Committee Staff Summary for July 16-17, 2025 MRC

2. General Public Comment

Today's Item **Information ☒** **Action ☐**

Receive public comment regarding topics within the Commission's authority that are not included on the agenda.

Summary of Previous/Future Actions (N/A)

Background

This item is to provide the public an opportunity to address the Marine Resources Committee (MRC) on topics not on the agenda. Staff may include written materials and comments received prior to the meeting as exhibits in the meeting binder (if received by the written comment deadline), or as supplemental comments at the meeting (if received by the supplemental comment deadline).

MRC receives two types of correspondence or comment under general public comment: (1) requests for MRC to consider new topics and (2) informational items. As a general rule, requests for a regulation change must be submitted to the Commission on petition form FGC 1, *Petition to the California Fish and Game Commission for Regulation Change*. However, MRC may, at its discretion, request that staff follow up on items of potential interest for possible recommendation to the Commission.

Significant Public Comments

1. Petitions 2023-27MPA (Anacapa Island State Marine Conservation Area, or SMCA) and 2023-29MPA (proposed Mishopshno SMCA): Eighteen emails were received in support of the petitions. The submissions generally promote:
    - Petition 2023-27MPA's stated goal to enhance network connectivity and to protect restored eelgrass meadows; and
    - Petition 2023-29MPA's stated goal to enhance network connectivity by filling a spacing gap between MPAs and to protect kelp forest, rocky reef, sandy bottom and sandy beach habitat for the benefit of various marine organisms (see Exhibit 1 as an example).

    A few emails also highlight that they support the petitions as a response to concerns about developing threats to the ocean, such as climate change and risk of drilling or sale of public lands and waters (see Exhibit 2 as an example).

2. Petition 2023-32MPA: The petitioner provides updated information and attachments to support their proposal to expand the Duxbury Reef State SMCA northern and southern boundaries and convert the SMCA to a state marine reserve (SMR). Key points include: (a) strong community support; (b) the reef's ecological significance and overlapping designations; (c) scientific analysis of enhancements from SeaSketch California; and (d) enforcement challenges as evidenced by new 2024 MPA Watch data (Exhibit 3).

3. Petition 2023-15MPA_AM1: The petitioner has analyzed their own proposed regulatory options using science guidelines from the Marine Life Protection Act (MLPA) Initiative

planning process, specifically applying “levels of protection” (LOPs) to their proposed species and fishing methods options. The petitioner highlights that both high LOP SMCAs and very high LOP SMRs contribute to MPA network connectivity, pursuant to the science guidelines. This self-analysis allows stakeholders to review all proposed options and their LOP rankings, clarifying the rationale behind each ranking within the LOP framework. The petitioner concludes that preferred options within Petition 15 can grant limited access to fisheries with high LOPs while maintaining current MPA network connectivity and overall protections, without reducing them (Exhibit 4).

Recommendation (N/A)

Exhibits

1. Sample email from Jean Kaplan, received July 1, 2025
2. Sample email from Kelsey Maloney, received June 24, 2025
3. Letter from Ashley Eagle-Gibbs, Esq., Executive Director, Environmental Action Committee of West Marin, received July 3, 2025
4. Letter from Blake Hermann, petitioner for Petition 2023-15MPA_AM1, received May 2, 2025.

Committee Direction/Recommendation (N/A)

From: Jean Kaplan <[redacted]>
Sent: Tuesday, July 1, 2025 10:07 AM
To: FGC <FGC@fgc.ca.gov>
Subject: Marine Sanctuaries

I am

I am requesting the designation of petitions 2023-27MPA and 2023-29MPA, along with your personal support for these petitions.

WE NEED YOUR VOICE!
Please join EDC and our partners in urging the Commissioners to designate two petitions critical to enhancing the MPA network and providing critical protection for our marine resources.

WAYS TO JOIN US
July 16-17th
Marine Resources Committee Hearing

- **IN-PERSON (Agenda)**
  California Natural Resources Headquarters Building
  Second Floor, 715 P Street
  Sacramento, CA 95814
- **VIRTUALLY**
  The FGC will update the meeting documents1.5-2 weeks before the meeting date (tentatively should be updated on/around July 1,2025). Please use this link to check the FGC website for instructions on how to join virtually and comment at the meeting.
- **EMAIL YOUR COMMENTS BY JULY 3, 2025**
  Submit written commenbts to**fgc@fgc.ca.gov**

TALKING POINTS:

- I urge the Commission to approve petitions 2023-29MPA in Carpinteria and 2023-27MPA at Anacapa Island.
- The Carpinteria petition, named Mishopshno (Mee – shop – shno) is to create a new MPA that will fill a 64-mile spacing gap between Campus Point and Point Dume MPAs which will better enhance network connectivity.
- Mishopshno will also protect kelp forest, rocky reef, sandy bottom, and sandy beach habitat, which is essential to kelp bass, rockfish, octopus, spiny lobster, egrets, whales, dolphins, and more.
- The Anacapa Island petition will improve protection for restored eelgrass meadows from the impact of commercial lobster traps, conserving an important habitat that is increasingly diminished and impacted by human activities.
- Adjustments to the existing Anacapa Island State Marine Conservation Area will also improve the current MPA network via adaptive management as directed by the Marine Life Protection Act

Thank you for speaking up on this important issue and helping protect these vital marine resources.

Azsha Hudson
Marine Conservation Analyst and Program Manager

From: Kelsey Maloney <[redacted]>
Sent: Tuesday, June 24, 2025 8:44 AM
To: FGC <FGC@fgc.ca.gov>
Subject: Support for MPAs

Good morning,

I am writing to urge the Commission to approve petitions 2023-29MPA in Carpinteria and 2023-27MPA at Anacapa Island. We have an obligation to protect marine life. We will all be healthier with a thriving marine ecosystem. With so much of public lands and waters at risk of being sold off or used for drilling oil, and with the threat of climate change, it is more important than ever to protect marine life and natural resources. As a swimmer and beach goer, I cherish these spaces and encourage you to help protect these vital marine resources.

Thank you,

--

Kelsey Maloney (she/her)

Grant Writer

[redacted]

west marin environmental action committee

July 3, 2025

Marine Resources Committee
California Fish and Game Commission
P.O. Box 944209,
Sacramento, CA 94244-2090
Via Electronic Mail: fgc@fgc.ca.gov

RE: Agenda Item 10: *General public comment for items not on the agenda - Petition 2023-32 Duxbury Reef Marine Protected Area*

Dear Vice-President Murray and Commissioner Sklar,

Established in 1971, the Environmental Action Committee of West Marin (EAC)'s mission is to protect and sustain West Marin's lands, waters, and biodiversity. We represent approximately 1,200 community members, primarily in West Marin. On November 30, 2023, we submitted a petition for Duxbury State Marine Conservation Area (SMCA) to be reclassified as a State Marine Reserve (SMR) and for a boundary expansion of the existing SMCA, Petition 2023-32. We submit this letter to provide some new information in support of our petition, as well as provide an updated index (Attachment 21.1 to this letter) of all of the documents that have been submitted to date through this July 3, 2025 submission for ease of reference. Note that throughout this letter, we include references to documents listed in the attached index. Currently, Storymaps[1] only lists the original submitted petition and attachments, so we wanted to highlight the full scope of documents for the record. We have numbered the documents sequentially for ease of reference.

To reiterate, our petition requests that Duxbury Reef be redesignated as an SMR to more effectively protect this incredibly unique place and its imperiled reef species, which are vulnerable to the combined impacts of disturbance and take. Our petition also requests that the northern and southern boundaries of Duxbury Reef be extended to include the remaining relatively pristine contiguous reef, thereby protecting more marine life and ecologically connected habitat types. This letter highlights the additional and/or updated information that we are submitting,

[1] https://storymaps.arcgis.com/collections/27e78c677dca484ebfb37120abc59d10.

including: **I**. additional community support, **II.** the reef's designation as a Habitat Area of Particular Concern by the National Oceanic and Atmospheric Administration, **III.** Seasketch data that supports the request for expansion of protections, and **IV.** recent 2024 Marine Protected Area (MPA) Watch data, and recent scientific studies.

I. There is Strong Community Support for our Petition.

In attachments 21.2 and 21.3 to this letter, we include additional local community support for this petition. This support was gathered at two recent EAC events, where local members of our community were present. This builds upon the large record of broad support for our petition as demonstrated by the updated index (Attachment 21.1) for our petition.

II. Duxbury Reef Holds Multiple Special Designations, Including *Habitat Area of Particular Concern.*

Duxbury Reef is part of a Habitat Area of Particular Concern (HAPC) which extends much further north and south than the boundaries of the existing SMCA, leaving out critical rocky intertidal reef habitat.[2] The allowance of "some take" leaves the many organisms reliant on this reef habitat vulnerable to human impacts. See Attachment 21.4 for additional information and mapping related to this HAPC.

III. The SeaSketch Data Supports Stronger Protections.

We were pleased to learn about the release of the new SeaSketch California tool, developed with funding from the California Ocean Protection Council. A presentation at the March 2025 Marine Resources Committee used our Duxbury Reef boundary change as an example of how SeaSketch can compare differences between existing and proposed MPAs. We further explore this data below and in Attachment 21.5.

A. Benefits of Increased Span Length and Area

Our petition requests expansion of the boundaries of the Duxbury Reef MPA to meet preferred scientific span guidelines as well as almost double its area,[3] making this MPA more effective at satisfying several of the core purposes for MPA creation, including protecting the natural diversity, abundance, function, and integrity of marine ecosystems, sustaining and rebuilding marine populations, and protecting unique marine habitats for their intrinsic value.[4]

This increased span length and area are important because they include the contiguous intertidal and ecologically connected near-off-shore habitat that stretches from the southern tip of the rocky reef to the north, where it terminates at Double Point/Stormy Stack Special Closures. Both boundary extensions also contain unique micro-habitats and species that are not likely to be found in the current MPA.[5] The northern boundary extension additionally contains more heterogeneous and interconnected reef and sandy shores, as well as nursery areas that help reseed the downstream protected area through drift in the longshore north-south current. The southern boundary also contributes to reseeding of the existing MPA area through a local nearshore eddy that drifts north.

---

[2] See Attachment 21.4.
[3] See Attachment 21.5.
[4] Fish and Game Code § 2853(b)(1), (2), & (4).
[5] See Index Original Attachment 9: Letter from Kent Khitikian.

The northern and southern boundary extensions would also include significant harbor seal haul outs and a colony that is present year-round with consistent pupping.[6]

Achieving the scientifically preferred span length and area increase is also important because fragmented protection of an interconnected habitat area puts a variety of species at risk of take and damage. The current small SMCA has a very high edge-to-area ratio, making its marine life more vulnerable to external pressures (e.g., fishing just outside borders). While some spillover of fish into adjacent areas can benefit fisheries and habitats outside protections, too small an MPA may be "fished out" near its edges, increasing its vulnerability. Increasing the size of the MPA enables the area to support bigger, more stable populations, reducing risks of inbreeding and increasing resilience to environmental changes (e.g., warming oceans). Larger, fully protected habitats allow species to shift ranges within the MPA as ocean conditions change (e.g., temperature shifts, oxygen minimum zones), which is critical for building resilience in the face of climate change impacts, which are anticipated for this area.[7]

B. Increased Depth Ranges and Expansion of Shoreline Habitat Types

Our petition would increase the range of depths protected and double the amount of both sandy beaches and intertidal rocky shores protected,[8] constituting an increase in the number and diversity of species that would benefit from MPA protections.

C. Expanding the Reef Boundaries will Likely Support Kelp Presence and Persistence

Kelp persistence data shows that kelp habitat has been established in various points along the northern and southern areas that would be included in the boundary extension, and this kelp could persist and/or return in the future. **This bull kelp has persisted in recent years, and has even expanded in some of these areas,[9] *despite* the mass kelp die off associated with the recent seastar die off.** It has also been reported to us anecdotally that bull kelp has been observed increasing in the last 12 months around Duxbury Reef, including in the unprotected areas. Google Earth imagery also shows that this area has interlocking rocky intertidal reef and beach habitat, contiguous with the kelp habitat present here.[10]

The existence of kelp benefits the habitat value as a whole; this area contains one of the largest harbor seal breeding colonies in California, and these marine mammals rely on healthy, diverse, and abundant kelp and intertidal habitats for hunting, breeding, resting, and pupping.[11]

Extending the northern and southern boundaries of Duxbury Reef to cover this critical, extremely diverse, interconnected yet vulnerable ecological area is paramount to the resilience of the aquatic species that rely on it.

---

[6] See Index Original Attachment 6: Letter from Dr. Sarah Allen.
[7] Lester et al., *Biological Effects within No-Take Marine Reserves: a Global Synthesis*, 2009, *available at* https://www.int-res.com/abstracts/meps/v384/meps08029.
[8] See Attachment 21.5.
[9] See Attachment 21.5.
[10] See Attachment 21.5.
[11] Kelp provides fertile and critical hunting grounds for seals. The Nature Conservancy, *The Vanishing Kelp Forest*, 2023, *available at* https://www.nature.org/en-us/magazine/magazine-articles/kelp-forest/.

> "Species diversity generally increases with habitat diversity and complexity, so the greater the variety of habitats protected, the greater the biodiversity conserved…Thus, MPAs should include large areas, a broad range of habitats, and a high diversity of species…"[12]

IV. 2024 MPA Watch Data, Recent Studies, and the Failure of Partial Protection.

Since our petition was originally submitted, additional MPA Watch data has become available, which we formally submit as Attachment 21.6. We had provided preliminary data to Commissioner Anderson and the California Department of Fish and Wildlife staff on site visits, and we welcome the opportunity again to host any staff and/or Commissioners for a visit to the reef. Duxbury Reef is a sensitive intertidal habitat where human activities (trampling and intertidal take) have long-term negative impacts on habitat and species. 2024 MPA Watch data[13] shows that the Duxbury Reef SMCA continues to have high use compared to other MPAs surveyed by Marin MPA Watch.

In 2024, MPA Watch data reports counted 132 violations at Duxbury Reef, including 65 counts of hand collection of biota. Duxbury Reef sustains a high rate of activity and visitation in general, accounting for 51% of all activities in Marin County MPA Watch locations in the first half of 2024, vastly greater than all other survey locations combined. The complexity of current regulations leads to confusion and more violations.

A. 2023 Study on Signage

While we continue to advocate for better signage, including posting our own temporary signs, signage alone is not enough to deter collection: a 2023 study[14] evaluating the effectiveness of MPA signage in California found that **less than 5% of visitors to MPAs actually read signs upon arrival**. Regulatory-type signs, while viewed more often, were only viewed 2.5 seconds on average. This is not adequate time to convey the detailed information about what take is allowed in the Duxbury Reef SMCA.

EAC also leads a docent program at the reef, and docents frequently report confusion amongst visitors who have seen incomplete online information ("some take allowed") or observed fisherpeople with buckets and bait on the reef. **Docents, visitors, marine sanctuary staff,[15] and park rangers have repeatedly mentioned visitor confusion around MPA regulations that arises when people see others passing through the SMCA from currently unprotected areas with buckets of fish and other biota (sometimes fishing bait), or people fishing in deeper pools for monkey-face prickleback.** These observations, combined with the aforementioned study, infer that visitors often look to the behavior of other people to understand what is allowed at Duxbury Reef, rather than signage.

A designation change from an SMCA to an SMR addresses both issues with confusing signage and behavior and is supported by the National Park Service, whose staff has also observed ongoing instances of illegal take in

---

[12] McLeod, E., Salm, R., Green, A., & Almany, J., *Designing Marine Protected Area Networks to Address the Impacts of Climate Change*, 2006, *available at* http://www.jstor.org/stable/27809090.
[13] See Attachment 21.6.
[14] California Marine Sanctuary Foundation, *Evaluating Effectiveness of Marine Protected Area (MPA) Signs, Report*, 2023, p. 4 and 16, *available at* https://www.californiamsf.org/_files/ugd/db7991_35150e1d08364c278304f2ff805d0011.pdf.
[15] "Duxbury's SMCA designation allows for certain kinds of take, which may confuse visitors that are not familiar with the regulations" and "Since collection is allowed at [the southernmost unprotected extent] of the reef, unfamiliar visitors may see legal take occurring and assume that it is allowed on all areas of the reef." See Index Original Attachment 3: Greater Farallones and Cordell Bank National Marine Sanctuaries.

this area.[16] The signage study[17] discussed above found that consumptive users had a better understanding of rules than non-consumptive users. By eliminating partial take (consumptive use) and simplifying regulations, the behavior of all visitors at the highly vulnerable Duxbury Reef would become less harmful to marine life.

Changing the designation of the Duxbury Reef SMCA to an SMR would increase compliance with regulations over time with consistent messaging, safeguarding this sensitive habitat. **For public understanding, full protection, no take MPAs are most effective**; one study[18] of Australia's 7,000 km coastline found that:

> "[**Fully protected areas**] had more fish species and biomass, **were better understood by people**, aligned better with the expectations of the public than [partially protected areas], were more attractive to most users, and perceived to have better marine life than open areas. **Partially protected areas**, despite being the most common type of MPA, **were no better than open areas for any of our social or ecological indicators**."[19] *(emphasis added)*

While this study is not in California, the same principles apply.

V. Closing and IUCN Green List

Duxbury Reef is an incredibly important place for visitors to gain a love for the ocean and marine life and is the "premier place for intertidal and ocean education in Marin County."[20] We were excited to learn that the California MPA network was added to the International Union for Conservation of Nature's Green List—a monumental achievement, and chosen in part due to its adaptive management approach. Strengthening protections at Duxbury Reef will help to ensure that the network continues to be a model of ocean conservation—**this special place must be fully protected for both the benefit of marine ecosystems and the enjoyment of current and future generations.**

We look forward to participating in the July Marine Resources Committee meeting and future meetings on this MPA and our petition. If you have questions, please contact me at 415-663-9312. We reiterate our offer to show anyone in the California Department of Fish and Wildlife or the Fish and Game Commission Duxbury Reef.

Sincerely,

Ashley Eagle-Gibbs, Esq.
Executive Director
Environmental Action Committee of West Marin

---

[16] "Full SMR status would clarify regulations and ease enforcement/education needs." See Index Original Attachment 3: National Park Service Letter.
[17] California Marine Sanctuary Foundation, *Evaluating Effectiveness of Marine Protected Area (MPA) Signs, Report*, 2023, p. 19, *available at* https://www.californiamsf.org/_files/ugd/db7991_35150e1d08364c278304f2ff805d0011.pdf.
[18] Turnbull, J.W., Johnston, E.L. and Clark, G.F., *Evaluating the social and ecological effectiveness of partially protected marine areas*, 2021, *available at* https://doi.org/10.1111/cobi.13677.
[19] Turnbull, J.W., Johnston, E.L. and Clark, G.F., *Evaluating the social and ecological effectiveness of partially protected marine areas*, 2021, *available at* https://doi.org/10.1111/cobi.13677.
[20] See Index Original Attachment 3: National Park Service Letter.

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
Claire Waggoner, Marine Region Habitat Conservation Program Manager, California Department of Fish and Wildlife
Sara Worden, Environmental Scientist, California Department of Fish and Wildlife
Craig Shuman, Marine Region Manager, California Department of Fish and Wildlife
Jenn Eckerlee, Executive Director, California Ocean Protection Council

ATTACHMENT 21.1

Attachment 21.1: Index of Documents & Attachments Submitted re. Support Petition 2023-32, November 30, 2023 - July 3, 2025

This index was created so that each document submitted in support of the Duxbury Reef petition has a unique # identifier. A decimal number is added if the submitted document contains attachments (listed in number order).

Document #	Original Attachment # As Submitted	Current Attachment #	Document Date	Sender/Preparer	Description	Previously Submitted to FGC	FGC Meeting Document Link if Applicable	In StoryMap
N/A	N/A	N/A	11/30/23	Prepared by Environmental Action Committee of West Marin (EAC)	Original Petition as submitted to the California Fish and Game Commission for Regulation Change	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline	Yes
N/A	N/A	N/A	11/30/23	Prepared by EAC	Original Petition submission Index	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=8	Yes
N/A	1	N/A	11/30/23	Prepared by EAC	Maps depicting ASBS and proposed changes (4 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=10	Yes
N/A	2	N/A	11/30/23	Prepared by EAC	Summarized data from mpawatch.org Marin MPA Watch (3 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=15	Yes
N/A	3	N/A	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	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=19	Yes
N/A	4	N/A	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)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=42	Yes
N/A	5	N/A	November 20	Max Korton, Marin County Parks	Support for Environmental Action Committee's Petition for Regulation Change at Duxbury Reef (2 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=45	Yes
N/A	6	N/A	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	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=48	Yes
N/A	7	N/A	11/29/23	Josh Churchman (commerical fisherman)	Petition for Modification of Duxbury Reef Marine Protected Area (2 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=52	Yes

Attachment 21.1: Index of Documents & Attachments Submitted re. Support Petition 2023-32, November 30, 2023 - July 3, 2025

This index was created so that each document submitted in support of the Duxbury Reef petition has a unique # identifier. A decimal number is added if the submitted document contains attachments (listed in number order).

Document #	Original Attachment # As Submitted	Current Attachment #	Document Date	Sender/Preparer	Description	Previously Submitted to FGC	FGC Meeting Document Link if Applicable	In StoryMap
N/A	8	N/A	11/29/23	9 NGOs	Support for Environmental Action Committee's Petition for Regulation Change at Duxbury Reef (2 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=55	Yes
N/A	9	N/A	7/3/23	Kent Khtikian	Petition for Modification of Duxbury Reef Marine Protected Area (4 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=58	Yes
N/A	10	N/A	7/3/23	Joe Mueller, College of Marin	Petition for Modification of Duxbury Reef Marine Protected Area (3 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=63	Yes
N/A	11	N/A	7/6/23	Lily Rosenman	Petition for Modification of Duxbury Reef Marine Protected Area (2 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=67	Yes
N/A	12	N/A	7/5/23	Bridget Bartholome	Petition for Modification of Duxbury Reef Marine Protected Area (3 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=70	Yes
N/A	13	N/A	7/6/23	Laura Lee Miller	Petition for Modification of Duxbury Reef Marine Protected Area (3 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=74	Yes
N/A	14	N/A	7/1/23	150 individuals	Group letter supporting Duxbury Reef petition (30 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=78	Yes
N/A	15	N/A	7/6/23	Courtney Barend	Petition for Modification of Duxbury Reef Marine Protected Area (2 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=109	Yes
N/A	16	N/A	11/30/23	Jeffrey R. Boehm, The Marine Mammal Center	Petition for Modification of Duxbury Reef Marine Protected Area	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=218218&inline#page=112	Yes
17	N/A	N/A	2/1/24	Prepared by EAC	EAC Supplemental Comments to Support Petition for Modification/Regulation Change of Duxbury Reef Marine Protected Area (17 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=219990&inline#page=1171	No
N/A	1	17.1	1/27/24	Kent Khtikian	Support Petition for Modification/Regulation Change of Duxbury Reef Marine Protected Area (3 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=219990&inline#page=1178	No

Attachment 21.1: Index of Documents & Attachments Submitted re. Support Petition 2023-32, November 30, 2023 - July 3, 2025

This index was created so that each document submitted in support of the Duxbury Reef petition has a unique # identifier. A decimal number is added if the submitted document contains attachments (listed in number order).

Document #	Original Attachment # As Submitted	Current Attachment #	Document Date	Sender/Preparer	Description	Previously Submitted to FGC	FGC Meeting Document Link if Applicable	In StoryMap
N/A	2	17.2	1/27/24	Colleen Hicks (former Executive Director of the Museum of the American Indian)	Support Petition for Modification/Regulation Change of Duxbury Reef Marine Protected Area (3 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=219990&inline#page=1182	No
N/A	3	17.3	2/1/24	14 NGOs (including original 9)	Support Petition for Modification/Regulation Change of Duxbury Reef Marine Protected Area (3 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=219990&inline#page=1186	No
18	N/A	N/A	7/5/24	23 NGOs (including original 14) and Huukuiko, Inc., Coast Miwok Tribal non-profit	Additional Support for Environmental Action Committee's Petition for Modification/Regulation Change at Duxbury Reef (3 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=224049&inline#page=5	No
19	N/A	N/A	9/9/24, submitted 9/12/24	Jeff Clapp (recreational fishermen)	Support Petition for Modification/Regulation Change of Duxbury Reef Marine Protected Area (3 pages)	Yes	https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=225381&inline#page=1193	No
20	N/A	N/A	4/8/25, submitted 4/10/25	District 2 Congressman Jared Huffman	Petition for Modification/Regulation Change of Duxbury Reef Marine Protected Area (2 pages)	Yes	N/A	No
21	N/A	N/A	7/3/25	Prepared by EAC	EAC Comments re: Agenda Item 10: Petition 2023-32 Duxbury Reef (6 pages)	No	N/A	No
N/A	N/A	21.1	7/3/25	Prepared by EAC	Index of Attachments as of 7/3/25 (This Document)	No	N/A	No
N/A	N/A	21.2	12/7/24	11 community members	Group letter supporting Modification/Regulation Change of Duxbury Reef Marine Protected Area (2 pages)	No	N/A	No
N/A	N/A	21.3	6/21/25	11 community members	Group letter supporting Modification/Regulation Change of Duxbury Reef Marine Protected Area (3 pages)	No	N/A	No
N/A	N/A	21.4	7/3/25	Prepared by EAC	NOAA Habitat Area of Particular Concern - Duxbury Reef (1 page)	No	N/A	No
N/A	N/A	21.5	7/3/25	Prepared by EAC	Seasketch Data and Google Earth Images of Duxbury Reef Petition (13 pages)	No	N/A	No
N/A	N/A	21.6	7/3/25	Prepared by EAC	2024 Duxbury Reef MPA Watch Data (3 pages)	No	N/A	No

ATTACHMENT 21.2

December 7, 2024

California Fish and Game Commission
P.O. Box 944209
Sacramento, CA 94244-2090
Via Electronic Mail: fgc@fgc.ca.gov

Re: Support for **Petition No. 2023-32MPA**, Environmental Action Committee of West Marin (EAC) Petition for Regulation Change at Duxbury Reef

Dear President Sklar and Commissioners,

The undersigned individuals submit these comments in support of EAC's petition regarding changes to the regulations for the Duxbury Reef State Marine Conservation Area (SMCA); petition no. 2023-32MPA. We are committed to coastal protection and the marine protected area (MPA) network.

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.

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,

Name	Address
Sarah Killingsworth	
Margo Wixsom	
Hannah VoPham	
Gregory Long	
Catherine Lucas	
Mike Ferric	
Christine Costello	
Katherine Mitchell	
Wendy Botwin	
Jillian Robinson	
MARIANNA RISER	

ATTACHMENT 21.3

June 21, 2025

California Fish and Game Commission
P.O. Box 944209
Sacramento, CA 94244-2090
Via Electronic Mail: fgc@fgc.ca.gov

Re: Support for **Petition No. 2023-32MPA**, Environmental Action Committee of West Marin (EAC) Petition for Regulation Change at Duxbury Reef

Dear President Sklar and Commissioners,

The undersigned individuals submit these comments in support of EAC's petition regarding changes to the regulations for the Duxbury Reef State Marine Conservation Area (SMCA); petition no. 2023-32MPA. We are committed to coastal protection and the marine protected area (MPA) network.

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.

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,

Name	Address
Liza Cable	[redacted]
Madeline Nieto Hope	
Jodine Lee	
Ann Gessert	
Sue VAN DER WAL	
LAURA CHAMTON	
Celia Jenkins	
Barbara Gaman	

Name	Address
Tom Gaman	[redacted]
Luana Hedges	
[redacted]	
Margo Wixsom	

ATTACHMENT 21.4

Attachment 21.4

Submitted for Petition #2023-32MPA

Environmental Action Committee of West Marin

Map of Habitat Areas of Particular Concern at Duxbury Reef by National Oceanic and Atmospheric Administration (NOAA)

Duxbury Reef is a Habitat Area of Particular Concern (HAPC), a subset of NOAA's Essential Fish Habitat. NOAA considers HAPCs to be high-priority areas for conservation due to the important ecosystem functions they provide. HAPCs exhibit "one or more of the following traits: rare, stressed by development, provide important ecological functions for federally managed species, or are especially vulnerable to anthropogenic (or human impact) degradation."[1]

The NOAA Essential Fish Habitat Mapper shows HAPCs in red in the image above. This data is accessible at https://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper. Notably, this HAPC extends far beyond the boundaries of the existing Duxbury Reef SMCA, encompassing the requested northern and southern boundary extensions (the HAPC extends north towards the Double Point/Stormy Stack Special Closures and south further offshore).

[1] National Oceanic and Atmospheric Administration, *Habitat Areas of Particular Concern within Essential Fish Habitat*, Last updated: April 24, 2025, *available at* https://www.fisheries.noaa.gov/southeast/habitat-conservation/habitat-areas-particular-concern-within-essential-fish-habitat

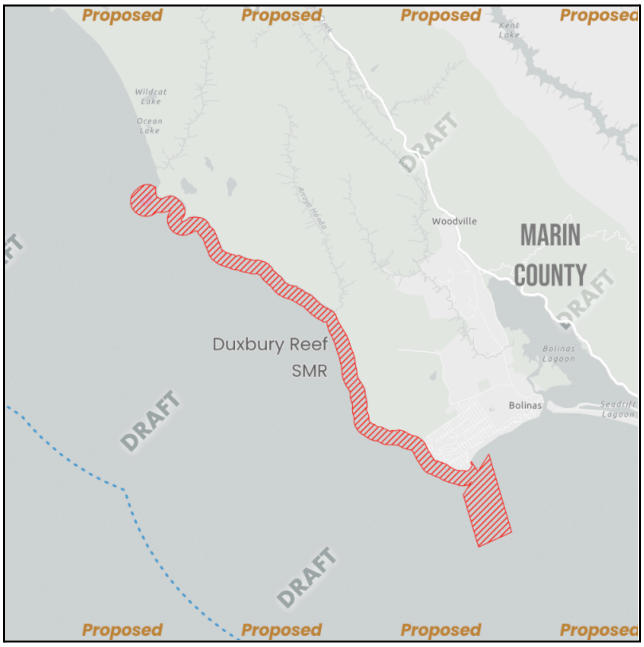
ATTACHMENT 21.5

Attachment 21.5

Submitted for Petition #2023-32MPA

Environmental Action Committee of West Marin

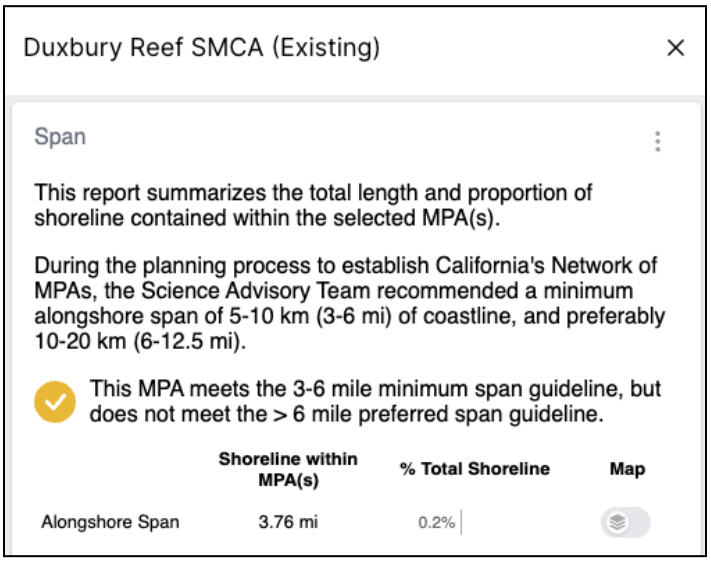
Seasketch Data and Google Earth Pro Imagery of Duxbury Reef Petition Area

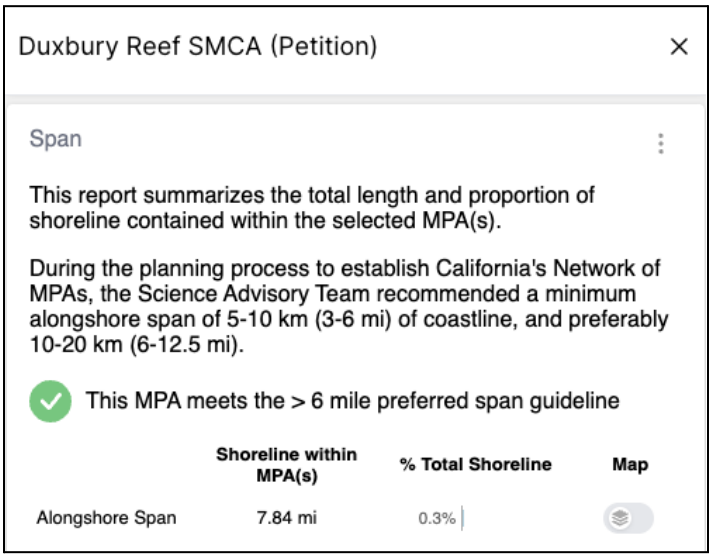


Existing (left) vs Proposed (right) Duxbury Reef Petition Area, *available at* https://storymaps.arcgis.com/collections/27e78c677dca484ebfb37120abc59d10?item=2.

Below are screenshots of the Seasketch platform showing the North Bioregion Petition: 32_2 Duxbury Reef State Marine Conservation Area (SMCA), accessible at https://www.seasketch.org/california/app.

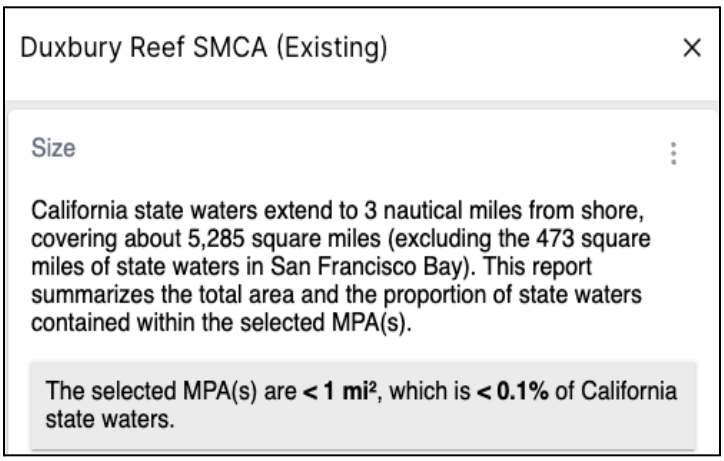
Span

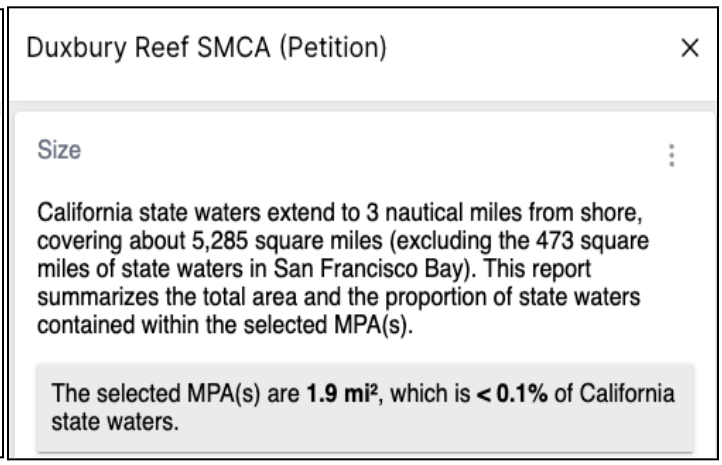




During the planning process to establish California's Marine Protected Area (MPA) network, the Science Advisory Team recommended a minimum span along the coastline of 3-6 miles, with a preferable span of 6-12.5 miles. The current Duxbury Reef SMCA is about 3.8 miles long and only meets minimum span scientific guidelines. Our petition to expand the boundaries north and south would increase its span by about 4 miles. **Seasketch data shows that the requested boundary change will make the Duxbury Reef MPA meet the 6-mile preferred scientific span guideline, where it previously did not.**

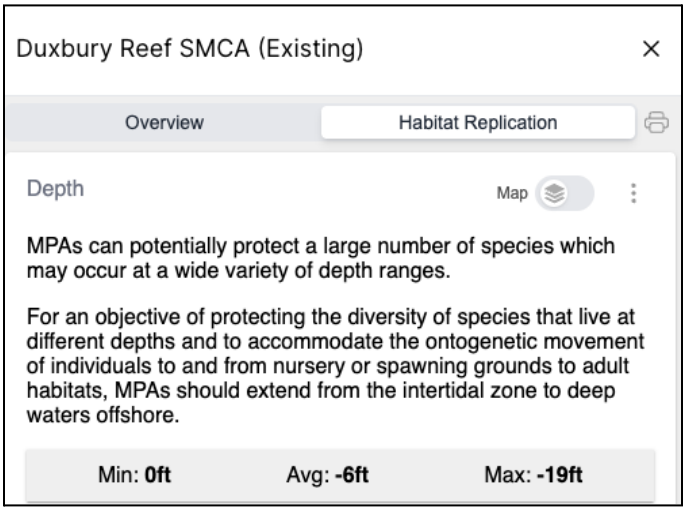
Area

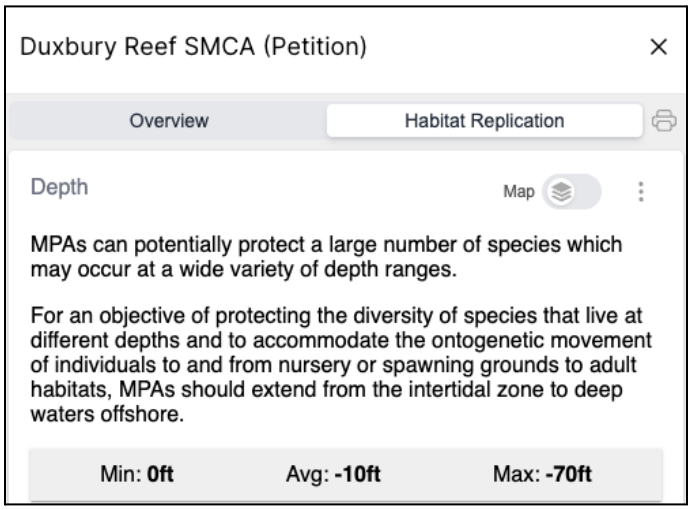




During the planning process to establish California's MPA network, the Science Advisory Team recommended a minimum size of 9-18 square statute miles for each MPA, and preferably 18-36 square statute miles. **Though the requested expansion doesn't meet this recommendation, it roughly doubles the protected area relative to existing boundaries.**

Depth





MPAs that cover a wide range of depths also protect a larger number of species that occur at different depths. **Our petition to expand the boundaries for the Duxbury Reef SMCA would increase the average depth from -6 ft to -10 ft, with the maximum depth increasing from -19ft to -70ft.**

Shoreline Habitats

Duxbury Reef SMCA (Existing)

Shoreline Habitat	Length Within MPA(s)	% Total Habitat Length
Beaches	3.3 mi	0.3%
Coastal Marsh	0 mi	0%
Hardened Shores	0 mi	0%
Rock Islands	0 mi	0%
Rocky Shores	3.3 mi	0.4%
Tidal Flats	0 mi	0%

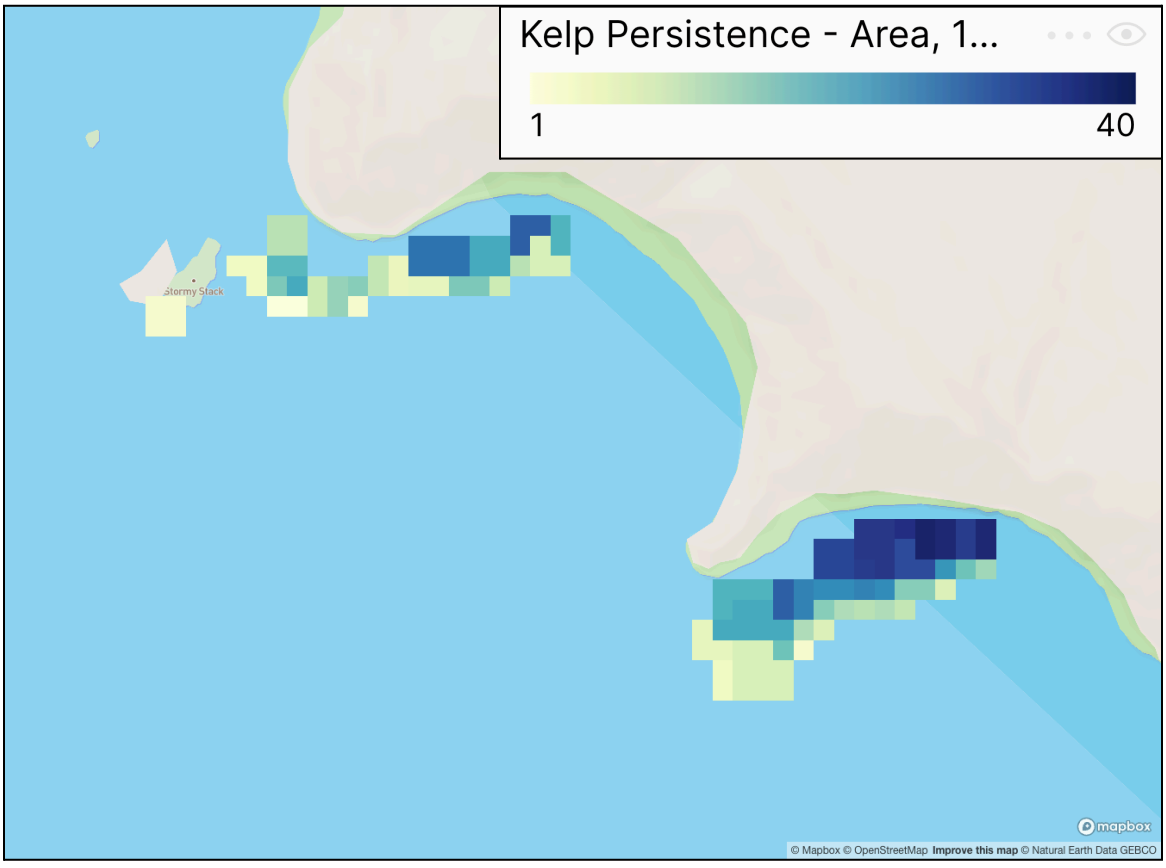
Duxbury Reef SMCA (Petition)

Shoreline Habitat	Length Within MPA(s)	% Total Habitat Length
Beaches	7 mi	0.6%
Coastal Marsh	0 mi	0%
Hardened Shores	0 mi	0%
Rock Islands	0.1 mi	< 0.1%
Rocky Shores	6.8 mi	0.8%
Tidal Flats	0 mi	0%

This report calculates the **total length of each shoretype** within the MPA. This value is divided by the total length of each shoretype to obtain the % contained within the selected MPA.

Alongshore habitats, such as sandy beach and rocky intertidal, provide an important connection between land and sea for both marine species and humans. **Seasketch data shows that the requested boundary change will double the amount of protected beach and rocky shore habitat**.

Rocky Intertidal Reef Contiguity with Kelp Forest Habitat and Kelp Persistence

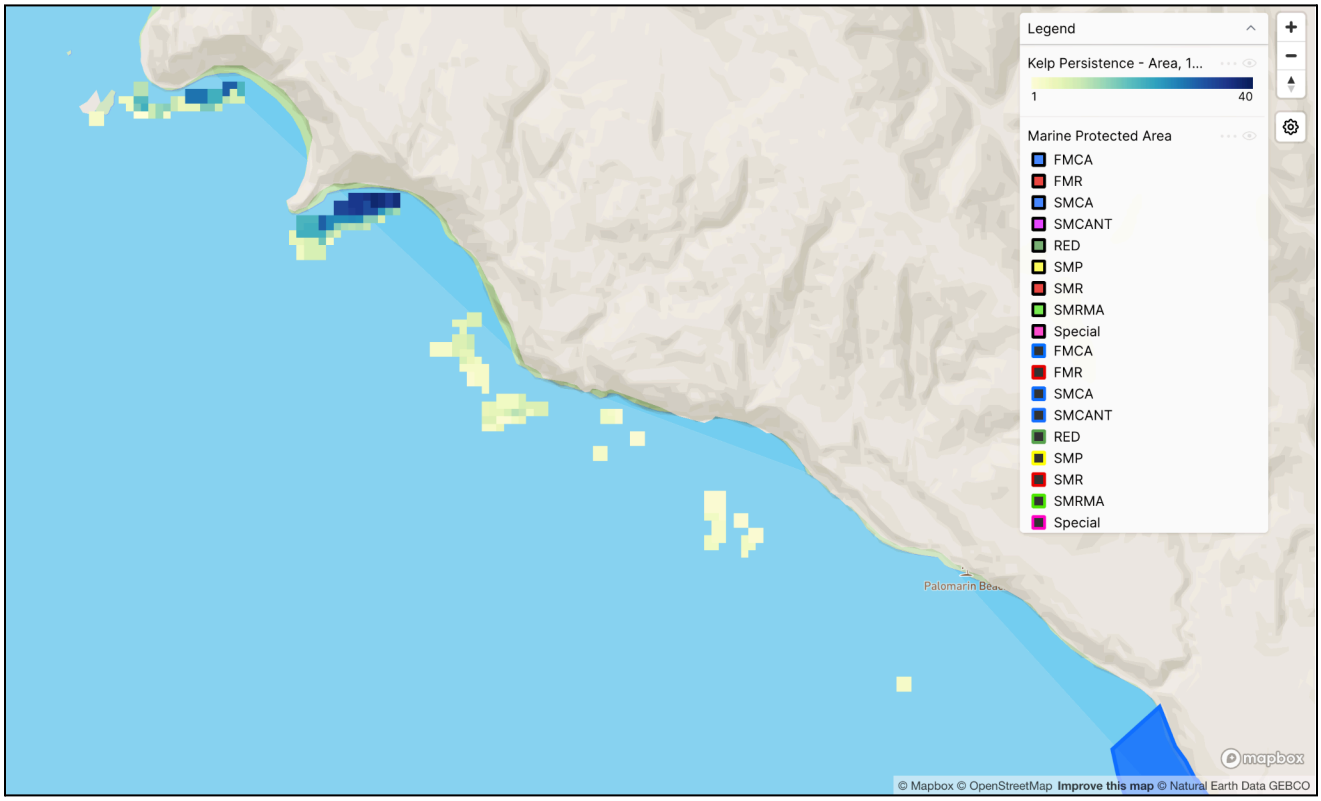


The image from Google Earth Pro shows a section included in the requested northern boundary expansion (Stormy Stack and Double Point Special Closures). **This imagery shows rocky intertidal habitat along these coves**. 2015 imagery was used due to the low tide and time of day the picture was taken, allowing for the best visibility.

The image beneath that is a Seasketch data layer displaying the **number of years that kelp has been detected** in a given pixel through Landsat, 1984-2023. The darker the color, the longer the kelp has persisted there (up to 40 years). Due to the presence of dark blue pixels, we infer that **kelp has persisted until at least 2023** in the coves by Stormy Stack and Double Point Special Closures, while they have died off in other places along the California coast. The above Google Earth Pro imagery also shows that **this area has interlocking rocky intertidal reef and beach habitat, which is also contiguous with the kelp habitat present here**.

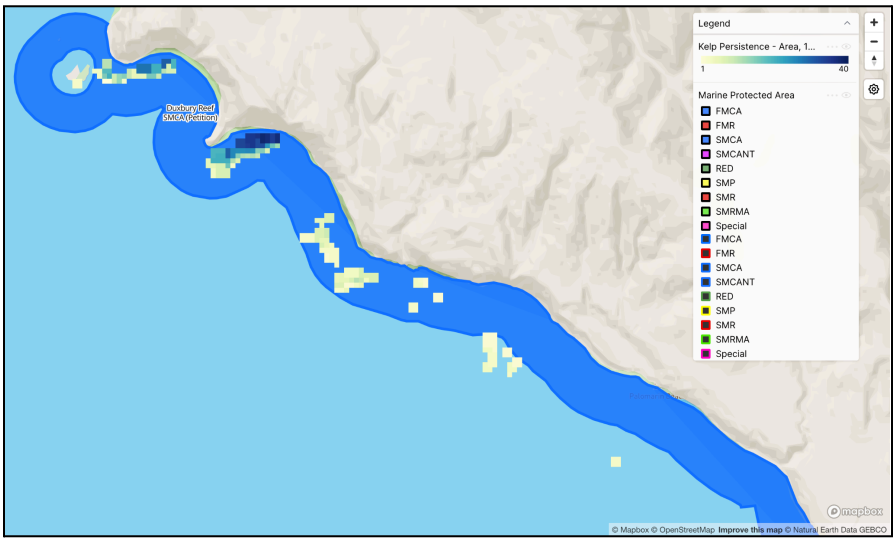
More information about the kelp persistence data file can be accessed at https://portal.edirepository.org/nis/mapbrowse?packageid=knb-lter-sbc.74.26.

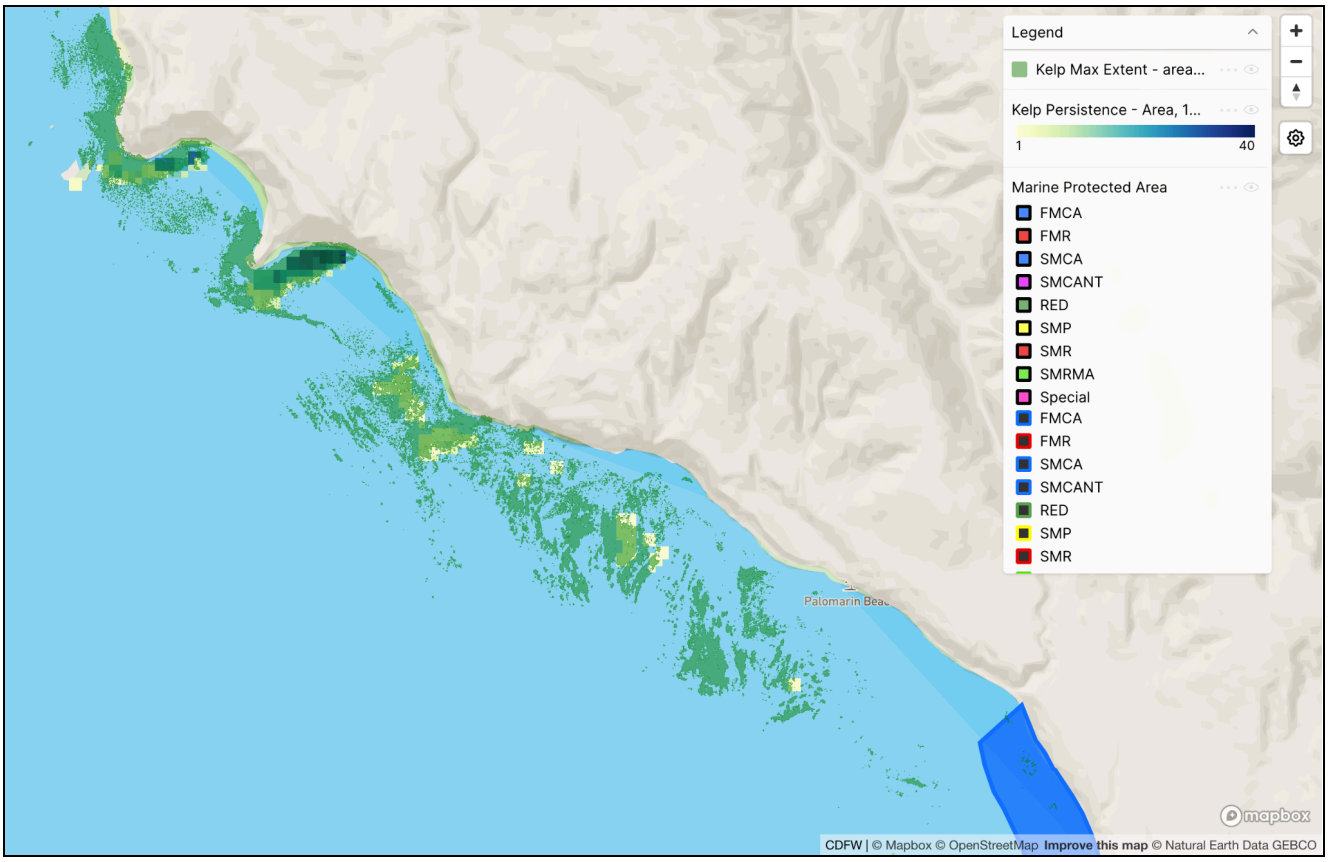
Northern Boundary Extension Area:



These images show **kelp persistence** along the requested northern boundary extension with the Stormy Stack and Double Point Special Closures at the top left. The light green pixels visible south along the coast indicate kelp canopy was detected here at some point between 1984-2023.

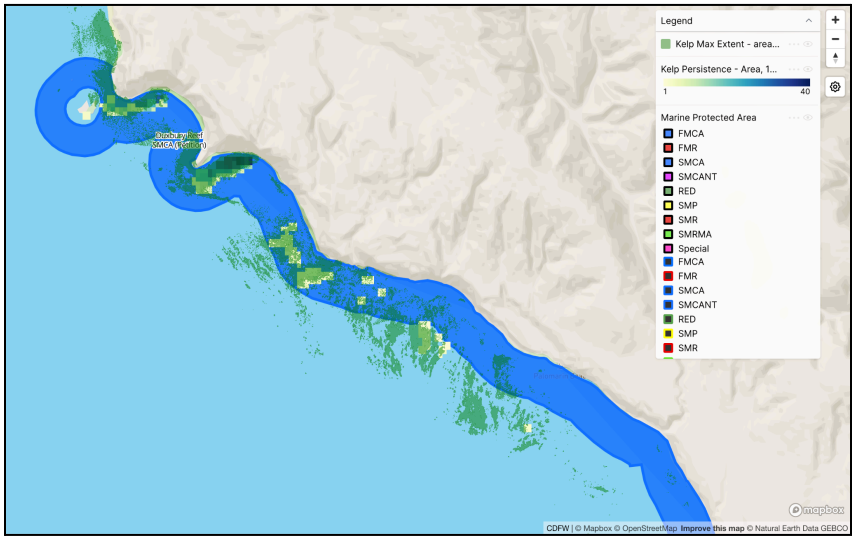
The image to the right shows the overlap of **kelp persistence** from 1984-2023 with the petition Duxbury Reef MPA. **The petition's expanded northern boundary contains much of the past and current kelp habitat, while the existing MPA (shown in the top image) does not.**





Existing Duxbury Reef MPA (above) and Petition Duxbury Reef MPA (below).

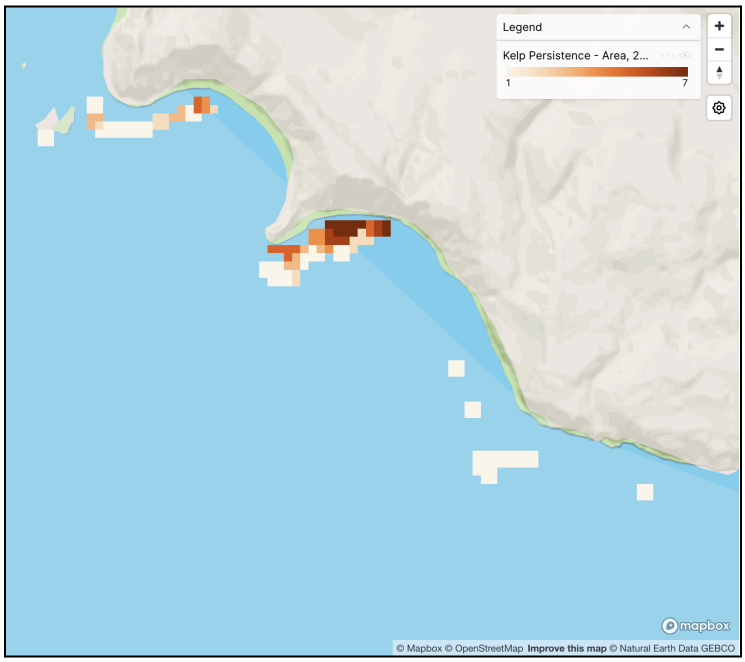
These images show the same extent and layers as the previous two images, but now include the **Kelp Max Extent** layer (transparent green). This dataset shows the maximum extent of kelp canopy as detected in annual surveys conducted by the California Department of Fish and Wildlife from 2002-2006, 2008-2010, and 2013-2016. Maximum extent includes any location where kelp was detected in any of the surveyed years.

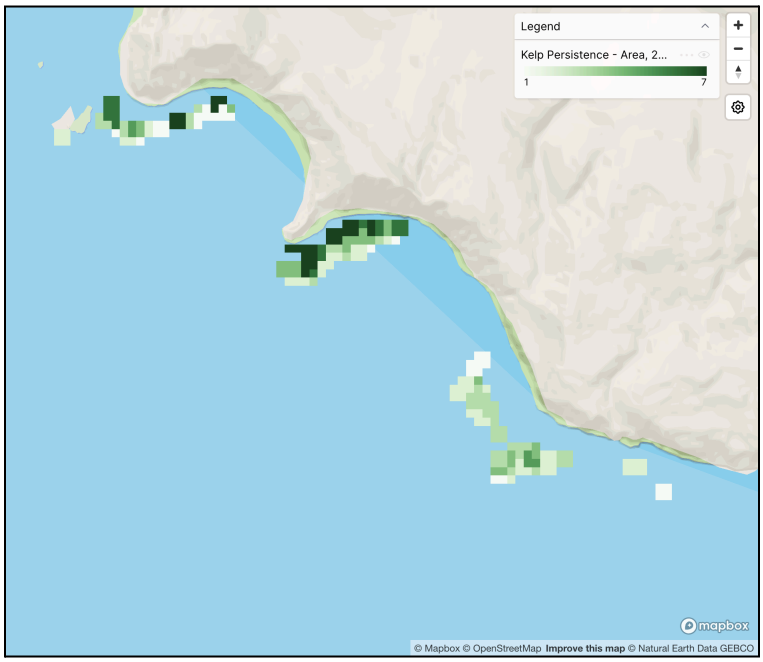


The petition's expanded northern boundary contains much of this kelp canopy, while the existing MPA does not.

Number of years that kelp has been detected in a given pixel (Landsat):

2010-2016 **2017-2023**

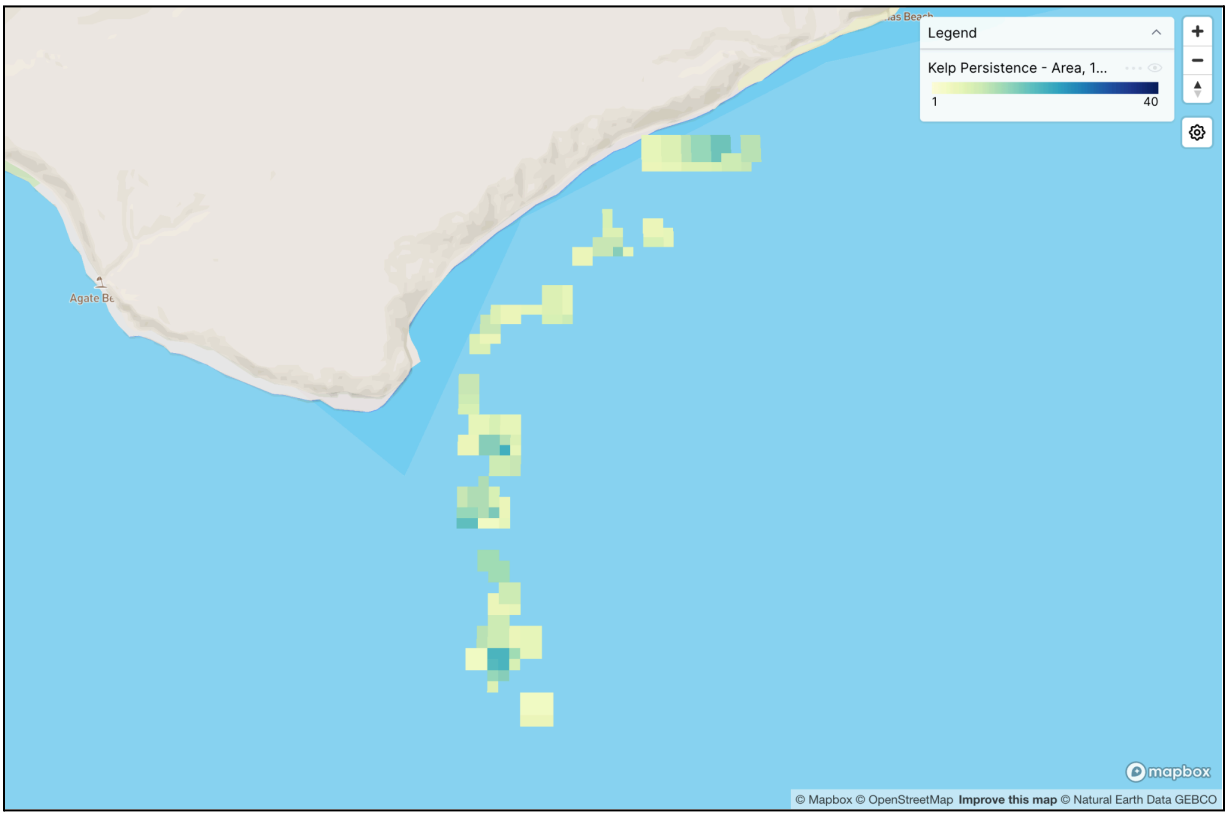




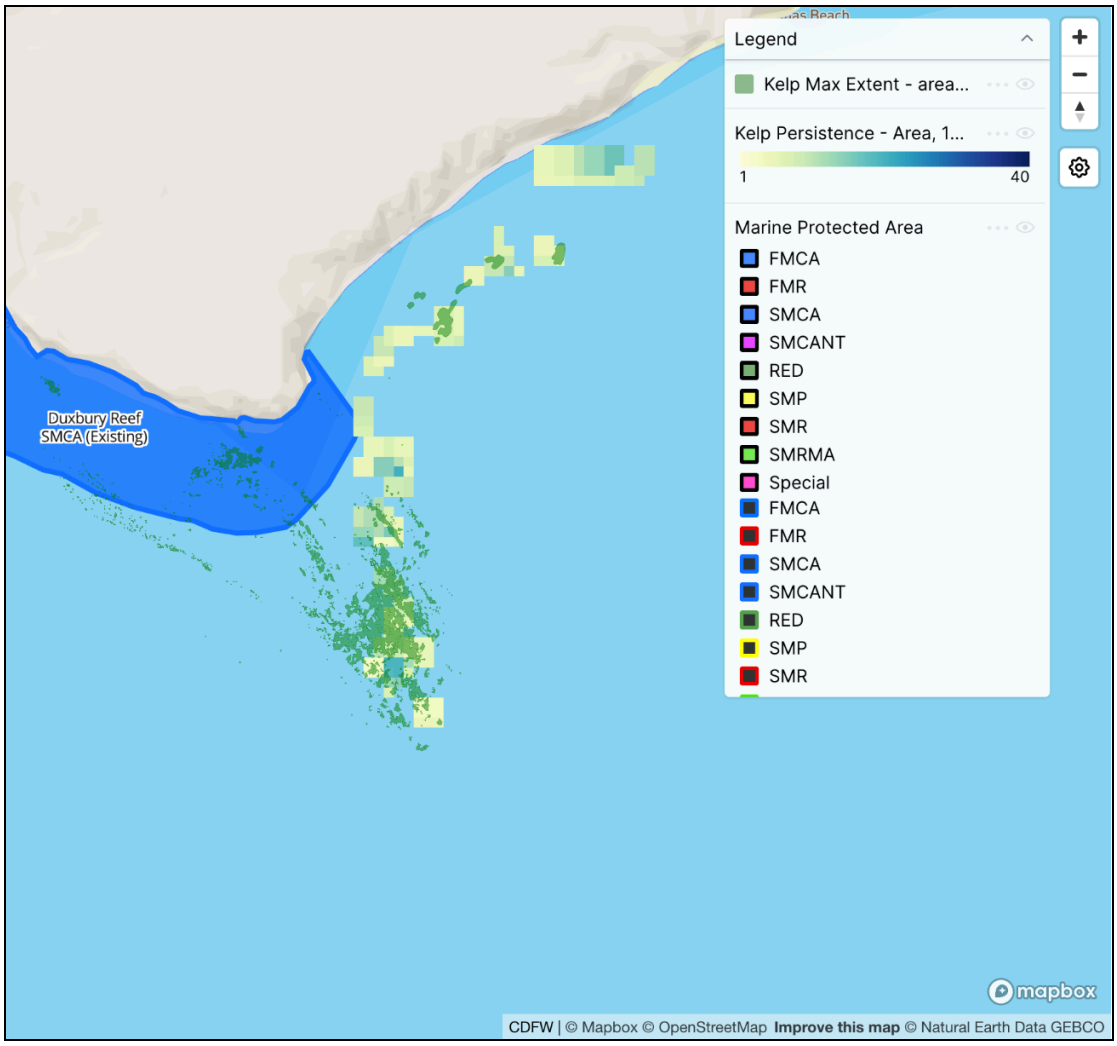
This data shows that, despite the recent kelp die off in much of California, **the kelp forest in the requested northern boundary extension has persisted until as recently as 2023, and perhaps has even increased in the portion just south of the Special Closures** (as shown in the bottom right quadrant of each image). Recent on-site observations have confirmed that the bull kelp extent has increased in the last 12 months, supporting the trend reported through Seasketch.

More information about these data files can be accessed at https://doi.org/10.6073/pasta/a9071a2ce1b78242c2ad1dda5854ec78.

Southern Boundary Extension Area:

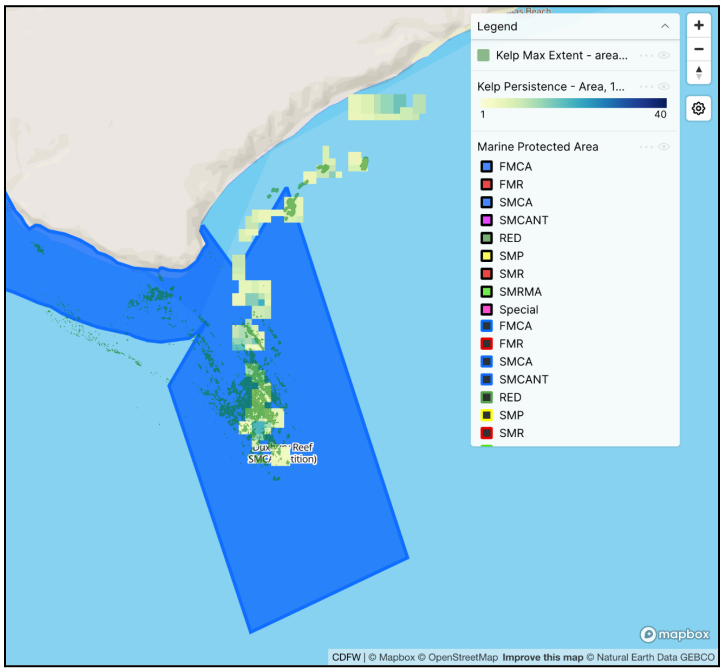


This image shows **Kelp persistence** along the requested southern boundary extension. The green pixels indicate kelp canopy was detected for a number of years between 1984-2023. These are places where kelp could return in the future.



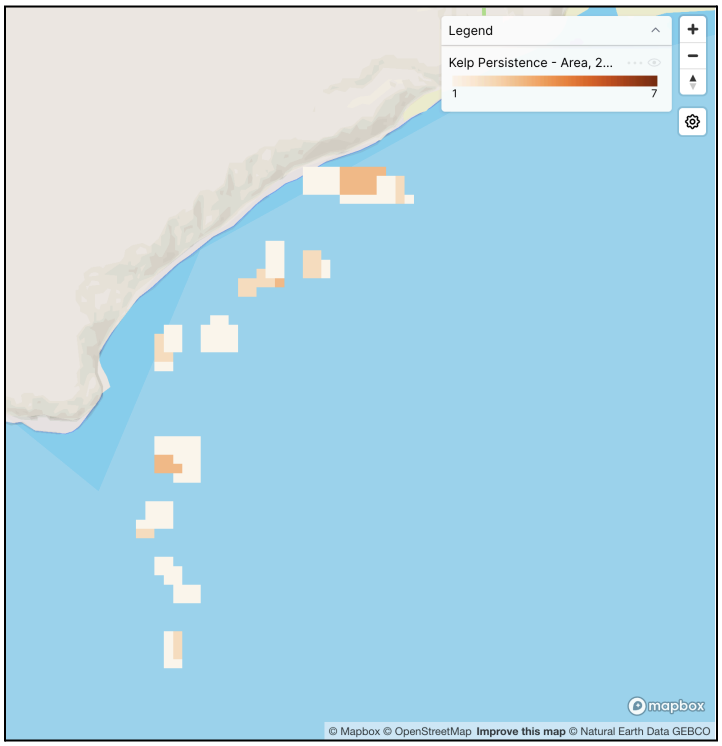
These images show both the kelp persistence layer but now include the **Kelp Max Extent** layer (transparent green). This dataset shows the maximum extent of kelp canopy as detected in annual surveys conducted by the California Department of Fish and Wildlife from 2002-2006, 2008-2010, and 2013-2016. Maximum extent includes any location where kelp was detected in any of the surveyed years.

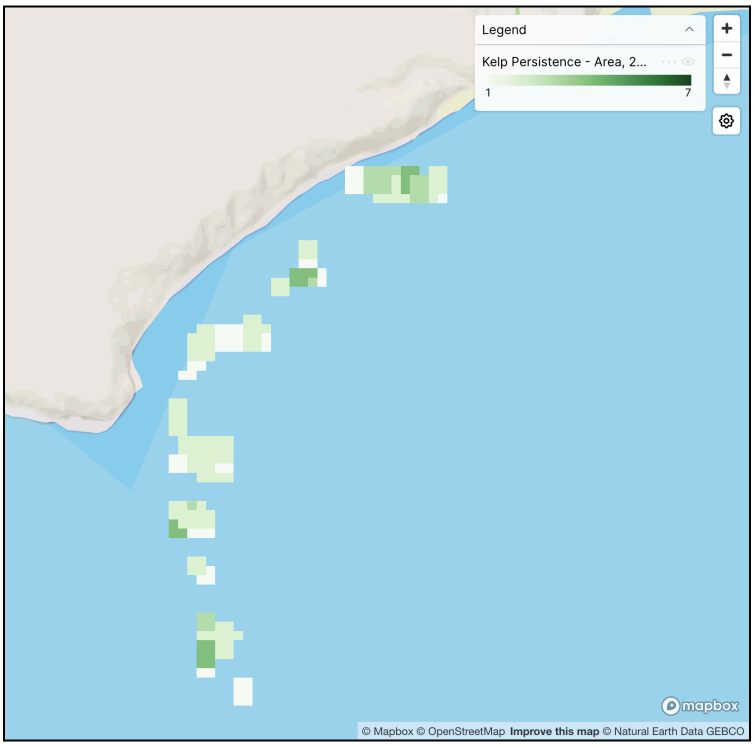
The petition's expanded southern boundary (right) contains much of this kelp canopy, where the existing MPA (top) does not.



Number of years that kelp has been detected in a given pixel (Landsat):

2010-2016 **2017-2023**





Similar to the kelp in the requested northern boundary extension, **this data shows that kelp habitat in the requested southern boundary extension has persisted until as recently as 2023, and perhaps has even increased in areas in recent years** (as shown by the increase in pixels on the left image). Recent on-site observations have confirmed that the bull kelp extent has increased in the last 12 months, supporting the trend reported through Seasketch.

More information about these data files can be accessed at https://doi.org/10.6073/pasta/a9071a2ce1b78242c2ad1dda5854ec78.

ATTACHMENT 21.6

Attachment 21.6
Submitted for Petition #2023-32MPA

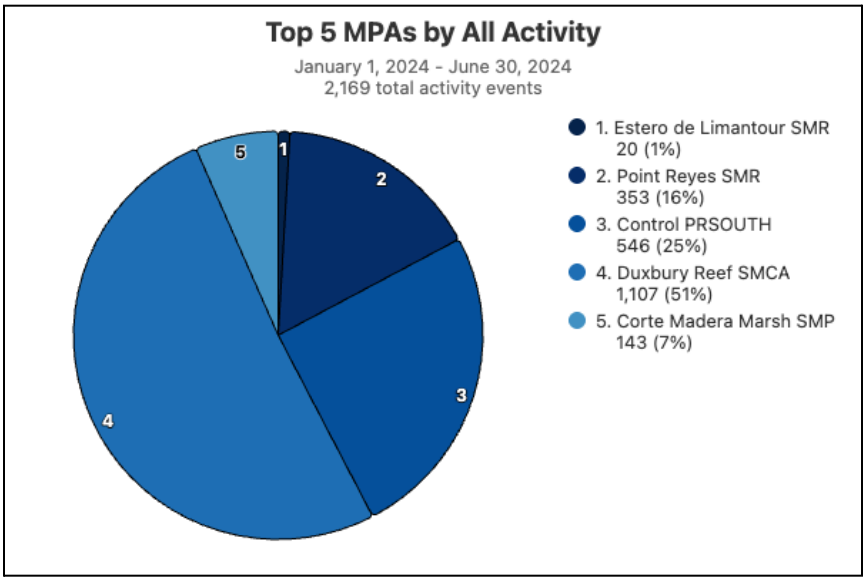
Environmental Action Committee of West Marin

Additional Information on MPA Visitation and Potential Violations at Duxbury Reef in 2024

MPA Watch is a statewide community science program that tracks human activity in California's marine protected areas. It has provided valuable, long-term data on human uses along the coast. The data is used to inform management decisions as well as outreach and education by state and local agencies and other organizations. Data is collected in Marin County by trained volunteers through EAC's Marin MPA Watch program. EAC's Duxbury Docent program establishment in 2022 was informed by MPA Watch data which showed increased visitation and non-compliance at Duxbury Reef in recent years prior to 2022. Docents educate the visiting public, but also contribute to community science through shift reports and MPA Watch surveys. The docent MPA Watch survey is a shorter version than the standard MPA Watch survey at Duxbury Reef. Docents conduct a 10 minute "snapshot" MPA Watch survey during each of their shifts of 2-4 hours, and they also submit shift reports which provide detailed information on visitor engagement and potential MPA violations observed during their entire shift.

Duxbury Reef is a sensitive intertidal habitat where human impacts (trampling and take) have long-term negative impacts on habitat and species. MPA Watch data shows that Duxbury Reef State Marine Conservation Area has the highest activity rate compared to other MPAs surveyed by Marin MPA Watch over all past years, accounting for 47% of all activities in Marin MPA Watch locations, and yet is the smallest survey area in Marin, and one of the smallest in California (activity counts are a proxy for visitation rate).

Below is a chart showing the activity data in the first half of 2024. This is the period of the year that gets high visitation because of the daytime timing of low tides and school field trip season (there are only a handful of daytime low tides during the later summer and fall months that enable access to the reef. The beach is accessible only at mid-tide or lower.) In this period, Duxbury Reef sustained 51% of all activities in Marin County recorded by MPA Watch volunteers.



The number of MPA violations observed and recorded during 2024 at Duxbury Reef far exceeds the number of MPA violations observed in other Marin MPAs.

MPA	January 1 December 31 All Years	January 1, 2024 through December 31, 2024
Estero de Limantour SMR	5	0
Point Reyes SMR	51	10
Control PRSOUTH	0	0
Duxbury Reef SMCA	1,606	132
Corte Madera Marsh SMP	29	0
All MPAs Combined	1,691	142

In 2024, MPA Watch data shows 132 violations at Duxbury Reef. This includes 60 observations of dogs off leash and 65 counts of hand collection of biota. This is much greater than all the other survey locations in Marin County combined and represents a snapshot of activities that actually occur there.

Duxbury Docent shift report data provides additional information from docent shifts.

2024 Duxbury Docent Shift Report Data: January through early November

# Cars	Number Visitors Engaged	Violations reported to CDFW, MC Parks	Total Violations Observed (includes MPA Watch data, dogs offleash, boat fishing w/in 1,000ft	Hand collection or handling of biota	Violations redirected (successful engagement)
	971	2	88	53	72

Example details about violations from Docent Shift Reports:

- *“2 young kids w/ few species in ziploc bags, put all back into pools easily when asked and told why.*
- *“Huge number of youth groups on reef: “…tide pool charts and science teachers so thought they'd be fine without me, but wasn't that way at all - overwhelmed with amount of touching and throwing. Kids on exchange trip … with adults, explained by me and Kent to not touch species and then turned around literally trying to kick mossy chiton - had to explain they were alive and could kill animals. Too many violations to count or report, mostly picking up things in reef and moving them around.*

- *“Was able to persuade someone to leash dog, return biota to pools. Nice people and kids visiting reef today.*
- *“Stopped someone collecting into a glass jar; Another violation: Couple showed me at bottom of steps a video of red octopus they picked up for a bit and put back. I reported to CDFW…I let the couple know that picking up the octopus wasn't a good idea for many reasons and they understood.*

Docents, visitors and Marin County park rangers have repeatedly mentioned the visitor confusion about the MPA regulations that arises when people see fishing for prickleback in the deeper pools on Duxbury Reef, or passing through the SMCA from areas to the south, currently unprotected, with buckets of fish and other biota. Additionally, people are confused by incomplete and erroneous information seen online, that says “some take allowed”. Allowing some take at this highly vulnerable, yet accessible marine habitat ultimately results in excessive violations and harm to marine life.

From: Blake Hermann <[redacted]>
Sent: Friday, May 2, 2025 10:28 AM
To: FGC <FGC@fgc.ca.gov>; Ashcraft, Susan@FGC <[redacted]>; Shuman, Craig@Wildlife <[redacted]>
Cc: Newell, Caroline-Contractor@FGC <[redacted]>; Gonzales, Kara@Wildlife <[redacted]>
Subject: Petition2023-15MPA-AM2 MLPA LOP Breakdown and option preference refinement

Hello all,

This comment is intended primarily for the **July MRC** meeting, but can be tagged in June/August's FGC as well, similar to the MMP analysis. This is an early submission.

See attached analysis document applying the MLPA LOP framework on Petition 15, LOPs were confirmed by the Department. The goal here being to display all options for consideration. Showing those options that maintain MPA network connectivity under this framework (not reducing network protections), those that do reduce connectivity (reducing network protections), and, most importantly, why on an LOP and sizing basis. Working through this framework allowed myself to and will allow stakeholders to view all options and their LOP rankings in their entirety and understand why they are ranked that way under the LOP framework. The conclusion of this framework application being that there are preferred pathways for Petition 15 that grant limited access to pelagic/HMS fisheries while maintaining the existing levels of MPA connectivity the network has today, not reducing overall network protections.

Thank you,

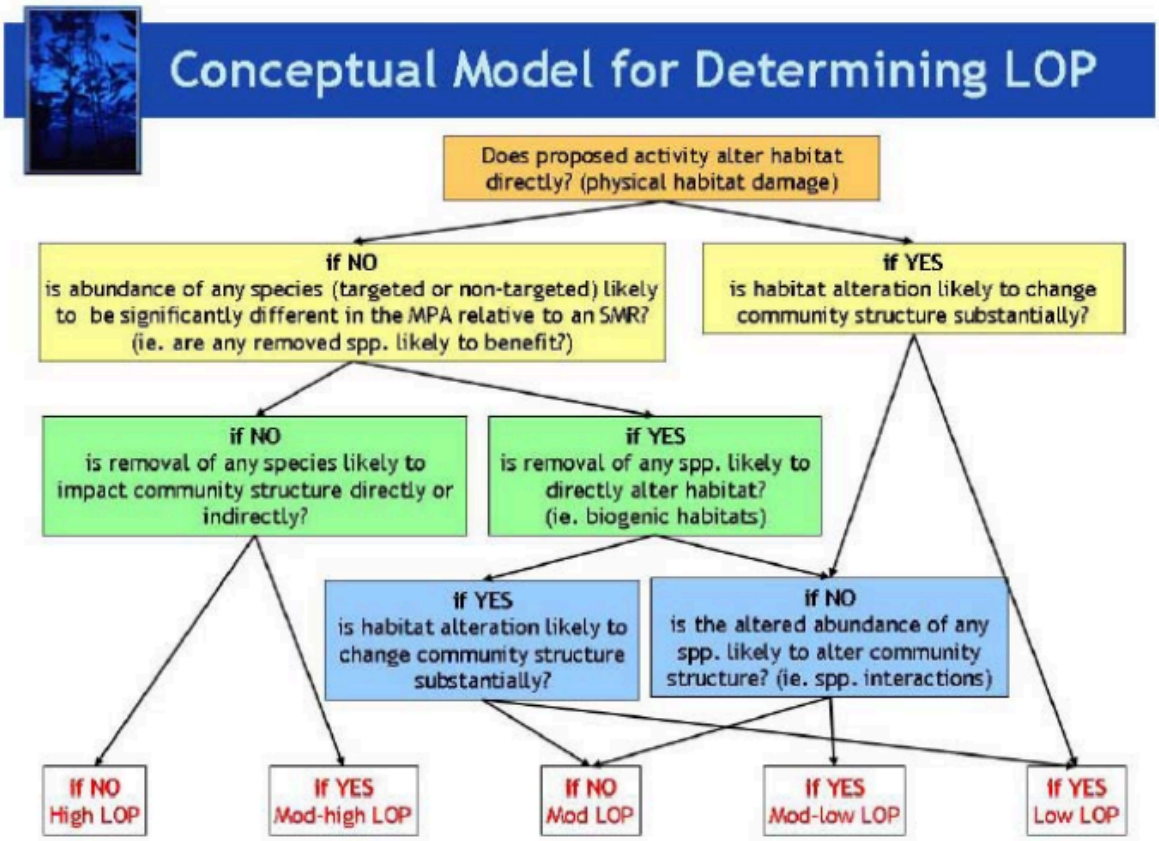
Blake Hermann
Petitioner: Petition2023-15MPA-AM2

Petition2023-15MPA's Levels of Protection (LOP) analysis

Dear Fish and Game Commission Commissioners, MRC, Department and Commission Staff,

Continuing down the adaptive management process of the MPA network, this comment letter serves to look at Petition2023-15MPA-AM2 through the lens of the MLPA's original levels of protection (LOP) and MPA sizing analysis documentation. This letter can be considered similarly to a previous letter submitted looking at the same petition through the lens of the MLPA MPA Master Plan (MMP) submitted at the March 2025 MRC Meeting. It can be seen as a petition analysis document that helps guide final recommendations through an attempt to objectively apply said framework, the LOP framework, on the petition to better refine final outcomes and preferred final options. CDFW's own analysis, though SeaSketch, somewhat mirrors this document, and its application of this framework. This letter serves as a way to shed a more detailed light on the specifics of the protection, sizing, and connectivity requirements for the MPA network under this petition. All framework analysis assignments to the MPAs in Petition2023-15MPA-AM2 in this document were verified by CDFW and should also be viewable on SeaSketch by the time this analysis is published publicly.

Attached below is the conceptual model for determining an LOP in the southern bioregion and the fishing activity chart assigning general LOPs to specific gear types and depth ranges for the southern region. These are the guiding framework pathways for the MLPA in this regard.

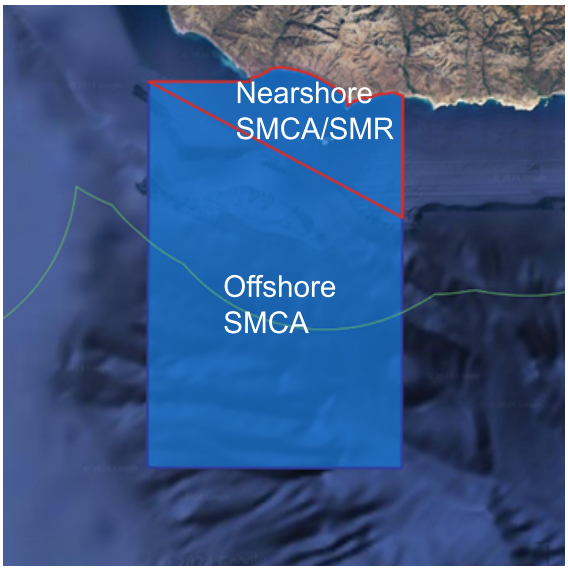
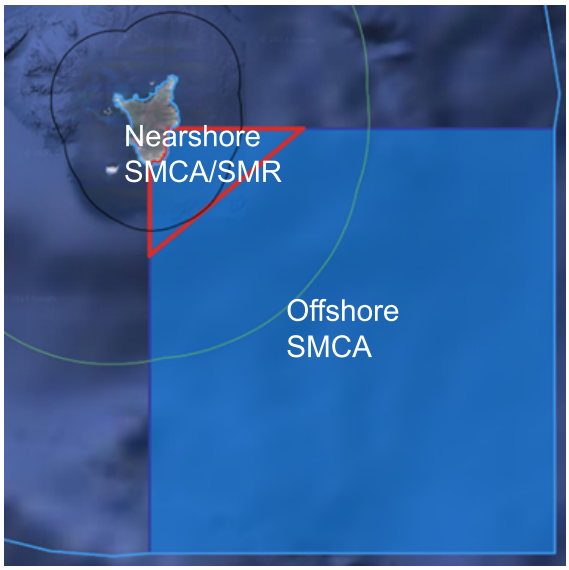


	Level of Protection	MPA Types	Activities associated with this protection level
	Very high	SMR	No take
	High	SMCA	**Coastal pelagic finfish and bonito** (pelagic seine, dip net); **pelagic finfish, bonito and white seabass** (spearfishing); **market squid** (pelagic seine, dip net); **jumbo squid** (H&L-squid jigs); **swordfish** (harpoon); **In water depth > 50m: pelagic finfish, bonito and white seabass** (H&L);
	Mod-high	SMCA	**Pier fishing** (H&L, hoop-net)**; halibut** (spearfishing); **catch and release** (H&L-surface gear, single barbless hooks, and artificial lures) **In water depth <10m: Catch and release** (H&L-single barbless hooks and artificial lures) **In water depth 30<50m on mainland: pelagic finfish, bonito and white seabass** (H&L, surface gear only)**;**
	Moderate	SMCA SMP	**spot prawn** (trap)**; sea cucumber** (diving)**; grunion** (hand harvest); **giant kelp** (hand harvest); **clams** (hand harvest);
	Mod-low	SMCA SMP	**Shore fishing** (H&L, hoop net); **kelp bass, barred sand bass, lingcod, cabezon, and rockfish** (H&L, spearfishing); **sheephead** (H&L, spearfishing, trap); **spotted sand bass and halibut** (H&L); **lobster** (trap, hoop net, diving); **urchin** (diving); **rock crab and Kellet's whelk** (trap); **catch and release** (H&L-general) **In water depth <10m: Catch and release** (H&L-single barbless hooks and artificial lures) **In water depth <50m at islands and <30m on mainland: pelagic finfish, bonito and white seabass** (H&L);
	Low	SMCA SMP	**Rock scallop** (diving); **mussels** (hand harvest); **giant kelp** (mechanical harvest)**; marine algae other than giant and bull kelp** (hand harvest);

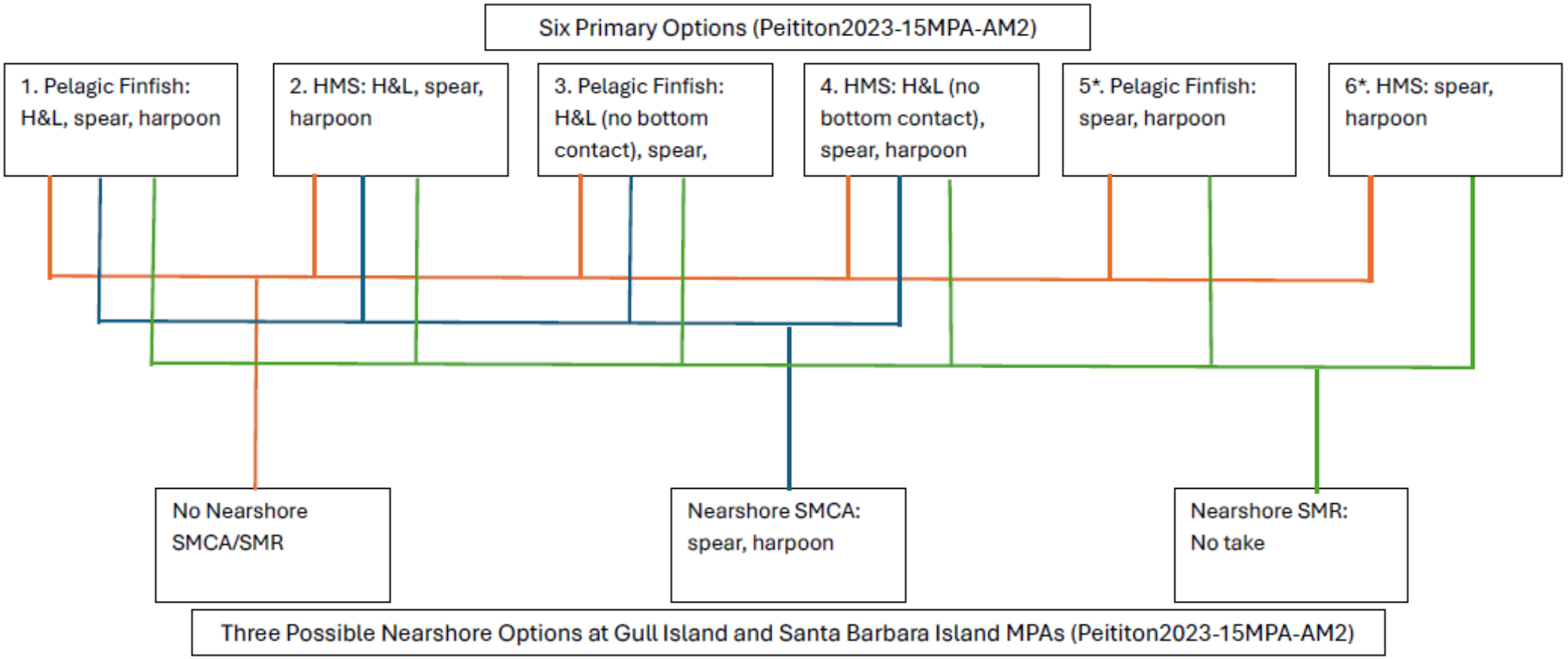
Images 1 and 2: Conceptual LOP model from the MLPA process and specific activities assigned LOPs for the Southern Bioregion specifically.

Peititon2023-15MPA-AM2 contains 3 primary gear allowance options for 2 subsets of pelagic species, pelagic finfish and HMS. This leads to the current six proposed main options on the table. In addition to the six “gear options,” there exists options to create nearshore/offshore MPAs at two of the three MPAs in the petition, Gull Island, and Santa Barbara Island (SBI). These nearshore MPAs would have stricter take regulations or have no-take at all in the nearshore areas where more non-pelagic bycatch exists and could be affected (nearshore coordinates and images on next page).

For any options creating a new nearshore/offshore MPA “cluster,” MLPA definitions state MPA clusters have their total size, nearshore area plus offshore area, counted toward the minimum sizing requirement of 9 square miles for the southern region. If sizing is met, both nearshore and offshore areas must have an LOP of at least moderate high (mod-high) in their respective areas to count toward connectivity (per SeaSketch and Staff). At Gull Island the nearshore MPA would be 5.9 square miles and offshore 14 for a total of 19.9 square miles. At Santa Barbara Island the nearshore MPA would be 3 square miles and offshore 9.8 for a total of 12.8 square miles. Both clusters exceed the minimum 9 square miles requirement; therefore, if both nearshore and offshore areas of each cluster at Gull Island and SBI meet at least a mod-high LOP, the existing MPA connectivity these areas have today will still be in effect after changes are made, not reducing network connectivity or protections like some argue.

Current proposed Coordinates and options for the Nearshore limited take (SMCA) or no take (SMR) areas at the Gull Island and Santa Barbara Island MPAs	
Gull Island Nearshore MPA	Santa Barbara Island Nearshore MPA
The nearshore-offshore border would be bound by a straight line running from 33° 58.000' N. lat. 119° 53.000' W. long, to 33° 55.800' N. lat. 119° 48.000' W. long. within the existing MPA. Regulation options within nearshore area: Take of pelagic finfish or HMS (option dependent) via recreational spearfishing and commercial harpoon swordfish. Or A no-take region	The nearshore-offshore border would be bound by a straight line running from 33° 28.500' N. -118° 59.300' W. to 33° 26.500' N. -119° 02.200' W within the existing MPA. Regulation options within nearshore area: Take of pelagic finfish or HMS (option dependent) via recreational spearfishing and commercial harpoon swordfish. Or A no-take region
	

In total, this means there are up to sixteen possible outcomes, per MPA, at the two MPAs containing possible nearshore/offshore configurations, Gull Island and SBI (see Chart 1 below). For the Footprint MPA, there are only the six main options because there are no proposed nearshore configurations due to the MPA being entirely offshore and covering only waters >50m (the published MPA data sheet states the shallowest zone is 171ft (52m)).



Hook-and-line (H&L) take under all options currently include recreational and commercial H&L take.
Options 3 and 4 also allow possession only of coastal pelagic species (CPS) which would be for baitfish for H&L use.
Spear and harpoon gears are recreational and commercial only, respectively.
*: Options 5 and 6 do not include the nearshore SMCA option as they would have the same take regulations and therefore be redundant leaving 16 total possible configurations.

The goal of Petition2023-15MPA-AM2 is to allow for reasonable levels of HMS or pelagic take that does not affect MPA connectivity and is supported by the MLPA MPA Master Plan (MMP). The MMP analysis of the petition submitted in March 2025 showed that this petition's changes are still supported by the MMP/MLPA. This breakdown now takes a look at the LOP tiers and sizing requirements supplied by the MLPA SAT that determine MPA connectivity. As mentioned, the MLPA states that any reduction below moderate-high (mod-high) LOP loses connectivity. This is not ideal for an outcome of this petition, even though we have SMCAs today that are below that LOP.

At a glance, applying the conceptual LOP model for all of the petition options one can see that we are likely dealing with the high or mod-high LOPs as proposed methods are not altering any habitat, and the abundance of pelagic or HMS are not going to be any different inside the MPA versus the surrounding area. Generally, community structure is not significantly affected by a pelagic finfish allowance, even more so with an HMS allowance, but for now let's assume either could be the case. Using this rationale on the conceptual model we can immediately see that at the worst case we are in a mod-high LOP, a good start.

That being said, as this petition deals with Channel Islands MPAs, LOPs become more strict with the islands, so we need to look at the specific activity chart to understand the lowest LOPs for each option in order to find the best possible final outcome that balances LOP and reasonable take allowances. Broadly speaking, this petition places three gear types on the table in its six options: hook-and-line, spear, and harpoon swordfish. Applying these three gear types to the activity chart we can see that LOPs for spear of pelagic finfish or HMS, and harpoon of swordfish are all high LOPs. The main conflict comes with a hook-and-line allowance at the islands where hook-and-line of pelagic or HMS is either a high LOP if waters are deeper than 50 meters, or a mod-low LOP if they are shallower than 50 meters, this is a major swing in LOP and would lose connectivity in two of the three MPAs in the petition if mod-low is assigned, Gull Island and SBI. The Footprint will have a high LOP no matter what option is selected as it is entirely deeper than 50m. While it was and still is the intent of this petition that any possible limited take allowance for pelagic finfish or HMS is done offshore and deeper than 50m, the "worst case" must be applied when determining an LOP for the two MPAs that are shallower than 50m. However, the petition does provide a "fix" to maintain a high LOP at minimum at Gull Island and SBI, nearshore SMCAs or SMRs. The following chart breaks down these options at each MPA, assigns it the worst case LOP, and gives a brief explanation as to the LOP ranking. Note that Gull island and SBI MPAs are bundled together as their respective LOP rankings and explanations are the same and have the same rationale.

Note: For users that have viewed the petition on SeaSketch, the nearshore SMCA option is displayed at Gull Island and SBI as it has "less protection" than a nearshore SMR. While either a nearshore SMCA or SMR maintain connectivity, the SMCA was selected as it would be the "largest change" to the area and was technically the preferred option in the petition. The nearshore SMR option is certainly still available, but as only one option could be displayed on SeaSketch the SMCA was selected by CDFW for that reason.

Petition2023-15MPA-AM2 The Footprint MPA: Option LOPs		
Option and Take Allowances	Nearshore Option	LOP and Explanation
Option 1: Take of pelagic finfish is allowed via H&L, recreational spear, and commercial harpoon swordfish.	The Footprint MPA contains no nearshore options as it is entirely offshore and deeper than 50m.	**High:** Regardless of the decided on option, in the case of the LOP activity chart and framework, a high LOP is assigned to the entire footprint MPA. The three gear methods provided in all options, H&L, spear, and harpoon swordfish would all be done in waters deeper than 50m for either pelagic finfish or HMS. All methods have a high LOP rank in this case and in this depth range.
Option 2: Take of HMS is allowed via H&L, recreational spear, and commercial harpoon swordfish. CPS possession (for baitfish)		
Option 3: Take of pelagic finfish is allowed via H&L, recreational spear, and commercial harpoon swordfish. Use of bottom-contact gear is restricted.		
Option 4: Take of HMS is allowed via H&L, recreational spear, and commercial harpoon swordfish. Use of bottom-contact gear is restricted. CPS possession (for baitfish)		
Option 5: Take of pelagic finfish is allowed by spear, and harpoon swordfish.		
Option 6: Take of HMS is allowed by spear, and harpoon swordfish.		

Petition2023-15MPA-AM2 Gull Island and Santa Barbara Island MPAs: Option LOPs		
Option and Take Allowances	Nearshore Option	LOP and Explanation
Option 1: Take of pelagic finfish is allowed via H&L, recreational spear, and commercial harpoon swordfish.	No Nearshore MPA	**Mod-low:** Allowance of H&L take of pelagic finfish in the whole MPA technically allows for possible H&L take in waters shallower than 50m. Even if the possibility is low the chance exists and a mod-low LOP is assigned.
	Nearshore SMCA: Pelagic finfish take by spear, and harpoon swordfish Offshore SMCA: Option 1 allowances	**High:** The proposed nearshore MPAs at Gull Island and SBI contain all waters shallower than 50m. The nearshore allowable methods of spear and harpoon are high LOPs nearshore and offshore, and the H&L allowance is now a high LOP as its pelagic finfish allowance is exclusively in waters deeper than 50m.
	Nearshore SMR: No take Offshore SMCA: Option 1 allowances	**Very High/High:** The proposed nearshore MPAs at Gull Island and SBI contain all waters shallower than 50m and would be entirely closed to fishing (no-take), a very high LOP. The allowed H&L, spear, and harpoon gears in the offshore SMCAs are all in waters deeper than 50m, a high LOP.
Option 2: Take of HMS is allowed via H&L, recreational spear, and commercial harpoon swordfish. CPS possession (for baitfish)	No Nearshore MPA	**Mod-low:** Allowed H&L take of HMS in the whole MPA technically allows for possible H&L take in waters shallower than 50m. Even if the possibility is even lower than pelagic finfish chances the chance exists so a mod-low LOP is assigned.

	Nearshore SMCA: HMS take by spear, and harpoon swordfish Offshore SMCA: Option 2 allowances	**High:** The proposed nearshore MPAs at Gull Island and SBI contain all waters shallower than 50m. The nearshore allowable methods of spear and harpoon are high LOPs nearshore and offshore, and the H&L allowance is now a high LOP as its HMS allowance is exclusively in waters deeper than 50m
	Nearshore SMR: No take Offshore SMCA: Option 2 allowances	**Very High/High:** The proposed nearshore MPAs at Gull Island and SBI contain all waters shallower than 50m and would be entirely closed to fishing (no-take), a very high LOP. The allowed H&L, spear, and harpoon gears in the offshore SMCA are all in waters deeper than 50m, a high LOP.
Option 3: Take of pelagic finfish is allowed via H&L, recreational spear, and commercial harpoon swordfish. Use of bottom-contact gear is restricted.	No Nearshore MPA	**Mod-low:** Allowed H&L take of pelagic finfish in the whole MPA technically allows for possible H&L take in waters shallower than 50m. It is not stated in the LOP chart that a no-bottom-contact H&L allowance prevents a mod-low LOP but compared to options without the no-bottom-contact clause this offers some level of higher protections.
	Nearshore SMCA: Pelagic finfish take by spear, and harpoon swordfish Offshore SMCA: Option 3 allowances	**High:** The proposed nearshore MPAs at Gull Island and SBI contain all waters shallower than 50m. The nearshore allowable methods of spear

		and harpoon are high LOPs nearshore and offshore, and the H&L allowance is now a high LOP as its pelagic finfish allowance is exclusively in waters deeper than 50m.
	Nearshore SMR: No take Offshore SMCA: Option 3 allowances	**Very High/High:** The proposed nearshore MPAs at Gull Island and SBI contain all waters shallower than 50m and would be entirely closed to fishing (no-take), a very high LOP. The allowed H&L, spear, and harpoon gears in the offshore SMCAs are all in waters deeper than 50m and are non-bottom-contact, a high LOP.
Option 4: Take of HMS is allowed via H&L, recreational spear, and commercial harpoon swordfish. Use of bottom-contact gear is restricted. CPS possession (for baitfish).	No Nearshore MPA	**Mod-low:** Allowed H&L take of HMS in the whole MPA technically allows for possible H&L take in waters shallower than 50m. It is not stated in the LOP chart that a no-bottom-contact H&L allowance prevents a mod-low LOP but compared to options without the no-bottom-contact clause this offers some level of more protections and is even more restrictive to HMS only.
	Nearshore SMCA: HMS take by spear, and harpoon swordfish Offshore SMCA: Option 4 allowances	**High:** The proposed nearshore MPAs at Gull Island and SBI contain all waters shallower than 50m. The nearshore allowable methods of spear and harpoon are high LOPs nearshore and offshore, and the H&L allowance is now a high LOP as its HMS allowance is exclusively in waters deeper than 50m.

	Nearshore SMR: No take Offshore SMCA: Option 4 allowances	**Very High/High:** The proposed nearshore MPAs at Gull Island and SBI contain all waters shallower than 50m and would be entirely closed to fishing (no-take), a very high LOP. The allowed H&L, spear, and harpoon gears in the offshore SMCAs are all in waters deeper than 50m, are non-bottom-contact, and only allow for HMS take, a high LOP.
Option 5: Take of pelagic finfish is allowed by spear, and harpoon swordfish.	No Nearshore MPA	**High:** As this option removes the H&L allowances and only allows pelagic finfish spearfishing or harpoon swordfish take, the entire MPA across its full depth ranges gets a high LOP.
	Nearshore SMCA: Pelagic finfish take by spear, and harpoon swordfish Offshore SMCA: Option 5 allowances	**<u>Redundant:</u>** Not needed as nearshore SMCA would have the same regulations as offshore. (Still high LOP)
	Nearshore SMR: No take Offshore SMCA: Option 5 allowances	**Very High/High:** Same spear and harpoon allowable methods but restricted to offshore SMCA only for pelagic finfish. Nearshore would be no-take, a very high LOP, while offshore would have the spear and harpoon allowances, a high LOP.

Option 6: Take of HMS is allowed by spear, and harpoon swordfish.	No Nearshore MPA	**High:** As this option removes the H&L allowances and only allows HMS spearfishing or harpoon swordfish take, the entire MPA across its full depth ranges gets a high LOP.
	Nearshore SMCA: HMS take by spear, and harpoon swordfish Offshore SMCA: Option 6 allowances	**<u>Redundant:</u>** Not needed as nearshore SMCA would have the same regulations as offshore. (Still high LOP)
	Nearshore SMR: No take Offshore SMCA: Option 6 allowances	**Very High/High:** Same spear and harpoon allowable methods but restricted to offshore SMCA only for HMS. Nearshore would be no-take, a very high LOP, while offshore would have the spear and harpoon allowances, a high LOP.

Working through this framework we gain an unbiased analysis of the proposed option combinations to see which are most viable. Balancing the assigned LOPs of each option and the support of the MLPA and its MPA Master Plan, with fisheries access is and should be a key goal here. Using this framework we can see there are several viable options meeting a high LOP and in some cases a high/very high LOP in all three existing MPAs preserving any connectivity they already have if they meet MPA sizing requirements, which Gull Island and SBI do. We can also see that there are options that result in a moderate-low LOP, losing connectivity regardless of size. These mod-low options are exclusive to options regarding the two MPAs attached to the islands, Gull Island and SBI and allowing hook-and-line take of HMS or pelagic finfish nearshore (<50m). All of these problems can be resolved by deploying the nearshore SMCA or SMR options which both restrict hook-and-line take <50m making the nearshore and offshore MPAs a “cluster” with high LOPs at least, or high/very high if the nearshore SMR and offshore SMCA is used, maintaining network connectivity.

<u>Analysis Outcomes:</u>

As a result of this analysis, while all of the above options are still in Peititon2023-15MPA-AM2, to preserve biological connectivity between the MPA network it is best to consider only those options with high or high/very high LOPs for final action. This means, for The Footprint MPA, all options are still available, six in total, with the same preference structure in the petition. This is because no matter the option selection The Footprint MPA will have a high LOP.

For the Gull Island MPA and Santa Barbara Island MPA, it is requested to less-consider all option configurations that result in a below moderate-high LOP, and to select either a nearshore SMCA or SMR to better protect nearshore species and to maintain a high LOP in each MPA cluster under the preferred options that allow H&L access for pelagic finfish or HMS. This can be done by leaving the 6 primary options in, applying them to the offshore SMCA only, and having either a nearshore SMCA or SMR go in with no H&L allowance. It was preferred in the petition that this be a nearshore SMCA, but a nearshore SMR is certainly still an available choice due to an SMR offering possibly better nearshore enforcement. Any of the six main options can still be applied in the offshore SMCA and have a high LOP, resulting in MPA clusters at Gull Island and SBI that are of sufficient size and LOP to maintain the connectivity they already have, exceeding the minimum LOP requirement by one whole tier. The preference structure for the offshore SMCAs is the same order as stated in the current petition.

In closing, I would like to thank all staff members that were able to supply the original MLPA LOP and sizing documents for this analysis, and the SeaSketch team/CDFW for developing such an intuitive application for the public to look at these petitions. Hopefully, this individual analysis allows all to better grasp Petition2023-15MPA-AM2's requests, and better understand how these options do have paths to retain, not reduce, our MPA networks's existing protections while allowing reasonable levels of access as well.

Thank you,
Blake Hermann
Petitioner - Petition2023-15MPA-AM2