial and full protection are up to twice as expensive to manage than a simpler, fully protected area (Ban et al. 2011).

Higher levels of protection lead to greater benefits

Since the California MPA network's creation, extensive peer-reviewed research has underscored the differences in outcomes between strongly and lightly protected marine areas. We now know that highly and fully protected areas – those where little to no extractive or destructive activities are permitted – provide the greatest ecological and conservation benefits (Grorud-Colvert et al. 2021). For instance, one meta-analysis of global MPAs found that fish biomass in fully protected ("no-take") MPAs is 343% higher than in partially-protected MPAs (Sala & Giakoumis 2018). Another global analysis found that weakly regulated areas showed minimal ecological benefits, while highly to fully protected areas showed higher abundance and biomass of commercially important species (Zupan et al. 2018). Similarly, a 24-year long timeseries of catch data in Kenya found that per-person daily catches increased 25 times faster in waters around fully protected MPAs than in areas that regulated fishing gear only (McClanahan 2021). In addition, fully protected areas have been shown to provide stronger climate adaptation and resilience benefits than lightly protected areas (Roberts et al. 2016). Finally – and importantly – an assessment of ecological effectiveness and social perceptions of MPAs in southern Australia found that partially protected areas had no more fish, invertebrates, or algae than unprotected areas; were poorly understood by coastal users; were not more attractive than unprotected areas; and were not perceived to have better marine life than unprotected areas. In addition, the fully protected areas were not only more effective ecologically, but were perceived more positively by local communities and visitors and assigned a higher value by local communities and visitors (Turnbull et al. 2021).

¹ The MPA Collaborative Network's Vetted Regulation Recommendations cite many instances where confusing boundaries and regulations are leading to unintended violations or accidental poaching in SMR/SMCA complexes. For examples, see lines 22, 37, 43, 47, 50, 51, 54, 55, 58, 62, 63, 65, 66, 71, 87, 90, 92, 97, 99, 104, 133, 145, 146, 148, 154, 155, and 165.

With coastal and marine ecosystems facing growing threats related to climate change, increased human use, new ocean uses, and infrastructure projects such as offshore wind and aquaculture, significant improvements to the existing MPA network are warranted to better protect our ocean and coastal resources into the future. Governor Newsom recently set the goal of protecting 30% of lands and coastal waters by 2030 ('30x30'), which was codified with the passage of SB337 in 2023. However, the area protected within the statewide MPA network represents far below 30% of our state waters. Only 12% of state waters are covered in highly to fully protected areas, and an additional 4% is covered in lightly protected areas that allow considerable human impacts within their boundaries. In total, only 16% of state waters are currently protected within an MPA. As the state works to achieve its 30x30 goal, the FGC and other agencies should consider where increases in the level of protection offered by existing California MPAs are warranted, to ensure the network is able to provide the best ecological and social outcomes possible.

Proposed regulation changes for California SMCAs with compliance issues and low levels of protection

Point Buchon SMCA

Point Buchon SMCA is located eight miles south of Morro Bay in San Luis Obispo County. It is part of an onshore-offshore pair of adjoining MPAs covering almost 19 square miles of rocky reefs, sandy seafloor and beaches, kelp forests, rocky intertidal areas, and offshore pinnacles. The adjoining no-take marine protected area, Point Buchon State Marine Reserve, covers the inshore portion of the MPA complex from the mean high tide line to the halfway point between the coast and the state waters limit. Point Buchon SMCA sits offshore of the SMR and encompasses more than 12 square miles of waters that range from about 200 to 400 feet deep.

Compliance with Point Buchon's regulations appears to be very low. The California Compliance Forum in San Luis Obispo cited "a high level of illegal offshore fishing and squid boats in the Point Buchon MPAs", and the Decadal Management Review revealed Point Buchon SMCA had the third highest number of violations for MPAs in Central Coast region over past decade (<u>DMR Report</u>). In 2022, it was listed among the top 10 MPAs with the highest MPA violations across the entire state (Committee Staff Summary for July 20, 2023 MRC Meeting).

At the same time, the potential for non-fishing impacts to the area are increasing. The Morro Bay Wind Energy Area (WEA) lies in the federal waters just outside of the Point Buchon SMCA, and the Bureau of Ocean Energy Management recently issued two leases for offshore wind development in the Morro Bay WEA. These offshore wind farms are anticipated to transmit power via undersea cables that connect with onshore power terminals, potentially at the nearby Diablo Canyon Power Plant located just outside the southern boundary of Point Buchon SMR. Offshore wind construction and operations are expected to impact the marine environment through increased ocean noise, the introduction of electromagnetic fields, alterations to existing habitats and hydrodynamics, and the possible release of contaminants (NOAA Fisheries). While the state of California is working closely with the federal government to minimize environmental

impacts, the region, and the Point Buchon SMR/SMCA complex, will experience some level of impact related to the development of heavily industrialized renewable energy projects. By minimizing ecosystem stressors, fully protected areas provide maximum resilience and greater opportunity to identify the cause of ecosystem impacts (Grorud-Colvert et al. 2021).

Current regulations

Point Buchon SMCA currently allows for recreational and commercial salmon and albacore fishing within its boundaries. The current regulations read as follows:

"It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource, EXCEPT:

Recreational and commercial take of salmon and albacore is allowed."

California's salmon fishery has experienced significant challenges due to the proliferation of dams, the loss of wetlands and estuaries, and recently, prolonged drought and increased warming that affects freshwater habitat. As a result, the entire fishery was closed in 2023. Sport fishing for albacore is largely centered from the California Channel Islands south to Ensenada. Given these circumstances, converting the Point Buchon SMCA into an SMR would provide full no-take protection for this important area with de minimis impacts to fishing activity.

In addition, the boundary between the SMCA and SMR is oriented as a diagonal line that runs parallel to the coastline. The headlands of Point Buchon hide the southeast corner of the SMCA/SMR complex from view from the north, allowing for poaching to occur more easily in the SMR. Enforcement officers patrolling the busier, more heavily trafficked waters to the north of the point aren't able to see fishing boats that enter the SMR via the southeast corner of the SMCA, and unless enforcement officers take the time to cross the point to patrol this area specifically, vessels are able to fish in the SMR without being detected.

Proposed regulation change

We propose merging the Point Buchon SMR/SMCA complex into a single State Marine Reserve, creating a more enforceable protected area able to confer greater conservation benefits consistent with its intended role as an "anchor" protected area in the Central Coast region. The new, proposed regulations would reflect those of Point Buchon SMR, and would read as follows:

"It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource."

We also strongly recommend the state revisit installing a camera near the flagpole looking south at Point Buchon. A camera or the M2 radar system could inform officers and help address offshore poaching regularly occurring there.

Socioeconomic impacts

As mentioned above, the Point Buchon SMCA currently allows for the recreational and commercial take of salmon and albacore. While it is possible there may be very minor short-term economic impacts associated with closing the area depending on the level of albacore fishing conducted within the existing SMCA, they are expected to be negligible. Salmon fishing is presently closed for all state waters, and the extremely poor status of salmon stocks no longer appear to support specific allowances in the state's MPA network. In addition, we argue that the long-term benefits provided by an increased level of protection and streamlined enforceability for this area will outweigh the short-term costs, especially in the face of climate change, increasing ocean uses and competition, and potential impacts from offshore wind development.

Historical context and intent

The Point Buchon SMR/SMCA complex was placed near the Diablo Canyon Power Plant to align with the no-fishing zone already surrounding the power plant, thereby limiting the negative socio-economic effects on the local fishing community. The state decided to split the Point Buchon MPA into an onshore SMR and an offshore SMCA to minimize the impacts on recreational fishing in the area, allowing for recreational salmon fishing within the SMCA.

One of the objectives of the Point Buchon SMR/SMCA complex is to "Protect ecosystem structure, function, integrity and ecological processes...from disturbances both natural and human induced". In light of increased impacts from nearby offshore wind development areas, stronger protections are warranted for this MPA complex to continue meeting stated objectives.

Farnsworth Onshore and Offshore SMCAs

The Farnsworth Onshore/Offshore SMCA complex is located on the windward side of Santa Catalina Island, a little more than 20 miles south-southwest of the Southern California mainland. This SMCA complex protects a series of pinnacles and underwater mountains known as Farnsworth Bank, which is one of only four known locations of a rare purple hydrocoral and is a well-known, exceptional location for advanced SCUBA diving and underwater photography. Farnsworth Onshore SMCA also provides critical habitat for the endangered black abalone, which dwells in the intertidal zone, and the endangered white abalone, which inhabits the deeper, subtidal zone. The full SMCA complex protects the unique cooler water, wave-exposed portions of the "east islands" bioregion and includes a high diversity of productive, relatively high-exposure habitats, productive nearshore reefs and a wider shelf than found on the leeside of Catalina Island.

Both SMCAs allow for several gear types and species to be targeted, with some slight differences between the two areas. The regulations themselves and also the regulation differences are challenging to understand, creating confusion and unintentional regulation violations. Commercial passenger fishing vessels (also known as "party boats") are also often

seen illegally fishing in Farnsworth Onshore SMCA, moving out if they see a patrol boat approaching (MPA Collaborative Network's Vetted Regulation Recommendations lines 146 & 147).

Current regulations

These SMCAs are currently "minimally protected" according to the MPA Guide framework (Grorud-Colvert et al. 2021), due to the substantial number of gear types allowed and species targeted. The regulations for Farnsworth Onshore SMCA are currently as follows:

"It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource, EXCEPT:

Recreational take of market squid by hand-held dip net; white seabass and pelagic finfish (northern anchovy, barracudas, billfishes, dorado (dolphinfish), Pacific herring, jack mackerel, Pacific mackerel, salmon, Pacific sardine, blue shark, salmon shark, shortfin mako shark, thresher shark, swordfish, tunas, Pacific bonito, and yellowtail) by spearfishing; and marlin, tuna and dorado by trolling is allowed.

Commercial take of coastal pelagic species (northern anchovy, Pacific sardine, Pacific mackerel, jack mackerel, and market squid) by round-haul net, brail gear, and light boat; and swordfish by harpoon is allowed (no commercial take of marlin is allowed). Not more than five percent by weight of any commercial coastal pelagic species catch landed or possessed shall be other incidentally taken species."

The regulations for Farnsworth Offshore SMCA are currently as follows:

"It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource, EXCEPT:

Recreational take of market squid by hand-held dip net; white seabass by spearfishing; pelagic finfish (northern anchovy, barracudas, billfishes, dorado (dolphinfish), Pacific herring, jack mackerel, Pacific mackerel, salmon, Pacific sardine, blue shark, salmon shark, shortfin mako shark, thresher shark, swordfish, tunas, Pacific bonito, and yellowtail) by hook-and-line or spearfishing, and marlin, tuna and dorado by trolling is allowed.

Commercial take of coastal pelagic species (northern anchovy, Pacific sardine, Pacific mackerel, jack mackerel, and market squid) by round-haul net, brail gear, and light boat; and swordfish by harpoon is allowed (no commercial take of marlin is allowed). Not more than five percent by weight of any commercial coastal pelagic species catch landed or possessed shall be other incidentally taken species."

The difference between the two is almost impossible to detect, leading to confusion about what is and isn't permitted, increasing chances of accidental violations, and possibly acting as a disincentive for law enforcement officers to enforce these MPAs and/or prosecutors to pursue these cases.

Proposed regulations

To simultaneously streamline regulations, increase the level of protection for this ecologically significant site, and honor the original intent of the SMCA complex to allow for recreational use, we propose adjusting the regulations for both SMCAs to allow only for recreational take via spearfishing. Spearfishing is a relatively low-impact activity that, with close attention to buoyancy and best practices, has a low likelihood of interaction with bottom habitat. The new, proposed regulations for both SMCAs (effectively merging them into one) would read as follows:

"It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource, EXCEPT:

Recreational take of white seabass and pelagic finfish (northern anchovy, barracudas, billfishes, dorado (dolphinfish), Pacific herring, jack mackerel, Pacific mackerel, salmon, Pacific sardine, Pacific bonito, and yellowtail by spearfishing."

Socioeconomic impact

We acknowledge that closing this area to non-recreational spearfishing may have some impact on the commercial market squid fishery and recreational sportfishing. However, the risk of damage to this highly sensitive ecological area is too high to allow even for pelagic fishing activities, which can result in bottom disturbance and bycatch. For instance, party boat patrons have often been observed dropping weighted lines that interact with bottom habitat in the Onshore SMCA (pers. comms with local recreational fisher wishing to remain anonymous). Further, these proposed regulation changes strongly align with and help to promote the high intrinsic and recreational value of the area, improving the safety and quality of recreation for divers, underwater photographers, and spearfishers.

Historical context and intent

This area has been protected since 1973, when the California Fish and Game Commission designated Farnsworth Bank an ecological reserve. During the MLPA planning process, a much larger SMR protecting Farnsworth Bank was proposed in order to fully protect Farnsworth Bank and a variety of other ecologically important features nearby, such as the deep water squid spawning habitat. While CDFW's Feasibility Analysis deemed that this historical proposal met feasibility criteria, the state decided upon the smaller onshore/offshore SMCA complex currently in place, with the intent of balancing conservation with recreational and commercial use. This pair of SMCAs are considered "backbone MPAs" for the backside of Catalina Island.

Relevance to MLPA Goals and DMR Recommendations

The changes proposed in this petition strongly align with Goals 1, 2, and 5 of the Marine Life Protection Act (MLPA). Notably, the first first finding of the MLPA is: "2851. The Legislature finds and declares all of the following: (a) California's marine protected areas (MPAs) were established on a piecemeal basis rather than according to a coherent plan and sound scientific guidelines. Many of these MPAs lack clearly defined purposes, effective management measures and enforcement. As a result, the array of MPAs creates the illusion of protection while falling far short of its potential to protect and conserve living marine life and habitat." Ten years later,

California's MPA network is no longer piecemeal, yet current MPAs with unduly complicated regulations risk this very same problem.

By increasing the level of protection for several minimally and lightly protected MPAs, the state will enhance the protection of marine life as well as the structure, function, and integrity of marine ecosystems, and will enhance these MPAs' ability to sustain, conserve, and protect marine life populations, including those that are commercially valuable. By streamlining regulations for these SMCAs, the state will help to ensure that California's MPAs are adequately enforced.

In addition, this petition helps to advance DMR Recommendation 4.b.) "Identify and utilize best science-based approaches to inform potential changes to the MPA Network in order to enhance Network performance." Since the creation of the MPA network, a decade of scientific peer-reviewed research from around the world has shown that highly to fully protected areas provide the greatest benefits for biodiversity conservation, and that partially protected areas only hinder enforcement, public understanding, and conservation outcomes.

In the face of growing threats related to climate change and increased human use, the state has the opportunity now to improve and enhance our MPA network to better protect our ocean and coastal resources into the future for generations to come.

Bibliography

- Edgar, Graham J., et al. "Global Conservation Outcomes Depend on Marine Protected Areas with Five Key Features." *Nature*, vol. 506, no. 7487, 2014, pp. 216–220, https://doi.org/10.1038/nature13022.
- "Marine Life Protection Act." CDFW, https://wildlife.ca.gov/Conservation/Marine/MPAs/MLPA
- "California Statewide Compliance Forum", MPA Collaborative Network, 2022,

 https://www.mpacollaborative.org/wp-content/uploads/2021/03/California-Statewide-Compliance-Forum-Report-Final-Reduced-1.pdf
- Murray, Amantha. Hee, Tyler T. "A rising tide: California's ongoing commitment to monitoring, managing and enforcing its marine protected areas", *Ocean & Coastal Management*, Volume 182, 2019, 104920, ISSN 0964-5691, https://www.sciencedirect.com/science/article/pii/S0964569119301206
- Ban, Natalie C et. al. "Promise and problems for estimating management costs of marine protected areas" *Conservation Letters*, 2011, https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/j.1755-263X.2011.00171.x
- Kirsten Grorud-Colvert *et al.* "The MPA Guide: A framework to achieve global goals for the ocean" *Science*, 2021, https://www.science.org/stoken/author-tokens/ST-2/full
- Sala, Enric. Giakoumi, Sylvaine. "No-take marine reserves are the most effective protected areas in the ocean", *ICES Journal of Marine Science*, Volume 75, Issue 3, 2018, Pages 1166–1168, https://doi.org/10.1093/icesjms/fsx059
- Zupan, Mirta. Et. al. "Marine partially protected areas: drivers of ecological effectiveness" Frontiers in Ecology and the Environment, 2018, https://esajournals.onlinelibrary.wiley.com/doi/10.1002/fee.1934
- McClanahan, Tim. R, "Marine reserve more sustainable than gear restriction in maintaining long-term coral reef fisheries yields", *Marine Policy*, volume 128, 2021, https://www.sciencedirect.com/science/article/pii/S0308597X21000890?via%3Dihub
- Roberts, Callum M. et. al. "Marine reserves can mitigate and promote adaptation to climate change", *PNAS*, Vol. 114. No. 24, 2017, https://www.pnas.org/doi/abs/10.1073/pnas.1701262114
- Turnbull, John W. et. al. "Evaluating the social and ecological effectiveness of partially protected marine areas" *Conservation Biology*, 2021, https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/cobi.13677
- "Offshore Wind Energy: Protecting Marine Life", *NOAA Fisheries*, 2023, https://www.fisheries.noaa.gov/topic/offshore-wind-energy/protecting-marine-life





California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 30th, 2023

Re: Petition to Modify CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests; Petition to Increase Level of Protection and Streamline Enforcement for Several California State MPAs

Dear President Sklar and Honorable Commissioners,

Environment California Research & Policy Center has one mission that drives everything we do: to protect our natural world. We envision a better, greener California: one that protects and restores more places where all life can thrive and offers us and our children the opportunity to live healthier, more enriching lives.

Azul is a grassroots organization working to conserve marine resources. We treasure the life-sustaining force of the ocean, as well as the physical and spiritual nourishment it provides us. We are a Gente powered and led effort, focused first on celebrating our rich Latino conservation traditions and connecting them to current solutions. Our work is based in authentic engagement, community building, and collaboration.

That's why we welcomed the goal set by Governor Newsom and his Administration of protecting 30% of lands and coastal waters by 2030 ('30x30'), which was codified with the passage of SB337 this Fall. This goal reflects the new scientific consensus that humanity must set aside much more of the ocean to sustain healthy marine life populations and ecosystems.

The State of California's network of Marine Protected Areas (MPAs), created by the Marine Life Protection Act (MLPA), has demonstrated that area-based marine protection works: during the state's recently completed Decadal Management Review (DMR), scientific analysis showed that the network has generally succeeded in protecting ocean habitats, increasing biomass of fishery-targeted species, and enhancing the climate resilience of California's coastal ecosystems.

However, the amount of coastal waters currently protected within the statewide MPA network falls far below the state's 30% goal. Only 12% of California state waters are covered in highly to fully protected areas – the types of protected areas known to provide the best conservation outcomes – and an additional 4% is covered in lightly protected areas that allow considerable human impacts within their boundaries. In total, 16% of state waters are currently protected within an MPA.

We must do more. Coastal and marine ecosystems face growing threats related to climate change and increased human use, as well as emerging threats from new ocean uses such as offshore wind and aquaculture. In the face of these threats, now is the time to make significant improvements to the existing MPA network via an adaptive management process to better protect our ocean and coastal resources in the future.

That is why we are submitting two petitions for rulemaking intended to strengthen the network's ability to conserve critical habitat types and better manage the network. Each of the two petitions stands on their own and are based on new and updated science that were not available to policymakers at the time of designating the original network. The areas we have proposed for expansion or strengthening are prime examples of where California's ocean life stands to benefit through new or updated permanent, area-based protections created under the MLPA.

The areas we are proposing are likely not the only areas that would fit the criteria for enhanced protection laid out in our petitions, nor are our criteria the only ecological criteria that could be used to systemically strengthen the existing network in line with the state's new 30x30 goal. We urge the Fish and Game Commission and all relevant state agencies to conduct analyses that will highlight the habitat types, species, and regions underserved by the current network, with an eye toward building a state MPA network that is resilient in the face of rising ocean temperatures, emerging threats, and continued pressure on endangered and threatened species.

Californians can be proud that we have led the way in ocean conservation over the past decades. It's time to take up the mantle of leadership once again, globally and nationally, not only to create a better future for the amazing life off of our own coasts, but also to inspire other decision makers to do so along every coastline, in every part of the ocean.

With your leadership, our groundbreaking marine protected area network can take its next leap forward.

Sincerely,

Laura Deehan Director Environment California Research & Policy Center

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California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 28th, 2023

Re: Strengthening and Expanding California's Marine Protected Area Network

Dear President Sklar and Honorable Commissioners,

As an Assemblymember and advocate for the health and vitality of California's coastal ecosystems, I write to express my support for the expansion of the state's network of Marine Protected Areas (MPAs) to include the expansion and strengthening of Point Buchon SMCA and Natural Bridges SMR. Protecting specific habitat areas, including the remaining areas of stable kelp forests, and increasing the rigor of existing marine protected areas are crucial steps in safeguarding our diverse marine species and ensuring the long-term well-being of the ecosystems off our shores.

The state of our ocean is at a critical juncture, with escalating global temperatures, declining biodiversity, and a growing number of endangered marine species. Northern California has lost more than 95% of its kelp forests since 2014, and kelp forests statewide have experienced declines over the past decade. Pollution, overfishing, offshore drilling and other human activities are threatening ocean habitat and marine species, while the changing climate increases the risk of extreme weather events and puts even greater stress on ocean ecosystems. On the past decade of the past

In the face of these mounting threats, California has a unique opportunity to take bold and effective action to conserve ocean habitats and ensure a greater abundance of life off our coast. Over two decades ago, the state passed the groundbreaking Marine Life Protection Act (MLPA), which called on the state to use one of the most powerful tools for ocean conservation: marine protected areas (MPAs).

¹ Meredith McPherson et. al, <u>Large-scale shift in the structure of a kelp forest ecosystem co-occurs with an epizootic and marine heatwave</u>, Communications Biology, March 5, 2021

² James Horrox, Steve Blackledge and Kelsey Lamp, "New Life for the Ocean: How marine protections keep our waters wild," Environment America Research and Policy Center & Frontier Group, February 2021.

³ Arafeh-Dalmau et al., <u>Integrating climate adaptation and transboundary management</u>: <u>Guidelines for designing climate smart marine protected areas</u>, One Earth 6, 1–19 November 17, 2023 ^a 2023 Published

by Elsevier Inc.

MPAs, like state parks on land, protect unique and important ocean habitats from activities that can damage ocean life. Areas that are strongly protected have been shown to be highly effective in conserving biodiversity, enhancing ecosystem resilience, and mitigating the impacts of climate change on our oceans. California's network of MPAs, foreseen in the MLPA, celebrated its tenth-anniversary last year, and the state's decadal management review showed that marine life in existing reserves better withstood recent marine heatwaves, and reserves across the state had higher biomass of commercially caught fish than areas lacking protection. Now, we need to build on this system and maintain California's role as a leader, both nationally and globally, in the fight to protect more ocean habitats.

That's why I urge you to expand our state's network of MPAs within the adaptive management process of the Decadal Management Review. In particular, I am writing in support of the strengthening and expansion of Point Buchon SMCA and Natural Bridges SMR off the coast of my community.

We, as Californians, have a deep love for our ocean and feel a profound responsibility to participate in decisions that impact our state's coastal waters. Our ocean is not just a source of clean air, wildlife, and natural beauty but also a mystery that beckons exploration and discovery. It is our moral imperative to lead the nation and the world in taking bold actions to preserve the sea in our own backyard, ensuring its future and the well-being of the communities that rely on it for their survival and prosperity.

In conclusion, we strongly urge you, Honorable Commissioners, to expand California's MPA network to encompass areas of persistent kelp, with a particular focus on safeguarding the strengthening and expansion of Point Buchon SMCA and Natural Bridges SMR.

Thank you for your unwavering commitment to the welfare of our ocean and for considering this proposal.

Sincerely,

DAWN ADDIS

Assemblymember, 30th District

⁴ James Horrox, Steve Blackledge and Kelsey Lamp, "New Life for the Ocean: How marine protections keep our waters wild," Environment America Research and Policy Center & Frontier Group, February 2021.

⁵ California Department of Fish and Wildlife. <u>California's Marine Protected Area Network Decadal</u> <u>Management Review</u>. 2022.

California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 29, 2023

Re: Petition to Increase Level of Protection and Streamline Enforcement for Several California State MPAs

Dear President Sklar and Honorable Commissioners,

We, the undersigned scientists with expertise in marine conservation and the area-based management of marine ecosystems, are writing to express our support for the petition put forth by the Environment California Research & Policy Center seeking to increase the level of protection conferred to California marine ecosystems by the state's marine protected areas (MPAs).

Decades of global peer-reviewed research has shown that, when key enabling conditions are met, highly to fully protected areas that minimize or eliminate all destructive and extractive human activities confer the greatest ecological and biodiversity conservation benefits compared to lightly or minimally protected areas. When well-designed, strongly protected, and well-enforced, MPAs can increase the biomass, abundance, and size of species within their boundaries, enhance nearby fisheries when commercially-targeted species "spill over" into surrounding areas, promote the persistence of important habitat types, provide incredible opportunities for recreation and non-consumptive uses by local communities, and so much more. The larger sizes of animals inside these MPAs also makes a disproportionately large contribution to the reproductive output of the entire population. We have seen first-hand the types of outstanding outcomes that these protected areas can deliver. As co-authors and supporters of *The MPA Guide*, a scientific framework to identify different types of MPAs and connect these types of MPAs with the outcomes they are expected to achieve, we strongly endorse efforts to increase the level of protection conferred by California's MPAs.

Additionally, strong enforcement and compliance are critical for realizing conservation benefits. Where regulations are too weak or confusing, MPAs can fail to conserve the important ocean life and ecosystems they are intended to protect. Several of California's MPAs should be improved with streamlined regulations, amended boundaries, and the removal of allowances for certain gear types that have since proven too damaging for certain habitats or target species that have since experienced extreme declines.

Scientific guidance published over the last decade since the California MPA network was put in place has made it ever clearer what makes for a successful MPA. Updating the network to incorporate this new science within the adaptive management process will uphold the goals of the MLPA and ensure that California continues to lead on area-based marine protection, nationally and globally.

Thank you for your ongoing ocean conservation leadership and tireless efforts to protect California's ocean heritage.

Sincerely,

Alan Friedlander, Ph.D. Senior Director of Research, Pristine Seas, National Geographic Society Researcher, Hawai'i Institute of Marine Biology, University of Hawai'i

Enric Sala, Ph.D.

Explorer in Residence, National Geographic Society

Executive Director, National Geographic Pristine Seas

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Nur Arafeh Dalmau, PhD Postdoctoral Researcher, Hopkins Marine Station, Stanford University Honorary Fellow the University of Queensland

Carolina Olguín-Jacobson, PhD Postdoctoral Researcher, Hopkins Marine Station of Stanford University California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 30th, 2023

Re: Petition to Modify CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests; Petition to Increase Level of Protection and Streamline Enforcement for Several California State MPAs

Dear President Sklar and Honorable Commissioners,

As scientists, researchers, and educators who work to understand our changing oceans and inspire the next generation of ocean stewards, we write to express our support for the expansion and strengthening of California's network of Marine Protected Areas (MPAs) to help safeguard the state's diverse marine ecosystems and ensure the long-term resilience of our ocean habitats.

Globally, the ocean is at a critical juncture, with escalating global temperatures, declining biodiversity, and a growing number of endangered marine species. California's coastal ecosystems have not been spared these global trends: Northern California has lost more than 95% of its kelp forests since 2014, and kelp forests statewide have experienced declines over the past decade. Only an average of 55 Pacific leatherback turtles are now found foraging off California's coast every year, a notable decrease from the yearly average of 128 Pacific leatherbacks observed in the region from 1990 to 2003. Marine heatwaves have doubled over the last 30 years and have become more intense and longer in duration, putting stress on California's marine species and ecosystems.

Now, California has a unique opportunity to take bold, effective and science-based action to conserve its marine biodiversity by expanding its groundbreaking network of state MPAs. MPAs, like state parks on land, protect unique and important ocean habitats from destructive human activities that can damage the integrity of marine ecosystems. Globally and in California, strongly protected and well-enforced MPAs have been shown to be highly effective in conserving biodiversity, enhancing ecosystem resilience, and mitigating the impacts of climate

¹ Meredith McPherson et. al, <u>Large-scale shift in the structure of a kelp forest ecosystem co-occurs with an epizootic and marine heatwave</u>, Communications Biology, March 5, 2021

² Benson, Scott R., Karin A. Forney, Jeffrey E. Moore, Erin L. LaCasella, James T. Harvey, and James V. Carretta. "A Long-Term Decline in the Abundance of Endangered Leatherback Turtles, Dermochelys Coriacea, at a Foraging Ground in the California Current Ecosystem." Global Ecology and Conservation 24 November 2020.

³ IPCC (2021). Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte VP, Zhai A, Pirani SL, Connors C, Péan S, et al. (Eds.)].;

change on our oceans.⁴ Well-designed and well-implemented reserves better preserve natural interactions within ecosystems, allowing for greater resiliency in the face of rising global temperatures and changing environmental conditions.⁵

California's network of MPAs, established through the 1999 Marine Life Protection Act, celebrated its tenth anniversary last year. The state's recent Decadal Management Review (DMR) analyzed a decade of monitoring data and showed that the MPA network has generally been effective at protecting ocean habitats and increasing fisheries-targeted species' biomass.⁶ Now, in the face of increasing threats, we need to build on this system and maintain California's role as a national and global leader in the effort to protect our ocean habitats.

That's why we, as scientists, researchers, and educators, urge you to expand and strengthen our state's network of MPAs via the adaptive management process of the DMR.

Specifically, we support the expansion of the MPA network to include additional protections for California's most resilient kelp forests. While these vital and iconic ecosystems have faced declines statewide in recent years, kelp forests in some areas have persisted or bounced back quickly in the face of marine heatwaves and other disturbances. By expanding protections for these resilient forests under the MLPA, the state can minimize direct human impacts in these relatively healthy areas, helping to ensure their continued persistence and enhancing the effectiveness of restoration efforts for declining kelp ecosystems nearby. Globally, kelp restoration has been most successful in places adjacent to/contiguous with healthy kelp forest ecosystems.

It is also vital that existing California MPAs are able to achieve their stated goals of conserving biodiversity and ecosystem health. We encourage the state to consider increasing protections for MPAs that are currently only lightly or minimally protected, especially in places where weaker or more complicated regulations lead to poor compliance and enforcement. Research has shown that highly and fully protected areas, where few if any destructive or extractive activities are allowed, provide greater ecological benefits than lightly or minimally protected areas. The

⁴ James Horrox, Kelsey Lamp and Steve Blackledge. <u>New Life for the Ocean: How Marine Protections Keep Our Waters Wild.</u> Environment America Research & Policy Center & Frontier Group, February 3, 2021

⁵ Kirsten Grorud-Colvert *et al.*, <u>The MPA Guide: A framework to achieve global goals for the ocean</u>. *Science* **373** ,eabf0861(2021). DOI:10.1126/science.abf0861

⁶ California Department of Fish and Wildlife. (2022). California's Marine Protected Area Network Decadal Management Review.;

⁷ Arafeh-Dalmau et al., <u>Integrating climate adaptation and transboundary management: Guidelines for designing climate smart marine protected areas</u>, One Earth 6, 1–19 November 17, 2023 ^a 2023 Published by Elsevier Inc. ⁸ Eger, A.M., Marzinelli, E.M., Christie, H., Fagerli, C.W., Fujita, D., Gonzalez, A.P., Hong, S.W., Kim, J.H., Lee, L.C., McHugh, T.A., Nishihara, G.N., Tatsumi, M., Steinberg, P.D. and Vergés, A. (2022), Global kelp forest restoration: past lessons, present status, and future directions. Biol Rev, 97: 1449-1475.

⁹ Kirsten Grorud-Colvert *et al.*, <u>The MPA Guide: A framework to achieve global goals for the ocean</u>. *Science* **373** ,eabf0861(2021). DOI:10.1126/science.abf0861

state's network currently protects 12% of state waters in highly- or fully-protected MPAs, as defined by Grorud-Colvert et al. (2021), which leaves 4% of the network lacking the most effective conservation protections. By expanding the level of protection to areas already identified as ecologically important, we can ensure that the area's vulnerable marine resources have the chance to recover and flourish.

Our ocean is not just a source of clean air, wildlife, and natural beauty but also a mystery that beckons exploration and discovery. It is our moral imperative to lead the nation and the world in taking bold actions to preserve the sea, ensuring its future and the well-being of the communities that rely on it for their survival and prosperity.

President Sklar and Honorable Commissioners, you have a chance to take up this imperative and champion the expansion and strengthening of California's network of Marine Protected Areas. By doing so, you will leave a lasting legacy of marine stewardship that will keep California at the forefront of ocean conservation, nationally and globally.

Thank you for your unwavering commitment to the welfare of our ocean and for considering this urgent matter. Together, we can ensure a healthier, more abundant future for the unique marine ecosystems that define California.

Sincerely,

Michael Akresh Alice Alldredge
Faculty Professor Emeritus

Antioch University University of California, Santa Barbara

Steven Allison Anupa Asokan Professor Ocean advocate

University of California, Irvine

Peter Auster Nevé Baker Senior Research Scientist & Research Professor PhD Candidate

Emeritus University of California Santa Cruz

Mystic Aquarium & University of Connecticut

Leocadio Blanco Bercial Bailey Drechsler

Assistant Professor Professor
Arizona State University - Bermuda Institute of Cuesta College

Ocean Sciences

¹⁰ Kirsten Grorud-Colvert *et al.*, <u>The MPA Guide: A framework to achieve global goals for the ocean</u>. *Science* **373**,0861(2021). DOI:10.1126/science.abf0861

Michelle María Early Capistrán

Postdoctoral Scholar

Stanford University

Paul Faulstich

Emeritus Professor of Environmental Analysis

Pitzer College

Sarah Hameed

Rikki Eriksen

Blue Parks Director & Senior Scientist

California Marine Sanctuary Foundation

Marine Conservation Institute

Director Marine Spatial Ecology

Brett Holland

Faculty CSUS

Flora Lu

Professor of Environmental Studies University of California, Santa Cruz

Kathy Ann Miller

Curator of Algae

Herbarium, University of California

Lisa Murphy

co-founder, primary researcher and educator

Gold Country Bat Project

Dawn Murray Professor

Antioch University

Jacquelin Mutter

National One Water Planning Lead

HDR

Erin Naegle

STEM Dean of Instruction

Cuesta College

Hannahrose Nevins Seabird Ecologist Seabird Consultant

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Postdoctoral fellow

Hopkins Marine Station of Stanford University

Gorka Sancho Professor

College of Charleston

Joanna Tang PhD Candidate

UCSB

Robert Voeks Professor

Cal State University, Fullerton, Department of

Geography & the Environment

Charles Zender

Professor of Earth System Science University of California, Irvine



California Fish and Game Commission 715 P Street, 16th floor, Sacramento, CA 95814

November 30th, 2023

RE: Petition to Increase Level of Protection and Streamline Enforcement for Several California State MPAs

Dear President Sklar and Honorable Commissioners:

Our ocean is at a critical juncture, with escalating global temperatures, declining biodiversity, and a growing number of endangered marine species. Only 50 Pacific leatherback turtles are now found foraging off California's coast, a notable decrease from the 178 Pacific leatherbacks observed from 1990 to 2003. Marine heatwaves have doubled over the last 30 years and have

¹ Benson, Scott R., Karin A. Forney, Jeffrey E. Moore, Erin L. LaCasella, James T. Harvey, and James V. Carretta. "A Long-Term Decline in the Abundance of Endangered Leatherback Turtles, Dermochelys Coriacea, at a Foraging Ground in the California Current Ecosystem." Global Ecology and Conservation 24 (November 2020).

become more intense and longer in duration, putting stress on California's marine species and ecosystems. ²

In the face of these mounting threats, California has a unique opportunity to take bold and effective action to conserve ocean habitats and ensure a greater abundance of life off our coast. Over two decades ago, the state passed the groundbreaking Marine Life Protection Act (MLPA), which called on the state to use one of the most powerful tools for ocean conservation: marine protected areas (MPAs).

MPAs, like state parks on land, protect unique and important ocean habitats from activities that can damage ocean life. Areas that are strongly protected have been shown to be highly effective in conserving biodiversity, enhancing ecosystem resilience, and mitigating the impacts of climate change on our oceans.³ By providing areas that serve as buffers against climate change, fully protected MPAs adapt to changing environmental conditions because they better preserve natural interactions within ecosystems, allowing for greater resiliency.⁴

California's network of MPAs, foreseen in the MLPA, celebrated its tenth anniversary last year, and the state's decadal management review showed that MPAs effectively protect ocean habitats and increase fishery-targeted species' biomass. Now, we need to build on this system and maintain California's role as a national and global leader in the fight to protect more ocean habitats.

Protecting specific habitat areas and increasing the rigor of existing marine protected areas are crucial steps in safeguarding our diverse marine species and ensuring the long-term well-being of our ocean environments.

It is vital that existing California MPAs are able to achieve their stated goals of conserving biodiversity and ecosystem health. We encourage the state to consider increasing protections for MPAs that are currently only lightly or minimally protected, especially in places where weaker or more complicated regulations lead to poor compliance and enforcement. We are proposing stronger protections for Point Buchon SMCA and the Farnsworth Onshore and Offshore SMCAs. Research has shown that highly and fully protected areas, where few if any destructive

² Teri E. Nicholson, Karl A. Mayer, Michelle M. Staedler, Jessica A. Fujii, Michael J. Murray, Andrew B. Johnson, M. Tim Tinker, Kyle S. Van Houtan, <u>Gaps in kelp cover may threaten the recovery of California sea otters</u>, *Ecography, a Journal of Space and Time in Ecology*, (February, 2018).

García-Reyes, Marisol, Andrew Leising, Rebecca Asch, Steven Bograd, and Tessa M Hill. Rep. Indicators of Climate Change in California, "Coastal Ocean Temperature", California Office of Environmental Health Hazard Assessment. 2022.

 ³ Arafeh-Dalmau et al., <u>Integrating climate adaptation and transboundary management: Guidelines for designing climate smart marine protected areas</u>, One Earth 6, 1–19 November 17, 2023 a 2023 Published by Elsevier Inc.
 ⁴ Jankowska, Emilia, et al. "<u>Climate Benefits from Establishing Marine Protected Areas Targeted at Blue Carbon Solutions</u>." *Proceedings of the National Academy of Sciences*, vol. 119, no. 23, 2022.

or extractive activities are allowed, provide greater ecological benefits than lightly or minimally protected areas.⁵

Enhancing the protection of California's critical ocean habitats strongly aligns with Goals 1, 2, 3, and 4 of the MLPA by preserving natural diversity, sustaining marine life populations, protecting marine habitats for their intrinsic value, and improving recreational and educational opportunities while minimizing human disturbance. ⁶ Safeguarding and further protecting critical marine habitats will ensure critical habitat preservation for diverse marine species, including endangered sea otters and commercially valuable fish.

In summary, we encourage you, Fish and Game Commissioners, to actively support strengthening and expanding California's Marine Protected Areas.

We appreciate your steadfast dedication to our ocean's well-being and consideration of this pressing issue. Working together, we can secure a more robust future for California's distinctive marine ecosystems.

Sincerely,

Laura Deehan State Director Environment California Research and Policy Center

Tomas Valadez CA Policy Associate Azul

Robert Vergara Roger Arliner Young (RAY) Ocean Conservation Fellow Natural Resources Defense Council

Clara Castronovo Board Chair CALPIRG Students

Keith Shattenkirk Program Officer, Healthy Lands and Waters

⁵Kirsten Grorud-Colvert *et al.*, <u>The MPA Guide: A framework to achieve global goals for the ocean</u>. *Science* **373** ,eabf0861(2021). DOI:10.1126/science.abf0861

⁶ "Marine Life Protection Act." CDFW. https://wildlife.ca.gov/Conservation/Marine/MPAs/MLPA.

Patagonia

Susan Jordan Executive Director California Coastal Protection Network

Krista Rogers Program Manager Save Our Shores

Chelsea Tu Executive Director Monterey Waterkeeper

Janet Cox President Climate Action CA

Pauline Seales Organizer Santa Cruz Climate Action Network

Dan Silver Executive Director Endangered Habitats League

Josefina Barrantes 30x30 Coordinator Environmental Protection Information Center (EPIC)

Martha Camacho Rodríguez Director SEE (Social Eco Education)

Megan Shumway Member CHN, Sacramento Climate Coaltion, SacAct

Antonina Markoff Coordinator

The Climate Reality Project California State Coalition

Robert Gould, MD President San Francisco Bay Physicians for Social Responsibility

Esperanza Vielma
Executive Director
Environmental Coalition for Water Justice

Daniel Chandler Steering Committee Member 350 Humboldt

Andria Ventura Legislative and Policy Director Clean Water Action/Clean Water Fund

Daniel Gluesenkamp Executive Director California Institute for Biodiversity California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 28th, 2023

Re: Petition to Modify CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests; Petition to Increase Level of Protection and Streamline Enforcement for Several California State MPAs

Dear President Sklar and Honorable Commissioners,

In solidarity with the shared responsibility for the well-being of our planet, particularly the oceans and coastlines we hold dear, we are reaching out as college students to express our firm support for the amplification and extension of California's Marine Protected Area (MPA) network. Understanding the critical importance of maintaining stable kelp ecosystems and safeguarding conserved ocean areas, we are committed to ensuring the prolonged vitality of our oceans and the myriad marine species that inhabit them.

The state of our ocean is at a critical juncture, with escalating global temperatures, declining biodiversity, and a growing number of endangered marine species. Northern California has lost more than 95% of its kelp forests since 2014, and kelp forests statewide have experienced declines over the past decade. Only 50 Pacific leatherback turtles are now found foraging off California's coast, a notable decrease from the 178 Pacific leatherbacks observed from 1990 to 2003. Marine heatwaves have doubled over the last 30 years, and have become more intense and longer in duration, putting stress on California's marine species and ecosystems.

In the face of these mounting threats, California has a unique opportunity to take bold and effective action to conserve ocean habitats and ensure a greater abundance of life off our coast. Over two decades ago, the state passed the groundbreaking Marine Life Protection Act (MLPA), which called on the state to use one of the most powerful tools for ocean conservation: marine protected areas (MPAs).

¹ Meredith McPherson et. al, <u>Large-scale shift in the structure of a kelp forest ecosystem co-occurs with an epizootic and marine heatwave</u>, Communications Biology, March 5, 2021

² Benson, Scott R., Karin A. Forney, Jeffrey E. Moore, Erin L. LaCasella, James T. Harvey, and James V. Carretta. <u>"A Long-Term Decline in the Abundance of Endangered Leatherback Turtles, Dermochelys Coriacea, at a Foraging Ground in the California Current Ecosystem.</u> *"Global Ecology and Conservation* 24 (November 2020).

³ García-Reyes, Marisol, Andrew Leising, Rebecca Asch, Steven Bograd, and Tessa M Hill. Rep. Indicators of Climate Change in California, "Coastal Ocean Temperature", California Office of Environmental Health Hazard Assessment, 2022.

MPAs, like state parks on land, protect unique and important ocean habitats from activities that can damage ocean life. Areas that are strongly protected have been shown to be highly effective in conserving biodiversity, enhancing ecosystem resilience, and mitigating the impacts of climate change on our oceans.⁴ By providing areas that serve as buffers against climate change, fully protected MPAs adapt to changing environmental conditions because they better preserve natural interactions within ecosystems, allowing for greater resiliency.⁵

California's network of MPAs, foreseen in the MLPA, celebrated its tenth anniversary last year, and the state's Decadal Management Review (DMR) showed that MPAs effectively protect ocean habitats and increase fishery-targeted species' biomass. The DMR found that the older the MPA, the larger the increase in the biomass of fished species. Some ecological communities like kelp forests and rocky intertidal ecosystems within MPAs appeared more resilient and recovered more quickly after marine heatwaves than similar habitats outside MPAs.⁶ Now, we need to build on this system and maintain California's role as a national and global leader in the fight to protect more ocean habitats.

We support the expansion of the MPA Network to include critical, resilient kelp forests along California's coastline. While these vital and iconic ecosystems have faced declines statewide in recent years, kelp forests in some areas have persisted or bounced back quickly in the face of marine heatwaves and other disturbances. By expanding protections for these resilient forests under the MLPA, the state can minimize direct human impacts in these relatively healthy areas, helping to ensure their continued persistence and enhancing the effectiveness of restoration efforts for declining kelp ecosystems nearby.

It is also vital that existing California MPAs are able to achieve their stated goals of conserving biodiversity and ecosystem health. We encourage the state to consider increasing protections for MPAs that are currently only lightly or minimally protected, especially in places where weaker or more complicated regulations lead to poor compliance and enforcement. Research has shown that highly and fully protected areas, where few if any destructive or extractive activities are allowed, provide greater ecological benefits than lightly or minimally protected areas.⁸

As college students, we keenly feel the urgency to address the environmental crises, particularly along California's coast. Having grown up witnessing the impacts of climate change, it's clear

⁴ Arafeh-Dalmau et al., <u>Integrating climate adaptation and transboundary management: Guidelines for designing climate smart marine protected areas</u>, One Earth 6, 1–19 November 17, 2023 ^a 2023 Published by Elsevier Inc. ⁵ Jankowska, Emilia, et al. "<u>Climate Benefits from Establishing Marine Protected Areas Targeted at Blue Carbon Solutions</u>." *Proceedings of the National Academy of Sciences*, vol. 119, no. 23, 2022.

⁶ California Department of Fish and Wildlife. (2022). California's Marine Protected Area Network Decadal Management Review.

⁷ California Department of Fish and Wildlife. (2022). California's Marine Protected Area Network Decadal Management Review.

⁸Ibid Kirsten Grorud-Colvert *et al.*, <u>The MPA Guide: A framework to achieve global goals for the ocean</u>. *Science* **373** ,eabf0861(2021). DOI:10.1126/science.abf0861

that action is needed to limit harm to the environment. That's why we urge the Fish and Game Commission to make significant changes in preserving and protecting our vast ocean habitats, ensuring a meaningful and lasting impact for generations to come.

Our ocean is not just a provider of fresh air, diverse wildlife, and breathtaking scenery; it's also an enigma that calls us to explore and uncover its secrets. As college students, we believe it's our duty to be at the forefront of national and global efforts, taking bold steps to safeguard the ocean. This commitment ensures its future and the welfare of communities dependent on it for survival and prosperity.

In conclusion, we strongly urge you, Fish and Game Commissioners, to champion the expansion and fortification of California's network of Marine Protected Areas, with a particular focus on safeguarding kelp forests and reinforcing the protection of existing MPAs. By doing so, you will leave a lasting legacy of environmental stewardship.

Thank you for your unwavering commitment to the welfare of our ocean and for considering this urgent matter. Together, we can ensure a healthier, more abundant future for the unique marine ecosystems that define California.

Sincerely,

Clara Castronovo Board Chair CALPIRG Students

Brandi Sanchez President Ecology Behavior and Evolution Club at UC San Diego

Brandi Sanchez President Pollinator Club at UC San Diego

Aiden Ledbetter President Davis College Democrats

Hannah Hughes President 5C Plant-Based Mission at the Claremont Colleges



California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 29, 2023

Re: Petition to Modify CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests; Petition to Increase Level of Protection and Streamline Enforcement for Several California State MPAs

Dear President Sklar and Honorable Commissioners,

CALPIRG Students is a statewide, student-run, and student-funded organization that works to protect the environment, make college affordable, and promote civic engagement. We have over 20,000 dues-paying members across the UC system and have been on campus for almost 50 years advocating for students on issues that students care about most. As part of our ongoing efforts to win better protections for California's ocean, we are submitting 214 signatures from our supporters on campuses across the state in support of Environment California Research & Policy's petitions for rulemaking in the state's adaptive management process for the California marine protected area network.

Each of the 214 people signed the following letter:

To: Governor Gavin Newsom

Sea otters bobbing in the surf. Whales diving deep to feed. Seabirds flying above. Our state's coastline is home to wildlife, large and small. As students and young people, we are proud to live in a state that has taken steps to protect this ocean heritage for future generations. California's network of marine protected areas are places that, just like state parks on land, help protect and restore ocean life.

I urge you to strengthen this network through the Decadal Management Review in line with your important goal of protecting 30 percent of our state waters by 2030. Specifically, I urge you to expand the network to protect the state's last remaining kelp forests, critical homes to fish and sea otters, and to strengthen existing areas that don't yet provide high levels of protection to ocean life.

With your support, California can expand this network of ocean parks to create a brighter future for the ocean life that calls our state home, and hopefully inspire others across the country and around the world to follow our lead.

As young people, we are working everyday to tackle the most pressing problems facing our ocean, our climate and our communities. That's why we are heartened to see state leaders like



Governor Newsom and the state legislature set bold and ambitious goals to protect more of our coastline.

But goals need to be followed by action to ensure the future health and abundance of our ocean wildlife and wild places. That's why our student members have been campaigning for better ocean protections, and why we are excited to have this opportunity in the Decadal Management Review to push our state's groundbreaking network of MPAs forward. An expanded, strengthened network will make our coasts more resilient in the face of climate change and give our ocean life a chance to thrive.

Thank you for this opportunity, and we look forward to working with you to continue to create a better future for California's coasts.

Sincerely,

Clara Castronovo State Board Chair

(1h-1A-

CALPIRG Students



Camellia Cartland, Alhambra, CA

Mary Ann Gutierrez, Alhambra, CA

Jaylene Madrid, Apple Valley, CA

Ainsley Wilkin, Apple Valley, CA

TREINA LE, Baldwin Park, CA

Erika Alfaro, Berkeley, CA

Erik Beahrs, Berkeley, CA

Sophia Brodie-Weisberg, Berkeley, CA

Julissa Esparza, Berkeley, CA

Ellen Franzen, Berkeley, CA

Olivia Hom, Berkeley, CA

Kaki Li, Berkeley, CA

Ryan Montis, Berkeley, CA

Stachi Thockchom, Berkeley, CA

Minqi Wang, Berkeley, CA

Caroline Yee, Berkeley, CA

Erinne Yoo, Berkeley, CA

Erik Hart, Bonny Doon, CA

Kofi Addo, Buena Park, CA

Taylor Keppel, Burbank, CA

Monica Wiesener, Calabasas, CA

Radha Jujare, Campbell, CA

Adrian Contreras, Capitola, CA

Jane Giza, Carmichael, CA

Eduardo Angel Hurtado, Chula Vista, CA

Roxanna Braganca, Chula Vista, CA

Rachel Burnett, Concord, CA

Alexis Hammond, Coronado, CA

Mark Danilak, Cupertino, CA

Marea Ayala, Davis, CA

Aster Basnick, Davis, CA

Harriet Chilton, Davis, CA

ReJenai Cloy, Davis, CA

Rena Cohen, Davis, CA

Olivia Lim, Davis, CA

Seth Marshall, Davis, CA

An Nguyen, Davis, CA

Trevor Ottoson, Davis, CA

Madelyn Parker, Davis, CA

Caitlin Perea, Davis, CA

Emmalie Perez, Davis, CA

Aaron Saint John, Davis, CA

Samuel Saxe-Taller, Davis, CA

Percival Singson, Davis, CA

Avery Thau, Davis, CA

Josue Velasquez, Davis, CA

Mackenna Weems, Davis, CA

hilary wang, Diamond Bar, CA

Ariadne meza-lopez, Diamond Springs, CA

Ria Dadia, Dublin, CA

Aziz Abdulahad, El Cajon, CA

Claire Wang, El Cajon, CA

Eythana Miller, Emeryville, CA

Rosina Miranda, Fair Oaks, CA

Michael Assmus, Fairfax, CA

julie park, Fountain Valley, CA



Jasmine Avila Soria, Fremont, CA

Baotran Nguyen, Fremont, CA

Alex Sanchez, Fresno, CA

Kelalani Luong-Kha, Garden Grove, CA

Toby Ngo, Garden Grove, CA

Ariaeli Hernandez, Gilroy, CA

Nathan Carbajal, Goleta, CA

Ana Cardenas Gasca, Goleta, CA

Kittamet Chanchaiworawit, Goleta, CA

Lizzie Harding, Goleta, CA

Lluvia Medina, Goleta, CA

Mariana Morton, Goleta, CA

Joanna Tang, Goleta, CA

joanna tang, Goleta, CA

Bradley Thomas, Goleta, CA

Henry Lindhurst, Granite Bay, CA

Peter Le, Hawthorne, CA

adriana zapotitla, Indio, CA

Kimberly Torres, Industry, CA

Andy Fleischer, Irvine, CA

Rhianna Heaster, Irvine, CA

Anisa Johnson, Irvine, CA

Nathaniel Jordan, Irvine, CA

Hudson Lee, Irvine, CA

Henson Ning, Irvine, CA

Ash Quan, Irvine, CA

Lucie Villata, Irvine, CA

Karen Yan, La Jolla, CA

Charlee Marlinga, La Quinta, CA

Gianna Wright, La Quinta, CA

Nathaniel Friedman, Lafayette, CA

Emma Contreras, Lemon Grove, CA

Samikshaya Auanthakrisknan, Lincoln, CA

Elina Dern, Lincoln, CA

Jennifer Gonzalez-Espinoza, Lindsay, CA

Kristi Copeland, Long Beach, CA

Liam Williams, Long Beach, CA

Lexi Crilley, Los Altos Hills, CA

Hoque Akter, Los Angeles, CA

Kimberly Barrueta, Los Angeles, CA

Gabby Ebrahimi, Los Angeles, CA

Bahar Farzaneh, Los Angeles, CA

Janine Fischer, Los Angeles, CA

Tyler Holmes, Los Angeles, CA

Kieran Johnson, Los Angeles, CA

Lucy Kaff, Los Angeles, CA

Daniel Lamas Sanchez, Los Angeles, CA

Dean Lewis, Los Angeles, CA

Kainoa MacDonald, Los Angeles, CA

Darla Marie Duffy, Los Angeles, CA

Alayah Marshall, Los Angeles, CA

Mireya Mondragon, Los Angeles, CA

Lilia Naylor, Los Angeles, CA

Alina Orendain-Calderon, Los Angeles, CA

Shannon Park, Los Angeles, CA

Owen Pogue, Los Angeles, CA



Lizbeth Rivera, Los Angeles, CA

Alondra Roque, Los Angeles, CA

Jonas Shladovsky, Los Angeles, CA

madelyn spence, Los Angeles, CA

Anita Theng, Los Angeles, CA

Nataly Villasenor, Los Angeles, CA

Rujin Yu, Los Angeles, CA

Jonathan Giang, Monterey Park, CA

Sam Strieter, Moreno Valley, CA

Samantha Strieter, Moreno Valley, CA

Lizzie Su, Mountain House, CA

Angel Parra, Murrieta, CA

Eleanor Vo, Oakland, CA

Alonzo Canete, Ontario, CA

Lori Shen, Ontario, CA

Jacqueline Barnes, Palo Alto, CA

Alicia Acevedo, Perris, CA

Morgen Guzman, Petaluma, CA

Ruth Simon, Placentia, CA

Danae Delgado-Diaz, Pomona, CA

Rachel Lucine, Rancho Cucamonga, CA

Kurubel Tesfay, Rancho Palos Verdes, CA

Cassidy Creighton, Redwood City, CA

Ren Romero, Redwood City, CA

Nicole Castillo, Richmond, CA

Lida Halilovic, Riverside, CA

Ryan LaCasse, Riverside, CA

Hannah Kae Monson, Riverside, CA

Katharine Pan, Riverside, CA

Paige Smith, Riverside, CA

Laurel Tennant, Riverside, CA

Esteban Torres, Riverside, CA

Jennifer Vo, Riverside, CA

Sage Prudente, Rocklin, CA

Olivia Teich, Rohnert Park, CA

Panka Kernacs, Sacramento, CA

Megyn Horton, San Anselmo, CA

Nox Keel, San Clemente, CA

Yingqi Cao, San Diego, CA

Mekayli Claros, San Diego, CA

Avamarie Fromm, San Diego, CA

Camila Gonzalez, San Diego, CA

Benjamin Greenstein, San Diego, CA

Xiaoyu Gui, San Diego, CA

Anne Huynh, San Diego, CA

Michael Iter, San Diego, CA

Katrina Mai, San Diego, CA

Lizard Merrick, San Diego, CA

Ava Ramirez-Brown, San Diego, CA

Dhruv Sehgal, San Diego, CA

Sarah Song, San Diego, CA

Isabella Wagner, San Diego, CA

Lucy Yang, San Diego, CA

Rachel, San Diego, CA

Nadia Nehme, San Francisco, CA

Caroline Sykes, San Francisco, CA



Tatiana Aguilera, San Leandro, CA

Anjuli Oey, San Leandro, CA

Lilly Wolf-Hoy, San Marcos, CA

Elise Won, San Mateo, CA

Yahir Alexis Leal, Santa Ana, CA

Belen Cordova, Santa Cruz, CA

Chaitan Butte, Santa Monica, CA

Nikolas Brandt, Sebastopol, CA

Natalie Bai, Stanford, CA

Sofia Perez, Temecula, CA

Elena Picinich, Temecula, CA

Jiovanni Esteveec, Temple City, CA

Brent Pitts, Torrance, CA

Eva Pullen, Truckee, CA

Audrey Robertson, Tustin, CA

samael yang, Union City, CA

Emily Arana, Vacaville, CA

melissa fryar, Vacaville, CA

Taylor Arrington, Vallejo, CA

Natalie Rodriguez, West Covina, CA

Sara Morris, Whittier, CA

Claire Griffiths, Yorba Linda, CA

Neilyn Alvarez-Rodriguez, CA

Diana Cardova, CA

Anna Chuang, CA

Dharma Gutierrez Romero, CA

Wafaa Lawai, CA

Markus Mantyvaara, CA

Nayeli Orozco, CA

Kenya Santamaria, CA

Maia Boell, Carroll, IA

Charlie Cronenwett, Leawood, KS

Michael Basmajian, Somerville, MA

Miranda Sih, Minneapolis, MN

Julianna Evinski, Linwood, NJ

John Dunn, Morristown, NJ

Benito Morales, , WA

Ava Png, Weston, WI

Shashank Uma Deepak

Titouan Faure,



California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 29, 2023

Re: Petition to Modify CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests; Petition to Increase Level of Protection and Streamline Enforcement for Several California State MPAs

Dear President Sklar and Honorable Commissioners,

Environmental Action was founded in 1970, on the first Earth Day, as a community of grassroots environmental activists working for a cleaner, greener world. We are submitting the following 2,487 signatures in support of Environment California Research & Policy Center's petitions for rulemaking in the state's adaptive management process for the California Marine Protected Area network.

Each of the 2,487 people signed the following letter:

Dear Governor Newsom,

Sea otters bobbing in the surf. Whales diving deep to feed. Seabirds flying above. Our state's coastline is home to wildlife, large and small. As Californians, we've taken steps to protect this ocean heritage by creating a network of marine protected areas that, just like state parks on land, help protect and restore ocean life.

I urge you to strengthen this network through the Decadal Management Review in line with your important goal of protecting 30 percent of our state waters by 2030. Specifically, I urge you to expand the network to protect the state's last remaining kelp forests, critical homes to fish and sea otters, and to strengthen existing areas that don't yet provide high levels of protection to ocean life.

With your support, California can expand this network of ocean parks to create a brighter future for the ocean life that calls our state home, and hopefully inspire others across the country and around the world to follow our lead.

Sincerely,

As a group that works to protect our most amazing and at risk wildlife across the country, we know that preserving and restoring habitats will be critical to seeing our ocean life thrive. Whether it's a return of sea otters to more of the coastline or more abundant seabirds flying above our heads, expanding and strengthening California's network of marine protected areas will create a more hopeful future for the wild animals that call the state's coastline home.

But the decisions made on California's coast will not only impact the state's wildlife: as with many environmental issues, California's actions here have the potential to reverberate far and wide. If the state acts with ambition during this adaptive management process to fulfill the state's 30 by 30 commitment, it can set the national standard for ocean conservation, leading the country and the globe forward to a better future for our oceans.

Sincerely,

Patrick Kelly-Fischer

Patrick Kelly-Fischer Board Member Environmental Action



Cathy Crum, Agoura Hills, CA

Roger Ewing, Agoura Hills, CA

Debra Lichstein, Agoura Hills, CA

Brian Jeffery, Aguanga, CA

Geralyn Gulseth, Alameda, CA

David Howard, Alameda, CA

Mike Kehl, Alameda, CA

Jamie Le, Alameda, CA

Andrew Mueckenberger, Alameda, CA

Donna Pedroza, Alameda, CA

Mana-Jean Wagnon, Alameda, CA

Michael Grant White, Alameda, CA

Joseph Woodard, Alameda, CA

Connie Diernisse, Alamo, CA

Ehren Mierau, Alamo, CA

Ana Black, Albany, CA

Llll D, Albany, CA

Christopher Hamilton, Albany, CA

Michael Sullivan, Albany, CA

Lisa Wenzel, Albany, CA

Barbara Williamson, Albany, CA

Dobby Sommer, Albion, CA

Annemarie Weibel, Albion, CA

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Araceli Aviles, Alhambra, CA

Anjanette Caron, Alhambra, CA

David Gallardo, Alhambra, CA

Angel Orona, Alhambra, CA

Christine Sirias, Alhambra, CA

Laurie Barre, Altadena, CA

Vic Bostock, Altadena, CA

Timothy Callahan, Altadena, CA

G Devine, Altadena, CA

Beth Herndobler, Altadena, CA

Jennifer Herstein, Altadena, CA

Venetia Large, Altadena, CA

Annamarie Jones, Alturas, CA

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Robert Raven, American Canyon, CA

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Shauna Gonzalez, Anaheim, CA

Penelope Harms, Anaheim, CA

Jane Iacovetti, Anaheim, CA

Karen Malley, Anaheim, CA

Tim Maurer, Anaheim, CA

Natalie Blasco, Anderson, CA

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Val Wren, Apple Valley, CA

Carol Easton, Aptos, CA

Michele Faia, Aptos, CA

Bonnie Gessler, Aptos, CA

Blaise Brockman, Arcadia, CA

Jana Harker, Arcadia, CA



Penn Patton, Arcadia, CA

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Connie Lindgren, Arcata, CA

Rudy Ramp, Arcata, CA

Sophie Rocheleau, Arcata, CA

Jane Spini, Arcata, CA

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Barbara Frances, Aromas, CA

Paul Lapidus, Aromas, CA

Sherry Pennell, Aromas, CA

Mary Orcutt, Arroyo Grande, CA

Verona Rebow, Arroyo Grande, CA

Mary Simmons, Arroyo Grande, CA

Mitchell Falkenstern, Atascadero, CA

Tara Gonzales, Atascadero, CA

Helena Hernandez, Atascadero, CA

Kathleen Van Every, Atascadero, CA

Gabriele Miatkowski, Athens, CA

Marilyn Barthelow, Auburn, CA

Jana Boccalon, Auburn, CA

Kermit Carraway, Auburn, CA

Denise Redden, Auburn, CA

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Jere Wilkerson, Avila Beach, CA

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Jim Carnal, Bakersfield, CA

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Steve Sketo, Bakersfield, CA

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Vicki Sarnecki, Bangor, CA

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Geneva Sherwood, Banning, CA

Linda Christenson, Beaumont, CA

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Jason Nolasco, Bellflower, CA

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Barbara Meislin, Belvedere Tiburon, CA

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Lizzie Vierra, Costa Mesa, CA

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Patricia Rudner, Cypress, CA

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Joanne Scott, Daly City, CA

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Mark Weinberger, Daly City, CA

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Ramona Williams, Danville, CA

Sabrina Wong, Danville, CA

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Autumn Marr, Davis, CA

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Diane Moore, Davis, CA

Sherri Sandberg, Davis, CA

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Michael McLaughlin, Desert Hot Springs, CA

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Jeffrey Jenkins, Diamond Bar, CA

Seth Picker, Diamond Springs, CA

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Ivan Llata, Downey, CA

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Kaylah Sterling, Emeryville, CA

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Lucy Hart, Encino, CA

Hillary Ostrow, Encino, CA

Andrew Russell, Encino, CA

Michael Tullius, Encino, CA

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Davin Peterson, Eureka, CA

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Graciela Ramirez, Eureka, CA

Karen Steele, Eureka, CA

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Jim Franzi, Fiddletown, CA

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Joan Normington, Folsom, CA

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Bob Flagg, Forestville, CA

Robert Harrison, Forestville, CA

Gilia Humrich, Forestville, CA

Eric Johnson, Fort Bragg, CA

Bill Lundeen, Fort Bragg, CA

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Moktar Salama, Fountain Valley, CA



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Cynthia McHugh, La Mesa, CA



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Anne Earhart, Laguna Beach, CA

Mirjam Luthe, Laguna Beach, CA

Robert Reed, Laguna Beach, CA

Sally Sanders, Laguna Beach, CA

Gila Wdowinski, Laguna Beach, CA

Connie Loveland, Laguna Hills, CA

Patti Mickelsen, Laguna Hills, CA

Lynne Jeffries, Laguna Niguel, CA

Erik Kemper, Laguna Niguel, CA

Melissa Waters, Laguna Niguel, CA

Maria Faur, Laguna Woods, CA

Richard Miller, Laguna Woods, CA

Kevin O'Brien, Laguna Woods, CA

Miriam Adler, Lake Balboa, CA

Travis Benneian, Lake Elsinore, CA

Kathy Engstrom, Lake Elsinore, CA

Kathy Monteleone, Lake Elsinore, CA

Julie Pearce, Lake Forest, CA

Linda Schulz, Lake Hughes, CA

Patrick Bernardino, Lakeside, CA

Mary Hicklin, Lakeside, CA

Irene Roos, Lakeside, CA

Michael Broad, Lakewood, CA

Leslie Gombrich, Lakewood, CA

Brenda Lee, Lakewood, CA

Margaret Tollner, Lakewood, CA

Kae Bender, Lancaster, CA

Suzanne Marcella Camarillo, Lancaster, CA

Stephanie Dennis, Lancaster, CA

Julia Ritter, Larkspur, CA

Valerie Nordeman, Laytonville, CA

Sharon Paltin, Laytonville, CA

Charlotte Randolph, Lee Vining, CA

Cynthia Brooks-Fetty, Lemon Grove, CA

Ked Garden, Lemon Grove, CA

Lisa Avila, Lincoln, CA

Nicole Fountain, Lincoln, CA

Sandy McFarlin, Lincoln, CA

Paula Cavagnaro, Livermore, CA

Jean King, Livermore, CA

Caroline Ko, Livermore, CA



Sally Marone, Livermore, CA

Todd Matz, Livermore, CA

Mary Perner, Livermore, CA

Laurie Sargent, Livermore, CA

Sarah Ryan, Liverpool, CA

Mari Dominguez, Lodi, CA

Elizabeth Eisenbeis, Lodi, CA

Kris Cordova, Loma Linda, CA

John Waller, Lompoc, CA

Donna Apodaca, Long Beach, CA

Kevin Bigelow, Long Beach, CA

Ian Bixby, Long Beach, CA

Frederick Cliver, Long Beach, CA

Erlinda Cortez, Long Beach, CA

Kurt Cruger, Long Beach, CA

Marie DiMassa, Long Beach, CA

Lee Eames, Long Beach, CA

Malina H, Long Beach, CA

Brenda Haig, Long Beach, CA

Rebecca Hanna, Long Beach, CA

Douglas Herrera, Long Beach, CA

Diana Kliche, Long Beach, CA

Andrew Kort, Long Beach, CA

Linda Lloyd, Long Beach, CA

Charles Lotstein, Long Beach, CA

Jane Mitchell, Long Beach, CA

Greg Perkins, Long Beach, CA

Melissa Rondilla, Long Beach, CA

Janice Sampson, Long Beach, CA

Lance Smith, Long Beach, CA

Michele Souza Zimmerman, Long Beach, CA

Melinda Taylor, Long Beach, CA

Daniel Wilkinson, Long Beach, CA

Marion Barry, Loomis, CA

Dawn Forcier, Loomis, CA

Jennifer Brooks, Los Altos, CA

Kinshuk Govil, Los Altos, CA

R. Marks, Los Altos, CA

James Patton, Los Altos, CA

Stephanie Reader, Los Altos, CA

Steven Acosta, Los Angeles, CA

Judith Antin, Los Angeles, CA

Valerie Apple, Los Angeles, CA

Soraya Barabi, Los Angeles, CA

Ann Bein, Los Angeles, CA

Jon Benneian, Los Angeles, CA

Adam Bernstein, Los Angeles, CA

Vicki Bingo, Los Angeles, CA

Paula Block-Levor, Los Angeles, CA

Deirdre Boland, Los Angeles, CA

Fabienne Bouville, Los Angeles, CA

Andrea Boyle, Los Angeles, CA

Jason Brock, Los Angeles, CA

Damon Brown, Los Angeles, CA

Robert Burk, Los Angeles, CA

Frank Burke, Los Angeles, CA

Ariel Chapman, Los Angeles, CA

William Cleary, Los Angeles, CA

Amber Cohn, Los Angeles, CA

John Crahan, Los Angeles, CA



Joseph Dadgari, Los Angeles, CA

Diana Davidson, Los Angeles, CA

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Lesly Derbyshire, Los Angeles, CA

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Laura Divenere, Los Angeles, CA

Robert Drummond, Los Angeles, CA

Isabelle Du Soleil, Los Angeles, CA

Chris Eaton, Los Angeles, CA

Jason Eric, Los Angeles, CA

Gail Farina, Los Angeles, CA

Aixa Fielder, Los Angeles, CA

Alexander Fierro-Clarke, Los Angeles, CA

Thomas Fitzgerald, Los Angeles, CA

Sara Flamm, Los Angeles, CA

Reanna Flores, Los Angeles, CA

Darren Frale, Los Angeles, CA

Mark Gallegos, Los Angeles, CA

Kay Gallin, Los Angeles, CA

Julie Garcia, Los Angeles, CA

Enrica Gaspari, Los Angeles, CA

Patricia Gavigan, Los Angeles, CA

Janna Gelfand, Los Angeles, CA

Karen Ruth Getchell, Los Angeles, CA

Mary Glazer, Los Angeles, CA

Prisca Gloor, Los Angeles, CA

Luna Gooding, Los Angeles, CA

Carol Gordon, Los Angeles, CA

Steve Graff, Los Angeles, CA

Susan Grant, Los Angeles, CA

emma-louise hayley, Los Angeles, CA

Carla Holguin, Los Angeles, CA

Celeste Hong, Los Angeles, CA

Ted Hume, Los Angeles, CA

Elizabeth Johansen, Los Angeles, CA

Saran K., Los Angeles, CA

Kaija Keel, Los Angeles, CA

Sabrina Kemeny, Los Angeles, CA

Schuyler Kent, Los Angeles, CA

Mha Atma S Khalsa, Los Angeles, CA

Leslie Klein, Los Angeles, CA

Shirlee Kong, Los Angeles, CA

Anita Kuhn, Los Angeles, CA

David Kurz, Los Angeles, CA

Diane Lamont, Los Angeles, CA

Edward Landler, Los Angeles, CA

Kenneth Lapointe, Los Angeles, CA

Seth Laursen, Los Angeles, CA

Yolanda Leaird, Los Angeles, CA

Barbara Leake, Los Angeles, CA

Patricia Lewis, Los Angeles, CA

Andrea Lieberman, Los Angeles, CA

Adrian Loeb, Los Angeles, CA

Alexandria Luostari, Los Angeles, CA

John-Allan Macunovich, Los Angeles, CA

Pamela Magathan, Los Angeles, CA

Eugene Majerowicz, Los Angeles, CA

Stephen Markel, Los Angeles, CA

Tina Markowe, Los Angeles, CA

Patricia Marlatt, Los Angeles, CA



Mary	McAuliffe,	Los Ange	les, CA
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Alexandra McCardell, Los Angeles, CA

Karen McCaw, Los Angeles, CA

Robert Meier, Los Angeles, CA

Myron Meisel, Los Angeles, CA

Tony Mendoza, Los Angeles, CA

Barbara Mesney, Los Angeles, CA

Helen Miller, Los Angeles, CA

Deimile Mockus, Los Angeles, CA

Maria Molund, Los Angeles, CA

Erica Munn, Los Angeles, CA

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Melvyn Nefsky, Los Angeles, CA

Frank Ortiz, Los Angeles, CA

Maaya Ota, Los Angeles, CA

Attilio Pandolfo, Los Angeles, CA

Margaret Phelps, Los Angeles, CA

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Kalpana Pot, Los Angeles, CA

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Brianda Puig, Los Angeles, CA

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Jan Albertie, Los Banos, CA

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Thomas Ferrito, Los Gatos, CA

Rea Freedom, Los Gatos, CA

Lisa Gherardi, Los Gatos, CA

Theresa Gonzalez, Los Gatos, CA

Ron and Sandra Harder, Los Gatos, CA

Steven Hayashi, Los Gatos, CA

Rick Koury, Los Gatos, CA

Angela LaPlante, Los Gatos, CA

Joyce Schellenberg, Los Gatos, CA

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Susan S. Jones, Los Osos, CA

Leslie Spoon, Los Osos, CA

Kevin Branstetter, Lotus, CA

Lori White, Lower Lake, CA

Judy Madigan, Loyalton, CA

Yves DeCargouet, Lucerne, CA

Grace Bell, Mablethorpe, CA

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Kelly Kessl, Malibu, CA

Lynne Miller, Malibu, CA

Rob Seltzer, Malibu, CA

Louis Spirito, Malibu, CA

Jimy Tallal, Malibu, CA

Kelly Tiefen, Malibu, CA

Loretta Tiefen, Malibu, CA

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D.G. Sifuentes, Mammoth Lakes, CA

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Karla Devine, Manhattan Beach, CA

Dan Esposito, Manhattan Beach, CA

Kathleen Goldman, Manhattan Beach, CA

Marisa Landsberg, Manhattan Beach, CA

Alice Neuhauser, Manhattan Beach, CA

Jennifer Yamamoto, Manhattan Beach, CA

James Liu, Manteca, CA

Jim Ricketts, Manteca, CA

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Creda Markham, Marina, CA

Susanne Cumming, Marina Del Rey, CA

Alexander Dunaev, Marina Del Rey, CA

Renee Klein, Marina del Rey, CA

Amanda Skerski, Marina del Rey, CA

Benjamin Teitelbaum, Marina Del Rey, CA

Judith Turner, Marina del Rey, CA

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Gabriel Sheets, Mariposa, CA

Burney Stephens, Mariposa, CA

Scott Mason, Martinez, CA

Charlotte Sines, Martinez, CA

Betty Mello, Marysville, CA

Denise Comiskey, McKinleyville, CA

Robin Hamlin, McKinleyville, CA

Francesca Ciancutti, Mendocino, CA



Raven Deerwater, Mendocino, CA

John Wozniak, Mendocino, CA

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Rob Gallinger, Menifee, CA

Pam Overholtzer, Menifee, CA

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Connie Habash, Menlo Park, CA

Vickie Rozell, Menlo Park, CA

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Alex Levine, Mill Valley, CA

Liz Marshall, Mill Valley, CA

Roberta Newman, Mill Valley, CA

Norman Pacula, Mill Valley, CA

Marilyn Price, Mill Valley, CA

Leonie Terfort, Mill Valley, CA

Gisella Castelluccio, Millbrae, CA

Jan Castle, Millbrae, CA

Richard Reale, Millbrae, CA

Mary Maher, Milpitas, CA

Denise Henyard, Mira Loma, CA

Rose Kabir, Mira Loma, CA

Rosa Strayer, Mira Loma, CA

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Denise Meadow, Mission Viejo, CA

Rochelle Phillips, Mission Viejo, CA

Carolyn Rhazi, Mission Viejo, CA

Robin Loewen, Modesto, CA

Linda Pemberton, Modesto, CA

Michelle Setaro, Modesto, CA

Christy Bolle, Monrovia, CA

Angela Galgocz, Monrovia, CA

Robert Ricewasser, Monrovia, CA

Heather Crow, Montague, CA

Samuel Dickson, Montara, CA

Jeanette Leinweber, Monte Rio, CA

Kristen Beck, Monterey, CA

Zoe Edington, Monterey, CA

Deb Federin, Monterey, CA

William Hubick, Monterey, CA

Patrick Maiorana, Monterey, CA

Shirley Tofte, Monterey, CA

Fiona Webb, Monterey, CA

Dave Whipple, Monterey, CA

Steve Tuttle, Monterey Park, CA

Karen Drake, Montrose, CA

Cheri Bly, Moorpark, CA

Thomas Filip, Moorpark, CA

Susie Gutowitz, Moorpark, CA

Marti Jurick, Moorpark, CA

Erica Ponce, Moorpark, CA

Art Stclair, Moorpark, CA

Kathryn Choudhury, Moraga, CA

Heidi Groom, Moreno Valley, CA

Christian Reyes, Moreno Valley, CA

Ilya Turov, Moreno Valley, CA

Greg Winton, Moreno Valley, CA

J.T. Averre, Morgan Hill, CA

Daniel Lebus, Morgan Hill, CA

Nannette Morgan, Morgan Hill, CA



Anita Manley, Morro Bay, CA

Tina Wener, Morro Bay, CA

Michelle Santy, Moss Beach, CA

Jim Curland, Moss Landing, CA

Greg D, Mount Shasta, CA

Cynthia Marconi, Mount Shasta, CA

Bill Wood, Mount Shasta, CA

Charles Fletcher, Mountain Center, CA

Caroline Bering, Mountain View, CA

Cyril Bouteille, Mountain View, CA

Christopher Cain, Mountain View, CA

Kermit Cuff, Mountain View, CA

Karin Jeffery, Mountain View, CA

Victoria Keoleian, Mountain View, CA

Ben Martin, Mountain View, CA

Rosa Bravo, Murrieta, CA

Dawn Burrell, Murrieta, CA

Daniel Davis, Murrieta, CA

Loan Nguyen, Murrieta, CA

Arianna Walsh, Murrieta, CA

Janet Wheeler, Murrieta, CA

Elizabeth Woodward, Murrieta, CA

Jan Gates, Napa, CA

Catherine George, Napa, CA

Charesa Harper, Napa, CA

Kathy Linale, Napa, CA

Robyn Little, Napa, CA

Katharine Mawer, Napa, CA

Barry Schwartz, Napa, CA

Evelyn Trevethan, Napa, CA

Susan Wheaton, Napa, CA

Ree Whitford, Napa, CA

Jim Wilson, Napa, CA

Dana Monroe, National City, CA

Micki Besancon, Nevada City, CA

Terry Charonnat, Nevada City, CA

Joan Griffin, Nevada City, CA

Judie Rae, Nevada City, CA

Glenn Smith, Nevada City, CA

Maureen Fry, Newark, CA

John Hawkins, Newbury Park, CA

Percy Hicks-Severn, Newbury Park, CA

Nemo Howton, Newbury Park, CA

Rodney Love, Newbury Park, CA

Joyce McIntire, Newbury Park, CA

Beth Merrill, Newbury Park, CA

Nicole Mikals, Newbury Park, CA

Matthew Page, Newbury Park, CA

Kathleen Pierce, Newbury Park, CA

Tracey Sands, Newbury Park, CA

Cindy Stein, Newbury Park, CA

Heidi Taylor, Newbury Park, CA

Jill Wiechman, Newbury Park, CA

Paula Willebrands, Newbury Park, CA

Kathrine Fegette, Newcastle, CA

Joan Peter, Newhall, CA

Alan Yamamoto, Newhall, CA

Elizabeth Edwards, Newport Beach, CA

Steve Iverson, Newport Beach, CA

Vic Paglia, Newport Beach, CA



Stephanie Aston, North Hills, CA

Janice Baxter, North Hills, CA

Christopher Geukens, North Hills, CA

Marian Gould, North Hills, CA

Jim Leske, North Hills, CA

Heidi Miller, North Hills, CA

Natalie Aharonian, North Hollywood, CA

Marilyn Carney, North Hollywood, CA

Kathleen Culp, North Hollywood, CA

Tracy Elliott, North Hollywood, CA

Fred Granlund, North Hollywood, CA

Larry Jasper, North Hollywood, CA

Cathy Kraus, North Hollywood, CA

Michael Marciano, North Hollywood, CA

Stu Nichols, North Hollywood, CA

Manuela Rollins, North Hollywood, CA

Grace Silva, North Hollywood, CA

Judith Vogelsang, North Hollywood, CA

Roslyn Jones, North Palm Springs, CA

Robert Chirpin, Northridge, CA

Lori Dixon, Northridge, CA

Ann Dorsey, Northridge, CA

Gail Camhi, Novato, CA

Mike Cass, Novato, CA

Hillary Davis, Novato, CA

Ian Dogole, Novato, CA

Gary Dowling, Novato, CA

Bonnie Grossman, Novato, CA

Toni Kim, Novato, CA

Lisa Moreno, Novato, CA

H. S. Nadler, Novato, CA

Robert Ortiz, Novato, CA

Thomas Ray, Novato, CA

Jay Rice, Novato, CA

Sheri Rollison, Novato, CA

Arlene Van Craeynest, Novato, CA

Marilyn Wada, Novato, CA

Greg Mull, Oak View, CA

Tree Wright, Oak View, CA

Claire Chambers, Oakdale, CA

John Fitzpatrick, Oakhurst, CA

Dee Allen., Oakland, CA

Jane Armbruster, Oakland, CA

Clara Bargellini, Oakland, CA

Rachel Beck, Oakland, CA

Richard Behrman, Oakland, CA

Julia Benson, Oakland, CA

Esther Boyd, Oakland, CA

Mary Ann Cramer, Oakland, CA

Judith E, Oakland, CA

Stan Fitzgerald, Oakland, CA

Dr A G, Oakland, CA

Rick Gaston, Oakland, CA

Rogelio Giron, Oakland, CA

Ruby Giron-Carson, Oakland, CA

MaryAnne Glazar, Oakland, CA

John Golding, Oakland, CA

Christiana Hart, Oakland, CA

Susan Herting, Oakland, CA

Sterling Hollins, Oakland, CA



Monika Holm, Oakland, CA

Kuanmei Huang, Oakland, CA

Allison Jones, Oakland, CA

Sara Katz, Oakland, CA

Paul Koehler, Oakland, CA

Laakea Laano, Oakland, CA

Jesus M. Maldonado, Oakland, CA

Heather McHugh, Oakland, CA

Caephren McKenna, Oakland, CA

Vasu Murti, Oakland, CA

April Parkins, Oakland, CA

Nancy Paskowitz, Oakland, CA

Rashid Patch, Oakland, CA

Nora Privitera, Oakland, CA

Christine Ranney, Oakland, CA

Ken Rice, Oakland, CA

Evelyn Riche, Oakland, CA

Clifford Robinson, Oakland, CA

Kate S, Oakland, CA

Rondi Saslow, Oakland, CA

Roberta Schear, Oakland, CA

Lesley Schultz, Oakland, CA

Ellen Schwartz, Oakland, CA

Karin Seid, Oakland, CA

Judith Smith, Oakland, CA

Leslie Smith, Oakland, CA

Martin Snapp, Oakland, CA

Madeline Stacy, Oakland, CA

Maria Steinmann, Oakland, CA

Kathleen Tandy, Oakland, CA

Nancy Taylor, Oakland, CA

Michele Tusinac, Oakland, CA

Pablo Voitzuk, Oakland, CA

Kim Walker, Oakland, CA

David Wasley, Oakland, CA

Gwen Weil, Oakland, CA

John Wills, Oakland, CA

Amy Zink, Oakland, CA

James TRUE, Oakland, CA

Molly Mendez, Oakley, CA

Robert Spotts, Oakley, CA

Longwillow Fudemberg, Occidental, CA

Sharon Mulkey, Oceano, CA

Charles Alger, Oceanside, CA

Kelly Brannigan, Oceanside, CA

Sarada Cleary, Oceanside, CA

Cynthia Davenport, Oceanside, CA

Darcy Duval, Oceanside, CA

Andrea Ferrari, Oceanside, CA

Tina Garner, Oceanside, CA

Cathy Gentry, Oceanside, CA

Holly Gilzow, Oceanside, CA

Alexis Grone, Oceanside, CA

Ronnie Huber, Oceanside, CA

Charlene Kerchevall, Oceanside, CA

Sherry Marsh, Oceanside, CA

Tamara Taunt, Oceanside, CA

Paula Thompson, Oceanside, CA

Carol Wanat, Oceanside, CA

Lisa Adair, Ojai, CA



Janine Comrack, Ojai, CA

Donna Freiermuth, Ojai, CA

Kathleen Medina, Ojai, CA

Valerie Shideler, Olivehurst, CA

Kelly Ayers, Ontario, CA

Valerie Carrick, Ontario, CA

Claudia Cook, Ontario, CA

Ron P, Ontario, CA

Lynn Baldini, Orange, CA

Ms Courtney, Orange, CA

Alexis Merz, Orange, CA

Raven Davis-King, Orangevale, CA

Nancy Polito, Orangevale, CA

Lucy Henderson, Orinda, CA

Patricia Moloney, Orinda, CA

Lori Bates, Oxnard, CA

Lynne Boyle, Oxnard, CA

Peggy Brown, Oxnard, CA

Angela C Embree, Oxnard, CA

Maree Penhart, Oxnard, CA

Barbara Piszczek, Oxnard, CA

April Toller, Oxnard, CA

Carolyn Boydston, Pacific Grove, CA

Gary Goetz, Pacific Grove, CA

Melissa Hutchinson, Pacific Grove, CA

Melissa Lippincott, Pacific Grove, CA

Celia Stauty Luis, Pacific Grove, CA

Jane Crist, Pacific Palisades, CA

Jake Gutman, Pacific Palisades, CA

Shannon Rhoades, Pacific Palisades, CA

Beth Schlaff, Pacific Palisades, CA

Ian Silverstein, Pacific Palisades, CA

Kathy Bede, Pacifica, CA

Brian Casey, Pacifica, CA

Ana Herold, Pacifica, CA

Deanna Nielsen, Pacifica, CA

Dita Ã.. kaliÃ,, •, Palm Desert, CA

Alexia Valdora, Palm Desert, CA

Sandra Kanela Barton, Palm Springs, CA

Michael Biers, Palm Springs, CA

Vito Degrigoli, Palm Springs, CA

Wayne Fellabaum, Palm Springs, CA

f Ãf Ãf May, Palm Springs, CA

Bill McCarthy, Palm Springs, CA

Bill Munce, Palm Springs, CA

Maryellen Redish, Palm Springs, CA

Vivian Vaught, Palm Springs, CA

Mario Magpale, Palmdale, CA

Therese Ryan, Palmdale, CA

Karen Weston, Palmdale, CA

Debra Y, Palmdale, CA

Jaye Bergen, Palo Alto, CA

Jordan Briskin, Palo Alto, CA

Edward Cavasian, Palo Alto, CA

Ana Chou, Palo Alto, CA

Sheila Gholson, Palo Alto, CA

Nancy Leech, Palo Alto, CA

Marilyn Levine, Palo Alto, CA

Mary Lou Meeks, Palo Alto, CA



David Perry, Palo Alto, CA

Sara Van Dusen, Palo Alto, CA

Jan Gardner, Palos Verdes Peninsula, CA

Tajie Major, Palos Verdes Peninsula, CA

Sonia Noemi Cross, Paradise, CA

Marcie Ligammari, Paradise, CA

Joan Aebi, Pasadena, CA

Claude Alexander, Pasadena, CA

Cheryl Auger, Pasadena, CA

Linda B., Pasadena, CA

Catherine Beauchamp, Pasadena, CA

Darrell Clarke, Pasadena, CA

Linc Conard, Pasadena, CA

Richard Kornfeld, Pasadena, CA

Frances Liau, Pasadena, CA

Diane Miller, Pasadena, CA

Allison Moffett, Pasadena, CA

Jacqueline Pineda, Pasadena, CA

Charles Roth, Pasadena, CA

Pete Sloman, Pasadena, CA

Geoffrey Symcox, Pasadena, CA

Erinn Todd, Pasadena, CA

Susan Walp, Pasadena, CA

Joan Wickham, Pasadena, CA

Molly Bennett, Paso Robles, CA

Gail Ryland, Pebble Beach, CA

Mike Pasner, Penn Valley, CA

Jamie Sawtell, Penn Valley, CA

James Woods, Penn Valley, CA

Ernesto Marquez, Perris, CA

Chanda Scelsi, Perris, CA

M. Atkinson, Petaluma, CA

Arlene Baker, Petaluma, CA

Stephanie Charles, Petaluma, CA

Jerry Cook, Petaluma, CA

Stacey DeGooyer, Petaluma, CA

Wendy Denny, Petaluma, CA

Patti Fink, Petaluma, CA

Jamila Garrecht, Petaluma, CA

Diane Gentile, Petaluma, CA

Phoenix Giffen, Petaluma, CA

Elfi Gilford, Petaluma, CA

Michelle Letellier, Petaluma, CA

Ingeborg MacKay, Petaluma, CA

Annette Raible, Petaluma, CA

Chris Rose, Petaluma, CA

Gabrielle Swanberg, Petaluma, CA

Dennis Zerbo, Petaluma, CA

Barbara Wright, Phelan, CA

Susan Hathaway, Pico Rivera, CA

Philip Patino, Pico Rivera, CA

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Joan Nygaard, Pinole, CA

Carol Oller, Pinole, CA

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Randall Voss, Pismo Beach, CA

Dennis Young, Pismo Beach, CA

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Mike Rolbeck, Placerville, CA



Paulette Doulatshahi, Playa Del Rey, CA

Yvonne Fisher, Playa del Rey, CA

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Mike Cluster, Pleasant Hill, CA

Joan Merrill, Pleasant Hill, CA

Francesca Rago, Pleasant Hill, CA

Deborah Santone, Pleasant Hill, CA

Renee Snyder, Pleasant Hill, CA

Barbara Norton, Pleasanton, CA

Daniel O'Brien, Pleasanton, CA

Urmila Padmanabhan, Pleasanton, CA

Vicki Tomola, Point Arena, CA

Twyla Meyer, Pomona, CA

Jenny Perez, Pomona, CA

Roxann Schaubhut, Pope Valley, CA

Veronica Goode, Porter Ranch, CA

Linda Bresnan, Portola Valley, CA

Karin Eckelmeyer, Portola Valley, CA

Mike Davis, Posey, CA

Joyce Heyn, Poway, CA

Kim Yirak, Poway, CA

Faith Strailey, Quincy, CA

Laura Bagley, Ramona, CA

Tammy Bullock, Ramona, CA

Don Miller, Ramona, CA

Nancy Hunter, Rancho Cordova, CA

Miriam Baum, Rancho Cucamonga, CA

Linda Bourg, Rancho Cucamonga, CA

Frederick Hamilton, Rancho Cucamonga, CA

Heidi Palmer, Rancho Cucamonga, CA

Judy Bradford, Rancho Palos Verdes, CA

Melina Paris, Rancho Palos Verdes, CA

Lin Penrose, Rancho Palos Verdes, CA

Linda Webb, Rancho Palos Verdes, CA

Andrea Abney, Rancho Santa Fe, CA

Alison Bassell, Rancho Santa Margarita, CA

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Michael Koterba, Redding, CA

Harriet Miller, Redding, CA

Wayne Steffes, Redding, CA

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Sean Hagstrom, Redlands, CA

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Laurel Cameron, Redondo Beach, CA

Michael Cavanaugh, Redondo Beach, CA

Maria Corvalan, Redondo Beach, CA

F. R. Eguren, Redondo Beach, CA

Glenn Embrey, Redondo Beach, CA

Stephane Ernoux, Redondo Beach, CA

Richard Esposito, Redondo Beach, CA

Kris Gata, Redondo Beach, CA

Amrit Khalsa, Redondo Beach, CA

M Montenegro, Redondo Beach, CA

Alie Rowen, Redondo Beach, CA

Anne M. Van Alstyne, Redondo Beach, CA

Jeri Fergus, Redway, CA

Erin Gellman, Redway, CA



Juliann Berman, Redwood City, CA

Michael House, Redwood City, CA

Lisa Jensen, Redwood City, CA

Tom Johnson, Redwood City, CA

Judith Kirk, Redwood City, CA

Thalia Lubin, Redwood City, CA

Chris Ouedec, Redwood City, CA

Robert Page, Redwood City, CA

Audrey Quintero, Redwood City, CA

Rush Rehm, Redwood City, CA

Margaret Rogers, Redwood City, CA

John West, Redwood City, CA

Joleen Siebert, Reedley, CA

Jl Angell, Rescue, CA

Rosa Baeza, Reseda, CA

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Roger Hollander, Tarzana, CA

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Ken Bailey, Taylorsville, CA Kristina Wunder, Topanga, CA

Gail Roberts, Tecate, CA Sherrie King, Torrance, CA

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Holly Hall, Temecula, CA

Lynn Ryan, Torrance, CA

Jena Hallmark, Temecula, CA Diana Waters, Torrance, CA

Deborah McIntosh, Temecula, CA Shelley Zagars, Torrance, CA

John Peterson, Temecula, CA Elissa Babiuk, Trabuco Canyon, CA

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Jinx Hydeman, Trabuco Canyon, CA

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Douglas McCormick, Trabuco Canyon, CA



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Jen Gavin, Trinidad, CA Debra Reuter, Vacaville, CA

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Brett Bell, Tujunga, CA Suzanne Connors, Vallejo, CA

Simone Boudriot, Tujunga, CA Victoria Humphrey, Vallejo, CA

Probyn Gregory, Tujunga, CA Alicia Jackson, Vallejo, CA

Barbara Newton, Turlock, CA Carmen Klucsor, Vallejo, CA

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Perry Gx, Tustin, CA Kathleen Powell, Vallejo, CA

Stephen Bohac, Twain Harte, CA Lana Touchstone, Vallejo, CA

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James McArdle, Ukiah, CA Gail Krieger, Valley Springs, CA

Tom McDonough, Ukiah, CA Monica Smith, Valley Springs, CA

Eileen Mitro, Ukiah, CA Amy Fleiss, Valley Village, CA

Judi Walsh, Ukiah, CA Cindee H, Valley Village, CA

Mark Winkler, Ukiah, CA Darynne Jessler, Valley Village, CA

George Wood, Ukiah, CA Kim Nicholson, Valley Village, CA

Shelley Abbate, Union City, CA Jennifer Wilson, Valley Village, CA

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Christine Hayes, Upland, CA Agnieszka Gocek, Van Nuys, CA

Jay Jones, Upland, CA Janet Laur, Van Nuys, CA

Stephanie Proctor, Van Nuys, CA Jo Mandrell, Upland, CA

Yvonne Smith, Upland, CA Ken Windrum, Van Nuys, CA

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Nicole Antonelli, Vacaville, CA Jesse Croxton, Venice, CA



Linda Eberle, Venice, CA

Richard Horne, Venice, CA

Kenneth Howard, Venice, CA

Nan Lamb, Venice, CA

Deborah Rumens, Venice, CA

Ruth Seroussi, Venice, CA

Titiphan Vutiprichar, Venice, CA

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Kathleen Applen, Ventura, CA

Sherry Berry, Ventura, CA

David Cotner, Ventura, CA

Tim Covey, Ventura, CA

Barbara Dincau, Ventura, CA

Jamie Green, Ventura, CA

Mabel Gulovsen, Ventura, CA

Ms. Lilith, Ventura, CA

Nina Minsky, Ventura, CA

Kenneth Pennington, Ventura, CA

Sherry Schafer, Ventura, CA

Karen Socher, Ventura, CA

Mary Stanistreet, Ventura, CA

Melissa Vasconcellos, Ventura, CA

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Angela Clayton, Vista, CA

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Chad Kapusta, Vista, CA

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Debra Lawrence, Woodland Hills, CA

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Susan Wayne, Xxx, CA

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Alvaro Reyes, CA

Sharon Steuer, CA

Alejandra Tolley, CA

James Yonts, CA

Morgan Folger, Denver, CO

Doug Flack, New York, NY

David Rauenzahn, Portland, OR

Rebecca Brown, Merion Station, PA

Michelle Barbour, Bullard, TX







California Fish and Game Commission P.O. Box 944209 Sacramento, CA 94244-2090

November 30th, 2023

Re: Petition to Modify CA Marine Protected Area Network to Enhance Protections for California's Most Resilient Kelp Forests; Petition to Increase Level of Protection and Streamline Enforcement for Several California State MPAs

Dear President Sklar and Honorable Commissioners.

From the foothills of the Sierras to the seaside of the Central Coast, Californians care about our ocean and the life that calls it home. That's why we are submitting the attached 7,549 signatures in support of our petitions for rulemaking in the Decadal Management Review adaptive management process.

Each of the 7,549 people signed the following letter:

Dear Governor Newsom,

California's coastline is home to stunning beaches, amazing wildlife, and is a true treasure for everyone who lives in or visits our state. That's why we've invested in protecting this ocean heritage through the creation of our state network of marine protected areas. Just like state parks on land, these areas help protect and restore ocean life.

Now we have an opportunity to strengthen this network through the Decadal Management Review. I urge you to use this process to advance your important goal of protecting 30% of our state waters by 2030. Specifically, I urge you to expand the network to protect the state's last remaining kelp forests, critical homes to fish and sea otters, and to strengthen existing areas that don't yet provide high levels of protection for ocean life.

With your leadership, California can expand this network of ocean parks to create a brighter future for our state's ocean life and continue to lead the country in ocean conservation.

Sincerely,

By expanding the state's MPA network to better protect areas of stable kelp and by strengthening protections for areas not currently achieving their conservation outcomes due to weak or confusing regulations, the state can help our coasts adapt and thrive in the face of rising temperatures and emerging threats.

With your leadership, we can create a better future for California's coastal ecosystems and the wildlife that calls them home.

Sincerely,

Laura Deehan Director Environment California Environment California Research & Policy Center



Betty Canter, Agoura Hills, CA Cathy Crum, Agoura Hills, CA Diane King, Agoura Hills, CA Tamara Lesser, Agoura Hills, CA Brian Jeffery, Aguanga, CA Amber Bales, Alameda, CA John Brooks, Alameda, CA Barbara Cone, Alameda, CA Zachary Gray, Alameda, CA Mike Kehl, Alameda, CA Angie Klein, Alameda, CA Andre Kruglikov, Alameda, CA Brian J McGuire, Alameda, CA Andrew Mueckenberger, Alameda, CA Alexandra Mummery, Alameda, CA Jack Rafferty, Alameda, CA Gina Rivera, Alameda, CA Barbara Snethen@gmail.com, Alameda, CA James Stehr, Alameda, CA Joshua Summit, Alameda, CA Kathryn Warner, Alameda, CA Ehren Mierau, Alamo, CA Sandra Beckley, Albany, CA Linda Berkowitz, Albany, CA Susan Burr, Albany, CA Bart Grossman, Albany, CA Tami Jordan, Albany, CA

Raymond Neutra, Albany, CA

Steven Schultz, Albany, CA

Paula Rini, Albany, CA

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Sharon Lieberman, Annapolis, CA

Jessica Mitchell-Shihabi, Antelope, CA

Shirene Saunby, Antelope, CA

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LeAnn Bjelle, Aptos, CA

Katherine Doctor, Aptos, CA

Michele Faia, Aptos, CA

Jane Goddard, Aptos, CA

Jeanne Lance, Aptos, CA

Alan Schenck, Aptos, CA

Edward Shapiro, Aptos, CA

Denis Elliott, Arcadia, CA

Jason Park, Arcadia, CA

Jeanne Roberts, Arcadia, CA

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Connie Lindgren, Arcata, CA

Sophie Rocheleau, Arcata, CA

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Landon Neustadt, Arroyo Grande, CA

Joseph Read, Arroyo Grande, CA

Gregory Ross, Arroyo Grande, CA

Thomas Tucker, Arroyo Grande, CA

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Scott Burgess, Atascadero, CA

Ellen Evans, Atascadero, CA

John Farhar, Atascadero, CA

Patti Frey, Atascadero, CA

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James Neupert, Atherton, CA

Jena Norton, Atwater, CA

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Roxanne Hill, Auburn, CA

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Solomon Pulgar, Azusa, CA

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Matthew Barajas, Bakersfield, CA

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Caryn Cowin, Bakersfield, CA

Richard Reed, Bakersfield, CA

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Jesse Calderon, Baldwin Park, CA

Cherilyn Cibelli, Beaumont, CA

Mohamed Chahine, Bell Gardens, CA

Yazmin Gonzalez, Bellflower, CA

Jason Nolasco, Bellflower, CA

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Giovannina Fazio, Belmont, CA

Valerie Gould, Belmont, CA

Kimberly Knapp, Belmont, CA

Tracy Molyneux, Belmont, CA

Robert Sharp, Belmont, CA

Angela Gantos, Belvedere Tiburon, CA

Barbara Meislin, Belvedere Tiburon, CA



Sandra Wolfe, Belvedere Tiburon, CA

Nancy Phillips, Ben Lomond, CA

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Raf Strudley, Ben Lomond, CA

Colleen Walter, Ben Lomond, CA

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Cathy Bennett, Benicia, CA

Peter Bray, Benicia, CA

Dannys Cody, Benicia, CA

Joni Grisham, Benicia, CA

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Twila Newey, Benicia, CA

Marylee Parr, Benicia, CA

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Inger Acking, Berkeley, CA

Stephen Alpert, Berkeley, CA

Pamela Baird, Berkeley, CA

Robert Baird, Berkeley, CA

Karl Battenbowman, Berkeley, CA

James Blakly, Berkeley, CA

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Martha Griswold, Berkeley, CA

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Doug Hamilton, Berkeley, CA

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Curran Honorah, Berkeley, CA

Holly Howard, Berkeley, CA

Marjory Keenan, Berkeley, CA

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Morgan Lambert, Berkeley, CA

Catherine Lerza, Berkeley, CA

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Robert Magarian, Berkeley, CA

Rebecca Meyer, Berkeley, CA

Ann Myers, Berkeley, CA

Jaleh Niazi, Berkeley, CA

Kaveh Niazi, Berkeley, CA

Jonathan Packman, Berkeley, CA

Kristine Panik, Berkeley, CA

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Janet Ramsay, Berkeley, CA

Catherine Rauch, Berkeley, CA

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Rachel Resnikoff, Berkeley, CA

Anthony Rhodes, Berkeley, CA



Bob Schildgen, Berkeley, CA

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Sandra Smith, Berkeley, CA

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michael sullivan, Berkeley, CA

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Dandelo Waters, Berkeley, CA

Jonathan Weinstock, Berkeley, CA

Helene Whitson, Berkeley, CA

John Wolfe, Berkeley, CA

Sara Zimmerman, Berkeley, CA

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Ilene Proctor, Beverly Hills, CA

Trudie Haven, Big Bear City, CA

Valerie Hart, Big Pine, CA

Marianne Brettell-Vaughn, Bishop, CA

Michael Harris, Bodega Bay, CA

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Betsyann Gallagher, Bolinas, CA

Sean Thackrey, Bolinas, CA

Vivian Sherrill, Bonita, CA

Ed Atkins, Boulder Creek, CA

Moira Bischoff, Boulder Creek, CA

Trudi James, Boulder Creek, CA

Ray Schwarz, Boulder Creek, CA

Kathryn St. John, Boulder Creek, CA

Jack Kline, Brentwood, CA

Chris Zahnd, Brentwood, CA

Stephanie Glatt, Buellton, CA

Jennifer Jerlstrom, Buena Park, CA

Jessica Likens, Buena Park, CA

Cathy Biermann, Burbank, CA

Sandra Christopher, Burbank, CA

Ryan Davis, Burbank, CA

Katyana Farzanrad, Burbank, CA

Jennifer Hurdle, Burbank, CA

Tyson Martin, Burbank, CA

Gina Richardson, Burbank, CA

Rosalie Salvato, Burbank, CA

Gilbert Saucedo, Burbank, CA

Lucinda Walker, Burbank, CA

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Jeffrey Krolik, Burlingame, CA

Lara McDonald, Burlingame, CA

Kathryn Morton, Burlingame, CA

Laura Somers, Burlingame, CA

Judy Boeken, Calabasas, CA

Vivian Deutsch, Calabasas, CA

Claude Duss, Calabasas, CA

Veronica Pepe, Calabasas, CA

Kalyna Snylyk, Calabasas, CA

Terry Spellman, California City, CA

David Burtis, Calistoga, CA

Martha Casselman, Calistoga, CA

Scott Hester, Calistoga, CA

Susan Beil, Camarillo, CA

Nancy Borelli, Camarillo, CA

Catherine Burriss, Camarillo, CA

Carol Cressy, Camarillo, CA



Cherie Garrett, Camarillo, CA

Larry Gassan, Camarillo, CA

Deidre Leonard, Camarillo, CA

Carla Marting, Camarillo, CA

Jerami Prendiville, Camarillo, CA

Charlie Tetoni, Camarillo, CA

Ann Walker, Camarillo, CA

Ted Key, Cambria, CA

Linda Kierce, Cambria, CA

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Lena Fine, Campbell, CA

Barbara Mason, Campbell, CA

Anne Swanson, Campbell, CA

Tony Vega, Campbell, CA

Mark Giordani, Canoga Park, CA

Debra Moss, Canoga Park, CA

Barbara Dinius, Canyon Country, CA

Yrineo Vasquez, Canyon Country, CA

Ben Brucker, Capistrano Beach, CA

John Glina, Capitola, CA

Edith Leni, Capitola, CA

Dana Herman, Cardiff, CA

William Stern, Cardiff, CA

Matt Bender, Cardiff by the Sea, CA

Suzanne Mindlin, Cardiff By The Sea, CA

Nance Robertson, Cardiff by the Sea, CA

Lisa Adamson, Carlsbad, CA

Shawna Bader, Carlsbad, CA

Judy Burzell, Carlsbad, CA

Chihwu Chang, Carlsbad, CA

Gerald Good, Carlsbad, CA

Kendra Haddock, Carlsbad, CA

Matthew Huber, Carlsbad, CA

Luis Jaramillo, Carlsbad, CA

Kevin Krause, Carlsbad, CA

Phyllis Lackey, Carlsbad, CA

ben steen, Carlsbad, CA

Greg Thomsen, Carlsbad, CA

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John Hall, Carmel, CA

Diana North, Carmel, CA

Rosalie Pinkert, Carmel, CA

judi zaches, Carmel, CA

Sheila Sheppard, Carmel By The Sea, CA

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William Hornung, Carpinteria, CA

Gail Marshall, Carpinteria, CA

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Linda Reimel, Carpinteria, CA

Scott Van Fossen, Carpinteria, CA





Glen Deardorff, Castro Valley, CA	Glen	Deardorff.	. Castro	Valley.	CA
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Julie Greenfield, Castro Valley, CA

Sue Hall, Castro Valley, CA

Pati Jio, Castro Valley, CA

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John Hill, Castroville, CA

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Anita Thomason, Culver City, CA

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Katya Siguenza, Daly City, CA

earl west, Daly City, CA

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Lisa Goldberg, Davis, CA

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Sarah Sismondo, Duarte, CA

Eloise Hamann, Dublin, CA

Mohan Sakhrani, Dublin, CA

Robert Baker, Dunlap, CA

Rev. Will Agee, El Cajon, CA

Kelley Bishop, El Cajon, CA

Anna Brzuza, El Cajon, CA

Christina Hartonczyk, El Cajon, CA

Meredith Kennedy, El Cajon, CA

Anna Salvatierra, El Cajon, CA

Sadie Sullivan-Greiner, El Cajon, CA

Elizabeth Bone, El Cerrito, CA

Byron Brown, El Cerrito, CA

Daniel Elkan, El Cerrito, CA

Emiliano Gomez, El Cerrito, CA

Paul Hughes, El Cerrito, CA

Jan Jones, El Cerrito, CA

Kin Jung, El Cerrito, CA

Judith Libow, El Cerrito, CA

Carol Long, El Cerrito, CA

Robert Naumann, El Cerrito, CA

Judith Rogers, El Cerrito, CA

Cynthia Williams, El Cerrito, CA

Tracy Bryan, El Dorado Hills, CA

Virginia Shaw, El Dorado Hills, CA

Judd Stark, El Dorado Hills, CA

David Marsland, El Granada, CA







Terry Blount, El Segundo, CA

Alison Hart, El Segundo, CA

Matthew Lubs, El Segundo, CA

Stacy Sealock, El Segundo, CA

Claudia Avila, El Sobrante, CA

Martha Booz, El Sobrante, CA

Garth Casaday, El Sobrante, CA

Katharine Handler, El Sobrante, CA

Julie Harris, El Sobrante, CA

Carol Kinser, Elk Grove, CA

Marta Williams, Elk Grove, CA

Kathleen Stutz, Elmira, CA

Amanda Caskey, Emeryville, CA

Claudia Garcia, Emeryville, CA

Maia Orr, Emeryville, CA

Vijaya Rogers, Emeryville, CA

Kimberley Sevcik, Emeryville, CA

Elizabeth Staton, Emeryville, CA

Cheryl Alexander, Encinitas, CA

Cathy Bacquet, Encinitas, CA

Brett Colby, Encinitas, CA

Brian Collins, Encinitas, CA

Caleb Fitzpatrick, Encinitas, CA

Devin Frei, Encinitas, CA

Victor Hernandez, Encinitas, CA

Shawn Johnson, Encinitas, CA

William Paxton, Encinitas, CA

Eric Pence, Encinitas, CA

Sheila Smith, Encinitas, CA

Steve White, Encinitas, CA

Lucy Hart, Encino, CA

Dale Crawford, Escondido, CA

Nancy Gangi, Escondido, CA

Ken Sanford, Escondido, CA

Andy Tomsky, Escondido, CA

Kristi Wilson, Escondido, CA

Delight Wisniewski, Escondido, CA

Rena Zaman-Zade, Escondido, CA

Melissa Birch, Eureka, CA

patricia kanzler, Eureka, CA

Gina Ness, Eureka, CA

Mary Schweickert, Eureka, CA

Susan Tatro, Eureka, CA

Beti Webb Trauth, Eureka, CA

Geraldine Card, Exeter, CA

Melissa Christopher, Fair Oaks, CA

Brian Mcclintock, Fair Oaks, CA

Teresa Rauschkolb, Fair Oaks, CA

Blair Reynolds, Fair Oaks, CA

Kathleen Jackson, Fairfax, CA

Aria Sternik, Fairfax, CA

Sagar Wanaselja, Fairfax, CA

William Lane, Fairfield, CA

Adriana Llamas, Fairfield, CA

Kathleen Morgan, Fallbrook, CA

Andrea Boone, Felton, CA

Alice Kelly, Felton, CA

Pamela Morgan, Felton, CA

Michelle Alex, Folsom, CA

Jessica Dardarian, Folsom, CA



Veronica Mohn, Foothill Ranch, CA

Larry Hanson, Forestville, CA

ENVIRONMENT

Thomas Hawkins, Fort Bragg, CA

Lonnie Mathieson, Fort Bragg, CA

Katherine Patterson, Fort Bragg, CA

Kathleen Gause, Fountain Valley, CA

Frances Morrison, Fountain Valley, CA

Kenneth Arnold, Fountain Vly, CA

Mary Brooks, Frazier Park, CA

Susan Schrager, Frazier Park, CA

Gina Jager, Fremont, CA

Michael Maddon, Fremont, CA

Utkarsh Nath, Fremont, CA

Erica Pace, Fremont, CA

Nancy Palmer, Fremont, CA

Adelle Regalia, Fremont, CA

Christopher Ware, Fremont, CA

Jack Whealen, Fremont, CA

Charlotte Alldredge, Fresno, CA

Gerald Bill, Fresno, CA

Michael Bordenave, Fresno, CA

Lynn Campbell, Fresno, CA

Joseph Catania, Fresno, CA

Gilda Cox, Fresno, CA

Elizabeth Fralicks, Fresno, CA

Rosemary Gastelo, Fresno, CA

Robert Glover, Fresno, CA

Yolanda Gomez, Fresno, CA

Nancy Mccormick, Fresno, CA

Gayle Mitchell, Fresno, CA

Emily Poulsen, Fresno, CA

Lynda Robinson, Fresno, CA

Walter Ullrich, Fresno, CA

Lowell Young, Fresno, CA

Donna Grampp, Fullerton, CA

Lynn Hoang, Fullerton, CA

Evan McDermit, Fullerton, CA

Colleen Wieghorst, Fullerton, CA

Christine Doyka, Garberville, CA

Ana Gonzalez, Garden Grove, CA

Laurie Kinnings, Garden Grove, CA

Dana May, Garden Grove, CA

Walter Reece, Garden Grove, CA

Suellen Carroll, Garden Valley, CA

Marcella Andrade, Gilroy, CA

Miguel Avila, Gilroy, CA

Mary Ludwick, Gilroy, CA

Jidith Seehafer, Gilroy, CA

Joe Mangiantini, Glen Ellen, CA

Alejandro Artigas, Glendale, CA

Carol Bennett, Glendale, CA

Timothy Brock, Glendale, CA

R. Leslie Choi, Glendale, CA

Michelle Colletti, Glendale, CA

James Grant, Glendale, CA

Dena Guerry Henriquez, Glendale, CA

Elise Kalfayan, Glendale, CA

Valerie Keiser, Glendale, CA

Denise Meyer, Glendale, CA

Faatui Panama, Glendale, CA



Patricia Pei, Glendale, CA

Bari Phillips, Glendale, CA

John Price, Glendale, CA

Ann Sattenspiel, Glendale, CA

Jordan Vanderlinde, Glendale, CA

Laura Flanders, Glendora, CA

Diana Lozano, Glendora, CA

Larissa Shen, Glendora, CA

Dawnielle Burich, Goleta, CA

Irene Cooke, Goleta, CA

Martin Henderson, Goleta, CA

Larry A Kaempf, Goleta, CA

Jennifer Matthews, Goleta, CA

Kevin McGarry, Goleta, CA

Wendy Morgan, Goleta, CA

Michelle Profant, Goleta, CA

Z. Reisz, Goleta, CA

Julie Rodgers, Goleta, CA

Deborah Williams, Goleta, CA

Dennis Hammermeister, Granada Hills, CA

Brook Hall, Granite Bay, CA

Evette Andersen, Grass Valley, CA

Kendra Anderson, Grass Valley, CA

Susanne Bader, Grass Valley, CA

Ellen Clephane, Grass Valley, CA

Bonny Davis, Grass Valley, CA

Anna Drummond, Grass Valley, CA

John Everett, Grass Valley, CA

Kathleen Shaffer, Grass Valley, CA

Mark Toelkes, Grass Valley, CA

Abbie Whitehead, Grass Valley, CA

Peter Yaholkovsky, Grass Valley, CA

Daniel Healy, Green Valley Lake, CA

Courtney Benham, Greenbrae, CA

patricia klein, Greenbrae, CA

Dennis McVey, Greenbrae, CA

Meredith Mill, Greenbrae, CA

Jill Mistretta, Greenbrae, CA

DYAN PIKE, Greenbrae, CA

Benjamin Rowe, Greenbrae, CA

Joan Smith, Greenbrae, CA

Kate Lunn, Grover Beach, CA

Marc Fuller, Guadalupe, CA

Carlos Madrigal, Hacienda Heights, CA

Edith Bella, Half Moon Bay, CA

Irene Madrid, Half Moon Bay, CA

Christine Olivero, Half Moon Bay, CA

Wade Painter, Half Moon Bay, CA

Tim Riley, Half Moon Bay, CA

L. Watson, Half Moon Bay, CA

Claire Jones, Hanford, CA

Nancy Plumer, Harbor City, CA

Deb B, Hawthorne, CA

Roberta Barr, Hawthorne, CA

Bonnie Maloney, Hawthorne, CA

Rachel Asturias, Hayward, CA

Elliott Betty, Hayward, CA

Gregory Fite, Hayward, CA

Evelyn Gonzalez, Hayward, CA

Sherman Lewis, Hayward, CA



Laurie Price, Hayward, CA

ENVIRONMENT

Rev. Jonathan Tan, Hayward, CA

Bretta Rambo, Healdsburg, CA

Elizabeth Rue, Healdsburg, CA

Paula Baeza, Hemet, CA

Lily Mejia, Hemet, CA

REBECCA DESMOND, Hercules, CA

Gloria Evans-Young, Hercules, CA

Linda Monosmith, Hermosa Beach, CA

Dency Nelson, Hermosa Beach, CA

Geri Shapiro, Hermosa Beach, CA

Julie Knutson, Hesperia, CA

Shanna Rojas, Hesperia, CA

Juanita Westberg, Hesperia, CA

P Perry, Hidden Valley Lake, CA

Renee ONeil, Highland, CA

Robert Vargas, Highland, CA

Kathleen Callaghan, Hollister, CA

Monica Sharp, Holtville, CA

Tina Moody, Hopland, CA

Paul Barkmeier, Huntington Beach, CA

Buffie Channel, Huntington Beach, CA

Carol Comparsi, Huntington Beach, CA

Laura Davidson, Huntington Beach, CA

Tim Denton, Huntington Beach, CA

Vicki Dipaolo, Huntington Beach, CA

Myrrha Eberly, Huntington Beach, CA

Kathy Hanson, Huntington Beach, CA

Beverly Heiberg, Huntington Beach, CA

Vicki Hughes, Huntington Beach, CA

Meaghan Jones, Huntington Beach, CA

Mike Kelly, Huntington Beach, CA

Thaddeus Kopacki, Huntington Beach, CA

Michael Marr, Huntington Beach, CA

Michael McMahan, Huntington Beach, CA

Michael Ozaki, Huntington Beach, CA

James Preston, Huntington Beach, CA

Peggy Rosen, Huntington Beach, CA

Brandon Ross, Huntington Beach, CA

Fred Schloessinger, Huntington Beach, CA

Rita Spira, Huntington Beach, CA

mary tindukasiri, Huntington Beach, CA

Carol Acosta, Idyllwild, CA

Jason Leichter, Imperial Beach, CA

Lindsay Erickson, Indio, CA

William Heagy, Indio, CA

Matthew Humphrey, Indio, CA

Robert Ikehorn, Indio, CA

Karen Seeberg, Indio, CA

Sheila Breeding, Inglewood, CA

Kathleen McConn, Inglewood, CA

Terri Mckown, Inyokern, CA

Charlotte Rolle, Ione, CA

James Beirne, Irvine, CA

Rosanne Bravo, Irvine, CA

Jill Dunham, Irvine, CA

Robert Glasser, Irvine, CA

Mehdi Jazayeri, Irvine, CA

Wendy Kleeb, Irvine, CA

Joseph Lambert, Irvine, CA







Robin Weirich, Irvine, CA

Alexander Acuna, Isla Vista, CA

Dee Leineke, Jackson, CA

Michael Anderson, Jamul, CA

Gillian Parrillo, Kelseyville, CA

Carmela Perez, Kelseyville, CA

Darcy Skarada, Kelseyville, CA

Steve Caramia, Kensington, CA

John Kramer, Kensington, CA

Nicole Bergman, La Canada Flintridge, CA

LouAnne Insprucker, La Canada Flintridge, CA

Nickolaos Mastrodemos, La Canada Flintridge, CA

Alison Brett, La Crescenta, CA

Ruth Jones, La Crescenta, CA

Kimberley Moreno, La Crescenta, CA

Ellen Segal, La Crescenta, CA

Linda Wright, La Crescenta, CA

Michael Rodriguez, La Habra, CA

Glenn Jones, La Honda, CA

Nathan Brenner, La Jolla, CA

Sharon Laabs, La Jolla, CA

Michele Lang-Hillyard, La Jolla, CA

Susan Mc Candless, La Jolla, CA

Howard Moss, La Jolla, CA

Dave Paterson, La Jolla, CA

Anita Speier, La Jolla, CA

Elyse Tierney, La Jolla, CA

Joanee Ude, La Jolla, CA

Michael Beam, La Mesa, CA

Sietse Peter Boersma, La Mesa, CA

Robert Buchanan, La Mesa, CA

Christina Jackson, La Mesa, CA

Brenda Thompson, La Mesa, CA

Richard Vestal, La Mesa, CA

Harlan Lebo, La Mirada, CA

David Maraszek, La Mirada, CA

Rodney Mcguire, La Quinta, CA

Claudia Monahan, La Quinta, CA

Rhonda Oliver, La Quinta, CA

Thomas McVay, Ladera Ranch, CA

Aaron Chan, Lafayette, CA

Sakti Das, Lafayette, CA

S Herold, Lafayette, CA

Elsa Ramos, Lafayette, CA

Alice Stauffer, Lafayette, CA

Patricia Appel, Laguna Beach, CA

Stacy Cornelius, Laguna Beach, CA

Daniel Haspert, Laguna Beach, CA

Adam Kaplan, Laguna Beach, CA

Robert Reed, Laguna Beach, CA

Leif Trondsen, Laguna Beach, CA

Margaret White, Laguna Beach, CA

Susan Wood, Laguna Beach, CA

Connie Loveland, Laguna Hills, CA

Phyllis Roberts, Laguna Hills, CA

Steven Allison, Laguna Niguel, CA

Suzanne Fliszar, Laguna Niguel, CA

Karyn Parvis, Laguna Niguel, CA

Lauren Linda, Laguna Woods, CA







Kevin O'Brien, Laguna Woods, CA

Sandra Van Horn, Laguna Woods, CA

David Reddy, Lake Arrowhead, CA

Richard Bejarano, Lake Elsinore, CA

Charles Decelles, Lake Elsinore, CA

Sean Brien, Lake Forest, CA

Bruce Cook, Lake Forest, CA

Bonnie Coomes, Lake Forest, CA

Shelley Logan, Lake Forest, CA

Darnell Montejano, Lake Forest, CA

Carman Broderick, Lakeport, CA

Patrick Bernardino, Lakeside, CA

Robert L Davenport, Lakewood, CA

Susan Brisby, Lancaster, CA

Patrisha Hodgman, Lancaster, CA

Eric Layton, Larkspur, CA

Rachael Richman, Larkspur, CA

Mona Bourell, Laytonville, CA

Sharon Paltin, Laytonville, CA

Ked Garden, Lemon Grove, CA

Jessica Fleischer, Lincoln, CA

Nicole Fountain, Lincoln, CA

Gail Marculescu, Lincoln, CA

Peggy Galusha, Live Oak, CA

Patricia MacLeod, Livermore, CA

Leo Mara, Livermore, CA

Sally Marone, Livermore, CA

Jerri Mcvicker, Livermore, CA

Stephen Stradling, Livermore, CA

Cindy Lashbrook, Livingston, CA

Elizabeth Eisenbeis, Lodi, CA

Audrey Lee, Lodi, CA

Patricia Maddock, Lodi, CA

Maribeth Ackerman, Lomita, CA

Mary Cook, Lomita, CA

Lise Fillion, Lomita, CA

Wendy Becker, Long Beach, CA

Frederick Cliver, Long Beach, CA

Thomas Crochet, Long Beach, CA

Kurt Cruger, Long Beach, CA

John Diaz, Long Beach, CA

Vanessa Dolan, Long Beach, CA

Mary Flint, Long Beach, CA

Debbie Flores, Long Beach, CA

Cheryl Follett, Long Beach, CA

Tamra Goris, Long Beach, CA

William Harte, Long Beach, CA

Genie Ideman, Long Beach, CA

Gail Karn, Long Beach, CA

Andrew Kort, Long Beach, CA

Gene Kumagai, Long Beach, CA

David Means, Long Beach, CA

Janmei Murdock, Long Beach, CA

Michsel Newey, Long Beach, CA

Greg Perkins, Long Beach, CA

Gail Powers, Long Beach, CA

Stanley Seeman, Long Beach, CA

Lance Smith, Long Beach, CA

Mark Sullivan, Long Beach, CA

Ryan Tilke, Long Beach, CA







Raymond Kraft, Loomis, CA

Sandy Friedman, Los Alamitos, CA

Tamara Madison, Los Alamitos, CA

Janice Apol, Los Altos, CA

Linda Brummer, Los Altos, CA

Gloria Dralla, Los Altos, CA

Linnea F, Los Altos, CA

Tracy Gibbons, Los Altos, CA

Kinshuk Govil, Los Altos, CA

Isabel Lee, Los Altos, CA

Jill Stone, Los Altos, CA

Leslie Abbott, Los Angeles, CA

Asad Abidi, Los Angeles, CA

Scott Acord, Los Angeles, CA

Marsha Alperin, Los Angeles, CA

Ernesto Alvarez, Los Angeles, CA

Richard Alvidrez, Los Angeles, CA

Stan Alvidrez, Los Angeles, CA

Raul Anorve, Los Angeles, CA

Raymond Aramburu, Los Angeles, CA

Thais Arata, Los Angeles, CA

Claudine Armand, Los Angeles, CA

Erika Armin, Los Angeles, CA

Lori Avalos, Los Angeles, CA

Soraya Barabi, Los Angeles, CA

Ann Bein, Los Angeles, CA

Linda Benjamin, Los Angeles, CA

Nancy Berman, Los Angeles, CA

Adam Bernstein, Los Angeles, CA

Mike Bievenouer, Los Angeles, CA

Vicki Bingo, Los Angeles, CA

Rollin Blanton, Los Angeles, CA

Paula Block-Levor, Los Angeles, CA

Jonathand Bogdanove, Los Angeles, CA

Daniel Boland, Los Angeles, CA

Deirdre Boland, Los Angeles, CA

David Bottrell, Los Angeles, CA

Julia Boyd, Los Angeles, CA

Mark Bramhall, Los Angeles, CA

Susan Brenner, Los Angeles, CA

Barbara Broide, Los Angeles, CA

Marcello Bue, Los Angeles, CA

Robert Burk, Los Angeles, CA

Thomas Cahill, Los Angeles, CA

Lisa Carloss, Los Angeles, CA

Melissa Casey, Los Angeles, CA

Victor Citrin, Los Angeles, CA

Jacob Combs, Los Angeles, CA

Steven Curtis, Los Angeles, CA

Sandra Del Castillo, Los Angeles, CA

Frank Devlin, Los Angeles, CA

Garry Diamond, Los Angeles, CA

Vicki Dipietro, Los Angeles, CA

Lance Dodes, Los Angeles, CA

Isabelle Du Soleil, Los Angeles, CA

Jan Ducker, Los Angeles, CA

Scott Dunfrund, Los Angeles, CA

Connie Eakes, Los Angeles, CA

Chris Eaton, Los Angeles, CA

Frederick Echeverria, Los Angeles, CA







Joe Eckre, Los Angeles, CA

Susan Estrella, Los Angeles, CA

Dominick Falzone, Los Angeles, CA

Alexander Fierro-Clarke, Los Angeles, CA

Sean Foley, Los Angeles, CA

Robert Freek, Los Angeles, CA

Cynthia Freeman, Los Angeles, CA

Elly Fry, Los Angeles, CA

Kristina Fukuda, Los Angeles, CA

Leslie Fung, Los Angeles, CA

Kay Gallin, Los Angeles, CA

Eugene Garvin, Los Angeles, CA

Terri Gedo, Los Angeles, CA

Chelsea Gilmore, Los Angeles, CA

Mary Glazer, Los Angeles, CA

Prisca Gloor, Los Angeles, CA

Jan Goldstein, Los Angeles, CA

Beth Goode, Los Angeles, CA

Luna Gooding, Los Angeles, CA

Carol Gordon, Los Angeles, CA

Andrea Grano, Los Angeles, CA

Cheryl Guerbaoui, Los Angeles, CA

Megan Hanson, Los Angeles, CA

Matthew Harrington, Los Angeles, CA

William Hartung, Los Angeles, CA

Mary Herbener, Los Angeles, CA

Julie Hermelin, Los Angeles, CA

Jim Hillin, Los Angeles, CA

Deborah Holcomb, Los Angeles, CA

Carla Holguin, Los Angeles, CA

Steffeny Holtz, Los Angeles, CA

Merri Huang, Los Angeles, CA

Cynthia Hudley, Los Angeles, CA

Melissa Hunt, Los Angeles, CA

Faisal Hussain, Los Angeles, CA

Shigeyo Hyman, Los Angeles, CA

Lara Ingraham, Los Angeles, CA

Matthew Jablin, Los Angeles, CA

Michelle Jackino, Los Angeles, CA

Angie Johnson, Los Angeles, CA

James Johnson, Los Angeles, CA

Marlene Josephs, Los Angeles, CA

Michelle Kawata, Los Angeles, CA

Kaija Keel, Los Angeles, CA

Aeolan Kelly, Los Angeles, CA

Jon Kinnally, Los Angeles, CA

Julie Klabin, Los Angeles, CA

Rebecca Klarin, Los Angeles, CA

Ann Kowaleski, Los Angeles, CA

Kevin Kraus, Los Angeles, CA

Francine Kubrin, Los Angeles, CA

Anita Kuhn, Los Angeles, CA

lyn kupferman, Los Angeles, CA

Jean Lace, Los Angeles, CA

Diane Lamont, Los Angeles, CA

Edward Landler, Los Angeles, CA

Jacob Lang, Los Angeles, CA

Patrice Laponce, Los Angeles, CA

Seth Laursen, Los Angeles, CA

Terrie Lavery, Los Angeles, CA







Linda Leckart, Los Angeles, CA

Daniel Ledesam, Los Angeles, CA Deborah Levine, Los Angeles, CA

Janice Levine, Los Angeles, CA

Paula Levy, Los Angeles, CA

Tracey Levy, Los Angeles, CA

Marie Lewis, Los Angeles, CA

Helena Lipstadt, Los Angeles, CA

Robin Long, Los Angeles, CA

Alexandria Luostari, Los Angeles, CA

Anthony M Ramey, Los Angeles, CA

Arnold Magid, Los Angeles, CA

James Mahan, Los Angeles, CA

Jennifer Mandel, Los Angeles, CA

Ann Marable, Los Angeles, CA

Tina Markowe, Los Angeles, CA

Linda Martinez, Los Angeles, CA

Casee Maxfield, Los Angeles, CA

Blythe Mayne, Los Angeles, CA

Patrica Mcanally, Los Angeles, CA

Karen McCaw, Los Angeles, CA

Shereen McDade, Los Angeles, CA

Scott Mckinsey, Los Angeles, CA

Gail McMullen, Los Angeles, CA

Robert Meier, Los Angeles, CA

Myron Meisel, Los Angeles, CA

Barbara Mesney, Los Angeles, CA

Jeremy Miller, Los Angeles, CA

John Miller, Los Angeles, CA

Edie Mirman, Los Angeles, CA

Maria Molund, Los Angeles, CA

Curtis Mortenson, Los Angeles, CA

Meg Murphy, Los Angeles, CA

Joan Murray, Los Angeles, CA

Anna Narysheva, Los Angeles, CA

Anthony Navarrete, Los Angeles, CA

Winifred Neisser, Los Angeles, CA

Carol Ng, Los Angeles, CA

James Nicholas, Los Angeles, CA

Nan Norris, Los Angeles, CA

Krister Olsson, Los Angeles, CA

Frank Ortiz, Los Angeles, CA

Michelle Pazer, Los Angeles, CA

David Pelka, Los Angeles, CA

John Perry, Los Angeles, CA

Michael Price, Los Angeles, CA

Louis Priven, Los Angeles, CA

Mark Rachki, Los Angeles, CA

Luvh Rakhe, Los Angeles, CA

Nina Richmond, Los Angeles, CA

Jeff Richter, Los Angeles, CA

Merete Rietveld, Los Angeles, CA

Candace Rocha, Los Angeles, CA

Martha Ronk, Los Angeles, CA

Valerie Rose, Los Angeles, CA

Brandon Ruiz, Los Angeles, CA

Dalia Salgado, Los Angeles, CA

Nina Savill, Los Angeles, CA

Darby Saxbe, Los Angeles, CA

Jeffrey Sayers, Los Angeles, CA





Alisha Seaton, Los Angeles, CA

Lisa Sergy, Los Angeles, CA

Eric Shabsis, Los Angeles, CA

Mariam Shah-Rais, Los Angeles, CA

Theodore Shapiro, Los Angeles, CA

Susan Shaughnessy, Los Angeles, CA

A.F. Shayne, Los Angeles, CA

Rick Siegel, Los Angeles, CA

Marc Silverman, Los Angeles, CA

Elizabeth Singleton, Los Angeles, CA

Jerry Sisneros, Los Angeles, CA

Erica Smith, Los Angeles, CA

Valeece Smith, Los Angeles, CA

Stanley Stahl, Los Angeles, CA

Paul Steel, Los Angeles, CA

Neal Steiner, Los Angeles, CA

Julie Tan, Los Angeles, CA

Francine Tansey, Los Angeles, CA

Donna Tate, Los Angeles, CA

Cathy Thornburn, Los Angeles, CA

Aja Thrasher, Los Angeles, CA

Glenna Traiger, Los Angeles, CA

Ivy Tran, Los Angeles, CA

Dennis Tufano, Los Angeles, CA

Graham Turner, Los Angeles, CA

Tara Turner, Los Angeles, CA

Mary Urrutia, Los Angeles, CA

Nicholas Vanbrunt, Los Angeles, CA

Alvaro Vega, Los Angeles, CA

Alexandra Ward, Los Angeles, CA

Mack Watson, Los Angeles, CA

Mary Weeks, Los Angeles, CA

Lindsey Weinstein, Los Angeles, CA

Michael White, Los Angeles, CA

Peter White, Los Angeles, CA

Deborah Willis, Los Angeles, CA

Maggie Wineburgh-Freed, Los Angeles, CA

Sidney Winston, Los Angeles, CA

Michael Wolfson, Los Angeles, CA

Lacey Wozny, Los Angeles, CA

Kelly Wright, Los Angeles, CA

Jenny Yamazaki, Los Angeles, CA

Mary Young, Los Angeles, CA

Noah Youngelson, Los Angeles, CA

Allen Zipper, Los Angeles, CA

ALVEN ANDERSEN, Los Banos, CA

Esther Ciprian, Los Banos, CA

Thomas Ferrito, Los Gatos, CA

Marilyn Fuller, Los Gatos, CA

Lisa Gherardi, Los Gatos, CA

Karole Ishida, Los Gatos, CA

Tim Kain, Los Gatos, CA

Brenda Laurel, Los Gatos, CA

Arlene Lightford, Los Gatos, CA

Whitney Parker, Los Gatos, CA

Mark Parrinello, Los Gatos, CA

Peter Bresler, Los Osos, CA

Jacqueline Froehlich-Lheureaux, Los Osos, CA

Lesley McCance, Los Osos, CA

Pamela Morrison, Los Osos, CA







Judy Madigan, Loyalton, CA

Samuel Clark, Magalia, CA

Lucia Castaneda, Malibu, CA

Deborah Collodel, Malibu, CA

Marilyn Green, Malibu, CA

Cliff Selbert, Malibu, CA

Rob Seltzer, Malibu, CA

D.G. Sifuentes, Mammoth Lakes, CA

John Clifford, Manhattan Beach, CA

Joe Flanagan, Manhattan Beach, CA

Joanne Hadley, Manhattan Beach, CA

Marisa Landsberg, Manhattan Beach, CA

John Miller, Manhattan Beach, CA

Orlando Aguilar, Manteca, CA

Rene Cabrera, Manteca, CA

Kathi Fotinos, Manteca, CA

Linda Gordin, Manteca, CA

Pia Baker, Marina, CA

Henry Bergstresser, Marina, CA

Colette Erreca-Norris, Marina, CA

Trudy Goodman, Marina Del Rey, CA

Leean Lantos, Marina Del Rey, CA

Steven Mandel, Marina Del Rey, CA

Margaret Morris, Marina Del Rey, CA

Cathy Nadell, Marina Del Rey, CA

Robert Pool, Marina Del Rey, CA

Donald Newman, Mariposa, CA

Dianna Mitzner, Markleeville, CA

Leonard Miller, Martinez, CA

Margaret Netherby, Martinez, CA

Kris Skow, Martinez, CA

Robin Hamlin, McKinleyville, CA

Jimmie Oneal, Meadow Valley, CA

Kimberly Berryman, Meadow Vista, CA

Raven Deerwater, Mendocino, CA

Rob Gallinger, Menifee, CA

Keith Williams, Menifee, CA

William Brown, Menlo Park, CA

Nancy Federspiel, Menlo Park, CA

Erin Gillett, Menlo Park, CA

Sam Karp, Menlo Park, CA

Hunter Lyng, Menlo Park, CA

Christina Mcclure, Menlo Park, CA

Janet Poses, Menlo Park, CA

Mark Reed, Menlo Park, CA

Vickie Rozell, Menlo Park, CA

Suzan Syrett, Menlo Park, CA

Kyle Vogel, Menlo Park, CA

Odessa Osby, Merced, CA

Connie Wright, Merced, CA

J Trudnich, Midway City, CA

Larry Bathgate, Mill Valley, CA

Joslyn Baxter, Mill Valley, CA

Carl Bidleman, Mill Valley, CA

Maria Brown, Mill Valley, CA

Catherine Chute, Mill Valley, CA

David Donenfeld, Mill Valley, CA

Diane Goldman, Mill Valley, CA

Jane Hall, Mill Valley, CA

Arlene Heitner, Mill Valley, CA



Nancy Kehoe, Mill Valley, CA

Ann Lawrence, Mill Valley, CA

Natalie Lenn, Mill Valley, CA

Sarah Maddix, Mill Valley, CA

Antonina Markoff, Mill Valley, CA

Catherine Moreno, Mill Valley, CA

Roberta Newman, Mill Valley, CA

Simon Perkoff, Mill Valley, CA

Marilyn Price, Mill Valley, CA

Sherry Reson, Mill Valley, CA

Daniel Stewart, Mill Valley, CA

Frank Valone, Mill Valley, CA

Gary Vanacker, Mill Valley, CA

Dianna Taylor, Millbrae, CA

Brenda Rodriguez, Mission Hills, CA

Timothy Haney, Mission Viejo, CA

Lorrie Rudolph, Mission Viejo, CA

Lollie Christner, Modesto, CA

Amber Eby, Modesto, CA

Karen Lynas, Modesto, CA

Derek Scholten, Modesto, CA

Dennis And Andrea Hopkins, Monrovia, CA

Donna Alleyne-Chin, Montara, CA

Sandra McColley, Montclair, CA

Ruth Alota, Monterey, CA

Deb Federin, Monterey, CA

Steven Hall, Monterey, CA

Lauren Leonarduzzi, Monterey, CA

Donna Owens, Monterey, CA

Niccole Tiffany, Monterey, CA

Stephen Vicuna, Monterey Park, CA

Karen Drake, Montrose, CA

Cheri Bly, Moorpark, CA

Patricia Connors, Moorpark, CA

Christine Holmes, Moorpark, CA

Kathryn Choudhury, Moraga, CA

Ashley Coates, Moraga, CA

Greg Tomlin, Moraga, CA

Mary West, Moraga, CA

David DANIEL, Moreno Valley, CA

Sandra Wilcox, Moreno Valley, CA

Cynthia Burnham, Morgan Hill, CA

Paula Diederich, Morgan Hill, CA

Kathy Farrell, Morgan Hill, CA

Janet Hagemann, Morgan Hill, CA

Martin Smallen, Morgan Hill, CA

Nancy Carter, Morro Bay, CA

Genevieve Holloway, Morro Bay, CA

Larry Truesdale, Morro Bay, CA

Cheryl Parker, Moss Beach, CA

Denise Phillips, Moss Beach, CA

Michelle Santy, Moss Beach, CA

Jim Curland, Moss Landing, CA

Jennifer Roach, Mount Shasta, CA

Alice Rogers, Mount Shasta, CA

Paul Blumenstein, Mountain View, CA

Judith Butts, Mountain View, CA

Kermit Cuff, Mountain View, CA

Bruce England, Mountain View, CA

Marie Evitt, Mountain View, CA



Linda Freccia, Mountain View, CA

Diana Hall, Mountain View, CA

Amy Laden, Mountain View, CA

Rachel Loui, Mountain View, CA

Ben Martin, Mountain View, CA

Katherine Rivera, Mountain View, CA

Dinmani Savla, Mountain View, CA

Robert Valenti, Mountain View, CA

Julie Watt, Mountain View, CA

D Cameron Sellar, Murphys, CA

Susan Horne, Murrieta, CA

Anisa Johnson, Murrieta, CA

Kay Lieber, Murrieta, CA

Ana Rial, Murrieta, CA

Anna Starbuck-White, Murrieta, CA

Martha Treckman, Murrieta, CA

Janet Wheeler, Murrieta, CA

Jerrold Baker, Napa, CA

Kathy Bliss, Napa, CA

Jeff Conklin, Napa, CA

Kathy Cramer, Napa, CA

Ellen Gachesa, Napa, CA

Joe Gonzales, Napa, CA

Charesa Harper, Napa, CA

Donna Holt, Napa, CA

Timothy Milos, Napa, CA

Linda Newberry, Napa, CA

Julie Owen, Napa, CA

John Reichel, Napa, CA

Susan Sandler, Napa, CA

Evelyn Trevethan, Napa, CA

Jacob Wolbert, Napa, CA

Moana Moeller, National City, CA

Micki Besancon, Nevada City, CA

Michael Garitty, Nevada City, CA

Scott Howard, Nevada City, CA

Lester Milroy, Nevada City, CA

Glenn Smith, Nevada City, CA

Christine Fisher, Newark, CA

Lyla Diaz, Newbury Park, CA

Chantal Ferguson, Newbury Park, CA

Audrey Greene, Newbury Park, CA

Doug Kingery, Newbury Park, CA

Sylvia Lewis Gunning, Newbury Park, CA

Cindy Stein, Newbury Park, CA

Steve Iverson, Newport Beach, CA

Joyce Meyers, Newport Beach, CA

Vic Paglia, Newport Beach, CA

Dan Rossen, Newport Beach, CA

Shala Shamardi, Newport Beach, CA

Robin Williams, Nicasio, CA

Stephanie Aston, North Hills, CA

Christopher Geukens, North Hills, CA

Natalie Aharonian, North Hollywood, CA

Andrea Dundas, North Hollywood, CA

Steven Meissner, North Hollywood, CA

Fjaere Mooney, North Hollywood, CA

Llyn Parker, North Hollywood, CA

Dennis Brue, Northridge, CA

Randy Harken, Northridge, CA







Susan Parker, Northridge, CA

Janis CARROLL, Novato, CA

Mike Cass, Novato, CA

Orrin Cook, Novato, CA

Adrian Fried, Novato, CA

michael griffin, Novato, CA

William Hoffman, Novato, CA

Marisa Hoke, Novato, CA

Daniel Kemp, Novato, CA

Mary Mixter, Novato, CA

Nancy Parker, Novato, CA

Marianna Riser, Novato, CA

Maija Schaefer, Novato, CA

Allan Young, Novato, CA

Carl Bage, Oak Park, CA

Paul Kleinbaum, Oak Park, CA

Enid Miller, Oak Park, CA

helen conly, Oak View, CA

Lindsey Goosherst, Oakdale, CA

Bonnie Thompson, Oakdale, CA

Scott Amundson, Oakland, CA

Patrice Anderson, Oakland, CA

cindy beckley, Oakland, CA

Thomas Borders, Oakland, CA

Linda Brandon, Oakland, CA

Ruth Brousseau, Oakland, CA

Sarah Cathey, Oakland, CA

Shelley Charney, Oakland, CA

Elizabeth Christian, Oakland, CA

Daniel Clanon, Oakland, CA

Barbara Clark, Oakland, CA

Karen Clayton, Oakland, CA

Anne Corcos, Oakland, CA

Devin Coyle, Oakland, CA

Joseph Dashiell, Oakland, CA

Kai Drekmeier, Oakland, CA

Anya Dubin, Oakland, CA

Judith Ennis, Oakland, CA

Nancy Erb, Oakland, CA

Jean Farooki, Oakland, CA

Jemima Farwell, Oakland, CA

Susan Flakus, Oakland, CA

Marcia Flannery, Oakland, CA

Jon Floyd, Oakland, CA

Denise Forant, Oakland, CA

Dr A G, Oakland, CA

Kenneth Gibson, Oakland, CA

John Golding, Oakland, CA

Joan Gombos, Oakland, CA

Doug Gwosdz, Oakland, CA

Henry Harmon, Oakland, CA

Ann Harvey, Oakland, CA

Carol Haskell, Oakland, CA

Karl Heins, Oakland, CA

Nancy Huneke, Oakland, CA

Amy Johnson, Oakland, CA

Christine Kalb, Oakland, CA

Laakea Laano, Oakland, CA

Mark Lecker, Oakland, CA

Cheryl Levin, Oakland, CA



Joseph Maffei, Oakland, CA

Diana Malloy, Oakland, CA

Caephren McKenna, Oakland, CA

Susan Mclean, Oakland, CA

Merrilee Mitchell, Oakland, CA

Sandra Morey, Oakland, CA

Jann Noddin, Oakland, CA

Alicea Osborne, Oakland, CA

Julie Ouellette, Oakland, CA

Nancy Paskowitz, Oakland, CA

Ikaren Payne, Oakland, CA

Catherine Pennington, Oakland, CA

Micaela Pronio, Oakland, CA

Barbara Richmon, Oakland, CA

Karen Riley, Oakland, CA

Carly Ritter, Oakland, CA

Nancy Rowell, Oakland, CA

Gina Sanfilippo, Oakland, CA

Rondi Saslow, Oakland, CA

William Saul, Oakland, CA

Lesley Schultz, Oakland, CA

Judith Smith, Oakland, CA

Leslie Smith, Oakland, CA

Leslie Smith, Oakland, CA

Deborah Song, Oakland, CA

Emily Sparks, Oakland, CA

Gaylen Stirton, Oakland, CA

Laura Tan, Oakland, CA

Leslie Tenney, Oakland, CA

Dena Thaler, Oakland, CA

Nadya Tichman, Oakland, CA

Ruth Tretbar, Oakland, CA

Marge Turngren, Oakland, CA

Virginia Vida, Oakland, CA

Pablo Voitzuk, Oakland, CA

Mary Watkins, Oakland, CA

Sally Weare, Oakland, CA

Jessica Weida, Oakland, CA

Gail Weininger, Oakland, CA

Marie Whidden, Oakland, CA

Patrice Woeppel, Oakland, CA

Aaron Young, Oakland, CA

Margaret Zhou, Oakland, CA

Donald Betts, Oceanside, CA

Alessandra Colfi, Oceanside, CA

Sarah Crooks, Oceanside, CA

Linda Evans, Oceanside, CA

Andrea Ferrari, Oceanside, CA

Holly Gilzow, Oceanside, CA

Charmaine Hicks, Oceanside, CA

Ronnie Huber, Oceanside, CA

Beverly Kanawi, Oceanside, CA

Ronald Mirolla, Oceanside, CA

Barry Ortega, Oceanside, CA

Ivy Pratt, Oceanside, CA

Michael Price, Oceanside, CA

Donna Taylor, Oceanside, CA

Sharon Engel, Ojai, CA

Stephan Foley, Ojai, CA

Joseph Gilbert, Ojai, CA





Cindy Kosinski, Ojai, CA

Brooke Obrien, Ojai, CA

Rebecca Windinwood, Ojai, CA

Valerie Shideler, Olivehurst, CA

Zahra Mansouri, Olympic Valley, CA

Kelly Ayers, Ontario, CA

Kathy Simington, Ontario, CA

Richard Wiles, Ontario, CA

Danett Abbott-Wicker, Orange, CA

Florice Hoffman, Orange, CA

Ellen Jordan, Orange, CA

Tammy Vigiletti, Orange, CA

Nancy Polito, Orangevale, CA

Lynne Thomson, Orangevale, CA

Diane Bianchi, Orinda, CA

Alan Goldhammer, Orinda, CA

Lucy Henderson, Orinda, CA

Nancy Henderson, Orinda, CA

Lynn Kalmar, Orinda, CA

Lindy Novak, Orinda, CA

Eileen Taglang, Orinda, CA

Phil Chandler, Oxnard, CA

Kim Haley, Oxnard, CA

Ivan Mendez, Oxnard, CA

Lauren Mendez, Oxnard, CA

Maree Penhart, Oxnard, CA

Jeannie Pollak, Oxnard, CA

Susan Porteus, Oxnard, CA

Nancy Bainter, Pacific Grove, CA

Margaret Goodman, Pacific Grove, CA

Melissa Hutchinson, Pacific Grove, CA

Celia Stauty Luis, Pacific Grove, CA

Paul Burkhart, Pacific Palisades, CA

Josephine Chen, Pacific Palisades, CA

Tatsinda Doddscohen, Pacific Palisades, CA

Melanie Green, Pacific Palisades, CA

Waldemar Kalinowski, Pacific Palisades, CA

Vienna Nowell, Pacific Palisades, CA

Gerald Offsay, Pacific Palisades, CA

Timothy Phan, Pacific Palisades, CA

Pat Polinger, Pacific Palisades, CA

Jeanette Ryan, Pacific Palisades, CA

Cathleen Sands, Pacific Palisades, CA

Teresa Lang, Pacific Plsds, CA

Grace Garza, Pacifica, CA

Paul Spakowski, Pacifica, CA

Jeremy Aldridge, Pacoima, CA

Dita Ã.. kaliÃ,, •, Palm Desert, CA

Bonnie Bauman, Palm Desert, CA

Katy Kane, Palm Desert, CA

Joseph Anatra, Palm Springs, CA

Elizabeth Ingersoll, Palm Springs, CA

Bill Munce, Palm Springs, CA

Michelle Palladine, Palm Springs, CA

Kathleen Taggart, Palm Springs, CA

Therese Ryan, Palmdale, CA

Albert Bivas, Palo Alto, CA

Jordan Briskin, Palo Alto, CA

Ana Chou, Palo Alto, CA

Sue Dinwiddie, Palo Alto, CA



Madeline Dirado, Palo Alto, CA

Faith Gibson, Palo Alto, CA

Christine James, Palo Alto, CA

Zahra Kassam, Palo Alto, CA

Nancy Kramer, Palo Alto, CA

Divanny Lamas, Palo Alto, CA

Evan Lurie, Palo Alto, CA

Peter Moffat, Palo Alto, CA

Thomas Patterson, Palo Alto, CA

David Perry, Palo Alto, CA

Jack Pines, Palo Alto, CA

Margaret Rosenbloom, Palo Alto, CA

Cindy Siu, Palo Alto, CA

Robin Benezra, Palos Verdes Peninsula, CA

Jan Gardner, Palos Verdes Peninsula, CA

Katherine Greenberg, Palos Verdes Peninsula,

CA

Craig Dawson, Paradise, CA

Joan Aebi, Pasadena, CA

Catherine Beauchamp, Pasadena, CA

Sandra Bendon, Pasadena, CA

Maria Sol Caro Martini, Pasadena, CA

Linc Conard, Pasadena, CA

April Danz, Pasadena, CA

George Elder, Pasadena, CA

Laura Fleming, Pasadena, CA

Robert Gibbs, Pasadena, CA

Gary Green, Pasadena, CA

Francisco Ochoa, Pasadena, CA

Leisa Onzo, Pasadena, CA

Matthew Owen, Pasadena, CA

Jeremy Polgar, Pasadena, CA

Charles Roth, Pasadena, CA

Joseph Salinas, Pasadena, CA

Erica Spier, Pasadena, CA

Grayson Torgersen, Pasadena, CA

Susan Walp, Pasadena, CA

Eric Beaulieu, Paso Robles, CA

Gaye Torjusen, Penn Valley, CA

Tyrone Johnson, Perris, CA

Rebecca Smith, Perris, CA

Jeanne Martin, Pescadero, CA

Elizabeth Ambrosi, Petaluma, CA

Scott Andrews, Petaluma, CA

Tom Bornheimer, Petaluma, CA

Mary Fazekas, Petaluma, CA

Patti Fink, Petaluma, CA

Phoenix Giffen, Petaluma, CA

David Keller, Petaluma, CA

Rachel Lucine, Petaluma, CA

Annette Raible, Petaluma, CA

Wrenn Rittenhouse, Petaluma, CA

M. Steere, Petaluma, CA

Jane Vosburg, Petaluma, CA

Barry Weinzveg, Petaluma, CA

Justine Zang, Petaluma, CA

Debra Valenzuela, Pico Rivera, CA

James Chanin, Piedmont, CA

John Hardgrove, Piedmont, CA

Janice Foss, Pinole, CA



Joan Nygaard, Pinole, CA

Pamela Suess, Pinole, CA

Marjorie Kearns, Pinon Hills, CA

janet hergamo, Piru, CA

Bob Leppo, Pismo Beach, CA

Lisa Hardesty, Pittsburg, CA

William Ninde, Pittsburg, CA

Candy Bowman, Placerville, CA

David Hess, Placerville, CA

Mike Rolbeck, Placerville, CA

Rob Doucette, Playa del Rey, CA

Gerda Gober, Playa Vista, CA

Lisa Nelson Colton, Playa Vista, CA

Karen Castle, Pleasant Hill, CA

Nathalie Musson, Pleasant Hill, CA

Shari Riffe, Pleasant Hill, CA

Marie Silva, Pleasant Hill, CA

John Yavorsky, Pleasant Hill, CA

Linda Wong, Pleasanton, CA

Ken Lake, Pollock Pines, CA

Linda Watson, Pomona, CA

Roxann Schaubhut, Pope Valley, CA

Daniel Vargas, Port Hueneme, CA

Frances Goodsite, Porter Ranch, CA

Curtis Miller, Porter Ranch, CA

Kristi Somers-Kawas, Porter Ranch, CA

Wanda Salaiz, Porterville, CA

Malcolm Moore, Portola, CA

Tracy Sherman, Portola Valley, CA

Birgitte Moyer, Portola Vally, CA

Mary Callan, Poway, CA

Laura Flynn, Poway, CA

Beverly Greene, Poway, CA

Linda Rhine, Quail Valley, CA

Faith Strailey, Quincy, CA

Tammy Bullock, Ramona, CA

Jeanette Worland, Ramona, CA

Dale Wright, Ramona, CA

Karyn Wagman, Rancho Cordova, CA

Antoinette Anderson, Rancho Cucamonga, CA

Miriam Baum, Rancho Cucamonga, CA

Frederick Hamilton, Rancho Cucamonga, CA

Michael Herbert, Rancho Cucamonga, CA

Dianna McNair, Rancho Cucamonga, CA

Vickie Reedy, Rancho Cucamonga, CA

Laura Saint Martin, Rancho Cucamonga, CA

Katina Vlastos, Rancho Cucamonga, CA

Pete Childs, Rancho Mirage, CA

Richard Gonzales, Rancho Mirage, CA

John Varga, Rancho Mirage, CA

Judy Bradford, Rancho Palos Verdes, CA

Mary Schneider, Rancho Palos Verdes, CA

Linda Webb, Rancho Palos Verdes, CA

Kathy Dougherty, Rancho Santa Fe, CA

Craig Fenech, Rancho Santa Fe, CA

Allyson Finkel, Rancho Santa Margarita, CA

Dionne Hofmeister, Rch Cucamonga, CA

Yvonne Olivares, Rch Cucamonga, CA

Susan Thompson, Rcho Sta Marg, CA

Susan Emerson, Redding, CA







Joyce Harris, Redding, CA

James Hastings, Redding, CA

Ann Lougee, Redding, CA

Neal Malmsten, Redding, CA

Andrea Dixon, Redlands, CA

Sean Hagstrom, Redlands, CA

Jayne Miller, Redlands, CA

Rhonda Stanton, Redlands, CA

Tracy Wise, Redlands, CA

Doug Bender, Redondo Beach, CA

Jade Hall, Redondo Beach, CA

Kathleen Jacecko, Redondo Beach, CA

Craig Masuoka, Redondo Beach, CA

Alie Rowen, Redondo Beach, CA

Don Schlossman, Redondo Beach, CA

Dayla Sims, Redondo Beach, CA

Kate Ashley, Redwood City, CA

Juliann Berman, Redwood City, CA

Kerry Boyd, Redwood City, CA

Daryl Carr, Redwood City, CA

Tiki Dare, Redwood City, CA

Lisa Gruman, Redwood City, CA

Jeffrey Hayden, Redwood City, CA

Thalia Lubin, Redwood City, CA

Elyce Melmon, Redwood City, CA

Bruce Storms, Redwood City, CA

John West, Redwood City, CA

Jeff Box, Redwood Valley, CA

Alisha Bettinsoli, Reedley, CA

Jl Angell, Rescue, CA

Rosa Baeza, Reseda, CA

Eugenia Buerklin, Reseda, CA

Christine Douglass, Reseda, CA

Sheila Fox, Reseda, CA

Katharine Greenebaum, Reseda, CA

Carlos Nunez, Reseda, CA

Bret Polish, Reseda, CA

Sandra Angell, Richmond, CA

Nancy Donald, Richmond, CA

Johanna Ferman, Richmond, CA

Robert Knorr, Richmond, CA

Kevin McKay, Richmond, CA

BILL PINKHAM, Richmond, CA

B Sandow, Richmond, CA

Michael Sholinbeck, Richmond, CA

Robert Thomas, Richmond, CA

Carol Dezellem, Ridgecrest, CA

Penelope LePome, Ridgecrest, CA

Pat Marshall, Rio Linda, CA

Bonnie Arbuckle, Riverbank, CA

Mike Acosta, Riverside, CA

Sherri Baker, Riverside, CA

Kay Downer, Riverside, CA

Ed Garcia, Riverside, CA

Michael Harrop, Riverside, CA

Susan Hemsley, Riverside, CA

Julie Holdridge-Prado, Riverside, CA

Patricia Knox, Riverside, CA

Catherine Mason, Riverside, CA

Pamela Mcdonald, Riverside, CA



Henry Rosenfeld, Riverside, CA

Pam Schmitt, Riverside, CA

James Toland, Riverside, CA

Nisa Wallace, Riverside, CA

Bernard Waltzer, Riverside, CA

Reta Davis, Rocklin, CA

Daniel McKeighen, Rocklin, CA

Elaine Wander Leclaire, Rodeo, CA

Alan Bosch, Rohnert Park, CA

Denise Brown, Rohnert Park, CA

Sandra Lee, Rohnert Park, CA

Susan Ott, Rohnert Park, CA

Lawrence Joe, Rosemead, CA

Abigail Davis, Roseville, CA

Natalie Grand, Roseville, CA

Glenda Hay, Roseville, CA

Jamie Smith, Roseville, CA

Ann Wasgatt, Roseville, CA

Stephanie Legras, Ross, CA

Helen Hooper, Rumsey, CA

Shalomar Loving, Running Springs, CA

Henryk Flashner, S Pasadena, CA

Anders Olsson, S Pasadena, CA

Seth Ackerman, Sacramento, CA

James Adams, Sacramento, CA

Todd Bloom, Sacramento, CA

Robert Boughton, Sacramento, CA

Maureen Burness, Sacramento, CA

Faylene Carter, Sacramento, CA

Sandy Commons, Sacramento, CA

Deborah Cosentino, Sacramento, CA

Jim Deneff, Sacramento, CA

Patty Dismukes, Sacramento, CA

Mary Duplat, Sacramento, CA

Georgia Econome, Sacramento, CA

Cindy Ferguson, Sacramento, CA

Natsuki Fukasawa, Sacramento, CA

Jody Gordon, Sacramento, CA

Alan Graham, Sacramento, CA

Cynthia Gunston-Parks, Sacramento, CA

Margaret Haines, Sacramento, CA

Greg Hayes, Sacramento, CA

Karen Jacques, Sacramento, CA

Dwayne Johnson, Sacramento, CA

Barbara Lucas, Sacramento, CA

Carol Luery, Sacramento, CA

Marshal McKitrick, Sacramento, CA

Esther Mooncrest, Sacramento, CA

Kiara Mowry, Sacramento, CA

Sharon Nicodemus, Sacramento, CA

Holly Nightingale, Sacramento, CA

Jana Perinchief, Sacramento, CA

Donald Porath, Sacramento, CA

Stuart Reeves, Sacramento, CA

Mark Reichel, Sacramento, CA

Twyla Rowe, Sacramento, CA

Darlene Ruiz, Sacramento, CA

Renee Sankus, Sacramento, CA

Joseph Sebastian, Sacramento, CA

Fay Slaterp9, Sacramento, CA







Gayle Smith, Sacramento, CA

Sylvia Star, Sacramento, CA

Joan Stults, Sacramento, CA

Theresa Taylor, Sacramento, CA

Deborah Thomson, Sacramento, CA

Erh-Yen To, Sacramento, CA

Ian Turner, Sacramento, CA

Jillian Unger, Sacramento, CA

Cara Vallot, Sacramento, CA

Betty Wright, Sacramento, CA

Sandra Young, Sacramento, CA

Elizabeth Novak Milliken, Saint Helena, CA

Richard Allen, Salinas, CA

Dale Hillard, Salinas, CA

David Prina, Salinas, CA

Catherine Uchiyama, Salinas, CA

Roseann Dal Bello, San Anselmo, CA

Sherry Freeman, San Anselmo, CA

Zoe Harris, San Anselmo, CA

Catherine Loudis, San Anselmo, CA

Sheila Mcclear, San Anselmo, CA

Julia Riboli, San Anselmo, CA

Genevieve Richardson, San Anselmo, CA

Paula Spencer, San Anselmo, CA

Bret Walburg, San Anselmo, CA

April Wolcott, San Anselmo, CA

Kristin Womack, San Anselmo, CA

Deborah Bayne, San Bernardino, CA

Eileen Bordy, San Bruno, CA

Daniel Carrillo, San Bruno, CA

Elisse De Sio, San Carlos, CA

George Ruiz, San Carlos, CA

Anne Tartaglia, San Carlos, CA

Lori Avakian, San Clemente, CA

Kevin Bissonnette, San Clemente, CA

Dennis Bright, San Clemente, CA

Maryann LaNew, San Clemente, CA

Marcela Vizcaya, San Clemente, CA

Terri Wiley, San Clemente, CA

Natalie Addleson, San Diego, CA

Kimberly Alexander, San Diego, CA

John Anderson, San Diego, CA

Ian Bates, San Diego, CA

Melissa Behar, San Diego, CA

Victoria Bennett, San Diego, CA

Sarah Black, San Diego, CA

Joanne Britton, San Diego, CA

Bonnie Burke, San Diego, CA

Shereeliz Caldwell, San Diego, CA

Suzan Candas, San Diego, CA

Christopher Chatard, San Diego, CA

Cecelia Conover, San Diego, CA

Geoffrey Cook, San Diego, CA

Andrew Corn, San Diego, CA

Suzanne Daneshvari, San Diego, CA

Sandra Dawes, San Diego, CA

Britton Donaldson, San Diego, CA

Sami Doski, San Diego, CA

robert downey, San Diego, CA

Rich Elam, San Diego, CA



Larry Emerson, San Diego, CA

ENVIRONMENT

James Ferguson, San Diego, CA

Terrance Gardner, San Diego, CA

Henry Goff, San Diego, CA

Dale Haas, San Diego, CA

Barbara Hall, San Diego, CA

Robin Halliday, San Diego, CA

Brooke Harding, San Diego, CA

Fiona Hardy, San Diego, CA

Anne Harrington, San Diego, CA

Joanie Hartman, San Diego, CA

Steve Hartnett, San Diego, CA

Robert Haselbeck, San Diego, CA

David Haskins, San Diego, CA

Joanne Hayakawa, San Diego, CA

Dee Hayes, San Diego, CA

Diana Henderson, San Diego, CA

miguel and yolanda higuera, San Diego, CA

Jane Illades, San Diego, CA

Stephanie Jennings, San Diego, CA

Michael A. Johnston, San Diego, CA

Rebecca Kloker, San Diego, CA

Julie Kolb, San Diego, CA

Rochelle La Frinere, San Diego, CA

John Landmann, San Diego, CA

Dianne Lane, San Diego, CA

Kira Lebowitz, San Diego, CA

Diana Lee, San Diego, CA

Furman Lee, San Diego, CA

Don Leichtling, San Diego, CA

Lacey Levitt, San Diego, CA

Mary Jo Lindstrom, San Diego, CA

Dawna Mackedanz, San Diego, CA

Paula Maglione, San Diego, CA

Alicia Mangum, San Diego, CA

Martin Marcus, San Diego, CA

Krista Marx, San Diego, CA

Carol Masterson, San Diego, CA

Jacqueline McVicar, San Diego, CA

Diana Meisenholder, San Diego, CA

Mika Menasco, San Diego, CA

Stephen Mitton, San Diego, CA

David Montesi, San Diego, CA

Pam Montroy, San Diego, CA

Susan Oliver, San Diego, CA

Beverly Rehm, San Diego, CA

Robin Reinhart, San Diego, CA

Thomas Roberts, San Diego, CA

Jack Robertson, San Diego, CA

Karen Roegner, San Diego, CA

Barbara Schell, San Diego, CA

Sid Shapiro, San Diego, CA

Judy Shively, San Diego, CA

Ian Silverman, San Diego, CA

Doug Skeen, San Diego, CA

Jan Smith, San Diego, CA

Joan Spooner, San Diego, CA

Brian Still, San Diego, CA

Karen Sumners, San Diego, CA

Mary Talbot, San Diego, CA







Akiko Tamano, San Diego, CA

Monica Valentino, San Diego, CA

Leland Wessel, San Diego, CA

Robert Wheeler, San Diego, CA

Evan White, San Diego, CA

Craig Woempner, San Diego, CA

Lyssa Woo, San Diego, CA

Tansy Woods, San Diego, CA

William Woods, San Diego, CA

Shandra Wright, San Diego, CA

Nita Young, San Diego, CA

Robert Alvarez, San Dimas, CA

Arax Maksoudian, San Dimas, CA

Tina Schrader, San Fernando, CA

Richard Adhikari, San Francisco, CA

Michael Anderson, San Francisco, CA

cecilia azinger, San Francisco, CA

Kimo Bailey, San Francisco, CA

Rob Bain, San Francisco, CA

Wilma Bass, San Francisco, CA

Joan Becker, San Francisco, CA

Gary Berger, San Francisco, CA

Charlie Bergstedt, San Francisco, CA

Charlene Biagi, San Francisco, CA

Joseph Blum, San Francisco, CA

Lisa Brinker, San Francisco, CA

Betsy Brown, San Francisco, CA

Daniel Celidonio, San Francisco, CA

Ravi Chandra, San Francisco, CA

S. Chapek, San Francisco, CA

Janet Chavez, San Francisco, CA

Andrew Chou-Belden, San Francisco, CA

Angel Clark, San Francisco, CA

Helynn Coles, San Francisco, CA

Barbara Conwell, San Francisco, CA

Mike Dahlin, San Francisco, CA

Sarah Date, San Francisco, CA

Helen Davis, San Francisco, CA

Christie Decker, San Francisco, CA

L. Diaz, San Francisco, CA

Lisa Disterheft, San Francisco, CA

Judith Doane, San Francisco, CA

Ramona Draeger, San Francisco, CA

Jym Dyer, San Francisco, CA

Irene Endrizzi, San Francisco, CA

Patsy Fergusson, San Francisco, CA

Michael Fleming, San Francisco, CA

Buffy Francisco, San Francisco, CA

Vince Gamboa, San Francisco, CA

Ryan Gillette, San Francisco, CA

Martha Goldin, San Francisco, CA

Sharon Handa, San Francisco, CA

Linda Hegenbarth, San Francisco, CA

Kate Hellenga, San Francisco, CA

PETER HEMENWAY, San Francisco, CA

Leslie Hendricks, San Francisco, CA

Birgit Hermann, San Francisco, CA

Amanda Hirshon, San Francisco, CA

Steven Holden, San Francisco, CA

Lisa Honig, San Francisco, CA







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Mae Hein, Topanga, CA

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Penelope Ward, Topanga, CA

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Karen Negus, Trabuco Canyon, CA

Gloria Sefton, Trabuco Canyon, CA

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Yvonne Smith, Upland, CA

Janet Sturgeon, Upland, CA

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Lorraine Lowry, Vacaville, CA

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Gerald Vietor, Valley Springs, CA

Laura Holmes, Valley Village, CA

Darynne Jessler, Valley Village, CA

Anne Kurtzman, Valley Village, CA

Andrew Sigal, Valley Village, CA

Stokes Stanzi, Valley Village, CA

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Brendan Miller, Venice, CA

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Jamie Green, Ventura, CA

Suzanne Guthrie, Ventura, CA

Helen Johnson, Ventura, CA

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Elizabeth Ladiana, Ventura, CA





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LeAnn Walters, Ventura, CA

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James Hagar, Vista, CA

Joleen Hirscher, Vista, CA

Trisha Pahmeier, Vista, CA

Constance Youens, Vista, CA

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Julia Fuller, Walnut Creek, CA

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Howard H. Holmes, West Hollywood, CA

Susan Mathison, West Hollywood, CA

Christina Nillo, West Hollywood, CA

Kathy Scher, West Hollywood, CA

Dolores Scozzesi, West Hollywood, CA

Jon Sperry, West Hollywood, CA

Andrew Hamilton, West Sacramento, CA

Signe Wetteland, West Sacramento, CA

Barbara E., Westlake Village, CA

Jeanne Harrison, Westlake Village, CA

Lia Woodward, Westlake Village, CA

Michael Lawler, Westminster, CA

Brandon Lowentrout, Westminster, CA

Tina Colafranceschi, Whitethorn, CA

Jo Beede, Whittier, CA

Narcissa Enzmann, Whittier, CA

Vanessa Leal, Whittier, CA

Robert Palomino, Whittier, CA

Jose Rodriguez, Whittier, CA

Jan Joe, Windsor, CA

Barbara Lyon, Windsor, CA

Allison Mcconnell, Windsor, CA

Susan Bohannon, Winnetka, CA

Andre Plessis, Winnetka, CA

Caryn Banque, Woodland, CA

Kay Bogart, Woodland, CA

Donna Bousquet, Woodland, CA

Sheri Masterson, Woodland, CA

Ellie Slaven, Woodland, CA

Gretchen Smurr, Woodland, CA

Susan George-Rydberg, Woodland Hills, CA

Bobbi Goldin, Woodland Hills, CA

Michael Goldman, Woodland Hills, CA

Willie Hill, Woodland Hills, CA

Arax Lanman, Woodland Hills, CA

Stephanie Larro, Woodland Hills, CA

Lorraine Priceman, Woodland Hills, CA

Victoria Riskin, Woodland Hills, CA

Jollee Saphier, Woodland Hills, CA

Marc Tarpenning, Woodside, CA

Kathleen Fernandez, Yorba Linda, CA

Peggie Kirkpatrick, Yorba Linda, CA

Ben Mckinstry, Yorba Linda, CA

Gabriel Graubner, Yountville, CA

Carole Evers, Yucaipa, CA

Kt Gates-Waldrup, Yucaipa, CA

Jo Bollen, Yucca Valley, CA

Rose Bachman, CA 90001

Leonardo Corro, CA 90001

Penelope Daily, CA 90001

Adrian Juarez, CA 90001

Denise Miceli, CA 90001





Michele Carrizalez, CA	91	$\mathcal{M}\mathcal{M}$
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Julio Robledo, CA 90003

Vanessa Bayer, CA 90004

Shirley Hey, CA 90004

Glen Morgan, CA 90004

Grant Sloss, CA 90004

Jeremy Tague, CA 90004

Candy Kaiser, CA 90005

David Mack, CA 90005

Henry Muniz, CA 90005

Jorge Valle-Artiga, CA 90005

Michelle Rito, CA 90006

Tripthi Kamath, CA 90007

Beth Palkovic, CA 90007

Joshua Yeargain, CA 90007

Gail Gentry, CA 90008

Fred Mosbey, CA 90008

Scott Baird, CA 90010

Jessie Hahn, CA 90010

Barbara Hoke, CA 90010

Hector Arroyo, CA 90011

Bruce Stout, CA 90011

Lisa Callahan, CA 90012

Wendy Vinglinsky, CA 90012

Narda Zacchino, CA 90012

Drex Heikes, CA 90013

Jolie Krance, CA 90013

J Magnuson, CA 90013

Adam Miller, CA 90013

Sigmund Palasek, CA 90013

Michael Vizcarrondo, CA 90013

Linda Desola, CA 90014

Andrew Matson, CA 90014

Glicelia Avila, CA 90015

Chad Sarver, CA 90015

Ricky Shum, CA 90015

Gary Williams, CA 90015

Theodore Burton, CA 90016

Michael Damanskis, CA 90016

Victoria Kemsley, CA 90016

Joan Benjamin, CA 90017

Lisa Shinavier, CA 90018

Jo Trigo, CA 90018

Sarah Boldt, CA 90019

Dejarne Bourne, CA 90019

Sharron Craig, CA 90019

Brian Dent, CA 90019

Uri Fleming, CA 90019

Jennifer Griffin, CA 90019

Julia Hasen, CA 90019

Ksenia Koban, CA 90019

Jane Martin, CA 90019

Jaimie Mullens, CA 90019

Thuyvan Nguyen, CA 90019

Kevin Proulx, CA 90019

Daniel Shapiro, CA 90019

Melody Thornton, CA 90019

Karen Tillman, CA 90019

Daniel Yoo, CA 90019

James Jackson, CA 90020



Gerald Park, CA 90020

Alexandra Weinberger, CA 90020

Amishi Shah, CA 90021

Mills Davis, CA 90022

Steven Baaden, CA 90024

Geoffrey Bogeaus, CA 90024

Geoff Bywater, CA 90024

Susan Friedman, CA 90024

Janet Hirsch, CA 90024

Melodie Hollander, CA 90024

Kiera Kosciolek, CA 90024

Christine Oldenbrook, CA 90024

Kevin Poirier, CA 90024

Wendy Richmond, CA 90024

Phillip Savenick, CA 90024

Joel Smith, CA 90024

Jeremy Vernon, CA 90024

Joseph Ziomek, CA 90024

Philip Bartolf, CA 90025

Phyllis Gabriel, CA 90025

Kathryn Hyder, CA 90025

Harriet Levine, CA 90025

Rachel Mcclard, CA 90025

Harvey Myman, CA 90025

John Stapleton, CA 90025

Danielle Stclair, CA 90025

Rosie Alvarenga, CA 90026

Rochelle Bassarear, CA 90026

Hugo Chavez, CA 90026

Danika Choe, CA 90026

Henry Estrada, CA 90026

Jonathan Gibson, CA 90026

Melissa Jones, CA 90026

Margaret Kingsbury, CA 90026

Raen Malone, CA 90026

Frances Maloney, CA 90026

Rebecca Rufer, CA 90026

Toby Tannenbaum, CA 90026

Alison Waller, CA 90026

Paul Brittain, CA 90027

Devlyn Corrigan, CA 90027

Morgan Doverpearl, CA 90027

Terri Foster, CA 90027

Kathryn Nelson, CA 90027

Jb Popplewell, CA 90027

Autumn Reeser, CA 90027

Manuel Rodriguez, CA 90027

Michele Sohnen, CA 90027

Zackary Taylor, CA 90027

Lisa Wallace, CA 90027

Lisa Carney, CA 90028

Melissa Gelmo, CA 90028

Kendra Miller, CA 90028

Coleen Novak, CA 90028

Morgan Bleuel, CA 90029

Suzanne Carney, CA 90029

Andrew Gage, CA 90029

Jessica Rosen, CA 90029

Gustavo Torres, CA 90029

Audrey Arkins, CA 90031



Lourdes Beltran, CA 90031

Nathana Schooler, CA 90031

Misty Arceneaux, CA 90032

Tony Beck, CA 90032

Zoely Biel, CA 90032

Raymond Dangelo, CA 90032

Arturo Jauregui, CA 90032

George Torres, CA 90032

Jazmin Ortega, CA 90033

Mitchell Roberts, CA 90033

Annie Wong, CA 90033

Victoria Brago, CA 90034

Gonzalez Cani, CA 90034

Stanley Coleite, CA 90034

Cristina Cruz, CA 90034

Claudia Garcia, CA 90034

David Hawthorne, CA 90034

Elisa Iovine, CA 90034

Delia Lopez, CA 90034

Annie Orange, CA 90034

Nicole Pina, CA 90034

Tucker Poindexter, CA 90034

Michael Raileanu, CA 90034

Collin Reynolds, CA 90034

Elizabeth Rose, CA 90034

Frank Sorkin, CA 90034

Bernestine Taylor, CA 90034

Brandon Vineyard, CA 90034

Florence Williams, CA 90034

Tricia Berman, CA 90035

Mitchell Cohen, CA 90035

Andrew David, CA 90035

Marcy Kelly, CA 90035

Randall Leighton, CA 90035

Steven Luftman, CA 90035

Sara Mattison, CA 90035

Jordyn Ostroff, CA 90035

Brenda Ruttenberg, CA 90035

Joan Sobel, CA 90035

Crystal Us, CA 90035

Stacy Barninger, CA 90036

Lauren Bopp, CA 90036

Jennifer Brett, CA 90036

Anne Brilliant, CA 90036

Claire Castle, CA 90036

Paqueta Davis, CA 90036

Marisa Duarte, CA 90036

Alan Ehrlich, CA 90036

Thomas Gossard, CA 90036

Suzanna Griffith, CA 90036

Henry Johnson, CA 90036

Kevin Keenan, CA 90036

Chad Kenward, CA 90036

Anne Madariaga, CA 90036

Gabrielle Mahdesian, CA 90036





Eric O	panga,	CA	90036
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Bill Petrotta, CA 90036

Micah Pittard, CA 90036

Cherie Sandum, CA 90036

Rick Wartzman, CA 90036

Gregory Mitchell, CA 90037

Daniel Shaw, CA 90037

Ellynn Brown, CA 90038

Justin Horowitz, CA 90038

Kenneth Rincon, CA 90038

Dominick Romain, CA 90038

Reiss Clauson-Wolf, CA 90039

Sean Cooley, CA 90039

Melodie Mcdaniel, CA 90039

Paulina Quintana, CA 90039

Erik Rhey, CA 90039

Annelle Grajeda, CA 90040

Pablo Vargas, CA 90040

Francesca Fiorentini, CA 90041

Teru Kanazawa, CA 90041

Michael Nehring, CA 90041

Paul Vallejo, CA 90041

Jennifer Wilson, CA 90041

Martamaria Cross, CA 90042

Laura Cultrera, CA 90042

Vincent Delley, CA 90042

Ann Diederich, CA 90042

Austin Flack, CA 90042

Jacqueline Hardy, CA 90042

Brendan Hughes, CA 90042

James Knudsen, CA 90042

Michele Lavecchia, CA 90042

Nancy Sharrett, CA 90042

Yolanda Duvernay, CA 90043

Carla Huckaby, CA 90043

Janice Kingcade, CA 90043

Emma Rivera, CA 90043

Larry Roberson, CA 90043

Teraesa Vinson, CA 90043

Monique Browne, CA 90044

Michael Hall, CA 90044

Vincent Marzullo, CA 90044

Diane Corbin, CA 90045

Michael Eberly, CA 90045

Shay Gipson, CA 90045

Sasha Kushner, CA 90045

Jason Phillips, CA 90045

Robyn Rhinehart, CA 90045

Lilian Salvatore, CA 90045

Eleanor Schwartz, CA 90045

Shannon Algeo, CA 90046

sharon barber, CA 90046

Nicholas Barlow, CA 90046

Rusty Buchanan, CA 90046

Peter Burns, CA 90046

Laniesha Butler, CA 90046

Monique Caulfield, CA 90046

Sukee Chew, CA 90046

Lisa Crilley, CA 90046

Jonathan Darr, CA 90046





Kae Erickson,	CA	90046

Taylor Forbes, CA 90046

Mary Haskell, CA 90046

Jason Hicks, CA 90046

Paula Hooks, CA 90046

Daniel Howell, CA 90046

Corey Jiannalone, CA 90046

Michael Kelleher, CA 90046

Rada Konvisser, CA 90046

Meredith Lovegrove, CA 90046

Christopher Mcfarland, CA 90046

Matthew Nolinleblanc, CA 90046

Nancy Priddy, CA 90046

Sydney Van Gorp, CA 90046

Linda Cryer, CA 90047

Claire Evans, CA 90047

Franklin Marline, CA 90047

Marvin Zacharie, CA 90047

Cayla Bonn, CA 90048

Lucy Bradley, CA 90048

James Forrester, CA 90048

Deborah Glass, CA 90048

Douglas Long, CA 90048

Eric Ortner, CA 90048

David Resnik, CA 90048

James Rounds, CA 90048

Stephen Viens, CA 90048

Charlene Williams, CA 90048

Susan Bleecher, CA 90049

Ronda Gomezquinones, CA 90049

Judith Gordon, CA 90049

Andrea Green, CA 90049

Nicole Hillebrandt, CA 90049

Steven Hitter, CA 90049

Theresa Kvale, CA 90049

Laurel Newbound, CA 90049

Katie Ng, CA 90049

Arnold Platzker, CA 90049

Paul Puri, CA 90049

Rebecca Sperber, CA 90049

Matthew Tolchin, CA 90049

Marshall King, CA 90056

Richard Krelle, CA 90056

Cynthia Mason, CA 90056

Andreda Pruitt, CA 90056

Sylvia Swilley, CA 90056

Carmencita Solidum, CA 90057

Cynthia Hawkins, CA 90059

Daniel Zepeda, CA 90059

Dana Hubert, CA 90061

Yanscy Flores, CA 90063

Beatriz Higuera, CA 90063

Kathy Rose, CA 90063

Nicole Bergelson, CA 90064

Thomas Byrnes, CA 90064

Shellie Collier, CA 90064

Karin Diskin, CA 90064

Karen Edgerton, CA 90064

Matthew Fillman, CA 90064

Jody Frank, CA 90064





Robert	Gage,	CA	90064

Mark Hembree, CA 90064

Linda Levy, CA 90064

Jennie Maguen, CA 90064

Michael Mcintyre, CA 90064

Susan Montgomery, CA 90064

Barbara Satinover, CA 90064

Michael Schaffer, CA 90064

Cindy Sison, CA 90064

Ruth Strauss MD, CA 90064

Barbara Trelease, CA 90064

Jill Uhlenkott, CA 90064

Julie Ahlberg, CA 90065

Maria Borden, CA 90065

Lamar Damon, CA 90065

Sarah Soquel Morhaim, CA 90065

Arthur Shapiro, CA 90065

Carlos Tobar, CA 90065

Maria Warmoth, CA 90065

Kelly Aeolan, CA 90066

Ethan Arnold, CA 90066

Peter Basch, CA 90066

Barbara Berney, CA 90066

Faith Brewer, CA 90066

Stephanie Davis Don, CA 90066

Sarah Epperson, CA 90066

Timothy Groff, CA 90066

Gilbert Guerra, CA 90066

Akhil Gupta, CA 90066

Camille Harris, CA 90066

Luann Jaffe, CA 90066

Alex Kruglov, CA 90066

Danielle Loefflad, CA 90066

Sean Porter, CA 90066

Eileen Selogie, CA 90066

Sondra Yevette, CA 90066

Robert Zaugh, CA 90066

Morgan Chu, CA 90067

Laura Cordovano, CA 90067

Howard Fredman, CA 90067

Stephanie Marshall, CA 90067

Susan Rodriguez, CA 90067

Shelly Rothschild, CA 90067

Wesley Strick, CA 90067

Jason Wallach, CA 90067

Nancee Allen, CA 90068

Lynn Collings, CA 90068

Jodi Ehrlich, CA 90068

Brian Henson, CA 90068

Tim Long, CA 90068

Kay Morris, CA 90068

Shane Nguyen, CA 90068

Jimmy Wachtel, CA 90068

Wendy Alvarez, CA 90069

Frank Baquero, CA 90069

Daniel Cohen, CA 90069

Nicole Cutright, CA 90069

Wendy Lipin, CA 90069

Jennifer Martin, CA 90069

Kent McCallister, CA 90069





Jordan	Rosen	berg,	CA	90069
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Meir Shamy, CA 90069

Matthew Shields, CA 90069

Sara West, CA 90069

Tambi Yu, CA 90069

Robert Daly, CA 90077

Matthew Harrison, CA 90077

Richard Kipper, CA 90077

Francine Maisler, CA 90077

Stephen Sohmer, CA 90077

Amarjit Soni, CA 90077

Forrest Walsh, CA 90077

Jonathan Leahy, CA 90078

Kevin Chang, CA 90079

Jill Klein, CA 90093

Joan Shapiro, CA 90094

Laura Barajas, CA 90201

Juan Guerrero, CA 90201

Efrain Meda, CA 90201

Marie Sia, CA 90201

Lori Soto, CA 90201

Nestor Valencia, CA 90201

Sathara Duong, CA 90210

Jasmine Folden, CA 90210

Victoria Jahanmardi, CA 90210

Amir Kojoory, CA 90210

Eve Rodsky, CA 90210

Arnold Stiefel, CA 90210

Dawn Eliashiv, CA 90211

Alexandra Feldman, CA 90211

Marcie Alexander, CA 90212

Josh Millet, CA 90212

Shareef Aquil, CA 90220

Emily Ragobeer, CA 90220

Kelly Gardner, CA 90221

Stefanie Cleaver, CA 90222

Yolanda Melvinnelms, CA 90222

Brian Decato, CA 90230

Barbara Golbin, CA 90230

Patricia Hughes, CA 90230

Sharon Kerson, CA 90230

James Miller, CA 90230

Pat Nomura, CA 90230

Joanna Rowles, CA 90230

Glenn Stewart, CA 90230

Lilli Valtierra, CA 90230

Glenda Wina, CA 90230

Jeremy Zuniga, CA 90230

Bill Birdsall, CA 90232

Mark Galanty, CA 90232

Jonathan Glater, CA 90232

Jim Hornstein, CA 90232

Joy Kecken, CA 90232

Parisa Mirzadehgan, CA 90232

Helki Zeigler, CA 90239

Anita Boorman, CA 90240

Xavier Granados, CA 90240

Salvador Padill, CA 90240

Bernice Caan, CA 90241

Walter Connick, CA 90245



Rhonda Haley, CA 90245

Chris Miller, CA 90245

Sarah Mosseller, CA 90245

Judy Smith, CA 90245

Gloria Telles, CA 90245

Diane Trevizo, CA 90245

Josephine Baltazar, CA 90249

Marion Dwyer, CA 90250

Julio Gavio, CA 90250

Ellen King, CA 90250

Megan Klein, CA 90250

Maureen Kleinman, CA 90250

Viki Short, CA 90250

Carl Weibel, CA 90250

David Adler, CA 90254

Megan Bowers, CA 90254

Chas Costello, CA 90254

Caitlin Dahl, CA 90254

Martin Fogel, CA 90254

Ann Gotthoffer, CA 90254

Carol Horne, CA 90254

Alicia Jones, CA 90254

Kimberly Legrand, CA 90254

Rosanna Savone, CA 90254

Angel Alva, CA 90260

Anthony Owens, CA 90260

Zenaida Alfaro, CA 90262

Tabitha Dileo, CA 90264

Robert Adler, CA 90265

Maureen De Koff, CA 90265

Jeff Eisen, CA 90265

Marla Hosie, CA 90265

Constance Shafran, CA 90265

Georgia Cano, CA 90266

Bradley Dodge, CA 90266

Carol Dormer, CA 90266

Ralph Goldstein, CA 90266

Otto Gudiel, CA 90266

Brittany Hilgendorf, CA 90266

Lynn Smith, CA 90266

Lisa Taub, CA 90266

Sara Thaves, CA 90266

Lynn Werner, CA 90266

Irene White, CA 90266

Dorothy Yungman, CA 90266

Brooke Covington, CA 90272

Kimberly Michel, CA 90272

Weston Naef, CA 90272

Leo Perez, CA 90272

Nora Perricone, CA 90272

Peter Rogers, CA 90272

Ellie Ross, CA 90272

Patricia Sinclair, CA 90272

Paul Solomon, CA 90272

Christine Steele, CA 90272

Michael Chiado, CA 90274

Michael Eicher, CA 90274

Janis Fitzsimmons, CA 90274

Arthur Friedman, CA 90274

Yvonne Godfrey, CA 90274





Karen Govena	, CA	90274
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Lawrence Maltz, CA 90274

Colleen Mullowney, CA 90274

Sandra Peck, CA 90274

Ellie Berkowitz, CA 90275

Virendra Kadakia, CA 90275

Louis Krouse, CA 90275

Mark Martinez, CA 90275

Teri Perez, CA 90275

Jason Rosenfeld, CA 90275

Sandra Brilliant, CA 90277

Christine Coffelt, CA 90277

Patrick Daley, CA 90277

Victoria DeFrank, CA 90277

Donna Haupt, CA 90277

Angelica Hurd, CA 90277

Carol Mckeown, CA 90277

Melanie Nelson, CA 90277

Pamela Popovich, CA 90277

Larry Styza, CA 90277

Marc Teitelbaum, CA 90277

Deborah Vaia, CA 90277

David Barnes, CA 90278

Nancy Bartolo, CA 90278

Juan Mansill, CA 90278

Nicole Smith, CA 90278

Daniel Wallace-Brewster, CA 90278

Sandra Flores, CA 90280

Marilyn Ball, CA 90290

Cynthia Hodnett, CA 90290

Angela Mogg, CA 90290

Coon Bruno, CA 90291

Naomi Saldana, CA 90291

Paula Silver, CA 90291

Donna Sylvester, CA 90291

Harbans Ahluwalia, CA 90292

Jason Bohrer, CA 90292

Kelli Cardiff, CA 90292

Jennifer Chiu, CA 90292

Kylie Clark, CA 90292

Courtney Nichols-Gould, CA 90292

Sanya Obsivac, CA 90292

Larry Otting, CA 90292

Michael Perry, CA 90292

Rainer Poertner, CA 90292

Scott Sewell, CA 90292

Nancy Wergeles, CA 90292

Richard Benzel, CA 90293

Louise Lance, CA 90293

Nicole Martinez, CA 90293

Bonnie Mishelevich, CA 90293

Michelle Ouellet, CA 90293

Bob Oyama, CA 90293

Jennifer Rice, CA 90293

Stanley Sharpe, CA 90293

Amy Bell, CA 90301

Debra Lockie, CA 90301

Dawn Sitahal, CA 90301

Annie Flowal, CA 90302

Maria Marchand, CA 90302





	Roy	Smith,	CA	90302
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Mar Sorell, CA 90302

Nathaniel Jemison, CA 90303

Cristobal Tostado, CA 90304

Kendall Dennis, CA 90305

Maria Morse, CA 90310

Claudine Gueniot, CA 90401

Brian Sutter, CA 90401

Kathryn Takis, CA 90401

Daniel Arkin, CA 90402

Dave Feldman, CA 90402

Ronni Kern, CA 90402

Frank Stiefel, CA 90402

Jaime Toporovich, CA 90402

Chares Brann, CA 90403

Frederick Carroll, CA 90403

Katie Corridan, CA 90403

Dorothy Froix, CA 90403

Lee Herschler, CA 90403

Sintra Martins, CA 90403

Helen Mccullough, CA 90403

Joe Orcutt, CA 90403

Nectar Redman, CA 90403

Jill Sharaf, CA 90403

Amy Williams, CA 90403

Stefanie Zuroff, CA 90403

Larena Allen, CA 90404

Joan Bee, CA 90404

Ingrid Debeus, CA 90404

Thomas Hawkins, CA 90404

Marlise Malkames, CA 90404

Mary Quinn, CA 90404

Sienna Sanders, CA 90404

Mary Vorasky, CA 90404

Bernard Alfs, CA 90405

Joe Alter, CA 90405

Toby Book, CA 90405

Barry Bunes, CA 90405

Peter Erskine, CA 90405

Linda Garrett, CA 90405

Dan Genetti, CA 90405

Jeffrey Hahn, CA 90405

PAMELA Lane, CA 90405

Erin Martin, CA 90405

Reid Mcglamery, CA 90405

Beverly Millson, CA 90405

Lisa Moseley, CA 90405

Lynn Peterson, CA 90405

Nancy Rosenblum, CA 90405

Mara Thompson, CA 90405

Ashley Wrobel, CA 90405

Tony Wu, CA 90405

Anne Yaple, CA 90405

Chris Hamayasu, CA 90501

Mitchell Hicks, CA 90501

Gregory Jacobs, CA 90501

Gail Nowak, CA 90501

Bryant Odega, CA 90501

Gloria Diaz, CA 90502

Rosemary Levenson, CA 90502





DODDI DCOVIIIC. CA 70.302	Bobbi	Scoville,	CA	90502
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Michelle Hartman, CA 90503

Judith Baer, CA 90505

Garland Elaina, CA 90505

Elizabeth Leung, CA 90505

Simon Pang, CA 90505

Asma Rasikh, CA 90505

Michael Warner, CA 90505

Bob Lewis, CA 90506

Charlotte Borst, CA 90601

Janine Gonzalez, CA 90601

Robert King, CA 90601

John Melendrez, CA 90602

Delmira Miovsky, CA 90602

Ralph Picon, CA 90602

Thomas Riebs, CA 90602

Jeff Palmer, CA 90603

William Wong, CA 90603

Michael Oppenheim, CA 90604

Frank Samaniego, CA 90604

Andrew Ytuarte, CA 90604

Diane Zaha, CA 90604

Genienne Gastelum, CA 90605

Andrew Nguyen, CA 90605

John Thomas, CA 90605

Catherine Mcfall, CA 90606

Michele Lujan, CA 90620

Lisa Bearbower, CA 90630

Amy Estrada, CA 90630

Hilarie Favro, CA 90630

Christine Handson, CA 90630

Connie Araujo, CA 90631

Louis Estrada, CA 90631

Christina Malm, CA 90631

Alfred Velasco, CA 90631

Sylvia Duran-Katnik, CA 90638

Jorge Moreno, CA 90640

Luis Parocua, CA 90640

Priscilla Tostado, CA 90640

Gloria Haley, CA 90650

Henry Resendez, CA 90650

Madeline Ayala, CA 90660

Irma Barrios, CA 90660

Stacey Esparza, CA 90660

Victoria Rodriguez, CA 90660

Laura Garcia, CA 90670

Katherine Koh, CA 90670

Luisa Acosta, CA 90680

Eloisa Likens, CA 90701

Sherry Barbour, CA 90703

Antonino Castillo, CA 90703

Stephen Hamrick, CA 90703

Patricia Lozano, CA 90703

Linda Rochin, CA 90703

April Goebel, CA 90706

Lee Orozco, CA 90706

Rodrigo Vazquez, CA 90706

Janet Kordich, CA 90710

Lawrence Circosta, CA 90713

Sharney Alvarez, CA 90715





Frenee	Del	losa,	CA	907	15
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Beverly Tolliver, CA 90715

Patricia Hydo, CA 90717

Colin Caesar, CA 90720

Kelly Fleagle, CA 90720

Jay Leibowitz, CA 90720

Jimmy Sorensen, CA 90720

Daniel Teran, CA 90720

Melinda Porter, CA 90723

Josue Garcia, CA 90731

Janet Jackson, CA 90731

Mark Latno, CA 90731

Rosemary Locklear, CA 90731

Kathleen Durazo, CA 90732

Kerry Mcosker, CA 90732

Peggy Morales, CA 90732

Jason Buell, CA 90740

Elda Lowe, CA 90740

Roni Shevick, CA 90740

Rebecca Wyatt, CA 90740

Amanda Herring, CA 90742

Elvia Maciel, CA 90744

Crisostomo Caratao, CA 90745

John Winston, CA 90745

Dionecia Usher, CA 90746

Harold Williams, CA 90746

Sylvia Baker, CA 90755

Donna Vaughan, CA 90755

Jason Castner, CA 90802

Alison Chabot, CA 90802

Lynda Crow, CA 90802

Claus Jurgensen, CA 90802

Matthew Lampe, CA 90802

John Lowe, CA 90802

William Moody, CA 90802

Michael Moskowitz, CA 90802

Nancy Oneill, CA 90802

Gregory Pacificar, CA 90802

Arnold Rosenberg, CA 90802

Timothy Smith, CA 90802

Krista Stoltz, CA 90802

Bonnie Bishop, CA 90803

Lisa Buchanan, CA 90803

Shawn Lamont, CA 90803

Krishna Manvi, CA 90803

Debra Martin, CA 90803

Anne Reggie, CA 90803

Mark Rogers, CA 90803

Michael Werner, CA 90803

Kylee Yates, CA 90803

Vicky Gutierrez, CA 90804

Lena Serrano, CA 90804

Terry Allen, CA 90805

Chris Lauderdale, CA 90805

Trulena Reed, CA 90805

Rose Regalado, CA 90805

Marvin Todd, CA 90805

Brett Banditelli, CA 90806

Sheryl Breault, CA 90806

Linda Gore, CA 90806





Ian	Cross,	CA	90807

Robert Hilty, CA 90807

Mary Humme, CA 90807

Loretta Klonecky, CA 90807

Kent Lockart, CA 90807

Sharon Mcdougal, CA 90807

Robert Miller, CA 90807

Okatch Otieno, CA 90807

Denise Wallace, CA 90807

Louise Cunningham, CA 90808

Richard Kasube, CA 90808

Elizabeth Kurila, CA 90808

Patricia Martinez, CA 90808

Adam Nelson, CA 90808

Michelle Vasiloff, CA 90808

Amy Williford, CA 90808

Becky Wilson, CA 90808

Travis Yarbrough, CA 90808

Samantha Fabrigas, CA 90810

Phoebe Nichols, CA 90810

Alba Carlos, CA 90813

David Navarro, CA 90813

Guillermo Olarte, CA 90813

Sharron Pannell, CA 90813

Jack Dourigan, CA 90814

Robert Loparo, CA 90814

Courtni Pugh, CA 90814

Jason Suarez, CA 90814

Stella Ursua, CA 90814

Abigail Bradecich, CA 90815

Melanie Buckowski, CA 90815

Chester Chebegia, CA 90815

Sylvia Gyimesi, CA 90815

Rhonda Weisenberger, CA 90815

Bernard Adamczyk, CA 91001

Ontresicia Averette, CA 91001

Patricia Fielder, CA 91001

Sheldon Halpern, CA 91001

Sydney Harris, CA 91001

Kenneth Jones, CA 91001

Elsa Lopez McLeod, CA 91001

Cate MatherS-Suter, CA 91001

Scott Streicher, CA 91001

Susan Lauer, CA 91006

Steven Lee, CA 91006

Joyce Sakai, CA 91006

Albert Hu, CA 91007

Guodi Sun, CA 91007

Diane Coscarelli, CA 91010

David Knapik, CA 91010

Claudia Trefzger, CA 91010

Dave Allen, CA 91011

Joanne Doyle, CA 91011

Tracey Welk, CA 91011

Stephanie Farah, CA 91016

Sandra Glaser, CA 91016

Renee Lindsey, CA 91016

Mary Lutz, CA 91016

Wayne Prasertong, CA 91016

Christine Pregent, CA 91016





Jon Sattler, CA 91016	Jon	Sattler.	CA	91	010	б
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Rena Snider, CA 91016

Ruben Valenzuela, CA 91016

Kristen Cunningham, CA 91020

Justin Smith, CA 91024

Linda Bortell, CA 91030

Gionne Bozzi, CA 91030

Deirdre Brenner, CA 91030

Kevin Fox, CA 91030

Shandor Garrison, CA 91030

Wes Kennedy, CA 91030

Joseph Loo, CA 91030

Bob Lynch, CA 91030

Stephanie Rodriguez, CA 91030

Robin A, CA 91040

Mary Leask, CA 91040

Stephanie Mines, CA 91041

Cecelia Hall, CA 91042

Suzan Ortmeier, CA 91042

Leonard Hinzo, CA 91101

David Mceliece, CA 91101

Inna Sarac, CA 91101

Jessica Servin, CA 91101

Evelyn Zamora, CA 91101

Garret Gervais, CA 91103

Daniel Denoncourt, CA 91104

Rudy Oclaray, CA 91104

Sherri Solinger, CA 91104

Melissa Afable, CA 91105

Rosemary Distaso, CA 91105

Sable Hodson, CA 91105

Susan Kalmanson, CA 91105

Laila Karme, CA 91105

Jose Marquez, CA 91105

Susan Weber, CA 91105

Thomas Castaneda, CA 91106

Lyle Davis, CA 91106

Courtney Sanford, CA 91106

Patricia Tavera, CA 91106

Richard von Ernst, CA 91106

Daniel Kiczek, CA 91107

Joan Money, CA 91107

Scott Reed, CA 91108

Jordan Sollitto, CA 91108

Patrick Moloughney, CA 91117

Julia Dennett, CA 91118

Phillip Argento, CA 91199

Kathleen Conroy, CA 91201

Michael Lent, CA 91201

Michael Fairman, CA 91202

Eve Hinchcliffe, CA 91202

Oscar Ibardolaza, CA 91202

Mike Powers, CA 91202

JOHN PAUL KARLIAK, CA 91205

Charles Merman, CA 91205

Madoka Minoff, CA 91205

Greg Nash, CA 91205

Yael Torbati, CA 91205

Bonnie Benefield, CA 91206

Barri Brown, CA 91206



Janna Go	sselin, C	CA 91206
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Samuel Jordan, CA 91206

Robin Rose, CA 91206

Johanna Shapiro, CA 91206

Matthew Hancock, CA 91207

Maya Gingery, CA 91208

John Wagner, CA 91208

Vahe Badalian, CA 91214

Elizabeth Connors, CA 91214

Alicia Elliott, CA 91214

Rachel Mcdowell, CA 91214

Belinda Smith, CA 91214

James Vitek, CA 91214

Warren Wolfswinkel, CA 91214

Bonnie Aharoni, CA 91301

Julie Burkert, CA 91301

Harvey Davis, CA 91301

Helen Dembski, CA 91301

Laura Gilbard, CA 91301

Karen Lijewski, CA 91301

Kellee Mcdonald, CA 91301

Nicolas Miller, CA 91301

Mary Perezkorinko, CA 91301

Deborah Raymond, CA 91301

Kurt Teutsch, CA 91301

Yaara Berdan, CA 91302

Chittabhattacha Bhattacharya, CA 91302

Kerry Ehrin, CA 91302

James Estill, CA 91302

Marcia Jones, CA 91302

Paul Malmont, CA 91302

Marianne Price, CA 91302

Snuffy Walden, CA 91302

Marissa Espinoza, CA 91303

Bernita Gross, CA 91303

Kristina Hergot, CA 91304

Ernest Hess, CA 91304

Wendy Liebman, CA 91304

Ernesto Lising, CA 91304

Sandra Machado, CA 91304

Lesley Webster, CA 91304

Kirk Bales, CA 91306

Collette Snoonian, CA 91306

Charlesdelore Wilbert, CA 91306

Garrett Clancy, CA 91307

Katherine Eskey, CA 91307

John Golden, CA 91307

Deborah Hyde, CA 91307

Zenia Lasola, CA 91307

Lori Love, CA 91307

Pamela Maggin, CA 91307

Richard Naimy, CA 91307

Philip Sager, CA 91307

Miriam Bogler, CA 91311

Cassandra Kubiak, CA 91311

Lea Oliver, CA 91311

Brian Patridge, CA 91311

Juativa Spurlock, CA 91311

Ann Bose, CA 91316

Cindy Durian, CA 91316





Kennet	h Zunc	ler, CA	91316
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Beth Kramer, CA 91320

Eugenio Rodriguez, CA 91320

Albert Sciamann, CA 91320

Cherie Wrigley, CA 91320

Fahim Aladin, CA 91321

Peggy Streid, CA 91321

Barbara Testa, CA 91321

Saul Candi, CA 91324

Rita Silverman, CA 91324

Erin Feaster, CA 91325

Frank Freeman, CA 91325

Cynthia Mendoza, CA 91325

Kelly Moore, CA 91325

Marion Pucci, CA 91325

Sharon Cho, CA 91326

Terrence Fischer, CA 91326

Leslie Ousdahl, CA 91326

Garrett Shorr, CA 91331

Erphan Delgir, CA 91335

Barbara Gershowitz, CA 91335

Daniel Greenbaum, CA 91335

Steven Kent, CA 91335

Betty Ross, CA 91335

Donna Silverman, CA 91335

Alma Melendez, CA 91340

Julia Arroyo, CA 91342

Diana Cabral, CA 91342

Anna Felix, CA 91342

Debra Lizarraga, CA 91342

Judy Courtney, CA 91343

Robin Dickerson, CA 91343

Gustavo Garcia, CA 91343

Robert Jones, CA 91343

Mohammed Manik, CA 91343

Chris Papio, CA 91343

Lewis Gruber, CA 91344

Lisa Jernagan, CA 91344

Margie Ridolfi, CA 91344

Jack Rorke, CA 91344

Debra Stafford, CA 91344

Albert Campbell, CA 91350

Victoria Davis, CA 91350

Richard Davis, CA 91351

Patrick Hayes, CA 91351

Tami Cox, CA 91354

Ellyn Frechette, CA 91354

Laura Lively, CA 91354

Zane Smythe, CA 91354

Monica Bellows, CA 91355

Julie Molinare, CA 91355

Mister Oshodi, CA 91355

Christopher Severance, CA 91355

Sarah Skilton, CA 91355

Linda Swartz, CA 91355

John Trudell, CA 91355

Ladae Bond, CA 91356

Michael Dibenedetto, CA 91356

Tina Glantz, CA 91356

Aaron Katz, CA 91356



Peter Marafatsos, CA 91356	Sara Hibbitts, CA 91362
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Sandra Orleans, CA 91356 Maxine Raleigh, CA 91362

Neil Reichline, CA 91356 Paula Varblow, CA 91362

Manindersethi Sethi, CA 91356 Jill Whitesides, CA 91362

Neil Soltman, CA 91356 Joey Dianda, CA 91364

Walter Virginia, CA 91357 John Edelston, CA 91364

Arlene Bloom, CA 91360 Irene Escardo, CA 91364

Josie Borkan, CA 91360 Ardeshir Farah, CA 91364

Patricia Bowen, CA 91360 Liz Golombek, CA 91364

Ronald Clyburn, CA 91360 Jeffry Pittman, CA 91364

David Courtland, CA 91360 Karen Spencer, CA 91364

Karen Giacalone, CA 91360 Sharla Bridgett, CA 91367

Manuel Gonzalez-Olmo, CA 91360 Deborah Cohen, CA 91367

Anna Matthews, CA 91360 Angela Deluca, CA 91367

Michael Pittas, CA 91360 Robert Dyck, CA 91367

Raquel Robinson, CA 91360 John Elder, CA 91367

Gary Schattl, CA 91360 Lisa Insana, CA 91367

Kristin Dark, CA 91361 Charles Lagola, CA 91367

Lewis Fairley, CA 91361 John Liddy, CA 91367

Suzan Kavusi, CA 91361 Christopher Matted, CA 91367

Cindy Masci, CA 91361 Luz Rockey, CA 91367

Marianne Reeves, CA 91361 Melinda Romeo, CA 91367

Andrea Richard, CA 91361 Daniel Zagayer, CA 91367

Ravi Sawhney, CA 91361 John Billesdon, CA 91377

Suzette Sheweloff, CA 91361 Margaret Han, CA 91377

Brigitte Cox, CA 91362 Jana Hand, CA 91377

Karen Drees, CA 91362 Samantha Hart, CA 91377

Cyndi Ex, CA 91362 Amy Keys, CA 91377

Debra Gass, CA 91362 David Robinson, CA 91377



Miklos Wright, (CA 91384
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Rose Duarte, CA 91387

Lynn Farwell, CA 91387

Folahan Ogunyankin, CA 91387

Faith Jackson, CA 91394

Christina Anthony, CA 91401

Carolyn Collum, CA 91401

Lauren Dimascio Hilary, CA 91401

Alice Engelmann, CA 91401

Kathy Foley, CA 91401

Tanya Gradet, CA 91401

Jessica Hicks, CA 91401

Jodi Kustanovich, CA 91401

Brenda Miller, CA 91401

Corey Reed, CA 91401

Tami Tirgrath, CA 91401

Kathleen Gooley, CA 91402

Julie Peterson, CA 91402

Carol Baumzweiger, CA 91403

Rene Compean, CA 91403

Pete Decoste, CA 91403

David Frederick, CA 91403

Frances Garcia, CA 91403

Rome Mendheim, CA 91403

Emily Rehm, CA 91403

Nina Berry, CA 91405

Joann Gonzalez, CA 91405

Jeana Mamer, CA 91405

Maria Perez, CA 91405

Mary Pittelli, CA 91405

Brian Saulter, CA 91405

Andrea Tullio, CA 91405

Norma Castro, CA 91406

Melissa Elliott, CA 91406

Richard Follett, CA 91406

James Kimmel, CA 91406

Jean Mensing, CA 91406

Jenny Benjamin, CA 91411

Lilia Espino, CA 91411

Stephanie Hail, CA 91411

Melinda Liberatore, CA 91411

Rhonda Britten, CA 91423

Patrick Fabian, CA 91423

Chiara Gambini, CA 91423

Cheryl Kopitzke, CA 91423

Vicky Leiner, CA 91423

Hannah Lipow, CA 91423

Michael Mccoll, CA 91423

Chandra Padover, CA 91423

Stan Rogow, CA 91423

Sara White, CA 91423

K Andrews, CA 91436

Barbara Bresler, CA 91436

Tracy Danza, CA 91436

Tara Gallogly, CA 91436

Alan Gerson, CA 91436

Jamie Grossman, CA 91436

Hannah Mandel, CA 91436

David Miller, CA 91436

Katrina Parks, CA 91436





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William Bilton, CA 91501

Peter Carrisoza, CA 91501

Norma Long Smith, CA 91501

Sarah Min, CA 91501

Penny Moore, CA 91501

Barbara Chalsma, CA 91502

Lonnie Schnell, CA 91502

Ellen Burns, CA 91504

Jb Dlugo, CA 91504

Jane Gagle, CA 91504

Gerardo Lorenz, CA 91504

Denise Petski, CA 91504

Lana Wilson, CA 91504

Barbara Bali, CA 91505

Ramona Banuelos, CA 91505

Roberto Ceja, CA 91505

Lydia Delaney, CA 91505

Terry Gwilt, CA 91505

Clayton Holt, CA 91505

Cynthia Mazza, CA 91505

Lynda Morris, CA 91505

Christopher Nicholson, CA 91505

Gloria Rodriguez, CA 91505

Laura Strubing, CA 91505

Carole Tyminski, CA 91505

Peter Wood, CA 91505

Lauren Dean, CA 91506

Lindsey Gary, CA 91506

Joseph Lafalce, CA 91506

Debbie Peterson, CA 91506

Ada Suros, CA 91506

Aaron Berjohn, CA 91601

Carole Meyers, CA 91601

Matthew Murphu, CA 91601

Nicholas Schutz, CA 91601

Greg French, CA 91602

Catherine Genovese, CA 91602

Pamela Hannah, CA 91602

Julie James, CA 91602

David Kemker, CA 91602

Diane Wilson, CA 91602

Jeff Aldrich, CA 91604

Claire Austin, CA 91604

Joshua Bobrowsky, CA 91604

Monica Brown, CA 91604

Sherri Elkaim, CA 91604

Barbara Epstein, CA 91604

Tim Farish, CA 91604

F Forte, CA 91604

Hayley Frazier, CA 91604

Kellie Green, CA 91604

Cynthia Hasday, CA 91604

Alma Hernandez, CA 91604

Masako Ichino, CA 91604

Jeffrey Kaufman, CA 91604

Amy Larkowski, CA 91604

Christine Mantilla, CA 91604

Mary Kay Griepentrog, CA 91605

Anthony Karlic, CA 91605





Richard K	Celley,	CA	91605
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Myrna Garcia, CA 91606

Janet Hessert, CA 91606

Pattie Tierce, CA 91606

Carl Amodeo, CA 91607

Toby Brody, CA 91607

Chloe Castro, CA 91607

Robert Laskin, CA 91607

Timothy Malcolm, CA 91607

Julie Shemitz, CA 91607

Barbara Singer, CA 91607

Daamen Krall, CA 91610

Alba Boren, CA 91701

Victoria Chestnut, CA 91701

Michelle Dudek, CA 91701

Beverly Pearson, CA 91701

America Rivas, CA 91701

Rose Blanco, CA 91702

Ana Juarez, CA 91702

Lisa Oakes, CA 91702

Jon Sparks, CA 91702

Gregory Vaniman, CA 91702

Linda Bolella, CA 91706

Lisa Cunningham, CA 91709

Luis Nino, CA 91709

Evangeline Obrero, CA 91709

Pamela Pederson, CA 91709

Artan Qerushi, CA 91709

Agnes Ferrer, CA 91710

Kimberly Goodwin, CA 91710

Gregory Lawson, CA 91710

Cathy Mergaert, CA 91710

Naomi Miller, CA 91710

Bernard Karmatz, CA 91711

Daeho Kim, CA 91711

Mary Kraus, CA 91711

Elizabeth Spinrads, CA 91711

Christine Zivelonghi, CA 91711

Michael Bond, CA 91722

Michelle Cozad, CA 91722

Carl Molitor, CA 91722

Joyce Mitchell, CA 91723

Steven Jimenez, CA 91724

Dana Veit, CA 91724

Gilbert Ahumada, CA 91730

Karen Desimone, CA 91730

Edward Hays, CA 91730

Demetria Johnson, CA 91730

Marva Taylor, CA 91730

Phyllis White, CA 91730

David Sandoval, CA 91732

Cherie French, CA 91737

Tammy Wilson, CA 91737

Maria Mendoza, CA 91739

Wanda Peyton, CA 91739

Tedd Johnson, CA 91740

Andy Wang, CA 91740

Fred Beck, CA 91741

Steven Concidine, CA 91741

Kristine Nelson, CA 91741



Michael	Carr.	CA	91744

Jacqueline Cellian, CA 91744

Hector Estrada, CA 91744

Enrique Duenas, CA 91745

Irene Loh, CA 91745

Rebecca Meyer, CA 91745

Gabrielanthony Murillo, CA 91745

Mary Rubalcava, CA 91746

Marilyn Bidwell, CA 91750

Dale Gibboney, CA 91750

Bonnie Karlyle, CA 91750

Martha Smith, CA 91750

Kelly Whittington, CA 91750

Warren Winter, CA 91750

Matthew Leal, CA 91752

Alysa Majer, CA 91752

Yip Johnson, CA 91754

Jack Loh, CA 91754

Allan Shatkin, CA 91754

Lucille Dimmick, CA 91761

Mark Iannuzzo, CA 91761

Marcia Sedillo, CA 91761

Jerry Weems, CA 91761

GEORGIANN SLINGERLAND, CA 91762

Graciela Gambino, CA 91763

Wendi Cate, CA 91764

David Taylor, CA 91764

Judith Aguilera, CA 91765

Gary Davis, CA 91765

Varun Dutt, CA 91765

Jean Garcia, CA 91765

Samuel Johnson, CA 91765

Greg Krayser, CA 91765

Hugh Lawrence, CA 91765

Mamie Lindsey, CA 91765

So Pak, CA 91765

Tammi Senzaki, CA 91765

Rosa Lara, CA 91766

Guillermo Monterroso, CA 91766

William Pospishil, CA 91766

Erlene Stevenson, CA 91766

John Valadez, CA 91766

Melissa Crowley, CA 91767

Bryn Pellegrino, CA 91767

Christianne Aurouze, CA 91768

Erlinda Fantauzzi, CA 91770

Jose Meji, CA 91770

Carol Bowe, CA 91773

Remedios Gan, CA 91773

Andrew Ortiz, CA 91773

Nosakhare Oyemade, CA 91773

Renee Taylor, CA 91773

Edward Aguirre, CA 91775

Brooks Atherton, CA 91776

Arlene Rios, CA 91776

Lynn Castro, CA 91780

Agustin Jimenez, CA 91780

Maria Skilbred, CA 91784

Jaymi Abusham, CA 91786

Socorro Garcia, CA 91786





Jeff	Mccal	ll. CA	917	'86

Marco Ramirez, CA 91786

Ed Clemensen, CA 91789

Vilma Takamine, CA 91789

Carol Tang, CA 91789

Gregory Newcomer, CA 91790

Mary Silverstein, CA 91791

Jeanne Ambriz, CA 91792

Ariadna Arambula, CA 91801

Daniella Cota, CA 91801

Richard Spindler, CA 91801

Erika Kao, CA 91802

Lothar Imbior, CA 91803

Tiffany Wardloveland, CA 91803

Eduardo Becerra, CA 91902

Richard Hanks, CA 91902

France Williams, CA 91902

Soledad Boucree, CA 91910

Osadolor Godwin, CA 91910

Blanca Lopez, CA 91910

Jose Puente, CA 91910

Elizabeth Verastigue, CA 91910

Debra Ashley, CA 91911

Maurice Gray, CA 91911

Alan Palmer, CA 91911

Wendy Shurelds, CA 91911

Keith Hammond, CA 91913

Seoul Holloway, CA 91913

Hung Nguyen, CA 91913

Vilma Clariza, CA 91915

Fernando Delgado, CA 91915

George Hurt, CA 91915

Linda Petty, CA 91915

Kimberly Williams Kee, CA 91915

Kevin Collier, CA 91935

Fred Gordon, CA 91941

Bebi Rosa, CA 91941

John Barrios, CA 91942

Mary Fay, CA 91942

Mark Forte, CA 91942

Chelsea Halpine Berger, CA 91942

Susan Kawar, CA 91942

Mimi Lev, CA 91942

Barbara Lueder, CA 91942

Marjorie Mclaughlin, CA 91942

Susan Mullaney, CA 91942

Patricia Cortez, CA 91945

Matt Niles, CA 91945

Caitlin Wion, CA 91945

Josefina Alvarado, CA 91950

Patricia Salazar, CA 91950

David Valladolid, CA 91950

Angello Carlin, CA 91977

Jason Heil, CA 91977

Carrie Lopez, CA 91977

Karen Simpson, CA 91977

Delores Threatt, CA 91977

Cheryl Carr, CA 91978

Shawn Hanna, CA 92007

Alana Howell, CA 92007



Laurel Howard, CA 92008

Megan Rounds, CA 92008

William Betts, CA 92009

Linda Brenner, CA 92009

Rene Brunold, CA 92009

Megan Dewitt, CA 92009

Christine Dicken, CA 92009

Amal Ghazi, CA 92009

Tiffany Karnig, CA 92009

Judith King, CA 92009

Phillip Nguyen, CA 92009

Gina Pisello, CA 92009

Faramarz Rassouli, CA 92009

Jacqui Schneider, CA 92009

John Detreville, CA 92010

Veronica Glaser, CA 92010

Linda Vancea, CA 92010

Elizabeth Hamelin, CA 92011

Brenna Hardman, CA 92011

Cheryl Bianchi, CA 92014

Samuel Engel, CA 92014

John Erick, CA 92014

Janet Harris, CA 92014

Kay Hoeprich, CA 92014

Candace Lowry, CA 92014

Deanna Lucci, CA 92014

Rand Steiger, CA 92014

Marie Teehan, CA 92014

Kyle Williams, CA 92014

Robert Brandenburg, CA 92019

Tracy Clingan, CA 92019

Veronica Atilano, CA 92020

Dvora Fajerman, CA 92020

Frank Ferrone, CA 92020

Janet Kaiser, CA 92020

Edward Matus, CA 92021

Joan Monkman, CA 92021

Woody Wilson, CA 92021

Cynthia Clark, CA 92023

Misty Andersen, CA 92024

Caroline Augustine, CA 92024

Stephen Baldini, CA 92024

Michele Haber, CA 92024

Richard Hauger, CA 92024

Ann Irwin, CA 92024

Anand Janaswamy, CA 92024

Maureen Kowba, CA 92024

Sarah Mason, CA 92024

Laura Metzinger, CA 92024

Meaghan Oleary, CA 92024

Mark Sonnenshein, CA 92024

Karen Sulger, CA 92024

Ellen Trester, CA 92024

Susan Giroux, CA 92025

Timothy Jarrett, CA 92025

Carmen Ivins, CA 92026

Kimberly Marin, CA 92026

Julie Choi, CA 92027

Mitchell Green, CA 92027

George Kliassov, CA 92027





Konstantin Sheverdyayev,	CA	92027
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Susan Beld, CA 92028

Patricia Eastman, CA 92028

Ernest Holburt, CA 92028

Richard Mannino, CA 92028

Diane Parker, CA 92028

Samuel Pietrofeso, CA 92028

Kenneth Samuels, CA 92028

Tom Simmons, CA 92028

Richard Beck, CA 92029

Thomas Hearn, CA 92029

Robert Knaier, CA 92029

Neal Henderson, CA 92030

Robert Blanchard, CA 92037

Barry Bloom, CA 92037

Elizabeth Boyer, CA 92037

Isabel Brown, CA 92037

Brian Campion, CA 92037

Gary Ferdman, CA 92037

Michelle Lerach, CA 92037

Megan Phelps, CA 92037

Oliver Polo, CA 92037

David Thompson, CA 92037

Christopher Jrfisher, CA 92038

Kirk Sword, CA 92040

Barbara Thompson, CA 92040

William Crawford, CA 92049

Thomas Gougherty, CA 92049

John Collins, CA 92052

Carolyn Boone, CA 92054

Susan Buckland, CA 92054

Joseph Calvino, CA 92054

Jason Edwards, CA 92054

John Engel, CA 92054

Patricia Hopper, CA 92054

Christopher Martin, CA 92054

Mark Minkler, CA 92054

Luke Tesluk, CA 92054

Rita Atkinson, CA 92056

William Boston, CA 92056

Rudy Carino, CA 92056

Thomas Labrot, CA 92056

Edward Mankowski, CA 92056

Julie Scott, CA 92056

Natalie Byler, CA 92057

Michael Caracappa, CA 92057

Mark Gillen, CA 92057

Eva Gonzalez, CA 92057

Frank Jacobs, CA 92057

Kelly Kissinger, CA 92057

Laurie Lister, CA 92057

Suzanne Schaefer, CA 92057

Michael Schwalbe, CA 92057

Beverly Stiles, CA 92057

Charlotte Turner, CA 92057

Victoria Volmer, CA 92057

Anna Hamrick, CA 92058

Adrienne Marraccini, CA 92058

Michele Engel, CA 92064

Tom Fahrnkopf, CA 92064





Belinda	Haire,	CA	92064	-
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Sharon Hanson, CA 92064

Pamela Keyser, CA 92064

Christopher Nielsen, CA 92064

Maria Stravelakis, CA 92064

Deborah Supergan, CA 92064

April West, CA 92064

Andrea Whitehill, CA 92064

Connie Bley, CA 92065

Eileen Coppola, CA 92065

Paul Firth, CA 92065

Sandra Smith, CA 92065

Michael Gelfand, CA 92067

Nannette Davis, CA 92069

Mary Houle, CA 92069

Howard Motyl, CA 92069

Christina Baumgardner, CA 92071

Darlene Jenkins, CA 92071

Hugo Lepur, CA 92071

Phillip Panuco, CA 92071

Viki Wong, CA 92071

Cathryn Bolt, CA 92075

Jean-Louis Saillot, CA 92075

Tauna Andreoli, CA 92078

Melanie Bennetts, CA 92078

Susan Bowers, CA 92078

Jessica Lynn, CA 92079

Alex Alavi, CA 92081

Annette Berg, CA 92081

Peter Boutte, CA 92081

Bonita Lang, CA 92081

Matilda Mclaughlin, CA 92081

Michael Santucci, CA 92081

Rosemarie Bilandzija, CA 92082

Marcia Francis, CA 92083

Brenda Squires, CA 92083

Karen Eso, CA 92084

Marilyn Falsetti, CA 92084

Anne Ichord, CA 92084

Peter Jones, CA 92084

Shelley Markoscrivner, CA 92084

Julianne Howell, CA 92093

Steve Altman, CA 92101

Melissa Blackburn Joniaux, CA 92101

Christina Cole, CA 92101

Joe Cordileone, CA 92101

Drew Dunk, CA 92101

Joshua Gruenberg, CA 92101

Chana Grunvald, CA 92101

Ann Hart, CA 92101

Brad Herrin, CA 92101

Bruce Jaques, CA 92101

Jeff Jordan, CA 92101

Joshua Kuehler, CA 92101

Gregory Lockyer, CA 92101

Charley Myers, CA 92101

Henry Rosen, CA 92101

Jon Ruelle, CA 92101

Julie Smith, CA 92101

Kaylan Thornhill, CA 92101





Kelly Vandenheuvel, CA 92101

Leonard Flagg, CA 92102

Christian Bulcao, CA 92103

Elise Curry, CA 92103

Bradley Foltz, CA 92103

Wayne Maxwell, CA 92103

Mary Padial, CA 92103

Jack Ray, CA 92103

Richard Thill, CA 92103

Judybeth Tropp, CA 92103

Viridiana Ayala, CA 92104

Sandrs Chambers, CA 92104

Amber Ferguson, CA 92104

Derek Floyd, CA 92104

Emily Greeno, CA 92104

Susan Groves, CA 92104

Janine Harty, CA 92104

Albert Orcino, CA 92104

Nancy Relaford, CA 92104

Robert Silbaugh, CA 92104

Todd Simpson, CA 92104

Michelle Sullivan, CA 92104

Lynne Graham, CA 92105

Eric Green, CA 92105

Margarita Jimenez, CA 92105

Christopher Rocha, CA 92105

Jennifer Boyd Mims, CA 92106

Kirsten Chrisman, CA 92106

Luther Lewis, CA 92106

John Silva, CA 92106

Tasha White, CA 92106

Cindy English, CA 92107

Alison Gang, CA 92107

Daniel Garcia, CA 92107

Zac Garripoli, CA 92107

Shanann Klaver, CA 92107

Amber Rabon, CA 92107

Jaime Bartholomew, CA 92108

Edward Billard, CA 92108

Sharon Brown, CA 92108

Helios Gonzalez, CA 92108

Lynn Jarman, CA 92108

Kim Myers, CA 92108

George Salcedo, CA 92108

Alejandra Bobadilla, CA 92109

Thomas Cooper, CA 92109

Hillary Cowan, CA 92109

Mary Oreilly, CA 92109

Rogelio Quesada, CA 92109

Arlina Whetstone, CA 92109

Joseph Atkinson, CA 92110

John Goodwin, CA 92110

Jennifer Latta, CA 92110

Jason Raymond, CA 92110

John Seymour, CA 92110

Barbara Thomas, CA 92110

Janis Cadwallader, CA 92111

John Comes, CA 92111

Carolyn Floyd, CA 92111



Debra Frischer, CA 92111

Virginia Holcomb, CA 92111

Yael Kosta, CA 92111

Ana Saucedo, CA 92111

Yolanda Peraza, CA 92113

Yolandra Thrash, CA 92113

REBECCA CORREA, CA 92114

Vivian Griffin, CA 92114

Kelly Wallace, CA 92114

Forest Fischer, CA 92115

Kelly Gavin, CA 92115

Holly Hamilton, CA 92115

Jerry Mackenzie, CA 92115

Robert Snider, CA 92115

Drew Gingrich, CA 92116

Robert Hauer, CA 92116

Paul Hemmerling, CA 92116

Pfeiffer Ledjema, CA 92116

Herbert Schwab, CA 92116

Janeth Alvarez, CA 92117

Gisela Baranda, CA 92117

John Brady, CA 92117

Tim Caulder, CA 92117

David Fisher, CA 92117

Barbara Rolando, CA 92117

Greg Wong, CA 92117

Anneilynn Wright, CA 92117

Kevin Ashley, CA 92118

Shane Chase, CA 92118

Patti Flanagan, CA 92118

Ann Posthill, CA 92119

Evangelina Woo, CA 92119

Christopher Hall, CA 92120

Kristina Isberg, CA 92120

Kristin Anderson, CA 92121

Michael Buckley, CA 92121

John Ginn, CA 92121

Kim Bolivar, CA 92122

Anne Brinkman, CA 92122

Christine Esau, CA 92122

Paula Fitzgerald, CA 92122

Nancy Kern, CA 92122

Brandon Messerly, CA 92122

Marie Minnick, CA 92122

Rosemary Straley, CA 92122

Andrew Utley, CA 92122

Dina Beebe, CA 92123

Loretta Lowery, CA 92123

Martha Romero, CA 92123

Arash Yarpezeshkan, CA 92123

Glenn Buberl, CA 92124

Anne Nohelty, CA 92124

Margarita Badaraco, CA 92126

Jennifer Betancourt, CA 92126

Melissa Fraser, CA 92126

Alfredo Iglesias, CA 92126

Ann Rael, CA 92126

Shawn Romero, CA 92126

Debra Sigal, CA 92126

Charles Smith, CA 92126





	Brenda	Johnson,	CA	92127
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Kathleen Nahman, CA 92127

Nora Nido, CA 92127

Leslie Taylor, CA 92127

Anthony Franchino, CA 92128

Pat Lampasso, CA 92128

Mark Stutzman, CA 92128

Manisha Varaiya, CA 92128

Jacob Wheatley, CA 92128

Cynthia Fehrenbach, CA 92129

Nathalie Gill Podgorski, CA 92129

Katherine Holvoet, CA 92129

Taylor Israel, CA 92129

Courtney Kaull, CA 92129

Lindsay Moon, CA 92129

Debra Sammon, CA 92129

Sue Berard, CA 92130

Donna Durlak, CA 92130

Betty Garbutt, CA 92130

Genevieve Goldstone, CA 92130

Michael Hartogs, CA 92130

Charles Holland, CA 92130

Mario Petrocco, CA 92130

Deborah Wheeler, CA 92130

Matthew Hetrick, CA 92131

Ethan Marcus, CA 92131

Edlene Mckenzie, CA 92131

James Mullen, CA 92131

Robert Shull, CA 92131

Mayra Arellano, CA 92154

Valerie Haas, CA 92154

Kimberly Morgan, CA 92154

Andrea Stella, CA 92154

Larosa Watson, CA 92154

Carolyn Hollins, CA 92160

Susan Blum, CA 92166

Alex Munguia, CA 92193

Maria Eustice, CA 92201

Linda Harris, CA 92201

Patrick Knox, CA 92201

Jacqueline Lopez, CA 92201

Rhona Bader, CA 92203

Lori Dermer, CA 92203

Kathleen Murray, CA 92203

Francis Fashing, CA 92211

Norene Fremont-Bloom, CA 92211

Cheryl Matthews-Fullerton, CA 92211

Donna Mccloudy, CA 92211

Pam Parker, CA 92211

Frederick Schmidt, CA 92211

Earle Wolfe, CA 92211

Cheryl Hopkins, CA 92220

Lyn Johnson, CA 92220

Misty Lane, CA 92220

William Mccloud, CA 92220

Susan Bonner, CA 92223

Loui Cronholm, CA 92223

Anita Finkelstein, CA 92223

Janet Reed, CA 92223

Lori Robillard, CA 92223





Cvilvio	Diago	$C \lambda$	ดวววว
Syrvia	Diego,	CA	92221

Chryssa Brazil, CA 92234

Heidi Holmes, CA 92234

Edith Lascola, CA 92234

Dale Meyer, CA 92234

Donald Moore, CA 92234

Scott Randall, CA 92234

Victor Rodriguez, CA 92234

Sydney Skosana, CA 92234

Kent Taylor, CA 92234

Sarah Vazquez, CA 92234

Lilian Velasquez, CA 92234

George Williamson, CA 92234

Zee Wong, CA 92234

Linda Bjornberg, CA 92240

Ronald Scheer, CA 92240

Victoria Escalante, CA 92243

Akbar Zadeh, CA 92243

Sandy Villa, CA 92251

Mary Hitchcock, CA 92252

Linda Perry, CA 92252

Thomas Burbank, CA 92253

Jackie Grenz, CA 92253

Emmett Lewis, CA 92253

Walter Nelson, CA 92253

Sharon Prentice, CA 92253

Jim Watson, CA 92253

Nancy Woodruff, CA 92253

Mark Chappell, CA 92256

Jayne Combs, CA 92256

Michael Foster, CA 92256

Gregory Bauer, CA 92260

Sharon Beckman, CA 92260

Frances Ferguson, CA 92260

Shirley Findlay, CA 92260

Genevieve Judge, CA 92260

Barbara Marx, CA 92260

Robert Nowie, CA 92260

Ilene Schimmel, CA 92260

Kimberly Valentine, CA 92260

Myriam Westendorf, CA 92260

Steven Bean, CA 92262

Clayton Blackburn, CA 92262

Robert Brandt, CA 92262

Justin Ceeko, CA 92262

Martin Foster, CA 92262

Brandon Hoskins, CA 92262

Brian Ingelson, CA 92262

John Mahoney, CA 92262

John Meyer, CA 92262

Victor Pellegrini, CA 92262

Vonne Ringle, CA 92262

Julian Smariga, CA 92262

David Wallace, CA 92262

Richard Witzel, CA 92262

Sally Goodman, CA 92263

Rosemarie Olecki, CA 92263

Jane Stampe, CA 92263

Deanne Anders, CA 92264

William Bodine, CA 92264



Mary Humfeld, CA 92264

Patricia Martin, CA 92264

Kathleen Mcelvarrgarrity, CA 92264

Philip Sacino, CA 92264

Mark Steffen, CA 92264

Leland Vandeventer, CA 92264

Abby Winston, CA 92264

Paul Addison, CA 92270

Shirelle Alexander, CA 92270

Judith Ankney, CA 92270

Bruce Flamenbaum, CA 92270

David Lacharite, CA 92270

Annamarie Viglizzo, CA 92270

Barbara Wiesen, CA 92270

Beth Windsor, CA 92270

Judy Wright, CA 92270

Susan Trexler, CA 92274

Lisa Ayres, CA 92276

Robert Hofmann, CA 92277

James Knight, CA 92277

Vanessa Souza, CA 92277

Laura Valentine, CA 92277

David Woods, CA 92277

Jace Ribblett, CA 92284

Ned Porter, CA 92308

Karen Proctor, CA 92313

Cindy Lalonde, CA 92315

Annette Johnson, CA 92316

Patricia Cuesta, CA 92317

Loretta Airaghi, CA 92321

Kofi Donkor, CA 92324

Megan Mescher, CA 92324

Kenneth Vandusen, CA 92325

Elsa Murdoch, CA 92333

Sunshyne Leyba, CA 92336

Franci Taylor, CA 92337

Margo Alexander, CA 92342

Holly Miller, CA 92345

Adriene Moore, CA 92345

Catherine Smith, CA 92345

Shelley Valadez, CA 92345

Nicholas Warino, CA 92345

Lynette Adelson, CA 92346

Barbara Leelhasuwan, CA 92346

Michela Ratto, CA 92346

Dean Sundquist, CA 92346

James Ferranti, CA 92352

David Bee, CA 92354

Richard Guth, CA 92354

Rivera Nivar, CA 92359

David Leonard, CA 92363

Urvashi Barua, CA 92373

Judith Whitehouse, CA 92373

Chris Clautice, CA 92374

Yolanda Garnicahickey, CA 92374

Keith Moore, CA 92374

Randy Morris, CA 92374

Alex Zhigimont, CA 92374

Toni Formby, CA 92376

Stephanie Gleason, CA 92376





Adeline	Rosa	les, C <i>A</i>	A 92376
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Cheryl Pirih, CA 92378

Rosalie Redmile, CA 92382

Sarah Hatchell, CA 92386

Connie Harris, CA 92392

Juanita Murray, CA 92392

Linda Neumaier, CA 92392

Michael Oliver, CA 92392

Eddie Smith, CA 92392

Lydia Burks, CA 92394

Roberto Cardenas, CA 92394

Evelia Gomez, CA 92394

Lee Arvinger, CA 92395

Ariene Bennett, CA 92395

Marsha Owens, CA 92395

Sharon Dougherty, CA 92397

Kathryn Boatman, CA 92399

Gay Hardy, CA 92399

Heather Longyear, CA 92399

Helen Reynaud, CA 92399

Severiana Jordan, CA 92404

Susan Fleming, CA 92501

Dianne Hughes, CA 92501

Shavon Shegog, CA 92501

Gabriel Flores, CA 92503

Sandra Neal, CA 92503

Kathy Sutherland, CA 92503

Paula Allbeck, CA 92504

Melissa Banda, CA 92504

Jason Hackman, CA 92504

Ladanta Heriman, CA 92504

Martin Martinez, CA 92504

Tiffany Farr, CA 92505

Juanita Mckenzie, CA 92505

Kathy Mcneilly, CA 92505

Kimberly Romero, CA 92505

Jonathan Green, CA 92506

Debra Rivera, CA 92506

Robin Sinkhorn, CA 92506

Stephanie Stolzenberg, CA 92506

Glenn Williams, CA 92506

Michael Esparza, CA 92507

Nora Moti, CA 92507

Natalie Ralston, CA 92507

Emma Wilson, CA 92507

Shihui Yang, CA 92507

Ruth Lumsdon, CA 92508

Ellen Schaub, CA 92508

Suzanne Ramirez, CA 92509

Lorena Torres, CA 92509

Marty Torres, CA 92509

Jayson Sandoval, CA 92517

Ana Cotton, CA 92521

George Rolla, CA 92530

Linda Taylor, CA 92530

Au Ngo, CA 92532

Richard Provencio, CA 92532

Sylvia Ross, CA 92532

Debra Person, CA 92543

Margaret Marsden, CA 92544





Anthony M	loya, CA	92544
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Lisa Ostrow, CA 92544

Mark Branyon, CA 92548

Charles Meece, CA 92549

Paul Martin, CA 92553

Lilia Salais, CA 92553

Monica Woodward, CA 92553

Timothy Cobos, CA 92555

Carola Fabiola Galvez, CA 92555

David Hyde, CA 92557

Renee Osburn, CA 92557

Carlos Morfin, CA 92561

Shawn Hug, CA 92562

Jan Principe, CA 92562

Marsha Burkhalter, CA 92563

Chanstay Corlew, CA 92563

Robert Decubellis, CA 92563

Dorothy Gerard, CA 92563

Wilbur Miller, CA 92563

Paul Smith, CA 92563

Billie Kelpin, CA 92567

Linda Adams, CA 92570

Johnny James, CA 92570

Valerie Jones, CA 92570

Fred Pedregon, CA 92570

Robert Gyngard, CA 92582

Angela Johnson, CA 92582

Chris Amestoy, CA 92584

Karen Marshall, CA 92584

Dolore Scorzo, CA 92584

Charlotte Shifflet, CA 92584

Laurie Stuart, CA 92585

Debra Hall, CA 92586

Carol Luevano, CA 92586

Sheila Monaghandavis, CA 92586

Shari Palmer, CA 92586

Veronica Poss, CA 92586

Eileen Snow, CA 92586

Linda Sproul, CA 92587

John Pozza, CA 92590

Michael Vantrojen, CA 92590

Patsy Calderon, CA 92591

Marcos Camacho, CA 92591

Dolores Esparza, CA 92591

Peggy Hagberg, CA 92591

Josie Madrid, CA 92591

Charyl Malanaphy, CA 92591

Bethany Rogers, CA 92591

Judi Thompson, CA 92591

Robert Audibert, CA 92592

Angelo Lingos, CA 92592

Michael Maginski, CA 92592

Dina Meir, CA 92592

Paul Randall, CA 92592

Danielle Shirley, CA 92592

Mary Vann, CA 92592

Robbin Abeer, CA 92595

Gene Aurand, CA 92596

Kathleen Marquez, CA 92596

Richard Alegre, CA 92602





Susan	Byrne,	CA	92602

Sarah Millerberg, CA 92602

Neda Moayedi, CA 92602

Phaeryn Sheehan, CA 92602

Tom Wiedemann, CA 92602

Youmin Zhao, CA 92602

Earl Biven, CA 92603

Paniz Ebrahimi, CA 92603

Debi Lambert, CA 92603

Jenny Lamott, CA 92603

Peggy Meadows, CA 92604

Gwen Oden, CA 92604

Justin Stone, CA 92604

Solaimani Ferri, CA 92606

Susan Leinberger, CA 92606

Douglas Mason, CA 92606

Patricia Messerly, CA 92606

Christine Penning, CA 92606

Nicole Kroesen, CA 92610

Kristen Allison, CA 92612

Karen Barnett, CA 92612

Paul Kiburis, CA 92612

Christina Krause, CA 92612

Frank Mcgill, CA 92612

Lynnann Williamson, CA 92612

Nira Brand, CA 92614

Maria Centeno, CA 92614

Raeleen Endo-Russell, CA 92614

Lin Hong, CA 92614

Tikiri Karunasundera, CA 92614

Steve Murow, CA 92614

Lori Wallace, CA 92614

Kathy White, CA 92614

Adriana Briscoe, CA 92617

Joanne Donovan, CA 92617

Tira Palmquist, CA 92617

Courtney Costello, CA 92618

Serap Frautschy, CA 92618

Jeffrey Reznic, CA 92618

Behraam Baqai, CA 92620

Michael Cobin, CA 92620

Adrienne Escoe, CA 92620

David Kapsner, CA 92620

Rieva Lesonsky, CA 92620

Mili Mehta, CA 92620

Clare Greene, CA 92624

Daniel Gil, CA 92625

Joanne Hunt, CA 92625

Patricia Mccormick, CA 92625

Bill Schenker, CA 92625

Ruth Silver, CA 92625

Tamar Wilson, CA 92625

Robert Getter, CA 92626

cristina mayer, CA 92626

Philip Mcgovern, CA 92626

Conor Sontag, CA 92626

Larry Weinheimer, CA 92626

Crystal Willis, CA 92626

Gerardo Ambriz, CA 92627

Steven Behrens, CA 92627



Susan Forbath, CA 92627

Stephen Hennessey, CA 92627

Tracie Hoffman, CA 92627

Damian Perry, CA 92627

Laura Ricke, CA 92627

James Thomas, CA 92627

Donna Tranter, CA 92627

Axel Truwill, CA 92627

Janice Turner, CA 92627

Marie Wencel, CA 92627

Sherri Eaton, CA 92629

Jeff Fleming, CA 92629

Lisa Kopelman, CA 92629

John Kucera, CA 92629

Lisa Mckee, CA 92629

Richard Moran, CA 92629

Monte Yoder, CA 92629

Gretchen Adin, CA 92630

Linda Burkholder, CA 92630

Jose Cuevas, CA 92630

Michele Dinneen, CA 92630

irving engel, CA 92630

John Flora-Tostado, CA 92630

Elaine Froome, CA 92630

Connie Martin, CA 92630

Shaiko Mukurazhizha, CA 92630

Dejbakhsh Nader, CA 92630

Mary Brogdon, CA 92637

Debra David, CA 92637

Marilyn Giss, CA 92637

Ramesh Joshi, CA 92637

Anne Llewellyn, CA 92637

Debbie Lowe, CA 92637

Delilah Manary, CA 92637

Joseph Meyer, CA 92637

Barbara Sprayregen, CA 92637

Patricia Boyle, CA 92646

John Briody, CA 92646

Carol M. Correia, R.N., M.S., CA 92646

Mona Cortez, CA 92646

Kelly Elder, CA 92646

Ronald Gould, CA 92646

Steve Graham, CA 92646

Gabrielle Hass, CA 92646

Jennifer Jahnke, CA 92646

Sally Kanarek, CA 92646

suzanne lockhart, CA 92646

Maria Mastropaolo, CA 92646

Ginette Nourse, CA 92646

MOKHTAR SHAWKY, CA 92646

Kathy Wanchek, CA 92646

Lisa Welcher, CA 92646

Joseph Harris, CA 92647

Patrick Kennedy, CA 92647

David Kurien, CA 92647

Becky Roepke, CA 92647

Rosemary Rosales, CA 92647

Thomas Cammann, CA 92648

Kristine Cerone, CA 92648

Carole Fulford, CA 92648





Lieanoi Oruenebaum, CA 32040	Eleanor	Gruenebaum,	CA	92648
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Amy Hanson, CA 92648

Karen Kettler, CA 92648

Shelley Lowrey, CA 92648

Lisa Martinez, CA 92648

Timothy Murphy, CA 92648

Priscilla Taylor, CA 92648

Cheri Atkinson, CA 92649

Sarah Gibson, CA 92649

Tam Glunt, CA 92649

Randall Keeth, CA 92649

Rick Orr, CA 92649

Sarah Pirch, CA 92649

Rick Shearer, CA 92649

Tom Stanton, CA 92649

Sandra Hartness, CA 92651

Jolie Jensen, CA 92651

Glenna Lovett, CA 92651

Elsa Mitani, CA 92651

George Ripley, CA 92651

Alexander Rounaghi, CA 92651

Wendy Tenebaum, CA 92651

Lauren Dibiase, CA 92653

Valerie Estrada, CA 92653

Ivo Gough Eschrich, CA 92653

Courtney Kim, CA 92653

Bertha Torres, CA 92653

Socorro Alvarez, CA 92655

Quy Bao, CA 92655

Martha Ramirez, CA 92655

Lorie Cohen, CA 92656

Anne Dalluge, CA 92656

Melissa Deveikis, CA 92656

Rachel Felix, CA 92656

Dru Kaplan, CA 92656

Elizabeth Mcgrath, CA 92656

Maria Perez, CA 92656

Todd Schoedel, CA 92656

Kevin Steele, CA 92656

Linda Westlake, CA 92656

Lawrence Kugelman, CA 92657

Eugene Spiritus, CA 92657

Kevin Vuchinich, CA 92657

Toni Antonacci, CA 92660

Goli Aydin, CA 92660

John Dickinson, CA 92660

Lauren Henry, CA 92660

Robert Herbst, CA 92660

Jan Luymes, CA 92660

Yolanda Mendiveles, CA 92660

Peggy Pugh, CA 92660

Robert Hampton, CA 92661

Cheryl Freeman, CA 92663

Gina Gunal, CA 92663

Bonnie Jeannette, CA 92663

Wiliam Kirwin, CA 92663

Holly Thibodeaux, CA 92663

Mike Willison, CA 92663

Sherry Price, CA 92672

Theresa Recht, CA 92672





Leongah	Wheeler,	CA	92672
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Barbara Bernal, CA 92673

Amanda Einhorn, CA 92673

James Guilfoil, CA 92673

Anthony Hewes, CA 92673

Ronald Koby, CA 92673

Jessica Labbe, CA 92673

Janet Leger, CA 92673

Andrew Lichty, CA 92673

John Mairs, CA 92673

Steven Bellomo, CA 92675

Kirsten Mickelson, CA 92675

Mark Perez, CA 92675

Mark Rodrigues, CA 92675

Nicole Herold, CA 92676

Rhonda Baron, CA 92677

James Birdsall, CA 92677

Rosalind Chasman, CA 92677

Ellen Eber, CA 92677

Jacob Faigin, CA 92677

Thomas Fitch, CA 92677

Tina Freeland, CA 92677

Lara Horgan, CA 92677

Bahman Joorabchi, CA 92677

Gary Olson, CA 92677

Nader Peikar, CA 92677

Anne Perry, CA 92677

Jeanine Roche, CA 92677

Sadia Siddiqui, CA 92677

David White, CA 92677

Greg Young, CA 92677

Vicki Iacono, CA 92678

Marian Ballog, CA 92679

Peggy Calcagnie, CA 92679

Colleen Daniel, CA 92679

Jeffrey Dreyer, CA 92679

Michelle Graham, CA 92679

Stacy Hagen, CA 92679

Josefina Azcona, CA 92683

Regina Christ, CA 92683

Peter Haaker, CA 92683

John Parry, CA 92683

Viet Pham, CA 92683

Gina Thompson, CA 92683

Catherine Besselmanhuebscher, CA 92688

Robert Dorman, CA 92688

Purya Ghrabeti, CA 92688

Jennifer Jenrette, CA 92688

Erik Sandstrom, CA 92688

Phillip Woodham, CA 92688

Dorothy Andrews, CA 92691

Carolyn Cohn-Morros, CA 92691

Wesley Jung, CA 92691

Patrick Knotts, CA 92691

Priscilla Monroe, CA 92691

John Mooney, CA 92691

Amy Moore, CA 92691

Michael Sappingfield, CA 92691

Paul Swanson, CA 92691

Jolanta Woog, CA 92691





Enzabelli Arbiison, CA 92092	Elizabeth	Aronson.	CA	92692
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Dixie Auringer, CA 92692

Sher Azizi, CA 92692

Kenneth Ballan, CA 92692

Cheryl Boyett, CA 92692

Jack Brumfield, CA 92692

Joy Chart, CA 92692

Hamid Fadavi, CA 92692

Mary Glackin, CA 92692

Robert Gonter, CA 92692

Rita Knisely, CA 92692

Diane Nixon, CA 92692

Annette Ohuche, CA 92692

Pamela Perry, CA 92692

James Tam, CA 92692

Mark Delaurence, CA 92694

Susan Knapp, CA 92694

Greg Prouty, CA 92694

Jamie Browning, CA 92698

Jesus Adorno, CA 92701

Eliza Martinez, CA 92701

Simone Ponce, CA 92701

Robert Unetic, CA 92701

Manuel Villalba, CA 92703

Angel Cardoza, CA 92704

Veronica Lopez, CA 92704

Karen Allen, CA 92705

Florence Bishop, CA 92705

Robert Bowman, CA 92705

Christe Bruderlin-Nelso, CA 92705

Kathleen Calder, CA 92705

Santos Cortez, CA 92705

Louise Davy, CA 92705

Deborah Dean, CA 92705

Paula Gelman, CA 92705

Lydia Levin, CA 92705

Cherie Phipps, CA 92705

Maggie Ryan, CA 92705

Trisha Shipcott, CA 92705

Linda Warde, CA 92705

Laura Atkinson, CA 92706

Quan Dinh, CA 92706

Paula Gates, CA 92706

Natalie Rankin, CA 92706

Donna Drizin, CA 92707

Leanne Carter, CA 92708

Gayle Fenton, CA 92708

Heidi Nguyen, CA 92708

Eileen Powell, CA 92708

Gabriel Talavera, CA 92708

Lee Fink, CA 92780

Amy Greyson, CA 92780

Doris Kollias, CA 92780

Hillary Streichenberger, CA 92780

Gordon Thomson, CA 92780

Virginia Tibbetts, CA 92780

Patricia Schuck, CA 92781

Gonzalo Ferro, CA 92782

Ronald Imus, CA 92782

Susan Keefe, CA 92782



Quang Wong, CA 92782	Bryan Barboz, CA 92832

Brian Dang, CA 92801	Julie Dufau, CA 92832

Linda Vanwormer	CA 92808	Lorraine	Gurnari, CA 9	2865

Penny Bowman-Mcwright, CA 92821	Barbara Nelson, CA 92866
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Bruce Laclair, CA 92821 Terry Nowotarski, CA 92866
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I D- 1-: CA 02021	I11- F1 CA 02067
Lauren Perkins, CA 92821	Janelle Farkas, CA 92867

Joyce Wills, CA 92821 Kazuo Furusawa, CA 92867

Peter Lin, CA 92823 Prarthana Mohan, CA 92867

William Lackey, CA 92825 Janice Shelton, CA 92867

Maria Garcia, CA 92831 Jared Mendez, CA 92868

Joanna Johnson, CA 92831 Tawny Robinson, CA 92868

Sandra Park, CA 92831 Alan Aidekman, CA 92869

Leo Song, CA 92831 Ronald Dunbar, CA 92869

Kenny Tokusato, CA 92831 Kathryn England, CA 92869



Vicki James, CA 92869	Heather Aebi, CA 9300
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Saskia Knight, CA 92869 Mike Blacker, CA 93001

Gary Manulkin, CA 92869 Caryn Carroll, CA 93001

Everett Martinez, CA 92869 Dennis Hall, CA 93001

Thomas Rapport, CA 92869 Donald Hill, CA 93001

Charles Robinson, CA 92869 Barbara Urban, CA 93001

Patricia Duffie, CA 92870 Timothy Vandehey, CA 93001

Barbara Hearnes, CA 92870 Jojo Alvarez, CA 93003

Armando Morel, CA 92870 Bruce Barrios, CA 93003

Jacqueline Olivier, CA 92870 Carl Clapham, CA 93003

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Charlie Lachance, CA 92881 Benjamin Ayala, CA 93010

Peggy Mutsch, CA 92881 Margaret Doten, CA 93010

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Marguerite Mulhall, CA 92887 Margurite Stenberg, CA 93012

Jennifer Nichols, CA 92887 Linda Hernandez, CA 93013





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Denise Gravano, CA 93619





	Greg	Griffin,	CA	93619
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Elaine Mcgraw, CA 93744





Aramis Miller, CA 9374	Aramis	Miller.	CA	9374
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Dotti Letourneau, CA 94010

Lenny Low, CA 94010





Ramon Maghsoudi,	CA	94010
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Danielle Guttman, CA 94028

Paul Helce, CA 94028

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Helge Ternsten, CA 94028

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Ann Oleary, CA 94030

Yolanda Parker, CA 94030

Caitlin Reavey, CA 94030

Stephanie Allen, CA 94035





Joseph Armstead,	CA	94040
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Shreyes Seshasai, CA 94041

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Sudesh Singh, CA 94107

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Dernelio Echegoyen, CA 94112

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Melinda Frenkel, CA 94117

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Deborah Secrest, CA 95010

Mary January, CA 95014





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Kimberli Doty, CA 95030

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Jennifer Shepherd, CA 95030

Maryellen Burr, CA 95032

Tracey Fisher, CA 95032

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Pamela Price-Hawley, CA 95032

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Thuy Le, CA 95035

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Wendy Stegeman, CA 95035

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Joseph Charfauros, CA 95037

Orlando Davisson, CA 95037

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donna gatson, CA 95050

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David Ilumin, CA 95051

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Derrick Chang, CA 95054

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Larry Smith, CA 95054

Karen Berlin, CA 95060

Mckenna Booth, CA 95060

Wendy Chapman, CA 95060

Roger Emanuels, CA 95060

Elizabeth Hagan, CA 95060



Stephen	Kleshinski,	CA	95060
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Lelah Riccio, CA 95060

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Stephen Hartzell, CA 95117

Rosario Herrera, CA 95117

Charles Beazell, CA 95118

Gloria Brown, CA 95118

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Thomas Logan, CA	93110
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Lisa Ayala, CA 95121

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Renee Delacruz, CA 95136

Douglas Easley, CA 95136

Rolwin Lewis, CA 95136





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Jessica Lucas, CA 95148

Minda Vasquez, CA 95148

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Lavada Sullivan, CA 95370

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Pamela Lutchen, CA 95554





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Georgia Tardy, CA 95621

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John Camarra, CA 95624

Erin Dant, CA 95624

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Michael Radam, CA 95624

James Walls, CA 95624

Javier Lerma, CA 95626

Sandra Reed, CA 95627

Lynn Rolston, CA 95627





Benny	Barrios.	CA 95628
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Carrie Culver, CA 95628

Darius Davenport, CA 95628

Karen Hallagan, CA 95628

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David Neff, CA 95628

Coleman Newell, CA 95628

Jonathan Sachs, CA 95628

Kirsten Votaw, CA 95628

Dianna Batt, CA 95630

Soyab Huseinbhai, CA 95630

Frank Jacobs, CA 95630

Patrick Kelly, CA 95630

James Marsh, CA 95630

Michele Smith, CA 95630

John Thomas, CA 95630

Laural Hockenson, CA 95633

Charlyn Parker, CA 95638

Cheryl Bozzie, CA 95640

Jacqueline Butler, CA 95648

Leslie Cappelletti, CA 95648

Robert Christopherson, CA 95648

Theodore Cohen, CA 95648

B Franks, CA 95648

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Patricia Malberg, CA 95648

Donald Rives, CA 95648

Leslie Uyeno, CA 95648

Brooke Allison, CA 95650

Janis Jones, CA 95650

Michael Neal, CA 95650

Pamela Richards, CA 95650

Patrick Sayer, CA 95650

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Gloria Omania, CA 95651

Lorraine Osborn, CA 95660

Janis Arredondo, CA 95661

F Chalmers, CA 95661

Paul Fisher, CA 95661

Joyce Frederick, CA 95661

Sheryl Gray, CA 95661

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Brooke Whitlock, CA 95661

Lynn Yamamoto, CA 95661

Dan Durrant, CA 95662

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Brett Pittman, CA 95664

Jacob Rosano, CA 95664

Mary Hickcox, CA 95665

William Dye, CA 95666

Shirley Trent, CA 95666

Susan Turner, CA 95666

Julie Collier, CA 95667

Alison Gimpel, CA 95667

Mark Thoma, CA 95667

Michaele Beebe, CA 95670

Dale Hatt, CA 95670

Jane Pearce, CA 95670





Mary	Purvis,	CA	95670
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Mary Yaryan, CA 95670

Owen Davies, CA 95672

Cheryl Abernathy, CA 95673

Jennifer Wells, CA 95674

Lana Gartin, CA 95677

Jill Matney, CA 95677

Mary Pitcher, CA 95677

Melinda Wetzel, CA 95677

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Helane Seikaly, CA 95678

Sylvia Escobar, CA 95682

Patricia Felten, CA 95682

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Derek Backus, CA 95691

Terri Mccall, CA 95691

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Reuben Schilling, CA 95694

Deanna Petersen, CA 95695

Robert Pratt, CA 95695

Christine Russell, CA 95695

Lori Shaw, CA 95695

Jennifer Cantrell, CA 95701

Adrienne Arnold, CA 95722

Carol Bellamy, CA 95722

Michael Vonada, CA 95726

Cynthia Weight, CA 95741

Cindy Colosimo, CA 95742

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Kristy Muller, CA 95746

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Tom Mcmahon, CA 95765

Richard Riley, CA 95765

Noreene Shaffer, CA 95765

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Dennis Wilson, CA 95798

Gil Caravantes, CA 95811

Philip Harvey, CA 95811

Benjamin Lesenana, CA 95812

Monique Polk, CA 95812

Jacob Whitaker, CA 95812

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Patrice Davis, CA 95816

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terri clark, CA 95822

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Frank Torres, CA 95824





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Ahrin Koppel, CA 96161

Violet Nakayama, CA 96161

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Beth Rimanoczy, IN 948

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Zakia Kator, Corona, AL

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Pat Kelly, Denver, CO

Torunn Sivesind, Denver, CO

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Blair Bowie, Washington, DC

Lois Fishman, Washington, DC

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Srivatsa Manjunath, Chelmsford, MA

Susana Carranza, Melrose, MA

Jeanne Markel, Osterville, MA

Jack Cheng, Waban, MA

Stefanie Moore, Baltimore, MD

Sangeetha Menon, Columbia, MD

Jim Arney, Ellicott City, MD

Paul Sivak, Parkville, MD

Susan Buck, Rockville, MD

Scott Jacobs, Takoma Park, MD

Heidi Turner, Calais, ME

Steven Shane, South Portland, ME

Gregory Fox, Ann Arbor, MI

Judy Rodrigues, Belmont, MI

Cheryl Vaughn, Brighton, MI

Michelle Moustakas, Canton, MI

Kate McClanaghan, Detroit, MI

Julio Marquez, Mount Pleasant, MI

Michael Cohen, Royal Oak, MI

Lisa Jacobs, Springport, MI

Eva Bagen, Eden Prairie, MN

Brian Breheny, Minneapolis, MN

Pearce Bunting, Minneapolis, MN

Alex Sachs, Kansas City, MO

Juanita Hennessey, Durham, NC

Justin DeWaele, Wilmington, NC

Katrina Church, Winston Salem, NC

Kathleen Matz, East Hampstead, NH

Jonathan Stephenson, Lyndeborough, NH

Thomas Jesse, Wilton, NH

Melissa Campbell, Millburn, NJ

Kanan Gubins, Moorestown, NJ

John Fasone, Verona, NJ

Judy Acereto, Albuquerque, NM

Lance Hurtubise, Albuquerque, NM

Sarah Levalley, Albuquerque, NM

Emily J Stafford, Albuquerque, NM

John Fleischhauer, Corrales, NM

Arthur Barcinas, Santa Fe, NM

Marilyn Hood, Las Vegas, NV

Judith Anderson, Reno, NV

Valli Camiller, Verdi, NV

Omari Smith, Beacon, NY

Richard Knapp, Bronx, NY

Ray Dantuono, Brooklyn, NY

Ben Graney, Brooklyn, NY

Brandon Hall, Brooklyn, NY

Jason Weiss, Brooklyn, NY

Patty Cornell, Cazenovia, NY

Ronald Zumwalt, Chappaqua, NY

Richard Loftus, Cooperstown, NY

Carolyn Ramsay, New York, NY

Kelly Ford, Saint Albans, NY

Charles Knight, Seneca Falls, NY

Carolyn Abbey, Columbus, OH



Christopher Burgess, Columbus, OH

Joyce Wagner, Dayton, OH

ENVIRONMENT

Jennifer Mariotti, Bend, OR

Edward Ehrhart, Eugene, OR

Ann Mounce, Grants Pass, OR

Kelly Villarreal, La Pine, OR

Sean Becker, Lake Oswego, OR

Caitlin French, Lake Oswego, OR

Tammy Carpenter, Portland, OR

Emily Howell, Portland, OR

Evan Ingle, Portland, OR

Patricia Iwata, Portland, OR

Kathryn Kucinski, Portland, OR

Ann Lyon, Portland, OR

Soohyen Park, Portland, OR

David Samuels, Portland, OR

Joseph Sharp, Portland, OR

Sally Travi, Portland, OR

Martin Vazquez, Portland, OR

Idabelle Fosse, Salem, OR

John Saffell, Tarzana, OR

Richard Colisch, Tualatin, OR

Judith Terry, Veneta, OR

Barbara Tabler, West Linn, OR

Travis Beller, Allentown, PA

Carl Griffin, Downingtown, PA

Jaime West, Greensburg, PA

Peter Dualacher, Havertown, PA

Kim Allen, Norristown, PA

Joyce Leasher, North Wales, PA

Jenny Littleton, Richboro, PA

M. Colette Plum, Rutledge, PA

Linda Hoffman, Telford, PA

Brian Houghtaling, Wellsboro, PA

LEROY BENNETT, Middletown, RI

Laurie Masterson, Warwick, RI

Maria Guillen, Bluffton, SC

Natilee Duning, Brentwood, TN

Ian Salter, Clarksville, TN

Lesley Wood, Knoxville, TN

James Nicol, Aledo, TX

Madelyn Bernstein, Austin, TX

Darryl Crawford, Austin, TX

Jessica Lorenzana, Austin, TX

Joe Nation, Austin, TX

Kristen Schumacher, Bandera, TX

Pamela Burnham, Cedar Park, TX

Richard Robinson, Corpus Christi, TX

Aaron Weinstein, Dallas, TX

Madalyn Martinez, Denton, TX

Michael Patton, Flatonia, TX

Pandora Angelisanti, Harker Heights, TX

Mason Jones, Lubbock, TX

Victoria Glass, McAllen, TX

David Schwartz, Sachse, TX

Pam Fox, San Antonio, TX

William Sibley, San Antonio, TX

Ed Nobis, Salt Lake City, UT

Elissa Smith, Alexandria, VA

Jerry Turney, Midlothian, VA



Danielle Sorahan, Vienna, VA

Jane Riedel, Orwell, VT

ENVIRONMENT

James Mackinnon, Richford, VT

Anne Bower, S Pomfret, VT

Caroline Coker Mckie, Bainbridge Island, WA

Michael Rosenthal, Bainbridge Island, WA

Pat Schaechter, Bellevue, WA

SHARYN MARTIN, Bellingham, WA

Larry Hejny, Grants Pass, WA

Andrew Struck, Kent, WA

Eric Simila, Kingston, WA

Turner Erin, Kirkland, WA

Chris Diehl, Mercer Island, WA

Karen Crum, Poulsbo, WA

Kevin Bertrand, Pullman, WA

Paul Jonas, Redmond, WA

Che Anselmo, Seattle, WA

Elisabeth Crabtree, Seattle, WA

David Dresser, Seattle, WA

Benjamin Park, Seattle, WA

Nina Simonds, Seattle, WA

Jonah Weikert, Seattle, WA

Lynn Johnson, Spokane, WA

Gwenvere Modica, Spokane, WA

Whitney Parker, Vancouver, WA

Kathy Wolchick, Vashon, WA

Kay Gore, White Salmon, WA

Laura Landreth, Balsam Lake, WI

Dorcas Jones, Fairfield, WI

Ruth Crump, Madison, WI

Earl Green, Madison, WI

Sam Egan, Milwaukee, WI

Alzina Davenport, Jackson, WY

CALIFORNIA FISH AND GAME COMMISSION PETITIONS FOR REGULATION CHANGE - ACTION ON DECEMBER 13-14, 2023

Grant: FGC is willing to consider the petitioned action through a process Deny: FGC is not willing to consider the petitioned action Refer: FGC needs more information before the final decision

Tracking No.	Date Received	Name of Petitioner	Subject of Request	Short Description	Marine, Wildlife, or Admin?	FGC Receipt	FGC Initial Action Date	Initial Staff Recommendation	Referral Date	Referred to	Scheduled for Final Action	Final Staff Recommendation
2021-028	12/10/2021	Ben Wehrle	Sport fishing: Shad spearfishing	Request to add spearfishing as an allowable method of take for American shad	Wildlife	12/15-16/2021	2/16-17/2022	REFER to DFW for review and recommendation.	2/16-17/2022	DFW		2/23/23: GRANT in concept: The Department plans to incorporate elements of this request in an upcoming inland fishing rulemaking proposal. See the Department memo for its recommendation and rationale.
2023-10	9/5/2023	Todd Bluechel	Recreational ocean fishing: Allow anglers to donate fish	Allow recreational anglers to donate fish to non-profits under a sport-caught fish exchange permit	Marine	10/11-12/2023	12/13-14/2023	REFER to CDFW for review and recommendation.				
2023-11		Paul Chang, Northern California Kayak Anglers	Recreational ocean fishing: Nearshore groundfish take from non-motorized craft	Authorize recreational take of groundfish inside 50 fathoms using non-motorized vessels or watercraft (greater than or equal to 19 feet) with mandatory descending devices	Marine	10/11-12/2023	12/13-14/2023	REFER to CDFW for review and recommendation.				
2023-12		Wayne Kotow, Coastal Conservation Association California	Recreational ocean fishing: Nearshore groundfish with descending device	Require anglers to possess and use descending device capable of returning rockfish to the depth taken when fishing for or possessing groundfish	Marine	10/11-12/2023	12/13-14/2023	REFER to CDFW for review and recommendation.				

Tracking Number: (2021-028_)

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SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1.	Person or organization requesting the change (Require	d)
	Name of primary contact person: Ben Wehrle Jr.	
	Address:	
	Telephone number:	
	Email address:	

- Rulemaking Authority (Required) Reference to the statutory or constitutional authority of the Commission to take the action requested: 14 CCR Section 2.30 Spearfishing
- 3. Overview (Required) Summarize the proposed changes to regulations: Add spearfishing as a method of take for American Shad in the Valley District
- 4. Rationale (Required) Describe the problem and the reason for the proposed change: Currently several species of fish can be spearfished for in the Valley District between May and September but not American Shad. Spearfishing is an allowable method of take for Striped Bass which must be a minimum size of 18" and have a limit of 2 per day. It seems unreasonable not to allow spearfishing for American Shad when there is no minimum size and a daily bag limit of 25.

SECTION II: Optional Information

5. Date of Petition: 12/10/2021

6. Category of Proposed Change

X Sport Fishing

Commercial Fishing

	State of California – Fish and Game Commission PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 2 of 2
	☐ Hunting ☐ Other, please specify: Click here to enter text.
7.	The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs) □ Amend Title 14 Section(s): 2.3 Spearfishing □ Add New Title 14 Section(s): Click here to enter text. □ Repeal Title 14 Section(s): Click here to enter text.
8.	If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition $[Click here to enter text.]$ Or $[\Box]$ Not applicable.
9.	Effective date : If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: [2022 Fishing Regulations or ASAP.]
10.	Supporting documentation: Identify and attach to the petition any information supporting the proposal including data, reports and other documents: Click here to enter text.
11.	Economic or Fiscal Impacts: Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing: May encourage more spearfishing and thus more sales of fishing licenses and ancillary purchases.
12.	Forms: If applicable, list any forms to be created, amended or repealed: Click here to enter text.
SECT	ION 3: FGC Staff Only
	eceived: 12/10/21
FGC _, s	taff action: Accept - complete Reject - incomplete Reject - outside scope of FGC authority
Date p	petitioner was notified of receipt of petition and pending action: 12/22/21_
Meetir	ng date for FGC consideration: _Receipt 12/15-16/21; action 2/16-17/22_
FGC a	Denied by FGC Denied - same as petition Tracking Number Granted for consideration of regulation change



Date: June 13, 2023

To: Melissa Miller-Henson

Executive Director

California Fish and Game Commission

From: Charlton H. Bonham

Director

Subject: Recommendation to Accept in Concept Regulation Change Petition

No. 2021-028 Regarding Spearfishing for American Shad

The Department of Fish and Wildlife (Department) has reviewed Fish and Game Commission Petition for Regulation Change No. 2021-028 which seeks to add American Shad as a species that may be taken by the spearfishing method in the Valley District. The Department supports the additional American Shad angling opportunity that the regulation change would provide, and as such, supports the regulation change in concept, but has further recommendations for the regulation language before it can be fully supported.

The Department recommends adding additional language within the existing spearfishing regulation, Section 2.30, subsection (b), to clarify the regulation boundaries in subsections (b) 1-4. Additionally, the Department recommends adding new subsections to subsection 230(b) to clarify the regulation boundaries within seven rivers that were previously not listed in the regulation, but where spearfishing was technically allowed. Previously, anglers would need to reference Fish and Game Code, Section 1505, to determine the permissive and non-permissive boundaries within these rivers. This new language would reduce the need for anglers and law enforcement officers to reference the boundaries of "all designated salmon spawning areas" described in Fish and Game Code, Section 1505.

Lastly, the Department recognizes that some counties, cities, and/or local regulations consider spearguns as firearms and prohibit their possession within their jurisdictions. The Department would like to add new language to subsection 230(b) to remind anglers to check their local regulations and/or ordinances to determine if possession of projectile weapons is prohibited.

Melissa Miller-Henson, Executive Director California Fish and Game Commission June 13, 2023 Page 2

If you have any questions regarding this matter, please contact Jay Rowan, Fisheries Branch Chief, at (916) 212-3164.

ec: Chad Dibble, Deputy Director Wildlife and Fisheries Division

> Jay Rowan, Chief Fisheries Branch Wildlife and Fisheries Division

Colin Purdy, Acting Regional Manager North Central Region (Region 2)

Jonathan Nelson, Env. Program Manager Fisheries Branch Wildlife and Fisheries Division

Tracking Number: (2023-10)

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SECTION I: Required Information.

1.	Person or organization requesting the change
	Name of primary contact person: Todd Bluechel
	Address:
	Telephone number:
	Email address:

2. Rulemaking Authority

Sections 200, 205, 265, 713, 5510, 7121, 7701 and 7708, Fish and Game Code

3. Overview - Summarize the proposed changes to regulations:

On 8/25/23 I received a call from Jason Kraus (Captain, Marine Enforcement District – California Department of Fish and Wildlife). Jason informed me that it was suggested by several "above him", within his department, that I petition to change/amend CCR T14 231(b). Jason shared with me section CCR T14 231(b) currently states: "Any legally taken species of sport-caught fish may be possessed for filleting, smoking, or canning if the same fish is returned to the angler or if the fish is exchanged pound for pound ..."

Please accept the following information in support of my official petition to change/amend section CCR T14 231(b) to allow sport fishermen to donate his/her sport-caught fish to a nonprofit(s). I am proposing verbiage within section CCR T14 231(b) be amended to, or analogous to, the following: "Any legally taken species of sport-caught fish may be possessed for filleting, smoking, or canning if the same fish is returned to the angler, or if the fish is exchanged pound for pound or if the fish is donated by the angler to a nonprofit(s) instead of being returned to the angler."

4. Rationale - Describe the problem and the reason for the proposed change:

Currently, the "problem" is that section CCR T14 231(b) does not allow sport fishermen to donate the fish they legally catch to a nonprofit. Amending CCR T14 231(b) to allow sport fishermen to donate their catch to nonprofits has zero disadvantages and boundless benefits.

I don't know if those reading and ruling on this petition have ever been homeless, if they were ever a military veteran in need, if they ever lost everything for any one of numerous reasons and were just in need of a hot meal, but I can tell you the type of food most nonprofits can afford to serve is not what most would consider delicious or nutritious. While I am by no means suggesting nonprofits that feed those in need are serving food that is subpar, I don't think anyone would disagree that a fresh piece of tuna (Yellowfin / Yellowtail / Bluefin) would be a most welcome delicious and nutritious treat!

The times I've personally served F3G fish at nonprofits was incredibly fulfilling and it reminded me why I put "Feel Good" in the name of the charity. Sport fishermen "Fish," the nonprofits cook the fish and turn it into delicious and nutritious "Food," and all those involved get to "Feel Good" knowing we've helped our fellow Americans in need.

Amending section CCR T14 231(b) to allow sport fishermen to donate fish to nonprofits is the right thing to do. Allowing nonprofits to receive and serve the type of protein they have never been able to afford is what many have deemed a godsend.

Please amend section CCR T14 231(b) to allow sportfishermen to donate fish to nonprofits so you too can "Feel Good."

If you have any questions, or if I was not clear about anything, please call my cell or email me the questions you'd like clarified.

SECTION II: Optional Information

Date of Petition: 8/28/23

5. <u>Category of Proposed Change</u>

Sport Fishing

6. The proposal is to:

Amend - CCR T14 231(b)

7. <u>If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition</u>

Not applicable.

8. <u>Effective date:</u>

9/1/23 or ASAP

9. <u>Supporting documentation:</u>

In 2010, I created and have governed since the 501c3 nonprofit: "Fish. Food. Feel Good." (F3G). I am very proud to say F3G has collected tens of thousands of pounds of sport caught pelagic fish from sport fishermen. F3G has donated these fish to numerous San Diego (SD) charities for over 13 years!

Summary of the F3G process: F3G collects sport caught pelagic fish for FREE, F3G distributes these fish to nonprofits for FREE, there is absolutely ZERO exchange of any money between the sport fishermen, F3G, and the nonprofits, there is no "purchasing" of fish from F3G.

Numerous politicians have shown, and continue to voice, their support for F3G including the previous Mayor Kevin Faulkner, the current Mayor Todd Gloria, numerous SD City Council Members and Congressmen. See attached pictures. Even famous people whom are notoriously silent as it pertains to "not" voicing their personal views have shown support including Robert Redford.

I feel it's important to briefly mention, Mayor Todd Gloria is particularly supportive of practices that promote Sustainability. About a year ago, the mayor hired Shelby Rust Buso as the new Chief Sustainability Officer. One area she is particularly interested in is local food-system programs. I will soon be introducing F3G to Ms. Buso and it is my hope I'll be able to share with her how F3G is feeding local, sustainably caught fish, to children in SD schools.

F3G enjoys a long and distinguished history. Part of that history includes excellent personal relationships with the leaders of some of California's largest and most influential nonprofits located in SD, all of whom have received fish from F3G including: Father Joes Village, SD Food Bank, SD Rescue Mission, Jewish Family Service of SD, Imperial Valley Food Bank, Project 1:1, Samoa Independent Church, PATH SD, Dreams for Change, Kitchens for Good, Urban Angels, Ronald McDonald House Charities of SD.

As evident from the press links below, F3G has never tried to hide what it does. In fact, F3G has received an unprecedented amount of vocal support from the hundreds of sport fishermen that call F3G every year. As America's only sustainable fishing charity, F3G has grown to be one of the most unique and well-loved sport fishing nonprofits in America partly because of all the grassroot support by fishing executives within the sport fishing industry as a whole.

F3G was given booths for free by the following event holders in support of F3G so that we could disseminate information, and spread the word: the SD Day at the Dock, International Yellowtail Derby, Fred Hall fishing show and ICAST. F3G's booth was often near Fish and Game booths. Numerous "officials" often stopped by and voiced support for what F3G is and for what we're doing.

Several radio talk shows, including: Rod and Reel Radio, Let's Talk Hook Up, KOGO, KPBS, ROCK 105.3, all interviewed me (Todd Bluechel) several times. A Facebook page and website were created in 2011.

Never once, after all the coverage within magazines, newspapers, TV, press, radio, conferences and internet exposure, about what F3G is, what F3G does and how F3G benefits thousands in need, has any official ever once voiced any concern about the lawfulness of F3G. F3G has received fish donations from NOAA and the CA Fish and Game Department. F3G's 501c3 status is in good standing with the CA State and Federal departments.

FOX News

• https://rb.gy/yc2x3

Imperial Valley Press

https://bit.ly/3syll7z

KPBS

https://bit.ly/3NePGSb

<u>SD Government – press release – Mayor Kevin Faulkner</u>

• https://bit.ly/3SJw21H

SD Downtown News

- https://bit.ly/3zlhCOc
- https://bit.ly/3U7Uafz

BD Outdoors:

- https://bit.ly/3Dg3N4V
- https://bit.ly/3Nf0krY

SD Union Tribune

https://bit.ly/3mla76K

Rancho Santa Fe Review

• https://bit.ly/3DfrVES

Ranch and Coast magazine

• https://bit.ly/3NcWX4C

Del Mar News

• https://bit.ly/3DBFP5B

Pace-TV interview

• https://bit.ly/3fd3TSR

Sport Fishing Magazine - NOAA

- https://bit.ly/3sDCUD0
- https://bit.ly/3fgCGPm

Indian Voice

https://bit.ly/3DEdbAE

10. Economic or Fiscal Impacts:

To the best of my knowledge, there would be no negative economic or fiscal impact(s) on the CA Department of Fish and Wildlife. But, allowing section CCR T14 231(b) to allow sport fishermen to donate their fish to nonprofits has numerous positive financial impact(s) for the nonprofits. It's no secret nonprofits are traditionally always underfunded and unable to do as much "good" as they would like in support of their individual mission statements. Approving my petition would allow nonprofits to continue the program they've been benefiting from for over 13 years, that allows them to receive and serve a healthy and nutritious source of protein to Americans in need. Approving my petition would allow nonprofits to do more with less. Approving my petition will allow thousands of fishermen to "Feel Good!" Approving my petition could eventually allow the entire CA Department of Fish and Wildlife to "Feel Good" if one day they themselves donate seized pelagics to F3G, ergo nonprofits!

11. Forms: If applicable, list any forms to be created, amended or repealed:

Not applicable

SECTION 3: FGC Staff Only

Date received: 09/05/2023.
FGC staff action:
□ Accept - complete
□ Reject - incomplete
Reject - outside scope of FGC authority
Tracking Number
Date petitioner was notified of receipt of petition and pending action:
Meeting date for FGC consideration:
FGC action:
□ Denied by FGC
☐ Denied - same as petition
Tracking Number
☐ Granted for consideration of regulation change

Tracking Number: (2023-11)

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SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1.	Person or	r organization requesting the change (Required)	
	Name of	primary contact person: Paul K Chang	
	Address:		1
	Telephon	e number:	
	Email add	dress:	

- 2. Rulemaking Authority (Required) Reference to the statutory or constitutional authority of the Commission to take the action requested: Sections 200, 205, 265, 270, 275, 702, 7071, 7110, and 8587.1, Fish and Game Code.
- 3. Overview (Required) Summarize the proposed changes to regulations: Subject of Request Recreational fishing: Groundfish requiring the use of descending devices and non-motorized vessel exception to the 50-fathom depth restriction.

Add to sportfishing regulations Section 27.20(b)(1)(E) Title 14, CCR to read:

27.20(b)(1)(E) Non-motorized vessels or watercraft are limited to a maximum of 19 feet in length and may not possess motors of any kind, including but not limited to internal combustion or electric drive.

Amend sportfishing regulations 28.65.(d) and 27.30-45 Title 14, CCR to read:

28.65.(d) No gaff hook shall be used to take or assist in landing any finfish shorter than the minimum size limit. For the purpose of this section a gaff hook is any hook with or without a handle used to assist in landing fish or to take fish in such a manner that the fish does not take the hook voluntarily in its mouth. No person shall take fin fish from any boat or other floating device in ocean waters without having a landing net in possession or available for immediate use to assist in landing undersize fish of species having minimum size limits; the opening of any such landing net shall be not less than eighteen inches in diameter. A descending device capable of rapidly returning fish to the depth of

capture must be on board vessels and rigged for immediate use when fishing for or possessing rockfish and used on any rockfish released.

27.30. MENDOCINO GROUNDFISH MANAGEMENT AREA. This Section applies to take and/or possession of federal groundfish species and all greenlings of the genus Hexagram-mos. For specific definitions, applicability, and procedures, see sections 1.91 and 27.20. For size limits, bag and possession limits, and other regulations that apply to individual species, see specific sections beginning with Section 27.60.

- (a) The Mendocino Groundfish Management Area means ocean waters between 40° 10' N. lat. (near Cape Mendocino, Humboldt County) and 38° 57.50' N. lat. (at Point Arena, Mendocino County).
- (b) Seasons and depth constraints effective for all species of rockfish, lingcod, cabezon, and all greenlings of the genus Hexagrammos:
 - (1) January 1 through May 14: Closed.
 - (2) May 15 through July 15:

(A) Motorized vessel or watercraft

- 1. Take and/or possession of species and species groups listed in subsections <u>i.</u> <u>through iii.</u> is authorized seaward of a line approximating the 50-fathom depth contour along the mainland coast and along islands and offshore seamounts. Take and/or possession of these species is prohibited shoreward of this line, except as provided in subsection 27.20(b). The 50-fathom depth contour is defined by straight lines connecting the set of 50-fathom waypoints as adopted in Federal regulations (50 CFR Part 660, Subpart G).
 - i. Shelf rockfish, as defined in subsection 1.91(a)(3), except bronzespotted rockfish,
 - cowcod, and yelloweye rockfish which may not be taken or possessed ii. Slope rockfish, as defined in subsection 1.91(a)(4)
 - iii. Lingcod
- 2. Nearshore species closure: Take and/or possession of nearshore rockfish as defined in subsection 1.91(a)(1), cabezon, and greenlings of the genus Hexagrammos is prohibited in all waters of the San Francisco Groundfish Management Area.

(B) Non-motorized vessel or watercraft

- 1. Open for all species with no depth constraints.
- (3) July 16 through December 31: Open for all species with no depth constraints.
- 27.35. SAN FRANCISCO GROUNDFISH MANAGEMENT AREA. This Section applies to take and/or possession of federal groundfish species and all greenlings of the genus Hexagrammos. For specific definitions, applicability, and procedures, see sections 1.91 and 27.20. For size limits, bag and possession limits, and other regulations that apply to individual species, see specific sections beginning with Section 27.60.
- (a) The San Francisco Groundfish Management Area means ocean waters between 38° 57.50' N. lat. (at Point Arena, Mendocino County) and 37° 11' N. lat. (at Pigeon Point, San Mateo County).
- (b) Seasons and depth constraints effective for all species of rockfish, lingcod, cabezon and all greenlings of the genus Hexagrammos:
 - (1) January 1 through May 14: Closed.
 - (2) May 15 through July 15:

(A) Motorized vessel or watercraft

- 1. Take and/or possession of species and species groups listed in subsections <u>i.</u> through iii. is authorized seaward of a line approximating the 50-fathom depth contour along the mainland coast and along islands and offshore seamounts. Take and/or possession of these species is prohibited shoreward of this line, except as provided in subsection 27.20(b). The 50-fathom depth contour is defined by straight lines connecting the set of 50-fathom waypoints as adopted in Federal regulations (50 CFR Part 660, Subpart G).
 - i. Shelf rockfish, as defined in subsection 1.91(a)(3), except bronzespotted rockfish,
 - cowcod, and yelloweye rockfish which may not be taken or possessed ii. Slope rockfish, as defined in subsection 1.91(a)(4)
 - iii. Lingcod
- 2. Nearshore species closure: Take and/or possession of nearshore rockfish as defined in subsection 1.91(a)(1), cabezon, and greenlings of the genus Hexagrammos is prohibited in all waters of the San Francisco Groundfish Management Area.

(B) Non-motorized vessel or watercraft

- 1. Open for all species with no depth constraints.
- (3) July 16 through December 31: Open for all species with no depth constraints.
- 27.40. CENTRAL GROUNDFISH MANAGEMENT AREA. This Section applies to take and/or possession of federal groundfish species and all greenlings of the genus Hexagrammos. For specific definitions, applicability, and procedures, see sections 1.91 and 27.20. For size limits, bag and possession limits, and other regulations that apply to individual species, see specific sections beginning with Section 27.60.
- (a) The Central Groundfish Management Area means ocean waters between 37° 11' N. lat. (at Pigeon Point, San Mateo County) and 34°27' N. lat (at Point Conception, Santa Barbara County).
- (b) Seasons and depth constraints effective for all species of rockfish, lingcod, cabezon, and all greenlings of the genus Hexagrammos:
 - (1) January 1 through April 30: Closed.
 - (2) May 1 through September 30: Open for all species with no depth constraints.
 - (3) October 1 through December 31:

(A) Motorized vessel or watercraft

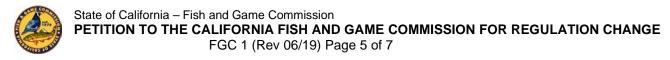
- 1. Take and/or possession of species and species groups listed in subsections i. through iii. is authorized seaward of a line approximating the 50-fathom depth contour along the mainland coast and along islands and offshore seamounts. Take and/or possession of these species is prohibited shoreward of this line, except as provided in subsection 27.20(b). The 50-fathom depth contour is defined by straight lines connecting the set of 50-fathom waypoints as adopted in Federal regulations (50 CFR Part 660, Subpart G).
 - i. Shelf rockfish, as defined in subsection 1.91(a)(3), except bronzespotted rockfish,
 - cowcod, and yelloweye rockfish which may not be taken or possessed
 - ii. Slope rockfish, as defined in subsection 1.91(a)(4)
 - iii. Lingcod

- 2. Nearshore species closure: Take and/or possession of nearshore rockfish as defined in subsection 1.91(a)(1), cabezon, and greenlings of the genus Hexagrammos is prohibited in all waters of the San Francisco Groundfish Management Area.
- (B) Non-motorized vessel or watercraft
 - 1. Open for all species with no depth constraints.
- 27.45. SOUTHERN GROUNDFISH MANAGEMENT AREA. This Section applies to take and/or possession of federal groundfish species and all greenlings of the genus Hexagrammos. For specific definitions, applicability, and procedures, see sections 1.91 and 27.20. For size limits, bag and possession limits, and other regulations that apply to individual species, see specific sections beginning with Section 27.60.
- (a) The Southern Groundfish Management Area means ocean waters between 34° 27' N. lat. (at Point Conception, Santa Barbara County) and the U.S./Mexico border. The Cowcod Conservation Areas are special closure areas within the Southern Groundfish Management Area, where species authorizations, prohibitions, depth constraints and seasons differ from those of the Southern Groundfish Management Area. See Section 27.50.
- (b) Seasons and depth constraints effective for all species of rockfish, lingcod, cabezon and all greenlings of the genus Hexagrammos:
 - (1) January 1 through March 31: Closed.
 - (2) April 1 through September 15: Open for all species with no depth constraints.
 - (3) September 16 through December 31:

(A) Motorized vessel or watercraft

- 1. Take and/or possession of species and species groups listed in subsections i. through iii. is authorized seaward of a line approximating the 50-fathom depth contour along the mainland coast and along islands and offshore seamounts. Take and/or possession of these species is prohibited shoreward of this line, except as provided in subsection 27.20(b). The 50-fathom depth contour is defined by straight lines connecting the set of 50-fathom waypoints as adopted in Federal regulations (50 CFR Part 660, Subpart G).
 - i. Shelf rockfish, as defined in subsection 1.91(a)(3), except bronzespotted rockfish.
 - cowcod, and yelloweye rockfish which may not be taken or possessed
 - ii. Slope rockfish, as defined in subsection 1.91(a)(4)
 - iii. Lingcod
- 2. Nearshore species closure: Take and/or possession of nearshore rockfish as defined in subsection 1.91(a)(1), cabezon, and greenlings of the genus Hexagrammos is prohibited in all waters of the San Francisco Groundfish Management Area.
- (B) Non-motorized vessel or watercraft
 - 1. Open for all species with no depth constraints...
- 4. Rationale (Required) Describe the problem and the reason for the proposed change:

In light of recent regulation changes restricting the take of groundfish shoreward of the 50-fathom line, the Kayak Angling community is hereby expressing its concern at the disproportional impact that these changes have on non-motorized vessel anglers.



A restriction that prohibits the take of groundfish shoreward of the 50-fathom line effectively ends the fishing season for non-motorized anglers. Non-motorized vessels are not able to safely reach the depths required by the new regulations and are, therefore, disproportionately impacted by this change; our goal is to advocate for equitable rules that take non-motorized anglers into consideration and preserve their ability to fish for the entirety of the season.

We request an exception for non-motorized vessels of up to 19 feet without motors of any kind. We believe this exception is justifiable because of the significantly lower environmental impact of non-motorized angling and the disproportional impact they suffer from these changes. Their lower environmental impact and more selective take, combined with mandatory descenders, would ensure minimal impact on threatened rockfish populations.

We also propose mandating an immediately operable descending device, similar to Oregon and Washington states, to reduce rockfish mortality rates and further protect our resources. According to data from the Groundfish Management Team, rockfish caught from typical depths accessible from non-motorized vessels (0-30 fathoms) have a lower mortality rate (3% to 16% depending on species) when descended, compared to rockfish caught from deeper depths reachable by motorized vessels, which suffer higher mortality rates.

Fishing from non-motorized vessels is a traditional and eco-friendly method that has been around for millennia - it should be encouraged, not penalized. The limited range and size of the vessels naturally reduce the environmental impact of this form of fishing on local ecosystems, not to mention zero carbon emissions. It is also more accessible to lower-income anglers.

Regulations should not be designed with only motorized vessels in mind. They must account for and respect more traditional fishing methods that predate motorized angling, have a lower impact on threatened rockfish populations, and are more accessible to a wider range of incomes and socioeconomic statuses.

Below, we list the key differences that set non-motorized angling apart and justify an exception:

- a. Non-motorized vessels are only inches above the water surface, allowing prohibited fish to be released with minimal trauma and often without being removed from the water at all.
- b. Other factors, such as the weather, limit non-motorized angling. Small, non-motorized vessels cannot safely go out in windy conditions or large swells. The environmental impact is, therefore, further reduced due to a lesser number of fishable days.
- c. This year, the effective opener for non-motorized vessels in the San Francisco management area was July 16, but the first fishable day was August 15 because of wind and swells. So, this year, the community had around 15 fishable days before the emergency closure on September 1st.
- d. Non-motorized anglers cannot move great distances, impacting smaller areas than motorized vessels. When a typical maximum range of three or four miles is factored from limited launch access points, vast areas of the coast are not accessible to nonmotorized vessels.
- Non-motorized vessels cannot carry a large number of anglers, so the overall impact of a vessel on an ecosystem is smaller because the take is usually confined to one or two anglers.



State of California – Fish and Game Commission PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE

FGC 1 (Rev 06/19) Page 6 of 7

- f. The non-motorized angling community is relatively small compared to motorized vessel numbers, so the exception would correct an unfair impact on a small but traditional fishing method and an active and passionate conservationist angler community.
- g. The 50-fathom depth constraint may create an incentive for non-motorized vessels to attempt to reach the RCA line. This would pose significant risks to anglers and costs associated with rescues. Given the difficulty of locating a small vessel, a rescue several miles offshore would be significantly more difficult, riskier, and costlier.

The ultimate goal of this petition is to ensure that the CDFW recognizes non-motorized vessel anglers and that the regulations put in place for 2024, including emergency closures, take this form of angling into consideration and make sufficient exemptions to prevent it from being disproportionately impacted.

We would like to thank the commission for taking the time to review this petition and for giving this matter the attention it deserves.

SECTION II:	Optional	Information
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5.	Date o	of Petition:	September	15,	2023
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6.	Category	of Pro	posed	Change
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- X Sport Fishing
- □ Commercial Fishing
- ☐ Hunting
- ☐ Other, please specify: Click here to enter text.
- **7.** The proposal is to: (To determine section number(s), see current year regulation booklet or https://govt.westlaw.com/calregs)
 - X Amend Title 14 Section(s): 28.65.(d) and 27.30-45.
 - ☐ Add New Title 14 Section(s): Click here to enter text.
 - ☐ Repeal Title 14 Section(s): Click here to enter text.
- 8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition Click here to enter text.
 - Or X Not applicable.
- 9. Effective date: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: Emergency No consideration has been given to non-motorized vessel or watercraft anglers.
- **10. Supporting documentation:** Identify and attach to the petition any information supporting the proposal including data, reports and other documents: GROUNDFISH MANAGEMENT TEAM REPORT ON METHODOLOGY REVIEW-FINAL Agenda Item H.4.a Supplemental GMT Report 3 November 2022
- 11. **Economic or Fiscal Impacts:** Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs,



other state agencies, local agencies, schools, or housing: Several businesses cater directly to non-motorized anglers: manufacturers and retailers of kayaks and canoes, campgrounds and launch facilities offering and charging for ocean access, bait shops and other local retail stores, and fishing guides and kayak rental businesses providing services to the non-motorized angling community. Recent changes to the regulations disproportionately impact these businesses. The proposed regulation change will remediate the negative impact.

12. Forms: If applicable, list any forms to be created, amended or repealed:

Click here to enter text.

SECTION 3: FGC Staff Only	
Date received: 9/15/2023	
FGC staff action: ☐ Accept - complete ☐ Reject - incomplete ☐ Reject - outside scope of FGC authority Tracking Number Date petitioner was notified of receipt of petition and pending action:	
Meeting date for FGC consideration:	
FGC action: ☐ Denied by FGC ☐ Denied - same as petition Tracking Number	
☐ Granted for consideration of regulation change	

Tracking Number: (_2023-12_)

To request a change to regulations under the authority of the California Fish and Game Commission (Commission), you are required to submit this completed form to: California Fish and Game Commission, (physical address) 1416 Ninth Street, Suite 1320, Sacramento, CA 95814, (mailing address) P.O. Box 944209, Sacramento, CA 94244-2090 or via email to FGC@fgc.ca.gov. Note: This form is not intended for listing petitions for threatened or endangered species (see Section 670.1 of Title 14).

Incomplete forms will not be accepted. A petition is incomplete if it is not submitted on this form or fails to contain necessary information in each of the required categories listed on this form (Section I). A petition will be rejected if it does not pertain to issues under the Commission's authority. A petition may be denied if any petition requesting a functionally equivalent regulation change was considered within the previous 12 months and no information or data is being submitted beyond what was previously submitted. If you need help with this form, please contact Commission staff at (916) 653-4899 or FGC@fgc.ca.gov.

SECTION I: Required Information.

Please be succinct. Responses for Section I should not exceed five pages

1.	Person or organization requesting the change (Required)
	Name of primary contact person: Wayne Kotow
	Address:
	Telephone number:
	Email address:

- Rulemaking Authority (Required) Reference to the statutory or constitutional authority of the Commission to take the action requested: For Section 27.20 regs: Sections 200, 205, 265, 702, 7071 and 8587.1 of Fish and Game Code Added sections for Section 28.65 regs: Sections 270, 275, and 7110 of Fish and Game Code
- 3. Overview (Required) Summarize the proposed changes to regulations: All boats in marine environment engaged in fishing activity are required to carry a descending device on board their vessel. Other wording: Require the possession of a descending device on board a vessel when harvesting fish in state waters or requires a descending device capable of returning rockfish to the depth taken be aboard any California recreational fishing vessel that is fishing for or possessing groundfish.
- **4.** Rationale (Required) Describe the problem and the reason for the proposed change: We are all stewards of our resources and need to be responsible in caring for them. Descending devices have been proven effective in returning fish suffering from barotrauma back to depths

SECTION II: Optional Information

5. Date of Petition: Sept 29, 2023

Category of Proposed Change
X Sport Fishing
□ Commercial Fishing
□ Hunting
Other, please specify: Click here to enter text.
The proposal is to: (To determine section number(s), see current year regulation booklet or
The proposal is to: (<i>To determine section number(s), see current year regulation booklet or</i> https://govt.westlaw.com/calregs)
https://govt.westlaw.com/calregs)

- 8. If the proposal is related to a previously submitted petition that was rejected, specify the tracking number of the previously submitted petition Click here to enter text. Or X Not applicable.
- 9. Effective date: If applicable, identify the desired effective date of the regulation. If the proposed change requires immediate implementation, explain the nature of the emergency: Jan 1, 2025
- **10. Supporting documentation:** Identify and attach to the petition any information supporting the proposal including data, reports and other documents:

FWC approves rule to help improve survival of released reef fish | FWC (myfwc.com)

Barotrauma | FWC (myfwc.com)

Reef Fish Gear Rules | FWC (myfwc.com)

Rockfish recompression | Oregon Department of Fish & Wildlife (myodfw.com)

Sport bottomfish seasons | Oregon Department of Fish & Wildlife (myodfw.com)

Protecting Washington's rockfish | Washington Department of Fish & Wildlife

- 11. **Economic or Fiscal Impacts:** Identify any known impacts of the proposed regulation change on revenues to the California Department of Fish and Wildlife, individuals, businesses, jobs, other state agencies, local agencies, schools, or housing: Local businesses will get increased sales from descending device sales which could lead to additional jobs for manufacturers or spur new technology.
- **12. Forms:** If applicable, list any forms to be created, amended or repealed:

Click here to enter text.

SECTION 3: FGC Staff Only

Date received: 10/02/2023

FGC staff action:

State of California – Fish and Game Commission PETITION TO THE CALIFORNIA FISH AND GAME COMMISSION FOR REGULATION CHANGE FGC 1 (Rev 06/19) Page 3 of 3
Accept - complete
Reject - incomplete
Reject - outside scope of FGC authority
Tracking Number
Date petitioner was notified of receipt of petition and pending action:
Meeting date for FGC consideration:
FGC action:
☐ Denied by FGC
☐ Denied - same as petition
Tracking Number
Granted for consideration of regulation change