

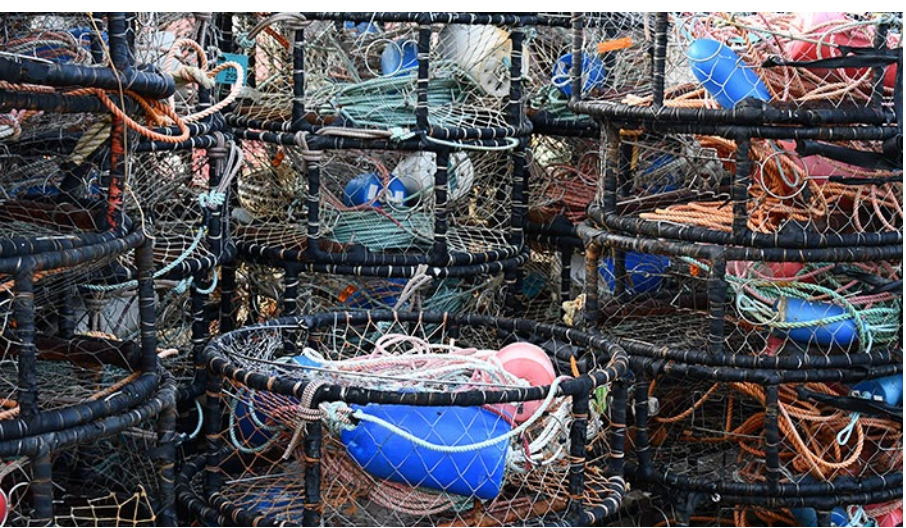


Final Environmental Impact Report
Volume II: Draft Environmental Impact
Report, as Revised

California Commercial Dungeness Crab Fishery Risk Assessment and Mitigation Program Regulatory Amendments

State Clearinghouse No. 2022090320

March 2025



Prepared for:



California Department of
Fish and Wildlife

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LIST OF ABBREVIATIONS

°C	Celsius
°F	Fahrenheit
AB	Assembly Bill
ASBS	Areas of Special Biological Significance
BLM	US Bureau of Land Management
BOEM	US Bureau of Ocean Energy Management
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Cal/OSHA	California Occupational Safety and Health Administration
CalEPA	California Environmental Protection Agency
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCC	California Coastal Commission
CCIEA	California Current Integrated Ecosystem Assessment
CCR	California Code of Regulations
CCS	California Current System
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CMA	Central Management Area
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO ₂	carbon dioxide
CP	Conservation Plan
CRHR	California Register of Historical Resources
CWA	Clean Water Act
DCTF	Dungeness Crab Task Force
DDE/DDD	dichlorodiphenyldichloroethane
DDT	dichlorodiphenyltrichloroethane
DPS	Distinct Population Segment
Draft EIR	Draft Environmental Impact Report
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources

EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EIR	environmental impact report
ENSO	El Niño Southern Oscillation
EPA	US Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act of 1986
ESA	federal Endangered Species Act
EZ	Exclusion Zone
FGC	California Fish and Game Code
GHG	greenhouse gas
HAP	hazardous air pollutant
ITP	incidental take permit
LMH	Large Marine Heatwave
MBTA	Migratory Bird Treaty Act
MLPA	Marine Life Protection Act
MMA	marine management area
MMPA	Marine Mammal Protection Act
MMTCO ₂ e	metric tons of carbon dioxide equivalents
MPA	marine protected area
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NMA	Northern Management Area
NMFS	National Marine Fisheries Service
NMS	national marine sanctuary
NO	nitric oxide
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NOAA	National Oceanic and Atmospheric Administration
NOP	notice of preparation
NPGO	North Pacific Gyre Oscillation
NPH	North Pacific High
NRHP	National Register of Historic Places
OAL	Office of Administrative Law
ONI	Oceanic Niño Index
OPC	California Ocean Protection Council
OSHA	Occupational Safety and Health Administration

PAH	polyaromatic hydrocarbon
PCB	polychlorinated biphenyl
PDO	Pacific Decadal Oscillation
PM	particulate matter
PM ₁₀	respirable particulate matter with an aerodynamic diameter of 10 micrometers or less
PM _{2.5}	fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less
PRC	Public Resources Code
RAMP	Risk Assessment and Mitigation Program
ROG	reactive organic gases
RWQCB	regional water quality control board
SB	Senate Bill
SIP	State Implementation Plan
SLC	State Lands Commission
SO ₂	sulfur dioxide
SPCC	Spill Prevention, Control, and Countermeasure
SST	sea surface temperature
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
Tri-State	Tri-State Dungeness Crab Committee
USC	US Code
USCG	US Coast Guard
USFWS	US Fish and Wildlife Service
VGP	Vessel General Permit
VIDA	Vessel Incident Discharge Act
WQO	Water Quality Objective

EXECUTIVE SUMMARY

ES.1 INTRODUCTION

The California Department of Fish and Wildlife (CDFW) proposes to amend Title 14 Section 132.8 of the California Code of Regulations (CCR) codifying the Risk Assessment and Mitigation Program (RAMP) for the California commercial Dungeness crab fishery, which is the proposed project subject to approval by CDFW and compliance with the California Environmental Quality Act (CEQA). The regulatory amendments would refine and further develop existing RAMP provisions to reduce the risk and severity of marine life entanglements and improve identification of entanglements in California commercial Dungeness crab gear. The RAMP amendments would also strengthen California's regulatory authority to implement Conservation Plan (CP) measures to support the National Marine Fisheries Service's (NMFS's) discretionary approval and issuance of an Incidental Take Permit (ITP) for the potential take of specified Actionable Species under Section 10 of the federal Endangered Species Act (ESA) for the California commercial Dungeness crab fishery (the "project").

This summary is provided in accordance with State CEQA Guidelines Section 15123. As stated in Section 15123(a), "[a]n EIR [environmental impact report] shall contain a brief summary of the proposed action and its consequences. The language of the summary should be as clear and simple as reasonably practical." As required by the guidelines, this chapter includes: (1) a summary description of the project, (2) a synopsis of environmental impacts and recommended mitigation measures (Table ES-1, presented at the end of this summary), (3) identification of the alternatives evaluated and of the environmentally superior alternative, and (4) a discussion of the areas of controversy associated with the project and issues to be resolved.

ES.2 SUMMARY DESCRIPTION OF THE PROJECT

ES.2.1 Project Location

Subject to RAMP regulations (14 CCR Section 132.8), the commercial Dungeness crab fishery is located within ocean and coastal waters off California. The project's location (referred to as "project area" in this EIR) encompasses the portion of the Exclusive Economic Zone (EEZ – the area within 200 nautical miles of the shoreline) extending from the California/Oregon border in the north to the California/Mexico border in the south (Figure ES-1). Although the commercial Dungeness crab fishery occurs almost exclusively north of Point Conception (CDFW 2020), CDFW jurisdiction over the fishery extends throughout the portion of the EEZ off California's coast (16 US Code Section 1856 note), which historically has been divided at the Sonoma-Mendocino County line into two areas that have slightly different fishing seasons. The Northern Management Area (NMA) extends from Oregon to the Sonoma-Mendocino County line, and the Central Management Area (CMA) extends from the Sonoma-Mendocino County line to Mexico.

ES.2.2 Background and Need for the Project

Reported entanglement of Actionable Species (blue whale [*Balaenoptera musculus*], humpback whale [*Megaptera novaengliae*] Central America Distinct Population Segment (DPS) and Mexico DPS, and Pacific leatherback sea turtle [*Dermochelys coriacea*]) in fishing gear off the West Coast has increased in recent years (Saez et al. 2021). The Actionable Species are protected under ESA. Trap gear from the California commercial Dungeness crab fishery, one of the most valuable commercial fisheries in California, is known to contribute to these entanglements (Saez et al. 2021). Between 2014 and 2023, there were 52 known humpback whale, three known blue whale, and two known Pacific leatherback sea turtle entanglements in California commercial Dungeness crab gear (Table ES-1).



Source: Adapted by Ascent in 2024.

Figure ES-1 Project Area

Table ES-1 Confirmed Entanglements in California Commercial Dungeness Crab Gear by Year for Each Actionable Species, 2014–2023

Year	Blue Whale	Humpback Whale	Pacific Leatherback Sea Turtle
2014	0	2	0
2015	0	7	0
2016	2	19	1
2017	1	3	0
2018	0	7	0
2019	0	3	0
2020	0	1	0
2021	0	1	0
2022	0	4	0
2023	0	5	1
Total	3	52	2
Annual average	0.3	5.2	0.2

Sources: Saez et al. 2021; NMFS 2023.

Although take of all three Actionable Species has been documented in California commercial Dungeness crab gear, the highest number of entanglements has been of humpback whales. Of the 52 humpback whale entanglements, 28 (54 percent) occurred during the 2014–2016 Large Marine Heatwave, which was a historically unusual, prolonged warmwater event. This large marine heatwave event led to an extended delay in the 2015–2016 Fishing Season. Santora et al. (2020) directly connects the heatwave’s impacts on fishery operations and Actionable Species distributions with the dramatic increase in large whale entanglements documented in 2015 and 2016. Although the number of entanglements has since declined, the entanglements documented during this large marine heatwave were the impetus for CDFW’s increasingly active management of the Dungeness crab fishery and triggered the requirement that CDFW apply for an ITP from NMFS.

Senate Bill (SB) 1309, also known as the 2018 Fisheries Omnibus Bill, added Section 8276.1 to the Fish and Game Code (FGC). FGC Section 8276.1 mandated CDFW to adopt RAMP into regulation. CDFW adopted the RAMP regulation in October of 2020, after consultation with stakeholders that included the California Dungeness Crab Fishing Gear Working Group (Working Group), a collaborative advisory body consisting of commercial and recreational fishing representatives; environmental organization representatives; scientists; members of the disentanglement network; and state and federal agencies. As codified in regulation, RAMP formally established criteria and protocols to evaluate and respond to the potential risk of marine life entanglement. It is a dynamic management framework that establishes thresholds for determining if entanglement risk is elevated, specifies potential management actions, and requires use of the best available science when determining appropriate management actions by the CDFW Director. The proposed project consists of amendments to the RAMP regulations, incorporating feedback from various stakeholders, guidance from NMFS to help CDFW acquire the ITP, and lessons learned from recent experience implementing the program.

INCIDENTAL TAKE PERMIT

The federal ESA requires that CDFW obtain an ITP from NMFS for the incidental take of Actionable Species through management of the California commercial Dungeness crab fishery. The required ITP application and proposed implementing agreement has been submitted to NMFS for federal approval and issuance of an ITP to CDFW. The ITP would provide federal authorization for limited incidental take of Actionable Species associated with the California commercial Dungeness crab fishery.

To obtain the ITP, CDFW must work with NMFS to develop a CP that establishes a comprehensive management framework for NMFS to determine that the California commercial Dungeness crab fishery is not likely to jeopardize the continued existence of the Actionable Species. The CP, as required by NMFS pursuant to the ESA, serves as the primary source of information for CDFW's application for the ITP and the management plan prescribing the California commercial Dungeness crab fishery's ESA compliance strategy. The conservation measures developed in the CP helped inform the proposed RAMP regulatory amendments; however, as a required component of the federal ITP, the CP is not subject to a discretionary approval action by CDFW.

CDFW is requesting a 15-year-term, renewable ITP from NMFS. This 15-year permit would provide sufficient time to implement the CP and evaluate the adaptive management framework and provide greater predictability for fishery participants. CDFW also notes that fishery managers in Oregon and Washington are seeking ITPs with similar permit terms.

CDFW requests in its ITP application the following allowable take levels of Actionable Species by the California commercial Dungeness crab fishery: up to 25 humpback whales from the Mexico DPS, 10 humpback whales from the Central America DPS, 6 blue whales, and 2 Pacific leatherback sea turtles. For purposes of determining whether these take thresholds have been reached, CDFW would consider each confirmed entanglement of an Actionable Species in California commercial Dungeness crab gear (reported from any location) to constitute take of an individual.

THE CONSERVATION PLAN

CDFW has been working closely with NMFS to develop the CP for several years. The document has been going through the final stages of development as of December 2024. While the decision to approve and adopt the CP rests with NMFS, CDFW is not expecting the fundamental management framework to change substantially. Consistent with RAMP, the objectives of the CP are as follows:

1. reduce the co-occurrence of humpback whales, blue whales, and Pacific leatherback sea turtles with California commercial Dungeness crab fishing activity by implementing fishery management measures that reduce entanglement risk;
2. minimize the likelihood of Actionable Species entanglement in lost or abandoned California commercial Dungeness crab gear by increasing opportunities for derelict gear recovery and enhancing lost gear tracking and reduction measures;
3. mitigate the impacts of entanglements of Actionable Species by supporting entanglement reporting, education, and analysis to reduce the likelihood of serious or fatal injuries.

To achieve these goals, CDFW plans to pursue a two-prong approach of avoidance and minimization. CDFW and the commercial Dungeness crab fishery would meet the first two objectives by first avoiding co-occurrence of Dungeness crab gear and Actionable Species. For co-occurrence that may inevitably occur, actions would be taken under the remaining objective to minimize the severity of any potential entanglement to the maximum extent practicable. As the primary instrument allowing CDFW to control the presence of active commercial Dungeness crab gear in the ocean, the RAMP regulations serve as the centerpiece of the CP's avoidance strategy.

ES.2.3 Project Objectives

The specific objectives of the proposed RAMP regulatory amendments are listed below.

1. use ongoing risk evaluation to reduce risk of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in commercial Dungeness crab gear throughout the project area using active management;
2. improve identification of entanglements of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area;

3. reduce the likelihood and/or severity of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area by authorizing the use of alternative fishing gear;
4. strengthen regulatory authority to implement actions designed to reduce entanglement risks, including CP goals and measures and federal ITP requirements; and
5. resolve existing inefficiencies, deficiencies, and ambiguities within RAMP that limit CDFW's ability to respond to Actionable Species entanglement, enforce management actions, collect data, and improve management tools.

ES.2.4 Proposed Project

The proposed amendments to RAMP regulations constitute the proposed project for purposes of CEQA compliance. They are part of CDFW's comprehensive strategy to avoid, minimize, mitigate, and monitor entanglements of Actionable Species in commercial Dungeness crab fishing gear off the coast of California consistent with the framework established by the CP. The proposed amendments would add RAMP components consisting of new buoy and line marking requirements and modifying existing RAMP components as described below. These regulatory changes are being proposed to satisfy requirements for the ITP pursuant to NMFS guidance, help streamline implementation processes to conserve staff resources, and clarify existing language to facilitate implementation and enforcement of RAMP.

PROPOSED RAMP REGULATORY AMENDMENTS

The revisions proposed in 14 CCR Section 132.8 (i.e., the RAMP regulations) are summarized below and discussed further in the sections that follow.

- ▶ Clarify that an Actionable Species entanglement involving California commercial Dungeness crab gear observed anywhere would be considered as a Confirmed Entanglement.
- ▶ Clarify that an Actionable Species entanglement in Unknown Fishing Gear would count as a Confirmed Entanglement only if it is reported from a Fishing Zone off California.
- ▶ Clarify that Confirmed Entanglements would be assigned based on information provided by NMFS, and would be made when sufficient data are available, but no longer than on a quarterly basis.
- ▶ Remove provision pertaining to Confirmed Entanglements involving multiple fisheries.
- ▶ Simplify Confirmed Entanglement calculation by repealing the concept of Impact Score.
- ▶ Consider unidentifiable gear as Unknown Fishing Gear unless the gear in question is entirely inconsistent with a Dungeness crab trap.
- ▶ Phase out assignment of Confirmed Entanglements in Unknown Fishing Gear to the Dungeness crab fishery based on a new line marking requirement.
- ▶ Specify that Fishing Zones would extend to all "Ocean Waters" within the specified area.
- ▶ Remove the concept of "Fishing Grounds" and apply the 100-fathom boundary to only the Marine Life Concentration surveys.
- ▶ Define "Ocean Waters".
- ▶ Remove Fishing Zones 6 and 7.
- ▶ Move the start time of risk assessments from November 1 to October 15 and discontinue assessment once a Fishing Zone has been closed for the rest of the season.
- ▶ Clarify that a management action would remain in effect until it is revoked.

- ▶ Clarify that if a Fishing Zone is closed for the season, only approved Alternative Gear would be used in that zone for the rest of the season.
- ▶ Institute revised Confirmed Entanglement thresholds to align with ESA and anticipated requirements under an ITP.
- ▶ Stipulate that the validity of a survey for risk assessment would no longer expire after a specified period of time.
- ▶ Elevate a management action's effectiveness at minimizing entanglement to its primary goal.
- ▶ Consolidate the spatial data on the Actionable Species under one subsection and explicitly allow the consideration of data in areas adjacent to Fishing Zones.
- ▶ Extend consideration of entanglement pattern from only the ongoing calendar year and fishing season to prior years and seasons as well while crafting management actions.
- ▶ Remove Fleet Advisory as a management action.
- ▶ Update fishery closure requirements by clarifying that all fishing gear must be removed from a closed Fishing Zone by the effective date of the fishery closure; and crabs from delayed or closed zones cannot be taken, possessed, sold, or landed, with special stipulations for crabs taken from these zone(s) right before closure.
- ▶ Further clarify that all Dungeness crab permit holders, whether they are using traditional or Alternative Gear, must submit the bi-weekly report when they have gear in any Fishing Zone(s); reports would be due on the first and sixteenth of each month, and may be submitted through a CDFW provided form in addition to email or text.
- ▶ Require bi-weekly reports to include the due dates and number of newly lost traps known to each permit holder.
- ▶ Require an end-of-season report due two weeks following the submission of each permit holder's last bi-weekly report of a fishing season documenting the traps lost during that season and their associated buoy tags.
- ▶ Update requirements for electronic monitoring systems by commercial Dungeness crab vessels when RAMP management measures are in place; monitoring systems would have to be able to track vessel accurately without interruption; tampering would be prohibited, and any interruption would have to be reported and corrected before fishing could resume.
- ▶ Require each main buoy to be legibly marked to identify the fishery and permit holder.
- ▶ Require trap line marking to identify the gear belonging to the Dungeness crab fishery.
- ▶ Further stipulate the types of limitations or conditions that may be attached to the authorization of an Alternative Gear.

SPATIAL MANAGEMENT

Seven Fishing Zones are currently defined under RAMP for the commercial Dungeness crab fishery: Fishing Zones 1-6 (extending from the Oregon/California border to the north and US/Mexico border to the south), which collectively comprises the project area, and Fishing Zone 7 (designated as the "Pacific Leatherback Sea Turtle Foraging Area"), which encompasses the southern portion of Fishing Zone 2, the entirety of Fishing Zone 3, and the northern portion of Fishing Zone 4 (see Figure 2-8). The proposed amendments would streamline spatial management of the Dungeness crab fishery into five Fishing Zones with the following latitudinal boundaries (see Figure 2-9):

- ▶ Zone 1: From the California/Oregon border (42° N latitude) to Cape Mendocino (40° 10' N latitude).
- ▶ Zone 2: From Cape Mendocino to the Sonoma/Mendocino county line (38° 46.125' N latitude).
- ▶ Zone 3: From Sonoma/Mendocino county line to Pigeon Point (37° 11' N latitude).
- ▶ Zone 4: From Pigeon Point to Lopez Point (36° N latitude).
- ▶ Zone 5: From Lopez Point to Point Conception (34° 27' N latitude).

Instead of defining a specific Fishing Zone focused on leatherback sea turtles, management actions aimed to conserve the species would be applied to Fishing Zones 3 and 4, which closely mirror the extent of Fishing Zone 7.

Marine Life Concentrations would be evaluated within the portions of Fishing Zones 1-5 between shore and 100 fathoms (as defined in 50 CFR Sections 660.71-660.72).

RAMP SCHEDULE AND THRESHOLDS

Under the proposed project, CDFW would continue to conduct surveys from aerial and/or vessel platforms between shore and 100 fathoms in Fishing Zones 1-5 to evaluate the abundance and distribution of Actionable Species. However, the start date of risk assessments would be moved from November 1 to October 15 of each year and would cease once a season is closed. When weather or mechanical issues prevent Marine Life Concentrations surveys from being conducted, CDFW would review and consider other sources of current information, including aerial or vessel surveys conducted by other partners. If sufficient information is not available, CDFW would implement management actions to close or otherwise restrict the commercial Dungeness crab fishery.

Although CDFW proposes to evaluate Marine Life Concentrations only within the portions of each Fishing Zone between shore and 100 fathoms to focus available resources on evaluating Actionable Species distribution and presence within the areas where commercial harvest of Dungeness crab occurs, management actions could be applied to one or more Fishing Zones (including the portions outside of 100 fathoms) as well as other portions of the project area (i.e., waters south of Point Conception). Additionally, management actions under the proposed project would be implemented for any Fishing Zone where a leatherback sea turtle is present.

As for confirmed entanglement thresholds, CDFW would no longer prorate a humpback whale entanglement based on the perceived severity of the entanglement. Instead, each confirmed entanglement of a humpback would be counted as a single entanglement regardless of its perceived severity based on requirements of an ITP. Furthermore, following the mandatory marking of all surface gear starting November 1, 2025, each confirmed entanglement in Unknown Fishing Gear would be counted as a quarter of a confirmed entanglement in commercial Dungeness crab gear. Following the mandatory marking of lines on all deployed Dungeness crab gear starting November 1, 2028, CDFW would no longer account for any entanglement in Unknown Fishing Gear as it relates to the commercial Dungeness crab fishery.

Based on feedback from NMFS, CDFW would further amend the entanglement thresholds for the Actionable Species to meet the potential requirements of the ITP. CDFW would no longer wait for multi-year thresholds to be reached before taking management actions. Instead, management actions would be taken after every confirmed entanglement of any Actionable Species. Early closure on April 1 would also be imposed for two subsequent calendar years following a confirmed blue whale entanglement, while season delay to January 1 would be imposed for 9 calendar years in Fishing Zones 3 and 4 following a confirmed Pacific leatherback sea turtle entanglement.

Furthermore, if three or more confirmed humpback whale entanglements occur within a calendar year, the fishery would be closed for the remainder of the season and not open until January 1 of the next calendar year.

MANAGEMENT ACTIONS

Revisions to management actions would include extension of Fishery Closures/Fishery Delays to prohibit possession, sale, and landing of Dungeness crabs taken from the closed/delayed Fishing Zones as well as mandatory removal of all Dungeness crab gear from the zone. Once a Fishing Zone closes, it would not reopen for the rest of the season and only Alternative Gear could be used to take Dungeness crab within it.

MANAGEMENT CONSIDERATIONS

CDFW's experience over the last several fishing seasons has highlighted the fact that evaluating marine life entanglement risk requires a dynamic, flexible approach rather than relying on historical patterns alone. CDFW's obligation is to reduce and minimize take of Actionable Species across the entire project area and, therefore, CDFW

must consider how curtailing fishing effort in one area might increase fishing effort and associated entanglement risk in another.

CDFW would continue relying on the management considerations specified in 14 CCR Section 132.8(d) when selecting appropriate management actions. However, CDFW would no longer disregard information from older surveys beyond a specific period; instead, any prior survey data would be considered as part of each assessment so long as they are relevant. Similarly, when deciding whether to apply management action to a Fishing Zone, CDFW would consider spatial data from any adjacent areas and data from prior years as long as they are also relevant. Furthermore, when considering which management tool would be implemented, their effectiveness at minimizing entanglement would take precedence over any other consideration.

REPORTING REQUIREMENTS

CDFW would continue to require all commercial Dungeness crab permit holders to submit bi-weekly reports; however, the proposed RAMP amendments would clarify the reporting requirements including requiring permit holders to report the number of newly lost traps on each report. Moreover, permit holders would be required to submit an end-of-season report documenting trap loss during the entire fishing season. Permit holders would also be held responsible for any tampering with the mandatory electronic monitoring systems.

ALTERNATIVE GEAR

Once testing and enforcement challenges are addressed, certification of Alternative Gear would allow for continued fishing activity during periods of elevated entanglement risk. Such gear would have to be detectable, retrievable, identifiable, beneficial, and enforceable. The authorized use of these gear may be subject to limitations on Fishing Zone, depth, maximum trap number, notification, and other requirements to ensure that the criteria are met. Amendments proposed as part of the project include conditional authorization categories or limitations of Alternative Gear.

GEAR IDENTIFICATION REQUIREMENTS

To improve the ability of CDFW and NMFS to identify and attribute Actionable Species take to the appropriate state's commercial Dungeness crab fishery and improve the ability of NMFS to make negligible impact determinations under the MMPA, CDFW would amend current buoy marking requirements for commercial Dungeness crab to align with line marking requirements implemented for other state-managed commercial fisheries. CDFW would also implement line marking to further make the lines identifiable, but would disallow line colors used for any other state or federal fishery operating in the US West Coast EEZ or in state waters of California, Oregon, or Washington.

ES.3 ENVIRONMENTAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

ES.3.1 Project-Specific Impacts

This EIR has been prepared pursuant to CEQA (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (14 CCR Section 15000 et seq.) to evaluate the physical environmental effects of the proposed project. CDFW, which is the lead agency for the project, has the principal responsibility for approving and carrying out the project and for ensuring that the requirements of CEQA have been met. After the EIR public review process is complete, the CDFW Director is the party responsible for certifying that the EIR adequately evaluates the impacts of the project.

Table ES-2, presented at the end of this summary, provides a summary of the environmental impacts for the proposed project. The table identifies the level of significance of the impact before mitigation, recommended mitigation measures, and the level of significance of the impact after implementation of the mitigation measures.

ES.3.2 Significant and Unavoidable Impacts and Cumulative Impacts

State CEQA Guidelines Section 15126.2(c) requires EIRs to include a discussion of the significant environmental effects that cannot be avoided if the proposed project is implemented. As documented throughout Chapter 3 (project-level impacts) and in Chapter 4, "Cumulative Impacts," of this EIR, all impacts associated with implementation of the proposed RAMP regulatory amendments would be less than significant, and no mitigation would be required. The project would not have any significant and unavoidable impacts.

ES.4 ALTERNATIVES TO THE PROPOSED PROJECT

The following alternatives are evaluated in more detail in Chapter 5, "Alternatives," of this EIR:

- ▶ **Alternative 1: No Project Alternative** assumes that the California commercial Dungeness crab fishery would continue to operate in accordance with existing RAMP regulations. Title 14 CCR Section 132.8 would not be amended, and CDFW would not apply for an ITP for the Actionable Species based on the CP.
- ▶ **Alternative 2: Permanently Reduce Gear Allotments Alternative** would reduce the potential for entanglements by permanently reducing the number of vertical lines used for the commercial Dungeness crab fishery by reducing the maximum trap allotments. CDFW would revise the RAMP regulations based on the gear allotment reductions and apply for an ITP based on the CP.
- ▶ **Alternative 3: Permanently Shortened Season Alternative** would restrict the commercial Dungeness crab fishery operations to a period of historically extremely low entanglement risk. CDFW would revise the RAMP regulations based on the shortened fishing season and apply for an ITP based on the CP.

A summary of the environmental effects of the alternatives relative to those of the proposed project is provided in Table ES-2 (presented at the end of this summary).

ES.4.1 Environmentally Superior Alternative

Implementing the proposed project would not result in any significant effects on the environment, so no substantial reductions of environmental impacts would occur with implementation of feasible alternatives. Nonetheless, as illustrated in Table ES-3, below, Alternatives 2 and 3 would further reduce the less-than-significant impacts associated with the project. Alternative 3, by permanently curtailing and restricting the duration of the commercial fishing season to a period with historically low entanglement risk, would result in more impact reduction than deploying less trap gear (Alternative 2). As a result, Alternative 3 is the environmentally superior alternative for purposes of CEQA compliance, although the environmental impact differences would not be substantial.

ES.5 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

On September 19, 2022, a notice of preparation (NOP) for the project was distributed to responsible agencies, interested parties, and organizations, as well as individuals that may have an interest in the project. A public scoping meeting was held on October 4, 2022. The purpose of the NOP and the scoping meeting was to provide notification that an EIR was being prepared for the project and to solicit input on the scope and content of the environmental document. The NOP and responses to the NOP are included in Appendix A of this EIR. The following key concerns and issues were expressed during the scoping process:

- ▶ economic impacts of implementing the proposed regulatory amendments, applying for an ITP, and implementing the CP for the commercial Dungeness crab fishery,

- ▶ feasibility of alternative gear, and
- ▶ establishment of an appropriate environmental baseline.

Areas of controversy that fall within the scope of CEQA are addressed in this EIR. Issues that fall outside the scope of CEQA are not evaluated in this EIR; however, CDFW will continue to respond to these issues through the project planning process.

Table ES-2 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Air Quality			
<p>Impact 3.2-1: Generate a Substantial Increase in Long-Term Operational ROG, NO_x, PM₁₀, and PM_{2.5} Emissions</p> <p>Reasonably foreseeable compliance responses from implementation of the project would include the generation of criteria air pollutants and ozone precursors from the movement of commercial fishing and monitoring vessels and aircraft trips throughout the project area. However, this level of vessel activity would not be substantially more than the current level of activity associated with the commercial harvest of Dungeness crab. Moreover, implementation of the project would not prohibit or prevent the deployment of fishing vessel-related regulations included in the SIP as overseen by CARB. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
Archaeological, Historical, and Tribal Cultural Resources			
<p>Impact 3.3-1: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources</p> <p>The project is not anticipated to result in additional seafloor–disturbing activities above baseline conditions that could result in discovery of or damage to as-yet-undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5. In addition, current state law prohibits all unauthorized salvage and removal of artifacts from submerged shipwrecks, aircraft, and other archaeological resources in state waters. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.3-2: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource</p> <p>CDFW sent notification for consultation to 317 tribes. Three responses were received during the 30-day response period for AB 52 as defined in CEQA Section 21080.3.1, but none identified any tribal cultural resource as defined by CEQA Section 21074. Because the proposed project does not include a substantial increase in seafloor–disturbing activities above baseline conditions that could damage subsurface artifacts, would not impede traditional ceremonial activities or alter viewsheds, and would not have an adverse effect on wildlife, all of which could be identified as tribal cultural resources, the impact on tribal cultural resources would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Greenhouse Gas Emissions and Climate Change			
<p>Impact 3.4-1: Generate GHG Emissions That May Exceed Existing Levels of Baseline Emissions</p> <p>The reasonably foreseeable compliance responses to the project would not include the construction of any new land-based or maritime facilities or infrastructure. Reasonably foreseeable compliance responses to the project would include the generation of GHG emissions from the movement of fishing and monitoring vessels and aircraft throughout the project area. However, this level of vessel and aircraft activity would not be substantially more than what is currently occurring to commercially harvest Dungeness crab. Moreover, implementation of the project would not prohibit or prevent the deployment of fishing vessel or aircraft-related regulations included in the 2022 Scoping Plan as overseen by CARB. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
Hazards and Hazardous Materials			
<p>Impact 3.5-1: Create a Significant Hazard to the Public or the Environment through the Routine Transport, Use, or Disposal of Hazardous Materials</p> <p>Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of vessel permits issued for the California Dungeness crab fishery and would result in only a limited increase in the number of survey vessel trips. This small increase in the number of survey vessel trips relative to the total number of vessel trips in the project area would not constitute a significant hazard to the public or environment from the routine transport, use, or disposal of hazardous materials. Therefore, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.5-2: Create a Significant Hazard to the Public or the Environment through Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment</p> <p>Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of vessel permits issued for the California Dungeness crab fishery and would result in only a limited increase in the number of survey vessel trips. The small increase in the number of survey vessel trips relative to the total number of vessels in the project area would not constitute a significant hazard to the public related to the release of hazardous materials into the environment from accidents involving maintenance activities or spills or from hazardous materials washed from the surface of the vessels. Therefore, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>Impact 3.5-3: Be Located on a Site Which Is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5 and, As a Result, Would Create a Significant Hazard to the Public or the Environment</p> <p>Implementation of the proposed RAMP regulatory amendments would result in a limited increase in the number of survey vessel trips, but this small increase would not create a significant hazard to the public or the environment related to trips occurring in an area with a site included on a list of hazardous materials sites, because survey activities would not disturb the seafloor. Implementation of the project would reduce the amount of lost or abandoned gear that could disturb hazardous materials sites through improvements to reporting requirements for gear use and lost or abandoned gear. Although early season closures, season opening delays, and depth restrictions may result in the concentration of vessels decreasing in some areas and increasing in other areas at times, the number of permitted vessels and gear allotments would not change with project implementation, and the number of vessel trips associated with gear deployment and retrieval would not be expected to change substantially. Furthermore, most of the hazardous materials sites are located in areas that are not typically fished by the commercial Dungeness crab fleet. Therefore, the potential for project implementation to result in the accumulation of commercial Dungeness crab fishing activity in an area with hazardous materials sites such that the sites would be disturbed during trap deployment or retrieval would be low. For these reasons, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.5-4: For a Project Located within an Airport Land Use Plan or, Where Such a Plan Has Not Been Adopted, within Two Miles of a Public Airport or Public Use Airport, Result in a Safety Hazard or Excessive Noise for People Residing or Working in the Project Area</p> <p>Implementation of the proposed RAMP regulatory amendments would result in a limited increase in the number of aerial survey trips. This small increase in the number of aerial surveys relative to the total current extent of air traffic in the project area would not constitute a safety hazard or excessive noise for people residing or working in the project area. Therefore, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Marine Biological Resources			
<p>Impact 3.6-1: Result in Disturbance to or Loss of Special-Status Wildlife Species Project implementation would include systematic surveys to determine marine life concentrations in the project area. Implementation of these efforts could result in a minor increase in vessel and aircraft activity in the project area. Although more vessel and aircraft activity could result in an increased risk of marine mammal or sea turtle boat strikes or disturbance to special-status marine mammals, sea turtles, or seabirds, the modest increase in vessel and aircraft activity associated with survey efforts would not be substantial, and existing regulatory protections (e.g., MPAs, National Oceanic and Atmospheric Administration (NOAA) Regulated Overflight Zones, provisions of NMFS scientific research permits) would prevent adverse effects on special-status wildlife. Specific measures implemented under the RAMP regulatory amendments may include closures or delays in opening of one or more Fishing Zone(s) in response to entanglement risk, crab gear depth constraints, or other measures. Closure or delay in opening a zone could result in a location shift to another zone, which may increase the magnitude or concentration of crab fishing activities in some Fishing Zones (i.e., resulting from season closures or delays) or inshore areas (i.e., resulting from implementation of depth constraints). However, the total fishing activity in the project area would not change substantially. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.6-2: Interfere with Wildlife Movement Corridors or Impede the Use of Wildlife Nurseries Project implementation could result in increased vessel traffic in important wildlife migratory corridors or in the vicinity of wildlife nursery sites. Although more vessel activity could result in a disruption in the normal movement, breeding, and foraging behavior of marine organisms, the increase in vessel activity would not be substantial, and existing regulatory protections (e.g., special closures, provisions of NMFS scientific research permits) would prevent interference with wildlife movement corridors and adverse effects on wildlife nurseries. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Water Quality			
<p>Impact 3.7-1: Violate Any Water Quality Standards, Waste Discharge Requirements, or Water Quality Control Plan or Otherwise Substantially Degrade Ocean Water Quality</p> <p>Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of Dungeness crab vessel permits issued and would result in only a limited increase in the number of survey vessel trips. This small increase in the number of survey vessel trips relative to the total number of vessels in the project area would not constitute a significant water quality impact related to the accidental release of pollutants from maintenance activities or spills or from pollutants washed from the surface of the vessels. Ballast water releases from fishing vessels are regulated by the 2013 VGP and in the future will be regulated by discharge standards established in the VIDA when they are published. The VGP establishes numeric discharge limitations and best management practices for ballast water. Implementation of the proposed RAMP regulatory amendments would not increase the number of crab traps deployed. In addition, each trap is isolated spatially from other traps and is less than 5 feet in diameter. Disturbed seafloor sediment from crab trap deployment is dispersed by the current and resettles on the ocean floor and does not cause a significant water quality impact. All alternative fishing gear in the California Dungeness crab fishery is required to be reviewed and certified by CDFW before use and to comply with all federal, state, and local regulations. No violations or impairment of water quality standards or beneficial uses would result from implementation of the project. Therefore, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

NOTES: AB = Assembly Bill; CARB = California Air Resources Board; CDFW = California Department of Fish and Wildlife; CEQA = California Environmental Quality Act; GHG = greenhouse gas; LTS = Less than significant; MPAs = Marine Protected Areas; NMFS = National Marine Fisheries Service; NOAA = National Oceanic and Atmospheric Administration; NO_x = nitrogen oxides; PM_{2.5} = fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less; PM₁₀ = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; RAMP = Risk Assessment and Mitigation Program; ROG = reactive organic gases; SIP = State Implementation Plan; VGP – Vessel General Permit; VIDA = Vessel Incident Discharge Act .

Source: Compiled by Ascent in 2024.

Table ES-3 Summary Comparison of the Environmental Impacts of the Alternatives Relative to the Proposed Project

Environmental Topic	Proposed Project	Alternative 1: No Project Alternative	Alternative 2: Permanently Reduce Gear Allotments Alternative	Alternative 3: Permanently Shortened Season Alternative
Air Quality	LTS	Similar	Less	Less
Archaeological, Historical, and Tribal Cultural Resources	LTS	Greater	Less	Less
Greenhouse Gas Emissions and Climate Change	LTS	Similar	Less	Less
Hazards and Hazardous Materials	LTS	Similar	Less	Less
Marine Biological Resources	LTS	Greater	Less	Less
Water Quality	LTS	Similar	Less	Less

Notes: LTS = Less than significant.

Source: Compiled by Ascent in 2024.

1 INTRODUCTION

The California Department of Fish and Wildlife (CDFW) proposes to amend Title 14 Section 132.8 of the California Code of Regulations (CCR) codifying the Risk Assessment and Mitigation Program (RAMP) for the California commercial Dungeness crab fishery, which is the proposed project subject to approval by CDFW and compliance with the California Environmental Quality Act (CEQA). The regulatory amendments would refine and further develop existing RAMP provisions to reduce the risk and severity of marine life entanglements and improve identification of entanglements in California commercial Dungeness crab gear. The RAMP amendments would also strengthen California's regulatory authority to implement Conservation Plan (CP) measures to support the National Marine Fisheries Service's (NMFS's) discretionary approval and issuance of an Incidental Take Permit (ITP) for the potential take of specified Actionable Species under Section 10 of the federal Endangered Species Act (ESA) for the California commercial Dungeness crab fishery.

The EIR has been prepared under the direction of CDFW in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (14 CCR Section 15000 et seq.). This chapter of the EIR provides information on:

- ▶ a synopsis of the project requiring environmental analysis;
- ▶ the type, purpose, and intended uses of this EIR;
- ▶ the scope of this EIR;
- ▶ agency roles and responsibilities;
- ▶ the public review process;
- ▶ the organization of this EIR; and
- ▶ the standard terminology used in this EIR.

1.1 SYNOPSIS OF PROJECT COMPONENTS REQUIRING ENVIRONMENTAL ANALYSIS

This section presents a synopsis of the project components. For further information on the proposed project, see Chapter 2, "Project Description."

The proposed RAMP amendments constitute the proposed project for purposes of CEQA compliance. They are part of CDFW's comprehensive strategy to avoid, minimize, mitigate, and monitor entanglements of Actionable Species: blue whale (*Balaenoptera musculus*), Central America and Mexico Distinct Population Segment of humpback whale (*Megaptera novaengliae*), and Pacific leatherback sea turtle (*Dermochelys coriacea*) in commercial Dungeness crab fishing gear off the coast of California. The proposed amendments would add new RAMP components consisting of new buoy and line marking requirements. The proposed amendments would also modify existing RAMP components for clarity and consistency. These regulatory changes are being proposed to satisfy requirements for the ITP pursuant to NMFS feedback, help streamline implementation processes to conserve staff resources, and clarify existing language to facilitate implementation and enforcement.

1.2 PURPOSE AND INTENDED USES OF THIS EIR

According to CEQA, preparation of an EIR is required whenever it can be fairly argued, based on substantial evidence, that implementing a proposed project may result in a significant environmental impact. An EIR is an informational document used to inform public agency decision makers and the general public of the significant environmental impacts of a project, identify possible ways to minimize the significant impacts, and describe reasonable alternatives

to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project.

This EIR has been prepared to meet the requirements of a project EIR as defined by Section 15161 of the State CEQA Guidelines. A project EIR focuses on the changes in the physical environment that would result from implementation of a project, including its construction and operation. CDFW's intention in preparing a project EIR is that no further environmental analysis would be required for additional regulatory approvals following approval of the project, absent conditions requiring a subsequent EIR, a supplement to the EIR, or an addendum. (See State CEQA Guidelines Sections 15162–15164.)

1.3 SCOPE OF THIS EIR

This EIR includes an evaluation of the following six environmental issue areas, as well as other CEQA-mandated topics (e.g., cumulative impacts, growth-inducing impacts, significant and unavoidable impacts, alternatives):

- ▶ air quality;
- ▶ archaeological, historical, and tribal cultural resources;
- ▶ greenhouse gas emissions and climate change;
- ▶ hazards and hazardous materials;
- ▶ marine biological resources; and
- ▶ marine water quality.

Under CEQA and the State CEQA Guidelines, a lead agency may limit an EIR's discussion of environmental effects when such effects are not considered potentially significant (CEQA Section 21002.1[e]; State CEQA Guidelines Sections 15128, 15143). Information used to determine which impacts would be potentially significant was derived from review of the proposed RAMP regulatory amendments; other applicable planning documents; the results of updated records searches; feedback from public and agency consultation; comments received during a public scoping meeting held on October 4, 2022; and comments received on the notice of preparation (NOP) (see Appendix A of this EIR).

Further information on the NOP and scoping process is provided below in Section 1.5, "Public Review Process."

1.4 AGENCY ROLES AND RESPONSIBILITIES

CDFW is the lead agency for confirming that the requirements of CEQA have been met and for considering approval of and carrying out the project. After the public review process for the EIR is complete, CDFW will determine whether to certify the EIR as adequate under CEQA (see State CEQA Guidelines Section 15090) and take action on the proposed project.

1.4.1 Trustee, Responsible, and Involved Federal Agencies

A trustee agency is a state agency that has jurisdiction by law over natural resources that are held in trust for the people of the State of California. Trustee agencies were invited to comment on the environmental analysis in the Draft EIR. Besides CDFW, which serves as lead agency and is a state trustee agency for fish and wildlife, other trustee agencies that have jurisdiction over resources potentially affected by the project are the California Department of Parks and Recreation for state marine parks, the California Coastal Commission for resources in the coastal zone, and the California State Lands Commission for submerged land within 3 miles of the coast.

Responsible agencies are state, regional, or local public agencies, other than the lead agency, that have discretionary-approval responsibility for funding, carrying out, or approving elements of a project. There are no state, regional, or local responsible agencies with authority over the proposed project.

An involved federal agency with interest in the proposed project is NMFS through its duties under the federal Endangered Species Act. As the federal entity approving the ITP, NMFS has discretionary authority to issue the ITP under Section 10 of the ESA.

1.5 PUBLIC REVIEW PROCESS

In accordance with CEQA regulations, a Notice of Preparation (NOP) was distributed on September 19, 2022, for a 30-day review period to the State Clearinghouse at the Governor's Office of Planning and Research, trustee agencies, NMFS, California coastal counties, and known interested parties and organizations. In addition, CDFW held an online public scoping meeting on October 4, 2022, to present information on the project and provide an opportunity for agencies, organizations, and the public to comment on the scope and content of the EIR. The NOP was also available on CDFW's Public Notices and Meetings web page (<https://wildlife.ca.gov/Notices/CEQA>). The NOP, responses to the NOP, and public scoping meeting presentation are included in Appendix A of this EIR.

The Draft EIR was circulated for public review and comment for a period of 45 days. During this period, comments on environmental issues were submitted in writing and addressed to CDFW: Amanda Canepa, California Department of Fish and Wildlife, Marine Region, 20 Lower Ragsdale Drive, Suite 100, Monterey, CA 93940 or R7CEQA@wildlife.ca.gov. In addition, CDFW held a Draft EIR public meeting on May 23, 2024, at 9:00 a.m. to receive oral and written comments on the Draft EIR.

Following the public review and comment period, this Final EIR has been prepared that includes both written and oral comments on the Draft EIR received during the public review period, written responses to significant environmental concerns raised in the public comments, and any revisions to the Draft EIR made in response to public comments or revisions to the proposed regulatory amendments that were developed as a result of CDFW's ongoing planning process. The Final EIR (Volume I) and revised Draft EIR (Volume II) together will make up the EIR for the project.

Before consideration of adopting the amended RAMP regulations, CDFW as the lead agency is required to certify that the EIR has been completed in compliance with CEQA, that the CDFW Director reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the lead agency.

1.6 EIR ORGANIZATION

This EIR is organized into chapters, as identified and briefly described below.

- ▶ The "Executive Summary": This chapter introduces the proposed project; provides a summary of the environmental review process, effects found not to be significant, and key environmental issues; and significant or potentially significant impacts along with feasible mitigation measures to reduce significant impacts to a less-than-significant level.
- ▶ Chapter 1, "Introduction": This chapter provides a synopsis of the project; a description of the type, purpose, and intended uses of this EIR; a description of the scope of this EIR; a description of the lead and responsible agencies; a summary of the public review process; a description of the organization of this EIR; and definitions of standard terminology used in this EIR.
- ▶ Chapter 2, "Project Description": This chapter describes the location, background, and goals and objectives for the project and describes the project elements in detail.
- ▶ Chapter 3, "Environmental Impacts and Mitigation Measures": The sections in this chapter evaluate the expected environmental impacts of the project, arranged by subject area (e.g., air quality and water quality). In each section of Chapter 3, the relevant regulatory background, existing conditions, analysis methodology, and thresholds of significance are described. The anticipated changes to the existing conditions from reasonably foreseeable compliance responses to implementation of the proposed RAMP regulatory amendments are then evaluated for each subject area. For any significant or potentially significant impact that would result from project

implementation, and the level of impact significance for each impact is identified. Environmental impacts are numbered sequentially within each section (e.g., Impact 3.2-1, Impact 3.2-2).

- ▶ Chapter 4, "Cumulative Impacts": This chapter provides information required by CEQA regarding cumulative impacts that would result from the contribution of any adverse impacts of the project to significant cumulative effects from other past, present, and probable future projects causing related impacts.
- ▶ Chapter 5, "Alternatives": This chapter evaluates alternatives to the proposed project, including alternatives considered but eliminated from further consideration, the No Project Alternative, and two action alternatives. The environmentally superior alternative is also identified in this chapter.
- ▶ Chapter 6, "Other CEQA Sections": This chapter evaluates growth-inducing impacts and the irreversible and irretrievable commitment of resources and discloses any significant and unavoidable adverse impacts.
- ▶ Chapter 7, "References": This chapter identifies the documents and individuals used as sources for the analysis.
- ▶ Chapter 8, "Report Preparers": This chapter identifies the preparers of this EIR.

1.7 STANDARD TERMINOLOGY

This EIR uses the following standard terminology:

- ▶ "Baseline" is the set of physical conditions that define the existing point of analytical comparison used to determine the level of significance of environmental effects of the proposed project.
- ▶ "No impact" means no change from baseline conditions (no mitigation is needed).
- ▶ "Less-than-significant impact" means no substantial adverse change in the physical environment from baseline conditions (no mitigation is needed).
- ▶ "Potentially significant impact" means a substantial adverse change in the environment that might occur (mitigation is recommended because potentially significant impacts are treated as significant).
- ▶ "Significant impact" means a substantial adverse change in the physical environment that would occur (mitigation is proposed).
- ▶ "Significant and unavoidable impact" means a substantial adverse change in the physical environment that would occur and cannot be avoided or reduced to a less-than-significant level, even with the implementation of all feasible mitigation.

2 PROJECT DESCRIPTION

CDFW proposes to amend the regulations codifying RAMP (the “project”), subject to approval by CDFW and compliance with CEQA. The regulatory amendments would refine and further develop existing RAMP provisions to reduce the risk and severity of marine life entanglements and improve identification of entanglements in California commercial Dungeness crab gear. The RAMP amendments would also strengthen California’s regulatory authority to implement Conservation Plan (CP) measures to support the National Marine Fisheries Service’s (NMFS’s) discretionary approval and issuance of an Incidental Take Permit (ITP) for the potential take of specified Actionable Species under Section 10 of the federal Endangered Species Act (ESA) for the California commercial Dungeness crab fishery.

The following section provides detailed information on the proposed project. Pursuant to the CEQA Guidelines Section 15124, the project description need not be exhaustive but should supply information necessary for evaluation and review of the project’s significant impacts on the environment.

2.1 BACKGROUND AND NEED FOR THE PROJECT

Reported entanglement of Actionable Species (blue whale, the Central America and Mexico Distinct Population Segments (DPS) of humpback whale, and Pacific leatherback sea turtle) in fishing gear off the West Coast has increased in recent years (Saez et al. 2021). The Actionable Species are protected under ESA. Trap gear from the California commercial Dungeness crab fishery, one of the most valuable commercial fisheries in California, is known to contribute to these entanglements (Saez et al. 2021). Between 2014 and 2023, there were 52 known humpback whale, three known blue whale, and two known Pacific leatherback sea turtle entanglements in California commercial Dungeness crab gear (Table 2-1).

Table 2-1 Confirmed Entanglements in California Commercial Dungeness Crab Gear by Year for Each Actionable Species, 2014–2023

Year	Blue Whale	Humpback Whale	Pacific Leatherback Sea Turtle
2014	0	2	0
2015	0	7	0
2016	2	19	1
2017	1	3	0
2018	0	7	0
2019	0	3	0
2020	0	1	0
2021	0	1	0
2022	0	4	0
2023	0	5	1
Total	3	52	2
Annual average	0.3	5.2	0.2

Sources: Saez et al. 2021; NMFS 2023.

Although take of all three Actionable Species has been documented in California commercial Dungeness crab gear, the highest number of entanglements has been of humpback whales. Of the 52 humpback whale entanglements, 28 (54 percent) occurred during the 2014–2016 Large Marine Heatwave, which was a historically unusual, prolonged warmwater event. This large marine heatwave event led to an extended delay in the 2015–2016 Fishing Season. Santora et al. (2020) directly connects the heatwave’s impacts on fishery operations and Actionable Species distributions with the dramatic increase in large whale entanglements documented in 2015 and 2016. Although the

number of entanglements has since declined, the entanglements documented during this large marine heatwave were the impetus for CDFW's increasingly active management of the Dungeness crab fishery and triggered the requirement that CDFW apply for an ITP from NMFS.

Senate Bill (SB) 1309, also known as the 2018 Fisheries Omnibus Bill, added Section 8276.1 to the Fish and Game Code (FGC). FGC Section 8276.1 mandated CDFW to adopt RAMP into regulation. CDFW adopted the RAMP regulation in October of 2020, after consultation with stakeholders that included the California Dungeness Crab Fishing Gear Working Group (Working Group), a collaborative advisory body consisting of commercial and recreational fishing representatives; environmental organization representatives; scientists; members of the disentanglement network; and state and federal agencies. As codified in regulation, RAMP formally established criteria and protocols to evaluate and respond to the potential risk of marine life entanglement. It is a dynamic management framework that establishes thresholds for determining if entanglement risk is elevated, specifies potential management actions, and requires use of the best available science when determining appropriate management actions by the CDFW Director. The proposed project consists of amendments to the RAMP regulations, incorporating feedback from various stakeholders, guidance from NMFS to help CDFW acquire the ITP, and lessons learned from recent experience implementing the program.

2.1.1 Incidental Take Permit

The federal ESA requires that CDFW obtain an ITP from NMFS for the incidental take of Actionable Species through management of the California commercial Dungeness crab fishery. The required ITP application and proposed implementing agreement has been submitted to NMFS for federal approval and issuance of an ITP to CDFW. The ITP would provide federal authorization for limited incidental take of Actionable Species associated with the California commercial Dungeness crab fishery.

To obtain the ITP, CDFW must work with NMFS to develop a CP that establishes a comprehensive management framework for NMFS to determine that the California commercial Dungeness crab fishery is not likely to jeopardize the continued existence of the Actionable Species. The CP, as required by NMFS pursuant to the ESA, serves as the primary source of information for CDFW's application for the ITP and the management plan prescribing the California commercial Dungeness crab fishery's ESA compliance strategy. The conservation measures developed in the CP also helped inform the proposed RAMP regulatory amendments; however, as a required component of the federal ITP, the CP is not subject to a discretionary approval action by CDFW.

CDFW is requesting a 15-year-term, renewable ITP from NMFS. This 15-year permit would allow the ITP term to provide sufficient time to implement the CP and evaluate the adaptive management framework and provide greater predictability for fishery participants. CDFW also notes that fishery managers in Oregon and Washington are seeking ITPs with similar permit terms.

In its ITP application, CDFW requests the following allowable take levels of Actionable Species by the California commercial Dungeness crab fishery: up to 25 humpback whales from the Mexico DPS, 10 humpback whales from the Central America DPS, 6 blue whales, and 2 Pacific leatherback sea turtles. For purposes of determining whether these take thresholds have been reached, CDFW would consider each confirmed entanglement of an Actionable Species in California commercial Dungeness crab gear (reported from any location) to constitute take of an individual.

2.1.2 The Conservation Plan

CDFW has been working closely with NMFS to develop the CP for several years. The document has been going through the final stages of development as of December 2024. While the decision to approve and adopt the final CP rests with NMFS, CDFW is not expecting the fundamental management framework to change substantially. Consistent with RAMP, the objectives of the CP are as follows:

1. reduce the co-occurrence of humpback whales, blue whales, and Pacific leatherback sea turtles with California commercial Dungeness crab fishing activity by implementing fishery management measures that reduce entanglement risk;
2. minimize the likelihood of Actionable Species entanglement in lost or abandoned California commercial Dungeness crab gear by increasing opportunities for derelict gear recovery and enhancing lost gear tracking and reduction measures;
3. mitigate the impacts of entanglements of Actionable Species by supporting entanglement reporting, education, and analysis to reduce the likelihood of serious or fatal injuries.

To achieve these goals, CDFW plans to pursue a two-prong approach of avoidance and minimization. CDFW and the commercial Dungeness crab fishery would meet the first two objectives by first avoiding co-occurrence of Dungeness crab gear and Actionable Species. For co-occurrence that may inevitably occur, actions would be taken under the remaining objective to minimize the severity of any potential entanglement to the maximum extent practicable. As the primary instrument allowing CDFW to control the presence of active commercial Dungeness crab gear in the ocean, RAMP serves as the centerpiece of the CP's avoidance strategy.

2.2 PROJECT LOCATION

Subject to RAMP, the commercial Dungeness crab fishery is located within ocean and coastal waters off California. The project area encompasses the entirety of the Exclusive Economic Zone (EEZ, the area within 200 nautical miles of the shoreline) extending from the California/Oregon border in the north to the California/Mexico border in the south (Figure 2-1). Although the commercial Dungeness crab fishery occurs almost exclusively north of Point Conception (CDFW 2020), CDFW jurisdiction over the fishery extends throughout the portion of the EEZ off California's coast (16 US Code Section 1856 note), which, historically, has been divided at the Sonoma-Mendocino County line into two areas that have slightly different fishing seasons (see Section 2.3.2). The Northern Management Area (NMA) extends from Oregon to the Sonoma-Mendocino County line, and the Central Management Area (CMA) extends from the Sonoma-Mendocino County line to Mexico (see Figure 2-1). Spatial trends in fishing activity are further discussed in Section 2.3.3.

Commercial Dungeness crab fishing depths are dependent on multiple factors, including fishing location, time of year, and to a lesser extent, the vessel type. Fishing locations are dependent on the time of year, home port, and access to processing facilities. In practice, traps are rarely if ever deployed in waters deeper than 750 feet (125 fathoms), with average maximum fishing depths reported of 180 feet (30 fathoms) reported to CDFW.

2.3 COMMERCIAL DUNGENESS CRAB FISHERY

Dungeness crab (*Metacarcinus magister*) inhabits a wide variety of ocean floor habitats, but commercial fishing activity is concentrated in sandy to silty substrates shallower than 300 feet (50 fathoms) where adult Dungeness crabs are commonly found (CDFW 2020). These substrates are prone to natural disturbances and generally considered to be more resilient to fishing impacts than other more structurally complex habitats. These crabs take approximately 3–5 years to reach the minimum legal size of 6.25 inches, and seasonal landings are dependent on crab production cycles with decadal variability, resulting in large fluctuations from year to year.



Source: Adapted by Ascent in 2024.

Figure 2-1 Project Area

2.3.1 Historical Management of the Fishery

The Dungeness crab fishery is one of the oldest commercial fisheries in California. The fishery began in the mid-1800s and over time developed into one of the most valuable commercial fisheries in the state (Wild and Tasto 1983). Regulation of this commercial fishery began in 1895, after the Board of Fish Commissioners (a forerunner of the modern-day California Fish and Game Commission [Commission]) submitted a report to the California Legislature describing decreasing catch in historic fishing areas and subsequent expansion into new fishing areas to meet increasing consumer demand (Wild and Tasto 1983). In response to the report's request for management measures to protect and restore the fishery, the legislature prohibited harvest of female crab in 1897, followed by a seasonal closure in 1903, and a minimum size limit in 1905. These three management measures are collectively known as the "3 S" principle ("sex," "size," and "season") and still form the core of Dungeness crab fishery management (CDFW 2020).

2.3.2 Current Management Framework

Dungeness crab is a valuable fishery resource not only in California, but for the entire U.S. West Coast. Management measures in California, Oregon, and Washington are coordinated through the Tri-State Dungeness Crab Committee (Tri-State), overseen by the Pacific States Marine Fisheries Commission pursuant to Section 302(e) of the Magnuson-Stevens Fishery Conservation and Management Act (16 US Code Section 1856 note) (CDFW 2020). The Tri-State process fosters interstate cooperation in management of the Dungeness crab fishery and allows the states to consult on issues affecting the commercial fishery. The primary management authority for the Dungeness crab fishery in California rests with the California Legislature, although provisions in SB 1309 (2018) delegated additional limited authority to CDFW, increasing its ability to be responsive to emerging management concerns, such as increased marine life entanglement risk (CDFW 2020).

Statutes codified in FGC and regulations found in Title 14 California Code of Regulations (CCR) jointly provide the management framework for the California commercial Dungeness crab fishery. Under current regulations, the CDFW Director's authority to restrict the commercial Dungeness crab fishery is limited to protecting human health (FGC Section 5523), reducing risk of marine life entanglement (FGC Section 8276.1[c] and 14 CCR Section 132.8), and avoiding low crab quality (FGC Section 8276.2).

Summaries of existing management measures governing the commercial Dungeness crab fishery are provided below. The current management structure under RAMP is discussed in Section 2.3.4.

TRAP GEAR

The Dungeness crab fishery uses trap gear, which is generally composed of three elements: a weighted trap, surface gear, and a vertical line connecting the trap to the surface gear (Figure 2-2). The trap is constructed from two circular iron frames, 3 to 3.5 feet in diameter, connected by spokes on the outer edges. The frame is wrapped with strips of rubber, and the entire frame is covered with stainless steel wire mesh (Figure 2-3). When gear is deployed, the weighted trap sinks to the seafloor and generally remains in place until the trap is hauled in, limiting the spatial footprint of the associated benthic disturbance (CDFW 2024a).

Dungeness crab traps must contain at least two rigid circular openings not less than 4.25 inches in diameter on the top or side of the trap (FGC Section 9011). They also must contain at least one destruct device (defined in 14 CCR Section 180.2[a]), which creates a minimum 5-inch diameter opening in the top or upper half of the trap when the device corrodes.

The surface gear is composed of one or more buoys connected to the vertical line by a short length of rope that generally floats at the surface when the gear is deployed (FGC Section 9005). Dungeness crab traps must be marked by a tagged buoy that includes the commercial fishing license number of the operator (FGC Section 9006). Additional trailer buoys may be used, depending on the operator's need for added buoyancy to facilitate trap gear recovery.

The amount of vertical line that connects the trap and the surface gear is dictated by the depth where the trap will be deployed, with additional scope to compensate for tidal changes, swell, and currents. The fleet typically uses blue steel-type line, also known as “floating line,” but more recently participants have been switching to neutral buoyancy lines.



Source: Illustration by National Marine Fisheries Service.

Figure 2-2 Typical Commercial Dungeness Crab Trap Setup



Source: Photograph by Morgan Ivens-Duran (CDFW).

Figure 2-3 Stacked Commercial Dungeness Crab Trap Gear

FISHING VESSEL PERMITS AND TRAP ALLOCATION

The California Legislature first implemented a restricted access program in 1995, capping the fishery at 681 permits (Assembly Bill 3337). A trap limit program to further control effort was established in 2013 (SB 369). Dungeness crab vessel permit holders were divided into seven tiers based on their total California Dungeness crab landings from the 2003-2004 through the 2007-2008 Fishing Seasons. The number of allotted traps is capped for each tier. The allotments range from 500 traps for the highest tier (Tier 1) to 175 traps allotted for the lowest tier (Tier 7). Under the trap limit program, if a permit is not renewed, the permit is relinquished and can no longer be reissued. As of the 2023-2024 Fishing Season, 521 permits were renewed across the seven tiers (Table 2-2). Trap allotments are enforced with biennial buoy tags marked with the permit number. Originally implemented due to concerns about overcapacity and latent permits, the unique gear marking has allowed commercial Dungeness crab gear to be more easily identified when involved in a marine life entanglement.

Table 2-2 Number of Dungeness Crab Vessel Permits Renewed in 2020 through 2023 by Trap Tier

Tier	Trap Tags per Permit	Number of 2020 Permit Holders	Number of 2021 Permit Holders	Number of 2022 Permit Holders	Number of 2023 Permit Holders
1	500	58	57	57	57
2	450	53	53	53	53
3	400	57	55	56	55
4	350	55	55	55	55
5	300	57	53	52	50
6	250	164	163	159	154
7	175	109	105	106	97
Total	—	553	541	538	521

Source: CDFW 2023.

MONITORING LANDINGS

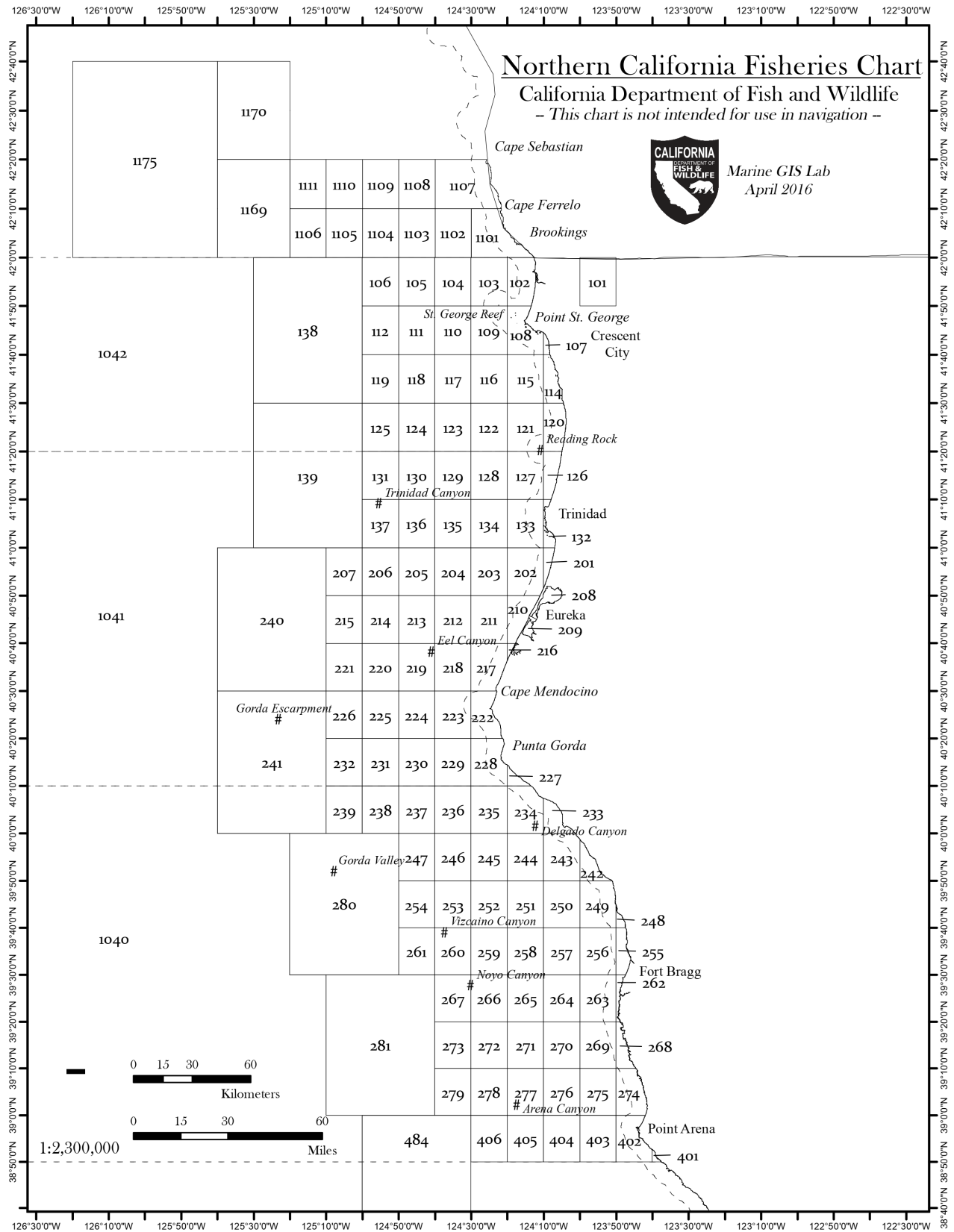
All catch taken under a California commercial fishing license must be reported on a commercial landing receipt (commonly called a “fish ticket”) (FGC Section 8043). These landing receipts include vessel and commercial fishing license information, pounds caught by species, unit price, catch location, port of landing, and fishing business information. These documents are then submitted by the commercial fishing business to CDFW via an electronic platform (E-Tix, maintained by the Pacific States Marine Fisheries Commission) within 3 business days of the landing, allowing managers to have access to nearly real-time information on fishing activity.

Trap Estimates

Landing receipts require identification of the fishing vessel, which can be combined with permitting information from the state’s Automated License Data System to identify the vessel’s permit tier and trap allotment. However, the number of deployed traps is not reported on landing receipts. Historically, this has made it difficult for CDFW to quantify the amount of gear used in the fishery each season. CDFW has three methods to quantify gear use. The first method is to identify the total number of issued permits and sum the associated trap limits to estimate the maximum amount of gear that could be fished. The second is to identify which vessels participated in the fishery (i.e., “active” vessels that made landings) and sum the associated trap limits to estimate the maximum amount of deployed gear. The third method relies on a requirement established in the 2020-2021 season for fishery participants to self-report trap use to estimate the number of deployed traps. The third method likely underestimates the amount of gear deployed because it is self-reported and CDFW has yet to achieve full compliance. However, to correct for vessels that harvested Dungeness crab but did not provide bi-weekly reports, and vessels whose bi-weekly reports did not include the number of lost traps, CDFW estimated trap loss by calculating tier-specific averages for those vessels that submitted lost trap totals (rounded to the nearest whole number), and total deployed traps are calculated by summing each permit’s maximum reported trap number. For those vessels which harvested crab in California but did not provide bi-weekly reports, the permit was assumed to have deployed their full trap allotment.

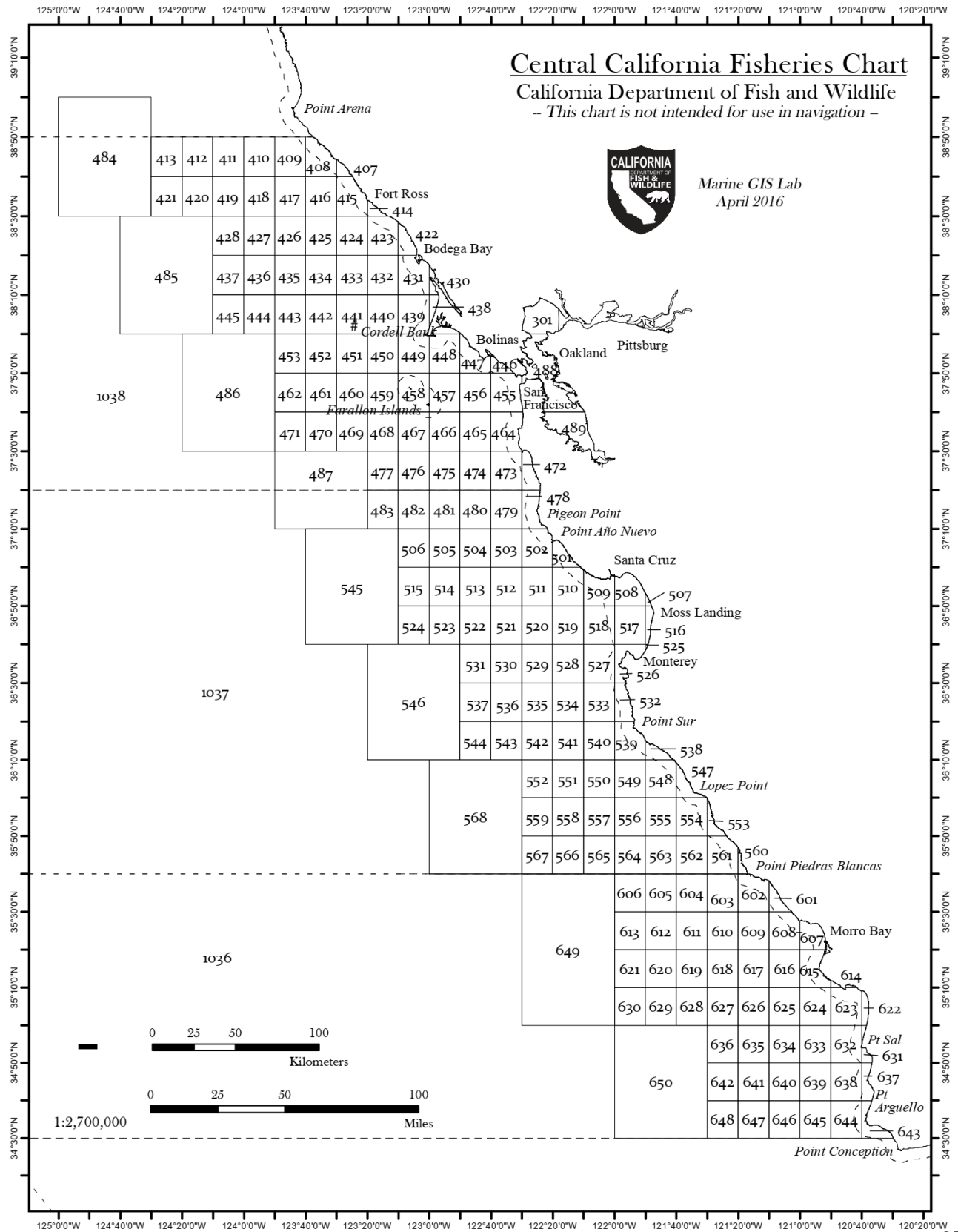
Location of Catch

Catch location, which is assumed to correlate with where gear is deployed, is reported by CDFW fishing block where the majority of catch occurred (Figures 2-4 and 2-5). The size of these reporting blocks varies, with smaller blocks nearshore and larger blocks offshore, but in all instances block locations provide a coarse understanding of where gear is deployed.



Source: CDFW 2024a.

Figure 2-4 CDFW Fishing Blocks, Northern California



Source: CDFW 2024a.

Figure 2-5 CDFW Fishing Blocks, Central California

Fishery Management Areas and Timing

As previously stated, historically, the commercial Dungeness crab fishery has been divided into two areas (the NMA and the CMA) at the Sonoma-Mendocino County line with slightly different fishing seasons (see Figure 2-1). In the NMA, the scheduled season runs from December 1 through July 15, and in the CMA, it runs from November 15 through June 30 (FGC Section 8276). However, the CDFW Director may delay the season opening for the NMA because crab meat quality is low (FGC Section 8276.2), close any area because of biotoxin risk (FGC Section 5523), and restrict fishing activity in any area because marine life entanglement risk is elevated (FGC Section 8276.1 and 14 CCR Section 132.8). The interactions between these three provisions (crab meat quality, biotoxin risk, and entanglement risk) generate variability regarding the actual timing and duration of the fishing season. Regardless of the actual start date, most landings occur within the first 2 months of any given season.

The scheduled season start date is preceded in both management areas by a designated “pre-soak” period during which baited trap gear can be deployed but Dungeness crab cannot yet be harvested. Historically, there was a 64-hour pre-soak period for the NMA and an 18-hour pre-soak period for the CMA. SB 80 (McGuire 2021) amended FGC Section 8283 to establish a uniform 64-hour pre-soak period for both management areas, which has been in effect since the 2021-2022 season.

FGC Section 8276(d) requires all Dungeness crab traps to be removed from the water by 11:59 p.m. on the last day of the Dungeness crab season, and neither FGC nor CCR, Title 14 provide any post-season buffer period during which trap gear may remain at sea.

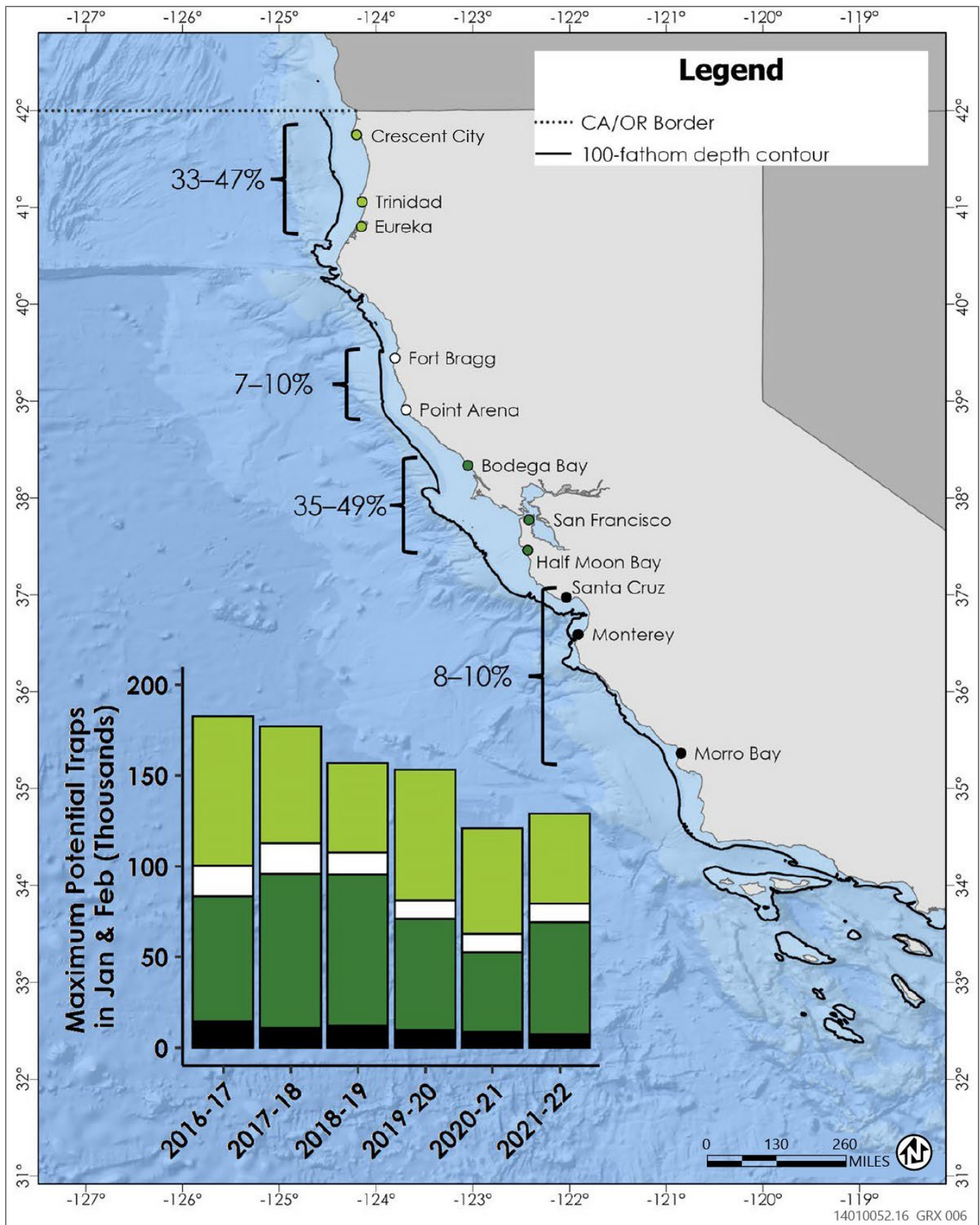
2.3.3 Spatial Trends in Fishing Activity

The relative importance of an individual port or management area during any given Dungeness crab fishing season is largely driven by the interannual variability in crab production within nearby fishing grounds, although a small number of vessels will transit a substantial distance between the area where crab was harvested and the port of landing. Historical CDFW Dungeness crab landings data are available beginning with the 1915-1916 Fishing Season. Since the mid-1940s, the bulk of Dungeness crab landings have been made into ports within the NMA, although during the last decade there has been an increase in the proportion of landings made into CMA ports, which may reflect the five-fold increase in pre-season Dungeness crab abundance before and after 2000 (Richerson et al. 2020, CDFW 2024a).

In addition to crab landings volume, examining the number of permitted vessels that make landings into each port (active vessels) during January and February and their associated trap limits provides another method for evaluating fishing activity. The period of January and February captures when the most vessel activity occurs, while reducing overlap of vessels that transit to more than one port area over the course of the fishing season.

The relative contribution of landings by port region to the total number of active vessels between the 2016-2017 and 2022-2023 Fishing Seasons is shown in Figure 2-6, with about a third to half of active vessels landing in the ports of Crescent City, Trinidad, and Eureka within the NMA, and a similar proportion landing in Bodega Bay, San Francisco and Half Moon Bay within the CMA. This is in contrast to ports in Mendocino County (e.g., Fort Bragg and Point Arena) and from Monterey Bay south that have a smaller proportion of active vessels (≤ 10 percent).

Figure 2-6 also displays the maximum number of traps those vessels may have deployed during each fishing season. While the trap estimates are based on port of landing rather than catch area, CDFW anticipates these traps would mostly be found near these ports and inside the 100-fathom depth contour.



Source: CDFW 2024a.

Figure 2-6 Contribution of Active Vessels to Landings by Port Region (2016-2017 - 2021-2022 Fishing Seasons)

2.3.4 Risk Assessment and Management Program

As previously stated, RAMP regulations (14 CCR Section 132.8) were adopted by CDFW in October 2020. The regulations that became effective on November 1, 2020, include definitions, a risk assessment schedule, triggers for management action, management considerations, management actions, notification process when management actions are being taken, mandatory data reporting requirements, and a process for alternative gear requests.

Specifically, RAMP establishes thresholds for determining whether entanglement risk is elevated, specifies potential management actions to avoid or minimize risk of entanglement, and requires use of the best available science when the CDFW Director determines appropriate management actions. Under the *2018 Marine Life Management Act Master Plan*, best available science is defined as relevant, inclusive, objective, open, and timely scientific information (CDFW 2018). Under RAMP, the CDFW Director is required to conduct a risk assessment at least monthly between November 1 and the end of the fishing season and consider Working Group recommendations regarding appropriate management measures before implementation. The Working Group plays a role in the risk assessment process by recommending management actions to the CDFW Director based on the Working Group members' relevant expertise. Figure 2-7 provides an overview of the RAMP process.

In addition, RAMP contains provisions that relate to available data and management actions, specifies additional reporting requirements for all fishery participants, and establishes a process for CDFW certification of alternative gear.

Enforcement of RAMP is the responsibility of CDFW's Law Enforcement Division. CDFW officers are responsible for enforcing compliance with various management measures implemented under RAMP, including time/area closures, vertical line reductions, and gear modifications. CDFW also receives law enforcement support from the US Coast Guard and NMFS Office of Law Enforcement.

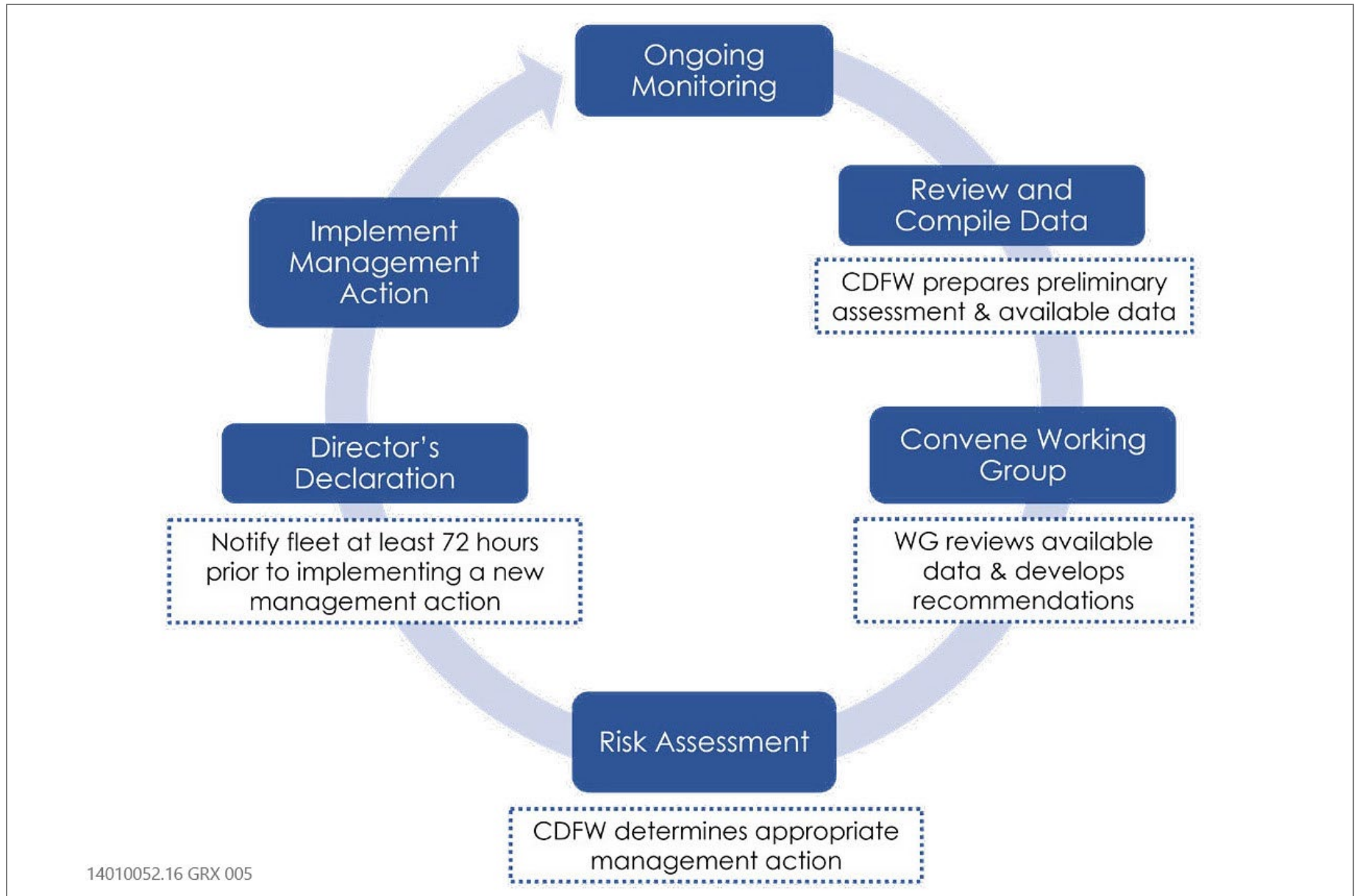
For management purposes, the existing RAMP regulations divide the EEZ into several Fishing Zones (Figure 2-8) with the following latitudinal boundaries:

- ▶ Zone 1: from the California/Oregon border (42° N latitude) to Cape Mendocino (40°10' N latitude)
- ▶ Zone 2: from Cape Mendocino to the Sonoma-Mendocino County line (38°46.125' N latitude)
- ▶ Zone 3: from Sonoma-Mendocino County line to Pigeon Point (37°11' N latitude)
- ▶ Zone 4: from Pigeon Point to Lopez Point (36° N latitude)
- ▶ Zone 5: from Lopez Point to Point Conception (34°27' N latitude)
- ▶ Zone 6: from Point Conception to the US/Mexico border (32° 32' N latitude)

An additional Fishing Zone (Fishing Zone 7) is defined as the "Pacific Leatherback Sea Turtle Foraging Area" and extends from Point Arena (38° 57.5' N. latitude) to Point Pinos (36° 38.314' N latitude).

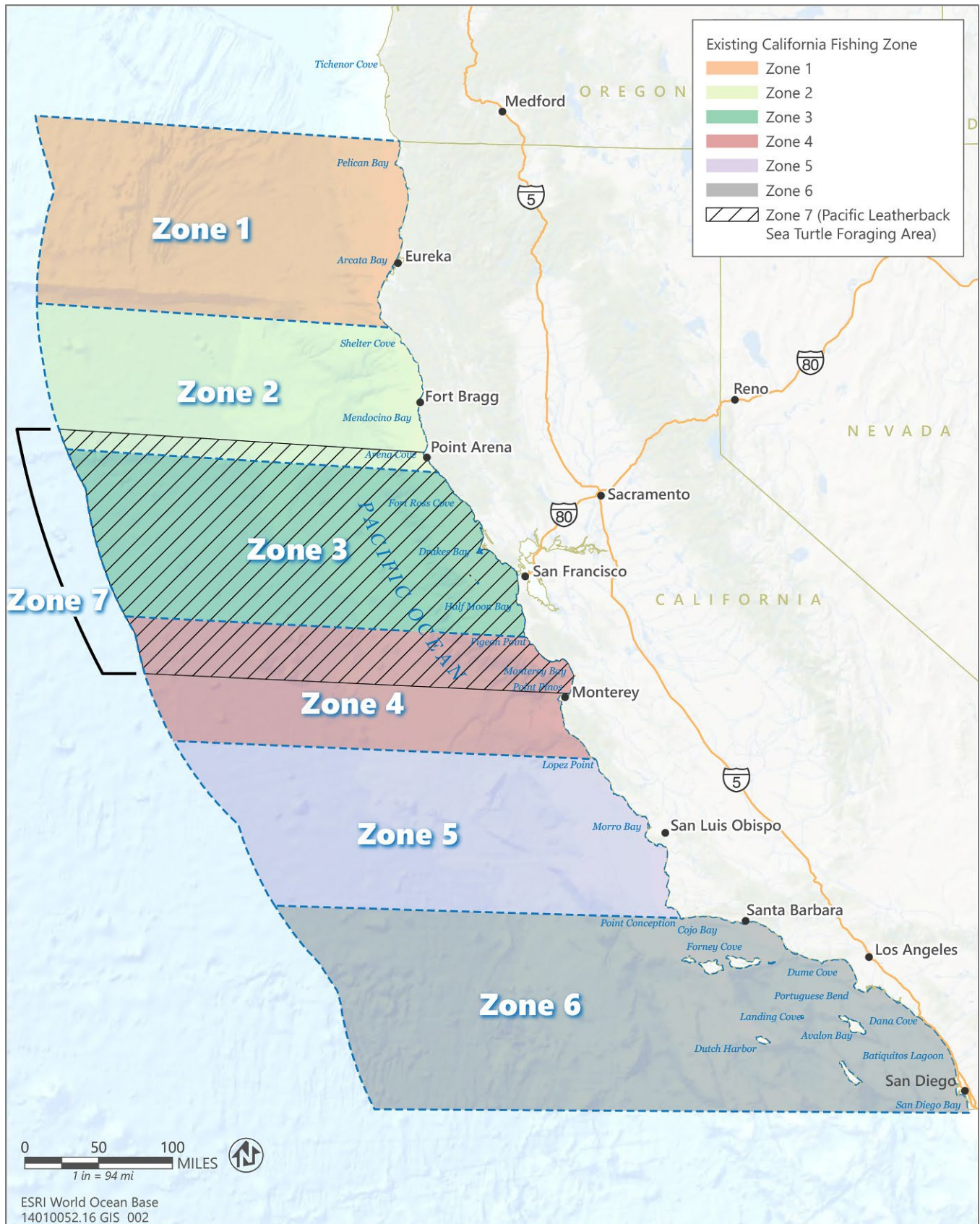
RISK ASSESSMENT SCHEDULE

Beginning in the late fall, CDFW evaluates marine life entanglement risk and any needed modifications to the scheduled season opener of the commercial fishery (see Section 2.3.2) in each Fishing Zone. In general, four risk assessments are conducted between October and December at approximately 2-to-3-week intervals, but they must occur at least monthly starting November 1. Once a given Fishing Zone is open, the timing of each subsequent risk assessment is guided by available data but conducted at least monthly until the closure of that Fishing Zone.



Source: CDFW 2024a.

Figure 2-7 Phases of the RAMP Cycle



Source: Adapted by Ascent in 2024.

Figure 2-8 Existing California Commercial Dungeness Crab Fishing Zones

RISK EVALUATION

Presence, Distribution, and Abundance of Actionable Species

Pursuant to the RAMP regulations, CDFW evaluates entanglement risk, and the need for management action, based on separate abundance thresholds for each Actionable Species and for two periods, fall (November 1 – December 31) and spring (March 1 until fishery closure). Two distinct time periods are identified because information collected during these periods has different implications for management based on anticipated presence of Actionable Species and their respective historical migration patterns.

During the fall risk evaluation period, CDFW does not open the season in each Fishing Zone until sufficient data are available to inform the risk assessment process. If presence, distribution, and abundance data indicate the risk is elevated, the CDFW Director must implement a management action. If data are available and counts of humpback whales are greater than or equal to 20 or there is a running average of five or more animals over a 1-week period within a single Fishing Zone (excluding Fishing Zone 7), the CDFW Director must implement a management action to restrict the commercial harvest of Dungeness crab.

The same applies when counts of blue whales are greater than or equal to three or there is a running average of three or more blue whales over a 1-week period within a single Fishing Zone (excluding Fishing Zone 7). For leatherback sea turtles a management action must be implemented for any Fishing Zone where surveys or satellite telemetry information indicate one or more leatherback sea turtles are present (including Fishing Zone 7).

During January and February (i.e., the interval between the fall and spring risk evaluation periods), CDFW scales back data collection efforts. The low abundance of Actionable Species within the project area during this interim period is associated with low marine life entanglement risk, making intensive data collection efforts unnecessary.

The spring risk evaluation period begins on March 1 and continues through June 30 (or the end of the fishing season). If data are unavailable for a given Fishing Zone by March 15, the CDFW Director must implement a management action to restrict the take of Dungeness crab. As during the fall, the absence of current information does not mean there is no entanglement risk. Therefore, if data are available and the number of humpback whales is greater than or equal to 10 or there is a running average of five or more animals over a 1-week period within a single Fishing Zone (excluding Fishing Zone 7), risk is deemed to be elevated and the CDFW Director will implement a management action. The same applies when there are three or more blue whales or a running average of three or more blue whales over a 1-week period within a single Fishing Zone (excluding Fishing Zone 7). For leatherback sea turtles, a management action will be implemented for any Fishing Zone (including Fishing Zone 7) where one or more leatherback sea turtles are present.

CDFW uses multiple, complementary monitoring methods to evaluate and consider presence, distribution, and number of Actionable Species observed within a Fishing Zone (collectively described as “Marine Life Concentrations”), including aerial surveys, vessel surveys, and satellite tagging programs targeting blue whales and leatherback sea turtles. Aerial surveys provide high-resolution information regarding distribution of Actionable Species, forage (e.g., bait balls, *Chrysaora* patches), and observed trap gear. Vessel-based surveys place observers in proximity to observed individuals, enabling collection of genetic samples and high-resolution photographs (allowing assignment of individuals to specific DPS units), attachment of satellite tags, and other supplemental research activities. Satellite tagging datasets provide long-term tracks of individual animal movements. For species with known migratory patterns, these index individuals provide a general understanding of when populations begin to arrive in or depart from the project area. These methods support an adaptive management approach by relying on monitoring information to make management decisions.

Confirmed Entanglements

Any entanglement of an Actionable Species confirmed in California commercial Dungeness crab gear (reported from any location) or Unknown Fishing Gear (reported within the project area) is considered an indicator of elevated risk. Entanglements reported in unidentified gear are classified as Unknown Fishing Gear if available documentation indicates the gear could have originated from the California commercial Dungeness crab fishery. Unlike thresholds related to Marine Life Concentrations, which forecast future risk based on potential overlap with fishing activity,

confirmed entanglements in California commercial Dungeness crab gear indicate overlap has occurred and management actions are needed to prevent additional entanglements.

CDFW therefore has assigned the following Impact Scores, with pre-determined management actions taken following attainment of specified cumulative total Impact Scores:

- ▶ Humpback whales
 - Confirmed entanglement in California commercial Dungeness crab gear = 0.75
 - Confirmed entanglement in California commercial Dungeness crab gear, deceased = 1
 - Confirmed entanglement in Unknown Fishing Gear = 0.38
 - Confirmed entanglement in Unknown Fishing Gear, deceased = 0.5
- ▶ Blue whales and leatherback sea turtles
 - Confirmed entanglement in California commercial Dungeness crab gear = 1
 - Confirmed entanglement in Unknown Fishing Gear = 0.5

Confirmed entanglements of Actionable Species in California commercial Dungeness crab gear would be counted regardless of the reporting location (i.e., inside or outside of the project area) or time of year (i.e., whether the fishery is currently open or closed), while Unknown Fishing Gear entanglements are considered only if they are observed off the coast of California. For purposes of determining impact score, CDFW would consider each confirmed entanglement of a blue whale or leatherback sea turtle in California commercial Dungeness crab gear as an impact score of one.

Management Actions

Once risk is determined to be elevated, including when current data regarding Marine Life Concentrations are not available, the RAMP regulations require CDFW's Director to implement a management action to reduce marine life entanglement risk. The default action when a trigger is reached is closure of one or more Fishing Zone(s) to traditional Dungeness crab trap gear. In most cases, however, the CDFW Director selects from several alternatives based on the best available science related to the management considerations described below.

Management responses are limited to issuance of a Fleet Advisory, depth constraint, vertical line/gear reduction, Fishing Zone closure, and authorizing deployment of Alternative Gear (14 CCR Section 132.8[e]) which are summarized below and described in detail in the CP (CDFW 2024a).

- ▶ Fleet Advisory. The CDFW Director may issue an advisory to the fleet to encourage voluntary efforts if entanglement risk is elevated or expected to increase but a more restrictive management response is not necessary. Voluntary actions include reducing slack line and minimizing surface gear, avoiding areas with high concentrations of forage, and avoiding areas where Actionable Species have been sighted.
- ▶ Depth Constraint. A depth constraint, based on waypoints used to define depth contours, may be implemented to limit co-occurrence of Actionable Species and commercial harvest of Dungeness crab. Depth constraints have added value when paired with a vertical line/gear reduction, to avoid increasing entanglement risk due to effort displacement into the areas that remain open (Samhoury et al. 2021).
- ▶ Vertical Line/Gear Reduction. If survey data indicate that Actionable Species (or their prey) are widely distributed across a broad range of depths, reducing the number of vertical lines in the water is another method to reduce entanglement risk. Given the current requirements for each Dungeness crab trap to be individually marked with a buoy (see Section 2.3.2), vertical line reductions are implemented as gear reductions.
- ▶ Closures. Spatiotemporal closures are a key management measure in the spring months when historical migration patterns, surveys, and/or models indicate that Actionable Species have begun to arrive in the fishing grounds, and during the fall if they have not yet left. In these instances, the scheduled season opening can be delayed, or the scheduled season closure advanced. When real-time information on Marine Life Concentrations,

trap gear, and co-occurrence is available, spatiotemporal closures can also be used to selectively close areas with elevated entanglement risk. Closures may be implemented by Fishing Zone or statewide (14 CCR Section 132.8).

- ▶ Alternative Gear Deployment. Innovative gear types that reduce entanglement risk compared to the standard gear may be developed for certification and use. RAMP establishes a process for CDFW certification of innovative gear types as Alternative Gear. Once certified, Alternative Gear becomes legal commercial fishing gear and may be used by all fishery participants. However, use of Alternative Gear is limited to specified closures on or after April 1.

Management Considerations

Although CDFW implements the management actions above to reduce marine life entanglement risk within portions of the fishing grounds when Actionable Species presence exceeds the thresholds defined under “Risk Evaluation” above, evaluating marine life entanglement risk requires a dynamic, flexible approach rather than relying on historical patterns alone. Furthermore, CDFW’s intention is to reduce entanglement risk for all Actionable Species across the entire project area, which requires considering how curtailing effort in one area might increase effort, and associated entanglement risk, in another. Therefore, following attainment of a Marine Life Concentration trigger, the CDFW Director implements a management response based on the best available science and, to the maximum extent possible, by relying on relevant and publicly available information. The types of information that are considered include Working Group recommendations, information from NMFS, management measure effectiveness, economic impact, historical migration patterns, fishing season dynamics, available forage, ocean conditions, confirmed entanglements, and cumulative take.

In all instances, CDFW considers the potential for unintended consequences when implementing a management action that could displace, rather than remove, fishing effort. Given differences in migration patterns, habitat utilization, and forage needs of the Actionable Species, it is possible that management actions taken in response to elevated risk for one species could lead to increased take of another species. Therefore, CDFW selects the type, spatial extent, and temporal duration of any management action to minimize take of each Actionable Species.

TRAP GEAR LOSS

FGC Section 9004 requires each trap to be raised, cleaned, and serviced at intervals not to exceed 96 hours (weather conditions at sea permitting) and that no trap shall be abandoned in the waters of the state. This requirement is actively enforced by CDFW Law Enforcement Division.

Prior to implementation of RAMP, CDFW had no specific mechanism to assess gear loss, however requests for replacement buoy tags allow CDFW to estimate gear loss. Replacement tag requests can be submitted both in-season and between the two seasons of each biennial period and are assumed to reflect gear loss, other than instances where the request form included sufficient details to determine that only tags (and no gear) were lost or that the loss occurred on land rather than at sea. Beginning with the 2020-2021 Fishing Season, the bi-weekly Fishing Activity Reports under 14 CCR Section 132.8(g)(1) require fishery participants to annually report the number of lost traps.

The best available information regarding causes of gear loss is from the between-season requests for replacement buoy tags that are processed by the CDFW License and Revenue Branch. Form DFW 1302 (Rev 05/25/2022) requires Dungeness crab vessel permitholders to “describe the factual circumstances surrounding the loss of the buoy tags.” Based on the descriptions provided on the between-season request affidavits submitted in 2014, 2016, and 2018, gear loss was most frequently caused by other boats (55.2 percent), weather (27 percent), and kelp (16.3 percent), followed by wear and tear (5.7 percent), debris (2 percent), the operator’s boat (1.5 percent), or silt (1 percent). Nearly half (48 percent) of gear loss incidents did not include sufficient details to assign a cause of gear loss.

Entanglement reports, including information collected during a response effort, rarely include sufficient details to evaluate whether the entanglement occurred in lost (rather than actively fished) gear. Of the 246 confirmed large whale entanglements between 2013 and 2020, only three are known to have occurred in lost or abandoned gear, and

another 11 had “indications” of lost gear but could not be confirmed as such (Saez pers. comm. 2022). Despite this, CDFW considers lost or abandoned gear as a substantial source of marine life entanglement risk.

CDFW estimates a total of 105,327 traps were deployed and a total of 1,772 traps were lost within the project area during the 2020-2021 season. For the 2021-2022 season, CDFW estimates a total of 112,540 traps were deployed and a total of 3,923 traps were lost. For the 2022-2023 season, CDFW estimates that a total of 106,006 traps were deployed within the project area and a total of 3,438 traps were lost.

TRAP GEAR RETRIEVAL PROGRAM

CDFW adopted regulations (14 CCR Section 132.7) in September 2019 that implemented a formal lost or abandoned commercial Dungeness crab trap gear retrieval program (Trap Gear Retrieval Program). Under the terms of the program, qualified entities (sport or commercial fishing associations with a board and/or charter, non-profits, and local government agencies or harbor districts) may apply for a Lost or Abandoned Commercial Dungeness Crab Trap Gear Retrieval Permit (Retrieval Permit) from CDFW. Retrieval Permit holders must only use the vessels identified on their permits (Designated Retrievers) to conduct on-the-water retrieval operations to recover lost or abandoned commercial Dungeness crab trap gear starting 15 days after the scheduled season closure (FGC Section 8276) to September 30. The CDFW Director can authorize retrieval to begin sooner as part of a closure under RAMP. All retrieved traps are documented in a logbook that is submitted to CDFW each year. Compensation for retrieval activities is provided either by the Dungeness crab vessel permit holder, in exchange for the retrieved trap, or by CDFW. The guaranteed compensation is one key difference between the formal program under 14 CCR Section 132.7 and the informal retrieval activities conducted under 14 CCR Section 132.2. CDFW has conducted extensive outreach to potential Retrieval Permittees to encourage their participation, as well as notifying commercial fishery participants of the program’s implications. A summary of traps recovered in 2020 through 2023 is provided in Table 2-3.

Table 2-3 Summary of Commercial Dungeness Crab Trap Retrieval for Years 2020 through 2023

Year	Designated Retrievers	Retrieval Trips	Dungeness Crab Traps Collected	Number of Unique Dungeness Crab Vessels	Average Traps per Vessel	Total Reported Traps Recovered
2020	13	47	521	130	4	633
2021	12	21	244	66	3.7	250
2022	9	30	584	109	5.3	800
2023	5	8	111	37	3	116

Source: CDFW 2024b.

OUTREACH AND BEST PRACTICES

The Working Group, with input and support from OPC, NMFS, and CDFW, identifies best practices to reduce take of Actionable Species. These best practices are recommended and not enforceable and are contained in the Best Practices Guide for Minimizing Marine Life Entanglement, which is typically issued annually. Copies are given to Working Group members for distribution, posted online, and shared through various listservs. The Best Practices Guide is available at CDFW license counters within the range of the Dungeness crab fishery and is also distributed by CDFW staff during recreational fishery sampling and at outreach events. The guide is updated on an as-needed basis to incorporate new recommendations from the Working Group, Working Group Advisors, and agencies.

CDFW also prepares and distributes an annual pre-season newsletter that includes updates regarding development and implementation of Conservation Measures to address marine life entanglements and any new regulatory requirements for the commercial fishery. The newsletter is mailed to all Dungeness crab vessel permit holders.

In addition, CDFW holds at least one public meeting prior to the start of each fishing season. The goal of these meetings is to increase awareness of marine life entanglement issues and management actions amongst the fleet and the public.

CDFW also generates press releases, sends updates via a dedicated listserv, and regularly updates the CDFW Whale Safe Fisheries web page. These outreach efforts are an important aspect of adaptive management, which aims to incorporate and facilitate effective stakeholder engagement.

ENTANGLEMENT RESPONSE AND REPORTING

In California, members of the Large Whale Entanglement Response Network, a group of non-profit, academic, industry, and government organizations coordinated through NMFS, handle response efforts for both large whales and sea turtles. Having reporting parties promptly report entanglements, document pertinent information regarding the entanglement, and monitor the entanglement until a Large Whale Entanglement Response Network team can arrive on site makes it more likely responders will be able to locate the entangled animal and mount a successful response. Documentation collected by the initial reporting party or during an entanglement response can also support forensic reviews, which can identify best practices and improve the general state of knowledge regarding gear configuration, environmental conditions, and other circumstances that result in entanglements.

CDFW also conducts follow up interviews with California-permitted fishermen whose gear is involved in marine life entanglements. When buoy markings indicate the gear may have originated from a California fishery and traced back to an individual, CDFW searches license and permitting records for vessel, permit, or fishermen identification numbers documented on entangling gear. If this search indicates California-permitted gear was responsible for the entanglement, CDFW conducts a follow up interview with the permitted individual to learn about gear set location, gear configuration, last known servicing and any other relevant information that could support entanglement response and forensic review and shares those findings with NMFS.

2.4 PROPOSED PROJECT

The proposed amendments to RAMP regulations constitute the proposed project for purposes of CEQA compliance. They are part of CDFW's comprehensive strategy to avoid, minimize, mitigate, and monitor entanglements of Actionable Species in commercial Dungeness crab fishing gear off the coast of California consistent with the framework established by the CP. The proposed amendments would add new RAMP components consisting of new buoy and line marking requirements and modify existing RAMP components as described below. These regulatory amendments are being proposed to satisfy requirements for the ITP pursuant to NMFS guidance, help streamline implementation processes to conserve staff resources, and clarify existing language to facilitate implementation and enforcement.

2.4.1 Project Objectives

The specific objectives of the proposed RAMP regulatory amendments are listed below.

1. use ongoing risk evaluation to reduce risk of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in commercial Dungeness crab gear throughout the project area using active management;
2. improve identification of entanglements of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area;
3. reduce the likelihood and/or severity of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area by authorizing the use of alternative fishing gear;
4. strengthen regulatory authority to implement actions designed to reduce entanglement risks, including CP goals and measures and federal ITP requirements; and
5. resolve existing inefficiencies, deficiencies, and ambiguities within RAMP that limit CDFW's ability to respond to Actionable Species entanglement, enforce management actions, collect data, and improve management tools.

2.4.2 Proposed RAMP Regulatory Amendments

The revisions proposed in Section 132.8 (Title 14, California Code of Regulations [CCR], i.e., the RAMP regulations) are summarized below and discussed further in the sections that follow.

- ▶ Clarify that an Actionable Species entanglement involving California commercial Dungeness crab gear observed anywhere would be considered as a Confirmed Entanglement.
- ▶ Clarify that an Actionable Species entanglement in Unknown Fishing Gear would count as a Confirmed Entanglement only if it is reported from a Fishing Zone off California.
- ▶ Clarify that Confirmed Entanglements would be assigned based on information provided by NMFS, and would be made when sufficient data are available, but no longer than on a quarterly basis.
- ▶ Remove provision pertaining to Confirmed Entanglements involving multiple fisheries.
- ▶ Simplify Confirmed Entanglement calculation by repealing the concept of Impact Score.
- ▶ Consider unidentifiable gear as Unknown Fishing Gear unless the gear in question is entirely inconsistent with a Dungeness crab trap.
- ▶ Phase out assignment of Confirmed Entanglements in Unknown Fishing Gear to the Dungeness crab fishery based on a new line marking requirement.
- ▶ Specify that Fishing Zones would extend to all "Ocean Waters" within the specified area.
- ▶ Remove the concept of "Fishing Grounds" and apply the 100-fathom boundary to only the Marine Life Concentration surveys.
- ▶ Define "Ocean Waters".
- ▶ Remove Fishing Zones 6 and 7.
- ▶ Move the start time of risk assessments from November 1 to October 15 and discontinue assessment once a Fishing Zone has been closed for the rest of the season.
- ▶ Clarify that a management action would remain in effect until it is revoked.
- ▶ Clarify that if a Fishing Zone is closed for the season, only approved Alternative Gear would be used in that zone for the rest of the season.
- ▶ Institute revised Confirmed Entanglement thresholds to align with ESA and anticipated requirements under an ITP.
- ▶ Stipulate that the validity of a survey for risk assessment would no longer expire after a specified period of time.
- ▶ Elevate a management action's effectiveness at minimizing entanglement to its primary goal.
- ▶ Consolidate the spatial data on the Actionable Species under one subsection and explicitly allow the consideration of data in areas adjacent to Fishing Zones.
- ▶ Extend consideration of entanglement pattern from only the ongoing calendar year and fishing season to prior years and seasons as well while crafting management actions.
- ▶ Remove Fleet Advisory as a management action.
- ▶ Update fishery closure requirements by clarifying that all fishing gear must be removed from a closed Fishing Zone by the effective date of the fishery closure; and crabs from delayed or closed zones cannot be taken, possessed, sold, or landed, with special stipulations for crabs taken from these zone(s) right before closure.
- ▶ Further clarify that all Dungeness crab permit holders, whether they are using traditional or Alternative Gear, must submit the bi-weekly report when they have gear in any Fishing Zone(s). Reports would be due on the first and sixteenth of each month, and may be submitted through a CDFW provided form in addition to email or text.
- ▶ Require bi-weekly reports to include the due dates and number of newly lost traps known to each permit holder.

- ▶ Require an end-of-season report due two weeks following the submission of each permit holder's last bi-weekly report of a fishing season documenting the traps lost during that season and their associated buoy tags.
- ▶ Update requirements for electronic monitoring systems by commercial Dungeness crab vessels when RAMP management measures are in place; monitoring systems would have to be able to track vessel accurately without interruption; tampering would be prohibited, and any interruption would have to be reported and corrected before fishing could resume.
- ▶ Require each main buoy to be legibly marked to identify the fishery and the permit holder.
- ▶ Require trap line marking to identify the gear belonging to the Dungeness crab fishery.
- ▶ Further stipulate the types of limitations or conditions that may be attached to the authorization of an Alternative Gear.

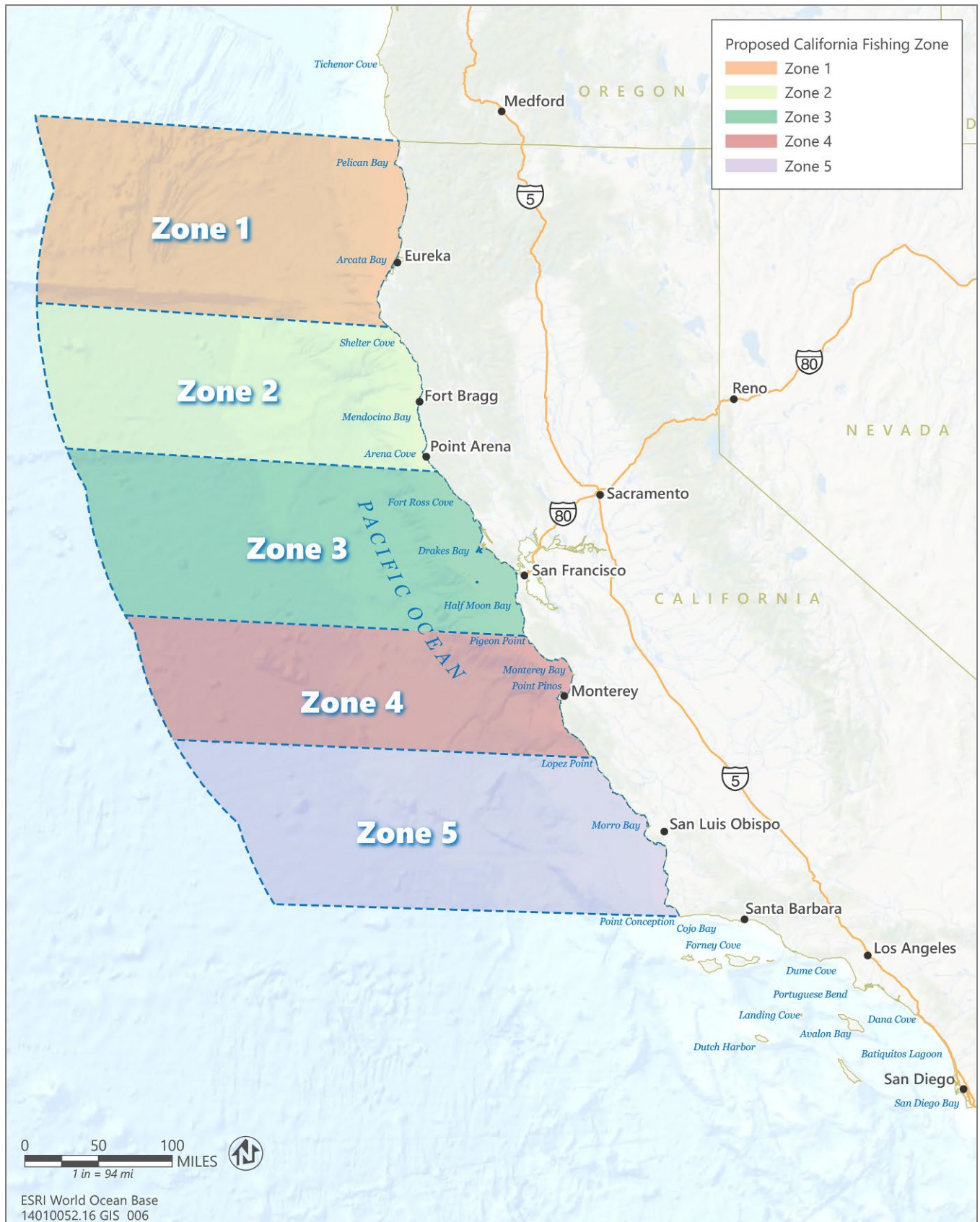
SPATIAL MANAGEMENT

Seven Fishing Zones are currently defined under RAMP for the commercial Dungeness crab fishery: Fishing Zones 1-6 (extending from the Oregon/California border to the north and US/Mexico border to the south), which collectively comprises the project area, and Fishing Zone 7 (designated as the "Pacific Leatherback Sea Turtle Foraging Area"), which encompasses the southern portion of Fishing Zone 2, the entirety of Fishing Zone 3, and the northern portion of Fishing Zone 4 (see Figure 2-8). The proposed amendments would streamline spatial management of the Dungeness crab fishery into five Fishing Zones with the following latitudinal boundaries (see Figure 2-9):

- ▶ Zone 1: From the California/Oregon border (42° N latitude) to Cape Mendocino (40° 10' N latitude).
- ▶ Zone 2: From Cape Mendocino to the Sonoma/Mendocino county line (38° 46.125' N latitude).
- ▶ Zone 3: From Sonoma/Mendocino county line to Pigeon Point (37° 11' N latitude).
- ▶ Zone 4: From Pigeon Point to Lopez Point (36° N latitude).
- ▶ Zone 5: From Lopez Point to Point Conception (34° 27' N latitude).

Instead of defining a specific Fishing Zone focused on leatherback sea turtles, management actions aimed to conserve the species would be applied to Fishing Zones 3 and 4, which closely mirror the extent of Fishing Zone 7.

Marine Life Concentrations would be evaluated within the portions of Fishing Zones 1-5 between shore and 100 fathoms (as defined in 50 CFR Sections 660.71-660.72).



Source: adapted by Ascent in 2024.

Figure 2-9 Proposed California Commercial Dungeness Crab Fishing Zones per the RAMP Regulations

RAMP SCHEDULE AND THRESHOLDS

Under the proposed project, CDFW would continue to conduct surveys from aerial and/or vessel platforms between shore and 100 fathoms in Fishing Zones 1-5 to evaluate the abundance and distribution of Actionable Species. However, the start date of risk assessments would be moved from November 1 to October 15 of each year and would cease once a season is closed. When weather or mechanical issues prevent Marine Life Concentrations surveys from being conducted, CDFW would review and consider other sources of current information, including aerial or vessel surveys conducted by other partners. If sufficient information is not available, CDFW would implement management actions to close or otherwise restrict the commercial Dungeness crab fishery.

Although CDFW proposes to evaluate Marine Life Concentrations only within the portions of each Fishing Zone between shore and 100 fathoms to focus available resources on evaluating Actionable Species distribution and presence within the areas where commercial harvest of Dungeness crab occurs, management actions could be applied to one or more Fishing Zones (including the portions outside of 100 fathoms) as well as other portions of the project area (i.e., waters south of Point Conception). Additionally, management actions under the proposed project would be implemented for any Fishing Zone where a leatherback sea turtle is present.

As for confirmed entanglement thresholds, CDFW would no longer prorate a humpback whale entanglement based on the perceived severity of the entanglement. Instead, each confirmed entanglement of a humpback would be counted as a single entanglement regardless of its perceived severity based on requirements of an ITP. Furthermore, following the mandatory marking of all surface gear starting November 1, 2025, each confirmed entanglement in Unknown Fishing Gear would be counted as a quarter of a confirmed entanglement in commercial Dungeness crab gear. Following the mandatory marking of lines on all deployed Dungeness crab gear starting November 1, 2028, CDFW would no longer account for any entanglement in Unknown Fishing Gear as it relates to the commercial Dungeness crab fishery.

Based on feedback from NMFS, CDFW would further amend the entanglement thresholds for the Actionable Species to meet the potential requirements of the ITP. CDFW would no longer wait for multi-year thresholds to be reached before taking management actions. Instead, management actions would be taken after every confirmed entanglement of any Actionable Species. Early closure on April 1 would also be imposed for two subsequent calendar years following a confirmed blue whale entanglement, while season delay to January 1 would be imposed for 9 calendar years in Fishing Zones 3 and 4 following a confirmed Pacific leatherback sea turtle entanglement.

Furthermore, if three or more confirmed humpback whale entanglements occur within a calendar year, the fishery would be closed immediately and not open until January 1 of the next calendar year.

MANAGEMENT ACTIONS

Revisions to management actions would include extension of Fishery Closure/Fishery Delays to prohibit possession, sale, and landing of Dungeness crabs taken from the closed/delayed Fishing Zones as well as mandatory removal of all Dungeness crab gear from the zone. Once a Fishing Zone closes, it would not reopen for the rest of the season and only Alternative Gear could be used to take Dungeness crab within it.

MANAGEMENT CONSIDERATIONS

CDFW's experience over the last several fishing seasons has highlighted the fact that evaluating marine life entanglement risk requires a dynamic, flexible approach rather than relying on historical patterns alone. CDFW's obligation is to reduce and minimize take of Actionable Species across the entire project area and, therefore, CDFW must consider how curtailing fishing effort in one area might increase fishing effort and associated entanglement risk in another.

CDFW would continue relying on the management considerations specified in 14 CCR Section 132.8(d) when selecting appropriate management actions. However, CDFW would no longer disregard information from older surveys beyond a specific period; instead, any prior survey data would be considered as part of each assessment so long as

they are relevant. Similarly, when deciding whether to apply management action to a Fishing Zone, CDFW would consider spatial data from any adjacent areas and data from prior years as long as they are also relevant. Furthermore, when considering which management tool would be implemented, their effectiveness at minimizing entanglement would take precedence over any other consideration.

REPORTING REQUIREMENTS

CDFW would continue to require all commercial Dungeness crab permit holders to submit bi-weekly reports; however, the proposed RAMP amendments would clarify the reporting requirements including requiring permit holders to report the number of newly lost traps on each report. Moreover, permit holders would be required to submit an end-of-season report documenting trap loss during the entire fishing season. Permit holders would also be held responsible for any tampering with the mandatory electronic monitoring systems.

ALTERNATIVE GEAR

Once testing and enforcement challenges are addressed, certification of Alternative Gear would allow for continued fishing activity during periods of elevated entanglement risk. Such gear would have to be detectable, retrievable, identifiable, beneficial, and enforceable. The authorized use of these gear may be subject to limitations on Fishing Zone, depth, maximum trap number, notification, and other requirements to ensure that the criteria are met. Amendments proposed as part of the project include conditional authorization categories or limitations of Alternative Gear.

GEAR IDENTIFICATION REQUIREMENTS

To improve the ability of CDFW and NMFS to identify and attribute Actionable Species take to the appropriate state's commercial Dungeness crab fishery and improve the ability of NMFS to make negligible impact determinations under the MMPA, CDFW would amend current buoy marking requirements for commercial Dungeness crab to align with line marking requirements implemented for other state-managed commercial fisheries. CDFW would also implement line marking to further make the lines identifiable, but would disallow line colors used for any other state or federal fishery operating in the US West Coast EEZ or in state waters of California, Oregon, or Washington.

2.5 REASONABLY FORESEEABLE COMPLIANCE RESPONSES

Reasonably foreseeable compliance responses would be the activities carried out by the commercial Dungeness crab fishery and involved public agencies in response to the approval of the proposed RAMP regulatory amendments that may result in physical changes to the environment. These compliance responses would be the source of potential environmental effects reviewed in this EIR. The following is a summary of the reasonably foreseeable compliance responses expected with implementation of the proposed project:

- ▶ No change in the number of issued permits would occur, and the number of active vessels and gear allotments would not change.
- ▶ Slightly increased air and vessel traffic associated with systematic implementation of monitoring surveys to determine concentrations of Actionable Species in the fishing zones would be reasonably anticipated.
- ▶ Reduced vessel traffic and trap deployment would be the result if delayed season opening or early fishing season closure in one or more fishing zones became necessary.
- ▶ More concentrated vessel traffic and trap deployment in portions of a Fishing Zone would be reasonably expected during periods when depth restrictions would be imposed.
- ▶ Reduced potential for entanglements would be reasonably anticipated because the number of vertical lines would be reduced.

- ▶ Reduced vessel traffic in areas with Actionable Species and increases in vessel traffic in areas without Actionable Species would occur.
- ▶ The amount of lost or abandoned gear would decrease because of vertical line/gear reductions and alternative gear use.

2.6 OTHER POTENTIAL PERMITS AND APPROVALS REQUIRED

CDFW is the CEQA Lead Agency for the project described above. However, subsequent project-related actions may require permits and/or approval by other federal or state agencies as described below.

2.6.1 Federal

- ▶ NMFS – As discussed previously, CDFW has submitted an ITP application and CP to NMFS to obtain authorization for the take of Actionable Species in the California commercial Dungeness crab fishery. NMFS is responsible for ITP review and approval pursuant to ESA Section 10 and any potentially ensuing compliance with the National Environmental Policy Act (NEPA).

2.6.2 State

- ▶ California Office of Administrative Law (OAL) – All regulations developed by a California administrative agency, such as CDFW, must be approved by OAL pursuant to the California Administrative Procedure Act. After an agency adopts new regulations or regulatory changes, OAL is responsible for reviewing their legal and procedural requirements before the regulations are published in the CCR.
- ▶ CDFW – If discretionary action by CDFW is taken to implement the CP and NMFS ITP implementing agreement authorizing incidental take of Actionable Species in the California commercial Dungeness crab fishery, additional CEQA compliance review may be required.

3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

3.0 APPROACH TO THE ENVIRONMENTAL ANALYSIS

This EIR evaluates and discloses the environmental impacts associated with implementation of the proposed amendments to the RAMP regulations (14 CCR Section 132.8), in accordance with CEQA (PRC Section 21000 et seq.) and the State CEQA Guidelines (14 CCR Section 15000 et seq.). Sections 3.2 through 3.7 of this EIR present a discussion of regulatory background, existing conditions, environmental impacts associated with project implementation, mitigation measures to reduce the level of impact. Issues evaluated in these sections consist of the environmental topics identified for review in the notice of preparation (NOP) prepared for the project (see Appendix A of this EIR). Other environmental topics dismissed from detailed evaluation are summarized in Section 3.1. Chapter 4 of this EIR, "Cumulative Impacts," presents an analysis of the project's impacts considered together with those of other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. Chapter 5, "Alternatives," presents a reasonable range of alternatives and evaluates the environmental effects of those alternatives relative to those of the proposed project, as required by Section 15126.6 of the State CEQA Guidelines. Chapter 6, "Other CEQA Sections," includes an analysis of the project's growth-inducing impacts, as required by Section 21100(b)(5) of CEQA.

Sections 3.2 through 3.7 of this EIR each include the following components:

- ▶ **Regulatory Setting:** This subsection presents information on the laws, regulations, plans, and policies that relate to the issue area being discussed. Regulations originating from the federal, state, and local levels are each discussed as appropriate to help evaluate the covered environmental impact topics.
- ▶ **Environmental Setting:** This subsection presents the existing environmental conditions in the project area and in the surrounding area around the time of the NOP review period, in accordance with State CEQA Guidelines Section 15125. The discussions of the environmental setting focus on information relevant to the issue under evaluation. The extent of the environmental setting area evaluated differs among resources, depending on the locations where impacts would be expected to occur.
- ▶ **Environmental Impact Analysis:** This subsection presents thresholds of significance and discusses significant and potentially significant effects of implementing the RAMP regulatory amendments and applying for an ITP on the existing environment, including the environment beyond the project boundaries, in accordance with State CEQA Guidelines Section 15126.2.

The project consists of regulatory amendments to RAMP, so the potential for changes to the physical environment would be derived from the reasonably foreseeable compliance responses of commercial Dungeness crab fishing operators, regulatory agencies, and CDFW to meet the requirements of the amended regulations. For instance, this may include changes in fishing operations, such as location, new or modified fishing equipment, or limitations in the timing of fishing activities.

The methodology for the impact analysis is described, including technical studies on which the analyses rely. The thresholds of significance are defined, and thresholds for which the project would have no impact are disclosed and dismissed from further evaluation. Project impacts and mitigation measures are numbered sequentially in each subsection (e.g., Impact 3.2-1, Impact 3.2-2, Impact 3.2-3). A summary impact statement precedes a more detailed discussion of each environmental impact. The discussion includes the analysis, rationale, and substantial evidence on which conclusions are based. The determination of level of significance of the impact is presented in bold text. A "less-than-significant" impact is one that would not result in a substantial adverse change in the physical environment. A "potentially significant" impact or "significant" impact is one that may or would result in a substantial adverse change in the physical environment, both are treated the same under CEQA in terms of procedural requirements and the need to identify feasible mitigation. Mitigation measures are identified, as feasible, to avoid, minimize, rectify, reduce, or compensate for significant or potentially significant impacts, in

accordance with the State CEQA Guidelines Section 15126.4. Unless otherwise noted, the mitigation measures presented are recommended in the EIR for consideration by CDFW to adopt as conditions of approval.

Where an existing law, regulation, or permit specifies mandatory and prescriptive actions about how to fulfill the regulatory requirement as part of the project definition, leaving little discretion in its implementation, and those actions would avoid an impact or maintain it at a less-than-significant level, the environmental protection afforded by the regulation is considered before determining impact significance. Where existing laws or regulations specify a mandatory permit process for future projects, performance standards without prescriptive actions to accomplish them, or other requirements that allow substantial discretion in how they are accomplished, or have a substantial compensatory component, the level of significance is determined before the influence of the regulatory requirements is applied. In this circumstance, the impact would be potentially significant or significant, and the regulatory requirements would be included as a mitigation measure.

This subsection also describes whether mitigation measures would reduce project impacts to a less-than-significant level. Significant and unavoidable impacts are identified as appropriate in accordance with State CEQA Guidelines Section 15126.2(c). Significant and unavoidable impacts are also summarized in Chapter 6, "Other CEQA Sections."

3.1 EFFECTS FOUND NOT TO BE SIGNIFICANT

If a lead agency determines that environmental effects are not significant or potentially significant and need not be discussed in detail, the EIR shall include a statement briefly explaining the reasons for this determination (PRC Section 21100, State CEQA Guidelines Sections 15126.2[a] and 15128). Based on review of comments received in response to the NOP and scoping meeting input (Appendix A), research and analysis of relevant project data, and review of the proposed regulatory amendments, it was determined that implementing the project would not result in significant or potentially significant environmental impacts in the areas identified below. Accordingly, these resources are not addressed in detail in this EIR.

3.1.1 Aesthetics

The project area consists of the EEZ of the Pacific Ocean along the coast of California, extending from the California/Oregon border in the north to the California/Mexico border in the south. This project area is characterized by open ocean, several islands, and scattered rocky ocean outcrops. Aesthetic resources include numerous views of coastal and marine features from the coastline and from vessels. For divers in the project area, the aesthetic setting also includes the underwater environment. Scenic vistas onshore and scenic highways (e.g., State Route 1) along the coast provide views of the project area. Existing built features apparent in open ocean views include piers, jetties, buoys, and oil drilling platforms.

During the open season for the California commercial Dungeness crab fishery, there are views of commercial vessels on the open water, as well as small trap buoys for submerged crab traps. The traps are completely submerged underwater, and all fishing-related activities are seasonal and do not leave behind permanent structures. Implementation of the RAMP regulatory amendments would not increase the number of vessels in the project area nor extend the commercial Dungeness crab fishing season; therefore, vessels would not be visible in greater numbers or for a longer period. The amount and types of activities that could be visible from scenic vistas or scenic highways would be similar to existing conditions and would be slightly less in some years if the open season for the commercial Dungeness crab fishery is shortened in response to management triggers under RAMP. These shifts would be seasonal and would result in only slight changes in visible fishing activity in the area. The visual character of the open ocean would not substantially change. Therefore, implementation of the project would not degrade the visual character of the project area or degrade scenic vistas or the viewshed of scenic highways. In addition, although vessels may use limited vessel lighting for safety and navigation, implementation of the project would not increase the number of vessels in the project area at night nor the amount of nighttime lighting in the project area. For the

reasons described above, implementing the project would not result in significant impacts related to aesthetics, and this issue is not discussed further.

3.1.2 Agriculture and Forestry Resources

The project area encompasses the EEZ, which is an area of the ocean entirely off the coast of California. Because the entire project area is in the marine environment, it includes no lands designated as Important Farmland or Williamson Act land. In addition, implementation of the proposed RAMP regulatory amendments would involve changes only in the operation of the existing commercial Dungeness crab fishery and would not involve activities that could adversely affect Important Farmland or convert farmland to nonagricultural uses. Furthermore, no designated forestland or timberland exists within the project area. Implementation of the project would, therefore, not result in conversion of forestland to non-forest uses. For these reasons, implementing the project would not result in significant impacts related to agriculture or forestry resources, and this issue is not discussed further.

3.1.3 Energy

Implementation of the proposed RAMP regulatory amendments would not involve any construction of temporary or permanent facilities that would require consumption of fuels or use of energy. Operation of fishing vessels during the commercial Dungeness crab fishing season would continue to require the use of diesel fuel and oil in and auxiliary equipment on marine vessels. The amount of energy used associated with the commercial Dungeness crab fishery would not substantially change, because neither the number of vessels permitted to fish nor the length of the season would increase. The amount of energy expended during the commercial Dungeness crab fishing season may be slightly less in some years if the commercial Dungeness crab fishing season is shortened in response to RAMP management triggers. Changes in gear types as a result of implementing the project are not expected to substantially change the amount of energy expended to deploy or collect gear. Implementation of the project would not result in the wasteful or inefficient use of energy. For the reasons described above, implementing the project would not result in significant impacts related to energy, and this issue is not discussed further.

3.1.4 Geology and Soils

No new structures would be constructed as part of the project. Implementation of the proposed RAMP regulatory amendments would involve changes only in the operation of the existing commercial Dungeness crab fishery, including changes in vessel traffic, crab fishing gear used, and monitoring. These activities are all located in the marine environment and would not be subject to damage from ground displacement, ground shaking, or liquefaction of soils from earthquakes. In addition, no construction is proposed as part of the project that could disturb the seafloor. Commercial Dungeness crab fishing gear is typically deployed over sandy or silty substrates, which may cause a minor, temporary disturbance to the seafloor. However, these areas are subject to regular natural seafloor disturbance and, as no change to the gear limit is proposed, implementing the project would not increase the level of seafloor disturbance from deployment and retrieval of fishing gear. The potential for marine water quality impacts related to temporary disturbance of the seafloor or nearshore sediments is addressed in Section 3.7, "Water Quality." No stormwater would be generated by implementation of the project because the operations are all marine based. For the reasons described above, implementing the project would not result in significant impacts related to geology and soils, and this issue is not discussed further.

3.1.5 Hydrology

Implementation of the proposed RAMP regulatory amendments would involve changes only in the operation of the existing commercial Dungeness crab fishery, including changes in vessel traffic, crab fishing gear used, and monitoring. These marine-based activities would not affect groundwater resources or alter any drainages. Because the project area is entirely within the marine environment, there would be no impacts related to flooding. While there

is the potential for tsunamis to occur within the project area, the project would not include construction of any structures that would increase the potential for damage related to tsunamis. Potential marine water quality impacts are addressed in Section 3.7, "Water Quality." For the reasons described above, implementing the project would not result in significant impacts related to hydrology, and this issue is not discussed further.

3.1.6 Land Use and Planning

The project area consists of open ocean waters and is not subject to any local government general plans, zoning designations, or land use plans that govern development and land uses. Regulations governing activities in the project area include the Marine Life Protection Act (MLPA) and restrictions associated with marine management areas (MMAs), including marine protected areas (MPAs). There are no developed communities in the project area, and the project area is not subject to an existing habitat conservation plan or natural community conservation plan. Therefore, implementation of the proposed RAMP regulatory amendments would not divide an established community or conflict with an existing habitat conservation plan. The commercial Dungeness crab fishery would continue to operate consistent with the MLPA and restrictions on fishing within MMAs and MPAs. Implementing the project would not result in an increase in commercial crab fishing and would improve conditions for ESA listed whale and sea turtle species, which would be consistent with the goals of the MLPA. For these reasons, implementing the project would not result in significant impacts related to land use, and this issue is not discussed further.

3.1.7 Mineral Resources

Mineral resources in the project area are limited to petroleum hydrocarbon resources, which include oil and gas deposits. The entire coast of California has the potential for oil and gas reservoirs, and active submerged land leases currently produce petroleum hydrocarbons off the southern California coast (CDFW 2002). Implementation of the proposed RAMP regulatory amendments would involve changes only in the operation of the existing commercial Dungeness crab fishery and would not involve activities resulting in the loss of availability of or altered accessibility to any mineral resources. For these reasons, implementing the project would not result in significant impacts related to mineral resources, and this issue is not discussed further.

3.1.8 Noise

Existing noise conditions are governed by the presence of noise-sensitive receptors, the location and type of noise sources, and overall ambient noise levels. Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where a quiet setting is an essential element of their intended purpose. The project area does not contain uses that are generally considered sensitive to increases in exterior noise levels, such as residences, schools, historic sites, or cemeteries, which are all land based. Implementation of the proposed RAMP regulatory amendments would not involve any construction. Therefore, there would not be any construction-related increases in noise. The primary noise sources associated with the commercial Dungeness crab fishery are diesel engines used by fishing and monitoring vessels and engines in aircraft used during aerial surveys. However, these noise sources exist now in the project area and their use will continue to be seasonal and temporary. Implementation of the project would not increase the number of vessels or type of noise sources. In addition, no substantial sources of vibration are associated with operation of the commercial Dungeness crab fishery. For the reasons described above, implementing the project would not result in significant impacts related to noise, and this issue is not discussed further.

3.1.9 Population and Housing

No permanent housing is present in the marine-based project area; therefore, no homes would be displaced as a result of implementing the project. If liveaboard vessels are present with maritime residents, the operation of commercial Dungeness crab fishing vessels would not affect them. No homes would be constructed as part of the

proposed RAMP regulatory amendments. Implementation of the project would not result in an increase in employees or jobs associated with operation of the commercial Dungeness crab fishery, because neither the number of vessels nor the length of the season would increase. Implementing the project would not directly or indirectly induce population growth. For these reasons, implementing the project would not result in significant impacts related to population and housing, and this issue is not discussed further.

3.1.10 Public Services

CDFW's Law Enforcement Division is the primary agency responsible for enforcing state fish and wildlife laws and regulations in the project area. The California Division of Boating and Waterways oversees all aspects of recreational boating in California, including public access, safety, and education. The US Coast Guard also patrols all navigable waterways along the coast and coordinates regularly with all sheriff's departments. The project area does not contain any public facilities or services associated with law enforcement, fire protection, public schools, or other public facilities. Implementation of the proposed RAMP regulatory amendments would not result in an increase in population or employment, and public access to the project area would not change. In addition, while some of the regulatory changes may increase the need for enforcement of fishery regulations, the number of permit holders and types of activities allowed would not change, and thus the project would not result in a substantial increase in the demand for law enforcement. Therefore, implementing the project would not cause an increase in demand for police or fire services, public schools, or other governmental services beyond existing conditions. For these reasons, implementing the project would not result in significant impacts related to public services, and this issue is not discussed further.

3.1.11 Recreation

Recreational fishing for several species, including Dungeness crab, occurs throughout the project area. Other recreational uses in the project area include diving, surfing, kayaking, sailing, cruising, and boat-based wildlife viewing. Implementation of the proposed RAMP regulatory amendments primarily applies to the commercial Dungeness crab fishery; however, RAMP also limits recreational fishing when marine life concentration triggers are reached. The project would not result in substantial changes to how the recreational Dungeness crab fishery or any other recreational fisheries are managed in the project area. In addition, implementing the project would not result in an increase in population that could indirectly affect demand for recreational facilities or resources, and no new recreational facilities would be constructed or expanded as part of the project. For these reasons, implementing the project would not result in significant impacts related to recreation, and this issue is not discussed further.

3.1.12 Transportation

Federal regulations concerning marine navigation, codified in 33 CFR Parts 1–399, are implemented by the US Coast Guard and US Army Corps of Engineers. Federal regulations for marine vessel shipping, codified in 46 CFR Parts 1–599, are implemented by the US Coast Guard, Maritime Administration, and Federal Maritime Commission.

The only type of transportation in the project area is vessel traffic, and types of transportation include commercial ships (e.g., tankers, container ships, bulk carriers, military vessels), commercial fishing vessels, research vessels, and recreational boating. The major ports in the project area are in Los Angeles, Long Beach, and San Diego. Several private and public airports in and adjacent to the project area contribute to air traffic over the project area. There are no public transit, bicycle, or pedestrian facilities in the project area, and no congestion management programs are applicable to the project area, because it is located in a marine environment.

With implementation of the proposed RAMP regulatory amendments, vessel traffic would continue to occur in the same project area and would continue to travel to and from the same marinas and boat launching facilities that are currently used for commercial Dungeness crab fishing. Commercial and recreational vessels would continue to operate in accordance with existing boating regulations governing circulation on waterways. In addition,

implementation of the project would not increase vessel congestion in the project area and would not increase the number of fishing permits, which could result in additional vessels on the water. In fact, the number of fishing vessels in the project area or a portion of the project area may be slightly less in some years if the commercial Dungeness crab fishing season is shortened in response to management triggers. Implementing the project would not change emergency access in the project area, and no new facilities would be constructed that would involve any design feature related to transportation or traffic-related infrastructure. There may be a small increase in vessel and aircraft traffic related to whale monitoring surveys; however, implementing the project would not involve a substantial increase in vessel or aircraft traffic. For the reasons described above, implementing the project would not result in significant impacts related to transportation, and this issue is not discussed further.

3.1.13 Utilities and Service Systems

Many types of utilities exist off the coast of California, and they can generally be classified into three groups: offshore cables, offshore oil and gas pipelines, and service pipelines. Communication cables, both offshore and onshore, are regulated by the Federal Communications Commission and the California Public Utilities Commission. Offshore pipelines are under the regulatory jurisdiction of federal and state agencies. In federal waters, the Federal Energy Regulatory Commission, US Bureau of Ocean Energy Management, and US Department of Transportation are responsible for regulating various aspects of oil and gas pipelines. The California State Lands Commission; the Pipeline Safety Division of the Office of the State Fire Marshal; and the California Department of Conservation's Division of Oil, Gas, and Geothermal Resources regulate pipelines in state waters. Service pipelines, such as sewage treatment plant outfalls, are regulated by the State Water Resources Control Board through its issuance of National Pollutant Discharge Elimination System permits. The location of many submerged cables and sewage outfalls are identified on National Oceanic and Atmospheric Administration nautical charts. However, the various locations of the US Navy undersea communication cables are generally classified, and their locations are not revealed (CDFW 2002).

Implementation of the proposed RAMP regulatory amendments would not generate any wastewater and the project would not require the construction of new or expanded wastewater treatment facilities. In addition, the project would not require the construction of new or expanded water supply or treatment facilities. No land use changes or development are proposed as part of the project; therefore, implementing the project would not generate stormwater or require construction of new stormwater drainage facilities or the expansion of existing facilities in the project area. Although some solid waste is currently generated by the commercial Dungeness crab fishery, implementation of the project would not result in an overall increase in the level of fishing activity, or the amount of solid waste generated by the fishery. While there are submerged utilities in the project area, the locations of these utilities (except for classified utilities) are identified on navigational maps, and fishing activities are not expected to interfere with utilities. In addition, implementing the project would not result in an increase in the number of traps that would have contact with the seafloor. For the reasons described above, implementing the project would not result in significant impacts related to utilities or service systems, and these issues are not discussed further.

3.1.14 Wildfire

The project area is entirely in the marine environment; therefore, it is not located in a fire hazard severity zone and implementation of the proposed RAMP regulatory amendments would not exacerbate wildfire risks nor expose people to pollutant concentrations from wildfire; to the uncontrolled spread of wildfire; or loss, injury, or death involving wildland fires. Implementing the project would not change emergency access in the project area; therefore, it would not interfere with an emergency response plan. For these reasons, implementing the project would not result in significant impacts related to wildfire, and this issue is not discussed further.

3.2 AIR QUALITY

This section includes a discussion of existing air quality conditions, a summary of applicable regulations, and an analysis of potential construction and operational air quality impacts caused by reasonably foreseeable compliance actions in response to implementation of the proposed RAMP regulatory amendments.

No comments related to air quality were made during the notice of preparation scoping period.

3.2.1 Regulatory Setting

Air quality in the project area is regulated through the efforts of various federal and state agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, planning, policymaking, education, and a variety of programs. The agencies responsible for improving the air quality in the air basins are discussed below.

FEDERAL

US Environmental Protection Agency

The US Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments to the CAA were made by Congress in 1990. EPA's air quality efforts address both criteria air pollutants and hazardous air pollutants (HAPs). EPA regulations concerning criteria air pollutants and HAPs are presented in greater detail below.

Criteria Air Pollutants

The CAA required EPA to establish National Ambient Air Quality Standards (NAAQS) for six common air pollutants found all over the United States, referred to as criteria air pollutants. EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM₁₀), fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less (PM_{2.5}), and lead. The NAAQS are shown in Table 3.2-1. The primary standards protect public health, and the secondary standards protect public welfare.

The CAA also required each state to prepare a state implementation plan (SIP) for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. California's SIP is modified periodically to reflect the latest emission inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, EPA may prepare a federal implementation plan that imposes additional control measures. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

Table 3.2-1 National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California (CAAQS) ^{a,b}	National (NAAQS) ^c Primary ^{b,d}	National (NAAQS) ^c Secondary ^{b,e}
Ozone	1-hour	0.09 ppm (180 µg/m ³)	—	Same as primary standard
	8-hour	0.070 ppm (137 µg/m ³)	0.070 ppm (147 µg/m ³)	
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	Same as primary standard
	8-hour	9 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	
Nitrogen dioxide (NO ₂)	Annual arithmetic mean	0.030 ppm (57 µg/m ³)	53 ppb (100 µg/m ³)	Same as primary standard
	1-hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	—
Sulfur dioxide (SO ₂)	24-hour	0.04 ppm (105 µg/m ³)	—	—
	3-hour	—	—	0.5 ppm (1,300 µg/m ³)
	1-hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)	—
Respirable particulate matter (PM ₁₀)	Annual arithmetic mean	20 µg/m ³	—	Same as primary standard
	24-hour	50 µg/m ³	150 µg/m ³	
Fine particulate matter (PM _{2.5})	Annual arithmetic mean	12 µg/m ³	9.0 µg/m ³	15.0 µg/m ³
	24-hour	—	35 µg/m ³	Same as primary standard
Lead ^f	Calendar quarter	—	1.5 µg/m ³	Same as primary standard
	30-day average	1.5 µg/m ³	—	—
	Rolling 3-month average	—	0.15 µg/m ³	Same as primary standard
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m ³)	No National Standards	
Sulfates	24-hour	25 µg/m ³		
Vinyl chloride ^f	24-hour	0.01 ppm (26 µg/m ³)		
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km		

Notes: µg/m³ = micrograms per cubic meter; km = kilometers; ppb = parts per billion; ppm = parts per million.

- ^a California standards for ozone, carbon monoxide, SO₂ (1- and 24-hour), NO₂, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- ^b Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- ^c National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. The PM₁₀ 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. The PM_{2.5} 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the US Environmental Protection Agency for further clarification and current federal policies.
- ^d National primary standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
- ^e National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- ^f The California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Source: CARB 2016.

Hazardous Air Pollutants and Toxic Air Contaminants

Toxic air contaminants (TACs), or in federal parlance, HAPs, are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally rather than regionally. TACs can cause long-term health effects, such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute effects, such as eye watering, respiratory irritation (a cough), runny nose, throat pain, and headaches.

For evaluation purposes, TACs are separated into carcinogens and noncarcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants for which acceptable levels of exposure can be determined and for which the ambient standards have been established (Table 3.2-1). Cancer risk from TACs is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure.

STATE

The California Air Resources Board (CARB) is the agency responsible for coordinating and providing oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish California Ambient Air Quality Standards (CAAQS) (Table 3.2-1).

Criteria Air Pollutants

CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases, the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to attain and maintain the CAAQS by the earliest date practical. It specifies that local air districts should focus particular attention on reducing the emissions from transportation and areawide emission sources. The CCAA also provides air districts with the authority to regulate indirect sources.

Toxic Air Contaminants

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (Hot Spots Act) (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted EPA's list of HAPs as TACs. Most recently, particulate matter (PM) exhaust from diesel engines (diesel PM) was added to CARB's list of TACs.

After a TAC is identified, CARB then adopts an airborne toxics control measure for sources that emit that TAC. If a threshold exists for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If no safe threshold exists, the measure must incorporate best available control technology for toxics to minimize emissions.

The Hot Spots Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

CARB has adopted diesel exhaust control measures and more stringent emissions standards for various transportation-related mobile sources of emissions, including off-road diesel equipment (e.g., commercial fishing vessels). Over time, the replacement of old equipment and engines will result in a fleet that produces substantially lower levels of TACs than under current conditions. Off road-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Phase II reformulated gasoline regulations) and control technologies. With implementation of CARB's Risk Reduction Plan and other regulatory programs, it is estimated that emissions of diesel PM will be less than half of those in 2010 by 2035. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

LOCAL

EPA established the NAAQS, and CARB established the CAAQS. Together, CARB and local air districts in California have primary responsibility for implementing the NAAQS and CAAQS at the local level. The air districts are responsible for implementing strategies for air quality improvement and recommending mitigation measures for new growth and development in their air quality plans. To assist in environmental analysis, air districts can develop and adopt CEQA guidelines with either qualitative or numerical thresholds for determining when projects would generate emissions that would result in a significant impact on air quality. In some cases, the air districts' CEQA guidelines require prescriptive mitigation measures that must be implemented if implementing the project would result in a significant air quality impact based on its emissions.

The primary mechanism through which the air districts regulate the emissions of air pollution involves the issuance of permits to stationary sources of air pollution in accordance with the rules and regulations adopted by each district. The districts also review and coordinate projects with other local government agencies to reduce emissions associated with transportation. Each district has review procedures to identify and promote emissions reductions through the application of mitigation measures placed as conditions on specific projects. Commercial fishing vessels, which are the focus of this section, are not directly regulated by any of the individual districts. Like other mobile sources, the emissions from their engines are subject to limits adopted at the federal or state level.

3.2.2 Environmental Setting

The strong influence of the Pacific Ocean, the California Coastal Range, the Sierra Nevada, and the Cascade Range provides climate variations in California that run in a general west-to-east direction. California's climate varies from Mediterranean (coastally and most of the state) to steppe (scattered foothills areas) to alpine (high Sierra Nevada and Cascade Range). Air quality is a function of the climate, topography, and emissions in an area or upwind of that area.

The Sierra Nevada and Cascade Range act as barriers to the passage of air masses. In summer, California is protected from much of the hot, dry air masses that develop over the central United States. Because of this barrier and its western border with the Pacific Ocean, portions of the state, particularly along the coast, generally have a milder summer climate than other parts of the country. Summers are characterized by dry, sunny conditions with infrequent rainfall. In winter, the Sierra Nevada and Cascade Range block cold, dry air masses located in the interior of the United States from moving into California. Consequently, winters in California are milder than would be expected at these latitudes. Specific to the California coast, the temperatures within these areas are regulated by the influence of the Pacific Ocean, which, as a large body of water, has high specific heat and maintains atmospheric temperatures throughout the year. In the northern portion of the California Coast, where the Pacific Ocean's current trends southward from the Arctic Circle, temperatures are typically cooler as compared to the temperatures along the state's southern coast, where the Pacific Ocean's current has begun to warm.

Air pollution in coastal California is occasionally aggravated by daily and seasonal wind patterns. Sea breezes move air pollution inland from coastal areas during the day as cold, dense air moves onshore. Land breezes push pollution back to coastal areas during the night. During winter, inversions can cause the buildup of pollutants in coastal areas due to emissions from industrial facilities, transportation sources, and residential areas.

CRITERIA AIR POLLUTANTS

Concentrations of emissions from criteria air pollutants are used to indicate the quality of the ambient air. Criteria air pollutants are a group of compounds that are regulated in California and at the national level. They are air pollutants for which acceptable levels of exposure can be determined and an ambient (outdoor) air quality standard has been set. The term "criteria air pollutants" comes from the requirement that EPA must describe the characteristics and potential health and welfare effects of these pollutants. EPA and CARB periodically review new scientific data and may propose revisions to the standards as a result. Criteria air pollutants include ozone, CO, NO₂, SO₂, respirable and fine particulate matter (PM₁₀ and PM_{2.5}, respectively), and lead. A description of the sources and health effects for each criteria pollutant is summarized in Table 3.2-2.

Ozone

Ozone is a photochemical oxidant (a substance whose oxygen combines chemically with another substance in the presence of sunlight) and the primary component of smog. Ozone is not directly emitted into the air in large amounts but is formed through complex chemical reactions between precursor emissions of reactive organic gases (ROG) and oxides of nitrogen (NO_x) in the presence of sunlight (EPA 2022). ROG are volatile organic compounds that are photochemically reactive. ROG emissions result primarily from incomplete combustion and the evaporation of chemical solvents used primarily in coating and adhesive processes, as well as evaporation of fuels. NO_x are a group of gaseous compounds of nitrogen and oxygen that result from the combustion of fuels.

Acute health effects of ozone exposure include increased respiratory and pulmonary resistance, cough, pain, shortness of breath, and lung inflammation. Chronic health effects include permeability of respiratory epithelia and possibility of permanent lung impairment (EPA 2022). Emissions of the ozone precursors ROG and NO_x have decreased over the past two decades because of more stringent motor vehicle standards and cleaner burning fuels (CARB 2014a).

Nitrogen Dioxide

NO₂ is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO₂ are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO₂. The combined emissions of NO and NO₂ are referred to as NO_x and are reported as equivalent NO₂. Because NO₂ is formed and depleted by reactions associated with photochemical smog (ozone), the NO₂ concentration in a particular geographical area may not be representative of the local sources of NO_x emissions (EPA 2022).

Acute health effects of exposure to NO_x include coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis, pulmonary edema, breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, and death. Chronic health effects include chronic bronchitis and decreased lung function (EPA 2022).

Particulate Matter

PM₁₀ consists of particulate matter emitted directly into the air, such as fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires and natural windblown dust, and particulate matter formed in the atmosphere by reaction of gaseous precursors (CARB 2014a; EPA 2022). PM_{2.5} includes a subgroup of smaller particles that have an aerodynamic diameter of 2.5 micrometers or less. PM₁₀ emissions are dominated by emissions from area sources, primarily fugitive dust from vehicle travel on unpaved and paved roads, construction and demolition, and particles from residential fuel combustion. Acute health effects of PM₁₀ exposure include breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, and premature death. Chronic health effects include alterations to the immune system and carcinogenesis (CARB 2014a). Direct emissions of PM₁₀ have increased slightly over the last 20 years and are projected to continue to increase slightly through 2035 (CARB 2014b). Ambient PM_{2.5} emissions have remained relatively steady over the last 20 years and are projected to decrease slightly through 2035 (CARB 2014a).

Table 3.2-2 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute ¹ Health Effects	Chronic ² Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO _x in presence of sunlight; ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels, and NO _x results from the combustion of fuels	Increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	Permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	Headache, dizziness, fatigue, nausea, vomiting, death	Permanent heart and brain damage
Nitrogen dioxide (NO ₂)	Combustion devices (e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines)	Coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis, pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	Chronic bronchitis, decreased lung function
Sulfur dioxide (SO ₂)	Coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO ₂ exposure to chronic health impacts
Respirable particulate matter (PM ₁₀), Fine particulate matter (PM _{2.5})	Fugitive dust, soot, smoke, mobile and stationary sources, construction, fires, and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO ₂ and ROG	Breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	Alterations to the immune system, carcinogenesis
Lead	Metal processing	Reproductive/developmental effects (fetuses and children)	Numerous effects, including neurological, endocrine, and cardiovascular effects

Notes: NO_x = oxides of nitrogen; ROG = reactive organic gases.

¹ "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

² "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Source: EPA 2022.

TOXIC AIR CONTAMINANTS

TACs are air contaminants that "may cause or contribute to an increase in deaths or in serious illness, or which may pose a present or potential hazard to human health" (CDPH 2014). Many pollutants are identified as TACs because of their potential to increase the risk of developing cancer or their acute or chronic health risks. Individual TACs vary greatly in the risk they present. At a given level of exposure, one TAC may pose a hazard that is many times greater than another.

There are no federal or state standards for allowable ambient concentrations of TACs. However, for TACs that are known or suspected carcinogens, CARB has consistently found that there are no levels or thresholds below which exposure is risk-free. For certain TACs, a unit risk factor can be developed to evaluate cancer risk. For acute and chronic health risks, a similar factor called a hazard index is used to evaluate risk.

SENSITIVE RECEPTORS

For this analysis, sensitive receptors are defined as people, facilities, and areas that are particularly susceptible to the adverse effects of air pollution. They include children, the elderly, and people with illnesses and can include schools, nursing homes, hospitals, and residential areas. Air pollution can cause adverse health effects in humans, including aggravating asthma conditions and other respiratory problems. Under the project, offshore activities would occur in the ocean and would not be located near any sensitive receptors.

3.2.3 Environmental Impact Analysis

METHODOLOGY

The focus of the impact analysis is the potential generation of criteria air pollutants and ozone precursors, TACs, CO, and odors from physical changes to the environment that may occur in response to the reasonably foreseeable compliance responses to the project (see Section 2.5). Implementation of the RAMP regulatory amendments would not require the construction of any new facilities to further the project's objectives. Operational sources of air pollution from the reasonably foreseeable compliance responses to the project would include mobile source emissions from the movement of commercial fishing and monitoring vessels and aircraft throughout the project area, monitoring, and tracking purposes. The change in vessel activity from the project compared to baseline levels of vessel movement is unknown; therefore, operational emissions of criteria air pollutants and ozone precursors are assessed qualitatively.

THRESHOLDS OF SIGNIFICANCE

The significance criteria listed below are based on Appendix G of the State CEQA Guidelines. Air districts in the state also typically recommend mass emissions thresholds of significance for determining the air quality impacts of projects proposed within their jurisdictions. However, as stated previously, activities producing air pollution from the project would occur off the coast of California and would not be beholden to an air district's recommended thresholds of significance. An impact on air quality would be significant if implementation of the project would:

- ▶ conflict with or obstruct implementation of the applicable air quality plan,
- ▶ result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard,
- ▶ expose sensitive receptors to substantial pollutant concentrations, or
- ▶ result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

ISSUES NOT DISCUSSED FURTHER

Construction-Generated Emissions of Criteria Air Pollutants and Ozone Precursors

The reasonably foreseeable compliance responses from implementation of the proposed RAMP regulatory amendments (see Section 2.5) would not include the construction of new facilities to support the project's objectives. Therefore, no increase in construction-related emissions of criteria air pollutants and ozone precursors would occur from implementation of the project. Because there would be no construction-related impacts, this impact is dismissed from further consideration.

Substantial Concentrations of Toxic Air Contaminants

The reasonably foreseeable compliance responses from implementation of the proposed RAMP regulatory amendments (see Section 2.5) would not include the construction of new facilities to support the project's objectives; however, some generation of diesel PM would occur from the movement of fishing and monitoring vessels as well as aircraft to monitor wildlife throughout the project area. These emissions would be dispersed throughout the project area, which extends out to 200 nautical miles from the California coastline.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period.

Because of the magnitude of the project area and there are no sensitive receptors within the project area, the amount of diesel PM generated by operation of diesel-powered fishing vessels would not expose receptors to high doses of diesel PM. Moreover, these vessels would generally be moving while operational, and diesel PM is highly dispersive; therefore, the risk of exposing sensitive receptors to high concentrations of diesel PM would be negligible. Because there would be no TAC impacts, this impact is dismissed from further consideration.

Carbon Monoxide Hotspots

The reasonably foreseeable compliance responses from implementation of the proposed RAMP regulatory amendments (see Section 2.5) would not include the generation of any new on-road vehicle trips, but continuation of seasonal fishing activities in the project area would be allowed. Operation of fishing and monitoring vessels would be dispersed throughout the project area, would not create a stationary source of emissions, and would not contribute CO emissions to the degree that a CO hotspot could occur. The operation of vessels could contribute offshore CO emissions that could affect the regional air quality of a California basin; however, this contribution would not be localized such that a CO hotspot could occur. Operation of aircraft would also not produce CO hotspots due to the altitude of operation and broad geographic scope of the flights. Because there would be no CO hotspots from implementation of the project, this impact is dismissed from further consideration.

Odors

The reasonably foreseeable compliance responses from implementation of the proposed RAMP regulatory amendments (see Section 2.5) would not include the introduction of new sources of odors. The project would allow for continuation of seasonal fishing of Dungeness crab off the coast of the state; however, this activity would occur in the project area and would not produce odors that would affect an existing receptors. Because there would be no odor impacts, this impact is dismissed from further consideration.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.2-1: Generate a Substantial Increase in Long-Term Operational ROG, NO_x, PM₁₀, and PM_{2.5} Emissions

Reasonably foreseeable compliance responses from implementation of the project would include the generation of criteria air pollutants and ozone precursors from the movement of commercial fishing and monitoring vessels and aircraft trips throughout the project area. However, this level of vessel activity would not be substantially more than the current level of activity associated with the commercial harvest of Dungeness crab. Moreover, implementation of the project would not prohibit or prevent the deployment of fishing vessel-related regulations included in the SIP as overseen by CARB. This impact would be **less than significant**.

The reasonably foreseeable compliance responses from implementation of the RAMP regulatory amendments would include the operation of commercial fishing vessels to harvest Dungeness crab and monitoring of marine life concentrations (see Section 2.5 for a summary of the reasonably foreseeable compliance responses from project implementation). Although the emissions associated with this activity could be transported inland given the characteristics of California's meteorology and historic wind patterns, regional air quality plans do not account for offshore sources of pollution; thus, the regional plans, and associated reduction measures, prepared by coastal air districts have no bearing on emissions generated by coastal vessel activity. In addition, the mass emissions thresholds developed and applied to projects proposed within an air district's jurisdiction are designed in consideration of long-term regional air quality planning. These considerations include the current attainment status of the air basin, existing sources of pollution, and growth projections related to future development and population. These thresholds are applicable to land-based development or maritime construction projects and are not intended to capture emissions generated outside an air district's jurisdiction.

Because mass emissions thresholds and compliance with regional air quality plans are not appropriate thresholds for evaluating the project's significance, the plan that is most relevant to the project is the 2022 State SIP Strategy (2022 SIP).

The 2022 SIP summarizes the regulations adopted by CARB to reduce emissions from all sectors, including the offroad sector, which encompasses maritime vessels. Imbedded in the 2022 SIP are the Commercial Harbor Craft regulation amendments, which were adopted in March 2022. The amendments mandate the accelerated deployment of zero-emission technologies for private vessels, towboats, crew and supply vessels, work boats, pilot vessels, barges, dredges, commercial vessels, and passenger fishing boats. Commercial fishing vessels used to facilitate the capture of Dungeness crab and the monitoring of marine resources would be subject to the benchmark deadlines contained in the Commercial Harbor Craft regulation amendments, as well as any future amendments adopted by CARB. The project would not conflict with the deployment of these amendments.

Implementation of the project would not result in an increase in the number of commercial fishing permits issued or the number of vessels used for fishing, but it would result in a limited increase in the number of survey vessel and aircraft trips. Although implementation of systematic surveys to determine marine life concentrations would potentially result in an increase in vessel or aircraft traffic in the project area, CDFW would use data collected during vessel-based and aerial surveys that are already being conducted by other agencies and organizations as part of the existing baseline of vessel and aircraft activity. Thus, the modest increase in vessel and aircraft activity associated with these efforts would not result in a level of activity that would be substantially greater than what is currently occurring under baseline conditions. While quantifying the increase in vessel activity would be speculative at this time, it is reasonable to conclude that vessel activity would not substantially increase, although the locations of vessel activity may be redistributed based on implementation of Fishing Zone closures, delays, or depth restrictions. It is not expected that this redistribution of vessels would, by itself, result in a cumulatively considerable net increase in pollution for an area that is in nonattainment. In addition, because vessels would be subject to the off-road specific regulations (i.e., 2022 Commercial Harbor Craft regulation amendments), the project would not conflict with the 2022 SIP. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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3.3 ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

This section evaluates the potential impacts of reasonably foreseeable compliance actions in response to implementation of the proposed RAMP regulatory amendments on known and unknown marine cultural resources. Cultural resources typically include districts, sites, buildings, structures, or objects generally older than 50 years and considered to be important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. They include prehistoric resources, historic-period resources, and “tribal cultural resources” (the latter as defined by Assembly Bill [AB] 52 [Statutes of 2014] in CEQA Section 21074).

Archaeological resources are locations where human activity has measurably altered the earth, including the benthic environment, or left deposits of prehistoric or historic-period physical remains. In the project area, this potentially includes stone tools, food-gathering implements, bottles, shipwrecks, and pier foundations. Historical (or built-environment) resources in the project area include standing intact structures (e.g., lighthouses, piers, jetties). Tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe.

One comment letter regarding cultural resources was received in response to the notice of preparation (see Appendix A). The Native American Heritage Commission (NAHC) requested AB 52 and Senate Bill (SB) 18 compliance information. SB 18 does not apply to the project because a general plan amendment (the trigger for SB 18 compliance) is not associated with the project, and compliance with SB 18 is not a CEQA requirement; therefore, it is not discussed in this section. AB 52 compliance is described below.

3.3.1 Regulatory Setting

FEDERAL

National Register of Historic Places

The National Register of Historic Places (NRHP) is the nation’s master inventory of known historic properties. It is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level.

The formal criteria (36 CFR 60.4) for determining NRHP eligibility are as follows:

1. The property is at least 50 years old (however, properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP);
2. It retains integrity of location, design, setting, materials, workmanship, feeling, and associations; and
3. It possesses at least one of the following characteristics:

Criterion A Is associated with events that have made a significant contribution to the broad patterns of history (events).

Criterion B Is associated with the lives of persons significant in the past (persons).

Criterion C Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction (architecture).

Criterion D Has yielded, or may be likely to yield, information important in prehistory or history (information potential).

For a property to retain and convey historic integrity, it must possess most of the seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. Location is the place where the historic property was constructed or the place where a historic event occurred. Integrity of location refers to whether the property has been moved since its construction. Design is the combination of elements that create the form, plan, space, structure, and style of a property. Setting is the physical environment of a historic property that illustrates the character of the place. Materials are the physical elements that were combined or deposited during a particular period and in a particular pattern or configuration to form a historic property. Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. Feeling is a property's expression of the aesthetic or historic sense of a particular period. This intangible quality is evoked by physical features that reflect a sense of a past time and place. Association is the direct link between an important historic event or person and a historic property. Continuation of historic use and occupation help maintain integrity of association.

Listing in the NRHP does not entail specific protection for a property, but it does guarantee consideration in planning for federal or federally assisted projects, eligibility for federal tax benefits, and qualification for federal historic preservation. In addition, project effects on properties listed in the NRHP must be evaluated under CEQA.

The National Register Bulletin series was developed to assist evaluators in the application of NRHP criteria. For example, National Register Bulletin #36 provides guidance in the evaluation of archaeological site significance. If a property cannot be placed within a particular theme or time period, and thereby lacks "focus," it will be unlikely to possess characteristics that would make it eligible for listing in the NRHP.

STATE

California Register of Historical Resources

All properties in California that are listed in or formally determined eligible for listing in the NRHP are also listed in the California Register of Historical Resources (CRHR). The CRHR is a listing of State of California resources that are significant in the context of California's history. It is a statewide program with a scope and with criteria for inclusion similar to those used for the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR.

California Historical Landmarks—buildings, structures, sites, or places that have been determined to have statewide historical significance—are also automatically listed in the CRHR. California Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance. Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR.

A historical resource must be significant at the local, state, or national level under one or more of the criteria defined in 15 CCR Chapter 11.5 Section 4850 to be included in the CRHR. The CRHR criteria are tied to CEQA because any resource that meets the criteria listed below is considered a significant historical resource under CEQA. As noted above, all resources listed in or formally determined eligible for listing in the NRHP are automatically listed in the CRHR.

The CRHR uses four evaluation criteria:

- Criterion 1. Is associated with events that have made a significant contribution to the broad patterns of local or regional history or to the cultural heritage of California or the United States.
- Criterion 2. Is associated with the lives of persons important to local, California, or national history.
- Criterion 3. Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of a master; or possesses high artistic values.
- Criterion 4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Similar to the NRHP, a historical resource must meet one of the above criteria and retain integrity to be listed in the CRHR. The CRHR uses the same seven aspects of integrity used by the NRHP.

California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on “historical resources,” “unique archaeological resources,” and “tribal cultural resources.” Pursuant to CEQA Section 21084.1, a “project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” Section 21083.2 requires agencies to determine whether projects would have effects on unique archaeological resources. CEQA Section 21084.2 establishes that a “project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.”

Historical Resources

“Historical resource” is a term with a defined statutory meaning (CEQA Section 21084.1; State CEQA Guidelines Sections 15064.5[a] and [b]). Under State CEQA Guidelines Section 15064.5(a), historical resources include the following:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the CRHR is considered a historical resource (PRC Section 5024.1).
2. A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k), or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g) will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets the criteria for listing in the CRHR (PRC Section 5024.1).
4. The fact that a resource is not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to PRC Section 5020.1[k]), or not identified in a historical resources survey (meeting the criteria in PRC Section 5024.1[g]) does not preclude a lead agency from determining that the resource may be a historical resource as defined in PRC Section 5020.1(j) or 5024.1.

Unique Archaeological Resources

CEQA also requires lead agencies to consider whether projects would affect unique archaeological resources. Section 21083.2(g) states that “unique archaeological resource” means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria:

1. Contains information needed to answer important scientific research questions, and there is a demonstrable public interest in that information.
2. Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric (precontact) or historic event or person.

Tribal Cultural Resources

CEQA also requires lead agencies to consider whether projects would affect tribal cultural resources. Section 21074 states:

- a) “Tribal cultural resources” are either of the following:
 - 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - A) Included or determined to be eligible for inclusion in the CRHR.

- B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
- 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.
- b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
- c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Public Resources Code Section 21080.3

AB 52, signed by the California governor in September 2014, established "tribal cultural resources" as a class of resources under CEQA (Section 21074). Pursuant to CEQA Sections 21080.3.1, 21080.3.2, and 21082.3, lead agencies undertaking preparation of an EIR, negative declaration, or mitigated negative declaration, must notify geographically affiliated California Native American tribes, and consult with any tribes that request consultation. CEQA Sections 21080.3.1 and 21080.3.2 state that within 14 days of determining that a project application is complete, or to undertake a project, the lead agency must provide formal notification, in writing, to the tribes that have requested notification of proposed projects in the lead agency's jurisdiction. If it wishes to engage in consultation on the project, the tribe must respond to the lead agency within 30 days of receipt of the formal notification. The lead agency must begin the consultation process with the tribes that have requested consultation within 30 days of receiving the request for consultation. Consultation concludes when either: 1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

If the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process, provisions under CEQA Section 21084.3(b) describe mitigation measures that may avoid or minimize the significant adverse impacts. Examples include:

- (1) Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- (2) Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - (A) Protecting the cultural character and integrity of the resource.
 - (B) Protecting the traditional use of the resource.
 - (C) Protecting the confidentiality of the resource.
- (3) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- (4) Protecting the resource.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act (PRC Section 5097.9) applies to both state and private lands. The act requires, upon discovery of human remains, that construction or excavation activity cease and that the county coroner be notified. If the remains are those of a Native American, the coroner must notify NAHC, which notifies and has the authority to designate the most likely descendant of the deceased. The act stipulates the procedures that the descendants may follow for treating or disposing of the remains and associated grave goods.

Health and Safety Code Section 7050.5

Section 7050.5 of the Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If they are determined to be those of a Native American, the coroner must contact NAHC.

Public Resources Code Section 5097

PRC Section 5097 specifies the procedures to be followed if human remains are unexpectedly discovered on nonfederal land. The disposition of Native American burials falls within the jurisdiction of NAHC. Section 5097.5 of the code states:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

California Shipwreck and Historic Maritime Resources Program (PRC 6309, 6313, and 6314)

PRC Sections 6309, 6313, and 6314 pertain to the California State Lands Commission's (SLC) Shipwreck and Historic Maritime Resources Program in the following ways. All abandoned shipwrecks and all submerged archaeological sites and historic resources on or in the tide and submerged lands of California are under the jurisdiction of the SLC (PRC Section 6313[a]). PRC Section 6314 prohibits unauthorized removal or damage to submerged archaeological or historic resources, including shipwrecks, aircraft, and Native American sites. The SLC may grant permits for salvage operations, including archaeological investigations, on submerged archaeological or historic sites when the proposed activity is justified by an educational, scientific, or cultural purpose, or there is a need to protect the integrity of the site or the resource (PRC Section 6313[d]). Recreational diving that does not disturb the subsurface or remove artifacts from a submerged archaeological site or historic resource does not require a permit (PRC Section 6309[g]).

LOCAL

No local plans, policies, or regulations related to archaeological, historical, or tribal cultural resources are applicable to the project.

3.3.2 Environmental Setting

ETHNOHISTORY

The native people of California were complex hunter-gatherers who lived in tribal groups. Precontact occupation and use of the coast of California extends from 5,000 to 8,000 years and possibly longer. Habitation sites along the California coast appear to have been selected for accessibility; protection from wind, rain, and seasonal flooding; and the availability of resources. The large shell mounds along much of the California coastline indicate the importance that tribal groups placed on marine life, such as pelagic fish, mollusks, and marine mammals. These mounds were especially large and numerous south of Point Conception, in Monterey, in San Francisco Bay, and along the coast north of San Francisco. The principal component of these mounds is shells from edible mollusks, but in some areas, especially the extreme north and along the Santa Barbara Channel, the bones of marine mammals are also documented. Staple foods of coastal tribal peoples included acorns, marine mammals, shellfish, fish, and other seafoods. Although marine mammals (such as the sea lion, sea otter [*Enhydra lutris*], and harbor seal [*Phoca vitulina*]) were harvested for food and other uses, the most important food resources were probably salmon and other anadromous fish (Baumhoff 1963: 177, Heizer 1978: 16–17).

Coastal sites and staging areas for fishing, marine mammal hunting, and other resource-gathering activities, which were numerous, have been reasonably well documented in archaeological and ethnographic literature. The same is

true of similar sites and staging areas on islands that are larger or close to the mainland (e.g., the Channel Islands and Gunther Island). Published ethnographic literature for coastal tribes discusses how these offshore islands were used for procuring resources and as meeting areas to discuss matters of importance with other villages and tribes (Gould 1978; Bean and Theodoratus 1978).

Tribal people view themselves as an intrinsic part of the ecosystem (Eglash 2002). For tribes and tribal communities, everything in the natural world is culturally significant (InterTribal Sinkiyone Wilderness Council 2010). Tribal communities have long cultural traditions of gathering, harvesting, and fishing for cultural and religious purposes, as well as for subsistence. Their relationship with the natural world reflects their deep connection to the environment. Tribal people believe they have an ongoing responsibility to be stewards of their ancestral lands and resources through sustainable management. Furthermore, tribal people continue to rely on the coast and ocean for a variety of important uses, such as spiritual ceremonies, songs, dances, rituals, and subsistence harvesting and gathering (CDFG 2010).

In some regions of California, tribes continue to reside in or near their ancestral homelands. This occurs in greater numbers on the northern California coast than in other areas of the state. The project area encompasses the traditional homes of approximately 26 tribes, which are grouped as follows by region:

- ▶ **North Coast (California-Oregon border to Alder Creek):** Cahto, Chilula, Hupa, Karuk, Lassik, Mattole, Nogati, Pomo, Tolowa, Sinkiyone, Wailaki, Whilkut, Wiyot, Yuki, and Yurok;
- ▶ **Northern Central Coast (Alder Creek/Point Arena to Pigeon Point):** Coast Miwok, Ohlone, and Pomo;
- ▶ **Central Coast (Pigeon Point to Point Conception):** Chumash, Ohlone, and Salinan; and
- ▶ **South Coast (Point Conception to California-Mexico border):** Chumash, Gabrieliño/Tongva, Juaneño/Acagchemem, Kumeyaay, and Luiseño.

However, tribal groups in addition to those listed above also may use coastal resources for religious, traditional, or spiritual ceremonies. Marine and coastal resources continue to be a part of the daily lives of many tribes for a variety of important uses, such as spiritual ceremonies, songs, dances, rituals, diving, and subsistence harvesting and gathering (CDFG 2009). In modern days, important marine resources include salmon, clams and abalone, mussels, seaweed, eels, crab, rockfish, steelhead, trout, sea bass, perch, lingcod, surf fish, candle fish, and sea salt (CDFG 2010). Marine shells, such as abalone and Olivella shells, are especially important for repairing and making traditional garments used in ongoing tribal ceremonies (Kroeber and Gifford 1949; Sundberg 2008). Certain areas along the coast, such as submerged burial grounds, are highly valued for their historic significance (Erlandson et al. 2007).

Geological resources also have traditional cultural significance. Steatite and chert are mined to make items such as polished stone bowls and pipes and flaked-stone knives and arrow points, respectively (InterTribal Sinkiyone Wilderness Council 2010). Other geological features along the coast and in nearshore or offshore settings feature in origin stories and religious and ceremonial traditions of tribal people. For example, most sea stacks, offshore rocks, and rocky points or prominences have ancient language place names and creation stories associated with them. Certain areas along the coast, including submerged burial grounds and village sites, have additional historic, archaeological, and traditional cultural significance.

HISTORIC SETTING

The first documented European contact with California was during the 1542–1543 Spanish expedition of Juan Rodríguez Cabrillo up the coast from Mexico as far as Monterey. With no evidence of gold or silver to encourage conquest, and no competition, the Spanish had little interest in further exploration at that time. In 1579, Sir Francis Drake of England landed at the bay now named after him, approximately 30 miles north of San Francisco. He stayed long enough to repair and restock his ships, claiming the land for England (California State Parks 2013: 44).

By the late 1700s, the Spanish Crown realized that its claim to land north of Mexico was not assured without colonization. As a result, the Franciscan Order was chosen to establish missions in Alta California. Twenty-one missions, built with Indian labor, were founded by the Franciscans south to north, from San Diego de Alcalá in 1769 to San Francisco Solano in Sonoma in 1821. In addition to a small military guard at each mission, there was usually a

larger military post nearby, with four presidios, or fortified bases, established at San Diego (1769), Monterey (1770), San Francisco (1776), and Santa Barbara (1782). During the Spanish occupation, the Russians kept to the north, establishing Fort Ross in 1812 as the southernmost settlement in the Russian colonization of North America (California State Parks 2013: 44).

In 1822, Mexico achieved independence from Spain, and the mission system was secularized. The territorial governors distributed mission lands, up to 50,000 acres per person, to approximately 700 people. Some ranchos were even larger because requests were made in the name of multiple family members. Land ownership conferred great power in the region, at least until the Land Act of 1851 redefined who held rights to the ranchos, requiring proof of ownership. In early 1845, the American annexation of Texas caused Mexico to sever diplomatic relations with the United States, and war was declared in May 1846. The Bear Flag of the California Republic was raised over the plaza at Sonoma on June 14, 1846, and within 3 weeks, American naval forces formally proclaimed American rule over the presidios and coastal towns. California was ceded to the United States in 1848 with the Treaty of Guadalupe Hidalgo, ending the Mexican-American War (California State Parks 2013:44).

Since the Gold Rush era, the commercial fishing industry has been one of the primary industries along the California coast. The Dungeness crab fishery is one of the oldest commercial fisheries in California. Dungeness crab fishermen first began harvesting crab in 1848 off the coast of San Francisco. The oyster fishery began during the 1850s with arrival of settlers from the traditional oyster fishing areas on the east coast. The abalone fishery, which became closely associated with the Monterey Bay area, dates from the 1860s. The squid fishery was initiated by Chinese fisherman in 1863 in Monterey Bay. The arrival of highly skilled Japanese and European immigrant fishermen from Portugal, Italy, former Yugoslavia, and Scandinavia in the early 20th century brought a substantial increase in the commercial success of California fisheries, including record catches of halibut (1919) and swordfish (1927) (Jones & Stokes 2006). Although the Dungeness crab fishery was focused around the San Francisco area when it began in the mid-1800s, expansion to other areas along the California coast did not occur until the mid-1940s. During the 1944-1945 Fishing Season, the fishery expanded north into the Eureka-Crescent City area, and during the following fishing season, it expanded south (NOAA 2011).

KNOWN RESOURCES

Precontact Archaeology

Much of the current coastal region of California consists of steep, actively eroding coastal bluffs and small pocket beaches. An important factor in coastal California's paleoenvironmental history has been the evolution of the estuary systems along the coast. Many early archaeological sites would have been present along estuary boundaries, areas that are now completely submerged because of the rise in sea level during the late Pleistocene and early Holocene (15,000–10,000 years ago) (Moratto 1984). Precontact sites and artifacts include ceremonial sites, burial grounds and village sites, stone and shell tools, shell and ceramic middens, shell mounds, and rock milling features that indicate food processing sites or larger habitation sites. Many resources, including precontact artifacts and sites, likely lie submerged beneath the water, undiscovered or unrecorded because of the general lack of investigation. However, it is likely that the tribes have particular knowledge of the location of archaeological sites beneath the water that are of cultural importance for them.

Historic-Era Archaeology

Offshore islands and rocky outcroppings along the California coast have been used by the Spanish and Russians for hunting activities and for docking or anchoring their ships. These rocks were also used to stabilize logging flumes that would convey timber to ships that were anchored offshore in the absence of a pier or shoreline dock. Some of the offshore rocks and islands also served as locations for navigational aids, such as lighthouses (Bischoff 2005).

These offshore rocks have also been responsible for numerous shipwrecks throughout California's history. Shipwrecks are the most well-known historic artifacts that lie beneath the water. The SLC shipwreck database lists more than 1,500 shipwreck sites off the coast of California (SLC 2023). Because of the sensitivity of known underwater resources

and the risk of looting or other damage (intentional or unintentional) to the artifacts and sites, their precise locations are kept confidential.

Of the 1,549 known shipwrecks, 682 do not have a county designation, and 80 are not located along coastal counties but instead are along rivers and the Sacramento-San Joaquin Delta. The remaining 787 shipwrecks are located in the following counties, which approximately match the RAMP's existing Fishing Zones:

- ▶ Del Norte and Humboldt: 91
- ▶ Mendocino: 124
- ▶ Sonoma, Marin, San Francisco, and San Mateo: 237
- ▶ Santa Cruz and Monterey: 29
- ▶ San Luis Obispo and Santa Barbara: 82
- ▶ Ventura, Los Angeles, Orange, and San Diego: 224

Historical Resources

Many historical resources in the project area are identified through historic building surveys and cultural resource studies. Historical resources that have been listed in the CRHR, which means they have met established criteria and are significant at the local, state, or national level (see details in Section 3.3.1, "Regulatory Setting," above), are shown on the Office of Historic Preservation website. However, these resources do not include those that have been evaluated as eligible but that are not listed on the register or resources that have been listed on a local register.

Table 3.3-1 lists known historical resources in the project area as identified in the CRHR by the State Historical Resources Commission. It presents them by county group, which approximately matches the RAMP's existing Fishing Zones. This is not a comprehensive list of project area resources in the CRHR and does not reflect resources listed in the CRHR by consensus determination (Office of Historic Preservation 2023).

Table 3.3-1 Listed Historical Resources in the Project Area

Resource Name	NRHP	CRHR	CHL
Zone 1. Del Norte and Humboldt Counties			
Crescent City Lighthouse, Del Norte County	X	X	
St. George Reef Light Station, Del Norte County	X	X	
Punta Gorda Light Station, Humboldt County	X	X	
Trinidad Head Light Station, Humboldt County	X	X	
Zone 2. Mendocino County			
Point Arena Light Station, Mendocino County	X	X	
Point Cabrillo Light Station, Mendocino County	X	X	
Zone 3. Sonoma, Marin, San Francisco, and San Mateo Counties			
Bodega Bay and Harbor, Sonoma County			X
Salt Point Landing Historical and Archaeological District, Sonoma County	X	X	
Point Bonita Light Station, Marin County	X	X	
Point Reyes Light Station, Marin County	X	X	
Point Reyes Lifeboat Rescue Station, Marin County	X	X	
Brock Schreiber Boathouse and Beach, Marin County	X	X	
Drakes Bay Historic and Archeological District, Marin County	X	X	
C.A. Thayer (schooner), San Francisco County	X	X	
Balclutha (ship), San Francisco County	X	X	

Resource Name	NRHP	CRHR	CHL
Alma (schooner), San Francisco County	X	X	
Eureka (steamboat), San Francisco County	X	X	
Hercules (tugboat), San Francisco County	X	X	
SS Jeremiah O'Brien (ship), San Francisco County	X	X	
USS Pampanito (submarine), San Francisco County	X	X	
M.V. Santa Rosa (ferry), San Francisco County	X	X	
Drydock 4 Hunters Point Naval Shipyard, San Francisco County	X	X	
Hunters Point Commercial Drydock Historic District, San Francisco County	X	X	
Yerba Buena Island Lighthouse, San Francisco County	X	X	
San Francisco/Oakland Bay Bridge, San Francisco County	X	X	
Golden Gate Bridge, San Francisco County	X	X	
Central Embarcadero Piers Historic District, San Francisco County	X	X	
Point Montara Light Station, San Mateo County	X	X	
Pigeon Point Lighthouse, San Mateo County	X	X	
Zone 4. Santa Cruz and Monterey Counties			
Point Sur Light Station, Monterey County	X	X	
Point Pinos Lighthouse, Monterey County	X	X	
Zone 5. San Luis Obispo and Santa Barbara Counties			
Port San Luis Site, San Luis Obispo County	X	X	
Piedras Blancas Light Station, San Luis Obispo County	X	X	
San Luis Obispo Light Station, San Luis Obispo County	X	X	
Point Conception Light Station, Santa Barbara County	X	X	
Zone 6. Ventura, Los Angeles, Orange, and San Diego Counties			
Anacapa Island Light Station, Ventura County	X	X	
Malibu Historic District, Los Angeles County	X	X	
RMS Queen Mary (ship), Los Angeles County	X	X	
Zumbrota (yacht), Los Angeles County	X	X	
Los Angeles Harbor Light Station, Los Angeles County	X	X	
Point Fermin Lighthouse, Los Angeles County	X	X	
Point Vicente Lighthouse, Los Angeles County	X	X	
Wild Goose (yacht), Orange County	X	X	
Huntington Beach Municipal Pier, Orange County	X	X	
Berkeley (ferryboat), San Diego County	X	X	
Pilot (boat), San Diego County	X	X	
Renown (yacht), San Diego County	X	X	
Star of India (ship), San Diego County	X	X	
Old Point Loma Lighthouse, San Diego County	X	X	

Notes: NRHP = National Register of Historic Places; CRHR = California Register of Historical Resources; CHL = California Historical Landmark.

Source: Data compiled by Ascent in 2023.

Tribal Cultural Resources

There continue to be many traditional cultural uses of the coast and ocean waters by tribal people that are consumptive and nonconsumptive. Consumptive uses include traditional subsistence, medicinal, spiritual, and ceremonial contexts. Nonconsumptive use examples include use of the viewshed from a particular place for spiritual purposes. Tribal cultural resources are of particular significance to tribes and tribal communities for the continuation of traditional religious and ceremonial activities and for the continuation of traditional cultural harvesting and gathering. California native plants and animals can also be tribal cultural resources. In addition, specific areas are identified for certain resources or uses by a given family, tribe, or group of tribes.

On August 29, 2022, CDFW sent out letters to tribal representatives in accordance with its Tribal Communication and Consultation Policy; 317 tribal representatives were contacted.

Two tribes, the Agua Caliente Band of Cahuilla Indians and the Rincon Band of Luiseño Indians, responded stating that the project is not located within their Traditional Use Area/Area of Historic Interest and deferring to the tribes located closer to the project area, which may have pertinent information. The Habematolel Pomo Cultural Resources Department reviewed the project and requested that CDFW continue to provide it with updates regarding the project. No tribes requested formal consultation with CDFW.

3.3.3 Environmental Impact Analysis

METHODOLOGY

The focus of the impact analysis is on the potential physical changes to the environment that may occur in response to the reasonably foreseeable compliance responses to the proposed RAMP regulatory amendments (see Section 2.5). The environmental analysis identifies those resources that may be present in the water or buried beneath the seafloor because the proposed project would affect only marine areas. A cultural resources inventory, including records search and survey, was not performed and is not needed because of the large geographic area—the EEZ from the California/Oregon border in the north to the California/Mexico border in the south and 200 nautical miles offshore—encompassed by the project and the open ocean character of the project area.

CEQA Section 21083.2(g) defines a “unique archaeological resource” as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following CRHR-related criteria: (1) it contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information; (2) it has a special and particular quality, such as being the oldest of its type or the best available example of its type; or (3) it is directly associated with a scientifically recognized important precontact or historic event or person. An impact on a resource that is not unique is not a significant environmental impact under CEQA (State CEQA Guidelines Section 15064.5[c][4]). If an archaeological resource qualifies as a resource under CRHR criteria, then the resource is treated as a unique archaeological resource for the purposes of CEQA.

CEQA Section 21074 defines “tribal cultural resources” as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” that are listed or determined eligible for listing in the CRHR, listed in a local register of historical resources, or otherwise determined by the lead agency to be a tribal cultural resource.

For the purposes of the impact discussion, “historical resource” is used to describe built-environment historic-period resources. Archaeological resources (both precontact and historic-period), which may qualify as “historical resources” pursuant to CEQA, are analyzed separately from built-environment historical resources.

THRESHOLDS OF SIGNIFICANCE

An impact on cultural resources would be significant if implementation of the project would:

- ▶ cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- ▶ cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- ▶ cause a substantial adverse change in the significance of a tribal cultural resource, defined in CEQA Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe; or
- ▶ disturb any human remains, including those interred outside of formal cemeteries.

ISSUES NOT DISCUSSED FURTHER

Human Remains

Precontact or historic-era marked or unmarked human interments are present throughout the landscape of California but would not be an issue for the open ocean setting of the proposed RAMP regulatory amendments. California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Section 7050.5 and PRC Section 5097. However, the reasonably foreseeable compliance responses associated with the proposed RAMP regulatory amendments (see Section 2.5) do not include any ground-disturbing activities where human remains might be present. Therefore, implementation of the project would have no impact on human remains. This issue is not discussed further in this EIR.

Historical Resources

Historical resources include standing buildings (e.g., lighthouses, warehouses, offices) and intact structures (e.g., piers, bridges) that have been evaluated as appearing eligible for listing in the CRHR. Damage to a building or structure that is a designated historic resource, as defined in State CEQA Guidelines Section 15064.5, could result in a change in its historical significance. However, the reasonably foreseeable compliance responses associated with the proposed RAMP regulatory amendments (see Section 2.5) would occur in the open ocean. They would not include any activities that could result in damage to buildings or structures. Therefore, implementation of the project would have no impact on historical resources. This issue is not discussed further in this EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.3-1: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources

The project is not anticipated to result in additional seafloor–disturbing activities above baseline conditions that could result in discovery of or damage to as-yet-undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5. In addition, current state law prohibits all unauthorized salvage and removal of artifacts from submerged shipwrecks, aircraft, and other archaeological resources in state waters. This impact would be **less than significant**.

As described above, because this document covers a large geographic area that is underwater in the open ocean, a records search and survey of the project area was not conducted and is not considered necessary. Approximately 780 shipwrecks are known to be located along California’s coast (SLC 2023); it is possible that previously unrecorded shipwrecks are in the project area. In addition, shipwreck locations are often recorded at the site where the vessel was last seen and might not indicate where the sunken vessel settled on the seafloor.

The project proposes to amend the RAMP regulations for the commercial Dungeness crab fishery. The project is not anticipated to result in additional seafloor–disturbing activities above baseline conditions that could result in discovery of or damage to undiscovered subsurface archaeological resources. Traps deployed for Dungeness crab fishing would not cause substantial disturbance to the seafloor or be expected to result in damage to subsurface archaeological resources because fishing primarily occurs in soft-bottom (sand and silt) habitat which is prone to natural disturbances and generally considered to be more resilient to fishing impacts than other more structurally complex habitats. Furthermore, the project would not result in additional fishing permits or deployment of more traps overall. Specific measures implemented under the proposed RAMP regulatory amendments may include closures or delays in the opening of one or more Fishing Zone(s) or include crab gear depth constraints in response to entanglement risk. These specific measures could result in an increase in the magnitude or concentration of crab fishing activities in recently opened Fishing Zones, including those Fishing Zones that open under a depth restriction. Project implementation would include implementation of systematic surveys by survey vessels and aircraft to determine marine life concentrations that could result in a slight increase in vessel and aircraft activity in the project area. However, these activities would not involve substantial seafloor disturbance. For these reasons, the project would not result in a substantial increase in seafloor–disturbing activities above baseline conditions that could result in discovery of or damage to undiscovered subsurface unique archaeological resources. Furthermore, current state law prohibits all unauthorized salvage and removal of artifacts from submerged shipwrecks, aircraft, and other archaeological resources in state waters (PRC Sections 6313 and 6314), and the project would be required to comply with existing state law. Therefore, the impact on unique archaeological resources, including shipwrecks, would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.3-2: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource

CDFW sent notification for consultation to 317 tribes. Three responses were received during the 30-day response period for AB 52 as defined in CEQA Section 21080.3.1, but none identified any tribal cultural resource as defined by CEQA Section 21074. Because the proposed project does not include a substantial increase in seafloor–disturbing activities above baseline conditions that could damage subsurface artifacts, would not impede traditional ceremonial activities or alter viewsheds, and would not have an adverse effect on wildlife, all of which could be identified as tribal cultural resources, the impact on tribal cultural resources would be **less than significant**.

CDFW sent out letters to 317 tribal representatives in accordance with its Tribal Communication and Consultation Policy. The Habematolel Pomo Cultural Resources Department reviewed the project and requested that CDFW continue to provide it with updates regarding the project. No tribes requested formal consultation with CDFW.

The project does not include any land use changes, development, or other modifications that would restrict existing tribal uses of areas, if any, or viewsheds. The project is not anticipated to result in a substantial increase in seafloor–disturbing activities above baseline conditions that could result in discovery of or damage to undiscovered subsurface tribal cultural resources. Deployment of commercial Dungeness crab traps would not cause substantial disturbance to the seafloor or be expected to result in damage to subsurface tribal cultural resources. Furthermore, the project would not result in additional fishing permits or deployment of more traps overall. Specific measures implemented under the proposed RAMP regulatory amendments may include closures or delays in the opening of one or more Fishing Zone(s) or include crab gear depth constraints in response to entanglement risk. These specific conservation measures could result in an increase in the magnitude or concentration of crab fishing activities in recently opened Fishing Zones, including those Fishing Zones that open under a depth restriction. Project implementation would include implementation of systematic surveys by survey vessels and aircraft to determine marine life concentrations that could result in a slight increase in vessel and aircraft activity in the project area. However, these activities would not involve a substantial increase in seafloor disturbance. In addition to subsurface artifacts, California native plants and animals can also be tribal cultural resources. Implementation of the previously discussed systematic surveys could

result in an increase in vessel and aircraft activity in the project area. However, the modest increase in vessel and aircraft activity associated with these efforts would not be substantial, and existing regulatory protections (see Section 3.6, "Marine Biological Resources") would prevent adverse effects on special-status wildlife.

Because the proposed project would not impede traditional ceremonial activities or alter viewsheds, would not result in additional seafloor-disturbing activities above baseline conditions that could damage subsurface artifacts, and would not have an adverse effect on special-status wildlife, all of which could be identified as tribal cultural resources, the impact on tribal cultural resources would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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3.4 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

This section presents a summary of regulations applicable to greenhouse gas (GHG) emissions, a summary of climate change science and GHG sources in California, a qualitative analysis of project-generated GHG emissions, and a discussion about their contribution to global climate change.

No comments related to climate change were made during the notice of preparation scoping period.

3.4.1 Regulatory Setting

FEDERAL

In *Massachusetts et al. v. Environmental Protection Agency et al.*, 549 U.S. 497 (2007), the Supreme Court of the United States ruled that carbon dioxide (CO₂) is an air pollutant as defined under the federal Clean Air Act and that the United States Environmental Protection Agency (EPA) has the authority to regulate GHG emissions.

EPA has adopted exhaust emission standards for marine diesel engines installed in marine vessels ranging in size and application from small recreational vessels to tugboats and large, ocean-going vessels. On February 10, 2023, EPA amended Part 1042 of Title 40 of the Code of Federal Regulations. The amendments apply to the national marine diesel engine program and provide relief provisions to address concerns associated with installing Tier 4 marine diesel engines in some commercial vessels, which could include fishing vessels.

STATE

Statewide GHG Emission Targets and Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the state government for approximately two decades. GHG emission targets established by the California Legislature include reducing statewide GHG emissions to 40 percent below 1990 levels by 2030 (Senate Bill 32 of 2016). Executive Order S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. This target was superseded by Assembly Bill (AB) 1279, passed on September 16, 2022, which codifies a goal for carbon neutrality and an 85-percent reduction in emissions below 1990 levels by 2045. These targets are in line with the scientifically established levels needed in the United States to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (United Nations 2015).

The California Air Resources Board (CARB) released the *Final 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan)* on November 16, 2022, as directed by AB 1279 (CARB 2022). It identifies the reductions needed by each GHG emission sector (e.g., transportation [including off-road mobile source emissions], industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste). The reductions made in the 2022 Scoping Plan rely on the functionality of many regulations, plans, and programs, including the Commercial Harbor Craft regulation, to reduce emissions from diesel engines on commercial harbor craft vessels, and subsequent amendments (the most recent occurring in March 2022). The 2022 Scoping Plan traces the pathway for the state to achieve its carbon neutrality and an 85-percent reduction in 1990 emissions goal by 2045 using a combined top-down, bottom-up approach under various scenarios. CARB adopted the 2022 Scoping Plan on December 16, 2022.

LOCAL

Unlike regional air pollution, emissions of GHGs are not location specific and have a global impact regardless of the location where they are emitted. For CEQA purposes, local air districts and their CEQA guidelines (if available) are

used as resources for assessing the significance of GHG emissions in environmental documents. Air districts in the state support a variety of different thresholds for determining a project's contribution to climate change, including application of project design features, consistency with local climate action plans, compliance with the state's Cap-and-Trade Program, and numerical mass-emission thresholds. Any emissions generated by the compliance responses to the project would occur from the movement of fishing and monitoring vessels, which would generate GHG emissions offshore, outside of the jurisdiction of an air district. Moreover, the aforementioned recommended methods of analyzing GHG impacts are most appropriately applied to land use development or stationary source projects that introduce new electrical demand; introduce use of GHG-emitting equipment; and generate new vehicle trips, wastewater, and solid waste. Because of the character of the proposed RAMP regulatory amendments and reasonably foreseeable compliance responses (see Section 2.5), the available guidance provided by air districts is unsuitable for use in this analysis.

3.4.2 Environmental Setting

PHYSICAL SCIENTIFIC BASIS OF GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are CO₂, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect, leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations (IPCC 2014).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have long atmospheric lifetimes (1 to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any GHG molecule is dependent on multiple variables and cannot be determined with any certainty, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO₂ emissions, approximately 55 percent is estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remain stored in the atmosphere (IPCC 2013: 467).

The quantity of GHGs in the atmosphere that ultimately results in climate change is not precisely known but is enormous; no single project alone would measurably contribute to an incremental change in the global average temperature or to global climate, local climates, or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

GREENHOUSE GAS EMISSION SOURCES

As discussed previously, GHG emissions are attributable in large part to human activities. The total GHG inventory for California in 2020 was 370 million metric tons of carbon dioxide equivalents (MMTCO_{2e}) (CARB 2022). This is less than the 2020 target of 431 MMTCO_{2e} (CARB 2022).

Table 3.4-1 summarizes the statewide GHG inventory for California.

Table 3.4-1 Statewide GHG Emissions by Economic Sector (2020)

Sector	Emissions (MMTCO _{2e})	Percent
Transportation	141	38%
Industrial	85	23%
Electricity generation (in state)	41	11%
Agriculture and forestry	33	9%
Residential	30	8%
Commercial	22	6%
Electricity generation (imports)	19	5%
Total	371	100%

Note: MMTCO_{2e} = million metric tons of carbon dioxide equivalents.

Source: CARB 2022.

As shown in Table 3.4-1, transportation, industrial, and electricity generation (in state) are the largest GHG emission sectors.

Emissions of CO₂ are byproducts of fossil fuel combustion. Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Nitrous oxide is also largely attributable to agricultural practices and soil management. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution (CO₂ dissolving into the water), respectively, two of the most common processes for removing CO₂ from the atmosphere.

EFFECTS OF CLIMATE CHANGE ON THE ENVIRONMENT

According to the Intergovernmental Panel on Climate Change, which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature is expected to increase by 3–7 degrees Fahrenheit (°F) by the end of the century, depending on future GHG emission scenarios (IPCC 2014). According to California’s Fourth Climate Change Assessment, temperatures in California are projected to increase by 5.6 to 8.8°F by 2100 (OPR et al. 2018a: 23).

Other environmental resources could be indirectly affected by the accumulation of GHG emissions and resulting rise in global average temperature. In recent years, California has been marked by extreme weather and its effects. According to the California Natural Resources Agency’s report *Safeguarding California Plan: 2018 Update*, California experienced the driest 4-year statewide precipitation on record from 2012 through 2015; the warmest years on average in 2014, 2015, and 2016; and the smallest and second smallest Sierra Nevada snowpack on record in 2015 and 2014 (CNRA 2018). In contrast, the northern Sierra Nevada experienced its wettest year on record in 2016 (CNRA 2018). The changes in precipitation exacerbate wildfires throughout California, increasing their frequency, size, and devastation. As temperatures increase, the increase in precipitation falling as rain rather than snow also could lead to increased potential for floods because water that would normally be held in the snowpack of the Sierra Nevada and Cascade Range until spring would flow into the Central Valley concurrently with winter rainstorm events. This scenario would place more pressure on California’s levee/flood control system (CNRA 2018). Furthermore, in the extreme scenario involving the rapid loss of the Antarctic ice sheet, sea level along California’s coastline could rise up to 10 feet by 2100, which is approximately 30–40 times faster than sea level rise experienced over the last century (CNRA 2018).

Water availability and changing temperatures, which affect the prevalence of pests, disease, and species, also directly affect terrestrial crop development and livestock production. Other environmental concerns include decline in water quality, groundwater security, and soil health (CNRA 2018). Water resource–related vulnerabilities also include potential degradation of watersheds, alteration of ecosystems and loss of habitat, impacts on coastal areas, and ocean acidification (CNRA 2018). The ocean absorbs approximately one-third of the CO₂ released into the atmosphere every year from industrial and agricultural activities, changing the chemistry of the ocean by decreasing the pH of seawater. Ocean acidification affects many shell-forming species, including oysters, mussels, abalone, crabs, and the microscopic plankton that form the base of the oceanic food chain (Kroeker et al. 2010, 2013). In addition, significant changes in the behavior and physiology of fish and invertebrates attributable to rising CO₂ and increased acidity have already been documented (OPR et al. 2018a).

California's ocean supports a vast diversity of marine life, as well as commercial fishing businesses and communities that depend on fish and shellfish for their livelihoods and that provide a diverse supply of seafood to the state and for export. In 2012, approximately 1,900 commercial fishing vessels operated in California, and 7,700 jobs were supported by recreational marine fishing. California is much less susceptible to the impacts of climate change on recreational and commercial fishing than other regions, but the state's role in providing wild-caught fish to a global market will be affected. In the last few years, California has experienced an unprecedented marine heat wave, resulting in closures of fisheries and a significant loss of northern kelp forests. Between 2014 and 2016, typical seasonal dynamics in the northeast Pacific were disrupted by a Large Marine Heatwave (LMH) event colloquially known as "The Blob." Driven by changes in sea level pressure, this LMH event had profound impacts on ocean circulation patterns that cascaded throughout the ecosystems of the California Current System, a highly productive coastal ecosystem spanning the West Coast of North America from British Columbia to Baja California. One such restricted upwelling event, which occurred in the 2015–2016 period, compressed available forage into a relatively narrow band along the coast. When large whales arrived off the California coast, their distribution was similarly compressed into nearshore areas where active Dungeness crab fishing was occurring. The convergence of these factors likely contributed to the record number of confirmed large whale entanglements along the West Coast in 2016 (n = 56), 22 (39 percent) of which involved California commercial Dungeness crab gear. There is increasing evidence that sea-level rise, ocean acidification, and ocean warming associated with climate change are transforming and degrading California's coastal and marine ecosystems (OPR et al. 2018b).

3.4.3 Environmental Impact Analysis

METHODOLOGY

The focus of the impact analysis is the potential generation of GHG emissions from physical changes to the environment that may occur in response to the reasonably foreseeable compliance responses to the project (see Section 2.5). The project would not require the construction of any new facilities to further the project's objectives. Operational sources of GHG emissions from the reasonably foreseeable compliance responses to the project would include fishing and monitoring vessels and aircraft moving through the project area for fishing, monitoring, and tracking purposes. The delta in vessel activity from the project compared to baseline levels of vessel movement is unknown; therefore, operational emissions of GHG emissions are assessed qualitatively.

THRESHOLDS OF SIGNIFICANCE

The issue of global climate change is inherently a cumulative issue because the GHG emissions of individual projects cannot be shown to have any material effect on global climate. Thus, the project's impact on climate change is addressed only as a cumulative impact.

State CEQA Guidelines Section 15064 and relevant portions of Appendix G recommend that a lead agency consider a project's consistency with relevant, adopted plans and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. Under Appendix G of the State CEQA Guidelines, implementing a project would result in a cumulatively considerable contribution to climate change if it would:

- ▶ generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment or
- ▶ conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

With respect to GHG emissions, State CEQA Guidelines Section 15064.4(a) states that lead agencies “shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate” GHG emissions resulting from a project. The State CEQA Guidelines note that an agency has the discretion to either quantify a project’s GHG emissions or rely on a “qualitative analysis or performance-based standards” (Section 15064.4[a]). A lead agency may use a “model or methodology” to estimate GHG emissions and has the discretion to select the model or methodology it considers “most appropriate to enable decision makers to intelligently take into account the project’s incremental contribution to climate change” (Section 15064.4[c]). The State CEQA Guidelines state that the lead agency should consider the following factors when determining the significance of impacts from GHG emissions on the environment (Section 15064.4[b]):

- ▶ the extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting;
- ▶ whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
- ▶ the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Appendix G of the State CEQA Guidelines is a sample initial study checklist that includes inquiries related to the subject of climate change, as it does on a series of additional environmental topics. Lead agencies are under no obligation to use these inquiries when fashioning thresholds of significance for subjects addressed in the checklist (*Save Cuyama Valley v. County of Santa Barbara* (2013) 213 Cal.App.4th 1059, 1068). Rather, with few exceptions, “CEQA grants agencies discretion to develop their own thresholds of significance” (*Ibid*). Even so, it is a common practice for lead agencies to take the language from the inquiries set forth in Appendix G and to use that language in fashioning thresholds. CDFW has done so here.

As stated above and provided in Section 15064(b) of the State CEQA Guidelines, a project or plan may assess the significance of a climate change impact by evaluating the extent that a project may increase or reduce GHG emissions as compared to baseline conditions. This threshold of significance will be applied to determine whether the project’s contribution to climate change would be substantial. Using this significance criterion, the project would have a cumulatively considerable contribution to climate change if it would:

- ▶ result in an increase in GHG emissions compared to baseline conditions.

ISSUES NOT DISCUSSED FURTHER

All issues related to climate change are addressed in this analysis.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.4-1: Generate GHG Emissions That May Exceed Existing Levels of Baseline Emissions

The reasonably foreseeable compliance responses to the project would not include the construction of any new land-based or maritime facilities or infrastructure. Reasonably foreseeable compliance responses to the project would include the generation of GHG emissions from the movement of fishing and monitoring vessels and aircraft throughout the project area. However, this level of vessel and aircraft activity would not be substantially more than what is currently occurring to commercially harvest Dungeness crab. Moreover, implementation of the project would not prohibit or prevent the deployment of fishing vessel or aircraft-related regulations included in the 2022 Scoping Plan as overseen by CARB. This impact would be **less than significant**.

The reasonably foreseeable compliance responses from implementation of the project (see Section 2.5) would not include the construction of any land-based or maritime facilities or infrastructure. The only GHG-generating activity resulting from the reasonably foreseeable compliance responses would occur from potential changes in the operation of vessels to harvest Dungeness crab and the operation of vessels and aircraft to survey for and determine marine life concentrations in the project area. As discussed in Section 3.4.1, "Regulatory Setting," several air districts in the state have recommended various approaches for assessing the significance of GHG impacts for projects proposed within their jurisdiction; however, these methods are more appropriately applied to land use development or stationary source projects, which do not align with the character of the proposed RAMP regulatory amendments. For this reason, the concept of increasing GHG emissions above baseline levels is applied to the project to determine significance.

The project involves amending the RAMP regulations to ultimately reduce the risk of entanglement of Actionable Species in commercial Dungeness crab fishing gear. It is not anticipated that implementation of the project would result in an increase in fishing activity as compared to baseline conditions. It is foreseeable that with implementation of the project, the location of fishing vessels may be dispersed throughout the project area; however, unlike emissions of criteria air pollutants (see Section 3.2, "Air Quality"), which affect the quality of ambient air on a local or regional basis, GHG emissions are a global concern. The location of where GHGs are emitted is irrelevant because these pollutants have a global effect on the heat-trapping capacity of the earth's atmosphere.

Moreover, the fishing vessels used to harvest Dungeness crab would be subject to off-road regulations overseen by CARB and included in the 2022 Scoping Plan. The 2022 Scoping Plan claims that implementation of the Commercial Harbor Craft regulation and subsequent amendments (the most recent occurring in March 2022) have resulted in the reduction of GHG emissions. The amendments mandate the accelerated deployment of zero-emission technologies for private vessels, towboats, crew and supply vessels, work boats, pilot vessels, barges, dredges, commercial vessels, and passenger fishing boats. Fishing vessels used to facilitate the harvest of Dungeness crab and the monitoring of marine resources would be subject to the benchmark deadlines contained in the Commercial Harbor Craft regulation amendments, as well as any future amendments adopted by CARB. The project would not conflict with the deployment of these amendments.

Implementation of the project would not result in an increase in the number of commercial fishing permits issued or the number of vessels used for fishing, but it would result in a limited increase in the number of survey vessel and aircraft trips. Although implementation of systematic surveys to determine marine life concentrations could potentially result in an increase in vessel or aircraft traffic in the project area, vessel and aircraft activity associated with the proposed project would not result in a level of activity that would be substantially greater than what is currently occurring under baseline conditions. While quantifying the increase in vessel activity would be speculative at this time, it is reasonable to conclude that vessel activity would not substantially increase, although the locations of vessel activity may be redistributed based on implementation of Fishing Zone closures, delays, or depth restrictions. It is not expected that this redistribution of vessels would, by itself, result in a cumulatively considerable net increase in GHG emissions above baseline activity. In addition, because vessels would be subject to the off-road specific regulations (i.e., 2022 Commercial Harbor Craft regulation amendments), the project would not conflict with the 2022 Scoping Plan. For these reasons, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

3.5 HAZARDS AND HAZARDOUS MATERIALS

This section describes the potential environmental impacts from reasonably foreseeable compliance actions in response to implementation of the proposed RAMP regulatory amendments related to public health and safety, hazards, and hazardous materials. It describes existing potential hazards and safety concerns in the project area, as well as the nature of potential impacts that would occur as a result of project implementation.

During the public scoping period for the notice of preparation, commenters expressed concern related to marine vessel navigation. These comments are addressed, as appropriate, in this section.

For purposes of this section, the term “hazardous materials” refers to both hazardous substances and hazardous wastes. A “hazardous material” is defined in the Code of Federal Regulations (CFR) as “a substance or material that...is capable of posing an unreasonable risk to health, safety, and property when transported in commerce” (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

“Hazardous material” means a material...that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment... “Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that the material would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment...

“Hazardous waste” is defined in California Health and Safety Code Section 25141(b) as wastes that:

because of its quantity, concentration, or physical, chemical, or infectious characteristics, [may either] [c]ause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness [or] [p]ose a substantial present or potential hazard to human health or the environment...when improperly treated, stored, transported, or disposed of, or otherwise managed.

3.5.1 Regulatory Setting

FEDERAL

Management of Hazardous Materials

Various federal laws address the proper handling, use, storage, and disposal of hazardous materials, as well as require measures to prevent or mitigate injury to health or the environment if such materials are accidentally released. The US Environmental Protection Agency (EPA) is the agency primarily responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. Applicable federal regulations pertaining to hazardous materials are primarily contained in CFR Titles 29, 40, and 49. Hazardous materials, as defined in the code, are listed in 49 CFR 172.101. Management of hazardous materials is governed by the following laws:

- ▶ The Toxic Substances Control Act of 1976 (15 US Code [USC] Section 2601 et seq.) regulates the manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. Section 403 of the Toxic Substances Control Act establishes standards for lead-based paint hazards in paint, dust, and soil.
- ▶ The Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.) is the law under which EPA regulates hazardous waste from the time the waste is generated until its final disposal (“cradle to grave”).
- ▶ The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also called the Superfund Act) (42 USC 9601 et seq.) gives EPA authority to seek out parties responsible for releases of hazardous substances and ensure their cooperation in site remediation.

- ▶ The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499; USC Title 42, Chapter 116), also known as SARA Title III or the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), imposes hazardous materials planning requirements to help protect local communities in the event of accidental release.
- ▶ The Spill Prevention, Control, and Countermeasure (SPCC) rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC plans. The SPCC rule is part of the Oil Pollution Prevention regulation, which also includes the Facility Response Plan rule.
- ▶ The Clean Water Act (CWA) of 1977 (33 USC 1251–1387) was established to restore and maintain the chemical, physical, and biological integrity of the nation's waters and make all surface waters fishable and swimmable. Under the CWA, it is unlawful for any person to discharge any pollutant from a point source into navigable waters unless a National Pollutant Discharge Elimination System permit is obtained and implemented. In addition, the CWA requires the states to adopt water quality standards for receiving water bodies and have those standards approved by EPA. Water quality standards consist of designated beneficial uses for a particular receiving water body (e.g., wildlife habitat, agricultural supply, fishing), along with the water quality criteria necessary to support those uses.
- ▶ Title 33 (Navigation and Navigable Waters) and Title 46 (Shipping) of the CFR require the US Coast Guard (USCG) to be the federal agency responsible for vessel inspection, marine terminal operations safety, coordination of federal responses to marine emergencies, enforcement of marine pollution statutes, marine safety (such as navigation aids), and operation of the National Response Center for spill response, and to be the lead agency responsible for offshore spill response.

Transport of Hazardous Materials

The US Department of Transportation regulates transport of hazardous materials between states and is responsible for protecting the public from dangers associated with such transport. The federal hazardous materials transportation law, 49 USC 5101 et seq. (formerly the Hazardous Materials Transportation Act, 49 USC 1801 et seq.) is the basic statute regulating transport of hazardous materials in the United States. Hazardous materials transport regulations are enforced by the Federal Highway Administration, USCG, Federal Railroad Administration, and Federal Aviation Administration.

Worker Safety

The federal Occupational Safety and Health Administration (OSHA) is the agency responsible for ensuring worker safety in the handling and use of chemicals identified in the Occupational Safety and Health Act of 1970 (Public Law 91-596, 9 USC 651 et seq.). OSHA has adopted numerous regulations pertaining to worker safety, contained in CFR Title 29. These regulations set standards for safe workplaces and work practices, including standards relating to the handling of hazardous materials.

STATE

Management of Hazardous Materials

In California, both federal and state community right-to-know laws are coordinated through the Governor's Office of Emergency Services. The federal law, SARA Title III or EPCRA, described above, encourages and supports emergency planning efforts at the state and local levels and requires that local governments and the public be provided information about potential chemical hazards in their communities. Because of the community right-to-know laws, information is collected from facilities that handle (e.g., produce, use, store) hazardous materials above certain quantities. The provisions of EPCRA apply to four major categories:

- ▶ emergency planning,
- ▶ emergency release notification,
- ▶ reporting of hazardous chemical storage, and
- ▶ inventory of toxic chemical releases.

The corresponding state law is Chapter 6.95 of the California Health and Safety Code (Hazardous Materials Release Response Plans and Inventory). Under this law, qualifying businesses are required to prepare a hazardous materials business plan that describes hazardous materials and hazardous waste management procedures and emergency response procedures, including emergency spill cleanup supplies and equipment. When the business begins to use hazardous materials at levels that reach applicable state or federal thresholds, the plan must be submitted to the administering agency.

The California Department of Toxic Substances Control (DTSC), a division of the California Environmental Protection Agency (CalEPA), has primary regulatory responsibility over hazardous materials in California, working in conjunction with EPA to enforce and implement hazardous materials laws and regulations. CalEPA has authorized DTSC to enforce the Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5, Article 2), which implements the federal Resource Conservation and Recovery Act cradle-to-grave waste management system in California. It establishes criteria for identifying, packaging, and labeling hazardous waste; prescribes management of hazardous waste; establishes permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identifies hazardous waste that cannot be disposed of in landfills. As required by Section 65962.5 of the California Government Code, DTSC maintains a hazardous waste and substances site list for the state, known as the Cortese List.

Worker Safety

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations in the state. Cal/OSHA standards typically are more stringent than federal OSHA regulations and are presented in Title 8 of the CCR. Cal/OSHA conducts on-site evaluations and issues notices of violation to enforce necessary improvements to health and safety practices.

State Contingency Plans

The California State Oil Spill Contingency Plan, prepared by California Department of Fish and Wildlife (CDFW), addresses discharges of oil to all marine or inland surface waterways of California, as well as oil spills to land. All state and local agencies must carry out spill response activities consistent with this plan and other applicable federal, state, and local spill response plans.

LOCAL

The project area encompasses the portion of the Exclusive Economic Zone (EEZ) extending from the California/Oregon border to the California/Mexico border. Because the project area is located in navigable waters off the California coast, local agencies do not have jurisdiction in the area; therefore, no local regulations would apply to the project.

3.5.2 Environmental Setting

The project area is located in the coastal waters of California, encompassing the EEZ from the California/Oregon border to the California/Mexico border. Past and present uses in the project area include commercial and recreational boating, fishing, and diving; mineral resource extraction (oil and gas); undersea telecommunications cable deployment; and ocean dumping or disposal. In addition, a number of sewage outfalls along the coast discharge to the project area.

Dungeness crabs prefer sandy to silty substrates shallower than 300 feet (50 fathoms), and fishing activity is concentrated in this habitat type. Commercial Dungeness crab fishing depths depend on multiple factors, including fishing location, time of year, and vessel type. Time of year, home port, and access to processing facilities determine fishing locations. In practice, traps are rarely if ever deployed in waters deeper than 600 feet (100 fathoms), with average maximum fishing depths of 240 feet (40 fathoms) reported to CDFW. The Dungeness crab fishery is an important fishery along the entire West Coast, with the primary management authority for the fishery in California resting with the California Legislature. However, CDFW has been delegated additional authority to manage the fishery

by the Legislature. Although the commercial Dungeness crab fishery occurs almost exclusively north of Point Conception, CDFW jurisdiction over the fishery extends throughout the entire EEZ off California's coast (16 US Code Section 1856 note) (CDFW 2020a).

Data on historic and documented releases of hazardous materials in the surrounding area were obtained through database searches, including review of the State Water Resources Control Board (SWRCB) GeoTracker database and the state Cortese List via the DTSC EnviroStor database. The results of the database searches are summarized in Table 3.5-1, which provides information regarding each of the known documented sites of contamination that occur in the project area. No contaminated sites in the project area were identified on the EPA Envirofacts/Enviromapper website.

Table 3.5-1 Documented Sites of Contamination in the Project Area

Site	Location	Zone	Type	Status
South Bay Power Plant (Bay Sediment Assessment)	San Diego Bay, Chula Vista, San Diego County	Zone 6	Groundwater and sediments contaminated with petroleum	Open; Inactive (2015)
Sediment off Former Shangrila Site	980 Lagoon Drive, Chula Vista, San Diego County	Zone 6	Sediments and surface water contaminated with metals, petroleum, PCBs, and zinc	Open; Inactive (2016)
Supplemental Environmental Projects Oversight	Coastal San Diego, San Diego County	Zone 6	Contaminated surface water	Open; Site Assessment (2017)
24th Street Marine Terminal	0 Bay Marina Drive, National City, San Diego County	Zone 6	Sediments and surface water contaminated with metals and PCBs	Open; Inactive (2016)
Naval Base San Diego – Mitigation Monitoring and Reporting Program Site 100 – Primary Ship Channel	San Diego Bay, San Diego, San Diego County	Zone 6	Sediments contaminated with munitions debris	Open; Site Assessment (2017)
Memorandum of Agreement Navy Sediment Dredging	Harbor Drive, San Diego, San Diego County	Zone 6	Sediments contaminated with PCBs	Open; Site Assessment (2022)
Naval Base San Diego – San Diego Bay Sediments	3455 Senn Street, San Diego, San Diego County	Zone 6	Sediments contaminated with copper and other metals	Open; Site Assessment (2022)
Shipyards Sediment Site	San Diego Bay, San Diego, San Diego County	Zone 6	Sediments contaminated with metals, PCBs, and PAHs	Open; Verification Monitoring (2018)
BAE Systems and San Diego Gas & Electric Company Northern Sediment Delineation Investigation	2145 East Belt Street, San Diego, San Diego County	Zone 6	Sediments, soil, and surface water contaminated with metals and PCBs	Open; Site Assessment (2020)
Continental Maritime of San Diego Sediment Investigation	1995 Bay Front Street, San Diego, San Diego County	Zone 6	Soil contaminated with diesel	Open; Site Assessment (2020)
Tenth Avenue Marine Terminal to Pacific Maritime Freight Sediment Investigation	1444 Cesar E. Chavez Parkway, San Diego, San Diego County	Zone 6	Sediments, soil, and surface water contaminated with metals and PCBs	Open; Site Assessment (2020)
San Diego Marriott Marina	333 West Harbor Drive, San Diego, San Diego County	Zone 6	Sediments and surface water contaminated with copper and zinc	Open; Inactive (2004)
B Street and Broadway Piers	San Diego Bay, San Diego, San Diego County	Zone 6	Sediments and surface water contaminated with metals, PCBs, PAHs, and zinc	Open; Inactive (2016)
Laurel to Hawthorn Street Embayment Sediment Assessment – Solar Turbines	San Diego Bay, San Diego, San Diego County	Zone 6	Sediments and surface water contaminated with arsenic, copper, DDD/DDE/DDT, mercury (elemental, nickel, other chlorinated hydrocarbons, metals, PCBs, PAHs, silver, and zinc	Open; Site Assessment (2017)

Site	Location	Zone	Type	Status
Laurel to Hawthorn Street Embayment Sediment Assessment – Laurel Hawthorn Central Embayment Sediment Assessment	San Diego Bay, San Diego, San Diego County	Zone 6	Sediments and surface water contaminated with chromium, copper, DDD/DDE/DDT, lead, nickel, PCBs, PAHs, waste oil/motor/hydraulic/lubricating, zinc	Open; Site Assessment (2020)
Laurel to Hawthorn Street Embayment Sediment Assessment – City of San Diego 84-inch Stormwater Conveyance System Laurel Hawthorn Embayment Sediment Assessment	Harbor Drive, San Diego, San Diego County	Zone 6	Sediments and surface water contaminated with chlordane, DDD/DDE/DDT, and other insecticides/pesticide/fumigants/herbicides	Open; Assessment & Interim Remedial Action (2020)
Sunroad Resort Marina	955 Harbor Island Drive, San Diego, San Diego County	Zone 6	Sediments and surface water contaminated with copper and other metals	Open; Site Assessment (2021)
Tow Basin	Harbor Drive, San Diego, San Diego County	Zone 6	Sediments contaminated with PCBs	Open; Site Assessment (2017)
West Harbor Basin	Harbor Island Drive, San Diego, San Diego County	Zone 6	Sediments and surface water contaminated with copper and other metals	Open; Inactive (2016)
Commercial Basin (America's Cup Harbor)	Commercial Basin, San Diego, San Diego County	Zone 6	Sediments and surface water contaminated with copper, other metals, and PCBs	Open; Inactive (2016)
Palos Verdes Shelf	Pacific Ocean – White Point Outfall, Palos Verdes, Los Angeles County	Zone 6	DTSC Federal Superfund	Active (1999)
Monterey Bay Sediments	Pacific, Monterey County	Zone 4	DTSC Formally Used Defense Site	Inactive; Needs Evaluation (2005)

Notes: DDD/DDE/DDT = dichlorodiphenyldichloroethane/dichlorodiphenyltrichloroethane; DTSC = Department of Toxics Substances Control; PAHs = polycyclic aromatic hydrocarbons; PCBs = polychlorinated biphenols.

Sources: DTSC 2023a; SWRCB 2023.

Most of the 22 listed contamination sites are located in Fishing Zone 6, with 20 sites in San Diego and one site in the Palos Verdes Shelf offshore of Los Angeles. The other listed site is in Monterey Bay (Fishing Zone 4). However, the commercial Dungeness crab fishery occurs almost exclusively north of Point Conception, in Zones 1–5; therefore, the contamination sites located in San Diego Bay and offshore of Los Angeles would not cause a significant hazardous risk to the public or environment through project implementation.

The Monterey Bay Sediments contamination site is in an area where the commercial Dungeness crab fishery occurs. The site is a military evaluation site, contaminated with potential explosives (e.g., unexploded ordnance and munitions), that is currently inactive and in need of evaluation (DTSC 2023b). In 1995, approximately seventy-five 50-caliber machine gun cartridges were discovered on the ocean floor and were recovered by a US Navy Explosives Ordnance Disposal team. With removal of the cartridges, the potential risk with respect to explosives hazards was reduced; however, there is potential for other munitions to be present in Monterey Bay (DTSC 2012, 2013).

One public airport, Catalina Airport, and two private airports/airstrips, Santa Cruz Island Airport and Christy Airstrip, as well as one school, Avalon High School, on Santa Catalina Island are located in the project area, but they are all on the islands in Zone 6.

3.5.3 Environmental Impact Analysis

METHODOLOGY

The following evaluation is based on a review of documents and publicly available information about hazardous and potentially hazardous conditions in the project area, conducted to determine the potential for project implementation to result in an increased health or safety hazard to people or the environment. These resources included EPA, SWRCB, and DTSC hazardous materials database information.

THRESHOLDS OF SIGNIFICANCE

An impact related to hazards and hazardous materials would be significant if implementation of the project would:

- ▶ create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- ▶ create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment;
- ▶ emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- ▶ be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- ▶ for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area; or
- ▶ impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

ISSUES NOT DISCUSSED FURTHER

Schools

As noted above, Avalon High School is located on Santa Catalina Island off the coast of Los Angeles County in Fishing Zone 6 of the project area. However, the Dungeness crab fishery almost exclusively operates north of Point Conception (Fishing Zones 1–5). Furthermore, all project-related activities in the project area would occur in the marine environment. Therefore, the project would not increase the risk of exposure of the occupants of a school to emissions associated with hazardous materials. Because no impact would occur, this issue is not discussed further in this EIR.

Emergency Response

Implementation of the proposed RAMP regulatory amendments would not interfere with any emergency response or evacuation plans. Emergency response plans occurring on land or in the marine environment would not be affected by project implementation, because the project would not alter access points to marine activities that could affect on-land or marine emergency operations. Although implementing the project could result in a slight increase in aircraft and marine vessel traffic associated with systematic surveys to monitor marine life concentrations, as stated below, the increase would not be significant and would therefore not interfere with or modify emergency marine responses. Fishing and survey vessels would abide by regulations and policies of CDFW, including those related to emergency responses, such as the California State Oil Spill Contingency Plan, as mentioned in Section 3.5.1, "Regulatory Setting." Therefore, no impact would occur. This issue is not discussed further in this EIR.

Wildfire

As discussed already in Section 3.1, "Effects Found Not to Be Significant," implementing the project would not result in significant impacts related to wildfire; therefore, this issue is not discussed further in this EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.5-1: Create a Significant Hazard to the Public or the Environment through the Routine Transport, Use, or Disposal of Hazardous Materials

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of vessel permits issued for the California Dungeness crab fishery and would result in only a limited increase in the number of survey vessel trips. This small increase in the number of survey vessel trips relative to the total number of vessel trips in the project area would not constitute a significant hazard to the public or environment from the routine transport, use, or disposal of hazardous materials. Therefore, this impact would be **less than significant**.

Commercial and recreational fishing for Dungeness crab, in and of itself, does not generate hazardous wastes. Commercial fishermen do, however, use chemicals such as antifreeze, paint, and oil during the use and maintenance of their marine vessels. As mentioned in Chapter 3.7, "Water Quality," materials stored or used on the vessel surface, such as cleaning fluids, mechanical equipment maintenance fluids, and other potential pollutants, have the potential to be washed into the ocean during rain or high-wave events, which could affect the ocean environment. The more vessel trips associated with implementation of the project, the more likely vessel-related hazardous materials could result in a significant hazard through their routine transport, use, or disposal.

The California Legislature first implemented a trap limit program in 1995, capping the fishery at 681 permits through Assembly Bill 3337. Senate Bill 369 further limited the number of traps that a vessel can deploy in 2013. In 2020, 548 permits were renewed for the 2020-2021 Fishing Season. It is assumed that each permit is held by a separate vessel. A cap of 681 permits would exist under the proposed project. Therefore, the number of active fishing vessels would not be greater than the highest number used in the past. However, implementation of the project would slightly increase the number of survey vessels trips to monitor marine life concentrations. Under current conditions, there are fewer than 10 survey vessel trips per season. This number would increase slightly (likely not more than 5 to 10 trips per year) with implementation of the proposed RAMP regulatory amendments.

The small increase in the number of vessel trips associated with marine life concentration surveys could result in a slightly higher risk of transport, use, or disposal of hazardous materials. However, relative to the total number of all vessels operating on the water in the project area, the increase in vessel traffic associated with these activities would be minimal. Furthermore, any additional vessels operating in the marine environment would abide by USCG safety laws and regulations to reduce the risk of vessel accidents associated with maintenance or spills that could cause the release of hazardous materials into the environment, resulting in a hazard. For these reasons, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.5-2: Create a Significant Hazard to the Public or the Environment through Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of vessel permits issued for the California Dungeness crab fishery and would result in only a limited increase in the number of survey vessel trips. The small increase in the number of survey vessel trips relative to the total number of vessels in the project area would not constitute a significant hazard to the public related to the release of hazardous materials into the environment from accidents involving maintenance activities or spills or from hazardous materials washed from the surface of the vessels. Therefore, this impact would be **less than significant**.

Fuels and lubricants are examples of hazardous materials used to operate marine vessels and equipment that could potentially be leaked into the environment in the event a vessel is damaged, equipment malfunctions, or rain or high-wave events wash residual material overboard. The more vessel trips associated with implementation of the project, the more likely vessel-related activity could result in accidental release of these hazardous materials.

As described under Impact 3.5-1, the number of active fishing vessels would not change with implementation of the proposed project. However, the number of survey vessel trips could increase slightly, which could result in a slightly higher risk of release of hazardous materials into the environment related to maintenance or spill or from being washed from the surface of the vessel. This small increase in the number of vessel trips would be insignificant relative to the total number of all vessels in the project area. Furthermore, any additional vessels operating in the marine environment would abide by USCG safety laws and regulations to reduce the risk of vessel accidents. For these reasons, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.5-3: Be Located on a Site Which Is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5 and, As a Result, Would Create a Significant Hazard to the Public or the Environment

Implementation of the proposed RAMP regulatory amendments would result in a limited increase in the number of survey vessel trips, but this small increase would not create a significant hazard to the public or the environment related to trips occurring in an area with a site included on a list of hazardous materials sites, because survey activities would not disturb the seafloor. Although early season closures, season opening delays, and depth restrictions may result in the concentration of vessels decreasing in some areas and increasing in other areas at times, the number of permitted vessels and gear allotments would not change with project implementation, and the number of vessel trips associated with gear deployment and retrieval would not be expected to change substantially. Furthermore, most of the hazardous materials sites are located in areas that are not typically fished by the commercial Dungeness crab fleet. Therefore, the potential for project implementation to result in the accumulation of commercial Dungeness crab fishing activity in an area with hazardous materials sites such that the sites would be disturbed during trap deployment or retrieval would be low. For these reasons, this impact would be **less than significant**.

As previously described, implementation of the proposed RAMP regulatory amendments would not increase the number of vessels used for crab fishing but would potentially result in an increase in vessel traffic in the project area during systematic surveys to determine marine life concentrations. However, because CDFW would also use data collected during vessel-based and aerial surveys that are already being conducted by other agencies and organizations as part of the existing baseline, the increase in vessel traffic associated with implementation of systematic surveys would be small. This small increase in the number of vessel trips would be insignificant relative to the total number of all vessels in the project area. Moreover, survey activities would not involve disturbance to the seafloor, and the activity would be subject to the provisions and limitations of Marine Protected Areas, as well as general operational and safety measures.

Specific measures implemented under RAMP may include closures or delays in opening of one or more Fishing Zone(s) in response to entanglement risk or other measures, including crab gear depth constraints. In addition to implementing closures and delays to address elevated marine life entanglement risk, the CDFW Director may delay the opening of crab fishing season in part or all of the NMA because crab meat quality is low or may close any area because of biotoxin risk, and these delays have been routinely implemented. Season closures in specific Fishing Zones could result in an increased magnitude of crab fishing (e.g., more boats, more traps) in open Fishing Zones if crab fishing that would have been conducted in the closed Fishing Zone moved to an open Fishing Zone. Season delays could also result in more crab fishing over a shorter period in the Fishing Zone where the delay was implemented if the same annual crab fishing effort were conducted during the limited duration of the delayed season.

Depth constraints may be implemented to limit interactions of Actionable Species and crab fishery operations—for example, prohibiting take of crab seaward of the 50-fathom line to reduce interactions with blue whales. Implementation of depth constraints may result in increased concentration of crab gear in areas closer to shore if the same number of crab traps is set. Thus, season closures and delays and depth constraints could increase the concentration of crab gear in areas that may contain contamination sites.

When crab traps are set or pulled up from the seafloor, they cause minor suspension of the surface layer of sediments on the seafloor. However, that suspended material is dispersed by the current and eventually settles back to the seafloor, and the likelihood of any contaminated sediments being carried to the surface during retrieval as the trap is hauled up through the water column is negligible. Traps are typically 3 to 3.5 feet in diameter and are dispersed throughout a fishing area. Only one trap is permitted per line per Fish and Game Code Section 9012, which prevents multi-trap trawls that would drag on the seafloor and cause increased disturbance when the line is pulled up. CDFW estimates that the number of traps deployed during the 2020-2021 season was between 95,267 and 117,525 (CDFW 2021). This would result in a temporary, isolated disturbed area of between 21 and 26 acres per year over the entire project area of 141,954,505 acres. Furthermore, as previously described, there is only one contamination site, the Monterey Bay Sediments site, an inactive Military Evaluation site that is within the portion of the project area where the commercial Dungeness crab fishery mainly occurs. The other listed contamination sites are in Fishing Zone 6, a region of the project area that is not typically fished by the commercial Dungeness crab fleet. Thus, the likelihood of project-related activities causing resuspension of material from a contaminated site in a quantity that could create a significant hazard to the public or the environment is small.

Because the increase in vessel traffic that could result in suspension of sediments at a contamination site on the seafloor and create a hazard to the public or the environment would be small under the proposed project for the reasons discussed above, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.5-4: For a Project Located within an Airport Land Use Plan or, Where Such a Plan Has Not Been Adopted, within Two Miles of a Public Airport or Public Use Airport, Result in a Safety Hazard or Excessive Noise for People Residing or Working in the Project Area

Implementation of the proposed RAMP regulatory amendments would result in a limited increase in the number of aerial survey trips. This small increase in the number of aerial surveys relative to the total current extent of air traffic in the project area would not constitute a safety hazard or excessive noise for people residing or working in the project area. Therefore, this impact would be **less than significant**.

Systematic surveys would be conducted by CDFW to determine marine life concentrations in each California Fishing Zone through marine and aerial surveys. Aerial surveys may result in an increase in air traffic over marine and inshore habitats compared to typical baseline air traffic. The more aerial trips associated with implementation of the project, the more likely aircraft activity could result in a safety hazard or excessive noise.

As discussed in Chapter 3.6, "Marine Biological Resources," aerial surveys are currently being conducted in some capacity by CDFW, NMFS, USCG, Monterey Bay Whale Watch, and Cascadia Research Collective. Although

implementation of additional surveys would potentially result in a minor increase in air traffic in the project area, CDFW would use aerial surveys already being conducted by these other agencies and organizations as part of the existing baseline of aircraft activities. As mentioned above, one public and two private airports/airstrips are located on islands in Fishing Zone 6 of the project area. The minor increase in air traffic would be insignificant relative to the total number of all aerial traffic in the project area and would therefore not pose a safety hazard or create a significant amount of excessive noise for those residing on the islands in Zone 6 or those working in the project area. For these reasons, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

3.6 MARINE BIOLOGICAL RESOURCES

This section describes the affected environment for marine biological resources. It also describes the impacts on marine biological resources of reasonably foreseeable compliance actions in response to implementation of the proposed regulatory amendments.

Several comment letters regarding biological resources were received in response to the notice of preparation of this EIR (refer to Appendix A). The following issues identified by the commenters are relevant to the scope and content of the EIR. The first bullet is addressed in this section. The second bullet is addressed in Chapter 4, "Cumulative Impacts."

- ▶ impacts on species not covered by the RAMP regulations and application for an ITP; and
- ▶ cumulative impact of ship strikes, entanglement caused by non-Dungeness crab fishing gear, and other threats to Actionable Species.

3.6.1 Regulatory Setting

FEDERAL

Federal Endangered Species Act

Pursuant to the federal Endangered Species Act (ESA) (16 US Code Section 1531 et seq.), the US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) regulate the taking of species listed in the ESA as threatened or endangered. In general, persons subject to the ESA (including private parties) are prohibited from "taking" endangered or threatened fish and wildlife species on private or government-owned property and from "taking" endangered or threatened plants in areas under federal jurisdiction or in violation of state law. Under Section 9 of the ESA, the definition of "take" is "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS has also interpreted the definition of "harm" to include significant habitat modification that could result in take.

Section 10 of the ESA applies if a nonfederal agency is the lead agency for an action that would result in take and no other federal agencies are involved in permitting the action. Section 7 of the ESA applies if a federal discretionary action is required (e.g., a federal agency must issue a permit), in which case the involved federal agency consults with USFWS or NMFS.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it is unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. Under the MBTA, "take" is defined as "pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities." A take does not include habitat destruction or alteration if there is not a direct taking of birds, nests, eggs, or parts thereof. The current list of species protected by the MBTA can be found in Title 50 of the Code of Federal Regulations (CFR), Section 10.13 (50 CFR 10.13). The list includes nearly all birds that are native to the United States.

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) (16 US Code Chapter 31), first enacted in 1972, provides for protection of all marine mammals (whales, dolphins, seals, and sea lions) in the United States. The MMPA provides that it shall be unlawful, with certain permitted exceptions, to take a marine mammal in waters of the United States. Under the MMPA, "take" is defined as "harass, hunt, capture, collect, or kill, or attempt to harass, hunt, capture, collect, or kill any marine mammal."

Magnuson-Stevens Fishery Conservation and Management Act

The federal Magnuson-Stevens Fishery Conservation and Management Act (16 US Code Section 1801 et seq.) is the primary law governing management of commercial and recreational marine fisheries in the United States. The purpose of this federal law is sevenfold: conserve fishery resources, support enforcement of international fishing agreements, promote fishing in line with conservation principles, provide for the implementation of fishery management plans to achieve optimal yield, establish regional fishery management councils to steward fishery resources, develop underutilized fisheries, and protect Essential Fish Habitat (EFH).

The Magnuson-Stevens Act requires federal agencies to consult with NMFS when a project has the potential to adversely affect EFH. State agencies are not required to consult with NMFS; however, NMFS is required to develop EFH conservation recommendations for any state agency activity that would affect EFH. Similar to the treatment of critical habitat in the ESA, EFH protection measures recommended by NMFS or a regional fisheries management council are advisory and not prescriptive.

National Marine Sanctuaries Act

The National Marine Sanctuaries Act authorizes the Secretary of Commerce to designate and protect areas of the marine environment with special national significance because of their conservation, recreational, ecological, historic, scientific, cultural, archaeological, educational, or aesthetic qualities as national marine sanctuaries. Designated national marine sanctuaries (NMSs) in California include Cordell Bank NMS, Gulf of the Farallones NMS, Monterey Bay NMS, and Channel Islands NMS.

STATE

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA), a permit from CDFW is required for projects that could result in the "take" of a plant or animal species listed by the state as threatened or endangered. Under CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species, but the CESA definition of "take" does not include "harm" or "harass," like the ESA definition does. As a result, the threshold for take is greater under CESA than under the ESA. Authorization for take of state-listed species can be obtained through a California Fish and Game Code (FGC) Section 2081 ITP.

California Fish and Game Code Sections 3503 and 3503.5

Section 3503 of the FGC states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 of the FGC states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders Falconiformes and Strigiformes), including their nests or eggs. Typical violations include destruction of active nests as a result of tree removal or disturbance caused by project construction or other activities that cause the adults to abandon the nest, resulting in loss of eggs or young.

Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the FGC prohibit take of fully protected birds, mammals, reptiles and amphibians, and fish. Species listed under these statutes may not be taken or possessed at any time, and no incidental take permits can be issued for these species except for scientific research purposes, for relocation to protect livestock, or as part of a natural community conservation plan.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, waters of the state fall under the jurisdiction of the appropriate regional water quality control board (RWQCB). The RWQCB must prepare and periodically update water quality control plans (basin plans). Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control point and nonpoint sources of pollution to achieve and maintain these standards. The RWQCB's jurisdiction includes federally protected waters, as well as areas that meet the definition of "waters of the state." Waters of the state are defined as any surface water or groundwater, including saline waters, within the boundaries of the state.

Marine Life Protection Act

The Marine Life Protection Act requires CDFW to develop a master plan for modification of existing and designation of new Marine Protected Areas (MPAs) to increase coherence and effectiveness in protecting the state's marine life and habitats, marine ecosystems, and marine natural heritage, as well as to improve recreational, educational, and study opportunities provided by marine ecosystems subject to minimal human disturbance.

California Ocean Plan

The California Ocean Plan designated Areas of Special Biological Significance (ASBS) in ocean areas requiring protection of species or biological communities to the extent that maintenance of natural water quality is assured. Thirty-four ASBS have been designated by the State Water Resources Control Board (SWRCB) off the coast of California because the areas support an unusual variety of aquatic life and often host unique species.

LOCAL

The project area is located entirely in the portion of the EEZ extending from the California/Oregon border in the north to the California/Mexico border in the south (Figure 2-1) and is outside the jurisdiction of any local (e.g., county, city) agency; thus, the project would not be subject to any local policies or ordinances.

3.6.2 Environmental Setting

This section provides an overview of California coastal and marine habitats and organisms. Because the project area is very expansive (i.e., coastal and pelagic areas statewide), this section does not provide a full inventory of all the common and sensitive biological resources that are known to occur or could occur in the area.

The project area encompasses the portion of the EEZ extending from the California/Oregon border in the north to the California/Mexico border in the south (Figure 2-1). This area includes numerous habitats, sensitive communities, and special-status wildlife species. To organize the biological resources setting description of the project area, the marine waters of California are divided into the Northern Management Area (NMA) and Central Management Area (CMA). As described in Chapter 2, "Project Description," the NMA extends from the California/Oregon border to the Sonoma-Mendocino County line, and the CMA extends from the Sonoma-Mendocino County line to the California/Mexico border (Figure 2-1).

The characteristics of common and sensitive biological resources are described for both management areas in the sections that follow. Information on the physical setting and wildlife habitats, special-status species, EFH, critical habitat, special management areas, and other biologically important lands was gathered through review of existing data sources and is presented as a general summary of resources that may occur in each management area.

Information on sensitive biological resources, including special-status species, in the project area was compiled from:

- ▶ California Natural Diversity Database (CNDDDB) (records search and GIS query) (CNDDDB 2024);
- ▶ USFWS Information for Planning and Conservation tool (USFWS 2024);
- ▶ USFWS and University of California, Santa Cruz, seabird colony data (Capitolo, pers. comm., 2019);
- ▶ pinniped rookeries and haul-out site data (NMFS 2011); and
- ▶ publicly available aerial imagery.

The following sections provide an overview of the physical setting, wildlife habitat, sensitive biological resources, special management areas, and other biologically important areas in the project area and summarize the methods and data sources used to identify these resources. Additional detail is provided at a regional scale for the two management areas in the sections that follow.

PHYSICAL SETTING AND WILDLIFE HABITAT

California Coastal Habitat

The coast of California is composed of sandy beaches, rocky headlands, sea cliffs, and lagoons in the intertidal and nearshore environment. Generally, the coastline north of Point Conception is rugged, with prominent headlands, stretches of sea cliffs, and small, sandy beaches. South of Point Conception, the shoreline is typically adjacent to coastal plains and marine terraces, and long, sandy beaches are common. Tidal flats, sandy or muddy expanses that become exposed at low tides and are associated with coastal rivers, as well as bays and estuaries, are also distributed along the California coast. In addition, beds of mussels (*Mytilus* spp.), seagrass beds, and algal assemblages from tufts (e.g., *Endocladia muricata*) to low canopies of leathery kelps (e.g., *Pterygophora californica*, *Postelsia palmaeformis*) are distributed in patches throughout rocky shoreline habitat along the coast.

Seagrass habitats support an abundant and biologically diverse assemblage of aquatic wildlife species. The most common type of seagrass in estuaries and sheltered coastal bays in California is common eelgrass (*Zostera marina*). Eelgrass beds provide refuge, foraging, breeding, or nursery areas for a variety of invertebrates, fish, and birds, including Dungeness crabs (*Metacarcinus magister*). The most common type of seagrass along the open coast of California is surfgrass (*Phyllospadix* spp.), which forms beds that fringe nearly all the rocky coastline from the zero-tide level down to several meters below the zero-tide level.

Kelp forests are an important component of California's marine ecosystems. They provide shelter for both juvenile and adult species of fish, provide important nursery habitat for southern sea otters (*Enhydra lutris nereis*), offer vertical and horizontal substrate for a variety of marine organisms, and account for a large portion of the primary productivity in the nearshore communities. In California, there are two primary canopy-forming kelp species: giant kelp (*Macrocystis pyrifera*) and bull kelp (*Nereocystis luetkeana*). Kelp forests grow along rocky coastlines and typically remain nearshore in subtidal communities. In addition, intertidal boulders, platforms, and cliffs, as well as tidepools, are home to many species of snails, barnacles, anemones, crabs, sea stars, and fishes.

Many offshore rocks and islets along California's rocky coastlines provide habitat for many species of pinnipeds (i.e., seals and sea lions) and seabirds. Several seabird species occur and nest in colonies on these features, including common murre (*Uria aalge*), Brandt's cormorant (*Phalacrocorax penicillatus*), pelagic cormorant (*Phalacrocorax pelagicus*), double-crested cormorant (*Phalacrocorax auritus*), western gull (*Larus occidentalis*), fork-tailed storm-petrel (*Oceanodroma furcata*), ashy storm-petrel (*Oceanodroma homochroa*), and Leach's storm-petrel (*Oceanodroma leucorhoa*).

Several marine mammal species, which are protected under the federal MMPA, are known to occur in the nearshore environment along the California coast. Gray whales (*Eschrichtius robustus*) undertake the longest migration of any mammal along the California coastline, using inshore areas and protected coves during the springtime northbound migration to Alaska with their calves. Other cetaceans (i.e., whales, dolphins, porpoises), including harbor porpoise (*Phocoena phocoena*) and bottlenose dolphin (*Tursiops truncatus*), use nearshore habitat. Several pinniped species, including harbor seal (*Phoca vitulina*), California sea lion (*Zalophus californianus*), Steller sea lion (*Eumetopias jubatus*), northern elephant seal (*Mirounga angustirostris*), and northern fur seal (*Callorhinus ursinus*), breed and rest on California beaches, river mouths, and offshore rocks.

California Pelagic Habitat

Pelagic (open ocean) fish species off the coast of California include northern anchovy (*Engraulis mordax*), Pacific sardine (*Sardinops sagax*), Pacific herring (*Clupea pallasii*), Pacific mackerel (*Trachurus symmetricus*), albacore tuna (*Thunnus alalunga*), several Chinook salmon (*Oncorhynchus tshawytscha*) Evolutionarily Significant Units, and steelhead (*Oncorhynchus mykiss irideus*). Seabirds typically associated with offshore habitat in California include northern fulmar (*Fulmarus glacialis*), sooty shearwater (*Ardenna grisea*), pink-footed shearwater (*Ardenna creatopus*), Buller's shearwater (*Ardenna bulleri*), black-footed albatross (*Phoebastria nigripes*), and Laysan albatross (*Phoebastria immutabilis*). Several cetacean species, including humpback whale (*Megaptera novaengliae*), blue whale (*Balaenoptera musculus*), fin whale (*Balaenoptera physalus*), orca (also known as "killer whale") (*Orcinus orca*), northern right whale dolphin (*Lissodelphis borealis*), common dolphin (*Delphinus delphis*), Risso's dolphin (*Grampus griseus*), and Pacific white-sided dolphin (*Lagenorhynchus obliquidens*), occur in California's pelagic environment. As described in

Chapter 2, "Project Description," two populations of humpback whale, Central America Distinct Population Segment (DPS) and Mexico DPS, and blue whale are listed as endangered under the ESA, and both species are identified as Actionable Species under the RAMP regulations and Covered Species in CDFW's ITP application.

Several sea turtle species are known to occur along the California coast: leatherback sea turtle (*Dermochelys coriacea*), green sea turtle (*Chelonia mydas*), Pacific hawksbill sea turtle (*Eretmochelys imbricate bissa*), loggerhead sea turtle (*Caretta caretta*), and olive ridley sea turtle (*Lepidochelys olivacea*). These species occur primarily in pelagic habitats but occasionally occur nearshore. As described in Chapter 2, "Project Description," leatherback sea turtle is listed as endangered under the ESA and CESA and is identified as an Actionable Species under the RAMP regulations and a Covered Species in CDFW's ITP application.

California Benthic Habitat

Benthic (seafloor) habitat in California varies geographically but is typically characterized by either hard (rocky or reef) substrate or soft (sand or mud) substrate. The locations of each benthic substrate type vary in each biogeographic region based on several factors, including the geology of the shoreline. Both substrates provide habitat for numerous invertebrate and fish species, including sessile invertebrates (e.g., mussels, sea urchins, anemones) and groundfish (e.g., rockfish, lingcod [*Ophiodon elongatus*]). Rocky areas provide hard substratum to which kelp and other algae attach in waters up to approximately 100 feet deep, whereas in deeper water, hard substratum provides attachment substrate for many species of deep-water invertebrates. In addition to attached organisms, the structural complexity of rocky areas provides habitat and protection for mobile invertebrates and fishes.

Soft-bottom environments range from flat expanses to slopes and basin areas. Soft-bottom habitats lack the complex, three-dimensional structure of hard-bottom substrata and are somewhat less diverse in species assemblages than rocky reefs, depending on the compositional sediment type. However, these habitats often support species like California halibut (*Paralichthys californicus*) and Dungeness crab. Soft-bottom habitats can be highly dynamic in nature because sediments shift as a result of wave action, bottom currents, and geological processes. Shallow, sandy, soft-bottom benthic habitat is found in areas along the coast that are subject to constant tide, wave, and shoreline processes, resulting in a highly changing and low-productivity region. Sandy benthic habitat generally extends to water depths of approximately 300 feet. Muddy sediment bottoms are typically found in water depths greater than 300 feet along the shelf but also occur in estuaries and lagoons.

Submarine canyons are submerged, steep-sided valleys that cut through the continental slope and occasionally extend close to shore. These features exhibit bathymetric complexity, support unique deep-water communities, and affect local and regional circulation patterns. Canyons provide habitat for young rockfish and flatfish that settle in nearshore waters to grow and move offshore as adults. Canyons also attract concentrations of prey species (e.g., fish, krill) and provide important foraging opportunities for seabirds and marine mammals (Yen et al. 2004).

SENSITIVE BIOLOGICAL RESOURCES

Special-Status Species

Special-status species in the context of this project are defined as species that are legally protected or otherwise considered sensitive by federal or state agencies. Special-status species are species, subspecies, or varieties that fall into one or more of the following categories, regardless of their legal or protection status:

- ▶ species officially listed by California or the federal government as endangered, threatened, or rare;
- ▶ a candidate for state or federal listing as endangered, threatened, or rare;
- ▶ species protected by the MMPA (50 CFR 18);
- ▶ taxa (i.e., taxonomic category or group) that meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the State CEQA Guidelines;
- ▶ species identified by CDFW as species of special concern; and
- ▶ species listed as fully protected under the FGC.

The term “California species of special concern” is applied by CDFW to animals not listed under the ESA or CESA but that are considered to be declining at a rate that could result in listing or that historically occurred in low numbers and known threats to their persistence currently exist. CDFW’s “fully protected” designation was California’s first attempt to identify and protect animals that were rare or facing extinction. Most species listed as “fully protected” were eventually listed as threatened or endangered under CESA; however, some species remain listed as “fully protected” but do not have simultaneous listing under CESA. Fully protected species may not be taken or possessed at any time, and no take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.

Many special-status wildlife species are known to occur in marine habitats. A total of 49 special-status wildlife species were determined to have potential to occur in the project area (CNDDDB 2024; USFWS 2023). A full list of these species, including regulatory status and habitat, is included in Appendix B. Special-status bird species in the project area are primarily seabirds, which occur in both terrestrial and marine habitats, nesting on land but foraging at sea.

Sensitive Natural Communities

Sensitive natural communities or habitats are those of special concern to resource agencies, such as CDFW, or those that are afforded specific consideration based on Section 404 of the Clean Water Act, the California Coastal Act (e.g., Environmentally Sensitive Habitat Areas in coastal zones), or other applicable regulations. This concern may be related to the locally or regionally declining status of these habitats or to the fact that they provide important habitat to common and special-status species. Many of these communities are tracked in the CNDDDB. The project area is located entirely within the EEZ and does not include terrestrial habitat (i.e., coastal areas) where most sensitive natural communities and riparian habitat would occur. However, eelgrass habitat (described above under “California Coastal Habitat”) is considered a sensitive natural community and is present in nearshore waters along the entire coast of California.

Essential Fish Habitat

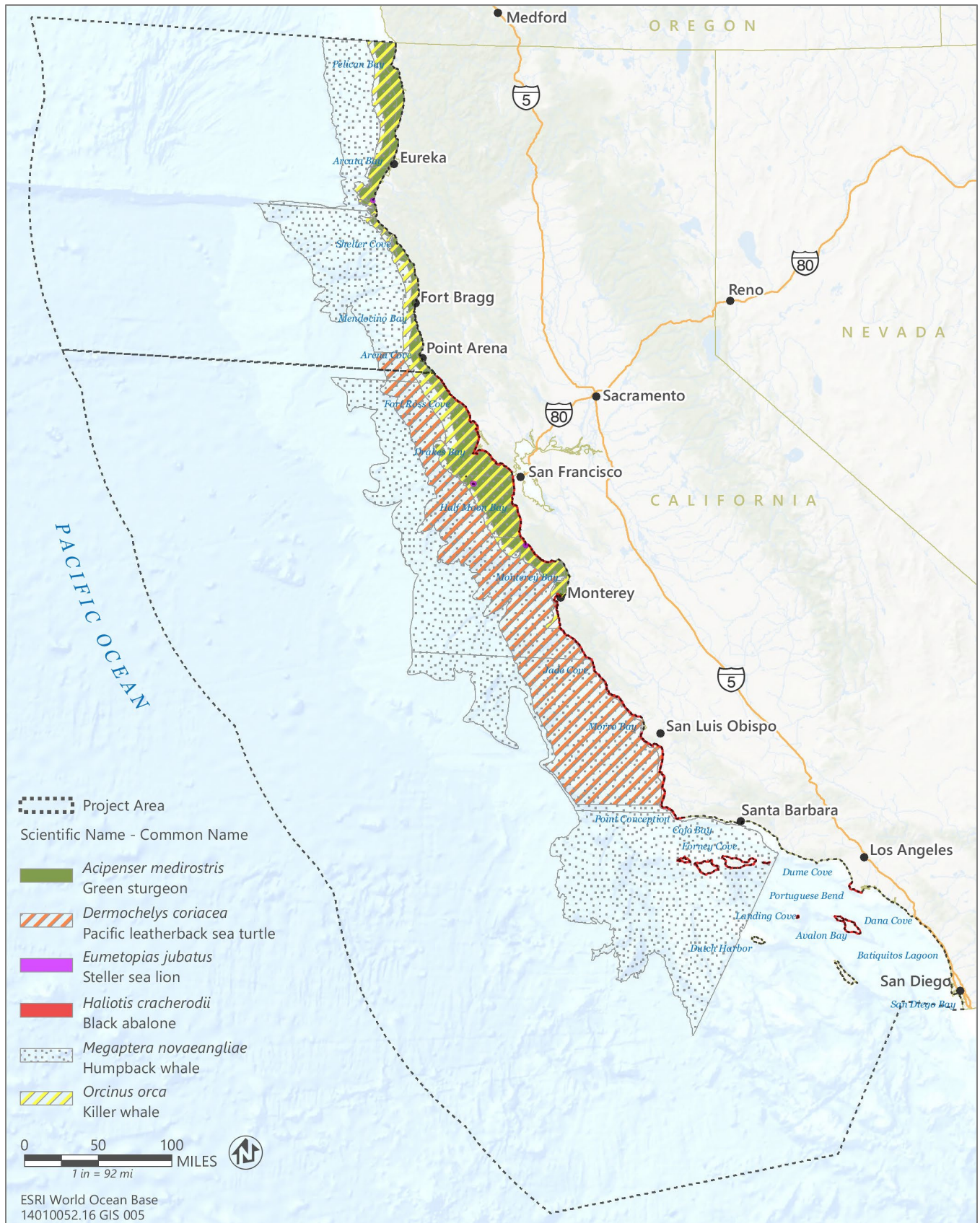
NMFS, in partnership with the Pacific Fishery Management Council and federal and state agencies, has identified EFH for each federally managed fish species (e.g., groundfish, coastal pelagic species, salmon) along the California coast and developed conservation measures to protect and enhance these habitats (refer to “Magnuson-Stevens Fishery Conservation and Management Act” section in Chapter 3.6.1, “Regulatory Setting”). EFH are those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity, such as nearshore waters, intertidal waters, and pelagic deep water. Habitat Areas of Particular Concern are subsets of EFH that highlight high-priority areas for conservation or management. These areas include habitat such as kelp forests, bays and estuaries, rocky shorelines, and eelgrass (or other seagrass) beds. These features occur throughout the project area and in every biogeographic region, but they are typically concentrated in certain areas based on geology or other favorable conditions.

Critical Habitat

“Critical habitat” is a term defined and used in the ESA. It refers to specific geographic areas designated by USFWS or NMFS that contain features essential to the conservation of an endangered or threatened species and that may require special management and protection. Critical habitat designations affect only federal agency actions or federally funded or permitted activities. CDFW, as a state agency, is not required to consult with USFWS or NMFS for actions in critical habitat. The descriptions below and in each biogeographic region description provide a complete list of the wildlife species that have designated critical habitat for informational purposes because these areas may indicate a higher probability of special-status species occurrence.

Critical habitat is present in the project area for the following wildlife species (Figure 3.6-1):

- ▶ green sturgeon (*Acipenser medirostris*),
- ▶ black abalone (*Haliotis cracherodii*),
- ▶ Pacific leatherback sea turtle,
- ▶ orca (Southern Resident DPS),
- ▶ Steller sea lion, and
- ▶ humpback whale (Central America DPS and Mexico DPS).



Source: Data downloaded from NMFS in 2022; adapted by Ascent in 2023.

Figure 3.6-1 Critical Habitat

Special Management Areas and Other Biologically Important Areas

Marine Protected Areas

Under the Marine Life Protection Act (refer to Section 3.6.1, "Regulatory Setting"), the State of California established a statewide network of MPAs in state waters along the entire California coast. MPAs are named, discrete geographic marine or estuarine areas designed to protect or conserve living, geological, and cultural marine resources. The statewide network is divided into five regions: North Coast, North Central Coast, Central Coast, South Coast, and the San Francisco Bay (Figures 3.6-2a and 3.6-2b). Different marine managed area classifications are used in California's MPA network, including three MPA designations (State Marine Reserve, State Marine Conservation Area, State Marine Park), a marine recreational management area (State Marine Recreational Management Area), and special closures.

National Marine Sanctuaries

Cordell Bank NMS

The approximately 1,286-square-mile Cordell Bank NMS was designated in 1989. This NMS is entirely offshore, with the eastern boundary approximately 6 miles from shore and the western boundary approximately 30 miles from shore (Figures 3.6-2a and 3.6-2b). Cordell Bank, the centerpiece of this NMS, is an offshore rocky bank approximately 4.5 miles wide by 9.5 miles long, covering an area of approximately 26 square miles. Cordell Bank supports a diverse array of fish and invertebrates, including sponges, corals, sea squirts, anemones, hydroids, crabs, sea stars, sea cucumbers, snails, and groundfish. The bank also provides important habitat for first-year juvenile and adult rockfishes, lingcod, and other benthic fishes.

Greater Farallones NMS

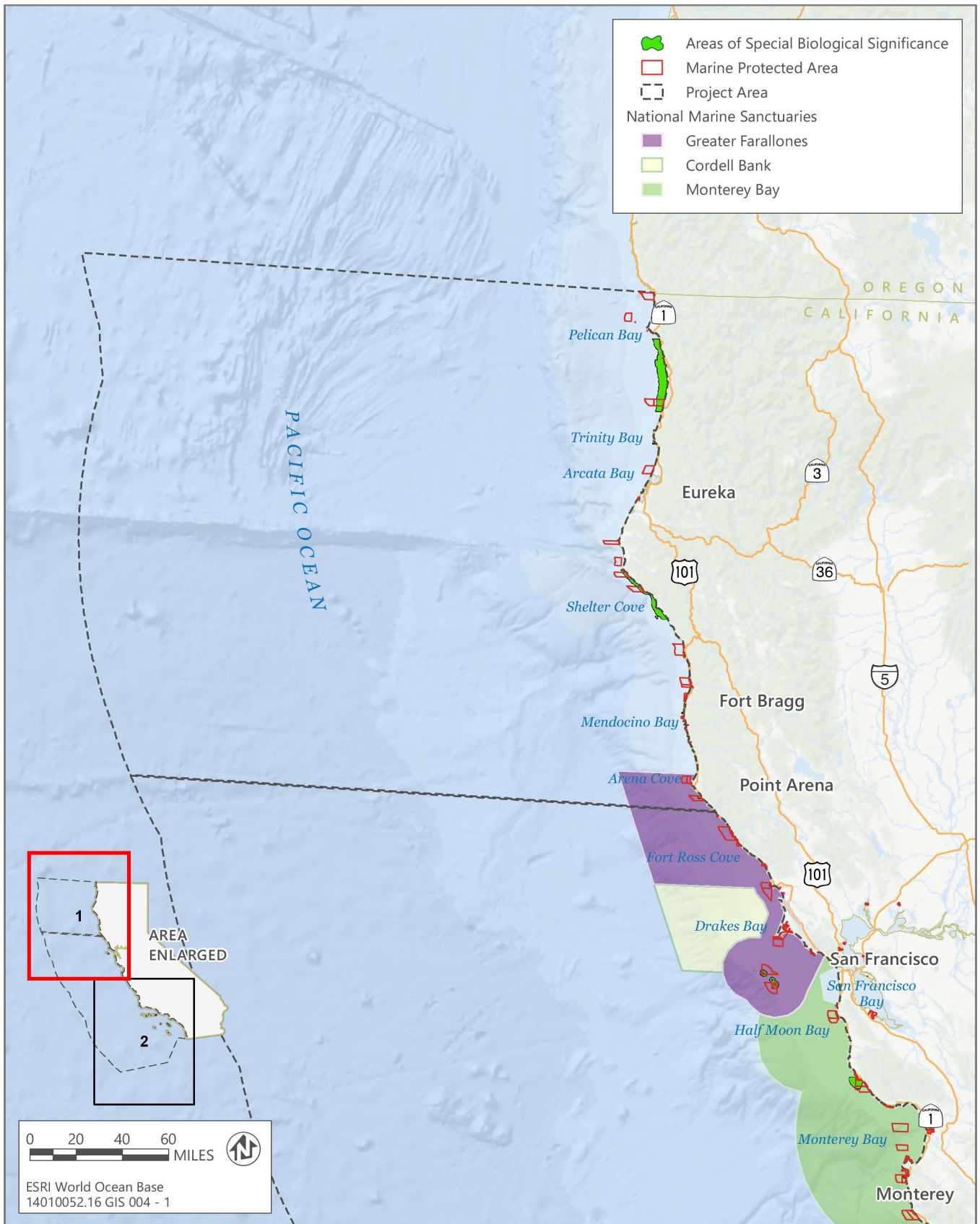
In 1981, the approximately 1,279-square-mile Gulf of the Farallones NMS was designated just north and west of San Francisco Bay to protect open ocean, nearshore tidal flats, rocky intertidal areas, estuarine wetlands, subtidal reefs, and coastal beaches within its boundaries. In 2015, the Gulf of the Farallones NMS was renamed Greater Farallones NMS and expanded north and west of its original boundaries to encompass 3,295 square miles (Figures 3.6-2a and 3.6-2b). The Greater Farallones NMS contains a diverse and productive marine ecosystem that provides breeding and feeding grounds for numerous endangered or threatened species; marine mammal species, including blue, gray, and humpback whales, harbor seals, elephant seals, Pacific white-sided dolphins, and Steller sea lions; breeding seabirds; and white shark (*Carcharodon carcharias*) populations.

Monterey Bay NMS

The Monterey Bay NMS is offshore of California's Central Coast. Stretching from Marin to Cambria, the sanctuary encompasses a shoreline length of 276 miles and 5,322 square miles of ocean (Figures 3.6-2a and 3.6-2b). Supporting one of the world's most diverse marine ecosystems, it is home to numerous mammals, seabirds, fishes, invertebrates, and plants in a remarkably productive coastal environment. The Monterey Bay NMS was established for the purpose of resource protection, research, education, and public use of this national treasure.

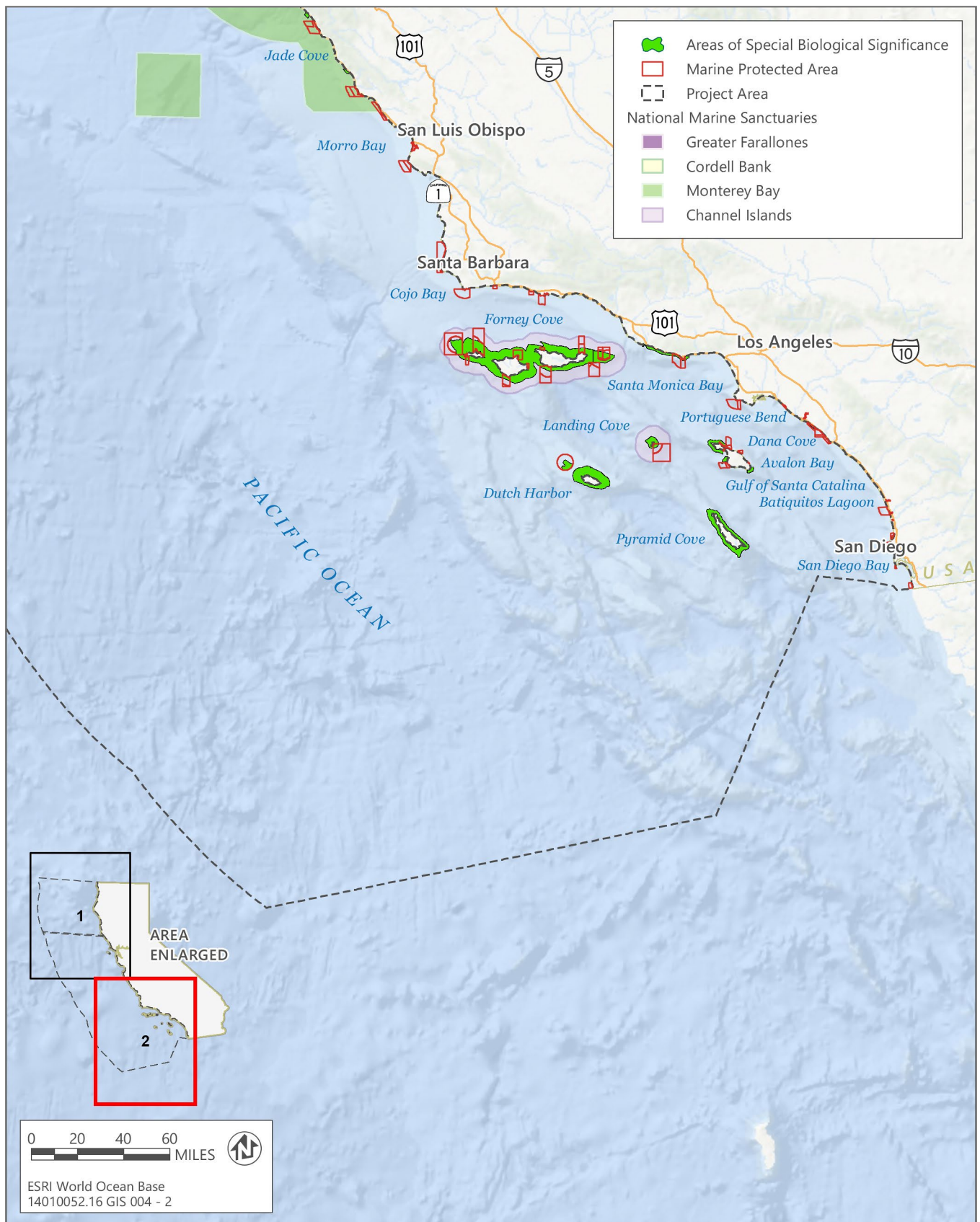
Channel Islands NMS

The Channel Islands NMS, which was designated in 1980, covers approximately 1,470 square miles of ocean waters around Anacapa, Santa Cruz, Santa Rosa, San Miguel, and Santa Barbara Islands, extending from the mean high tide of these islands to 6 nautical miles offshore and surrounding Channel Islands National Park (Figures 3.6-2a and 3.6-2b). The primary goal of this NMS is to protect natural and cultural resources contained within its boundaries. The Channel Islands NMS is managed to promote ecosystem conservation, protect cultural resources, and support compatible human uses.



Source: Data downloaded from CDFW and NMFS in 2019.

Figure 3.6-2a Special and Significant Marine Areas (Map 1 of 2)



Source: Data downloaded from CDFW and NMFS in 2019.

Figure 3.6-2b Special and Significant Marine Areas (Map 2 of 2)

Designated Exclusion Zones¹

In California, Exclusion Zones (EZs) were designated primarily to help ships navigate, avoid collisions, and move quickly and economically through ports and harbors. Large EZs are present outside the harbors of San Francisco and Los Angeles and are regulated by the US Coast Guard. The US Coast Guard also regulates security zones at the Diablo Canyon Nuclear Power Plant (in the central California region) and the San Diego Coast Guard Air Station. Other branches of the military—the US Navy and the US Air Force—regulate EZs in the central and southern California regions for the purposes of security and public safety. Although the purpose of EZs is not conservation, some EZs may be located in areas that support sensitive marine species or habitat. Natural resources may be protected indirectly by public access restrictions in EZs.

California Coastal National Monument

Statewide, more than 20,000 islands, rocks, and exposed reefs and pinnacles are included in the California Coastal National Monument, managed by the US Bureau of Land Management. The monument extends above the mean high tide line and was designed to protect the biological and geological values of offshore rocks and islets and the important forage and breeding grounds of associated seabirds and marine mammals.

Wildlife Corridors and Nursery Sites

The marine environment provides migration corridors for many wildlife species, and the spatial and temporal scales of these migrations vary based on the specific marine environment (e.g., nearshore, pelagic). Wildlife movement in the marine environment includes nearshore migration of gray whales between Baja California and the Bering Sea, offshore migration of other whale species (e.g., humpback whales, blue whales), seasonal movements of juvenile salmon out of rivers and along the shoreline, and daily movements of pinnipeds between haul-outs and foraging grounds. The Pacific Flyway extends along the Pacific Coast from Mexico north to Alaska and into Siberia, Russia. Migratory birds use this major migratory route because of its unique biological characteristics.

Important wildlife nursery sites along the California coast include pinniped rookeries (e.g., offshore rocks, mudflats, sandy beaches), seabird breeding colonies (e.g., offshore rocks), shorebird breeding areas (e.g., beaches, mudflats), and fish and invertebrate nurseries (e.g., bays, estuaries, eelgrass beds).

NORTHERN MANAGEMENT AREA

Physical Setting and Wildlife Habitat

The NMA extends from the California/Oregon border south to the Sonoma-Mendocino County line (Figure 2-1). Rocky shores are found throughout this area and include headlands and points such as Point Saint George, Patrick's Point, Trinidad Head, Cape Mendocino, Punta Gorda, and Mendocino headlands, as well as much of the coast at Fort Bragg. Notable offshore rocks that provide habitat for seabirds (e.g., common murre, Brandt's cormorant, pelagic cormorant), marine mammals, or other marine wildlife species in the NMA include:

- ▶ Prince Island near the Smith River mouth,
- ▶ Hunter Rock near the Smith River mouth,
- ▶ Castle Rock near Crescent City,
- ▶ False Klamath Rock north of the Klamath River mouth,
- ▶ Green Rock in Trinidad Bay,
- ▶ Flatiron Rock north of Trinidad Bay, and
- ▶ Sugarloaf Island near Cape Mendocino.

¹ Although the federal government uses the term "De Facto Marine Protected Areas," California identifies these areas as various "exclusion zones" to differentiate them from and avoid confusion with the extensive network of conservation-oriented Marine Protected Areas.

Additional shoreline habitat in this area is characterized by sandy beach. Snails, bivalves, crustaceans, insects, spiders, isopods, amphipods, and polychaetes are among the organisms that inhabit sandy beaches, and several of these organisms provide nourishment for larger vertebrate animals, including populations of western snowy plover (*Charadrius nivosus nivosus*). Many other species, including harbor seals, use sandy beaches in the NMA for resting and rearing young.

Tidal flats are present in the NMA near the Smith River mouth, Mad River, Humboldt Bay, the Eel River estuary, and the Mattole River mouth. Because of the abundance and diversity of invertebrate prey (e.g., clams, snails, crabs) in these areas, they provide essential foraging grounds for migratory bird species. Eelgrass beds in these habitats provide essential habitat for juvenile fish species.

Humboldt Bay, the second-largest estuary in California, after San Francisco Bay, consists of Arcata Bay at its north end, Central Bay, and South Bay. Humboldt Bay contains several diverse habitats, including tidal flats, salt marsh, and eelgrass beds. It provides habitat for a large diversity of fish species, and at least five fish species listed as threatened or endangered inhabit Humboldt Bay and its tributaries: coho salmon, Chinook salmon, steelhead, longfin smelt (*Spirinchus thaleichthys*), and tidewater goby. The bay also supports recreationally important bivalve species, including Pacific gaper clam (*Tresus nuttallii*), Washington clam (*Saxidomus gigantea*), and Pacific littleneck clam (*Leukoma staminea*), and it provides nursery grounds for Dungeness crabs. Humboldt Bay provides habitat for large concentrations and high species diversity of shorebirds and waterfowl and supports a population of harbor seals.

Four submarine canyons are present in the NMA. From north to south, these canyons are Mendocino Canyon, Mattole Canyon, Spanish Canyon, and Delgada Canyon.

Sensitive Biological Resources

Special-Status Species

Special-status seabird species that could be present in the NMA include ashy storm-petrel, California brown pelican (*Pelecanus occidentalis californicus*), marbled murrelet, and tufted puffin (*Fratercula cirrhata*). Special-status fish known to occur in the NMA include coho salmon, steelhead (northern California DPS), Pacific lamprey (*Entosphenus tridentatus*), and green sturgeon. Special-status sea turtles that could be present in the NMA are green sea turtle, Pacific leatherback sea turtle, and olive ridley sea turtle.

Several pinniped species, which are protected by the MMPA, that are known to occur in the NMA include harbor seal, Steller sea lion, California sea lion, northern fur seal, and northern elephant seal. Of these species, such as harbor seal, Steller sea lion, and northern elephant seal are known to breed in the region. Several cetacean species, also protected by the MMPA, occur in the NMA, including harbor porpoise, gray whale, humpback whale, blue whale, orca, and Dall's porpoise (*Phocoenoides dalli*).

Special Management Areas and Other Biologically Important Areas

Marine Protected Areas and Special Closures

The NMA contains 24 MPAs: seven State Marine Reserves, 16 State Marine Conservation Areas, and one State Marine Recreational Management Area; the NMA also contains six special closures, designated to limit access to sensitive shoreline or offshore rocks (Table 3.6-1).

Areas of Special Biological Significance

Four ASBS are located in the NMA: Jughandle Cove, Kings Range, Redwood National Park, and Trinidad Head.

National Marine Sanctuaries

A portion of the Greater Farallones NMS overlaps the NMA.

Table 3.6-1 Marine Protected Areas and Special Closures in the NMA

North Coast MPA Region	
State Marine Conservation Areas	
Pyramid Point SMCA	Ten Mile Estuary SMCA
Point St. George Reef Offshore SMCA	MacKerricher SMCA
Reading Rock SMCA	Russian Gulch SMCA
Samoa SMCA	Big River Estuary SMCA
Big Flat SMCA	Van Damme SMCA
Double Cone Rock SMCA	Navarro River Estuary SMCA
Ten Mile Beach SMCA	
State Marine Reserves	Special Closures
Reading Rock SMR	Southwest Seal Rock Special Closure
South Cape Mendocino SMR	Castle Rock Special Closure
Mattole Canyon SMR	False Klamath Rock Special Closure
Sea Lion Gulch SMR	Sugarloaf Island Special Closure
Ten Mile SMR	Steamboat Rock Special Closure
Point Cabrillo SMR	Vizcaino Rock Special Closure
State Marine Recreational Management Area	
South Humboldt Bay SMRMA	
North-Central Coast MPA Region	
State Marine Conservation Areas	State Marine Reserve
Saunders Reef SMCA	Point Arena SMR
Point Arena SMCA	
Sea Lion Cove SMCA	

Notes: MPA = Marine Protected Area; NMA = Northern Management Area; SMCA = State Marine Conservation Area; SMR = State Marine Reserve; SMRMA = State Marine Recreational Management Area.

Source: CDFW 2023.

CENTRAL MANAGEMENT AREA

Physical Setting and Wildlife Habitat

The CMA extends from the Sonoma-Mendocino County line to the California/Mexico border (Figure 2-1). Rocky shore habitats are found throughout the CMA, including extensive stretches along the Sonoma and Marin County coasts. Smaller stretches of rocky shores are interspersed with large sandy beaches along the San Francisco and San Mateo County coasts. Rocky shoreline and offshore rocks along Point Reyes Headlands contain large seabird colonies (e.g., common murre, Brandt's cormorant) and pinniped haul-out sites. In the central California region of the CMA, the coastline is characterized primarily by dramatic sea cliffs and rocky peninsulas (e.g., Pigeon Point, Point Año Nuevo, Point Lobos, Point Sur). Much of the coastline in the southern California region of the CMA contains long stretches of sandy beach habitat (e.g., Malibu, Santa Monica, Huntington Beach) interspersed with rocky headlands (e.g., Point Conception, Point Mugu, Point Dume, Palos Verdes Point, Dana Point, Point La Jolla). Coastal marshes and tidal flats occur primarily around the edges of bays and estuaries (e.g., Bolinas Lagoon, Drakes Estero, Estero de Limantour, Tomales Bay, Estero Americano, Estero San Antonio), support high levels of productivity, and provide habitat for many species.

Significant expanses of continuous sandy shore areas occur along the San Francisco and San Mateo County coasts, with shorter stretches of sandy beaches and pocket beaches along the Sonoma and Marin County coastlines. Rivers deposit sediments and create barrier beaches and sandspits, such as those at the mouths of the Garcia, Gualala, and Russian Rivers and Bolinas and Limantour estuaries. These habitats support numerous species of shorebirds, including

sanderlings (*Calidris alba*), marbled godwits (*Limosa fedoa*), willets (*Tringa semipalmata*), western snowy plovers, and California least terns (*Sterna antillarum*). Pinnipeds haul out on isolated beaches and sands spits.

Offshore rocks with notable seabird colonies located in the CMA include:

- ▶ Hog Island in Tomales Bay;
- ▶ Bird Rock near Tomales Point;
- ▶ Double Point Rocks, Stormy Stack, Point Resistance Rocks, and Millers Point Rocks, south of Point Reyes;
- ▶ Bird Island near Point Bonita;
- ▶ Seal Rocks in San Francisco;
- ▶ Devil's Slide Rock and San Pedro Rock on the San Mateo coast;
- ▶ Año Nuevo Island between San Francisco and Santa Cruz;
- ▶ Bird Rock near Point Lobos State Natural Reserve;
- ▶ Castle Rocks on the Big Sur Coastline;
- ▶ Hurricane Point Rocks on the Big Sur Coastline;
- ▶ Point Conception;
- ▶ Point La Jolla; and
- ▶ Channel Islands.

The Farallon Islands, which contain the largest breeding seabird colony in the contiguous United States, are located in the CMA.

Tomales Bay and Monterey Bay, two of the largest bays in California, are present in the CMA. Tomales Bay is tidally influenced and supports large concentrations and high species diversity of shorebirds and waterfowl and is a nursery ground for many species of invertebrates and fish (e.g., Dungeness crab, Pacific herring, California halibut). Tomales Bay provides habitat for several species listed as threatened or endangered, including tidewater goby, coho salmon, and steelhead. In addition, the tidal flat habitat in Tomales Bay provides haul-out habitat for several pinniped species. The Monterey Canyon extends into Monterey Bay and with it, the seasonal presence of typically pelagic species (e.g., humpback whale, shearwaters) in the bay. Both natural habitats (e.g., tidal flats) and human-made features (e.g., docks) provide haul-out habitat for several pinniped species in Monterey Bay. Southern sea otters also occur in Monterey Bay. In addition, the soft benthic habitat in Monterey Bay provides habitat for juvenile rockfish species (Johnson et al. 2001).

Submarine canyons in the CMA include the large Monterey Canyon, other canyons along the Big Sur coastline, Hueneme Canyon, Mugu Canyon, Dume Canyon, Santa Monica Canyon, Redondo Canyon, Scripps Canyon, and La Jolla Canyon. The proximity of some of these productive canyons to the shoreline results in an abundance of highly biodiverse marine species (e.g., humpback whale, bottlenose dolphin, orca, northern fulmar, shearwaters, albatross) relatively close to shore.

Sensitive Biological Resources

Special-Status Species

Special-status seabird species that could be present in the CMA include ashy storm-petrel, brown pelican, California least tern, marbled murrelet, and tufted puffin. Special-status fish known to occur in the region include coho salmon, and steelhead (northern and central California DPS). Special-status sea turtles that could be present in the CMA are green sea turtle, Pacific leatherback sea turtle, and olive ridley sea turtle.

Several pinniped species, which are protected by the MMPA, are known to occur in the CMA—including harbor seal, Steller sea lion, California sea lion, northern fur seal, Guadalupe fur seal (*Arctocephalus townsendi*), and northern

elephant seal. All these species are known to breed in the region, primarily on Año Nuevo Island, the Farallon Islands, and the Channel Islands. Southern sea otters also occur in the CMA, especially near Monterey Bay and the Big Sur coastline. Several cetacean species, also protected by the MMPA, occur in the CMA, including harbor porpoise, gray whale, humpback whale, blue whale, fin whale, and orca.

Special Management Areas and Other Biologically Important Areas

Marine Protected Areas and Special Closures

The CMA contains 98 MPAs: 42 State Marine Reserves, 54 State Marine Conservation Areas, and four State Marine Recreational Management Areas; the CMA also has eight special closures (Table 3.6-2).

Table 3.6-2 Marine Protected Areas and Special Closures in the CMA

North-Central Coast MPA Region	
State Marine Conservation Areas Stewarts Point SMCA Salt Point SMCA Russian River SMCA Bodega Head SMCA Point Reyes SMCA Drakes Estero SMCA Duxbury Reef SMCA Southeast Farallon SMCA Pillar Point SMCA	State Marine Reserves Del Mar Landing SMR Stewarts Point SMR Gerstle Cove SMR Bodega Head SMR Point Reyes SMR Estero de Limantour SMR North Farallon Islands SMR Southeast Farallon Island SMR Montara SMR
State Marine Recreational Management Areas Russian River SMRMA Estero Americano SMRMA Estero de San Antonio SMRMA	Special Closures Point Reyes Headlands Special Closure Point Resistance Rock Special Closure Double Point/Stormy Stack Rock Special Closure North Farallon Islands Special Closure Southeast Farallon Island Special Closure Devil's Slide Rock to Devil's Slide Special Closure
Central Coast MPA Region	
State Marine Recreational Management Areas Morro Bay SMRMA	State Marine Conservation Areas Greyhound Rock SMCA Elkhorn Slough SMCA Soquel Canyon SMCA Portuguese Ledge SMCA Edward F. Ricketts SMCA Pacific Grove Marine Gardens SMCA Carmel Bay SMCA Point Lobos SMCA Point Sur SMCA Big Creek SMCA Piedras Blancas SMCA Cambria SMCA and State Marine Park White Rock SMCA Point Buchon SMCA
State Marine Reserves Año Nuevo SMR Natural Bridges SMR Elkhorn Slough SMR Moro Cojo Slough SMR Lovers Point-Julia Platt SMR Asilomar SMR Carmel Pinnacles SMR Point Lobos SMR Point Sur SMR Big Creek SMR Piedras Blancas SMR Morro Bay SMR Point Buchon SMR Vandenberg SMR	

South Coast MPA Region

State Marine Conservation Areas

Kashytayit SMCA	Lover's Cove SMCA
Naples SMCA	Farnsworth Onshore SMCA
Campus Point SMCA	Farnsworth Offshore SMCA
Goleta Slough SMCA	Cat Harbor SMCA
Point Dume SMCA	Arrow Point to Lion Head SMCA
Point Vicente SMCA	Anacapa Island SMCA
Abalone Cove SMCA	
Bolsa Bay SMCA	
Bolsa Chica Basin SMCA	
Upper Newport SMCA	
Crystal Cove SMCA	
Laguna Beach SMCA	
Dana Point SMCA	
Batiquitos Lagoon SMCA	
Swami's SMCA	
San Elijo Lagoon SMCA	
San Dieguito Lagoon SMCA	
San Diego-Scripps Coastal SMCA	
South La Jolla SMCA	
Famosa Slough SMCA	
Tijuana River Mouth SMCA	
Painted Cave SMCA	
Blue Caven Onshore SMCA	
Blue Cavern Offshore SMCA	
Casino Point SMCA	

State Marine Reserves

Point Conception SMR	Skunk Point SMR
Point Dume SMR	South Point SMR
Laguna Beach SMR	Gull Island SMR
Matlahuayl SMR	Scorpion SMR
South La Jolla SMR	Anacapa Island SMR
Cabrillo SMR	Footprint SMR
Richardson Rock SMR	Begg Rock SMR
Harris Point SMR	Santa Barbara Island SMR
Judith Rock SMR	Long Point SMR
Carrington Point SMR	

Special Closures

San Miguel Island Special Closure	Anacapa Island Special Closure
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Notes: CMA = Central Management Area; MPA = Marine Protected Area; SMCA = State Marine Conservation Area; SMR = State Marine Reserve; SMRMA = State Marine Recreational Management Area.

Source: CDFW 2023.

Areas of Special Biological Significance

Twenty-one ASBS are located in the CMA (Table 3.6-3, Figures 3.6-2a and 3.6-2b).

Table 3.6-3 Areas of Special Biological Significance in the CMA

ASBS Name	
Año Nuevo	Julia Pfeiffer Burns
Bird Rock	La Jolla
Bodega	Laguna Point to Latigo Point
Carmel Bay	Pacific Grove
Del Mar Landing	Point Lobos
Double Point	Point Reyes Headlands
Duxbury Reef	Robert E. Badham
Gerstle Cove	Salmon Creek Coast
Heisler Park	San Diego-Scripps
Irvine Coast	Saunders Reef
James V. Fitzgerald	

Notes: ASBS = Area of Special Biological Significance; CMA = Central Management Area.

Source: SWRCB 2023.

National Marine Sanctuaries

All four of the NMSs designated along the California coast (Cordell Bank, Greater Farallones, Monterey Bay, and Channel Islands NMSs) are located in the CMA.

3.6.3 Environmental Impact Analysis

METHODOLOGY

This impact analysis focuses on the potential impacts on the physical environment that may occur as a result of the reasonably foreseeable compliance responses to the proposed RAMP regulatory amendments (see Section 2.5). The environmental analysis addresses those marine biological resources that may be present in the project area, as determined by a review of relevant special-status species databases, available special-status species data, and mapping of special management areas and other biologically important areas as described in Section 3.6.2, "Environmental Setting."

THRESHOLDS OF SIGNIFICANCE

An impact on marine biological resources would be significant if implementation of the project would:

- ▶ have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW, USFWS, or NMFS; a "substantial adverse effect" is defined, for the purposes of this analysis, as one that would:
 - substantially reduce the habitat of a fish or wildlife species;
 - cause a fish or wildlife population to drop below self-sustaining levels;
 - threaten to eliminate a plant or animal community; or
 - substantially reduce the number or restrict the range of an endangered, rare, or threatened species;

- ▶ have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW, USFWS, or NMFS;
- ▶ have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- ▶ interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- ▶ conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- ▶ conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

ISSUES NOT DISCUSSED FURTHER

Special-Status Plants

The project area is located entirely in the EEZ and does not include terrestrial habitats, shallow nearshore habitats (e.g., salt marsh), or offshore island habitats where special-status plants may occur. Thus, there would be no impact on special-status plants as a result of project implementation, and this issue is not discussed further in this EIR.

Riparian Habitat or Other Sensitive Natural Communities

The project area is located entirely in the EEZ and does not include terrestrial habitat (i.e., coastal areas) where most sensitive natural communities and riparian habitat would occur. Although eelgrass beds are present in California state waters nearshore, and these habitats are considered sensitive natural communities, project implementation would not result in modification of eelgrass beds or construction of structures that could adversely affect eelgrass beds through shading. Thus, there would be no impact on riparian habitat or other sensitive natural communities as a result of project implementation, and this issue is not discussed further in this EIR.

State or Federally Protected Wetlands

The project area is located entirely in the EEZ and does not include coastal areas where state or federally protected wetlands may occur. As a result, project implementation would not result in impacts on state or federally protected wetlands, and this issue is not discussed further in this EIR.

Local Policies or Ordinances

The project area is located entirely in the EEZ, outside the jurisdiction of any local (e.g., county, city) jurisdiction; thus, the project would not be subject to any local policies or ordinances. There would be no impact related to consistency with local policies or ordinances as a result of project implementation, and this issue is not discussed further in this EIR.

Habitat Conservation Plans, Natural Community Conservation Plans, or Other Approved Local, Regional, or State Habitat Conservation Plans

The project area is located entirely in the EEZ, outside the jurisdiction of any local (e.g., county, city) jurisdiction; thus, the project is not located in the plan area of any approved habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. The project would be subject to the regulations of MPAs and NMSs where these designations overlap the project area. Project implementation would not conflict with any of these regulations. Systematic survey efforts to determine marine life concentrations would be subject to overflight restrictions and entry and activity restrictions surrounding designated MPAs. There would be no impact related to consistency with these plans as a result of project implementation, and this issue is not discussed further in this EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.6-1: Result in Disturbance to or Loss of Special-Status Wildlife Species

Project implementation would include systematic surveys to determine marine life concentrations in the project area. Implementation of these efforts could result in a minor increase in vessel and aircraft activity in the project area. Although more vessel and aircraft activity could result in an increased risk of marine mammal or sea turtle boat strikes or disturbance to special-status marine mammals, sea turtles, or seabirds, the modest increase in vessel and aircraft activity associated with survey efforts would not be substantial, and existing regulatory protections (e.g., MPAs, National Oceanic and Atmospheric Administration (NOAA) Regulated Overflight Zones, provisions of NMFS scientific research permits) would prevent adverse effects on special-status wildlife. Specific measures implemented under the RAMP regulatory amendments may include closures or delays in opening of one or more Fishing Zone(s) in response to entanglement risk, crab gear depth constraints, or other measures. Closure or delay in opening a zone could result in a location shift to another zone, which may increase the magnitude or concentration of crab fishing activities in some Fishing Zones (i.e., resulting from season closures or delays) or inshore areas (i.e., resulting from implementation of depth constraints). However, the total fishing activity in the project area would not change substantially. This impact would be **less than significant**.

Increased Vessel and Aircraft Disturbance as a Result of Implementing Systematic Surveys

The proposed project includes RAMP regulatory amendments to monitor, minimize, and mitigate entanglements of blue whales, humpback whales, and Pacific leatherback sea turtles. Systematic surveys would be conducted in fall and spring to determine marine life concentrations in each Fishing Zone to inform conservation and management efforts (e.g., closures, delays), including vessel surveys and aerial surveys. Survey results would be used to provide real-time data regarding marine life concentrations (including Actionable Species) to assess marine life entanglement risk and to inform additional management efforts (e.g., closures, delays, depth constraints). Systematic survey efforts may result in an increase in vessel traffic from typical baseline vessel traffic during these periods. In addition, aerial surveys conducted to determine marine life concentrations may result in an increase in air traffic over marine and inshore habitats compared to typical baseline air traffic.

Increased vessel traffic could result in increased likelihood of injury to or mortality of whales, dolphins, porpoises, sea turtles, or pinnipeds, including special-status species and Actionable Species identified under the RAMP regulations, from vessel strikes. The visual and auditory disturbance associated with increased vessel activity and aerial survey activity could disturb special-status marine mammals, sea turtles, or seabirds, potentially resulting in disruption of foraging behavior at sea or disruption of breeding seabirds and marine mammals on offshore rocks or inshore breeding areas. Disruption of foraging behavior is energetically costly to seabirds and marine mammals and could result in abandonment of high-quality foraging areas. Auditory or visual disturbance from vessels or aircraft could result in adult seabirds or marine mammals “flushing” from breeding sites, potentially resulting in loss of eggs (e.g., crushing, rolling off the rock, predation) or young (e.g., crushing, predation) and overall reduced breeding productivity.

Many of the important seabird and marine mammal breeding sites along the California coast are subject to protections under the Marine Life Protection Act (i.e., special closures), which limit vessel activities that could occur close to these sites, reducing the likelihood of disturbance of breeding seabirds and marine mammals. In addition, NOAA implements Regulated Overflight Zones that establish minimum altitude limits in certain areas within NMSs (i.e., Greater Farallones, Monterey Bay, Channel Islands) to prevent disturbance of seabirds and marine mammals. These Regulated Overflight Zones include many of the largest seabird and marine mammal breeding sites on the California coast. Although permits that allow aircraft to fly below these minimum altitude thresholds can be authorized for marine research purposes, permit applications require specific information about the intended altitude and duration of survey flights and are subject to the permit’s special conditions and approval of NOAA. Special closures and NOAA Regulated Overflight Zones provide protection for many of the important seabird and marine mammal breeding areas on the California coast; however, these regulations do not apply to every breeding site in California.

Systematic survey requirements under the RAMP regulatory amendments would use data collected during ongoing vessel-based and aerial surveys by entities including CDFW, NMFS, the US Coast Guard, Monterey Bay Whale Watch, and Cascadia Research Collective. Vessel-based and aerial surveys are already being conducted by these entities in some capacity; therefore, continuance of these surveys following implementation of the RAMP regulatory amendments would not necessarily result in an increase in vessel or aircraft traffic from baseline conditions. Further, entities conducting ongoing surveys for marine mammals (e.g., photo identification surveys) would be required to operate under scientific research permits from NMFS, which include limits to harassment resulting from survey activities, including Level A harassment (injury of a marine mammal) and Level B harassment (disturbance to a marine mammal resulting in disruption of behavioral patterns, including migration, breathing, nursing, breeding, feeding, or sheltering). Aerial surveys involve the risk of bird strikes. Because bird strikes can result in significant damage to an aircraft and potential death to the pilot, crew, and passengers, it is reasonable to assume that helicopter and fixed-wing aircraft pilots conducting wildlife surveys would generally implement measures to avoid bird strikes, especially over ocean environments.

Although implementation of systematic surveys to determine marine life concentrations would potentially result in an increase in vessel or aircraft traffic in the project area, because CDFW would use data collected during vessel-based and aerial surveys already being conducted by other agencies and organizations as part of the existing baseline of vessel and aircraft activity, this increase would be minor. Further, survey activities would be subject to the provisions and limitations of special closures, NOAA Regulated Overflight Zones, and NMFS scientific research permits, as well as general operational and safety measures. As a result, survey vessels and aircraft would avoid disturbance to marine mammals and seabirds, and systematic survey efforts would not result in a substantial increase in vessel or aircraft traffic in the project area.

Increased Magnitude or Concentration of Crab Fishing as a Result of Closures, Delays, or Depth Constraints

Specific measures implemented under RAMP may include closures or delays in opening of one or more Fishing Zone(s) in response to entanglement risk or other measures, including crab gear depth constraints. Crab season closures or delays are intended to reduce the risk of entanglement of Actionable Species, by responding to real-time risk metrics, including the presence of Actionable Species in a Fishing Zone. In addition to implementing closures and delays to address elevated marine life entanglement risk, the CDFW Director may delay the opening of crab fishing season in part or all of the NMA because crab meat quality is low or may close any area because of biotoxin risk, and these delays have been routinely implemented. Season closures in specific Fishing Zones could result in an increased magnitude of crab fishing (e.g., more boats, more traps) in open fishing zones if crab fishing that would have been conducted in a closed Fishing Zone shifted to an open Fishing Zone. Season delays could also result in more crab fishing over a shorter period in the Fishing Zone where the delay was implemented if the same annual crab fishing effort was conducted during the limited duration of the delayed season.

Depth constraints may be implemented to limit interactions of Actionable Species and crab fishery operations—for example, prohibiting take of crab seaward of the 50-fathom line to reduce interactions with blue whales. Depth constraints are intended to reduce the risk of entanglement of Actionable Species, by responding to real-time risk metrics, including the presence of Actionable Species in a certain depth zone. Implementation of depth constraints may result in increased concentration of crab gear closer to shore if the same number of crab traps is set.

Season closures and delays and depth constraints would be intended to reduce the risk of entanglement of Actionable Species; however, an increase in the magnitude of crab fishing or increased concentration of crab gear as a result of these specific management measures could result in an increased risk of entanglement (i.e., due to more crab traps), vessel strikes (i.e., due to more boats), or disturbance to noncovered marine mammal species or seabirds, especially those species associated with inshore areas (e.g., gray whales) where depth constraints would be implemented.

Conclusion

Impacts on special-status wildlife resulting from systematic survey efforts to determine marine life concentrations, and crab fishing delays or closures or crab gear depth constraints would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.6-2: Interfere with Wildlife Movement Corridors or Impede the Use of Wildlife Nurseries

Project implementation could result in increased vessel traffic in important wildlife migratory corridors or in the vicinity of wildlife nursery sites. Although more vessel activity could result in a disruption in the normal movement, breeding, and foraging behavior of marine organisms, the increase in vessel activity would not be substantial, and existing regulatory protections (e.g., special closures, provisions of NMFS scientific research permits) would prevent interference with wildlife movement corridors and adverse effects on wildlife nurseries. This impact would be **less than significant**.

Migration, dispersal, and other, smaller-scale movements in the project area include movements ranging from those associated with small organisms (e.g., invertebrate larval dispersal) to those associated with the largest organisms (e.g., whale migration). Movements occur over great distances (e.g., large-scale migrations) and locally (e.g., pinniped and seabird dispersal from a haul-out or rookery to offshore foraging grounds). These movements can occur in nearshore and pelagic environments and, when organisms are transiting for foraging purposes, are based on the often unpredictable locations of prey species (e.g., fish, krill).

Various types of wildlife nursery sites are present in the project area. Bays, estuaries, and eelgrass beds provide nursery habitat for many fish and invertebrate species; however, project implementation would not result in impacts on these resources. Nursery sites in the project area that could be adversely affected by project implementation include pinniped rookeries, seabird colonies, and coastal shorebird nesting areas. Wildlife movements are often centered on these sites, particularly with organisms like sea lions and common murres that are considered "central-place foragers" (i.e., organisms that return to the same place after foraging bouts). Many MPAs and special closures in the project area were designed in part to protect these sensitive nursery sites (e.g., Southwest Seal Rock Special Closure, Devil's Slide Rock Special Closure, Año Nuevo State Marine Reserve). Several known nursery sites are also located in ASBS because of their ecological importance. However, many nursery sites (e.g., small seabird colonies, small pinniped rookeries) are not adjacent to MPAs or special closures and thus would not benefit from their protective requirements.

As described above under Impact 3.6-1, implementation of the RAMP regulatory amendments is specifically intended to reduce the risk of entanglement of Actionable Species migrating or otherwise moving through the project area. However, project implementation could result in increased vessel traffic from implementation of systematic surveys to determine marine life concentrations. If these efforts were conducted in important migratory corridors or close to nursery sites or known foraging grounds, the normal movement, breeding behavior, or foraging behavior of marine wildlife species could be disrupted. Disruptions to the normal behavior of marine wildlife species could lead to abandonment of nursery sites or foraging habitat. In addition, disruption of an established movement corridor could result in increased exposure to predation if a species must move through less protected waters. Vessel operation in important migratory corridors or close to nursery sites or known foraging grounds also could result in disturbance, injury, or mortality to wildlife (e.g., vessel strikes) or interruption of normal breeding or foraging behavior.

For the same reasons described for Impact 3.6-1, above, survey vessels and aircraft would avoid substantial disturbance to wildlife movement corridors and nursery sites, and systematic survey efforts would not result in a substantial increase in vessel traffic in the project area. Impacts on wildlife movement corridors and wildlife nursery sites resulting from project implementation would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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3.7 WATER QUALITY

This section identifies the regulatory context and policies related to marine water quality, describes existing water quality conditions in the project area, and evaluates potential water quality-related impacts from reasonably foreseeable compliance actions in response to implementation of the proposed RAMP regulatory amendments.

During the public scoping period for the notice of preparation, commenters expressed concern about the potential for alternative gear (i.e., ropeless and pop-gear systems) to contain toxins and heavy metals that could degrade water quality. These comments are addressed, as appropriate, in this section.

3.7.1 Regulatory Setting

FEDERAL

Clean Water Act

The US Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) is the primary federal law that governs and authorizes water quality control activities by EPA as well as the states. Various elements of the CWA address water quality. They are discussed below.

CWA Water Quality Criteria/Standards

Pursuant to federal law, EPA has published water quality regulations under Title 40 of the Code of Federal Regulations. Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of designated beneficial uses of the water body in question and criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. As described in the discussion of state regulations, below, the State Water Resources Control Board (SWRCB) and its nine regional water quality control boards (RWQCBs) have designated authority in California to identify beneficial uses and adopt applicable water quality objectives.

CWA Section 303(d) Impaired Waters List

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that do not attain water quality objectives after implementation of required levels of treatment by point source dischargers (municipalities and industries). These lists also identify the pollutants causing the impairment. Section 303(d) requires that the state develop a total maximum daily load (TMDL) for each of the listed pollutants. The TMDL is the amount of the pollutant that the water body can receive and still comply with water quality objectives. It is also a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives. In California, implementation of TMDLs is achieved through water quality control plans, known as Basin Plans, of the state RWQCBs. The Water Quality Control Plan: Ocean Waters of California (California Ocean Plan) is applicable to point source discharges to the ocean off the coast of California.

CWA Section 311

Under Section 311 of the CWA, the discharge of fuel, oil, oily wastes, and hazardous substances into or upon the navigable waters of the United States or the waters of the contiguous zone is prohibited if such discharge causes a film or sheen on, or discoloration of, the surface of the water or causes a sludge or emulsion beneath the surface of the water. If such a discharge occurs, the violating party is responsible for control and cleanup, as well as costs incurred. Oil and chemical spills need to be reported to both the National Response Center and the state. A placard displaying discharge restrictions is required for all vessels 26 feet or longer.

CWA Section 312

Section 312 of the CWA prohibits discharge of untreated sewage into navigable waters. This section of the CWA is implemented jointly by the US Coast Guard (USCG) and EPA. Section 312 also establishes effluent standards for marine sanitation devices (i.e., onboard sewage treatment), including acceptable fecal coliform and suspended solid levels. Onboard sewage treatment systems must have a USCG certification label.

2013 National Pollutant Discharge Elimination System Vessel General Permit

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the CWA to regulate municipal and industrial discharges into surface waters of the United States. NPDES permit regulations have been established for broad categories of discharges, including point source waste discharges and nonpoint source stormwater runoff. Each NPDES permit identifies limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. The RWQCBs in California are responsible for implementing the NPDES permit system (see the discussion of state plans, policies, regulations, and laws, below).

The EPA 2013 Vessel General Permit (VGP) provides permit coverage nationwide for discharges incidental to the normal operation of commercial vessels more than 79 feet in length. This includes deck washdown runoff, above waterline hull cleaning, bilgewater/oily water separator effluent, ballast water, anti-fouling hull coating, aqueous film forming foam, boiler/economizer blowdown, cathodic protection, chain locker effluent, graywater, and more. The VGP contains numeric effluent limits for each discharge category. Small vessels and fishing vessels of all sizes are exempt from permitting under the VGP for all incidental discharges except for ballast water. Small vessels and fishing vessels of any size must follow ballast water discharge requirements established in the VGP, USCG ballast water regulations (Title 33 Part 151[D], "Ballast Water Management for Control of Nonindigenous Species in Waters of the United States), and Title 46 Part 162.060, "Ballast Water Management Systems"), and any applicable state and local government requirements. The 2013 VGP was originally set to expire in 2018 but was replaced by the Vessel Incident Discharge Act (VIDA) (further described below). VIDA discharge regulations are proposed for publishing in Fall 2024 and until those regulations are effective, the VGP regulations are in place.

Vessels less than 300 tons that do not have the capacity to hold or discharge more than 8 cubic meters of ballast water do not need to submit a Notice of Intent to obtain coverage under the VGP but must complete the Permit Authorization and Record of Inspection (PARI) form and keep a copy onboard the vessel.

Vessel Incidental Discharge Act

On December 4, 2018, the "Vessel Incidental Discharge Act" (VIDA) (Title IX of the Frank LoBiondo Coast Guard Authorization Act of 2018) was signed into law. VIDA restructures the way the EPA and the USCG regulate incidental discharges, primarily from commercial vessels, into waters of the United States and the contiguous zone. Specifically, VIDA amends CWA Section 312 to include a new subsection (p) titled, "Uniform National Standards for Discharges Incidental to Normal Operation of Vessels." This new subsection requires the EPA to develop new national standards of performance for commercial vessel discharges and the USCG to develop corresponding implementing regulations.

On October 18, 2023, the EPA's Supplemental Notice of Proposed Rulemaking to the Vessel Incidental Discharge National Standards of Performance was published in the *Federal Register* (88 FR 71788). The Supplemental Notice shared new ballast water information that EPA received from the USCG and discussed additional regulatory options for ballast tanks, hulls and associated niche areas, and graywater systems that EPA is considering for the final rule. The rule reduces the environmental impact of discharges, such as ballast water, that are incidental to the normal operation of commercial vessels. This rule streamlines the current patchwork of federal, state, and local requirements that apply to the commercial vessel community and better protects our nation's waters. The EPA has indicated that new federal discharge standards for vessels will be published in the fall of 2024. Until publication of the new standards, the existing ballast water discharge requirements established through the VGP and the USCG ballast water regulations and any applicable state and local government requirements are applicable.

Rivers and Harbors Act

The Rivers and Harbors Act of 1899 prohibits discharge of refuse matter into navigable waters, or tributaries thereof, of the United States without a permit. Permits are also required for any activities that involve excavating, filling, or

altering the course, condition, or capacity of any port, harbor, channel, or other areas covered by the act. Many of these activities are also regulated by the CWA.

Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) of 1972, as amended, provides for management of the nation's coastal resources. In 1990, the US Congress passed the Coastal Zone Act Reauthorization Amendments to address nonpoint source pollution problems in coastal waters. The California Coastal Commission (CCC) has authority for implementation of the CZMA. The CWA and CZMA require that the state develop coastal nonpoint source pollution control programs that incorporate required management measures to reduce or prevent polluted runoff to coastal waters from specific sources.

STATE

Porter-Cologne Water Quality Control Act

California's primary statute governing water quality and water pollution issues is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants SWRCB and each of the nine RWQCBs power to protect water quality and is the primary vehicle for implementation of California's responsibilities under the CWA. The RWQCBs applicable to the proposed project are the North Coast, San Francisco Bay, Central Coast, Los Angeles, Santa Ana, and San Diego RWQCBs. SWRCB and the RWQCBs have the authority and responsibility to adopt plans and policies, regulate discharges to surface water and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substances, sewage, or oil or petroleum products.

Under the Porter-Cologne Act, each RWQCB must formulate and adopt a Basin Plan for its region. The Basin Plans usually include a comprehensive list of water bodies in the region and detailed language about the components of applicable Water Quality Objectives (WQOs). They generally recognize natural water quality, existing and potential beneficial uses, and water quality problems associated with human activities. Through the Basin Plans, RWQCBs execute their regulatory authority to enforce the implementation of TMDLs and to ensure compliance with surface WQOs. The Basin Plans include both narrative and numerical WQOs designed to provide protection for all designated and potential beneficial uses in all its principal streams and tributaries. Applicable beneficial uses include municipal and domestic water supply; irrigation; noncontact and contact water recreation; groundwater recharge; freshwater replenishment; hydroelectric power generation; and preservation and enhancement of wildlife, fish, and other aquatic resources. The California Ocean Plan (2019) (discussed in the following section) was developed by SWRCB to serve the purpose of the Basin Plans for protection of ocean waters.

California Ocean Plan

The California Ocean Plan establishes beneficial uses and water quality standards for point and nonpoint discharges, as well as effluent limitations for point source discharges to the ocean (excluding bays and estuaries). The beneficial uses to be protected include industrial water supply; water contact and noncontact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Areas of Special Biological Significance; rare and endangered species; marine habitat; fish migration; fish spawning; and shellfish harvesting (SWRCB 2019). The California Ocean Plan establishes numeric water quality objectives for bacteria (such as fecal coliform) and chemical constituents relevant to protection of marine aquatic life and human health. Qualitative standards are included for physical characteristics, such as floating particulates, water color, nutrients, sediment deposition rates, trash, and biological health.

California Coastal Act

The mission of the CCC's Enforcement Program is to uphold the requirements of the California Coastal Act, which mandates protection of coastal resources, including coastal habitats, coastal public access and recreation, and other coastal resources. The Enforcement Program works to ensure that all nonexempt development along the California coast, including development in certain coastal mountains, undergoes the act's independent permit review process and secures the required Coastal Development Permit (CDP). The CCC's Enforcement Program also works to ensure

compliance with all terms and conditions of CDPs previously issued by the CCC. In certain cases, the enforcement program also helps to enforce compliance with the Local Coastal Programs of local coastal governments and the California Coastal Act.

State Nondegradation Policy

The State Nondegradation Policy states that where the existing quality of water is better than required under existing Basin Plans, such quality would be maintained and that any activity that produces waste or increases the volume or concentration of waste and that discharges to existing high-quality waters would be required to meet waste discharge requirements.

State Laws regarding Vessel Abandonment

It is illegal in California to abandon a vessel, and the California Legislature has passed multiple bills to address the issue. Assembly Bill (AB) 716 allows vessels with registrations expired for more than 1 year to be removed from a public waterway by law enforcement officers. AB 716 increased the maximum penalty for abandoning a vessel to \$3,000 and allows courts to require violators to pay the actual costs of removal and storage in addition to the fine. AB 166 created a statewide vessel turn-in program that allows owners of unwanted boats to give vessels to a public agency for disposal rather than abandon them.

California Fish and Game Code

The commercial Dungeness crab fishery in California is regulated primarily by California Fish and Game Code (FGC) Section 8275 et seq. This section addresses season dates and a trap limit program; the implementing regulations are found in 14 CCR Sections 132.1 and 132.2. FGC Section 9002.5 requires CDFW to develop a program that facilitates retrieval of lost and abandoned commercial crab traps following the end of the fishing season; the implementing regulations are found in 14 CCR Section 132.7. FGC Section 9004 describes gear servicing requirements—specifically, that each trap shall be raised, cleaned, and serviced at intervals not to exceed 96 hours and that no trap shall be abandoned in the waters of the state.

LOCAL

City and County General Plans and Zoning

Cities and counties are required to prepare a comprehensive planning document in order to guide future development at the local level. Goals and policies that regulate water quality typically are included in required elements. Some local jurisdictions have authority offshore.

Bay Management Plans

Bay management plans (e.g., Humboldt Bay Management Plan) identify policies to guide development in and around bay areas and include consideration of water quality.

3.7.2 Environmental Setting

OCEAN CURRENTS

The California coast represents a tectonically active continental margin dominated by processes such as uplift, erosion, and seismic activity, much of which is associated with transform plate movement along the San Andreas Fault. Consequently, the coast in most areas drops quickly into deep water. Generally, the continental shelf is only a few miles wide, although in some parts of the Southern California Bight south of Point Conception it becomes substantially wider. The waters off California are part of the California Current System (CCS), a highly productive marine ecosystem spanning the West Coast of North America from British Columbia to Baja California (Talley et al. 2011). The CCS comprises the California Current, the California Undercurrent, the Davidson Current, and the Southern California Countercurrent (Hickey 1979). Cool water from high latitudes flows south from British Columbia to Baja

California while wind blows from land to sea, pushing ocean surface waters away from the coast and allowing cooler, nutrient-rich water to rise and take its place, a process known as upwelling (NASA 2016). Like other oceanic eastern boundary current systems, the CCS experiences significant, sustained upwelling events driven by large-scale wind and circulation patterns (Carr and Kearns 2003; Talley et al. 2011).

The California Current Integrated Ecosystem Assessment (CCIEA) team identifies three basin-scale oceanographic phenomena that influence dynamics of the CCS: El Niño Southern Oscillation (ENSO), Pacific Decadal Oscillation (PDO), and North Pacific Gyre Oscillation (NPGO) (Harvey et al. 2022).

ENSO has three states: neutral, El Niño, and La Niña. During ENSO neutral years, trade winds move warm surface waters from the eastern Pacific to the western Pacific, driving upwelling along the coast of South America. During El Niño, the high-pressure system over the western Pacific weakens, allowing warm surface waters to move from the western Pacific toward the Americas, reducing upwelling and productivity in the eastern Pacific. During La Niña, trade winds strengthen, intensifying upwelling in the eastern Pacific, bringing cool water to the surface of the Americas' west coast. The CCIEA tracks ENSO conditions through the Oceanic Niño Index (ONI), which is a 3-month running mean of sea surface temperature (SST) anomalies in the Niño 3.4 region (120–150° W. longitude and 5° N. latitude–5° S. latitude). ONI values above 0.5 degree Celsius (°C) indicate El Niño conditions, and values below -0.5°C indicate La Niña conditions. The cycling between El Niño, La Niña, and ENSO-neutral conditions is variable in both periodicity and intensity but typically recurs every 2–10 years.

The PDO also reflects anomalies in SST, with positive values (warmer temperatures) indicating lower productivity and lower values (colder temperatures) reflecting higher productivity conditions (Harvey et al. 2022). Cycling between the warm and cool phases of the PDO occurs on longer timescales than ENSO, typically on 20- to 30-year intervals (Harvey et al. 2022).

The NPGO is an index of sea surface height, indicating basin-scale circulation patterns. Positive NPGO values are associated with higher flows of nutrient-rich subarctic waters toward the equator, supporting more productive coastal ecosystems, and negative NPGO values are associated with decreased contributions of subarctic waters and lower productivity (Harvey et al. 2022).

Skogsberg (1936) suggested that three trends broadly apply to the CCS: a spring/summer “upwelling season,” a summer/fall “oceanic season,” and a winter “Davidson Current season.” Persistent, low-magnitude upwelling occurs nearly year-round below Point Conception, and the upwelling season shortens with increasing latitude. Between Point Conception and Cape Mendocino, relatively consistent upwelling of a moderate magnitude occurs from March to October. The highest magnitude upwelling is seen north of Cape Mendocino between April and October, with a peak in July. Complex coastal topography (e.g., capes, points, and peninsulas) and bathymetry (e.g., banks and canyons) can alter upwelling patterns and associated productivity (Huyer 1983; Marchesiello et al. 2003). Upwelling phenology is also affected by basin-scale changes in oceanographic circulation, including ENSO and PDO (Bograd et al. 2009). Specifically, increased advection of southern source water associated with El Niño events can result in dramatic declines in productivity and shifts in community structure, whereas during the cold phases of ENSO, the coastal ecosystem is characterized by intensified transport of nutrient-rich northern waters and increased productivity (Checkley and Barth 2009).

Variations in large-scale atmospheric forcing can also influence upwelling dynamics and ecosystem productivity in the CCS. The North Pacific High (NPH) is a semipermanent area of high pressure (>1020 Pascals) in the North Pacific Ocean, and variation in both the size and location of the NPH affects the timing and strength of coastal upwelling off California (Schroeder et al. 2013). Climate change may alter historical upwelling dynamics. Brady et al. (2017) anticipate that in the latter half of the 21st century, seasonal upwelling in the CCS will be characterized by a more intense spring transition (shift from downwelling to upwelling) and a reduction in total seasonal upwelling. These changes could lead to higher, rather than lower, productivity if more moderate levels of upwelling recalibrate the balance between advection and available nutrients. Between 2014 and 2016, typical seasonal dynamics in the Northeast Pacific were disrupted by a Large Marine Heatwave (LMH) event colloquially known as “The Blob.” Driven by changes in sea level pressure (Bond et al. 2015), this LMH event had profound impacts on ocean circulation patterns that cascaded throughout the ecosystems of the CCS. One such restricted upwelling event occurred in the

2015-2016 period that compressed available forage into a relatively narrow band along the coast (Santora et al. 2020). When large whales arrived off the California coast, their distribution was similarly compressed into nearshore areas where active Dungeness crab fishing was occurring. The convergence of these factors likely contributed to the record number of confirmed large whale entanglements along the West Coast in 2016 (n = 56), 22 (39 percent) of which involved California commercial Dungeness crab gear.

MARINE WATER QUALITY

A wide range of pollution sources, both land and water based, affect marine water quality in the project area. Nearshore impairment of water quality can result from municipal sewage discharges, industrial waste discharges, dredge spoils, and agricultural and urban runoff. Treated wastewater discharges associated with urbanized areas can contain both domestic and industrial wastes. Storm runoff from urbanized and nonurbanized areas can contain a variety of pollutants, with agricultural watersheds often contributing loads of pesticides and nutrients to nearshore waters. When water quality is poor, the ability of coastal ecosystems to support healthy fisheries, recreational opportunities, and other beneficial uses is undermined.

The five factors that affect offshore water quality in the project area are described below. Depending on the specific location along the coast, any one or all of these factors can be of concern to the general water quality of the area (CFGF 2016):

- ▶ **Point Source Pollution:** There are specific locations (point sources) where industrial pollution enters coastal waters. Discharges from these locations are generally regulated by state or federal agencies. The origins of these point sources include municipal wastewater treatment and disposal systems and industrial sites, such as desalination plants, power plants, aquaculture sites, and research marine laboratories. In addition, outfalls for untreated stormwater may contain pollutants, such as bacteria, trash, petroleum hydrocarbons, and heavy metals.
- ▶ **Nonpoint Source Pollution:** Nonpoint source pollution is the leading cause of degraded water bodies across the country. Nonpoint pollution sources include urban runoff, resource extraction (offshore energy extraction, sand mining, forestry operations, drilling and pumping of petroleum products onshore), boats (recreational vessels, commercial vessels, and cruise ships), and agriculture. Potential nonpoint source pollution in the project area includes sediment, pesticides, fertilizers, trash, salt, oils, heavy metals, grease, plastics, bacteria, and nutrients.
- ▶ **Algal Blooms:** Certain species of phytoplankton and cyanobacteria pose threats to marine water quality through rapid reproduction and depletion of dissolved oxygen or release of toxins. Harmful algal blooms occur naturally in surface waters under conditions of elevated water temperature, high nutrient levels, and reduced water flow and circulation.
- ▶ **Contaminated Sediments:** Some areas along the California coast have contaminated sediments and have been designated as Superfund sites by the federal government.
- ▶ **Oil and Hazardous Material Spills:** California has been the site of numerous accidental oil spills related to heavy oil and hazardous material tanker traffic, marine shipping, the presence of oil platforms located off the southern California coast, and crude oil and refined product pipelines running from platforms to onshore sites, as well as along the coast.

SWRCB has documented locations of water quality impairment, where pollutants have impaired the ability of water bodies to support their beneficial uses. Several streams and rivers are listed as impaired by pollutants that flow into the Pacific Ocean off the coast of California. Only a few areas of coastal water in the project area are listed as being impaired. Areas listed as impaired in the project area include Humboldt Bay, which is listed for dioxin toxic equivalents and polychlorinated biphenyls (PCBs); Tomales Bay, which is listed for sedimentation/siltation, nutrients, mercury, and pathogens; the Pacific Ocean (between Point Año Nuevo and Sequel Point), which is listed for Dieldrin (insecticide); Santa Monica Bay, which is listed for PCBs, trash, mercury, arsenic, dichlorodiphenyltrichloroethan (DDT); Los Angeles/Long Beach Outer Harbor, which is listed for PCBs, DDT, and toxicity; and Anaheim Bay, which is listed for nickel, toxicity, and PCBs (SWRCB 2023).

3.7.3 Environmental Impact Analysis

METHODOLOGY

Evaluation of potential water quality impacts is based on a review of existing documents and studies that address ocean water conditions and resources along the coast of California. Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify potential environmental effects, based on the thresholds of significance presented in this section. In determining the level of significance, the analysis assumes that the project would comply with relevant federal, state, and local laws, ordinances, and regulations.

THRESHOLDS OF SIGNIFICANCE

An impact on water quality would be significant if implementation of the project would:

- ▶ violate any water quality standards or waste discharge requirements or otherwise substantially degrade ocean water quality or
- ▶ conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

ISSUES NOT DISCUSSED FURTHER

Groundwater Sustainability

The project would be implemented in the ocean with no land-based facilities. Therefore, the project would have no impact on groundwater supply or onshore surface water quality. Because conflicts with or obstruction of sustainable groundwater management plans would not occur, this issue is not discussed further in this EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.7-1: Violate Any Water Quality Standards, Waste Discharge Requirements, or Water Quality Control Plan or Otherwise Substantially Degrade Ocean Water Quality

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of Dungeness crab vessel permits issued and would result in only a limited increase in the number of survey vessel trips. This small increase in the number of survey vessel trips relative to the total number of vessels in the project area would not constitute a significant water quality impact related to the accidental release of pollutants from maintenance activities or spills or from pollutants washed from the surface of the vessels. Ballast water releases from fishing vessels are regulated by the 2013 VGP and in the future will be regulated by discharge standards established in the VIDA when they are published. The VGP establishes numeric discharge limitations and best management practices for ballast water. Implementation of the proposed RAMP regulatory amendments would not increase the number of crab traps deployed. In addition, each trap is isolated spatially from other traps and is less than 5 feet in diameter. Disturbed seafloor sediment from crab trap deployment is dispersed by the current and resettles on the ocean floor and does not cause a significant water quality impact. All alternative fishing gear in the California Dungeness crab fishery is required to be reviewed and certified by CDFW before use and to comply with all federal, state, and local regulations. No violations or impairment of water quality standards or beneficial uses would result from implementation of the project. Therefore, this impact would be **less than significant**.

Vessel-Related Pollutants

The CWA prohibits the discharge of pollutants into navigable waters of the United States, but accidental releases can occur. Boating-related activities can cause water pollution from accidental release of antifouling paint, sewage, petroleum products, wastewater, and trash during maintenance activities or spills. Antifouling paint used on boat hulls to reduce plant and animal growth contains harmful chemicals, such as copper and lead. These chemicals can

have adverse effects on water quality. Efforts are in place to encourage a transition to the use of nonmetal, antifouling paints. Any materials stored or used on the vessel surface have the potential to be washed into the ocean during rain or high-wave events. These materials include cleaning fluids, mechanical equipment maintenance fluids, and other pollutants that could affect water quality in the ocean. The more vessel trips associated with implementation of the proposed RAMP regulatory amendments, the more likely vessel-related pollutants could degrade water quality.

The California Legislature first implemented a restricted access program for the Dungeness crab fishery in 1995, capping the fishery at 681 permits through AB 3337. A trap limit program to further control effort was established in 2013 (SB 369). The total number of permits for the fishery is now capped based on the most recent total number of renewed permits and permit holders are divided into seven tiers with a cap on allotted traps for each tier. In 2023, 521 permits were renewed for the 2023-2024 Fishing Season. Therefore, the fishery would be capped at no more than 521 permits under the proposed project. Each vessel is issued one permit. Therefore, the number of active fishing vessels would not be greater than the highest number used in the past. It is assumed that all these boats are moored at a harbor or marina and are in the water regardless of fishing season length; therefore, the length of the fishing season would not alter the water quality impact associated with accidental release of pollutants.

Implementation of the proposed RAMP regulatory amendments would slightly increase the number of vessels used for surveys. Under current conditions, there are fewer than 10 survey vessel trips per season. This number would increase slightly under the project, which would result in a slightly higher risk of release of pollutants related to maintenance or spill or from being washed from the surface of the vessel. This small increase in the number of vessel trips would be insignificant relative to the total number of all vessels in the project area.

The 2013 VGP establishes numeric effluent limits and best management practices for ballast water to protect water quality. Each vessel with coverage under the VGP is required to create a Ballast Water Management Plan that outlines how they will implement mandatory ballast water management practices. The 2013 VGP was originally set to expire in 2018 and be replaced by the VIDA. VIDA discharge regulations are proposed for publishing in the Fall of 2024 and, until those regulations are effective, the VGP regulations remain in effect.

Seafloor Disturbance

When crab traps are set or pulled up from the ocean floor, they cause minor suspension of the surface layer of sediments on the seafloor. This increase in turbidity temporarily affects water quality in the immediately surrounding area. However, suspended material is dispersed by the current and eventually settles back to the seafloor. Traps are typically 3 to 3.5 feet in diameter and are dispersed throughout a fishing area. Only one trap is permitted per line per FGC Section 9012, which prevents multi-trap trawls that would drag on the seafloor and cause increased disturbance when the line is pulled up. CDFW estimates that the number of traps deployed during the 2022-2023 season was 106,006 (CDFW 2024). This would result in a temporary, isolated disturbed area of approximately 23 acres per year over the entire project area of 141,954,505 acres.

Pollutants in Alternative Gear

The RAMP regulatory amendments would encourage the use of alternative, ropeless gear to decrease the risk of entanglement for sea animals. Ropeless and pop-up gear systems could contain potentially toxic plastics and microplastics and computer, battery, and heavy metal components that could, if in mass use, contribute to a decrease in water quality. These systems could consist of acoustic receivers, galvanic timed buoy and rope release devices, electronic timed-release devices, or compressed gas canisters. The RAMP regulations established a process for CDFW certification of alternative gear under 14 CCR Section 132.8 (Objective 2b). Alternative gear performance standards include detectability, reliability of retrieval, identifiability, and reduction in risk or severity of entanglement with marine life. Alternative gear must also comply with all applicable federal, state, and local laws as listed in Section 3.7.1, "Regulatory Setting," above. Upon certification, alternative gear would become legal commercial fishing gear and could be used by all participants. The required certification from CDFW and federal, state, and local oversight for alternative gear would reduce the potential that alternative gear components would result in water quality degradation.

Water Quality Plans

Coastal water quality in the project area is affected by point source discharges, stormwater discharges, nonpoint source pollution, agricultural activities, forestry operations, urban areas, hydrologic modification, ports, harbors, marinas, and associated vessels. Implementation of the proposed RAMP regulatory amendments would not directly affect existing water quality impairments.

Implementation of the project would not conflict with any aspect of the established water quality standards for California's coast, bays, lagoons, or estuarine waters. Based on the evaluation presented above, there would be no substantial changes to water quality that would adversely affect aquatic life or human health. Therefore, no violations or impairment of water quality standards or beneficial uses would result from implementing the proposed project.

Conclusion

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of permits issued or the number of vessels used for fishing and would result in only a limited increase in the number of survey vessel trips. This small increase in the number of boat trips relative to the total number of all vessels in the project area would not constitute a significant marine water quality impact from accidental release of pollutants related to maintenance activities, spills, or wash from the surface of the vessel. Each Dungeness crab trap is small and isolated spatially from other traps; therefore, the sediment that is disturbed by trap deployment and retrieval disperses and resettles on the ocean floor and would not constitute a significant water quality impact. The VGP establishes numeric effluent limitations and requires best management practices to prevent water quality impacts from ballast water. Alternative gear is required to be reviewed and certified by CDFW before use and must comply with all federal, state, and local regulations described in Section 3.7.1, "Regulatory Setting," above. Implementation of the project would not conflict with any aspect of the established water quality standards for California's coast, bays, lagoons, or estuarine waters. Based on the evaluation presented above, there would be no significant changes to water quality under the project that would adversely affect aquatic life or human health. No violations or impairment of water quality standards or beneficial uses would result from implementing the project. Therefore, the impact of project implementation on water quality would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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4 CUMULATIVE IMPACTS

4.1 INTRODUCTION TO THE CUMULATIVE ANALYSIS

This EIR provides an analysis of cumulative impacts associated with implementation of the proposed RAMP regulatory amendments taken together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. The goal of such an exercise is twofold: first, to determine whether the overall long-term impacts of all such projects would be cumulatively significant, and second, to determine whether the incremental contribution to any such cumulatively significant impacts by the project would be “cumulatively considerable” (and thus significant). (See State CEQA Guidelines Sections 15130[a]–[b], Section 15355[b], Section 15064[h], and Section 15065[c]; and *Communities for a Better Environment v. California Resources Agency* [2002] 103 Cal. App. 4th 98, 120.) In other words, the required analysis intends first to create a broad context in which to assess cumulative impacts, viewed on a geographic scale beyond the project site itself, and then to determine whether the project’s incremental contribution to any significant cumulative impacts from other past, present, or probable future projects is itself significant (i.e., “cumulatively considerable”).

Cumulative impacts are defined in State CEQA Guidelines Section 15355 as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” A cumulative impact occurs from “the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time” (State CEQA Guidelines Section 15355[b]).

Consistent with State CEQA Guidelines Section 15130, the discussion of cumulative impacts in this EIR focuses on significant and potentially significant cumulative impacts. Section 15130(b) of the State CEQA Guidelines provides, in part, the following guidance:

The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

A proposed project is considered to have a significant cumulative effect if:

- ▶ the cumulative effects of related activities without the project are not significant and the project’s additional impact is substantial enough, when added to the cumulative effects, to result in a significant impact; or
- ▶ the cumulative effects of related activities without the project are already significant and the project contributes measurably to the effect.

The term “measurably” is subject to interpretation. The standards used herein to determine measurability are that the impact must be noticeable to a reasonable person or must exceed an established threshold of significance (defined throughout the resource sections in Chapter 3 of this EIR).

An adequate discussion of significant cumulative impacts must include either a list of past, present, and probable future projects producing related or cumulative effects or a summary of projections from an adopted local, regional, or statewide plan, related planning document, or related environmental document that describes conditions contributing to the cumulative effect (State CEQA Guidelines Section 15130[b][1]).

Because of the extensive project area under consideration, the following discussion includes a description of the general types of projects that occur or could occur in the project area and could contribute to cumulative impacts in the project area.

4.2 CUMULATIVE SETTING

4.2.1 Geographic Scope

The geographic area that could be affected by the project and is appropriate for a cumulative impact analysis varies depending on the environmental resource topic, as presented in Table 4-1.

Table 4-1 Geographic Scope of Cumulative Impacts

Resource Topic	Geographic Area
Air Quality	Regional (affected air basin—pollutant emissions that have regional effects) Local (immediate project vicinity—pollutant emissions that are highly localized)
Archaeological, Historical, and Tribal Cultural Resources	Regional (affected tribal territories)
Greenhouse Gas Emissions and Climate Change	Global
Hazards and Hazardous Materials	Local (project vicinity)
Marine Biological Resources	Regional (special-status species populations) Local (project vicinity)
Water Quality	Regional (offshore) Local (onshore—immediate project vicinity)

Source: Compiled by Ascent in 2024.

4.2.2 Types of Existing or Potential Future Activities in the Project Area

Because of the extensive project area under consideration, including a list of specific projects is not feasible. Descriptions of the general types of activities that exist and are anticipated to occur in the project area and could contribute to cumulative impacts are presented below.

COMMERCIAL AND RECREATIONAL FISHERIES

Commercial fisheries span the coast from northern to southern California. Both recreational and commercial fishermen follow the regulations promulgated by the California Fish and Game Commission (Commission) and enforced by CDFW in state waters and NMFS and the Pacific Fishery Management Council in federal waters. For many years, there has been significant commercial fishing off the California coast consisting of a great variety of fisheries, for both finfish and shellfish. In 2019, commercial fishing in California generated 143,753 jobs and \$715 million in sales (US Department of Commerce 2022). Recreational fishing off the coast of California includes various activities, including charters (e.g., live-aboard lobster dive charters, sport fishing charters), shore fishing, and use of personal sport fishing boats. In 2019, more than 3.4 million fishing trips in California generated approximately \$1.2 billion in sales (US Department of Commerce 2022).

In 2023, 27 whale entanglements in commercial gear were reported off the coast of California, Oregon, and Washington. Most of the large whale entanglements reported were associated with specific fisheries or gear types (NOAA 2023a). Potential cumulative impacts associated with other commercial and recreational fisheries include disturbance to marine bird, mammal and sea turtle migration, feeding, and breeding. Commercial and recreational fishing can also result in mortality to unmarketable or nontarget fish species as a result of incidental catch (also referred to as bycatch).

ENERGY DEVELOPMENT

Oil and Gas Development

Off the coast of California, oil and natural gas development occurs in both federal and state waters. The Pacific Outer Continental Shelf Region of the US Bureau of Ocean Energy Management (BOEM) manages oil and gas facilities in federal waters offshore of California. Thirty federal oil and gas leases offshore of southern California cover approximately 89 million acres (BOEM 2024).

Existing oil and gas facilities in state waters are managed by the California Coastal Commission (CCC), California State Lands Commission, and any local government with authority offshore. Oil production from offshore wells accounts for roughly 15 percent of California's total oil production. New oil and gas development along the coast of California is limited by the fact that there is a moratorium on new offshore oil and gas leasing in federal and state waters (BOEM 2022).

The types of potential impacts of existing and future oil development that could combine with the effects of the proposed RAMP regulatory amendments include temporary construction effects on water quality and marine biota and risk of damage to biological resources and water quality from vessel discharges and oil leaks.

Ocean Energy, Including Offshore Wind and Wave Energy

The development of renewable energy from the ocean is of increasing interest off the coast of California. Sources of renewable ocean energy include wind, waves, ocean currents, and the sun. BOEM is the bureau in the US Department of the Interior responsible for managing development of the nation's offshore energy resources in an environmentally and economically responsible way. In September 2021, the California Legislature passed, and the governor signed, Assembly Bill (AB) 525, which requires the California Energy Commission, in coordination with the CCC, Ocean Protection Council, California State Lands Commission, Office of Planning and Research, CDFW, Governor's Office of Business and Economic Development, California Independent System Operator, Public Utilities Commission, and other relevant federal, state, and local agencies as needed, to develop a strategic plan for offshore wind energy developments installed off the California coast in federal waters and to submit it to the California Natural Resources Agency and the legislature no later than June 30, 2023 (CEC 2023).

In 2021, xWave, California's first at-sea, long-duration wave energy pilot project was launched off Scripps Pier in La Jolla. The 15-foot-long xWave prototype is anchored at the test site and deployed in water nearly 100 feet deep. The project converts wave energy into electricity (US Department of Energy 2022).

The types of impacts of ocean energy development that could potentially combine with the effects of the project include hazards to migrating marine mammals, sea turtles, and fish, localized water quality degradation from equipment leakage and sediment disturbance, and destruction of marine life.

TRANSMISSION AND TELECOMMUNICATION LINES

The California Energy Commission regulates the construction and operation of transmission and telecommunication lines off the coast of California. Transmission and telecommunication lines typically are laid on or buried in the seafloor and may extend across the project area, from the shoreline to the outer edge of the coastal zone. Many telecommunication lines extend across oceans connecting the United States to other countries, such as Asia and Australia. Transmission lines are associated with offshore oil, gas facilities, and renewable energy.

The types of impacts associated with installation of transmission and telecommunication lines that could potentially combine with the effects of the project include water quality degradation from sediment disturbance and hazards to marine mammals, sea turtles, and fish migration.

MARINE TRANSPORTATION

Shipping channels and safe transport lanes are demarcated throughout the project area and offshore in federally regulated waters. The demarcated lanes are regulated for safe passage by large ocean-going vessels that do not often enter the nearshore zone except to make calls at ports with facilities and physical conditions that can accommodate larger vessels. In addition to state-regulated and federally regulated maritime traffic, the project area supports a large volume of recreational and commercial boaters operating closer to shore (sheltered and protected waters and nearshore waters). Recreational vessels include the fishing vessels discussed above, dive boats, and whale watching vessels. Popular locations for whale watching include southern California, Monterey Bay, Santa Cruz, the Gulf of Farallones, and Mendocino. Gray whales, humpback whales, dolphins, blue whales, and orcas migrate along the coast of California each year.

A serious concern exists about the number of whales seriously injured or killed as a result of vessel strikes. Several large whale species found off the coast of California are vulnerable to vessel strikes because they migrate and feed along the coast in areas with heavy shipping traffic (NOAA 2023b). Potential cumulative impacts associated with marine transportation include injury and death of marine wildlife, specifically whale species; air emissions; and water quality degradation.

MARINE AQUACULTURE

Marine aquaculture in California includes production of fish, shellfish, algae, and seaweed. Most of the seafood farmed in California is in freshwater systems, but there are important marine aquaculture operations along the state's coast. For example, oysters are grown in Humboldt, Tomales, Morro, and San Diego Bays, and in Agua Hedionda Lagoon just north of San Diego. Mussel farms are located in the Santa Barbara Channel and off Long Beach, with a permit pending for significant expansion of mussel farming off the coast of Ventura. Abalone are raised both on land in Santa Barbara, Cayucos (near Morro Bay), Davenport (near Santa Cruz) and in the ocean under a wharf in Monterey (California Sea Grant 2024). Other farmed shellfish in California include scallops and clams (CDFW 2020).

Most current marine aquaculture operations in California occur in intertidal waters that are shielded from exposure to the open ocean, such as bays and estuaries. The intertidal zone, also known as foreshore and seashore and sometimes referred to as the littoral zone, is the area that is above water at low tide and underwater at high tide. Intertidal zones along the California coast include sandy beaches, rocky shores, tidal flats, and coastal marsh along the shores of estuaries and lagoons. Shellfish farmers employ on- and off-bottom culture techniques with mesh bags and trays, floating bags and trays, rack and bag, and long lines suspended from submerged lines and floats. Finfish production in California occurs in ponds, raceways, and recirculating systems on land.

The impacts associated with marine aquaculture that could combine with the effects of the proposed RAMP regulatory amendments include air emissions and water quality degradation from construction of aquaculture facilities and disturbance to or destruction of marine life.

4.2.3 Programs and Plans Applicable to the Project Area

The following overarching plans and programs apply to or affect the project area.

MARINE PROTECTED AREAS

In California, CDFW has taken a regional approach to implementing the Marine Life Protection Act. The act directs the state to evaluate Marine Protected Areas (MPAs) to improve recreational, educational, and research opportunities. An MPA is a discrete area located seaward of the mean high tide line that is managed with regulations that are more restrictive than the regulations in the general area, designed to protect or conserve marine life and habitat.

The California MPA Network (California's Network) is divided into five regions:

- ▶ North Coast—California/Oregon border to Alder Creek near Point Arena,

- ▶ North Central Coast—Alder Creek to Pigeon Point,
- ▶ Central Coast—Pigeon Point to Point Conception,
- ▶ South Coast—Point Conception to the California-Mexico border, and
- ▶ San Francisco Bay—waters in San Francisco Bay.

Different types of marine managed area (MMA) designations are used in California's MPA Network, reflecting a range of allowed uses and resource protection levels. MMAs are named, discrete geographic marine or estuarine areas along the California coast designated by law or administrative action, and intended to protect, conserve, or otherwise manage a variety of resources and their uses. MPAs are a subset of MMAs that are defined as named, discrete geographic marine or estuarine areas seaward of the mean high tide line or the mouth of a coastal river, including any area of intertidal or subtidal terrain, together with its overlying water and associated flora and fauna, that have been designated by law or administrative action to protect or conserve marine life and habitat. California's Network includes three MPA designations (State Marine Reserve, State Marine Conservation Area, State Marine Park), one MMA specific designation (State Marine Recreational Management Area), and special closures. The more common term "MPA" is used throughout this discussion as an umbrella term to refer to all types of protected areas in California's Network.

NATIONAL MARINE SANCTUARIES

Across the United States, the National Oceanic and Atmospheric Administration (NOAA) manages 15 national marine sanctuaries and two marine national monuments. The West Coast Regional Office manages four of these national marine sanctuaries, which encompass 11,388 square miles along California's coast: the Channel Islands, Cordell Bank, Greater Farallones, and Monterey Bay (NOAA 2023c). Each of these sanctuaries provides comprehensive and coordinated conservation management through the implementation of a management plan. Each management plan includes a policy framework that guides current and future activities in the sanctuary (NOAA 2023c).

CALIFORNIA COASTAL NATIONAL MONUMENT

The US Bureau of Land Management (BLM) manages more than 20,000 rocks, islands, exposed reefs, and pinnacles off the California coast, as well as 7,924 acres of public land in six onshore units: Trinidad Head, Waluplh-Lighthouse Ranch, Lost Coast Headlands, Point Arena-Stornetta, Cotoni-Coast Dairies, and Piedras Blancas. BLM prepares resource management plans that serve as land use management tools for sensitive resources. The plans contain guidance, objectives, policies, and management actions designed to resolve a wide range of natural resource and land use issues that exist for this picturesque portion of California's coastal landscape. BLM manages only the portions of these rocks and islands that extend above the mean high tide line, so submerged lands in state waters are the responsibility of the State of California. The principal focus of the resource management plans is the protection and preservation of the geologic, biological, and cultural values that exist on these federal lands. Development of any kind is discouraged on California Coastal National Monuments (BLM 2023).

EXPERIMENTAL FISHING PERMIT PROGRAM

Effective January 1, 2019, AB 1573 added California Fish and Game Code (FGC) Section 1022, which provides for a state Experimental Fishing Permit (EFP) Program to facilitate fishery-related exploration and experimentation to inform fisheries management. Under the EFP Program, the Commission has the authority to approve commercial or recreational marine fishing activities for the purposes of research, education, limited testing, data collection, compensation fishing, conservation engineering, exploratory fishing, or any combination of these purposes that would otherwise be prohibited by FGC or applicable regulations. EFPs are issued by CDFW, subject to conditions and requirements deemed necessary by the Commission to ensure that activities authorized under an EFP are consistent with overarching state management goals and policies set forth in FGC Section 7050 and any applicable fishery

management plan, pursuant to 14 CCR Section 91. The EFP Program allows for the collection of crucial data and development of information that could inform future management decisions for state-managed fisheries.

4.3 ANALYSIS OF CUMULATIVE IMPACTS

This section presents a discussion of the cumulative effects anticipated from implementation of the proposed RAMP regulatory amendments, together with related projects and activities in the project area for each of the six environmental issue areas evaluated in this EIR. The analysis conforms with Section 15130(b) of the State CEQA Guidelines, which specifies that the “discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.”

When considered in relation to other reasonably foreseeable projects, cumulative impacts on some resources could be significant and more severe than those caused by the proposed project alone.

For purposes of this EIR, implementing the project would result in a significant cumulative effect if:

- ▶ the cumulative effects of related projects (past, current, and probable future projects) are not significant and the incremental impact of implementing the proposed RAMP regulatory amendments would be substantial enough, when added to the cumulative effects of related projects, to result in a new cumulatively significant impact; or
- ▶ the cumulative effects of related projects (past, current, and probable future projects) are already significant and implementation of the proposed RAMP regulatory amendments would make a considerable contribution to the effect. The standards used herein to determine a considerable contribution are that either the impact must be substantial or it must exceed an established threshold of significance.

This cumulative analysis assumes that all elements of the project that would minimize environmental effects are implemented. The analysis herein discusses whether, after implementation of project-specific conservation measures that minimize environmental effects, the residual impacts of the project would cause a cumulatively significant impact or would contribute considerably to existing/anticipated (without the project) cumulatively significant effects. Where the project would contribute, additional mitigation is recommended where feasible.

4.3.1 Air Quality

The cumulative context for air quality is the EEZ and coastal air basins. Future levels of emissions from cumulative projects would be a function of the type and scale of the activities under construction and operation, including those described in Sections 4.2.2 and 4.2.3. Projected increases in population would likely increase traffic and associated emissions. Existing emissions have resulted in an existing significant cumulative effect on air quality in coastal counties, specifically in those air districts that are not in attainment of ambient air quality standards. Cumulative development and future population growth would continue to contribute to air pollutant emissions.

Implementing the project would not result in any construction-related emissions. Operation-related emissions associated with continuation of seasonal operation of the commercial Dungeness crab fishery would occur, including emissions of criteria air pollutants from fishing vessels and aircraft associated with fishing activities and marine life concentration surveys. As discussed for Impact 3.2-1, the level of vessel activity associated with the project would not be substantially greater than the current level related to commercial harvest of Dungeness crab. The air quality impact associated with the project would be less than significant. Therefore, implementing the project **would not result in a considerable contribution to a significant cumulative impact** on air quality.

4.3.2 Archaeological, Historical, and Tribal Cultural Resources

The cumulative context for archaeological, historical, and tribal cultural resources is the region of the project area, which includes the continental shelf off the entire state of California. Because all significant archaeological and tribal cultural resources are unique and nonrenewable members of finite classes, meaning there are a limited number of these resources, all adverse effects erode a dwindling resource base. The loss of any one site could affect the scientific and religious value of others in a region because these resources are best understood in the context of the entirety of the cultural system of which they are a part. The archaeological and tribal cultural system is represented by the total inventory of all sites and other remains in the region. As a result, a meaningful approach to preserving and managing these resources must focus on the likely distribution of cultural resources rather than on a single project or parcel boundary.

The historic lands of California tribal peoples, including lands along the California coast, have been affected by development since the arrival of Sir Francis Drake of England in 1579, and the impact quickly grew with the establishment of 21 missions from San Diego to Sonoma between 1769 and 1821. Development of tribal lands continued with the discovery of gold, followed by California's admission to statehood in 1850, the agricultural boom from the late 1800s through the 1930s, and the post-World War II population growth. Similarly, historic resources throughout California have been affected by suburban sprawl, downtown redevelopment projects, and transportation projects. These activities have resulted in an existing significant cumulative effect on historic resources, archaeological resources, tribal cultural resources, and human remains. Cumulative development, including that described in Section 4.2.3, continues to contribute to the disturbance and degradation of cultural resources.

As discussed in Section 3.3, "Archaeological, Historical, and Tribal Cultural Resources," because the reasonably foreseeable compliance responses to the project would not include any activities that could result in damage to buildings or structures, there would be no impact on historical resources with implementation of the proposed RAMP regulatory amendments. As discussed under Impact 3.3-1, impacts on undiscovered subsurface unique archaeological resources resulting from implementation of the reasonably foreseeable compliance responses to the project, including Fishing Zone opening delays and early closures, systematic vessel and aircraft surveys to determine marine life concentrations throughout the project area would be less than significant because additional seafloor-disturbing activities above baseline conditions would not occur and because current state law prohibits all unauthorized salvage and removal of artifacts from submerged shipwrecks, aircraft, and other archaeological resources in state waters. As discussed under Impact 3.3-2, the impact on tribal cultural resources also would be less than significant because the reasonably foreseeable compliance responses to project implementation would not result in additional seafloor-disturbing activities above baseline conditions that could damage subsurface artifacts, would not impede traditional ceremonial activities or alter viewsheds, and would not have an adverse effect on wildlife, all of which could be identified as tribal cultural resources. Therefore, implementing the project **would not result in a considerable contribution to a significant cumulative impact** on historical, archaeological, and tribal cultural resources.

4.3.3 Greenhouse Gas Emissions and Climate Change

As discussed in Section 3.4, "Greenhouse Gas Emissions and Climate Change," impacts of greenhouse gas (GHG) emissions and climate change are inherently cumulative. GHG emissions from one project cannot, on their own, result in changes in climatic conditions; therefore, the emissions from one project must be considered in the context of their contribution to cumulative global emissions. For this reason, the impact analysis presented in Section 3.4 addresses cumulative GHG impacts.

As discussed for Impact 3.4-1, reasonably foreseeable compliance responses to the project would not entail the construction of any new land-based or maritime equipment. Reasonably foreseeable compliance responses to the project would result in the generation of GHG emissions from the movement of fishing and monitoring vessels and aircraft throughout the project area. However, this level of vessel and aircraft activity would not be substantially greater than the current level related to harvest of Dungeness crab. Therefore, implementing the project **would not result in a considerable contribution to a significant cumulative impact** related to GHG emissions.

4.3.4 Hazards and Hazardous Materials

The cumulative context for hazards and hazardous materials is the region of the project area that includes the continental shelf off the entire state of California. Release of hazardous materials in the marine environment can affect large areas (e.g., oil tanker spill) and interact with other, smaller releases of hazardous materials. Ocean dumping has also resulted in the contamination of marine sediments in some areas off the coast of California. These types of activities have released polychlorinated biphenyls and other chemical contaminants into the marine environment that accumulate in the tissues of some marine organisms (bioaccumulation), causing disease and affecting the fecundity of some species. Other activities that disturb marine sediments, including recreational and commercial bottom-fishing activities, can disturb contaminated sediments, releasing pollutants into the water column and suspending contaminated sediments, which spreads contamination to other areas. These activities have contributed to an existing significant cumulative impact related to hazards and hazardous materials in the project area. Impacts related to emergency response or evacuation plans are considered site specific and not cumulatively considerable. Cumulative projects and associated activities located in and outside the project area would be required to comply with applicable federal and state laws and regulations that govern hazardous materials.

As discussed for Impacts 3.5-1, 3.5-2, and 3.5-3, implementation of the proposed RAMP regulatory amendments would not cause a substantial increase in accidental release of hazardous materials from marine vessels related to maintenance activities or spills; from the transport, use, or disposal of hazardous materials; or from disturbance of the seafloor and related resuspension of sediments in listed contaminated sites. Therefore, implementing the project **would not result in a considerable contribution to a significant cumulative impact** related to hazards and hazardous materials.

4.3.5 Marine Biological Resources

The cumulative context for marine biological resources is the region of the project area that includes the continental shelf off the entire state of California. Threats to marine species and habitats throughout California include development, other ocean-dependent uses (e.g., fishing, shipping), climate change, the spread of invasive species, and water quality issues. As discussed in Section 3.6, "Marine Biological Resources," a variety of habitats, sensitive communities, and special-status animal species are known to occur in the marine environment along the California coast. Marine development and other ocean-dependent uses have resulted in an existing significant cumulative effect on biological resources. Cumulative development and other activities, including that described in Section 4.2.2, continue to contribute to the disturbance and degradation of marine biological resources.

Project implementation could adversely affect special-status wildlife species, wildlife movement corridors, and wildlife nursery sites through increased vessel and aircraft travel associated with systematic surveys to determine marine life concentrations, and changes in the magnitude or concentration of crab fishing activity (i.e., number of boats, number of traps, concentration of traps inshore) within one or more Fishing Zone as a result of season delays, closures, or depth constraints. As discussed for Impacts 3.6-1 and 3.6-2, the increase in vessel and aircraft activity associated with these efforts would not be substantial, because CDFW would use data collected during vessel-based and aerial surveys already being conducted by other agencies and organizations as part of the existing baseline of vessel and aircraft activity, and based on the previous 2 years of data associated with the trap gear retrieval program (e.g., number of designated retrievers, number of retrieval trips). In addition, existing regulatory protections, including MPAs and special closures, NOAA Regulated Overflight Zones, provisions of NMFS scientific research permits, and the fair start provision, as well as general operational and safety measures, would reduce the risk of adverse effects on special-status wildlife, wildlife movement corridors, and wildlife nursery sites by limiting vessel and aircraft activities near sites that are important biologically, limiting harassment of seabirds and marine mammals from survey activities, and preventing a substantial increase in the magnitude or concentration of crab fishing activities. Therefore, implementing the project **would not result in a considerable contribution to a significant cumulative impact** on special-status wildlife, wildlife movement corridors, or wildlife nursery sites.

4.3.6 Water Quality

The cumulative context for water quality is the region of the project area that includes the continental shelf off the entire state of California. Water quality is designated as impaired when the levels of a particular pollutant threaten the identified beneficial uses of the water body. Activities that contribute to the impairment and degradation of water quality off the coast of California typically are related to land use and development, such as agricultural uses, industrial facilities, and construction activities. In addition, municipal wastewater discharges, nonpoint source contaminants in urban runoff, wet and dry deposition of airborne pollutants, harbor and marine transportation discharges, discharges of contaminated groundwater, and marine debris, including plastics and microplastics, can affect water quality. These activities have resulted in an existing significant cumulative effect on water quality.

As discussed under Impact 3.7-1, implementation of the proposed RAMP regulatory amendments would not cause a significant water quality impact from accidental releases of pollutants from fishing vessels related to maintenance activities or spills or from rain or high-wave events that wash pollutants on the surface of the vessels into the ocean, minor disturbances of the seafloor and related resuspension of sediments from deployment of fishing traps, or marine debris associated with deployed equipment and traps lost or abandoned in the ocean. Therefore, implementing the project **would not result in a considerable contribution to a significant cumulative impact** related to substantial degradation of water quality, violation of water quality standards, or conflicts with a water quality control plan.

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5 ALTERNATIVES

5.1 INTRODUCTION

Section 15126.6(a) of the State CEQA Guidelines requires EIRs to describe “a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.” The environmental analysis presented in this EIR has determined that implementation of the proposed RAMP regulatory amendments would not result in any significant effects on the environment. In light of this environmental analysis outcome, the alternatives analysis focuses on potentially feasible alternatives that might reduce adverse environmental effects regardless of their level of significance.

An EIR need not consider every conceivable alternative to a project. Rather, it must consider a range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

The State CEQA Guidelines require that the EIR include information about each alternative sufficient to allow meaningful evaluation, analysis, and comparison with the proposed project. If an alternative would cause one or more significant effects in addition to any that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but in less detail than any significant effects of the project as proposed (State CEQA Guidelines Section 15126.6[d]).

The State CEQA Guidelines further require that the “no project” alternative be considered (Section 15126.6[e]). The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. If the no project alternative is the environmentally superior alternative, CEQA requires that the EIR “shall also identify an environmentally superior alternative among the other alternatives” (State CEQA Guidelines Section 15126[e][2]).

In defining “feasibility” (e.g., “feasibly attain most of the basic objectives of the project”), State CEQA Guidelines Section 15126.6(f)(1) states, in part:

Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

In determining what alternatives should be considered in the EIR, it is important to consider the objectives of the project, the project’s significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of “potentially feasible” alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency’s decision maker—here, the Director of CDFW. (See CEQA Sections 21081.5, 21081[a][3].)

5.2 CONSIDERATIONS FOR SELECTION OF ALTERNATIVES

5.2.1 Attainment of Project Objectives

The objectives of the project are to:

1. use ongoing risk evaluation to reduce risk of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in commercial Dungeness crab gear throughout the project area using active management;
2. improve identification of entanglements of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area;
3. reduce the likelihood and/or severity of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area by authorizing the use of alternative fishing gear;
4. strengthen regulatory authority to implement actions designed to reduce entanglement risks, including CP goals and measures and federal ITP requirements; and
5. resolve existing inefficiencies, deficiencies, and ambiguities within RAMP that limit CDFW's ability to respond to Actionable Species entanglement, enforce management actions, collect data, and improve management tools.

5.2.2 Environmental Impacts of the Project

Sections 3.2 through 3.7 of this EIR address the environmental impacts of implementing the proposed RAMP regulatory amendments. Potentially feasible alternatives were developed with consideration of avoiding or lessening potential adverse impacts of the project, as identified in Chapter 3 of this EIR and summarized below. If an environmental issue area analyzed in this EIR is not addressed below, it is because that issue area was dismissed from further consideration. No significant environmental impacts resulting from the project were identified.

5.3 ALTERNATIVES CONSIDERED BUT NOT EVALUATED FURTHER

As described above, State CEQA Guidelines Section 15126.6(c) provides that the range of potential alternatives for the project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. Alternatives that fail to meet the fundamental project purpose need not be addressed in detail in an EIR (*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165–1167).

In determining what alternatives should be considered in the EIR, it is important to acknowledge the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in State CEQA Guidelines Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by lead agency decision maker(s). (See CEQA Section 21081[a][3].) At the time of action on the project, the decision maker(s) may consider evidence beyond that found in this EIR in addressing such determinations. The decision maker(s), for example, may conclude that a particular alternative is infeasible (i.e., undesirable) from a policy standpoint and may reject an alternative on that basis provided that the decision maker(s) adopts a finding, supported by substantial evidence, to that effect, and provided that such a finding reflects a reasonable balancing of the relevant economic, environmental, social, and other considerations supported by substantial evidence (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 401, 417; *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 998).

The EIR should also identify any alternatives that were considered by the lead agency but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency's determination.

The following alternatives were considered by CDFW but are not evaluated further in this EIR.

5.3.1 Required Use of Multi-trap Gear Configurations

An alternative to require transition from single traps to multi-trap gear configurations was considered as part of the RAMP regulatory amendments. This alternative is one potential method of achieving vertical line reductions. However, this alternative has the potential for gear conflict and safety issues. A reduction in vertical lines in the project area would reduce the potential for entanglement of Actionable Species; however, entanglements that could occur under this alternative may be more severe because the multi-trap configuration would be heavier than gear that is currently used. In addition, fishing with multi-trap gear configurations under this alternative would pose substantial safety concerns for smaller vessels that have less available deck space and capacity to handle the gear. The required use of only multi-trap gear configurations was dismissed from further consideration because there is insufficient evidence that this alternative would benefit Actionable Species overall or avoid any significant impacts. The costs to the fishery of implementing this alternative would also be much higher than the cost of using single traps because all existing equipment would need to be replaced with multi-trap trawls. In addition, this alternative would not meet the project objective to require use of gear modifications that reduce the severity of entanglements. For these reasons, this alternative is not evaluated in detail in this EIR.

5.3.2 Required Use of Pop-Up (“Ropeless”) Gear

There is increasing interest in replacing standard trap configurations (which include persistent vertical lines between the traps and surface buoys) with pop-up gear (which does not have a persistent line extending from the trap to the surface). Therefore, CDFW considered an alternative requiring the use of pop-up gear throughout the fishing season. Pop-up gear uses lift bags or buoys attached to rope stored at the seafloor in bags, containers, or coiled around a spool. Remote sensors on the gear are triggered by an acoustic signal from the fishing vessel to release the bags or buoys which float to the surface bringing the traps along with them and eliminating unattended vertical lines. After the buoy “pops up” to the surface of the water, the fisherman can retrieve the gear using the same methods as used for traditional gear. Some configurations rely on a timed release rather than an acoustic signal, whereby either a chemical reaction (for galvanic releases) or elapsed time (for electronic releases) results in release of the rope and buoys. Other companies have entirely replaced the rope and buoys; the acoustic releases on their traps trigger compressed gas canisters that fill large lift bags that bring the entire trap to the surface for retrieval.

Under this alternative, each vertical line would be replaced with a pop-up unit, and (for acoustically triggered releases) each vessel would also need an on-deck or hull-mounted unit to locate the gear and transmit the release signal. Calculating the cost for each participant to purchase, install, and operate the required gear is difficult, because the cost would depend on whether a single pop-up unit would be attached to each trap or whether the units could be deployed onto multi-trap gear configurations. In addition, given the number of traps used in the fishery, a fleetwide transition to pop-up gear could drive down the costs to produce the gear. However, equipment acquisition costs for a National Marine Sanctuary Foundation’s gear innovations testing project can be used to estimate costs. Galvanic timed-release devices are the lowest-cost option (\$225 per unit). These units would require replacement of a \$1 component each time the trap is redeployed. Electronic timed-release devices cost approximately \$300 per unit, and the cost of acoustic-triggered release devices ranges from \$1,700 to \$11,000 per unit. In contrast, a traditional Dungeness crab trap, including rope and buoys, typically costs \$275. It is unclear at this time how the additional costs of transitioning to pop-up gear would affect the economic viability of the fishery.

Furthermore, the need for pop-up and other types of alternative gear is greatest during spring closures, when the risk of entanglement becomes a concern and then continues to increase through the end of the fishing season. Allowing the use of pop-up gear in these situations would allow for continued harvest of Dungeness crab in a manner that poses a lower risk of entanglement, mitigating the economic impacts of such closures. Because traditional commercial Dungeness crab gear will not be deployed in those areas for the remainder of the fishing season, the potential for within-fishery gear conflict is reduced. During fall and winter, when Actionable Species are either absent

or present in low numbers, the additional protective benefit of using pop-up gear is outweighed by concerns regarding gear conflict.

Studies related to pop-up gear are limited. Therefore, a conclusion regarding whether this alternative would substantially reduce impacts on Actionable Species relative to implementation of the RAMP regulatory amendments would be speculative. This alternative would meet the project objective to reduce the presence of actively fished vertical lines. However, it is uncertain whether this alternative would meet the project objectives to reduce the severity of entanglements and reduce co-occurrence of Actionable Species and lost or abandoned gear. In addition, implementing this alternative could result in potential harm from gear conflicts and economic impacts on the fishery. For these reasons, this alternative is not evaluated in detail in this EIR.

5.4 ALTERNATIVES SELECTED FOR DETAILED ANALYSIS

The following alternatives are evaluated in more detail in this EIR:

- ▶ **Alternative 1: No Project Alternative** assumes that the California commercial Dungeness crab fishery would continue to operate in accordance with existing regulations. Title 14 CCR Section 132.8 would not be amended, and the state would not apply for an ITP for the Actionable Species based on the CP.
- ▶ **Alternative 2: Permanently Reduced Gear Allotments Alternative** would reduce the potential for entanglements by permanently reducing the number of vertical lines used for the commercial Dungeness crab fishery by reducing the maximum trap allotments. CDFW would revise RAMP based on the gear allotment reductions and apply for an ITP based on the CP.
- ▶ **Alternative 3: Permanently Shortened Season Alternative** would restrict the commercial Dungeness crab fishery operations to a period of historically extremely low entanglement risk. CDFW would revise RAMP based on the shortened fishing season and apply for an ITP based on the CP.

Further details on these alternatives, and an evaluation of environmental effects relative to the proposed project, are provided below.

5.4.1 Alternative 1: No Project Alternative

As required by CEQA, the No Project Alternative is evaluated in this EIR. Under Alternative 1, the No Project Alternative, the California commercial Dungeness crab fishery would continue to operate according to the current provisions of the Fish and Game Code and existing RAMP regulations (14 CCR Section 132.8). The existing RAMP regulations would not be amended and CDFW would not apply for an ITP for the Actionable Species based on the CP. Because the current RAMP regulations would continue to be in effect under this alternative, the No Project Alternative would meet most of the project objectives. However, the presence of actively fished vertical lines would not be reduced. Furthermore, the No Project Alternative would not meet the project objective to resolve inefficiencies, deficiencies, and ambiguities within RAMP that limit CDFW's ability to respond to Actionable Species entanglement, enforce management actions, collect data, and improve management tools.

Although it is acknowledged that with the No Project Alternative, there would be no discretionary action by CDFW, and thus no impact, for purposes of comparison with the action alternatives, conclusions for each technical area are characterized as "impacts" that are greater, similar, or less, to describe conditions that are worse than, similar to, or better than those of the proposed project.

AIR QUALITY

Under Alternative 1, the RAMP regulations would not be modified, CDFW would not apply for an ITP for the Actionable Species based on the CP, and there would be no change in the current CDFW management of the commercial Dungeness crab fishery. The potential air quality impacts of the No Project Alternative would be similar to existing conditions because this alternative would involve continued operation of the commercial Dungeness crab

fishery under the current RAMP regulations. The No Project Alternative would not generate construction-related emissions, and the operation-related emissions associated with the Dungeness crab fishery, which would vary from year to year, would be similar to existing emissions. Therefore, air quality impacts associated with Alternative 1 would be **similar** to those described for the proposed project.

ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

Under Alternative 1, the RAMP regulations would not be modified, CDFW would not apply for an ITP for the Actionable Species based on the CP, and there would be no change in the current CDFW management of the commercial Dungeness crab fishery. The potential historic resource, archaeological resource, and tribal cultural resource effects under the No Project Alternative would be similar to existing conditions because this alternative would not involve changes to any structures that could be historical resources and would not involve a change in seafloor-disturbing activities that could result in discovery of or damage to yet-undiscovered archaeological resources or human remains. In addition, under the No Project Alternative, the commercial Dungeness crab fishery would continue to be operated consistent with current operations, so the potential for adverse effects on subsurface artifacts would not increase, traditional ceremonial activities would not be impeded, and viewsheds, which could be identified as tribal cultural resources, would not be altered. The No Project Alternative would not provide the same level of benefits to whale and sea turtle species that the proposed project would, and wildlife could be identified as a tribal cultural resource. Therefore, impacts on cultural resources associated with Alternative 1 could be slightly **greater** than those described for the proposed project.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Under Alternative 1, the RAMP regulations would not be modified, CDFW would not apply for an ITP for the Actionable Species based on the CP, and there would be no change in the current CDFW management of the commercial Dungeness crab fishery. The potential greenhouse gas emissions (GHG) associated with the No Project Alternative would be similar to existing conditions because this alternative would involve continued operation of the commercial Dungeness crab fishery under the current RAMP regulations. The No Project Alternative would not generate construction-related emissions, and operation-related emissions associated with the Dungeness crab fishery, which could vary from year to year, would be similar to existing emissions. Because vessels would be subject to the off-road specific regulations (i.e., 2022 Commercial Harbor Craft Amendments), the No Project Alternative would not conflict with the California Air Resources Board's *Final 2022 Scoping Plan for Achieving Carbon Neutrality*. Therefore, GHG impacts associated with Alternative 1 would be **similar** to those described for the proposed project.

HAZARDS AND HAZARDOUS MATERIALS

Under Alternative 1, the RAMP regulations would not be modified, CDFW would not apply for an ITP for the Actionable Species based on the CP, and there would be no change in the current CDFW management of the commercial Dungeness crab fishery. The potential for hazards and hazardous materials effects under the No Project Alternative would be similar to existing conditions because there would continue to be a similar potential for foreseeable accidental release of hazardous materials and disturbance to contaminated sites, creating a hazard to the public or the environment through contact. Under the No Project Alternative, there would not be an increase in vessel trips and associated potential for hazards and hazardous materials impacts. However, the potential hazards associated with additional survey vessel trips under the proposed project would be minimal. Therefore, overall impacts related to hazards and hazardous materials associated with Alternative 1 would be **similar** to those described for the proposed project.

MARINE BIOLOGICAL RESOURCES

Under Alternative 1, the RAMP regulations would not be modified, CDFW would not apply for an ITP for the Actionable Species based on the CP, and there would be no change in the current CDFW management of the

commercial Dungeness crab fishery. The potential for effects on special-status species and wildlife movement corridors associated with Alternative 1 would be greater than under the proposed project because the protection measures in the amended RAMP regulations to reduce entanglements would not be implemented. Therefore, impacts on marine biological resources associated with Alternative 1 would be **greater** than those described for the proposed project.

WATER QUALITY

Under Alternative 1, the RAMP regulations would not be modified, CDFW would not apply for an ITP for the Actionable Species based on the CP, and there would be no change in the current CDFW management of the commercial Dungeness crab fishery. The potential for water quality effects under the No Project Alternative would be similar to existing conditions because there would continue to be the potential for accidental releases of pollutants from fishing and survey vessels; rain or high-wave events that wash pollutants from the surface of the vessels into the ocean; vessel abandonment; minor disturbances of the seafloor and related resuspension of sediments from deployment of fishing traps; and pollution from plastics and electronic equipment associated with ongoing operation of the fishery. Under the No Project Alternative, there would not be an increase in survey vessel trips and associated potential for water quality impacts. However, potential water quality impacts of the proposed project associated with additional survey vessel trips would be minimal. Therefore, overall impacts on water quality associated with Alternative 1 would be **similar** to those described for the proposed project.

5.4.2 Alternative 2: Permanently Reduced Gear Allotments

Implementing Alternative 2 would permanently reduce the amount of Dungeness crab gear in the water by reducing the trap allotments and associated vertical lines; thereby, decreasing the potential for co-occurrence of Actionable Species and crab gear. The number of traps a given vessel can deploy is specified by the tier level of the Dungeness crab vessel permit. The existing tiers were established following extensive stakeholder meetings with the fleet and Dungeness Crab Task Force. Modifying the trap tiers could reduce the maximum amount of gear that could be deployed in the fishery. Implementing this alternative would permanently reduce gear allotments across the entire fleet, rather than phase in reductions through permit stacking as individual operators decide to purchase additional permits, thereby having a more predictable conservation benefit. This alternative could be implemented through a proportional reduction across all tiers or through some differential reduction. For example, all tiers could be limited to 75 percent of their current trap allotment, or a set number of traps (e.g., 25) could be subtracted from each tier's current allotment. FGC Section 8276.5(d) requires that any changes to the existing permit tiers be approved by the Dungeness Crab Task Force, so this alternative would require approval before implementation. This alternative also would involve revisions to the RAMP regulations based on the gear allotment reductions, and application for an ITP based on the CP.

AIR QUALITY

Under Alternative 2, the amount of gear deployed for the commercial Dungeness crab fishery would be less than under the proposed project. Alternative 2 would not generate construction-related emissions. Operation-related emissions under Alternative 2 would vary from year to year but may be slightly less than under the project because with reduced gear allotments, there would be fewer vessel emissions related to deployment and retrieval of fishing gear. Therefore, air quality impacts associated with Alternative 2 would be **less** than those described for the proposed project.

ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

Under Alternative 2, the amount of gear deployed for the commercial Dungeness crab fishery would be less than under the proposed project. Like the proposed project, this alternative would have no impact on historical resources because it would not involve changes to any structures that could be historical resources. The potential

archaeological resource effects under Alternative 2 would be less than those under the proposed project because implementing Alternative 2 would result in fewer traps in the water and thus a slightly reduced potential for seafloor-disturbing activities to result in discovery of or damage to yet-undiscovered archaeological resources or human remains. Additionally, because implementing this alternative would result in less gear in the water, wildlife species that could be identified as a tribal cultural resource would benefit. For these reasons, impacts on cultural resources associated with Alternative 2 would be slightly **less** than those described for the proposed project.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Under Alternative 2, the amount of gear deployed for the commercial Dungeness crab fishery would be less than under the proposed project. Alternative 2 would not generate construction-related GHG emissions. Operation-related GHG emissions under Alternative 2 would vary from year to year but may be slightly less than under the project because with reduced gear allotments, there would be fewer vessel emissions related to deployment and collection of gear. Therefore, GHG impacts associated with Alternative 2 would be **less** than those described for the proposed project.

HAZARDS AND HAZARDOUS MATERIALS

Under Alternative 2, the amount of gear deployed for the commercial Dungeness crab fishery would be less than under the proposed project. The potential for hazards and hazardous materials effects under Alternative 2 related to accidental releases of hazardous materials from fishing and survey vessels and disturbance to contaminated sites, which could create a hazard to the public or the environment through contact, would be slightly less than under the proposed project if fewer vessel trips with the potential to release hazardous materials would be required to deploy and retrieve less gear. Potential hazards and hazardous materials impacts under Alternative 2 associated with contact with contaminated sites would be reduced compared to the proposed project because the amount of gear deployed by vessels that could disturb these sites would be less. For these reasons, impacts on hazards and hazardous materials associated with Alternative 2 would be **less** than those described for the proposed project.

MARINE BIOLOGICAL RESOURCES

Under Alternative 2, the amount of gear deployed for the commercial Dungeness crab fishery would be less than under the proposed project. The potential for effects on special-status species and wildlife movement corridors under Alternative 2 would be less than under the proposed project because less gear would be deployed, which would result in less potential for gear to interact with marine biological resources. Similar to the proposed project, this alternative would include revisions to the RAMP regulations based on the gear allotment reductions, and application for an ITP for Actionable Species based on the CP. Therefore, impacts on marine biological resources associated with Alternative 2 would be **less** than those described for the proposed project.

WATER QUALITY

Under Alternative 2, the amount of gear deployed for the commercial Dungeness crab fishery would be less than under the proposed project. The potential for water quality effects under Alternative 2 related to accidental releases of pollutants from fishing and survey vessels and rain or high-wave events that wash pollutants from the surface of the vessels into the ocean would be slightly less than under the proposed project if fewer vessel trips with the potential to release pollutants would be required to deploy and retrieve less gear. Potential water quality impacts under Alternative 2 associated with minor disturbances of the seafloor and related resuspension of sediments from deployment of fishing traps and pollution from plastics and electronic equipment also would be less under this alternative because the amount of gear deployed would be less. Therefore, impacts on water quality associated with Alternative 2 would be **less** than those described for the proposed project.

5.4.3 Alternative 3: Permanently Shortened Season

Under Alternative 3, California's commercial Dungeness crab fishing season would be permanently shortened, and operations would no longer be aligned with those in Oregon and Washington. Although season delays and early closures under current RAMP regulations may result in shortened fishing seasons due to management triggers being reached, permanently shortening the commercial fishing seasons may greatly reduce fishing opportunity during otherwise low-risk years. A delayed start to the season would mean fishery participants would no longer provide crab for the Thanksgiving and Christmas holidays, eliminating key markets that support the economic viability of the fishery. An early end to the season would disproportionately affect vessels that traditionally harvest through the spring and early summer months. Although an economic analysis prepared during the RAMP rulemaking process (CDFW 2020) indicates that the fishery, as a whole, could achieve similar levels of harvest despite a fishing season delay or early closure, the impacts on specific sectors of the fleet may be far greater.

Furthermore, permanently restricting the fishery to a shorter period would likely have more dramatic effects on the economic viability and composition of the fleet than year to year variations in the length of the fishing season. Restricting operations to a specified 2- or 3-month period could compound any negative impacts resulting from adverse climate change effects, harmful algal blooms, trade disputes, or other external pressures. CDFW's interest in maintaining an economically viable fishery includes maintaining a diversity of business plans and avoiding disproportionate impacts on certain sectors of the fleet. Although larger vessels that generally transition to other fisheries after the initial 6–8 weeks of the season might not be affected, CDFW anticipates that this alternative would have a disproportionate impact on smaller, direct-to-consumer operators who rely on being able to fish for a greater proportion of the season. Alternative 3 would also include amending the existing RAMP regulations to shorten the current fishing seasons, and submitting an application for an ITP based on the CP. Although implementing this alternative would likely reduce potential impacts on Actionable Species, given the dynamic nature of the California Current System and potential for climate change impacts on spatiotemporal dynamics of co-occurrence, this static approach may not provide the necessary protections to Actionable Species over the full permit term.

AIR QUALITY

Under Alternative 3, the season for the commercial Dungeness crab fishery would be permanently shortened, but the number of permits would not change. Alternative 3 would not generate construction-related emissions. Operation-related emissions under Alternative 3 would be less than under the project because the period during which fishing vessels would deploy and retrieve their gear allotment would be shorter, resulting in fewer total trips, which would result in reduced air quality emissions. Therefore, air quality impacts associated with Alternative 3 would be **less** than those described for the proposed project.

ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

Under Alternative 3, the season for the commercial Dungeness crab fishery would be permanently shortened, but the number of permits would not change. Therefore, the amount of gear that could be deployed during the fishing season under this alternative would be the same as under the proposed project. Because this alternative would not involve changes to any structures that could be historical resources and would not involve a change in seafloor-disturbing activities that could result in discovery of or damage to yet-undiscovered archaeological resources or human remains, the potential historic and archaeological resource effects under Alternative 3 would be similar to those under the proposed project. This alternative would result in gear being in the water for less time, which would benefit wildlife species that could be identified as a tribal cultural resource. Therefore, impacts on cultural resources associated with Alternative 3 would be slightly **less** than those described for the proposed project.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Under Alternative 3, the season for the commercial Dungeness crab fishery would be permanently shortened, but the number of permits would not change. Alternative 3 would not generate construction-related GHG emissions.

Operation-related GHG emissions under Alternative 3 would be less than under the project because the period during which fishing vessels would deploy and retrieve their gear allotment would be shorter, resulting in fewer total trips, which would result in reduced GHG emissions. Therefore, GHG impacts associated with Alternative 3 would be **less** than those described for the proposed project.

HAZARDS AND HAZARDOUS MATERIALS

Under Alternative 3, the season for the Dungeness crab fishery would be permanently shortened, but the number of permits would not change. The potential for hazards and hazardous materials effects under Alternative 3 related to accidental release of hazardous materials from fishing and survey vessels and disturbance to contaminated sites, which could create a hazard to the public or the environment through contact, would be less than under the proposed project because the period during which fishing vessels would deploy and retrieve their gear allotment would be shorter, resulting in fewer total trips. Therefore, impacts related to hazards and hazardous materials under Alternative 3 would be **less** than those described for the proposed project.

MARINE BIOLOGICAL RESOURCES

Under Alternative 3, the season for the commercial Dungeness crab fishery would be permanently shortened, but the number of permits would not change. The potential for effects on special-status species and wildlife movement corridors under Alternative 3 would be less than under the proposed project because vessels and equipment would be deployed for a shorter period each year during a time when entanglement risk is historically low, which would result in less potential for vessels and gear to interact with marine biological resources. Similar to the proposed project, this alternative would include revisions to the RAMP regulations based on the shortened fishing season, and application for an ITP for Actionable Species based on the CP. Therefore, impacts on marine biological resources associated with Alternative 3 would be **less** than those described for the proposed project.

WATER QUALITY

Under Alternative 3, the season for the commercial Dungeness crab fishery would be permanently shortened, but the number of permits would not change. The potential for water quality effects under Alternative 3 related to minor disturbances of the seafloor and related resuspension of sediments from deployment of fishing traps would be similar to that under the proposed project because the number of traps that could be fished would not change. Alternative 3 is also expected to have similar water quality effects related to vessel abandonment and pollution from plastics and electronic equipment compared to the proposed project. However, because fewer trips would occur to deploy and retrieve the same number of traps during a shortened fishing season, accidental releases of pollutants from fishing vessels and rain or high-wave events that wash pollutants from the surface of the vessels into the ocean would be less under Alternative 3. Therefore, impacts on water quality associated with Alternative 3 would be slightly **less** than those described for the proposed project.

5.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Implementing the proposed project would not result in any significant effects on the environment, so no substantial reductions of environmental impacts would occur with implementation of any of the feasible alternatives. Nonetheless, as illustrated in Table 5-1, below, Alternatives 2 and 3 would further reduce the less-than-significant impacts associated with the project. Alternative 3, by permanently curtailing and restricting the duration of the commercial fishing season to a period with historically low entanglement risk, would result in more impact reduction than deploying less trap gear (Alternative 2). As a result, Alternative 3 would be the environmentally superior alternative for purposes of CEQA compliance, although the environmental impact differences relative to the proposed project would not be substantial.

Table 5-1 Summary of Environmental Effects of the Alternatives Relative to the Proposed Project

Environmental Topic	Proposed Project	Alternative 1: No Project Alternative	Alternative 2: Permanently Reduced Gear Allotments Alternative	Alternative 3: Permanently Shortened Season Alternative
Air Quality	LTS	Similar	Less	Less
Archaeological, Historical, and Tribal Cultural Resources	LTS	Greater	Less	Less
Greenhouse Gas Emissions and Climate Change	LTS	Similar	Less	Less
Hazards and Hazardous Materials	LTS	Similar	Less	Less
Marine Biological Resources	LTS	Greater	Less	Less
Water Quality	LTS	Similar	Less	Less

Note: LTS = less-than-significant effect on the environment.

Source: Compiled by Ascent in 2024.

6 OTHER CEQA SECTIONS

6.1 GROWTH INDUCEMENT

CEQA Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an EIR. Section 15126.2(e) of the State CEQA Guidelines provides the following guidance for assessing growth-inducing impacts of a project:

Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can induce growth directly, indirectly, or both. Direct growth inducement would result if a project involved construction of new housing. Indirect growth inducement would result, for instance, if implementing a project resulted in:

- ▶ substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises);
- ▶ substantial short-term employment opportunities (e.g., construction employment) that indirectly stimulates the need for additional housing and services to support the new temporary employment demand; or
- ▶ removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area).

Growth inducement itself is not an environmental effect but may foreseeably lead to environmental effects. If substantial growth inducement occurs, it can result in secondary environmental effects, such as increased demand for housing, demand for other community and public services and infrastructure capacity, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or animal habitats, conversion of agricultural and open space land to urban uses, and other effects.

6.1.1 Growth-Inducing Impacts of the Project

Implementation of the proposed RAMP regulatory amendments would not involve the development of new housing or increase the demand for new housing. In addition, implementing the project would not result in the creation of new jobs or economic opportunities in California. In 2019, commercial fishing in California generated 143,753 jobs and \$715 million in sales (US Department of Commerce 2019). The existing commercial Dungeness crab fishery would continue to provide jobs and operate consistent with existing regulations. Implementing the project would not result in expansion of the commercial Dungeness crab fishery; therefore, the number of jobs associated with operation of the fishery would not be expected to increase. The amount of revenue generated by the fishery would continue to fluctuate annually. Implementation of the project may shorten the commercial Dungeness crab fishing season in some years, which could result in economic impacts. Because implementing the project would not foster economic or population growth, no significant growth-inducing impacts would be associated with implementation of the project.

6.2 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

State CEQA Guidelines Section 15126.2(c) requires EIRs to include a discussion of the significant environmental effects that cannot be avoided if the proposed project is implemented. As documented throughout Chapter 3 (project-level impacts) and in Chapter 4, "Cumulative Impacts," of this EIR, all impacts associated with implementation of the project would be less than significant, and no mitigation would be required. The project would not have any significant and unavoidable impacts.

6.3 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

The State CEQA Guidelines require a discussion of any significant irreversible environmental changes that would be caused by the project. Specifically, State CEQA Guidelines Section 15126.2(d) states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Continued operation of the commercial Dungeness crab fishery would result in the irreversible and irretrievable commitment of energy resources during each Fishing Season, including:

- ▶ the consumption of nonrenewable energy for operation of fishing and monitoring vessels,
- ▶ the consumption of nonrenewable energy for operation of monitoring aircraft and vessels,
- ▶ degradation of ambient air quality through operation of vessels and aircraft, and
- ▶ emission of greenhouse gases that would contribute to global climate change.

However, implementation of the project is not expected to result in a substantial change in the irreversible and irretrievable commitment of energy resources.

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Appendix A

Notice of Preparation and
Public Scoping Comments



**California Department of Fish and Wildlife
Notice of Preparation of a Draft Environmental Impact Report
and Notice of Public Scoping Meeting:
Conservation Plan for the
California Commercial Dungeness Crab Fishery**

Date: September 19, 2022

To: Responsible Agencies, Trustee Agencies, and Interested Persons

From: California Department of Fish and Wildlife

RE: Notice of Preparation of a Draft Environmental Impact Report: Conservation Plan for the California Commercial Dungeness Crab Fishery and Notice of Public Scoping Meeting

In accordance with the provisions of the California Environmental Quality Act (CEQA), the California Department of Fish and Wildlife (CDFW) has determined that the proposed Conservation Plan (CP) for the California Commercial Dungeness Crab Fishery and related regulatory actions will require preparation of an Environmental Impact Report (EIR). CDFW is seeking an incidental take permit (ITP) under Section 10 of the federal Endangered Species Act (ESA) for humpback whale (Central America Distinct Population Segment [DPS] and Mexico DPS), blue whale, and Pacific leatherback sea turtle (“Covered Species”) to provide authorization of limited incidental take of Covered Species by the California commercial Dungeness crab fishery. CDFW is proposing to adopt and implement a CP, make regulatory changes to implement the CP, and approve an implementing agreement with the National Marine Fisheries Service (NMFS) to support issuance of the ITP. Together, these CDFW actions comprise the whole of the project subject to CEQA compliance. The reasonably foreseeable compliance responses to implement these actions are the sources of potential physical changes to the environment that will be reviewed in the EIR.

The purpose of this Notice of Preparation (NOP) is to provide an opportunity for the public, interested parties and public agencies to comment on the scope and proposed content of the EIR. This NOP initiates the CEQA scoping process. Documents related to this EIR will be available for review on CDFW’s website at: <https://wildlife.ca.gov/Notices>

NOP Public Comment Period: September 19, 2022 to October 18, 2022

1 PROJECT BACKGROUND

Entanglement of large whales and sea turtles in fishing gear off the West Coast has been increasing in recent years (Saez et al. 2021). Blue whales (*Balaenoptera musculus*), and certain distinct population segments (DPS) of humpback whales (*Megaptera novaeangliae*), gray whales (*Eschrichtius robustus*), and killer whales (*Orcinus orca*), as well as Pacific leatherback sea turtles (*Dermochelys coriacea*) are protected under the ESA throughout their range. Trap gear from the California, Oregon, Washington, and tribal commercial Dungeness crab fisheries are known to cause entanglements with ESA-listed blue whales, certain DPS of humpback whales and gray whales, and Pacific leatherback sea turtles (Saez et al. 2021). Off the California coast, Entanglements with trap gear from the California commercial Dungeness crab fishery of humpback whales of the Central America DPS and Mexico DPS and grey whales of the Eastern North Pacific DPS are known to occur. While both DPS of humpback whales are ESA-listed species, the Eastern North Pacific DPS of gray whales was de-listed in 1994. Trap gear from the Oregon and Washington commercial Dungeness crab fisheries are also known to interact with certain DPS of killer whales (Saez et al. 2021); however, there is no evidence trap gear from the

Notice of Preparation – Notice of Public Scoping Meeting
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California commercial Dungeness crab fishery causing entanglements with killer whales. Therefore, species of primary concern for entanglement in trap gear from the California commercial Dungeness crab fishery include blue whales, the Central America DPS and Mexico DPS of humpback whales, and Pacific leatherback sea turtles.

Primary management authority for the commercial Dungeness crab fishery rests with the California State Legislature, which has enacted several statutes governing fishing activity. Statutes (codified in Fish and Game Code [FGC]) and CDFW regulations (codified in Title 14 of the California Code of Regulations [14 CCR]) jointly provide the management framework for this fishery. Under current regulations, the CDFW Director's authority to restrict the commercial Dungeness crab fishery is limited to protecting human health (FGC Section 5523), reducing risk of marine life entanglement (FGC Section 8276.1(c) and 14 CCR Section 132.8), and avoiding low crab quality (FGC Section 8276.2). FGC Section 8276.1(b) requires CDFW, in consultation with the California Dungeness Crab Fishing Gear Working Group (Working Group) and other stakeholders, to adopt regulations establishing criteria and protocols to evaluate and respond to potential risk of marine life entanglement from the recreational and commercial Dungeness crab fisheries. The Working Group was convened by CDFW in September 2015 in partnership with the California Ocean Protection Council (OPC) and NMFS. The Working Group consists of commercial and recreational fishing representatives, environmental organization representatives, members of the disentanglement network, and state and federal agencies.

CDFW adopted regulations (14 CCR Section 132.8) that became effective on November 1, 2020, and established a risk assessment mitigation program (RAMP) for the commercial Dungeness crab fishery to protect actionable species—blue whales, humpback whales, and Pacific leatherback sea turtles. These regulations began governing fishing operations with the 2020-2021 fishing season and form the regulatory foundation of the proposed CP. As defined in regulation and further described below, the RAMP is a dynamic management framework that: establishes thresholds for determining if entanglement risk is elevated; specifies potential management actions; and requires use of the best available science when determining appropriate management actions by the CDFW Director. Under the *2018 Marine Life Management Act Master Plan*, CDFW has defined best available science as relevant, inclusive, objective, open, and timely scientific information (CDFW 2018). Under the RAMP, the Director is required to conduct a risk assessment at least monthly between November and the end of the fishing season and consider Working Group recommendations regarding appropriate management measures prior to implementation. The Working Group plays a role in the RAMP implementation by recommending management actions to the CDFW Director based on the Working Group members' relevant expertise.

In addition to the risk assessment and management action elements of the RAMP, 14 CCR Section 132.8 also contains provisions that relate to available data under subsection (d) and management actions under subsection (e). Subsection (g) specifies additional reporting requirements for all fishery participants. Subsection (h) establishes a process for CDFW certification of Alternative Gear. Collectively, the requirements and processes of each subsection in 14 CCR Section 132.8 constitute the RAMP. Enforcement of the RAMP falls primarily under the responsibility of CDFW's Law Enforcement Division. CDFW Officers are responsible for ensuring compliance with various management measures implemented under the RAMP, including time/area closures, vertical line reductions, and gear modifications. CDFW also receives law enforcement support from the United States (US) Coast Guard and NMFS Office of Law Enforcement.

Revisions to the RAMP are proposed as part of implementation of the CP and are discussed in Section 3.3 below.

2 PROJECT LOCATION

The project location (referred to henceforth as “project area”) encompasses the entirety of the US Exclusive Economic Zone (EEZ) from the California/Oregon border in the north to the California/Mexico border in the south (Figures 1 and 2). Although the commercial Dungeness crab fishery occurs almost exclusively north of Point Conception (CDFW 2020), CDFW jurisdiction over the fishery extends throughout the entire EEZ off California’s coast (16 U.S. Code Section 1856 note).

3 PROJECT DESCRIPTION

To support its application for an ITP under Section 10 of the ESA, CDFW has prepared a draft CP to monitor, minimize, and mitigate entanglements of specific ESA-listed whales and sea turtles (“Covered Species”) in commercial Dungeness crab fishing gear off the coast of California. On December 1, 2021, CDFW released an updated draft CP for a 45-day public comment period (<https://wildlife.ca.gov/Conservation/Marine/Whale-Safe-Fisheries#55999898-conservation-plan>). In addition, CDFW is proposing to revise 14 CCR Section 132.8, the RAMP for the commercial Dungeness crab fishery to protect Covered Species. The revisions include a risk assessment schedule, revisions to triggers for management action, updates to categories of management considerations, and general updates for the process for notification of management actions, mandatory data reporting requirements, and a process for alternative gear authorization. Finally, CDFW is requesting a renewable ITP with allowable take levels for Covered Species. Covered Species are proposed to include the following ESA-listed species: blue whales, the Central America DPS and Mexico DPS of humpback whales, and Pacific leatherback sea turtles.

3.1 PROJECT OBJECTIVES

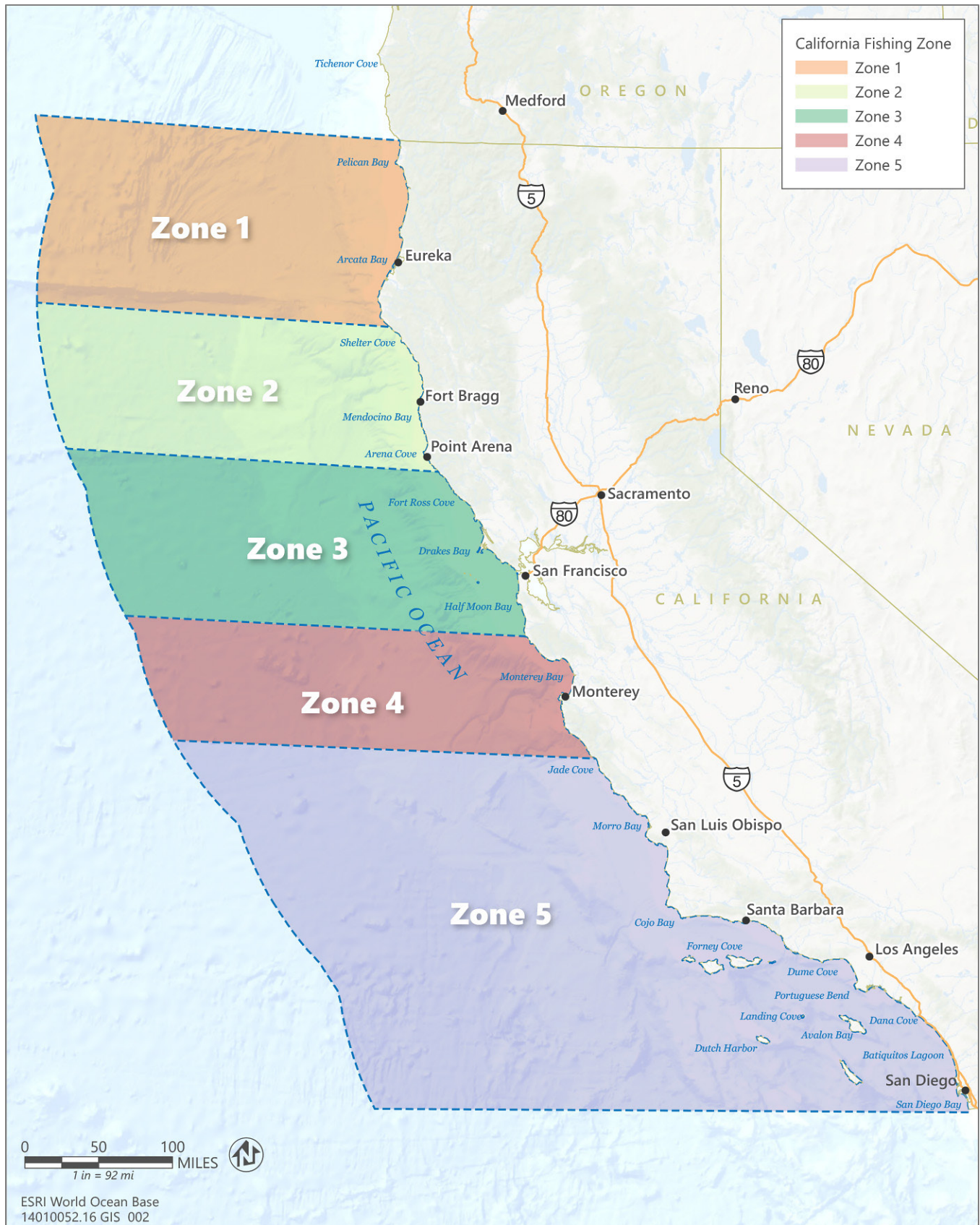
The goal of the project is to reduce take of Covered Species by the commercial Dungeness crab fishery to the maximum extent practicable by minimizing co-occurrence between Covered Species and commercial Dungeness crab trap gear across the project area. Specific objectives are to:

- ▶ minimize humpback whale, blue whale, and Pacific leatherback sea turtle entanglement risk from the commercial Dungeness crab fishery by restricting presence of actively fished vertical lines;
- ▶ reduce co-occurrence of humpback whale, blue whale, and Pacific leatherback sea turtle with lost or abandoned California commercial Dungeness crab gear throughout the project area;
- ▶ develop, evaluate, and require use of gear modifications which reduce severity if humpback or blue whales become entangled in commercial Dungeness crab gear; and
- ▶ support rapid entanglement response efforts which minimize the severity of large whale entanglements in gear from the commercial Dungeness crab gear.



Source: adapted by Ascent Environmental in 2022

Figure 1 Project Area



Source: adapted by Ascent Environmental in 2022.

Figure 2 California Fishing Zones

3.2 CONSERVATION PLAN

The CP describes a comprehensive strategy to monitor, minimize, and mitigate entanglements of blue whales, the Central America DPS and Mexico DPS of humpback whales, and Pacific leatherback sea turtles in commercial Dungeness crab fishing gear off the coast of California. Covered Activities addressed in the CP include activities associated with the existing commercial Dungeness crab fishery and are related to habitat consideration, gear configuration, fishing vessel permits and trap limits, monitoring of landing receipts, trap estimates, location of catch, fishery management areas and timing, and spatial trends in fishing activity. Specific Conservation Measures to reduce take of Covered Species in the CP include triggers for implementing management actions as part of the revised RAMP, implementation of best management practices, and implementation of a lost or abandoned commercial Dungeness crab trap gear retrieval program, as summarized below.

3.2.1 Triggers for Management Actions under the RAMP

The most protective management response CDFW can implement to prevent entanglements is a fishery closure where part or all of the project area is closed to commercial Dungeness crab trap gear. Therefore, the default action when a trigger is reached would be closure of one or more Fishing Zone(s) to traditional commercial Dungeness crab gear. However, the Director may select from alternatives based on the best available science related to the management considerations. Under the revised RAMP, management actions will be limited to prohibiting surface gear, depth constraints, vertical line/gear reductions, closure or delay of one or more Fishing Zone(s), and use of Alternative Gear (14 CCR Section 132.8 subd. (e)). Having a bounded range of options allows management responses to be both flexible and predictable. Should the best available science be insufficient to support alternative management responses, the default of a partial or statewide closure of the project area should provide a protective threshold to minimize entanglement risk.

3.2.2 Best Practices

In addition to the RAMP, the CP includes best practices to reduce take of Covered Species. Gear modifications that are likely to reduce entanglement severity are currently being evaluated or recommended for widespread use as best practices. The first Best Practices Guide for Minimizing Marine Life Entanglement was developed in fall 2015 and it was last updated in fall 2021 by the Working Group, with input and support from OPC, NMFS, and CDFW. The Best Practices Guide would continue to be updated on an as needed basis to incorporate new recommendations from the Working Group, Working Group Advisors, and agencies.

3.2.3 Retrieval of Lost or Abandoned Gear

The CP also includes regulatory updates to 14 CCR Section 132.8 addressing retrieval of lost or abandoned gear. CDFW adopted 14 CCR Section 132.7 in September 2019 implementing a lost or abandoned commercial Dungeness crab trap gear retrieval program. Under the terms of the program, qualified entities work with commercial trap fishermen to conduct on-the-water retrieval operations starting 15 calendar days after the scheduled season closure (FGC Section 8276) and continuing until September 30. Compensation for retrieval activities is provided either by the Dungeness crab vessel permit holder, in exchange for the retrieved trap, or by CDFW. Revisions to 14 CCR Section 132.8 would require Dungeness crab permit holders to include the number of lost traps in their bi-weekly Fishing Activity Reports.

3.3 PROPOSED REGULATORY CHANGES

The proposed regulation revises Section 132.8, Title 14, CCR to update the RAMP. The revisions proposed in Section 132.8 would do the following:

- ▶ Expand the extent of Fishing Zone 5 to include Pt. Conception to the US/Mexico Border (currently Fishing Zone 6).
- ▶ Revise management action triggers and considerations to be based on confirmed numbers of entanglements of a particular actionable species weighted by whether the confirmed entanglement was in California commercial Dungeness crab gear or unknown fishing gear.
- ▶ Clarify survey data to be used for assessing concentrations of actionable species in a fishing zone and how long to delay the fishing season if current survey data are unavailable.
- ▶ Revise management actions to eliminate use of fleet advisory notices encouraging voluntary efforts and/or measures to reduce risk of entanglements as a management action; authorize the Director to prohibit use of surface gear, except the main buoy during the fishing season within any of the fishing zones; and authorize the Director to prohibit commercial take or possession of Dungeness crab within any fishing zone or delay opening of the commercial Dungeness crab fishing season.
- ▶ Update how Dungeness crab permit holders submit bi-weekly reports to CDFW.
- ▶ Revise the deadlines when all CA commercial Dungeness crab fishing vessels are required to install an electronic system to monitor the location and movement of vessels; use hydraulic gear sensors to indicate fishing activity; and automatically transmit all location and fishing activity data to CDFW or an authorized agent.
- ▶ Define other conditions by which alternative gear may be authorized and require that the current list of authorized alternative gear include any conditions on use of the alternative gear.
- ▶ Define the information that must be included in bi-weekly fishing activity reports submitted to CDFW.
- ▶ Specify that it is unlawful to violate any restriction or fail to comply with any requirement of Section 132.8.

3.4 INCIDENTAL TAKE PERMIT

CDFW is requesting a 21-year term renewable ITP with the following allowable take levels of Covered Species by the California commercial Dungeness crab fishery: up to nine humpback whales every 3 years, up to one blue whale every 3 years, and up to one Pacific leatherback sea turtle every 10 years. Over the proposed ITP 21-year term, this would equate to a total of 63 humpback whales, seven blue whales, and two Pacific leatherback sea turtles. For purposes of determining whether these take thresholds have been reached, CDFW would also consider every two confirmed entanglements in Unknown Fishing Gear to constitute take of a single individual by the California commercial Dungeness crab fishery.

Based on initial consultation with NMFS during preparation of the CP, the proposed 21-year ITP duration would allow the ITP term to align with required Marine Mammal Protection Act authorizations that must occur every 3 years; provide sufficient time to implement the CP; and provide a measure of predictability for fishery participants.

4 POTENTIAL ENVIRONMENTAL EFFECTS

CDFW has determined based on preliminary review, in accordance with Section 15060 of the CEQA Guidelines, that an EIR should be prepared. As required by CEQA, the EIR will describe existing conditions and evaluate the potential environmental effects of the project and a reasonable range of alternatives, including the no-project alternative. It will address direct, indirect, and cumulative effects. The EIR will also discuss potential growth-inducing impacts and summarize significant and unavoidable environmental effects. The EIR will identify feasible mitigation measures, if available, to reduce potentially significant impacts. At this time, CDFW has identified a potential for environmental effects in the areas identified below.

Air Quality. Implementation of the project is not expected to result in construction-related emissions. The EIR will evaluate the potential for implementation of the CP and ITP to change operation-related emissions associated with the commercial Dungeness crab fishery.

Marine Biological Resources. Special-status wildlife species could potentially occur within the project area including Covered Species. Implementation of the project could result in disturbance of special-status species or their habitat. These issues will be evaluated in the EIR.

Cultural Resources and Tribal Cultural Resources. Any tribal or other cultural resources that are known or have the potential to occur in the project area will be assessed, and the potential impacts that may occur to known and unanticipated resources because of project implementation will be evaluated. The EIR will document the results of AB 52 consultation with Native American tribes and any agreements on mitigation measures for protection of California Tribal Cultural Resources.

Greenhouse Gases and Climate Change. This section will assess the potential for operation-related greenhouse gas emissions associated with changes to the commercial Dungeness crab fishery as a result of the CP and ITP. In addition, this section will qualitatively discuss potential climate change influences on the Dungeness crab fishery and whether those influences could alter the environmental impacts of implementing the CP and ITP.

Hazards and Hazardous Materials. This section will assess the potential for operation-related impacts related to hazards and hazardous materials due to changes in the commercial Dungeness crab fishery as a result of the CP and ITP.

Water Quality. This section will assess the potential for operation-related impacts to water quality including short-term and long-term water quality effects as a result of implementation of the CP and ITP.

5 PUBLIC SCOPING MEETING

CDFW will conduct a public scoping meeting on October 4, 2022, at 3:30 p.m. to inform interested parties about the project, and to provide agencies and the public with an opportunity to provide comments on the scope and content of the EIR.

The public scoping meeting will be held virtually via Zoom webinar. Participants must register in advance at the following link: https://us06web.zoom.us/webinar/register/WN_7zcaPdLbQyiyXT48G8ntg. After registering, participants will receive the meeting link via email to log into the webinar on October 4, 2022.

6 PROVIDING COMMENTS ON THIS NOTICE OF PREPARATION

Written comments on the NOP should be provided no later than 5:00 p.m. on October 18, 2022. Please send all comments to:

California Department of Fish and Wildlife
Attn: Ryan Bartling
3637 Westwind Blvd
Santa Rosa, CA 95403

Or via E-mail: Whalesafefisheries@wildlife.ca.gov (include "Conservation Plan – NOP Comments" in subject line)

If you are from an agency that will need to consider the EIR when deciding whether to issue permits or other approvals for the project, please provide the name of a contact person. Comments provided by email should include the name and mailing address of the commenter in the body of the email.

6.1 FOCUS OF INPUT

CDFW will rely on responsible and trustee agencies to provide information relevant to the analysis of resources within their jurisdiction. CDFW encourages input on the scope and content of the EIR, with a focus on the following topics:

- ▶ **Scope of Environmental Analysis.** Guidance on the scope of analysis for this EIR, including identification of specific issues that will require closer study due to the location, scale, and character of the CP and issuance of an ITP;
- ▶ **Mitigation Measures.** Ideas for feasible mitigation, including mitigation that could potentially be imposed by CDFW and that would avoid, eliminate, or reduce potentially significant or significant impacts;
- ▶ **Alternatives.** Suggestions for alternatives to the CP and ITP that could potentially reduce or avoid potentially significant or significant impacts; and
- ▶ **Interested Parties.** Identification of public agencies, public and private groups, and individuals that CDFW should notice regarding this project and the accompanying EIR.

7 REFERENCES

California Department of Fish and Wildlife. 2018 (February). *2018 Master Plan for Fisheries A Guide for Implementation of the Marine Life Management Act*. Available at: <https://wildlife.ca.gov/Conservation/Marine/MLMA/Master-Plan>. Accessed August 11, 2022.

———. 2020. Dungeness Crab, *Metacarcinus magister*, Enhanced Status Report.

CDFW. See California Department of Fish and Wildlife.

Saez L, Lawson D, DeAngelis M. 2021. Large whale entanglements off the U.S. West Coast, from 1982-2017. NOAA Technical Memorandum NMFS-OPR-63A. 50 p.

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From: Kraft, Kevin@CDCR <Kevin.Kraft@cdcr.ca.gov>
Sent: Tuesday, September 20, 2022 7:04 AM
To: Wildlife R7 Whale Safe Fisheries
Cc: Smith, Richard (SAC)@CDCR
Subject: cconservation plan-NOP comments

You don't often get email from kevin.kraft@cdcr.ca.gov. [Learn why this is important](#)

WARNING: This message is from an external source. Verify the sender and exercise caution when clicking links or opening attachments.

Been fishing for crab for over fifty years.Its a family tradition for me that brings the whole family together at the coast for quality time and eating the bounty of the sea.I understand the entanglement possibilities with marine life using ropes,specifically whales and turtles.with that said I would like to see more research and documentation of this with the sport (public) end of this.Surely the commercial fishing Industry impacts this issue far greater then us average "sport" guys.We all want to improve on techniques to avoid entanglements moving forward without closing or shortening fishing season.

Sincerely
Kevin Kraft

NATIVE AMERICAN HERITAGE COMMISSION

September 27, 2022

Ryan Bartling
California Department of Fish and Wildlife
Marine Region 7, Santa Rosa Field Office, 3637 Westwind Blvd
Santa Rosa, CA 95403

Re: 2022090320, Conservation Plan for the California Commercial Dungeness Crab Fishery Project, Del Norte, Humboldt, Los Angeles, Marin, Mendocino, Monterey, Orange, San Diego, San Francisco, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, Sonoma, and Ventura Counties

Dear Mr. Bartling:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.



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Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

- 1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:** Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

 - a.** A brief description of the project.
 - b.** The lead agency contact information.
 - c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
 - d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
- 2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:** A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subs. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1 (b)).

 - a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
- 3. Mandatory Topics of Consultation If Requested by a Tribe:** The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

 - a.** Alternatives to the project.
 - b.** Recommended mitigation measures.
 - c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).
- 4. Discretionary Topics of Consultation:** The following topics are discretionary topics of consultation:

 - a.** Type of environmental review necessary.
 - b.** Significance of the tribal cultural resources.
 - c.** Significance of the project's impacts on tribal cultural resources.
 - d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
- 5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process:** With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
- 6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document:** If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

 - a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.

b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

- a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
- b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

- a.** Avoidance and preservation of the resources in place, including, but not limited to:
 - i.** Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i.** Protecting the cultural character and integrity of the resource.
 - ii.** Protecting the traditional use of the resource.
 - iii.** Protecting the confidentiality of the resource.
- c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
- e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
- f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

- a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
- b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

- c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

George Bradshaw
President
Larry Collins
Vice-President
Stephanie Muntz
Secretary
Chuck Cappotto
Treasurer

**PACIFIC COAST FEDERATION
of FISHERMEN'S ASSOCIATIONS**



Glen Spain
Acting Executive Director
Northwest Regional Director
Vivian Helliwell
Watershed Conservation Director
In Memoriam:
Nathaniel S. Bingham
Harold C. Christensen
William F. "Zeke" Grader, Jr.

Please Respond to:

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17 October 2022

Reply Email: fishlifr@aol.com

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California Dept. of Fish & Wildlife
Attn: Ryan Bartling
3637 Westwind Blvd.
Santa Rosa, CA 95403

18 October 2022
Via Email in PDF format

Email to: Whalesafefisheries@wildlife.ca.gov

RE: D-Crab Conservation Plan – NOP Scoping Comments

Dear Ryan:

These are the PCFFA comments in response to the formal CEQA *Notice of Preparation* (NOP) (dated 19 Sept. 2022) of a Draft Environmental Impact Report (EIR), and respond to your Department's specific NOP request for CEQA scoping comments. We are therefore commenting in this letter primarily "on the scope and proposed content of the EIR" now in preparation, as requested in the NOP.

Unfortunately, the most recent draft of the Conservation Plan (CP) available to the public for review in this process dates all the way back to the December, 2021, *Draft Conservation Plan for California's commercial Dungeness Crab Fishery* ("Draft CP"). We understand from your public scoping meeting presentation on 4 October 2022, however, that the Dec. 2021 Draft CP has undergone considerable internal changes since then. The public does not yet have, however, any since-updated Draft CP to review or comment upon other than the Dec. 2021 version, so our comments here will be addressing that Dec. 2021 Draft CP document.

On 31 January 2022, PCFFA provided extensive written comments outlining the various flaws, gaps and ambiguities in the Dec. 2021 Draft CP, and making suggested changes. Those written comments were submitted informally for the Department's consideration at that time, since no formal CEQA process was then underway. Since a formal CEQA process has now begun with the publication of the NOP, PCFFA thus reiterates and restates those 31 January 2022 written

comments for the record in this formal CEQA process by attachment of those written comments to these scoping comments below.

Attachment 1 are the 31 January 2022 PCFFA written comments then submitted. Please include them in the Administrative Record for this CEQA proceeding as attachments to this scoping comments letter.

Additional Scoping Comments

Establishing Appropriate Environmental Baselines:

- (1) Considering Past D-Crab Gear Entanglement History: Designating the environmental baseline as required under CEQA should include noting the number of confirmed entanglements in California Dungeness crab gear of Covered Species¹ over at least the past 20 years. This means expanding on the data listed in the Draft CP at Tables 4-1 through 4-3 (pp. 46-47) to include at least 20 years of data. This data will more clearly show that historically such entanglements were typically rare, except in the unprecedented years of 2015 and 2016 in which catastrophic ocean conditions associated with “the Blob” ocean heatwave caused massive and unprecedented disruptions of ocean food chains. Unfortunately, that ocean heatwave and the ecological chaos it generated forced migrating humpback whales to forage much further inshore, where they then ran straight into more highly concentrated than usual Dungeness crab trap operations forced to concentrate in much smaller ocean areas due to heatwave-triggered domoic acid restrictions over most of the rest of the California coastline. This was a “perfect storm” of bad events that had never occurred before and has not recurred since. But that it did occur at all activated the fishing industry to deal with this problem as quickly and effectively as possible.

These 20-year plus entanglement statistics will also show that since 2017, and the broad adoption by the industry first of various voluntary but nearly industry-wide Dungeness gear “best management practices” and other actions, and then the concentrated efforts of the California Dungeness Crab Fishing Gear Working Group (“Working Group”) that led to RAMP, that the actual number of confirmed entanglements of Covered Species in the California Dungeness fishery has actually gone down substantially even from pre-2015 historic baselines. In short, our industry has, on multiple fronts, diligently led efforts to reduce whale entanglements throughout our Dungeness fisheries, and can be proud of what it has accomplished since 2017. Acknowledging and documenting the benefits of those numerous industry-lead entanglement reduction efforts since 2017, especially as compared to the disasters of 2015 and 2016, is only fair and will also put the number of entanglements that currently do occur into their proper environmental baseline perspective. *In short, what the industry is doing through RAMP and the Working Group to reduce California Dungeness crab fishery entanglements of Covered Species has largely succeeded.*

¹ “Covered Species” as defined in the NOP include the following ESA-listed species: blue whales; the Central America DPS and the Mexico DPS of humpback whales, and; Pacific leatherback turtles.

- (2) Accounting for Cumulative Covered Species Impacts: Unfortunately, ocean injury (including mortality) of Covered Species is a classic cumulative impacts problem. By far the leading cause of whale injuries, including mortalities at sea, are *ship strikes*, not Dungeness fishing gear entanglements. The number of confirmed ship strikes affecting Covered Species for at least the past 20 years should also be documented and described in a comparable table as part of the CEQA environmental baseline in this process. While this is in no way an excuse for the fishing industry to do less than it can to minimize its own entanglement problems, in the face of much higher mortalities from ship strikes than from fishing gear entanglements it is clear that much more can be done to prevent ship-strike injuries as well. Reducing ship-strike impacts would reduce the cumulative population-level impacts on these species as a whole. In any event, ship strike injuries (including mortalities) are a real threat to Covered Species and therefore must also be accounted for and described under CEQA as part of the environmental baseline. There are also other human-induced mortalities that whale populations, as apex predators, are vulnerable to, including (particularly among Puget Sound orca populations) PCB and other human-produced toxic chemical bioaccumulation effects that can greatly reduce both whale fitness and fertility. Natural diseases and natural predation also take a toll and also need to be counted in the environmental baseline as well.
- (3) Accounting for Non-Dungeness Gear and Non-California Entanglement Events: Another part of the environmental baseline that should be described under CEQA includes the impacts on Covered Species of entanglements in non-Dungeness crab fishery gear, and also from incidents that may involve entanglement events occurring in Mexico, Oregon, Washington, Canada and/or Alaska, including all other places besides California waters. These are all impacts that are real, but which are not under the control of people fishing in California. These impacts need to instead be teased out of the data so that their causes outside of California agency control can be factored into cumulative impacts.
- (4) Describing the Environmental Impacts of Dungeness Fisheries: Existing California's Dungeness fisheries themselves form an important part of the environmental baseline, and both the positive and negative environmental impacts of this fishery should be delineated as part of that baseline. Among the positive impacts of this fishery are that D-crab fisheries preferentially and sustainably harvest the aggressive (and cannibalistic!) mature adult male crabs from crab nursery areas, thus removing them as a major predator on juvenile crabs in that nursery area. Female crabs are not retained, but thrown back to assure adequate breeding stocks. In this way the Dungeness crab fishery is not only biologically fully sustainable (i.e., preferentially harvesting only mature adult males but leaving juveniles and females) but contributes to increasing the replacement rates of populations of crabs generally within fished areas. These routine Dungeness fishery management conservation measures should be included in the environmental baseline.

Accounting for Additional Ocean Impacts of So-called "Pop-up" Alternative Gear:

- (1) Alternative Gear Testing Programs: Several environmental groups continue to advocate for automated, "ropeless" or "pop-up" gear configurations, some of which are under serious

consideration. However, so far none of this supposedly alternative gear has proven physically nor economically feasible under actual and often harsh ocean harvest conditions, as CDFW noted in its Draft CP on pp. 117-118. All proposed “alternative gear” needs to be thoroughly tested, of course, including under in-fishery and real-life ocean conditions. Methods and a process for conducting rigorous scientific field tests of these proposed alternative gear types need to be written into the Draft CP or they may not be pursued or funded.

- (2) Alternative Gear Failure Rates and Environmental Impacts: So far, field-tested “ropeless” or highly automated “pop-up” gear has, among other faults, also been shown to have much higher failure and drift/loss rates at sea as compared to more traditional gear. This means that if widely deployed, then larger numbers of this “alternative” gear would surely become lost or abandoned and thus potentially contribute to more “ghost gear” entrapments of sea life on the sea floor, not to mention becoming a long-term ocean pollution problem. Since there are no ropes tied to “ropeless” gear with which to locate them or pull them up (depending on the model), this also makes them much harder to retrieve when they drift at sea. Additionally, highly computerized ropeless and pop-up gear, when lost at sea, contains a number of potentially toxic computer, battery and heavy metal components that could, if in mass use, become pollution problems in themselves. Also, the average service turnaround time (time to retrieve, empty and redeploy) for the average conventional crab pot is about 1 minute. The electronically controlled “ropeless” and “pop-up” gear tested to date has an at-sea service turnaround time on the order of 8 to 15 minutes, depending on the model. This means that to service this alternative gear in actual operation will take between 8 to 15 times longer in terms of fuel costs and time. Additional diesel fuel use means additional greenhouse gas impacts. Also, an ocean surface covered with multiple “pop-up” devices could also create a serious navigation hazard. These environmental impacts of likely higher rates of use of “ropeless” or “pop-up” gear equipment, with its higher rates of gear failures and losses, all need to be accounted for as an environmental impact of any alternative gear programs.

Accounting for Increasing Whale Populations Generally:

- (1) Projecting Whale Population Growth: The current proposed incidental take permit restrictions for entanglement encounters with humpback whales particularly (i.e., up to nine humpback whales every 3 years) are already extremely strict and rigorous. But these already tight “take limits” are also running up against the fact that populations of humpback whales that are Covered Species under the Draft CP are also rapidly increasing in numbers – and thus in-fishery gear encounters will almost certainly increase in the future, even with all other factors being the same. This amounts to unfairly punishing the fishing industry for doing a good job of protecting whales! The EIS should account for increasing populations of Covered Species, and forecast what those populations would likely be, if population growth continues at current rates (as we all hope it will), over the next 21 years of the term of the ITP. Some sort of adaptive-management based periodic reassessment and flexible resetting of allowed “take” limits so that those limits can be adjusted in light

of whale population growth needs to be part of the final CP and embedded into the ITP itself.

- (2) Scaling of Covered Species “Take” Limits by Population: If the proposed “take” limits are legally difficult to adjust (either because of rigidities in the CP itself requiring a separate formal rule-making to make an adjustment, or in the ITP itself requiring formal reconsultation) then when whale populations significantly increase, as is highly likely, this creates the tragic consequence of potentially triggering more and more fisheries closures (with all the associated and often devastating socioeconomic consequences for fishery-dependent communities) the more the protected whale populations *increase!* This is not a good conservation mechanism nor good management. We urge you to build in an automatic adjustment mechanism to both the CP and the ITP that requires: (a) annual assessments and estimates of total populations for Covered Species; (b) at least a once every three years adaptive management process to review the Covered Species “take” limits and to adjust them to be less restrictive if whale populations significantly increase above designated biological thresholds, without having to go through a formal (and time consuming) new rule-making amendment process. In this regard, we were pleased to hear at the Department’s 4 October 2022 NOP Scoping Workshop that formal “adaptive management” procedures were being included in the final CP in the form of a formal review and rethinking of its conservation measures every three years. Given that ocean conditions are changing at a more rapid pace than ever, this once-every-three-years adaptive management review process is necessary and prudent.

Periodic Reassessments of the Percentages of Unknown Gear Entanglements that are Attributed to the California Dungeness Fishery:

- (1) 50% Unknown Gear Attribution is Not Well Based in Data: Another problem that the Draft CP created, as discussed in the PCFFA written comments attached, is the rigid and poorly justified attribution system more or less carried over by rote from the Settlement Agreement, and now part of the regulations, of 50% of all unknown gear entanglements to the California Dungeness crab fishery. As noted particularly in the PCFFA comments by people who actually participated in those negotiations, this “50% attribution rate” was nothing more than a “wild guess” at the time of Settlement negotiations, and had no scientific basis whatsoever. While some basis for a 50% allocation was attempted in the December, 2021 Draft CP, loosely based on the total California Dungeness fishery percentage of “lines in the water” as between the three US states, this too is nothing more than a very rough guess. And as PCFFA’s earlier comments attached note, as more and more uniform by-state gear marking systems are mandated, fewer and fewer entanglement incidents will likely be attributed to “unknown gear.” Any entanglements that are *truly* unidentifiable are also less and less likely to be from California Dungeness fisheries where full gear marking is now required.
- (2) Flexibly Adjusting Unknown Gear Attributions: Similar to the “adaptive management” mechanism discussed above, we also urge you to build in an automatic adjustment mechanism to both the CP and the ITP that, as any science-based attribution of unknown

gear entanglements to CA Dungeness crab fisheries requires, provides for: (a) annual reassessments and estimates of how many entanglements were truly from unknown gear; (b) a method for adjustments to the attribution percentage rate from unknown gear entanglements attributed to the CA Dungeness crab fishery out of the total of unknown gear entanglements, in such a way that it can be done without having to go through a formal (and time consuming) new rule-making amendment process each time. As a suggestion, this unknown gear attribution rate rule could be rewritten in the final CP so its specified original rate of 50% could be changed by decision of the CDFW Director, based on the then-best available science and after consultation with the Working Group. That sort of management flexibility is required for effective adaptive management, especially under the current rapidly changing ocean regimes we see today.

Numerous other Draft CP plan comments and suggestions that are not specifically related to “scoping” issues are included for the record in Attachment 1, and incorporated by reference herein as though set forth fully in these comments.

Thanks for the opportunity to comment, and we at PCFFA look forward to working with the Department on making sure the implementation of the RAMP program, the final Conservation Plan and the Biological Opinion and ITP that will result are well managed and feasible, are based on the best available science, and allow our valuable California fisheries to continue to serve high-quality Dungeness crabs to America’s tables.

Sincerely,

A handwritten signature in black ink, appearing to read 'gh' followed by a stylized flourish.

Glen Spain
NW Regional Director
For PCFFA

Attachment 1

31 January 2022 PCFFA written comments
on the Draft CP

George Bradshaw
President
Larry Collins
Vice-President
Lorne Edwards
Secretary
Lori French
Treasurer



Mike Conroy
Executive Director
Glen H. Spain
Northwest Regional Director
Vivian Helliwell
Watershed Conservation Director
In Memoriam:
Nathaniel S. Bingham
Harold C. Christensen
W.F. "Zeke" Grader, Jr.

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January 31, 2022

California Department of Fish and Wildlife

Submitted via email to: WhaleSafeFisheries@wildlife.ca.gov

RE: Updated Draft Conservation Plan for California's Commercial Dungeness Crab Fishery dated December 1, 2021

The Pacific Coast Federation of Fishermen's Associations ("PCFFA") is pleased to offer the following comments on the California Department of Fish and Wildlife ("CDFW") December 1, 2021 - *Updated Draft Conservation Plan for California's Commercial Dungeness Crab Fishery* ("Draft CP"). PCFFA is the largest organization of commercial fishermen and women on the West Coast, many of whom own small businesses. For forty years, we have been leading the industry in protecting the rights of individual fishermen and fighting for the long-term survival of commercial fishing as a productive livelihood and way of life. PCFFA represents local fishermen's associations from Santa Barbara, California to Alaska.

We very much appreciate that CDFW took the comments we submitted in 2020 into account when developing the Draft CP. Having said that, we still have some concerns about the Draft CP and the implications thereof. We present our comments in two sections. The first will provide general comments on the Draft CP and the future operation of the California Commercial Dungeness Crab fishery ("**the Fishery**") in general. The second will be more targeted comments on specific sections of the Draft CP.

GENERAL COMMENTS ON THE DRAFT CP

Overall Readability

There are undefined acronyms used throughout the document. A front-space Table of Abbreviations would be much appreciated, especially for the non-technical reader. An early on index to tables and figures would be similarly helpful.

Timing of the release of the Draft document

We acknowledge CDFW was under no obligation to release the Draft CP before submitting to NOAA and we appreciate CDFW's transparency in seeking feedback on the document before submitting. The Draft CP was released on December 1, 2021. This unfortunately also coincided with the opening of the commercial Dungeness crab fishery in Fishing Zones 1, 2, 5 and 6. Commercial harvesters in Zone 4 started to set their gear at 8:01AM on December 13; and in Zone 3 at 8:01AM on December 26. Blessed with favorable ocean conditions and a high price, many commercial fishermen and other fishing community members who stand to potentially be impacted by the Draft CP were unable to read the document and fewer had the necessary time to develop comments on the contents of the Plan by the comment deadline.

We understand that this will not be the only opportunity for fishery participants to comment on the contents of the Draft CP. Because issuance of the Incidental Take Permit ("ITP") is a decision to be made by NOAA/NMFS, NMFS will release the Draft CP and a draft Environmental Impact Statement for a 60-day public comment period. CDFW will also release an environmental review under the California Environmental Quality Act for public comments on the environmental impact of the CP.

Unknown gear types

Under the Draft CP "CDFW will also consider every two confirmed entanglements in Unknown Fishing Gear * * * to constitute take of a single individual by the California commercial Dungeness crab fishery." We have concerns related to: (1) the 50% attribution rate being fixed into the Draft CP; (2) the precedent being set here, namely the California Dungeness crab fishery being held accountable for entanglements which cannot be attributed to the Fishery; and (3) potential impacts of this.

50% attribution rate being fixed into the Draft CP

While the Draft CP is somewhat vague in how CDFW arrived at the 50% attribution rate, the rationale appears to be loosely related to the number of vertical lines deployed within the Fishery relative to other fisheries operating off California. This is confirmed in the Amended Initial Statement of Reasons for the regulations implementing the Risk Assessment and Mitigation Program ("RAMP"), which reads:

“Because not all Confirmed Entanglements can be attributed a fishery of origin, it was necessary to address how entanglements in Unknown Fishing Gear would be considered under the RAMP. Entanglements which can be attributed to other fisheries will not lead to a restriction for the commercial Dungeness Crab fishery. However, entanglements in Unknown Fishing Gear that may involve commercial Dungeness crab gear will be included in Impact Score Calculations. This is based on a recent NMFS summary of entanglements (Saez et al. 2020) which quantified the proportion of entanglements which could be attributed to a gear type or specific fishery. Considering the proportion of entanglements of known origin already attributed to commercial Dungeness crab, and the fact that the amount of trap gear deployed by the commercial Dungeness crab fishery is higher than any other state trap fishery, the Department expects that up to 50% of those entanglements in Unknown Fishing Gear are likely to be from California commercial Dungeness crab gear. The Department’s Impact Score Calculations therefore weigh such entanglements at 50% of the corresponding entanglement confirmed in California commercial Dungeness Crab gear.¹”

However, this attribution rate is apparently taken directly from the 3/27/19 Settlement Agreement in *CBD vs. Bonham*, (Dkt. 72) at Appendix A, Sec. 2, b, ii:

“a confirmed entanglement of a whale in an unknown gear type or a whale of unknown species shall count as 0.5 entanglement.”

This is a very harsh rule! But it should be noted that this 0.5 attribution rate in the Settlement Agreement was simply a compromise number that came out of a hotly negotiated settlement and was NOT based on any scientific or statistical analysis at the time. However, that number has now apparently been picked up in the CP, although still without any support in the science, and with no consideration, at all, of major changes in the Fishery under RAMP and new “Best Management Practices” that since 2019 have greatly reduced the number of entanglements in the Dungeness fishery.

But then in Section 5.2.1.1.3, CDFW acknowledges that with increasing implementation of numerous Dungeness crab and other trap fishery universal gear marking programs, not just in California but also in Oregon and Washington, that the proportion of total entanglements that are attributed to “unidentified fishing gear” are likely to decrease, and that in fact Objective 4a of CDFW Conservation Plan is to reduce the overall percentage of total entanglements that must be attributed to “unknown fishing gear” down to 25% by the end of the permit period.

¹ Amended Initial Statement of Reasons for Regulatory Action (2020), page 18. See - [132.8 ISOR RAMP \(ca.gov\)](#)

In short, if this Conservation Plan is successful, not only the percentage of total entanglements that must be attributed to Unknown Fishing Gear will decrease (due to better gear marking and avoidance measures), but the actual proportion of Unknown Fishing Gear causing entanglements as between California Dungeness Fisheries and other fisheries (including unmarked gear from Mexico) will also likely change, making the proposed “50% rule” overly restrictive.

We contend that a “lines in the water” rationale based on historic datasets is no longer valid because RAMP is designed to ensure D Crab lines are NOT in the water when the risk of entanglement is deemed to be elevated. As one fisherman noted, “Our traps now are deployed at the lowest risk time of year, every year since RAMP, to minimize entanglement risk. We hold our openers off until the whales have gone south and we close our season early when they return. In essence a vertical line isn't or SHOULDN'T be deemed equal in the presumed assumption of entanglement risk. Therefore the 50% of unknowns shouldn't be the threshold in the Draft CP.” **We agree and propose a solution below.**

Precedent being established

We are unaware of any other fishery which is held accountable for actions which cannot be attributed to that fishery. The Draft CP, in essence, does just that. As noted above, we understand it is possible that some portion of entanglements with unknown gear could reasonably be attributed to the Fishery; but given recent and likely legislative and regulatory actions, including changes in best management practices, that have already greatly reduced the co-occurrence of Dungeness fisheries and whales, it is at least equally possible that far fewer future entanglements with unknown gear types will involve California fishing gear.

Potential impacts

The information contained in Section 4.1.3 of the Draft CP illustrates this concern. According to that Section, during 2019 and 2020 four humpback whales were entangled in California commercial Dungeness crab gear. There were an additional 10 humpback whale entanglements reported off California in unknown gear types. Under the Draft CP 50% attribution rate, this would amount to an additional five humpback whales being attributed as taken by the Fishery. The Draft CP seeks permission for the Fishery to take “up to 9 humpback whales every 3 years.” Using just the 50% attribution factor, the Fishery would have taken the total amount allowed under the Draft CP in just two years. We assume this would result in severe restrictions on the Fishery in the third year to ensure the terms of the ITP were not breached.

We strongly object to the Fishery being held accountable for interactions which cannot be attributed to it. We also understand this may be better stated as a future goal for the Fishery. It is worth noting, once again, that since implementation of the RAMP, the percentage of entanglements which can be attributed to the Fishery has dropped

dramatically. In 2021, for example, there were eleven confirmed whale entanglements reported in California - eight of these identified to specific fisheries (zero of which involved the Fishery). This means that for 2021, 72% of the reported entanglements could be attributed to a fishery which is not the California Commercial Dungeness crab fishery. To assume that 50% of the entanglements which cannot be identified to a specific fishery are attributable to the Fishery is arbitrary as it does not take into account the current state of the Fishery given multiple changes designed to minimize whale interactions.

To the extent the Fishery is held accountable for entanglements with unknown gear types, we believe the attribution factor should be dynamic and based on recent data. For example, it could be a rolling average where the attribution factor would be the percentage of all identifiable entanglements attributed to the Fishery. If we assume 10 entanglements in a year which can be identified to a specific fishery and 2 of those can be attributed to the Fishery, then the attribution factor for that year would be 0.2 (or 20%), meaning that “CDFW will also consider every five confirmed entanglements in Unknown Fishing Gear * * * to constitute take of a single individual by the California commercial Dungeness crab fishery.” Note - we are not proposing the language be changed in Section 4.2 to the preceding sentence; but offer it for illustrative purposes only. We would, however, propose the language in Section 4.2 be reworded as follows:

“CDFW acknowledges that a proportion of confirmed entanglements in Unknown Fishing Gear, as defined in Section 5.2.1.1.3, will be attributed to the California commercial Dungeness crab fishery. The attribution factor would be a rolling average, over the most recent three years, equal to the percentage of all non-Unknown Fishing Gear entanglements attributed to the California commercial Dungeness crab fishery.”

In any event, until more study is done on this issue, this attribution rate should also be specifically stated as adjustable if new data indicate that a different attribution rate would be more equitable or appropriate, as part of the adaptive management process. Making this attribution rate adjustable based on success of the CP also gives the fleet a strong economic incentive to stay the course set by the CP, and to reduce encounters as much and as fast as possible. A fixed rate of 0.50 as proposed would not do that and would be seen as merely punitive.

Discretion to Director

In our June 29, 2020, comments on the proposed regulations for the implementation of the RAMP we indicated we had “serious concerns about the amount of discretion the proposed rule would grant to the Director and the subjective manner in which that discretion could operate according to the proposed regulatory framework.” We continue to have these concerns as the role of the Director is described in the Draft CP. We continue to believe that where appropriate, additional language should be considered which provides more certainty and clarity to all interested parties.

Evolving role of the California Dungeness Crab Fishing Gear Working Group (“WWG”)

In October of 2017, CDFW was sued by the Center for Biological Diversity (“CBD”). CBD alleged that CDFW “has caused and is causing the ” illegal 'take' of threatened and endangered humpback whales, endangered blue whales, and endangered Pacific leatherback sea turtles .” PCFFA intervened in the lawsuit. In March of 2019, the parties entered into a Settlement Agreement (“Agreement”).

The Agreement tasked the WWG with providing “any RAMP risk assessment and management recommendation to the Director and settlement parties.” The WWG was, at one time, responsible for providing management recommendations to the Director based on a number of factors which were eventually codified by regulatory language implementing the RAMP.

Over the intervening years, the role of the WWG has shifted. CDFW now provides an Initial Assessment of Risk and a Proposed Management Action before the WWG meets. The WWG is free to offer its own Assessment of Risk and Proposed Management Action(s) which the Director is required to consider before making his final determination and taking any management action.

As noted in the WWG’s current charter², the WWG serves as an advisory body to the CDFW Director. Chapter 6 of the Draft CP implies that future adaptation of the Conservation Program will be based on an adaptive management framework. There is a very real fear amongst industry participants that the WWG lacks proper empowerment to be active and meaningful participants in the adaptive management process. Additional clarity is necessary to give WWG members, and stakeholders reliant upon those members, assurances that the WWG is empowered to be active and meaningful participants in the process. PCFFA remains committed to the WWG and stands willing to work with CDFW in accomplishing these goals.

In Section 7.2, on page 115, the Draft CP includes the following, “Going forward, CDFW anticipates the Working Group will participate in at least 12 meetings a year throughout the term of the permit. CDFW anticipates the Working Group will remain engaged throughout the permit term and considers their time and travel expenses to be an in-kind contribution towards CP implementation.”

We suggest that CDFW prioritize funding to compensate fishery participant members of the WWG. Fishermen are not salaried and their taking time away from fishing results in a financial loss. Other members of the WWG are salaried professionals who are paid by their organizations to participate. Fishermen, on the other hand, are being asked to take time away from income producing activities (fishing) to participate in the process. This may greatly limit their ability to participate.

² [Working Group Charter - October 2021 \(ca.gov\)](#)

Ambiguity in differentiating commitments versus aspirations

We are concerned about the lack of specificity regarding what is aspirational and what is a commitment. For example, Section 5.1 identified a number of Biological Goals and Objectives. Goal 4³ addresses instances of unidentified gear entanglements of Covered Species reported off California. We are fully supportive of this Goal and would hope that by the end of the permit term, entanglements in unidentified fishing gear will be less than 25% of the total number of confirmed Covered Species entanglements reported off California. We are unclear, however, if this is merely aspirational or if this is a commitment? If this is a commitment, what are the repercussions if this Goal is not achieved?

There are many other items which could be either aspirations or commitments and we believe clarification would be helpful to industry, managers, stakeholders and the public as to which is which.

TARGETED COMMENTS BASED ON SPECIFIC SECTIONS OF THE DRAFT CP

Page 7 - Section 1.3.1 - misstates the jeopardy consideration

The Draft CP states, “Before issuing an ITP under Section 10, NMFS must comply with the consultation requirements in Section 7 (16 USC § 1536 subds. (a) and (b)) to ensure issuing the permit **will not** jeopardize the continued existence of the listed species or result in the destruction or adverse modification of any designated critical habitat. (emphasis added)”

16 USC § 1536(a)(2) requires the Secretary to insure “any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an “agency action”) **is not likely** to jeopardize the continued existence of any endangered species or threatened species....” We suggest modifying the language in the Draft CP to include the correct standard regarding jeopardy.

Page 8 - 1.3.3 Marine Mammal Protection Act - misstates MMPA policy

The Draft CP states, “MMPA establishes a national policy of preventing additional decline and supporting rebuilding and recovery of marine mammal populations.” The NOAA Fisheries website on Marine Mammal Protection Act Policies, Guidance, and Regulations describes the policy as follows, “The MMPA set forth a national policy to prevent marine mammal species and population stocks from diminishing, as a result of human activities,

³ “To reduce instances of unidentified gear entanglements of Covered Species reported off California through improved standardized gear marking for all trap gear fisheries. By the end of the permit term, the proportion of confirmed entanglements reported off California which NMFS categorizes as occurring in unidentified fishing gear will be no more than 25% of the total number of confirmed Covered Species entanglements reported off California.”

beyond the point at which they cease to be significant functioning elements of the ecosystems of which they are a part.⁴ We suggest including this language.

Page 50 - 4.3.1 Anticipated Impacts of Taking Blue Whales and Humpback Whales

At the outset, we appreciate CDFW using updated population estimates of Blue Whales and Humpback whales provided by the 2020 Tech Memo from Calambokidis and Barlow. We note those estimates were also included in the 2021 Draft Marine Mammal Stock Assessment Reports published in the Federal Register on October 25, 2021⁵. The public comment period for the Draft closed on January 24, 2022 and at the time this comment was written the final 2021 Marine Mammal Stock Assessment Reports had not yet been released.

The Methodology for calculation of NITs, as described on Page 52, is appropriate. In this section, it was explained that:

“CDFW considered two methods for evaluating the DPS-specific impact of the requested take level (nine humpback whales per three-year period). The first method assumes that all entangled humpback whales off California belong to the most endangered DPS, i.e., all entangled whales are from the Central America DPS. However, given the best available science regarding the distribution of both DPS (including the known presence of Mexico DPS humpback whales off California), CDFW considers this to be an unreasonable assumption that would excessively constrain Covered Activities. Therefore, CDFW uses a second method as follows:

Three-year request take amount* average mortality & serious injury* proportion of Humpbacks off CA = DPS-specific 3-year total removal”

We strongly support the CDFW’s approach. Assuming that each and every whale entangled in California waters is ONLY from the smaller population of endangered Central America DPS, each time and always, is simply not reasonable. The statistical chances of this happening by random chance are miniscule. The use by CDFW of a proportional allocation in accordance with the actual proportion of DPS1/DPS2 that is observed makes much more sense, both statistically and as a matter of good conservation policy.

Page 61 - Chapter 5 - Conservation Program

We support the dual goals of the Program as identified by CDFW, “In developing this CP, CDFW was guided by the dual goals of minimizing take of Covered Species to the maximum extent practicable and maintaining an economically viable commercial Dungeness fishery.”

⁴ [Marine Mammal Protection Act Policies, Guidance, and Regulations | NOAA Fisheries](#)

⁵ [Draft 2021 Pacific SARS.pdf \(noaa.gov\)](#)

We appreciate the clear statement of these dual purposes. Both are important, and the CDFW's creation and implementation of RAMP, its increased emphasis on science-based and real-time, data-driven management measures, as well as the successful efforts of the fleet itself to implement best management practices that have resulted in significantly fewer entanglements have all demonstrated that both of these goals are not only compatible but also achievable.

Pages 61 – 65 - Section 5.1 - Biological Goals and Objectives

Regarding modeling versus real-time data-driven mitigation measures, we appreciate the Objective 1d emphasis on creating best available science models for predicting future whale distribution and abundance:

“Once these models have been deemed best available science by CDFW and/or NMFS, CDFW will incorporate model outputs into future assessments of marine life entanglement risk under Cal. Code Regs., Tit. 14 § 132.8 subd. (c) and (d).”

However, we also note that having real-time field data is always going to be vitally important in shaping effective avoidance mitigation measures. Models are, at best, incomplete and often too simplistic in projecting complex behavior, and often require years of improvements and calibration with real-time data to assure their reasonable reliability. Also, particularly with climate change impacts becoming more and more prevalent in ocean ecosystems, models (inevitably based on past data hindcasting) may no longer match real world events. The whale entanglement disasters of 2015 and 2016, for instance, could not have been predicted by any then current whale abundance or distribution models simply because the ocean heat wave “blob” that caused them was unprecedented in the record. The Draft CP recognized this problem:

“Given the uncertainty regarding future co-occurrence dynamics, CDFW will conduct routine assessments of marine life entanglement risk based on robust, real-time information (Objective 1a-1d) rather than relying on static closures based on historical patterns.” [pg.65]

Our worry, frankly, is that these necessary, real-time, whale behavior monitoring programs could lapse for lack of funding, because of poor weather conditions, changes in management or budget priorities or any number of other causes. The default state, if there is no information on which to base a risk assessment, will apparently be closures:

“The default management action is a Fishing Zone closure.” [Pg. 73]

Fisheries closures based on absence of data would be highly disruptive as well as unacceptable to the many fishing families, coastal communities and businesses that depend on the Dungeness crab fishery for their livelihoods. We therefore urge you to “bake in” a robust program of real-time whale abundance and migratory data collection methods into the Draft CP as well as into the CPs supporting regulations and ITP. If those real-time data collection programs are mandatory, they will be much easier to adequately fund and defend in the annual budgeting process.

We appreciate CDFW's attempt to provide for various real-time, marine life concentration data collection systems as discussed in Pages 75 (from Sec. 5.2.1.2) through 79. We also appreciated CDFW's statement that:

“Specifically, species distribution models currently under development by the NMFS Southwest and Northwest Fisheries Science Centers will predict either relative abundance or absolute density values for humpback and blue whales. [Page 77]

“The availability of data within and across Fishing Zones will be considered when implementing a management action. If data are unavailable for an individual Fishing Zone, CDFW may rely on historical patterns or data from an adjacent Fishing Zone.” [Pg. 82]

Pages 75-79; 82: 5.2.1.2. Marine Life Concentrations

We appreciate CDFW's attempt to provide for various real-time, marine life concentration data collection systems as discussed in Pages 75 (from Sec. 5.2.1.2) through 79. We also appreciated CDFW's statement that:

“Specifically, species distribution models currently under development by the NMFS Southwest and Northwest Fisheries Science Centers will predict either relative abundance or absolute density values for humpback and blue whales. [Page 77]

“The availability of data within and across Fishing Zones will be considered when implementing a management action. If data are unavailable for an individual Fishing Zone, CDFW may rely on historical patterns or data from an adjacent Fishing Zone.” [Pg. 82]

Page 80 - Section. 5.3.3.3 - Management Measure Effectiveness

We are glad to see a robust commitment from CDFW to track and measure the effectiveness of mitigation and avoidance measures that are likely to occur. This kind of effectiveness tracking is essential to good management.

Page 81-82 - Section 5.2.2.4 - Economic Impacts

We are gratified to see this section included, as an acknowledgment of the need to minimize the costs to our fleet of whatever mitigation measures are available. We are glad to see that assessing economic impacts to the fleet from management actions implemented under RAMP “is a priority for CDFW.” There may be many ways to minimize future entanglements, but it only makes sense to achieve the maximum benefit we can at the minimum economic cost to those who are directly affected by closures and curtailed seasons. If we can achieve the same conservation benefits through cheaper means, this will help reduce the “frictional costs” of achieving our mutual conservation goals.

Page 90, 117-118 - Ropeless Gear

We would be remiss if we did not also thank CDFW for their comments regarding Ropeless Fishing Gear. This gear type is simply not feasible in its present stage of development, and may never be, but is only one of many potential improvements in operations and gear that could minimize entanglements as well as mortalities. We encourage fishery participants to test alternative gear types and configurations, and integrating that effort into this CP is very much appreciated.

This concludes our written comments. We apologize for the lack of thoroughness of these comments. As noted above, the timing of the Draft CP's release hindered our members from engaging in the process. We hope to be able to provide more detailed comments when NOAA publishes the document as part of the ITP application process.

Sincerely,



Mike Conroy
Executive Director
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info@cacoastcrabassociation.org

California Coast Crab Association • 900 Northcrest Drive, #130 • Crescent City, CA 95531

October 18, 2022

VIA EMAIL (whalesafefisheries@wildlife.ca.gov; ryan.bartling@wildlife.ca.gov)

California Department of Fish and Wildlife, Marine Region
Attn: Ryan Bartling, Sr. Environmental Scientist
3637 Westwind Blvd.
Santa Rosa, CA 95403

Mr. Bartling:

Thank you for the opportunity to provide comments on the California Department of Fish and Wildlife's ("CDFW") Notice of Preparation of a Draft Environmental Impact Report ("EIR") for the Conservation Plan for the California Commercial Dungeness Crab Fishery. The California Coast Crab Association ("CCCA") represents the interests of the fishermen, vessel owners, and processing companies who participate in and rely upon the California Dungeness crab commercial fishery (the "Fishery"), which is our state's most economically important fishery.

In a letter to CDFW dated January 31, 2021, CCCA provided detailed comments on the Draft Conservation Plan ("Draft CP"), which are equally relevant to CDFW's scoping process for the Draft EIR. For efficiency, we have attached those comments to this letter, along with the two enclosures that were provided with that letter. We request that CDFW consider all of these comments as part of the scoping process. Below, we briefly emphasize the importance of certain issues addressed in those comments, as well as additional issues.

1. It is essential that the final CP, incidental take permit ("ITP"), and EIR be based upon the best scientific and commercial data available. This includes (but is not limited to) all current and relevant data and information about the Fishery and humpback whale abundance and distribution. The EIR should also fully disclose all data concerning the significant and substantial increase in humpback whale abundance during which time the Fishery continued to operate without any apparent population-level impact.
2. The Draft CP addresses the "dual goals of minimizing take of Covered Species to the maximum extent practicable *and maintaining an economically viable commercial Dungeness*

crab fishery.” Draft CP at 61 (emphasis added). Accordingly, the EIR must include a detailed, comprehensive, and complete evaluation of all of the economic and social impacts of the CP, ITP, and revised RAMP regulations, particularly measures that result in partial or full Fishery closures. The public will not be able to determine if this important goal of the Draft CP is satisfied without a detailed economic assessment.

3. The EIR should examine all feasible management options that can be implemented short of partially or completely closing the Fishery, particularly in light of CDFW’s expressed goal of “maintaining an economically viable commercial Dungeness crab fishery.” In this vein, we request that CDFW consider the longlining proposal described in the attached letter and the second enclosure to that letter, and evaluate longlining as an alternative in the EIR.

4. Relatedly, it bears emphasis that the implementation of “ropeless” gear is *not* feasible and should not be considered as an alternative in the EIR.¹ The problems associated with ropeless gear are detailed in the attached letter and the first enclosure to that letter. To the extent the EIR discusses ropeless gear, we ask that CDFW consider all of those comments.

5. When evaluating the impacts of the Fishery, CDFW should attribute only interactions *known* to be caused by commercial Dungeness crab gear to the Fishery. Implementation of new state gear-marking requirements will soon allow CDFW to accurately assign responsibility for all unknown gear entanglements. The implications of the gear-marking should also be discussed in the EIR.

6. CCCA continues to object to closures being the “default” management action when other actions are available to reduce potential risks. Fishery closures do not maintain the purpose of the Fishery and would be economically devastating for the fleet, or portions of the fleet, and the communities that depend on the Fishery. Early closures are particularly devastating and should not be imposed when other management actions are available to minimize Fishery impacts and maximize conservation benefits. As indicated above, the economic and social impacts of such closures should be disclosed and evaluated in detail in the EIR.

7. The Draft CP states that CDFW may delay the Fishery’s fall opening date or close spring fishing early on a precautionary basis when marine life concentrations exceed certain thresholds *or when survey data is not available*. CCCA continues to object to Fishery closures based on the unavailability of data. The EIR should identify all data gaps and comprehensively examine how the unavailable data can be obtained. It should also fully disclose and evaluate the impacts of not obtaining the data.

¹ The Draft CP correctly acknowledges that ropeless gear is “an impracticable alternative,” citing concerns regarding gear conflict, enforceability, implementation costs, and compatibility with Fishery operations. Draft CP at 117-18.

8. Although CCCA will comment in more detail when proposed revisions to the RAMP regulations are released by CDFW,² CCCA objects to the elimination of fleet advisory notices encouraging voluntary efforts and/or measures as a possible management action. Such advisory mechanisms are used in a variety of management schemes, including under HCPs and ITPs. This measure has been used effectively in the Fishery and should be retained.

9. CCCA is extremely concerned by CDFW's proposal to combine fishing zones 5 and 6. Again, CCCA will comment in more detail on that proposal when proposed revisions to the RAMP regulations are released, but combining those two fishing zones will create a disproportionately large zone, which, in turn, creates a serious risk of a zone-based closure that affects a disproportionately large swath of the Fishery. The serious, negative ramifications of potentially combining zones 5 and 6 must be disclosed and evaluated in detail in the EIR.

Thank you for your consideration of these comments. Please do not hesitate to contact me should you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ben Platt". The signature is stylized and cursive.

Ben Platt
President, CCCA

Enclosure

² CCCA reserves the right to raise any and all objections to the proposed revisions to the RAMP regulations when they are released and notes the difficulty in providing scoping comments on those revisions before they have been proposed.

ATTACHMENT



info@cacoastcrabassociation.org

California Coast Crab Association • 900 Northcrest Drive, #130 • Crescent City, CA 95531

January 31, 2022

VIA EMAIL (whalesafefisheries@wildlife.ca.gov; ryan.bartling@wildlife.ca.gov)

California Department of Fish and Wildlife, Marine Region
Attn: Ryan Bartling, Sr. Environmental Scientist
3637 Westwind Blvd.
Santa Rosa, CA 95403

Mr. Bartling:

Thank you for the opportunity to provide comments on the California Department of Fish and Wildlife's ("CDFW") December 2021 Draft Conservation Plan for California's Commercial Dungeness Crab Fishery ("Draft CP"). The California Coast Crab Association ("CCCA") represents the interests of the fishermen, vessel owners, and processing companies who participate in and rely upon the California Dungeness crab commercial fishery (the "Fishery"), which is our state's most economically important fishery.

Although CDFW's comment deadline was extended by two weeks to January 31, 2022, the comment period overlapped with the Fishery's primary fishing period when the vast majority of our members are at sea. This has limited our ability to undertake meaningful review and engagement, particularly on technical, economic, and operational issues on which our members have knowledge and expertise. We are therefore disappointed with the timing of the Draft CP public comment period and CDFW's refusal to extend the comment period further to allow more time for engagement by the fishing industry. Nevertheless, we appreciate the work CDFW has put into this Draft CP and are providing our initial feedback in the comments below. We ask that CDFW continue to engage CCCA and its members as it revises the Draft CP in anticipation of submitting a final conservation plan ("CP") to the National Marine Fisheries Service ("NMFS").

Overall, the Draft CP is well organized and better describes CDFW's intended conservation measures and biological objectives than the May 2020 draft. CCCA supports CDFW's intent to request a 21-year renewable incidental take permit ("ITP"),¹ which will provide sufficient time

¹ Draft CP at 27.

for mitigation measures to be evaluated and improved over the term of the permit, as well as CDFW's reliance on Calambokidis and Barlow (2020) for humpback whale abundance estimates.² CCCA also appreciates that the Draft CP was developed by CDFW with the "dual goals of minimizing take of Covered Species to the maximum extent practicable *and maintaining an economically viable commercial Dungeness crab fishery.*"³ Many of our comments below are directed to the economic impracticability of the Draft CP's measures.

In the sections that follow, CCCA raises our members' serious concerns regarding a number of critical issues in the Draft CP and respectfully requests that CDFW resolve these issues before it submits a CP for consideration under NMFS's Endangered Species Act ("ESA") Section 10 permitting regulations.

COMMENTS

A. Overly vague decision-making, delegation, and adaptive management measures are inconsistent with statutory and regulatory assurances.

Several fundamental components of the Draft CP are inconsistent with a key purpose of ESA Section 10, which is to provide certainty to those undertaking conservation activities regarding the future measures that will and will not be required to protect ESA-listed species. As background, the purpose of a Section 10 permit is not only to authorize take of listed species, but to incentivize long-term CPs and provide assurances to those making funding or operational commitments that no further mitigation measures will be required for the term of the permit.

As explained in the Conference Report on the 1982 ESA amendments adopting the Section 10 permit provision:

The Committee intends that the Secretary may utilize this provision to approve conservation plans which provide long-term commitments regarding the conservation of listed as well as unlisted species *and long-term assurances to the proponent of the conservation plan that the terms of the plan will be adhered to and that further mitigation requirements will only be imposed in accordance with the terms of the plan.*^[4]

² *Id.* at 37, 51. Calambokidis and Barlow (2020) represents the best scientific and commercial data available regarding humpback whale abundance estimates. CDFW acknowledges this in relying on those estimates in the Draft CP. *See id.* at 51. Accordingly, CDFW is also obligated to begin using Calambokidis and Barlow (2020) in estimating abundance for purposes of implementing the Risk Assessment and Mitigation Program now, as it represents the best available science.

³ *Id.* at 61 (emphasis added).

⁴ H.R. Rep. No. 835, 97th Cong., 2d Sess. 29, 30 (1982), reprinted in 1982 U.S.C.C.A.N. 2860, 2871 (emphasis added).

NMFS has since memorialized this concept of “No Surprises” assurances in its Section 10 conservation planning regulations.⁵ For measures that are unforeseen, NMFS’s regulations contemplate – consistent with congressional intent – that no new restrictions on the use of land, water, or other resources will be imposed.⁶

These assurances are enjoyed not only by CDFW as the master permit applicant and eventual permit holder, but are also owed to members of the Fishery who implement and are covered by a CP. In their 2019 conservation planning handbook, NMFS and the U.S. Fish and Wildlife Service explained how No Surprises assurances are shared by those subject to a governmental permit applicant’s jurisdiction. In such cases

individuals subject to the applicant’s jurisdiction can receive incidental take authorization as they comply with the applicant’s regulatory mechanisms....

... The Services negotiate an HCP with the central authority so that that authority receives an incidental take permit as the master permittee. Eligible applicants in the permit area can receive incidental take authority *and No Surprises assurances* through the master permit....^[7]

CCCA’s members are therefore owed the same regulatory assurances regarding limitations on future restrictions and commitments as any ITP holder.

Consistent with those assurances, the Draft CP should clearly articulate how any future changes will be addressed.⁸ Instead, the Draft CP’s open-ended adaptive management program creates significant uncertainty and undermines intended assurances. In fact, CDFW acknowledges that it has not even decided on a decision-making support tool and says it will “continue to engage with decision support tool developers” to assess the utility of different decision-making tools.⁹ In addition, the Draft CP refers to evaluating the effectiveness of mitigation measures, but does not describe the triggers that will prompt reconsideration of measures that are ineffective, unnecessary, or impracticable, or describe how any resulting changes will be made.¹⁰ These omissions are directly contrary to NMFS’s instructions that “[w]henver an adaptive

⁵ 50 C.F.R. § 222.307; *see* USFWS and NMFS, *Habitat Conservation Plan Assurances (“No Surprises”)* Rule, 63 Fed. Reg. 8859, 8859-60 (Feb. 23, 1998).

⁶ 50 C.F.R. § 222.307(g)(3)(ii).

⁷ NOAA Fisheries and U.S. Department of the Interior, *Habitat Conservation Planning and Incidental Take Permit Processing Handbook* at 3-10 to 3-11 (Dec. 21, 2016) (“HCP Handbook”), https://fws.gov/endangered/esa-library/pdf/HCP_Handbook.pdf (emphasis added).

⁸ 50 C.F.R. § 222.307(g)(1), (2).

⁹ Draft CP at 107.

¹⁰ *Id.* at 80-81.

management strategy is used, the approved [CP] must outline the agreed-upon future changes to the operating conservation program.”¹¹

Furthermore, while CCCA supports the concept of having the Working Group make management recommendations under the Draft CP, it is unclear how the Working Group will reach agreement on those recommendations, when those recommendations will have immediate effect or require Director review, and under what circumstances the Director will follow or not follow such recommendations.¹² The lack of detail regarding decision-making in a CP that relies on adaptive management creates significant uncertainty for the Fishery and undermines Congress’ goal of providing certainty and assurance to those undertaking conservation measures for ESA-listed species.

In addition to these concerns, the Draft CP’s descriptions of changed and unforeseen circumstances are not consistent with the above authorities and instead contain vague commitments to work with NMFS and “determine whether amendments to the CP” are warranted to address changes in species’ status.¹³ Certain amendments, in turn, can be made by CDFW and NMFS “without any prior public notice or comment period.”¹⁴ The Draft CP even states that unforeseen circumstances will be addressed by working with NMFS to “evaluate additional actions as appropriate.”¹⁵ Collectively, these provisions do not confer the assurances contemplated by Congress and the Section 10 implementing regulations. The Draft CP must be revised to provide clarity regarding what specific future restrictions or additional mitigation

¹¹ HCP Handbook at 10-27; *id.* at 10-29 (“Before we issue a permit, there must be a clear understanding and agreement between the Services and the permittee as to the range of adjustments to the management actions that might be required as a result of any adaptive management provisions.”).

¹² Draft CP at 80. For example, while the Draft CP refers to Working Group recommendations being considered by the Director, it also says that some measures could be adopted “without any additional authorization by CDFW.” *See id.* at 91. Because Working Group recommendations have the potential to become requirements of the federal Section 10 permit, it is incumbent on CDFW to clarify how the Working Group will make decisions, when Working Group recommendations will have immediate effect, and when Working Group recommendations must be acted on by the Director. CCCA believes the Working Group is an important source of expertise, and that the Director should defer to Working Group recommendations – provided the Fishery is adequately represented among the group’s members. These details should be memorialized in the CP. Importantly, if the Director does not defer to Working Group decisions, it will be difficult for Fishery members to justify the time and expense of participating in a process that lacks any practical effect. Similarly, we are concerned that the tremendous time commitment could limit Fishery members from participating in the future and ask that CDFW consider compensating Working Group members for their participation.

¹³ *Id.* at 109.

¹⁴ *Id.* at 107. This includes “minor” changes to survey, monitoring, reporting, or analytical protocols. *Id.* Other changes will require a 45-day comment period, but may still then be adopted with written approval of CDFW and NMFS, and without the agreement of Fishery members who are ultimately responsible for implementing the conservation measures. *Id.* at 108.

¹⁵ *Id.* at 110.

measures may and may not be imposed and how those decisions will be made in an adaptive management framework.¹⁶

B. A 0.25 mortality and serious injury goal is arbitrary and inconsistent with law.

One goal of the Draft CP is to reduce incidents of mortality and serious injury (“MSI”) for humpback and blue whales to 0.25 by the end of the ITP’s term.¹⁷ Related objectives include using gear modifications and best management practices to change fishing practices in order to meet .25 MSI. However, the Draft CP articulates no basis for the .25 MSI goal, and fails to explain how a reduction in MSI to .25 is necessary or practicable, pursuant to ESA Section 10. Indeed, based on CDFW staff’s comments in its January 7, 2022 public meeting, it appears that CDFW conducted *no analysis whatsoever* in choosing .25 MSI as a key goal of the CP.

A CP must articulate biological goals, and those goals must be both based on the best scientific and commercial data available and achievable.¹⁸ Here, there is no indication that a .25 MSI goal is necessary or appropriate to meet the ESA Section 10 conservation obligations or that it is a practicable goal that can be achieved by the Fishery. The Fishery is not aware of similarly extreme MSI goals being incorporated into other conservation plans to satisfy the ESA Section 10 requirements. Instead, the goal appears to be arbitrary from a conservation perspective and intended to meet unrelated state policy goals,¹⁹ rather than tailored to the requirements of an ESA Section 10 permit. This is an inappropriate use of the CP process.²⁰ As CDFW is aware, the Draft CP must be designed to address the goals and requirements of Section 10 of the ESA, and cannot be used to turn state policy goals into binding regulatory requirements without going through state legislative and regulatory proceedings.

C. The Draft CP inappropriately attributes unidentified gear entanglements to the Fishery.

The Draft CP’s humpback mitigation measures – including economically damaging Fishery closures – are triggered by the number of Fishery-related entanglements that occur.²¹ In implementing these measures, CDFW plans to assign half of all unknown gear entanglements to

¹⁶ See 50 C.F.R. § 222.307(g); *see also, supra*, note 11.

¹⁷ Draft CP at 63-64 (describing Goal 2).

¹⁸ 50 C.F.R. § 222.307(b)(5) (conservation plans must be based on the best scientific and commercial data available); HCP Handbook at 9-1 to 9-11; *id.* at 9-11 (“Objectives must be achievable. If you cannot determine how to achieve an objective, you must discard or rewrite it.”).

¹⁹ Draft CP at 61, 97. The Draft CP explains that it is the California Ocean Protection Council’s goal to move toward “zero annual [mortality and serious injury] from entanglement” for all state-managed fisheries, and that, “[w]hile meeting this target is not an explicit goal of this CP, it underpins many of the precautionary elements detailed in this Chapter.” *Id.* at 61.

²⁰ Goal and objective development “should be based on biological needs for meeting the permit issuance criteria and insulated from other pressures,” such as state policy goals. HCP Handbook at 9-11.

²¹ Draft CP at 72-74.

the Fishery when calculating total entanglements under the Draft CP.²² This assumption is purportedly based on the relative abundance of vertical lines in the Fishery as compared to other trap fisheries.²³ Although it may be appropriate to make assumptions about potential unknown gear entanglements when *estimating anticipated take levels* in limited circumstances in which the Fishery cannot be ruled out as a potential source of the entanglement,²⁴ it is inappropriate to impose closures and other management measures on the basis of gear entanglements that cannot affirmatively be attributed to the Fishery.²⁵

The CP's mitigation measures must be based on the best available science and must be measures that the Fishery can undertake to minimize or mitigate for any ESA-listed species take *caused by the Fishery*.²⁶ Instead of guessing at the percentage of unknown gear entanglements that might reasonably be assigned to the Fishery, CDFW should attribute only interactions *known* to be caused by commercial Dungeness crab gear to the Fishery. Implementation of new state gear marking requirements – potentially even before approval of a Final CP – will soon allow CDFW to accurately assign responsibility for all unknown gear entanglements.²⁷ With the impending availability of this data, it is not reasonable to assign unknown gear to the Fishery without credible scientific data supporting such assignments. To ensure that the Draft CP is based on the best available science and is reasonably tailored to address Fishery-related impacts, CDFW should revise the Draft CP to assign responsibility for gear entanglements based solely on clear evidence from state gear marking data.

²² *Id.*

²³ *Id.* at 49. Several of the Draft CP's sections cross-cite each other as providing additional explanation for how this conclusion was reached, but following those references does not bring the reader to a greater understanding of how CDFW arrived at the 50% attribution rate.

²⁴ For the two-year period of 2019 to 2020, CDFW estimates there were a total of nine humpback whale entanglements purportedly associated with the Fishery (four confirmed, and five attributed from unknown gear). *Id.* CCCA does not object to using unknown gear attribution *only* for purposes of developing overall take estimates for evaluation of potential impacts. In addition, CCCA supports CDFW's use of the 2019-2020 period to estimate average annual entanglement numbers given the unusual nature of ocean conditions during the 2015-2017 period, which resulted in abnormally high entanglement numbers, and the fact that such unprecedented conditions are not likely to be repeated. The Draft CP provides a strong rationale for using this period to develop a take estimate. *See, e.g., id.* at 28-31, 46-48.

²⁵ NMFS must be reasonably certain that a take will be caused by the covered action, and the CP must provide a "rational basis for a finding of take." HCP Handbook at 3-3 (citation omitted); *see generally id.* at 3-2 to 3-3 (citing *Ariz. Cattle Growers' Ass'n v. U.S. Fish & Wildlife Serv.*, 273 F.3d 1229, 1244 (9th Cir. 2001)).

²⁶ *Id.*

²⁷ *See* Draft CP at 49.

D. Closures are not economically practicable and should not be the “default” management action.

The Draft CP states that when an entanglement occurs, CDFW will implement a management action to limit further co-occurrence between covered species and the Fishery, and that “[t]he default management action is a Fishing Zone closure.”²⁸ The Draft CP goes on to describe other potential management measures, but implementation of those alternative measures appears to be entirely discretionary on the part of CDFW’s Director.²⁹

CCCA objects to closures being the “default” management action when other actions are available to reduce potential risks. As CDFW is aware, NMFS may only issue an ITP after finding that CDFW “will, to the maximum extent *practicable*, minimize and mitigate the impacts of such taking.”³⁰ The CP’s measures are not practicable if they do not “maintain the purpose” of the Fishery³¹ and allow the Fishery to continue operating “at a reasonable financial standing comparable to other like [entities].”³² Fishery closures do not maintain the purpose of the Fishery and would be economically devastating for the fleet, or portions of the fleet, and the communities that depend on the Fishery. In fact, CDFW acknowledges that “[a]n early end to the season would disproportionately impact vessels that traditionally harvest through the spring and early summer months.”³³ Accordingly, early closures are not “reasonably capable of being accomplished” by the Fishery,³⁴ and should not be imposed when other management actions are available to minimize Fishery impacts and maximize conservation benefits.

In addition, the Draft CP states that the Fishery will close statewide for the remainder of a season if three humpback whale entanglements occur, notwithstanding that CDFW is requesting authorization under ESA Section 10 for a total of *nine* takes over *three* years. Adoption of a three-year take limit is a reasonable approach to managing interactions that can vary from year to year, but instituting a default closure at three entanglements directly contradicts that purpose and is effectively the same as authorizing an annual take limit. Moreover, the Draft CP states that

²⁸ *Id.* at 73.

²⁹ *Id.*

³⁰ 16 U.S.C. § 1539(a)(2)(B)(ii) (emphasis added).

³¹ HCP Handbook at 9-35 (there are no more practicable options if the applicant “cannot adjust their project to reduce impacts and still maintain project purposes”).

³² *Id.* at 9-33; see *Nat’l Wildlife Fed’n v. Norton*, No. CIV-S-04-0579, 2005 WL 2175874, at *17-18 (E.D. Cal. Sept. 7, 2005) (defining term “maximum extent practicable”); see also HCP Handbook at 9-33 (citing *Norton*); *id.* at 9-28 (the maximum extent practicable standard is met if measures “represent the most the applicant can practicably accomplish”).

³³ Draft CP at 116.

³⁴ See *Norton*, 2005 WL 2175874, at *18 (explaining that a measure does not need to be “totally infeasible” or “impossible” to be rejected as impracticable, and that the term “practicable” “has the more nuanced meaning of ‘reasonably capable of being accomplished’”).

three humpback entanglements in one year would suggest that the Risk Assessment and Mitigation Program (“RAMP”) is not working to reduce takes;³⁵ however, CDFW is requesting a total of nine takes over three years (including unknown gear attributed the Fishery) *in anticipation of the conservation measures being successful*.³⁶ Three entanglements per year would be *entirely consistent* with those conservatively developed, conservation-based take levels – not inconsistent or in exceedance of authorized levels. Accordingly, CDFW should impose management measures in a given year only if the average annual number of anticipated incidental takes (three) has been *exceeded*.

E. It is unreasonable to implement Fishery delays and spring closures on a “precautionary basis.”

The Draft CP states that CDFW may delay the Fishery’s fall opening date or close spring fishing early on a precautionary basis when marine life concentrations exceed certain thresholds *or when survey data is not available*.³⁷ It is arbitrary and inconsistent with ESA Section 10 to impose extreme management measures like Fishery delays and spring closures when there are no reliable data demonstrating that it is necessary and appropriate to do so.³⁸ Moreover, unpredictable, periodic delays and early closures have a significant adverse economic impact on Fishery participants. As noted above, the Draft CP acknowledges that closing in the spring is not economically practicable.³⁹ Similarly, CDFW correctly rejects a permanent delayed start measure because “fishery participants would no longer provide crab for the Thanksgiving and Christmas holidays, eliminating key markets that support economic viability of the fishery.”⁴⁰ To ensure the long-term economic survival of the Fishery – and thus ensure the practicability of the Final CP – CDFW must limit the use of delayed openings and early closures as a management action and cannot lawfully implement such measures when there are no reliable data to support such a measure.

Relatedly, CDFW commits to conducting monthly marine mammal concentration surveys from October to December and March to June by year five of the ITP.⁴¹ Given CDFW’s reliance on

³⁵ Draft CP at 74.

³⁶ *Id.* at 49 (explaining that CDFW is requesting fewer takes than the three-year average suggests – *i.e.*, nine instead of 13.5 – because “CDFW anticipates full implementation of the Conservation Plan will further reduce overall entanglement rates”).

³⁷ *Id.* at 76 (providing for fall or spring closures “[i]n the absence of current marine life concentration survey data”).

³⁸ 50 C.F.R. § 222.307(b)(5) (conservation plans must be based on the best scientific and commercial data available).

³⁹ *See, supra*, note 33 and accompanying text.

⁴⁰ Draft CP at 116.

⁴¹ *Id.* at 77.

these surveys for implementing onerous management measures, CDFW must commit to monthly surveys immediately, and not wait until year five of the ITP.

F. Pop-up gear requirements are not practicable and may not be imposed under any circumstance.

The Draft CP acknowledges that pop-up (or “ropeless”) gear is “an impracticable alternative,” citing concerns regarding gear conflict, enforceability, implementation costs, and compatibility with Fishery operations.⁴² CCCA agrees with this finding and submitted comments to CDFW on November 9, 2021 regarding the impracticable, infeasible, and uneconomic nature of pop-up gear systems. Those comments are attached and hereby incorporated by reference.

Despite CDFW’s clear finding that pop-up gear is impracticable, the Draft CP continues to include pop-up gear as a potential alternative gear system that could be imposed on spring fishing in certain circumstances.⁴³ As CDFW is aware, however, imposition of a gear system that CDFW itself recognizes as impracticable would be inconsistent with ESA Section 10’s practicability requirement. Furthermore, intervening steps such as hosting biennial meetings with gear manufacturers⁴⁴ or using an alternative gear-adoption process do not shield CDFW from the fundamental requirement to include *only practicable* conservation measures in the Draft CP. Accordingly, pop-up gear must be eliminated as a potential conservation measure as there is no legal basis to support its inclusion.

G. Longlining is a safe, practicable and effective management tool to reduce vertical lines while allowing fishing in certain areas.

CCCA has developed a proposed longlining mitigation test for the Fishery, which is enclosed as an attachment to these comments. Use of longlining gear (multi-trap trawls) on a voluntary, limited basis has the potential to drastically reduce vertical lines when whales are present and help avoid onerous and impracticable Fishery closures. Unfortunately, the Draft CP declines to adopt the use of multi-trap trawls as a potential management measure,⁴⁵ a decision that should be reconsidered for the reasons provided herein.

As an initial matter, the Draft CP explains that state law (A.B. 3337) prohibits the use of multi-trap trawls in the Northern Management Area (“NMA”) and indicates that this was due to concerns regarding overcapitalization and excessive early season fishing effort. While it is fair to say that the legislature adopted A.B. 3337, including section 9012 which prohibits longlining, in order to “slow and spread-out production of commercial Dungeness crab over a longer period,”

⁴² *Id.* at 117-18.

⁴³ *Id.* at 88-89.

⁴⁴ *Id.* at 89-90.

⁴⁵ *Id.* at 90, 117.

this was done to “assure the crab harvested are of good quality.”⁴⁶ The overall purpose of the legislation was to *protect the Dungeness crab fishery* due to its importance in providing “a valuable food product, employment for those persons engaged in the fishery, and economic benefits to the coastal communities of the state.”⁴⁷ Evaluating longlining as an alternative gear option for purposes of avoiding economically impracticable Fishery closures would be *consistent* with those purposes.⁴⁸ In addition, since passage of A.B. 3337 in 1994, CDFW has implemented a limited entry permit for the Fishery, and the Fishery has adopted strict tiered trap limits. Longlining restrictions are therefore no longer necessary to slow production, ensure harvest quality, or protect the Fishery, making the restrictions in A.B. 3337 ripe for reconsideration.

In addition to the statutory restriction, CDFW asserts that while longlining would reduce vertical lines, “any entanglements which then occur may be more severe than an entanglement with a single trap.”⁴⁹ First, this concern is speculative. Second, this concern can be addressed through implementation of breakaway buoy-line setups. Coupled with a drastic reduction in vertical lines, longlining in certain areas and under certain circumstances would result in an overall decrease in risks to marine mammals. Indeed, the American lobster and Jonah crab fisheries have used longlining successfully, coupled with “weak links,” to reduce whale entanglements for many years.⁵⁰

CDFW also notes that some Working Group members have described gear conflict and human safety as reasons for avoiding use of longlining.⁵¹ While no gear proposal will receive unanimous support from all Fishery participants, there is no basis on which to conclude that longlining would compromise human safety. Longlining is one of the most common methods of commercial fishing worldwide, and has proven to be a reliable, effective, practical, and relatively safe gear type. In addition, any potential gear conflicts can be addressed with depth restrictions, as described in CCCA’s proposed longlining effectiveness test.

For all of these reasons, CCCA urges CDFW to (1) facilitate legislative changes necessary to remove longlining restrictions in the NMA, (2) implement the enclosed longlining effectiveness test proposal, and (3) incorporate longlining as a management tool in the CP. These steps will reduce vertical lines and allow the Fishery to continue operating in areas and at times when whales are expected to co-occur with the Fishery.

⁴⁶ Senate Water, Parks & Wildlife Committee, Bill Analysis on A.B. 3337 (1993-1994 Regular Session) June 28, 1994.

⁴⁷ 1994 Cal. Legis. Serv. Ch. 973 (A.B. 3337) (West).

⁴⁸ To implement such a change, CCCA recommends that CDFW ask the Dungeness Crab Task Force to consider such legislative changes and provide its recommendations to the Joint Committee on Fisheries and Aquaculture.

⁴⁹ Draft CP at 90.

⁵⁰ See 50 C.F.R. § 229.32(c)(2)(i), (c)(2)(iv), and table 10 (requirements for “multi-trap trawls” in the American lobster and Jonah crab fisheries).

⁵¹ Draft CP at 90.

H. CDFW must coordinate with Fishery participants before assuming funding contributions.

The Draft CP states that the Fishery “will likely need to allocate funding to cover program costs,” including transitioning to an industry-funded model for electronic vessel location monitoring.⁵² CDFW also states that it will “facilitate participation of commercial fishing vessels” in aerial- and vessel-based surveys for entanglement detection.⁵³ It is unclear whether CDFW intends for the Fishery to pay for such surveys or conduct them, and whether the Fishery’s “facilitated participation” will be voluntary or mandatory. CCCA has no knowledge of CDFW discussing this funding or participation with Fishery members to determine the practicability of such measures, which is required by ESA Section 10. In fact, Fishery participants generally lack the funds to support such measures or the time to conduct them. Moreover, Fishery members are unlikely to be willing to conduct enforcement monitoring. CCCA urges CDFW to begin discussing these anticipated funding and participation measures with Fishery members to ensure that they are practicable, consistent with the requirements of ESA Section 10.

I. The Fishery objects to the Draft CP’s reliance on electronic location monitoring equipment for all vessels.

The Draft CP describes the RAMP rule’s requirement that Dungeness crab vessels using alternative gear must have electronic vessel location monitoring systems and states that this requirement “will be extended” to all Fishery vessels in the 2024-25 season under the Draft CP’s Objective 1(c).⁵⁴ CCCA has serious concerns regarding the confidentiality of location data and the imposition of broad electronic monitoring locations. These confidentiality concerns are well founded, as vessel fishing locations are considered trade secrets, and even aggregated or anonymized data could be misappropriated for other purposes. Although state and federal agencies can mark such data as confidential and attempt to decline their release to the public, neither CDFW nor NMFS have provided assurances that such data will not be used for purposes beyond those described in the Draft CP, or described how such data will be protected from inadvertent public release. CCCA requests a dialogue with the agencies to discuss the agencies’ plans for limiting access to such data (even within the agency) and ensuring that that such data will not be intentionally or inadvertently disclosed in any form or used for other purposes.

J. The Draft CP’s proposed entanglement detection program lacks detail and should not involve use of third party “partners.”

The Draft CP states that it will rely on existing NMFS entanglement data from opportunistic reporting, but will augment those reports by 2024 by establishing a statewide entanglement

⁵² *Id.* at 115.

⁵³ *Id.*

⁵⁴ *Id.* at 83.

detection program.⁵⁵ There are insufficient details provided in the Draft CP for CCCA to meaningfully evaluate the proposed program; however, what details are provided raise serious concerns. For example, CDFW states that the program would rely on “a network of partners” to participate in training and conduct track-line surveys, and that it plans to recruit partners from environmental organizations, among others.⁵⁶ The referenced “training” would require having just one individual on a survey platform take a free, online training course.⁵⁷ While some non-governmental organizations may have the expertise and objectivity to function as a neutral monitor capable of accurately identifying most gear, CCCA is concerned that the program could effectively place regulation of the Fishery (*i.e.*, the ability to trigger Fishery closures) into the hands of third parties that are generally opposed to the Fishery and therefore biased. This concern is heightened due to the Draft CP’s attribution of half of all unidentified gear to the Fishery. For these reasons, CCCA urges CDFW to reconsider the details of its intended entanglement detection program. It is inappropriate and unlawful for biased third parties to be responsible for data collection that directly triggers management actions.

K. The Draft CP significantly overstates trap loss rates.

The Draft CP includes new language regarding anticipated trap loss numbers and rates, asserting that “Fishery participants have commonly estimated annual gear loss of 5-10%.”⁵⁸ CCCA disputes this number, for which CDFW provides no citation. In fact, CCCA’s members typically describe losses of closer to 1.5 percent, while losses of up to 5 percent would be considered possible, but infrequent. The Draft CP cites the rate of replacement tag requests in support of a higher trap loss rate; however, as CDFW acknowledges, tags can be requested by Fishery participants for any reason, and do not necessarily indicate that a trap was lost.⁵⁹ CCCA requests that CDFW revise the CP to recognize that actual losses are more likely to be 1.5 percent. CDFW should continue to refine its methodology to ensure more accurate lost gear estimates.

CONCLUSION

CCCA respectfully requests that CDFW revise the Draft CP to address the Fishery’s concerns regarding economic practicability, to provide meaningful No Surprises assurances, and to ensure the Final CP complies with ESA Section 10 and NMFS’s implementing regulations and guidance. CCCA stands ready to work with CDFW to maximize the efficacy and practicability of the Final CP’s conservation measures.

⁵⁵ *Id.* at 69.

⁵⁶ *Id.* at 70.

⁵⁷ *Id.*

⁵⁸ *Id.* at 93.

⁵⁹ *Id.* (“there are a variety of limitations with this approach (e.g., lost tags do not necessarily equate to lost traps at sea”).

Thank you for your consideration of these comments. Please do not hesitate to contact me should you have any questions.

Sincerely,



Ben Platt
President, CCCA

cc: Sonke Mastrup, Program Manager, Marine Region (sonke.mastrup@wildlife.ca.gov)

Mary Loum, Attorney, Office of the General Counsel (mary.loum@wildlife.ca.gov)

Penny Ruvelas, Long Beach Office Branch Chief - Protected Resources Division, NMFS
(penny.ruvelas@noaa.gov)

Encls: Letter from Ben Platt (CCCA) to Charlton Bonham (CDFW) dated November 9, 2021

CCCA Proposed Longlining Mitigation Test for the California Commercial Dungeness
Crab Fishery

Attachments

(1) Letter from Ben Platt (CCCA) to Charlton Bonham (CDFW) dated November 9, 2021

(2) CCCA Proposed Longlining Mitigation Test for the California Commercial Dungeness Crab Fishery



info@cacoastcrabassociation.org

California Coast Crab Association • 900 Northcrest Drive, #130 • Crescent City, CA 95531

November 9, 2021

Charlton H. Bonham, Director
California Department of Fish and Wildlife
Director's Office
P.O. Box 944209
Sacramento, CA 94244-2090

Dear Mr. Bonham:

The California Coast Crab Association (“CCCA”) provides the comments below in response to the California Department of Fish and Wildlife’s (“CDFW”) consideration of alternative fishing gear, including “ropeless” (also known as “pop-up”) gear, for the California commercial Dungeness crab fishery (“Fishery”). CCCA represents commercial crab fishermen and crab buyers in advocating for science-based management and policy development that ensures a robust, sustainable Fishery and provides for the continued economic survival of the Fishery and Fishery-dependent coastal communities.

As you know, CDFW is in the process of developing a Conservation Plan (“CP”) for its management of Fishery. The CP is intended to support CDFW’s anticipated application to the National Marine Fisheries Service (“NMFS”) for an incidental take permit (“ITP”) for humpback whales, blue whales and Pacific leatherback sea turtles, each of which is protected under the Endangered Species Act (“ESA”). The draft CP provided to NMFS for review on May 15, 2020 includes a summary of “alternative gear” measures that CDFW may certify consistent with its Risk Assessment and Mitigation Program (“RAMP”).¹ The goal of any such measure, according to the draft CP, is to decrease potential encounters between gear and protected marine species by minimizing the time vertical lines and surface gear are in the water.²

Unfortunately, as outlined in the comments below, ropeless gear is not practicable or economically feasible, increases operational and safety risks, and will lead to a significant increase in lost gear which, in turn, is likely to *increase* risks to marine life rather than decrease those risks. For all of these reasons, and because NMFS cannot approve a CP that is not practicable and that may increase risks to protected species, CDFW should remove consideration of ropeless gear from the CP.

¹ See CDFW, *Draft Conservation Plan for California’s Commercial Dungeness Crab Fishery*, at 55 (May 15, 2020) (available at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=179066&inline>) (last visited Oct. 19, 2021) (“Draft CP”); see also 14 C.C.R. § 132.8 (RAMP rules).

² Draft CP at 55-56.



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COMMENTS

As CDFW is aware, the CP is being developed consistent with the RAMP, but must ultimately be approved by NMFS in order for NMFS to issue an ITP to CDFW. NMFS, in turn, may only approve the CP after finding that CDFW “will, to the maximum extent *practicable*, minimize and mitigate the impacts of such taking.”³ The CP’s measures are not practicable if they represent more than the fishery can feasibly undertake, within the fleet’s available means, to minimize or mitigate for any take of ESA-listed species.⁴ Specifically, changes to the Fishery are only practicable if they can be done while “maintain[ing] the purpose” of the Fishery⁵ and allowing the Fishery to continue operating “at a reasonable financial standing comparable to other like [entities].”⁶ To be rejected as impracticable, a measure does not need to be “totally infeasible” or “impossible;” the term practicable “has the more nuanced meaning of ‘reasonably capable of being accomplished.’”⁷ Under these standards, which NMFS must consider in evaluating CDFW’s final CP and application for an ITP, ropeless gear must be rejected as impracticable.

The concept of ropeless gear has received significant attention in recent years from well-meaning but uninformed regulators, non-governmental organizations, and the public. In fact, however, pop-up traps have proven to be unworkable in every fishery in the United States where testing has already occurred. For example, although pop-up gear manufacturers have asserted a two to five percent failure rate, fishermen in the California Dungeness crab and Maine lobster fisheries who have tested prototypes have reported an approximately 20 percent retrieval failure rate.⁸

³ 16 U.S.C. §1539(a)(2)(B)(ii) (emphasis added).

⁴ See *National Wildlife Federation v. Norton*, 2005 WL 2175874, *17-18 (E.D. Cal., 2005) (defining term “maximum extent practicable”); see also NOAA Fisheries and U.S. Department of the Interior, [Habitat Conservation Planning and Incidental Take Permit Processing Handbook](#) at 9-33 (Dec. 2016) (“HCP Handbook”) (citing *Norton*); *id.* at 9-28 (the maximum extent practicable standard is met if measures “represent the most the applicant can practicably accomplish.”).

⁵ HCP Handbook at 9-35 (there are no more practicable options if the applicant “cannot adjust their project to reduce impacts and still maintain project purposes”).

⁶ *Id.* at 9-33.

⁷ *Norton* at *18; *id.* (“Ultimately this question is not a matter of arithmetic based on firm figures and projections but a judgment call given the uncertainties of the real estate market and the various other factors that affect development costs and rewards.”).

⁸ This is consistent with a 16-30% failure rate that was reported in a study conducted by the University of New Brunswick. See J. Terhune, *An evaluation of at-sea field trials of a ropeless lobster fishing method in LFA 34* (Nov. 27, 2018), <https://www.coldwaterlobster.ca/wp-content/uploads/2020/03/An-Evaluation-of-At-Sea-Field-Trials-for-Ropeless-Fishing-Gear.pdf>.



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This is primarily due to the gear's failure to reliably "release" in order to rise to the surface and to weather conditions that cause traps to drift and lodge on the ocean floor. With approximately 57,000 crab pots in the water at any given time, this could result in an astounding 11,400 lost pots every time that gear is retrieved, using actual prototype testing loss rates. This would represent an astounding increase in lost gear compared to existing gear – much of which is later retrieved because, unlike failed pop-up buoys, existing buoys are visible on the surface. Even using the manufacturers' reported failure numbers, an average of 1,140 to 2,850 pots would be lost *every time* gear is retrieved, which are also astounding numbers.

In addition, there are important questions regarding the efficacy of ropeless gear alternatives in reducing the risk of marine life entanglements. Despite its name, this gear is not truly ropeless. All such gear would have buoy lines packed in the trap with a time-release or electronic release trigger which may deploy or partially deploy at a later date due to galvanic corrosion of release mechanisms and the turbulence of winter storms. Although fishing vessels would make an effort to collect previously unretrievable gear once the buoy line deploys, it is likely that some buoys will remain deployed for long periods while weather prevents retrieval, or will be difficult to locate regardless of weather, or will migrate to areas where fishing does not occur and remain uncollected. Even if some lost traps are later retrieved, it is easy to imagine the compounding risks of up to 20 percent of traps being lost *on every set*, creating a swiftly growing tangle of lines and traps, plastic, and corroding electrical transponders on the ocean floor. The potential impacts to ESA-listed humpback whales, sea turtles, and other marine species of switching from existing gear to proposed ropeless gear must be fully studied and understood *before* any alternative gear is either incentivized or imposed as a requirement.

Moreover, pop-up traps are currently estimated to cost between \$720 and \$2500 per device. This represents a total of \$360,000 to \$1,255,000 per vessel for the initial switch to pop-up gear assuming a 500-trap allotment – a total investment for the Fishery of between \$41 and \$142 million. Additionally, at a 20 percent loss rate per set, fleet members could see replacement costs of \$72,000 to \$250,000 *each time the gear is retrieved* (representing recurring replacement costs across the Fishery of up to \$28.5 million each time gear is retrieved). While smaller vessels would bear the greatest hardship, these costs would effectively close the entire Fishery because even its most successful members operate on a thin margin and cannot absorb even a fraction of the magnitude of these anticipated costs. Even if the equipment were more affordable, there are important questions about whether smaller vessels would have the necessary deck space, crew, or familiarity with high-tech systems to survive a transition to ropeless fishing. It is likely that such a requirement would create incentives for consolidation within the Fishery, which would impact the fleet's diversity and have an inequitable impact on smaller fishing operations.

In addition to being unreasonably costly and inequitable, ropeless gear raises important concerns regarding operational and safety risks. On average, it takes one to two minutes to pull a



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Dungeness crab trap using the current buoy and rope system. This allows even the largest of permit holders to pull traps and reset within one day. Reduced time on the water improves the chances of safely returning to port with live product. In addition, quick gear retrieval is critical for risk mitigation. When severe weather approaches, or whales and other marine-life are present, gear can be removed or reset to prevent interaction. By comparison, ropeless gear retrieval is detrimentally slow. All trials have resulted in a 10 to 15 minute retrieval rate *per trap*, at best. Given the number of permitted pots (up to 500 per boat), this would increase time on the water by tenfold. This additional time creates safety risks, increases the time necessary to get live product to port, inhibits the ability to move gear when needed, and prevents quick removal of gear when severe weather arises.

Finally, as a practical matter, because ropeless gear is effectively hidden from surface view, ropeless gear may be adversely impacted by (and interfere with the usual activities of) bottom trawlers operating in the same areas as the Fishery. Similarly, because their full location cannot be seen from the surface, ropeless gear requirements would frustrate CDFW's enforcement of recently passed mandatory line markings. These requirements are intended to help protect the marine environment, including strict boundaries around Marine Protected Areas and in areas closed to fishing due to elevated domoic acid levels.

For the reasons stated above, CCCA respectfully requests that CDFW remove ropeless gear from consideration as a component of the final CP application package to NMFS, as NMFS will be unable to approve gear measures that are not practicable, increase operational and safety risks, and are likely to increase risks to the very marine species that the CP aims to protect.

Thank you for your consideration of these comments. Please do not hesitate to contact me should you have any questions.

Sincerely,

Ben Platt
President, CCCA

cc: Sonke Mastrup, Program Manager, Marine Region (sonke.mastrup@wildlife.ca.gov)
Mary Loum, Attorney, Office of the General Counsel (mary.loum@wildlife.ca.gov)
Penny Ruvelas, Long Beach Office Branch Chief - Protected Resources Division, NMFS (penny.ruvelas@noaa.gov)

Proposed longlining mitigation test for the California commercial Dungeness crab fishery

The California Coast Crab Association (“CCCA”) has developed this proposed three-year, voluntary longlining mitigation test for consideration by the California Department of Fish and Game (“CDFG”) and National Marine Fisheries Service (“NMFS”) (together, the “Agencies”). The Agencies are currently in discussion regarding development of a draft Conservation Plan (“CP”) that would apply to members of the California commercial Dungeness crab fishery (“Fishery”) and that would provide incidental take coverage under the Endangered Species Act (“ESA”) to both CDFW and members of the Fishery.¹

For the CP to be approved by NMFS, CCCA understands that CDFW must include measures to minimize and mitigate for the anticipated impacts of the Fishery on ESA-listed species to the maximum extent practicable.² To be practicable, measures must be feasible for the Fishery to undertake and should not offset more than the Fishery’s total impact.³ Unfortunately, the Fishery-wide closures that are contemplated in CDFW’s draft CP to protect migrating humpback whales (*i.e.*, closing the Fishery in spring under certain circumstances) would not meet the purpose of the Fishery as currently proposed because closures would prevent fishing during the important spring crabbing season. Such closures would be particularly devastating financially to members of the Fishery who crab in spring.

To address the impracticability of the Fishery closures contemplated in the draft CP, CCCA proposes instituting a three-year test of the effectiveness of longlining at reducing the risk of humpback whale exposures to vertical lines. Longlining would involve stringing together multiple crab pots with a buoy on either end of the line, allowing lines to lay on the seafloor, out of the path of any whales that may be in the area. Stringing just 10 pots together with a vertical buoy line at either end would result in an 80 percent reduction of vertical lines for the set. CCCA proposes using a maximum of 30 pots per line to ensure that gear can be safely and efficiently retrieved.⁴

Members of the Fishery would be invited to participate in this voluntary program, allowing those members to fish utilizing longlining gear when overall interaction numbers would

¹ See CDFW, *Draft Conservation Plan for California’s Commercial Dungeness Crab Fishery*, at 55 (May 15, 2020) (available at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=179066&inline>) (last visited Oct. 19, 2021).

² 16 U.S.C. § 1539(a)(2)(B)(ii).

³ See *National Wildlife Federation v. Norton*, 2005 WL 2175874, *17-18 (E.D. Cal., 2000) (defining term “maximum extent practicable”); see also NOAA Fisheries and U.S. Department of the Interior, [Habitat Conservation Planning and Incidental Take Permit Processing Handbook](#) at 9-33 (Dec. 2016) (“HCP Handbook”) (citing *Norton*); *id.* at 9-28 (the maximum extent practicable standard is met if measures “represent the most the applicant can practicably accomplish.”).

⁴ CDFW and CCCA could also explore whether one buoy could safely be used instead of two, which would further reduce vertical lines to 90 percent in the example provided.

otherwise require a Fishery closure under CDFW’s Risk Assessment and Mitigation Program (“RAMP”) regulations.⁵ To minimize concerns regarding setting longlining gear on top of other gear, longlining would be limited to areas outside of 30 fathoms and where humpback whales are expected to be migrating, and would only be used in spring to coincide with periods of lower fishing effort in order to avoid gear congestion.

Vessels participating in the test would incur the costs of making necessary vessel modifications and purchasing longlining gear. Ultimately, if longlining is adopted more broadly, these costs can reasonably be borne by members of the Fishery, whereas closures cannot. Moreover, longlining should not increase the incidence of lost gear – in fact, gear may be easier to retrieve and less likely to be lost. In addition, longlining would not require intensive crew training because the gear is easy to use and involves less splicing and fewer buoys to rig.

⁵ 14 C.C.R. § 132.8.

**Oceana – Earthjustice – Natural Resources Defense Council –
Endangered Habitats League – Center for Biological Diversity –
Turtle Island Restoration Network – Ocean Defenders Alliance**

October 18, 2022

Mr. Ryan Bartling
California Department of Fish and Wildlife, Marine Region
20 Lower Ragsdale Drive, Suite 100
Monterey, CA 93940

Submitted electronically: WhaleSafeFisheries@wildlife.ca.gov

**RE: Comments on Notice of Preparation of a Draft Environmental Impact Report:
Conservation Plan for the California Commercial Dungeness Crab Fishery**

Dear Mr. Bartling,

On behalf of the undersigned conservation organizations and our members and supporters in California and along the West Coast, we submit the following comments to the California Department of Fish and Wildlife (CDFW) on the Notice of Preparation of a Draft Environmental Impact Report for its Draft Conservation Plan (CP) for the California Commercial Dungeness Crab Fishery. Our organizations represent the public interest in maintaining the health of marine wildlife and the biodiversity of the California coast, and collectively have decades of experience in developing mitigation measures to reduce and avoid the entanglement of marine life in fixed gear fisheries.

The Draft CP supports CDFW's incidental take permit (ITP) application to authorize take of threatened and endangered humpback whales, endangered blue whales, and endangered leatherback sea turtles in the California Dungeness crab fishery. Pursuant to the California Environmental Quality Act (CEQA), CDFW has determined that the proposed CP for the California commercial Dungeness crab fishery and related regulatory actions will require preparation of an Environmental Impact Report (EIR). In keeping with CDFW's request for comments, we provide recommendations on the scope of environmental impacts the EIR should analyze, as well as alternatives it should consider.

Overall CEQA Considerations

CEQA is intended to provide for the long-term protection and enhancement of the state's environment.¹ CEQA requires that an "EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects to be considered in the full environmental context."² CEQA defines "significant effect on the environment" as "a substantial, or potentially substantial, adverse

¹ Pub. Res. C. § 21001(a)-(d).

² CEQA Guidelines, § 15125(c), (emphasis added).

change in the environment.”³ In this instance, implementation of a robust, scientifically supported, well-enforced CP and ITP should minimize the California commercial Dungeness crab fishery’s impact on the environment and provide a model for lessening the impacts of other state-managed trap fisheries. We recommend CDFW clarify the definition of the “project” to encompass the authorization and operation of the California commercial Dungeness crab fishery under the proposed CP and ITP. This will help stakeholders to understand the respective impacts of various alternatives and help the agency properly consider relative impacts of project alternatives and mitigation measures.

Scope of Impacts to be Analyzed

Coastwide cumulative impacts on covered species

For purposes of this EIR, CDFW must consider the impacts of the California commercial Dungeness crab fishery in the context of other fishery impacts as well as other sources of human-caused mortality such as vessel strikes. CEQA requires that an EIR address cumulative impacts “when the project’s incremental effect is cumulatively considerable.”⁴ The EIR must therefore identify all existing and likely future projects that contribute to the same cumulative impacts as the proposed project. Cumulative impacts are defined as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.”⁵ In addition, CEQA requires analysis of effects on “ecosystems,” the boundaries of which are not defined by state lines.⁶ Therefore, the EIR must analyze environmental effects occurring both within California and outside of it.

While the California commercial Dungeness crab fishery is responsible for approximately half the trap gear deployed by California fisheries, it is one of multiple fisheries that entangle and otherwise adversely affect whales and leatherback sea turtles along the West Coast.⁷ The EIR must account for cumulative impacts of coastwide entanglements on covered species as it evaluates the impacts of California’s commercial Dungeness crab fishery. A growing body of evidence shows that as many as 50 percent of humpback whales off the West Coast have been entangled in fishing gear, while only 5 to 10 percent of those entanglements were reported.⁸ In

³ Pub. Res. C. § 21068.

⁴ CEQA Guidelines § 15130; *see also* CEQA Guidelines § 15355.

⁵ CEQA Guidelines § 15355.

⁶ CEQA Guidelines § 15358(a)(2).

⁷ CDFW should also consider requesting a lower incidental take limit for humpback whales as a means to address the fact that the species is subject to take by other fisheries and concerns about attributing entanglements in unknown fishing gear to the Dungeness crab fishery.

⁸ Robbins, J., Barlow, J., Burdin, A.M., Calambokidis, J., Gabriele, C., Clapham, P., Ford, J., LeDuc, R., Mattila, D.K., Quinn, T., Rojas-Bracho, L., Straley, J., Urban, J., Wade, P., Weller, D., Witteveen, B.H., Wynne, K. and Yamaguchi, M. 2007. Comparison of humpback whale entanglement across the North Pacific Ocean based on scar evidence. Unpublished report to the Scientific Committee of the International Whaling Commission. Report number SC/59/BC; Lauren Saez, Dan Lawson, Monica DeAngelis,

order to ensure the EIR considers the impacts of the project when added to other ongoing impacts and environmental changes, the EIR should examine both confirmed entanglements and an estimate of unobserved entanglements, as well as other sources of mortality.

The EIR's analysis should include updated estimates of the portions of the humpback whales observed off California that originate from the Mexico and Central American DPSs. Until continuing data collection can provide a more complete and recent delineation of these stocks and their relative abundance, CDFW should manage risk in a precautionary manner to protect the most vulnerable ESA-listed populations. The EIR should also examine how changing ocean conditions over the 21-year term of the CP may affect the covered species, their movements, and the risk of entanglement over time.

Impacts on species not covered by the ITP

In order to fully evaluate the effects of the fishery as it operates under the CP, the EIR should also examine effects on species that are not included in the ITP. These species include ESA-listed Western North Pacific gray whales, which are known to occur off the California coast, and southern resident killer whales, whose critical habitat extends south of Monterey Bay.

Other Impacts

Implementation of a strong, science-based CP will likely offer substantial benefits that should be explored in the EIR. For example, requiring the fishery to use technology that enables CDFW to access real-time information on the location of fishing gear is likely to reduce lost and abandoned gear, facilitate enforcement of closed areas and other fishing restrictions, and reduce time and fuel spent on patrols.

The EIR should also analyze the benefits of increased whale populations. In addition to supporting wildlife watching businesses and community interests, whales play an important role in carbon storage and nutrient transport. Through their feeding activities, humpbacks and other large whales move nitrogen from the euphotic zone to the photic zone where it facilitates the growth of phytoplankton. Whales also contribute nutrients through buoyant fecal plumes that promote phytoplankton growth near the surface.⁹ That phytoplankton growth takes up carbon

Elizabeth Petras, Sarah Wilkin, Christina Fahy. 2013. Understanding the co-occurrence of large whales and commercial fixed gear fisheries off the west coast of the United States. NOAA-TM-NMFS-SWR-044. September 2013; Calambokidis, J. et al. (2008). SPLASH: Structure of Populations, Levels of Abundance and Status of Humpback Whales in the North Pacific. Seattle, WA: U.S. Dept of Commerce - Western Administrative Center, 57; Calambokidis, J. et al. (2020). Insights into entanglements from whale population monitoring. Presentation to West Coast Entanglement Science Workshop, August 25, 2020. https://www.opc.ca.gov/webmaster/_media_library/2020/10/M.1-S.2_Calambokidis_Marine-Life.pdf.

⁹ Roman J, McCarthy JJ (2010) The Whale Pump: Marine Mammals Enhance Primary Productivity in a Coastal Basin. PLoS ONE 5(10): e13255. <https://doi.org/10.1371/journal.pone.0013255>; Martin A, Pearson H, Saba G, Olsen EM. Integral functions of marine vertebrates in the ocean carbon cycle and climate change mitigation. One Earth 4: 680-693. <https://doi.org/10.1016/j.oneear.2021.04.019>.

through photosynthesis and provides food for zooplankton and other animals at the base of the food web. Whales also consume and store large amounts of carbon in the form of krill and fish, playing an important role in ecosystem function and nutrient cycling.¹⁰

Alternatives to be Analyzed

The analysis of alternatives to the proposed project lies at “[t]he core of an EIR.”¹¹ In this analysis, the EIR must consider a reasonable range of alternatives that would avoid or substantially lessen this impact while feasibly attaining most of the Project’s basic objectives.¹² CEQA requires agencies to adopt environmentally superior alternatives or feasible mitigation measures to substantially decrease or avoid otherwise significant adverse environmental impacts of the proposed project.¹³ If a feasible alternative exists that will meet the project’s objectives while reducing or avoiding its significant environmental impacts, the project may not be approved.¹⁴ For purposes of this EIR, CDFW should consider all feasible alternatives that reduce or avoid the fishery’s impacts on whales and sea turtles, as well the environment as a whole. The EIR should thus evaluate a range of alternatives for minimizing entanglements, including developing and eventually requiring the use of ropeless fishing gear, and adjusting season lengths, in addition to continuing with the current approach embodied in the Risk Assessment and Mitigation Program (RAMP).

The Draft CP currently discusses ropeless gear as an alternative gear and notes that CDFW plans to host biennial workshops to foster gear innovation and collaboration. While this is a good step, the EIR should analyze alternatives that include widespread development and use of ropeless gear, particularly during times of year when entanglement risk is elevated. Current research and development efforts are producing rapid improvements in ropeless gear, such that it will likely be ready for scaled up use off the U.S. West Coast in the near future. Ropeless gear has been tested in California, on the U.S. and Canadian East Coast, and in other regions globally and has been shown to be reliable, identifiable, enforceable, and detectable.¹⁵ Fishermen who have participated in the trials demonstrated significant improvements in retrieval and redeployment efficiency over time.

¹⁰ Savoca et al. 2021. Baleen whale prey consumption based on high-resolution foraging measurements. *Nature* 599: 85–90 and Clapham, P.J. 2016. Managing leviathan: Conservation challenges for the great whales in a post-whaling world. *Oceanography* 29(3):214–225, <http://dx.doi.org/10.5670/oceanog.2016.70>.

¹¹ *Citizens of Goleta Valley*, 52 Cal. 3d at 564; *see also* Pub. Res. Code § 21002.1(a) (“The purpose of an environmental impact report is . . . to identify alternatives to the project . . .”).

¹² *See* § 21100(b)(4); CEQA Guidelines § 15126.6(a).

¹³ Pub. Res. Code §§ 21002, 21081(a); CEQA Guidelines, §§ 15002(a)(3), 15021(a)(2), 15091(a)(1).

¹⁴ Pub. Res. Code § 21002.

¹⁵ *See, e.g.*, reports at <https://ropeless.org/relevant-publications-and-reports/>; Oceana presentations to Dungeness Crab Fishing Gear Working Group and Gear Innovations Project Team, e.g., https://www.opc.ca.gov/webmaster/media_library/2018/08/ropeless-trials-update7-30-18.pdf.

Ropeless gear offers many significant benefits. In addition to reducing entanglements, it could offer a means to continue fishing during times when areas are closed to conventional surface buoy-line gear, and reduce poaching, gear loss and associated marine debris, and navigational hazards, which are all associated with buoys lines at the surface.

These benefits stand in contrast to the drawbacks of other proposals for reducing entanglement risk. While much effort has been allocated to exploring gear modifications and innovations to avoid entanglements,¹⁶ the only proven method to date is to eliminate the vertical lines through the use of ropeless gear.¹⁷ Evidence has shown that other proposed means for reducing entanglement risk in Dungeness crab gear do not effectively reduce entanglement risk or the harm resulting from entanglements. These means include the use of pingers, breakaway lines, and reliance on “best practices,” which are voluntary and non-enforceable.¹⁸ Studies have shown that pingers are ineffective for large whales, and that weak links or reduced breaking strength line do not reduce the number of entanglements, nor do they reduce the risk of sublethal effects that may accumulate to population-level harm.¹⁹ While best practices such as removing slack from lines and reducing surface gear may help reduce entanglement risk, they do not eliminate risk from vertical lines and risk reduction is difficult to quantify.

Season-length adjustments are another alternative that should be evaluated along with ropeless fishing gear. To that end, the EIR should analyze an alternative that would restrict the season for fishing using conventional vertical line gear to the period when entanglement risk is low and authorize the use of ropeless gear during the rest of season. This alternative would preserve fishing opportunities during higher risk times while protecting the covered species and conserving state resources spent on the extremely resource-intensive risk assessment process currently used in the fall and early spring.

To support the analysis of this alternative and others, the EIR should examine recent data on marine life concentrations to identify any patterns in whale migration timing or aggregation locations that could inform factors like season opening and closing dates, or areas where entanglement risk is particularly high.

¹⁶ National Marine Fisheries Service and Pacific States Marine Fisheries Commission: Forensic Review Workshop Report: Reviewing the Gear Involved in West Coast Whale Entanglements. August 29-30, 2018. <https://habitat.psmfc.org/wp-content/uploads/2018/10/Forensic-Review-Workshop-Report.pdf>

¹⁷ Lebon, K.M. and R.P. Kelly. 2019. “Evaluating alternatives to reduce whale entanglements in commercial Dungeness Crab fishing gear,” *Global Ecology and Conservation* 18:e00608 <https://doi.org/10.1016/j.gecco.2019.e00608>

¹⁸ *Id.*

¹⁹ See for example Werner, T. and K. McLellan-Press. 2017. Global Assessment of Large Whale Entanglement and Bycatch Reduction in Fixed Fishing Gear. Final Grant Report to NOAA under Award #NA15NMF4630357. 86 pp.

Lastly, the EIR should consider the impacts of continuing with the current approach to addressing entanglement risk in California. Relying on real-time monitoring regimes as the basis for determining season closures and other management actions has proven challenging. This approach has the laudable goal of both minimizing entanglement risk and impacts to the fishery. However, it has proven extremely resource-intensive and, in practice, has not resulted in timely responses to real-time increases in entanglement risk. While closures have likely prevented some entanglements, there has been a significant lag of nearly a month between the time management triggers are reached and management responses are implemented. The EIR should consider ways to improve the responsiveness of this approach and compare it to alternative approaches in terms of CDFW resource use, including the ability to use resources to address conservation needs in other fisheries, and actual reduction in entanglement risk.

* * * * *

Thank you for your time and consideration. Please don't hesitate to contact us if you would like to discuss any of these comments in more detail.

Sincerely,

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Appendix B

Special-Status Marine Species

Special-Status Wildlife Known to Occur in the Project Region and Their Potential to Occur in the Project Area

Species	Federal Listing Status ¹	State Listing Status ¹	Habitat
Reptiles			
Green sea turtle <i>Chelonia mydas</i>	FT	—	Green sea turtles are found worldwide primarily in subtropical and temperate regions of the Atlantic, Pacific, and Indian Oceans and in the Mediterranean Sea. In the United States, nesting green turtles are found primarily in the Hawaiian Islands, US Pacific Island territories (i.e., Guam, the Commonwealth of the Northern Mariana Islands, American Samoa), Puerto Rico, the Virgin Islands, and Florida. Nesting also occurs annually in Georgia, South Carolina, North Carolina, and Texas. This species is completely herbivorous and needs adequate supply of seagrasses and algae.
Pacific leatherback sea turtle ² <i>Dermochelys coriacea</i>	FE	SE	The Pacific leatherback sea turtle has the widest global distribution of any reptile, occurring in the Atlantic, Pacific, and Indian Oceans. This species nests mainly on tropical or subtropical beaches. Pacific leatherback sea turtles undertake the longest migrations between breeding and feeding areas of any sea turtle, some averaging 3,700 miles each way.
Olive ridley sea turtle <i>Lepidochelys olivacea</i>	FT	—	Olive ridley sea turtles are mainly pelagic but are also known to inhabit coastal areas. Olive ridleys are globally distributed in the tropical regions of the Atlantic, Pacific, and Indian Oceans. In the eastern Pacific, they occur from southern California to northern Chile. In the Pacific, large nesting populations occur in Mexico and Costa Rica.
Birds			
Ashy storm-petrel <i>Hydrobates homochroa</i>	—	SSC	Colonial nester on offshore islands. Usually nests on driest part of islands. Forages over open ocean. Nest sites on islands are in crevices beneath loosely piled rocks or driftwood, or in caves.
Bald eagle <i>Haliaeetus leucocephalus</i>	FD	SE FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter. Sometimes forages at sea.
Black skimmer <i>Rynchops niger</i>	—	SSC	Nests on gravel bars, low islets, and sandy beaches, in unvegetated sites. Nesting colonies usually fewer than 200 pairs.
Black storm-petrel <i>Hydrobates melania</i>	—	SSC	Colonial nester on Santa Barbara Island. Forages in open ocean, in channel waters and far offshore. Primarily a warmwater species.
California brown pelican <i>Pelecanus occidentalis californicus</i>	FD	SD	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size that afford immunity from attack by ground-dwelling predators. Roosts communally.
California least tern <i>Sternula antillarum browni</i>	FE	SE FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.
Fork-tailed storm-petrel <i>Hydrobates furcatus</i>	—	SSC	Colonial nester on small, offshore islets. Forages over the open ocean, usually well off-shore. Birds choose offshore islets that provide nesting crannies beneath rocks or sod for burrowing.
Marbled murrelet <i>Brachyramphus marmoratus</i>	FT	SE	Lower montane coniferous forest, old growth, redwood. Feeds near-shore; nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old-growth redwood-dominated forests, up to 6 miles inland, often in Douglas fir.
Scripps's murrelet <i>Synthliboramphus scrippsi</i>	—	ST	Open ocean except during breeding season. Breeds on offshore islands in southern California. Nests in rock crevices, under bushes, in old burrows, and among human-made debris.

Species	Federal Listing Status ¹	State Listing Status ¹	Habitat
Tufted puffin <i>Fratercula cirrhata</i>	—	SSC	Open ocean bird; nests along the coast on islands, islets, or (rarely) mainland cliffs. Requires sod or earth into which the birds can burrow, on island cliffs or grassy island slopes.
Fish			
Coast cutthroat trout <i>Oncorhynchus clarkii clarkii</i>	—	SSC	Small coastal streams from the Eel River to the Oregon border. Coastal cutthroat trout may be classified into an anadromous life history strategy where individuals migrate to the estuary and/or ocean before returning to freshwater to spawn.
Coho salmon - Central California Coast ESU <i>Oncorhynchus kisutch</i> pop. 4	FE	SE	Coho salmon are anadromous—they hatch in freshwater streams and spend a year in streams and rivers then migrate out to the saltwater environment of the ocean to feed and grow.
Coho salmon - Southern Oregon/Northern California ESU <i>Oncorhynchus kisutch</i> pop. 2	FT	ST	Coho salmon are anadromous—they hatch in freshwater streams and spend a year in streams and rivers then migrate out to the saltwater environment of the ocean to feed and grow.
Green sturgeon <i>Acipenser medirostris</i>	FT	SSC	The most marine species of sturgeon. Abundance increases northward of Point Conception. Spawns in the Sacramento, Klamath, and Trinity Rivers. Spawns at temperatures between 8 and 14 degrees Celsius. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock.
Pacific lamprey <i>Entosphenus tridentatus</i>	—	SSC	Found in Pacific Coast streams north of San Luis Obispo County; however, regular runs in Santa Clara River. Pacific Lampreys are eel-like in form and anadromous, using both fresh water and marine habitats to complete their life cycle.
Steelhead - Central California Coast DPS <i>Oncorhynchus mykiss irideus</i> pop. 8	FT	—	From Russian River south to Soquel Creek and to, but not including, Pajaro River. Also San Francisco and San Pablo Bay basins. Steelhead are the anadromous form of rainbow trout. Steelhead are born in fresh water, emigrate to the ocean where most of their growth occurs, and then return to fresh water to spawn.
Steelhead - Northern California DPS <i>Oncorhynchus mykiss irideus</i> pop. 16	FT	—	Coastal basins from Redwood Creek south to the Gualala River, inclusive. Does not include summer-run steelhead. Steelhead are the anadromous form of rainbow trout. Steelhead are born in fresh water, emigrate to the ocean where most of their growth occurs, and then return to fresh water to spawn.
Steelhead - South-Central California Coast DPS <i>Oncorhynchus mykiss irideus</i> pop. 9	FT	—	South coast flowing waters. Federal listing refers to runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River. Steelhead are the anadromous form of rainbow trout. Steelhead are born in fresh water, emigrate to the ocean where most of their growth occurs, and then return to fresh water to spawn.
Steelhead - Southern California DPS <i>Oncorhynchus mykiss irideus</i> pop. 10	FE	—	Southern steelhead likely have greater physiological tolerances to warmer water and more variable conditions. Steelhead are the anadromous form of rainbow trout. Steelhead are born in fresh water, emigrate to the ocean where most of their growth occurs, and then return to fresh water to spawn.
Invertebrates			
Black abalone <i>Haliotis cracherodii</i>	FE	—	Marine intertidal and splash zone communities. Middle to low rocky intertidal areas. Black abalone range from about Point Arena, California, to Bahia Tortugas and Isla Guadalupe, Mexico.
White abalone <i>Haliotis sorenseni</i>	FE	—	Marine intertidal and splash zone communities. Rocky pinnacles and deep reefs in southern California; especially those off the Channel Islands. Lives at depths of at least 80 feet to over 200 feet.

Species	Federal Listing Status ¹	State Listing Status ¹	Habitat
Mammals			
Blue whale ² <i>Balaenoptera musculus</i>	FE MMPA	—	Blue whales in the eastern Pacific range from the Chukchi and Bering Seas in Alaska in summer south to Panama in Central America in winter. Although it is known that blue whales migrate south in winter to subtropical waters and to temperate waters in summer and fall, their migratory routes are not well mapped. During the northward migration, blue whales apparently travel farther offshore, but they are closer to the central California coast when they migrate south. Off California, sightings are made seasonally between June and December in the Southern California Bight and between May and November in northern and central California.
California sea lion <i>Zalophus californianus</i>	MMPA	—	California sea lions range from Baja California, Mexico, north to Vancouver Island off British Columbia. The current breeding range of this species extends from Año Nuevo Island in central California, south to the tip of Baja California, and the core breeding area centers on the California Channel Islands. California sea lions are coastal animals that feed in nearshore waters over the continental shelf and are rarely seen farther than 20 miles from land.
Common bottlenose dolphin <i>Tursiops truncatus</i>	MMPA	—	Common bottlenose dolphin occurs in all tropical and temperate seas. In California, coastal common bottlenose dolphins stay close to shore, most within approximately 0.3 mile of land. Offshore, dolphins are found far beyond the coastal shelf of California and Baja California, over the deep oceanic plains. After the extreme 1982–1983 El Niño–Southern Oscillation, southern California coastal bottlenose dolphins extended their range northward to Monterey Bay and, more recently, to San Francisco.
Common dolphin <i>Delphinus delphis</i>	MMPA	—	Common dolphins have the widest distribution of all whales and dolphins of the world, ranging across all temperate and subtropical regions and throughout the Pacific, Atlantic, and Indian Oceans. The core range of this species is from southern California south of Point Conception to the tip of Baja California and into the Sea of Cortez. Common dolphins occur north of Santa Cruz only occasionally. Long-beaked common dolphins are more associated with warmer and shallower water than short-beaked common dolphins are.
Dall's porpoise <i>Phocoenoides dalli</i>	MMPA	—	Dall's porpoises are endemic to the North Pacific, ranging from Baja California in the east, to the Sea of Japan in the west, and as far as the Bering Sea in the north. Along the west coast of North America, this species occurs from shelf waters to the deep ocean. In the Gulf of the Farallones, Dall's porpoises are the most abundant and commonly sighted cetacean.
False killer whale <i>Pseudorca crassidens</i>	MMPA	—	False killer whales are widely distributed in tropical, semitropical, and warm-temperate oceans. This species is occasionally sighted off the US coast, particularly in warmwater years, from Washington to California. False killer whales are regarded as rare seasonal transients in Monterey Bay.
Fin whale <i>Balaenoptera physalus</i>	FE MMPA	—	Fin whales are widely distributed in the world's open oceans between latitudes of 20 and 75 degrees N. Fin whales migrate annually between winter breeding and calving grounds and summer feeding grounds. Migration between high and low latitudes occurs in open ocean, so routes and timing are not well mapped. Fin whales are present year-round off central and southern California, with an apparent concentration between September and February.

Species	Federal Listing Status ¹	State Listing Status ¹	Habitat
Gray whale - Eastern North Pacific DPS <i>Eschrichtius robustus</i>	FD MMPA	—	Gray whales occur in coastal waters, ranging from the Beaufort and Chukchi Seas in Alaska, south to Baja California and mainland Mexico. Gray whales migrate close to shore, following a distinct route less than 5 miles offshore, which bifurcates off Point Conception, with some whales continuing along the mainland shore and others following a route through the Channel Islands. Northward migration, when female gray whales are with their calves, is slower and occurs close to shore, likely to avoid detection by killer whales. Some gray whales, called the "Pacific Coast Feeding Aggregation," spend the entire summer off the Pacific Coast, forgoing the full migration to Alaska.
Guadalupe fur seal <i>Arctocephalus townsendi</i>	FT MMPA	ST FP	Breeds on Isla de Guadalupe off Mexico and is occasionally found on San Miguel, San Nicolas, and San Clemente Islands. Prefers shallow, nearshore island water, with cool and sheltered rocky areas for haul-outs.
Harbor porpoise <i>Phocoena phocoena</i>	MMPA	—	In the Pacific Ocean, harbor porpoises have been observed as far north as the Bering Sea, Alaska, and as far south as Point Conception, California. Harbor porpoises prefer bays, estuaries, and nearshore waters. Along the California coast, most harbor porpoises are sighted over the continental shelf, within approximately 5 miles of shore.
Harbor seal <i>Phoca vitulina</i>	MMPA	—	Harbor seal is the most widespread of all pinnipeds, occurring throughout the oceans of the northern hemisphere. In the eastern Pacific, harbor seals occur from Ascension Island, Baja California, northward along the Alaskan peninsula. Harbor seals generally reside in estuaries or in nearshore waters with both rocky and soft-bottom substrates on the outer coast. This species rarely ventures more than 12 miles from shore. Harbor seal colonies may be on intertidal rocks, tidal mudflats, or sandy beaches.
Humpback whale - Central America DPS and Mexico DPS ² <i>Megaptera novaeangliae</i>	FE MMPA	—	Humpback whales are cosmopolitan, and on the west coast of the United States, this species spends spring, summer, and fall feeding in coastal waters from Washington to California, particularly in the superabundant waters of the Gulf of the Farallones and Southern California Bight. Humpback whales are associated with shallow continental shelf and shelf break habitats; with islands such as the Channel Islands; with offshore banks and seamounts, such as Cordell Bank and the Santa Rosa-Cortez Ridge; and with reefs.
Killer whale – Southern Resident DPS <i>Orcinus orca</i>	FE MMPA	—	Southern Resident DPS killer whales spend several months of the summer and fall each year in Washington State's Puget Sound. The population is composed of three family groups of whales that have been named the J, K, and L pods. Although the Southern Resident DPS usually spends the summer near Washington State and southwest British Columbia, in the winter, the L and K pods are known to travel to the northern coast of California as far south as Monterey Bay.
Killer whale (transient population) <i>Orcinus orca</i>	MMPA	—	Killer whales are cosmopolitan but typically favor colder, fertile waters near coasts. Transient-type killer whales appear to prey primarily on marine mammals, cover a more extensive range, and are less seasonally predictable than the resident killer whales. The transient "ecotype" is the most commonly observed killer whale ecotype in California.
Minke whale <i>Balaenoptera acutorostrata</i>	MMPA	—	Minke whales are distributed throughout most of the oceans of the world, but three separate subspecies have been identified in the northern hemisphere, including one associated with the California Current. Although some minke whales migrate, year-round residence has been noted in Drakes and Monterey Bays in central California. Minke whales are associated with areas of consistent upwelling with high primary productivity and where the seabed sediments are gravelly sand or mud.

Species	Federal Listing Status ¹	State Listing Status ¹	Habitat
North Pacific right whale <i>Eubalaena japonica</i>	FE MMPA	FP	The North Pacific right whale is the most endangered of all the large whales, with fewer than 50 believed to be in existence in the eastern North Pacific. Before whaling decimated right whale populations, this species was documented to range broadly throughout the North Pacific, north into the Bering Sea and south near Monterey Bay.
Northern elephant seal <i>Mirounga angustirostris</i>	MMPA	FP	The range of northern elephant seals covers a vast area of the North Pacific Ocean, extending from Central America north to Arctic waters of the Bering Sea and west as far as Japan and the Commander Islands of Russia. In California, northern elephant seals breed on the southern Channel Islands, Año Nuevo Island, Gorda, Cape San Martin, San Simeon, southeast Farallon Islands, and Point Reyes. At sea, females forage at midwater depths (i.e., 1,000 feet) in the North Pacific Gyre, and males forage on the bottom of the ocean along the continental margin.
Northern fur seal <i>Callorhinus ursinus</i>	MMPA	—	Marine intertidal and splash zone communities, rocky shore, and sandy shore. Breeds on land on large offshore rocks and along rocky or sandy island shorelines. San Miguel Island is only breeding location in California. At sea, northern fur seals occur mostly off the continental shelf in deep waters, 20–70 miles offshore.
Northern right whale dolphin <i>Lissodelphis borealis</i>	MMPA	—	Northern right whale dolphins occur in the North Pacific Ocean. In the eastern Pacific, this species occurs along most of the California Current, although rarely south to lower Baja California. The population in California appeared to be centered between Point Sur and Point Conception, including the northern Channel Islands.
Pacific white-sided dolphin <i>Lagenorhynchus obliquidens</i>	MMPA	—	Pacific white-sided dolphin is endemic to the North Pacific Ocean, ranging from the South China Sea to the Aleutians and south to the west coast of North America to the tip of Baja California and into the Sea of Cortez. The species occurs along the entire California Current and is considered an offshore species. Off southern California, Pacific white-sided dolphins are typically most abundant from November through April.
Risso's dolphin <i>Grampus griseus</i>	MMPA	—	Risso's dolphin is cosmopolitan and can be sighted far offshore of the west coast of North America. Risso's dolphins favor continental slopes, seamounts, and underwater escarpments. In California, Risso's dolphins are most often seen in the Southern California Bight, Monterey Bay, and the Gulf of the Farallones. Risso's dolphins may occur closer to the coast on the continental shelf in their pursuit of squid.
Sei whale <i>Balaenoptera borealis</i>	FE MMPA	—	Sei whales occur throughout most of the temperate and subtropical oceans of the world but rarely venture above latitude 55 degrees N in the North Pacific or south of California. The North Pacific stock ranges almost exclusively in pelagic waters and rarely ventures into coastal waters.
Short-finned pilot whale <i>Globicephala macrorhynchus</i>	MMPA	—	Short-finned pilot whales are cosmopolitan, and in the eastern Pacific, these whales are associated with habitats with complex topography, such as seamounts and ridges, and along the continental shelf break and slope. Pilot whales were once seasonally common in the Southern California Bight; however, following the extreme 1982–1983 El Niño–Southern Oscillation, pilot whales virtually disappeared from this location.
Southern sea otter <i>Enhydra lutris nereis</i>	FT MMPA	FP	Nearshore marine environments from about Año Nuevo, San Mateo County, to Point Sal, Santa Barbara County. Needs canopies of giant kelp and bull kelp for rafting and feeding. Prefers rocky substrates with abundant invertebrates.

Species	Federal Listing Status ¹	State Listing Status ¹	Habitat
Sperm whale <i>Physeter macrocephalus</i>	FE MMPA	—	Sperm whales are cosmopolitan, and in the eastern Pacific, this species favors deeper waters near or beyond the continental break, rarely venturing close to shore. Sperm whales are present off California year-round, and off central California, abundance is greater in mid-May and mid-September, a pattern likely related to the whales' migration along the California Current.
Steller sea lion <i>Eumetopias jubatus</i>	FD MMPA	—	Breeds on Año Nuevo, San Miguel, and Farallon Islands; Point St. George, and Sugarloaf. Hauls-out on islands and rocks. Needs haul-out and breeding sites with unrestricted access to water, near aquatic food supply and with no human disturbance. Generally, Steller sea lions feed nearshore on the continental shelf, but individuals have been observed at sea up to 300 miles from land.

Notes: ESU = evolutionarily significant unit; DPS = distinct population segment.

¹ Legal Status Definitions

Federal:

FD Delisted from ESA

FE Endangered (legally protected)

FT Threatened (legally protected)

MMPA Protected under the Marine Mammal Protection Act

State:

SD Delisted from CESA

SE Endangered (legally protected)

ST Threatened (legally protected)

FP Fully protected (legally protected)

SSC Species of special concern (no formal protection other than CEQA consideration)

² Actionable Species under the RAMP Regulations and Covered Species included in CDFW's Incidental Take Permit application and proposed implementing agreement.

Sources: Allen et al. 2011; CNDDDB 2024; USFWS 2023.

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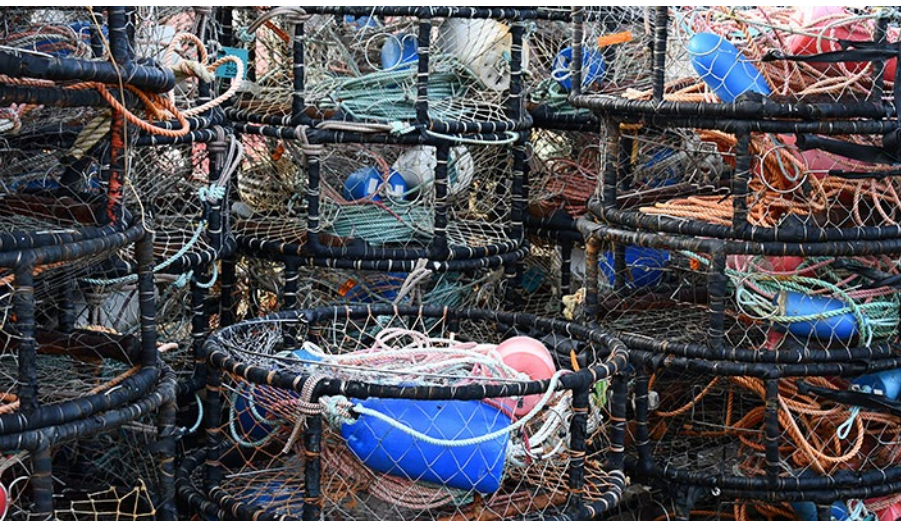
ASCENT

Final Environmental Impact Report
Volume I: Responses to Comments

**California Commercial
Dungeness Crab Fishery
Risk Assessment and
Mitigation Program
Regulatory Amendments**

State Clearinghouse No. 2022090320

March 2025



Prepared for:



California Department of
Fish and Wildlife

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**California Commercial Dungeness Crab
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LIST OF ABBREVIATIONS

CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CP	conservation plan
Draft EIR	draft environmental impact report
EEZ	Exclusive Economic Zone
ESA	federal Endangered Species Act
Final EIR	final environmental impact report
ITP	incidental take permit
RAMP	Risk Assessment and Mitigation Program

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1 INTRODUCTION

This final environmental impact report (Final EIR) has been prepared by the California Department of Fish and Wildlife (CDFW), as lead agency, in accordance with the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (California Code of Regulations [CCR] Section 15132). This Final EIR contains responses to comments received on the draft environmental impact report (Draft EIR) for the California Commercial Dungeness Crab Fishery Risk Assessment and Mitigation Program (RAMP) Regulatory Amendments (project). The Final EIR consists of this document (response to comments document) (Volume I), which includes comments on the Draft EIR, responses to those comments, and revisions to the Draft EIR; and the revised Draft EIR (Volume II).

1.1 PURPOSE AND INTENDED USES OF THIS FINAL EIR

CEQA requires a lead agency that has prepared a Draft EIR to consult with and obtain comments from responsible and trustee agencies that have jurisdiction by law with respect to the project, and to provide the public with an opportunity to comment on the Draft EIR. The Final EIR is the mechanism for recording the comments and responding to significant environmental issues raised in them. This Final EIR has been prepared to respond to comments received on the Draft EIR, which are reproduced in this document; and to present corrections, revisions, and other clarifications to the Draft EIR, including project updates, made in response to public comments and as a result of CDFW's ongoing planning efforts. The Final EIR will be used to support CDFW's decision regarding whether to approve the proposed project.

This Final EIR will also be used by CEQA responsible agencies to enable their CEQA compliance before deciding whether to approve or permit project elements over which they have jurisdiction. It may also be used by trustee agencies and other state, regional, and local agencies that may have an interest in resources that could be affected by the project or that have jurisdiction over portions of the project.

Responsible, trustee, and interested agencies may include:

- ▶ California Department of Parks and Recreation,
- ▶ California Coastal Commission, and
- ▶ California State Lands Commission.

1.2 PROJECT LOCATION

Subject to the RAMP, the commercial Dungeness crab fishery operates within ocean and coastal waters off California. The project area encompasses the entirety of the Exclusive Economic Zone (EEZ, the area within 200 nautical miles of the shoreline) extending from the California/Oregon border in the north to the California/Mexico border in the south (Figure 1-1). Although commercial Dungeness crab fishing occurs almost exclusively north of Point Conception (CDFW 2020), CDFW jurisdiction over the fishery extends throughout the portion of the EEZ off California's coast (16 US Code Section 1856 note), which, historically, has been divided at the Sonoma-Mendocino County line into two areas that have slightly different fishing seasons. The Northern Management Area extends from Oregon to the Sonoma-Mendocino County line, and the Central Management Area extends from the Sonoma-Mendocino County line to Mexico (see Figure 1-1).



Source: Adapted by Ascent in 2024.

Figure 1-1 Project Area

1.3 PROJECT OBJECTIVES

The specific objectives of the proposed RAMP regulatory amendments are listed below.

1. use ongoing risk evaluation to reduce risk of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in commercial Dungeness crab gear throughout the project area using active management;
2. improve identification of entanglements of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area;
3. reduce the likelihood and/or severity of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area by authorizing the use of alternative fishing gear;
4. strengthen regulatory authority to implement actions designed to reduce entanglement risks, including CP goals and measures and federal ITP requirements; and
5. resolve existing inefficiencies, deficiencies, and ambiguities within RAMP that limit CDFW's ability to respond to Actionable Species entanglement, enforce management actions, collect data, and improve management tools.

1.4 SUMMARY DESCRIPTION OF THE PROJECT

CDFW proposes to amend the regulations codifying RAMP, which is the proposed project subject to approval by CDFW and compliance with CEQA. The regulatory amendments would refine and further develop existing RAMP provisions to reduce the risk and severity of marine life entanglements and improve identification of entanglements in California commercial Dungeness crab gear. The RAMP amendments would also strengthen California's regulatory authority to implement conservation plan (CP) measures to support the National Marine Fisheries Service's (NMFS's) discretionary approval and issuance of an incidental take permit (ITP) for the potential take of specified Actionable Species: blue whale (*Balaenoptera musculus*), Central America and Mexico humpback whale (*Megaptera novaengliae*) Distinct Population Segment, and Pacific leatherback sea turtle (*Dermochelys coriacea*) under Section 10 of the federal Endangered Species Act (ESA) for the California commercial Dungeness crab fishery.

The proposed amendments to RAMP regulations constitute the proposed project for purposes of CEQA compliance. They are part of CDFW's comprehensive strategy to avoid, minimize, mitigate, and monitor entanglements of Actionable Species in commercial Dungeness crab fishing gear off the coast of California consistent with the framework established by the CP. The proposed amendments would add new RAMP components consisting of new buoy and line marking requirements and modifying existing RAMP components described below. These regulatory changes are being proposed to satisfy requirements for the ITP pursuant to NMFS guidance, help streamline implementation processes to conserve staff resources, and clarify existing language to facilitate implementation and enforcement of RAMP.

1.4.1 Proposed RAMP Regulatory Amendments

The revisions proposed in 14 CCR Section 132.8 (i.e., the RAMP regulations) are summarized below and discussed further in the sections that follow. Section 2.1 summarizes changes in the proposed regulatory amendments since publication of the Draft EIR.

- ▶ Clarify that an Actionable Species entanglement involving California commercial Dungeness crab gear observed anywhere would be considered as a Confirmed Entanglement.
- ▶ Clarify that an Actionable Species entanglement in Unknown Fishing Gear would count as a Confirmed Entanglement only if it is reported from a Fishing Zone off California.
- ▶ Clarify that Confirmed Entanglements would be assigned based on information provided by NMFS, and would be made when sufficient data are available, but no longer than on a quarterly basis.

- ▶ Remove provision pertaining to Confirmed Entanglements involving multiple fisheries.
- ▶ Simplify Confirmed Entanglement calculation by repealing the concept of Impact Score.
- ▶ Consider unidentifiable gear as Unknown Fishing Gear unless the gear in question is entirely inconsistent with a Dungeness crab trap.
- ▶ Phase out assignment of Confirmed Entanglements in Unknown Fishing Gear to the Dungeness crab fishery based on a new line marking requirement.
- ▶ Specify that Fishing Zones would extend to all "Ocean Waters" within the specified area.
- ▶ Remove the concept of "Fishing Grounds" and apply the 100-fathom boundary to only the Marine Life Concentration surveys.
- ▶ Define "Ocean Waters".
- ▶ Remove Fishing Zones 6 and 7.
- ▶ Move the start time of risk assessments from November 1 to October 15 and discontinue assessment once a Fishing Zone has been closed for the rest of the season.
- ▶ Clarify that a management action would remain in effect until it is revoked.
- ▶ Clarify that if a Fishing Zone is closed for the season, only approved Alternative Gear would be used in that zone for the rest of the season.
- ▶ Institute revised Confirmed Entanglement thresholds to align with ESA and anticipated requirements under an ITP.
- ▶ Stipulate that the validity of a survey for risk assessment would no longer expire after a specified period of time.
- ▶ Elevate a management action's effectiveness at minimizing entanglement to its primary goal.
- ▶ Consolidate the spatial data on the Actionable Species under one subsection and explicitly allow the consideration of data in areas adjacent to Fishing Zones.
- ▶ Extend consideration of entanglement pattern from only the ongoing calendar year and fishing season to prior years and seasons as well while crafting management actions.
- ▶ Remove Fleet Advisory as a management action.
- ▶ Update fishery closure requirements by clarifying that all fishing gear must be removed from a closed Fishing Zone by the effective date of the fishery closure; and crabs from delayed or closed zones cannot be taken, possessed, sold, or landed, with special stipulations for crabs taken from these zone(s) right before closure.
- ▶ Further clarify that all Dungeness crab permit holders, whether they are using traditional or Alternative Gear, must submit the bi-weekly report when they have gear in any Fishing Zone(s); reports would be due on the first and sixteenth of each month, and may be submitted through a CDFW provided form in addition to email or text.
- ▶ Require bi-weekly reports to include the due dates and number of newly lost traps known to each permit holder.
- ▶ Require an end-of-season report due two weeks following the submission of each permit holder's last bi-weekly report of a fishing season documenting the traps lost during that season and their associated buoy tags.
- ▶ Update requirements for electronic monitoring systems by commercial Dungeness crab vessels when RAMP management measures are in place; monitoring systems would have to be able to track vessel accurately without interruption; tampering would be prohibited, and any interruption would have to be reported and corrected before fishing could resume.
- ▶ Require each main buoy to be legibly marked to identify the fishery and permit holder.
- ▶ Require trap line marking to identify the gear belonging to the Dungeness crab fishery.

- ▶ Further stipulate the types of limitations or conditions that may be attached to the authorization of an Alternative Gear.

1.5 MAJOR CONCLUSIONS OF THE ENVIRONMENTAL ANALYSIS

All environmental impacts associated with implementation of the proposed RAMP regulatory amendments would be less than significant, and no mitigation would be required. The project would not have any significant and unavoidable environmental impacts.

1.6 CEQA PUBLIC REVIEW PROCESS

On April 26, 2024, CDFW released the Draft EIR for a 45-day public review and comment period. The Draft EIR was submitted to the State Clearinghouse for distribution to reviewing agencies; posted on CDFW's website (<https://wildlife.ca.gov/Notices/CEQA>); and was made available at 20 Lower Ragsdale Drive, Suite 100, Monterey, CA. A notice of availability of the Draft EIR was published in the Eureka Times-Standard, Santa Rosa Press-Democrat, San Diego Union-Tribune, San Francisco Chronicle, San Luis Obispo Tribune, and Los Angeles Times and distributed by email to a project-specific mailing list.

A public hearing was held on May 23, 2024, at 9:00 a.m. to receive input from agencies and the public on the Draft EIR. The hearing was recorded, and a transcript was prepared.

As a result of these notification efforts, written and verbal comments were received from one local agency (Ventura County Public Works), an organization, and individuals on the content of the Draft EIR. Chapter 3, "Responses to Comments," identifies these commenting parties, their respective comments, and responses to environmental topics raised in these comments. None of the comments received, or the responses provided, constitute "significant new information" as defined under CEQA (State CEQA Guidelines Section 15088.5).

1.7 ORGANIZATION OF THE FINAL EIR

This Final EIR consists of two volumes.

Volume I is organized as follows:

Chapter 1, "Introduction," describes the purpose of the Final EIR, summarizes the proposed project and the major conclusions of the Draft EIR, provides an overview of the CEQA public review process, and describes the content of the Final EIR.

Chapter 2, "Project Updates," presents minor updates related to the proposed project as a result of public comments received during the RAMP rulemaking comment period.

Chapter 3, "Responses to Comments," contains a list of all parties who submitted comments on the Draft EIR during the public review period, all comments received during the Draft EIR public comment period including those provided verbally at the May 23, 2024 public hearing, and responses to environmental issues raised in the comments.

Chapter 4, "Revisions to the Draft EIR," presents revisions to the Draft EIR text made in response to comments, as a result of ongoing CDFW planning efforts, or to amplify, clarify or make minor modifications or corrections.

Chapter 5, "References," identifies the documents used as sources for the analysis.

Chapter 6, "List of Preparers," identifies the lead agency contacts as well as the preparers of this Final EIR.

Volume II is a reprint of the Draft EIR with revisions incorporated after public review. Volume II is organized as follows:

“Executive Summary”: This chapter introduces the proposed project; provides a summary of the environmental review process, effects found not to be significant, and key environmental issues; and significant or potentially significant impacts along with feasible mitigation measures to reduce significant impacts to a less-than-significant level.

Chapter 1, “Introduction”: This chapter provides a synopsis of the project; a description of the type, purpose, and intended uses of this EIR; a description of the scope of this EIR; a description of the lead and responsible agencies; a summary of the public review process; a description of the organization of this EIR; and definitions of standard terminology used in this EIR.

Chapter 2, “Project Description”: This chapter describes the location, background, and goals and objectives for the project and describes the project elements in detail.

Chapter 3, “Environmental Impacts and Mitigation Measures”: The sections in this chapter evaluate the expected environmental impacts of the project, arranged by subject area (e.g., air quality and water quality). In each section of Chapter 3, the relevant regulatory background, existing conditions, analysis methodology, and thresholds of significance are described. The anticipated changes to the existing conditions from reasonably foreseeable compliance responses to implementation of the proposed RAMP regulatory amendments are then evaluated for each subject area. For any significant or potentially significant impact that would result from project implementation, and the level of impact significance for each impact is identified. Environmental impacts are numbered sequentially within each section (e.g., Impact 3.2-1, Impact 3.2-2).

Chapter 4, “Cumulative Impacts”: This chapter provides information required by CEQA regarding cumulative impacts that would result from the contribution of any adverse impacts of the project to significant cumulative effects from other past, present, and probable future projects causing related impacts.

Chapter 5, “Alternatives”: This chapter evaluates alternatives to the proposed project, including alternatives considered but eliminated from further consideration, the No Project Alternative, and two action alternatives. The environmentally superior alternative is also identified in this chapter.

Chapter 6, “Other CEQA Sections”: This chapter evaluates growth-inducing impacts and the irreversible and irretrievable commitment of resources and discloses any significant and unavoidable adverse impacts.

Chapter 7, “References”: This chapter identifies the documents and individuals used as sources for the analysis.

Chapter 8, “Report Preparers”: This chapter identifies the preparers of this EIR.

2 PROJECT UPDATES

The Final EIR includes minor new information about revisions to the proposed regulatory amendments that were developed as a result of CDFW’s ongoing planning process. Recirculation of a Draft EIR is not required when the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR (State CEQA Guidelines Section 15088.5[b]).

2.1 REVISIONS TO PROPOSED RAMP REGULATORY AMENDMENTS

Minor revisions to the proposed RAMP regulatory amendments that have been made since preparation of the Draft EIR are listed in Table 2-1 and described in more detail below. These revisions are being made in response to public comments received during the RAMP rulemaking public comment period.

Table 2-1 Revisions to RAMP Regulatory Amendments since the Draft EIR

Change since the Draft EIR & Section of RAMP Regulation Revised	Description of Change
Definitions – Section (a)	Impact score calculation will be retained for 2024-2025 fishing season.
Triggers for management actions – Section (c)	Retain current impact scoring for 2024-2025 fishing season. Shift to entanglement evaluation alignment beginning in the 2025-2026 season.
Management considerations - Section (d)	Retain original text regarding economic impact to the fleet.
Management actions - Section (e)	Remove proposed surface gear and active tending management actions.
Gear identification – Section (h)	Proposed buoy marking implementation date changed from 2024 to 2025. Disallow use of line colors used in Washington and Oregon.
Alternative gear – Section (i)	Add free public access to approximate gear locations to minimize gear conflict.

Source: Data provided by CDFW in 2024.

2.1.1 Definitions – Section (a)

The Draft EIR’s project description proposed to repeal the concept of impact scores. Revisions to the RAMP regulatory amendments retain the concept of repealing impact scores; however, implementation would be delayed until after the 2024-2025 fishing season. Changes to the effective date of when impact scores are repealed does not affect the environmental analysis associated with the project. These revisions would not result in any changes to the analysis, mitigation measures, or impact conclusions in the Draft EIR as a result of this revision.

2.1.2 Triggers for Management Actions – Section (c)

The Draft EIR’s project description proposed to repeal the concept of impact scores and shift to entanglement evaluation. As discussed under Section 2.1.1 above, revisions to the RAMP regulatory amendments since preparation of the Draft EIR include retaining current impact scoring for the 2024-2025 fishing season and shifting to entanglement evaluation alignment beginning in the 2025-2026 season. Changes to the effective date of when impact scores are repealed and shifted to Entanglement Evaluation does not affect the environmental analysis associated with the project. These revisions would not result in any changes to the analysis, mitigation measures, or impact conclusions in the Draft EIR as a result of this revision.

2.1.3 Management Considerations - Section (d)

Revisions to the RAMP regulatory amendments since preparation of the Draft EIR include retaining the original text regarding the economic impact on the fleet. Per State CEQA Guidelines Section 15131, the Draft EIR addresses physical environmental effects, rather than economic effects. Therefore, revisions to the RAMP language relating to economic effects would not result in any changes to the analysis, mitigation measures, or impact conclusions in the Draft EIR as a result of this revision.

2.1.4 Management Actions - Section (e)

The Draft EIR's project description proposed to add restrictions to the amount of surface gear and mandatory active tending of crab gear as possible management actions. Language in Section (e) has been revised since preparation of the Draft EIR to remove proposed surface gear and active tending management actions. While revisions have been made to the Draft EIR to remove references to active tending, this revision would result in fewer vessel trips than was analyzed in the Draft EIR and would reduce potential environmental effects compared to the proposed project. The significance of impacts would remain less than significant. Therefore, there would not be any changes to the analysis, mitigation measures, or impact conclusions in the Draft EIR as a result of these revisions.

2.1.5 Gear Identification - Section (h)

The Draft EIR's project description proposed buoy marking to start in 2024, and revisions to the RAMP regulatory amendments since preparation of the Draft EIR include changing the proposed buoy marking implementation date from 2024 to 2025. Changes to the effective date of buoy marking implementation does not affect the environmental analysis associated with the project. In addition, revisions since the preparation of the Draft EIR include disallowing the use of line colors used in Washington and Oregon. This change would not result in a change in physical effects compared to what was analyzed in the Draft EIR. Therefore, there would not be any changes to the analysis, mitigation measures, or impact conclusions in the Draft EIR as a result of these revisions.

2.1.6 Alternative Gear - Section (i)

Revisions to the RAMP regulatory amendments since preparation of the Draft EIR include adding free public access to approximate gear locations to minimize gear conflict. Allowing public access to gear locations would not result in any changes to the gear locations, amount of gear, or how gear is tracked. This would not result in any changes to physical effects compared to what was analyzed in the Draft EIR. There would not be any changes to the analysis, mitigation measures, or impact conclusions in the Draft EIR as a result of this revision.

2.1.7 Conclusion

The Draft EIR provided a comprehensive analysis of potential impacts of the proposed amendments to the RAMP regulation. Amendments to the RAMP regulation, both as proposed in the Draft EIR and with the revisions discussed above, would not result in any significant environmental effects. The revisions proposed since the Draft EIR would not generate a new substantial adverse environmental effect and, in some cases, the revisions would reduce potential environmental effects compared to the proposed project (e.g., removing active tending). The significance of environmental impacts would not change.

CEQA requires recirculation of an EIR when significant new information is added to the EIR after notice is given of the availability of the Draft EIR for public review, but before certification (State CEQA Guidelines Section 15088.5). New information is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (State CEQA Guidelines Section 15088.5).

Because the information in this section makes minor modifications to an adequate EIR, and because this Final EIR did not result in the identification of any new significant environmental impacts or a substantial increase in the severity of an environmental impact, this Final EIR does not contain “significant new information,” as defined under CEQA, and recirculation of the Draft EIR is not required prior to approval.

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3 RESPONSES TO COMMENTS

This chapter contains comments received during the public review period for the Draft EIR, which concluded on June 10, 2024, including transcribed comments received during the May 23, 2024 public meeting. In conformance with Section 15088(a) of the State CEQA Guidelines, written responses were prepared addressing comments on environmental issues received from reviewers of the Draft EIR.

3.1 LIST OF COMMENTERS ON THE DRAFT EIR

Table 3-1 presents the list of commenters, including the numerical designation for each set of comments, the name or organization commenting, and the date of the comment.

Table 3-1 List of Commenters

Comment No.	Commenter	Date
WRITTEN COMMENTS RECEIVED DURING THE PUBLIC REVIEW PERIOD		
1	Ventura County Public Works, Watershed Planning and Permits Division	May 16, 2024
2	Center for Biological Diversity	June 10, 2024
ORAL COMMENTS RECEIVED AT THE DRAFT EIR PUBLIC HEARING (05/23/24)		
PH1	Vivian Halliwell	—
PH2-3	David Halliwell	—
PH4-5	Troy Wakefield	—
PH6-7	David Halliwell	—
PH8	Vivian Halliwell	—
PH9-10	David Halliwell	—

3.2 COMMENTS AND RESPONSES

The oral and written comments received on the Draft EIR and the responses to those comments are provided below. The comment letters and oral comments made at the public hearing are reproduced in their entirety and are followed by the response(s). Where a commenter has provided multiple comments, each comment is individually republished verbatim below with an identifying number in the margin of the comment letter.

3.2.1 Comment Letters

Letter 1 Ventura County Public Works, Watershed Planning and Permits Division

Yunsheng Su, PWA-WP Case Reviewer
May 16, 2024

Comment 1-1

Pursuant to your request dated 5/13/2024, this office has reviewed the submitted materials and provides the following comments.

PROJECT LOCATION:

20 Lower Ragsdale Dr., Suite 100, Monterey, CA, 93940

PROJECT DESCRIPTION:

Pursuant to the State of California Public Resources Code (PRC) Section 21091(a) and the Guidelines for the Implementation of the California Environmental Quality Act (CEQA Guidelines), the California Department of Fish and Wildlife (CDFW) has released for public review a draft environmental impact report (Draft EIR) that evaluates the environmental effects of amending Title 14 Section 132.8 of the California Code of Regulations (CCR) codifying the Risk Assessment and Mitigation Program (RAMP) for the California commercial Dungeness crab fishery. The regulatory amendments would refine and further develop existing RAMP provisions to reduce the risk and severity of marine life entanglements and improve identification of entanglements in California commercial Dungeness crab gear. The RAMP amendments would also strengthen California's regulatory authority to implement Conservation Plan measures to support the National Marine Fisheries Service's (NMFS's) discretionary approval and issuance of an Incidental Take Permit (ITP) for the potential take of specified Actionable Species under Section 10 of the federal Endangered Species Act for the California commercial Dungeness crab fishery (the "project"). Project Title: California Commercial Dungeness Crab Fishery RAMP Regulatory Amendments Draft EIR Review Period: April 26, 2024, to June 10, 2024, at 5:00 p.m. Project Location: The project area encompasses the portion of the US Exclusive Economic Zone (the area within 200 nautical miles of the shoreline) extending from the California/Oregon border in the north to the California/Mexico border in the south. The Northern Management Area extends from Oregon to the Sonoma-Mendocino County line, and the Central Management Area extends from the Sonoma-Mendocino County line to Mexico. This would be streamlined into five Fishing Zones with the following latitudinal boundaries: Zone 1: From the California/Oregon border (42° N. latitude) to Cape Mendocino (40° 10' N latitude) Zone 2: From Cape Mendocino to the Sonoma/Mendocino county line (38° 46.125' N latitude) Zone 3: From Sonoma/Mendocino county line to Pigeon Point (37° 11' N latitude) Zone 4: From Pigeon Point to Lopez Point (36° N latitude) Zone 5: From Lopez Point to Point Conception (34° 27' N latitude) Project Description: The proposed amendments to 14 CCR Section 132.8 (RAMP) constitute the proposed project for purposes of CEQA compliance. They are part of CDFW's comprehensive strategy to avoid, minimize, mitigate, and monitor entanglements of Actionable Species: blue whale (*Balaenoptera musculus*), Central America and Mexico Distinct Population Segments of humpback whale (*Megaptera novaengliae*), and Pacific leatherback sea turtle (*Dermochelys coriacea*), in commercial Dungeness crab fishing gear off the coast of California. The proposed amendments would add new RAMP components consisting of the management actions of restricting surface gear and active tending requirements as well as new buoy and line marking requirements. The proposed amendments would also modify existing RAMP components. These regulatory changes are being proposed to satisfy requirements for the ITP pursuant to NMFS feedback, help streamline implementation processes to conserve staff resources, and clarify existing language to facilitate implementation and enforcement.

Response 1-1

The comment summarizes the project location and project description. Because the comment does not raise a substantial environmental impact issue, no further response is warranted. The comment is noted for CDFW consideration.

Comment 1-2**APPLICATION COMPLETENESS:**

Complete - from our area of concern.

Response 1-2

The comment notes the application is complete. Because the comment does not raise a substantial environmental impact issue, no further response is warranted. The comment is noted for CDFW consideration.

Comment 1-3**ENVIRONMENTAL IMPACT ANALYSIS:****Item 31a. Flood Control Facilities/Watercourses – Ventura County Public Works Agency, Watershed Protection is deemed to be Less Than Significant.**

The proposed project is situated about 999 feet from the None, which is a WP jurisdictional redline channel. No new or modified direct stormwater drainage connections to this WP channel, activities within WP's easement, or activities over, under, or within the redline channel appear to be proposed or indicated on the applicant's submitted materials.

This proposed project would result in NO increase of impervious area within the subject property.

WP staff determines that the environmental impact is less than significant (LS) on redline channels under the jurisdiction of the Ventura County Public Works Agency - Watershed Protection.

Response 1-3

The comment states that the environmental impact of the project is less than significant on redline channels under the jurisdiction of the Ventura County Public Works Agency - Watershed Protection. Because the comment does not raise a substantial environmental impact issue, no further response is warranted. The comment is noted for CDFW consideration.

Comment 1-4**Item 17b. Hydraulic Hazards - FEMA is deemed to be Less Than Significant.**

The project site is in a location identified by the Federal Emergency Management Agency (FEMA) as an area of Minimal Flood Hazard Zone X Unshaded. This is evidenced on FEMA Map Panel 06111C0000 effective January 20, 2010. The proposed development is therefore, deemed to be Less Than Significant for Hydraulic Hazards - FEMA.

Response 1-4

The comment states the proposed project is deemed to be less than significant for hydraulic hazards. Because the comment does not raise a substantial environmental impact issue, no further response is warranted. The comment is noted for CDFW consideration.

Comment 1-5**WATERSHED PROTECTION COMMENTS:**

None.

WATERSHED PROTECTION CONDITIONS:

None.

If you have any questions, please feel free to contact me by email at

Yunsheng.Su @ Ventura.Org or by phone at 805-654-2005.

Response 1-5

The comment states there are no comments related to watershed protection and provides contact information. Because the comment does not raise a substantial environmental impact issue, no further response is warranted. The comment is noted for CDFW consideration.

Letter 2 Center for Biological Diversity

Ben Grundy, Oceans Campaigner

June 10, 2024

Comment 2-1

On behalf of the Center for Biological Diversity and our members and supporters, we submit the following comments to the California Department of Fish and Wildlife (CDFW) on the Draft Environmental Impact Report for the California Commercial Dungeness Crab Fishery Risk Assessment and Mitigation Program (RAMP) Regulatory Amendments.

The Draft Environmental Impact Report (EIR) evaluates the environmental effects of CDFW's proposed amendments to Title 14 Section 132.8 of the California Code of Regulations codifying the RAMP for the California commercial Dungeness crab fishery. RAMP is a dynamic management framework for the Dungeness crab fishery that provides the Department's Director with management responses informed by the best available science to reduce and mitigate entanglement risk for humpback whales, blue whales, and Pacific leatherback sea turtles (collectively "Actionable Species"). It is important that the proposed amendments prioritize the reduction of risk and severity of marine life entanglements and improve identification of entanglements in California commercial Dungeness crab gear. The objectives of the RAMP regulatory amendments are as follows:

1. use ongoing risk evaluation to reduce risk of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in commercial Dungeness crab gear throughout the project area using active management;
2. improve identification of entanglements of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area;
3. reduce the likelihood and/or severity of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area by authorizing the use of alternative fishing gear; and
4. strengthen regulatory authority to implement actions designed to reduce entanglement risks, including Conservation Plan goals and measures and federal incidental take permit (ITP) requirements.

Expanding on Objective 4 listed above, the Department states that the proposed amendments would grant them the necessary authority to implement the state's Conservation Plan measures to support the National Marine Fisheries Service's (NMFS's) discretionary approval and issuance of an ITP for the California commercial Dungeness crab fishery, authorizing take of specified Actionable Species under Section 10 of the federal Endangered Species Act (ESA). The Conservation Plan includes the following objectives:

1. reduce humpback whale, blue whale, and Pacific leatherback sea turtle entanglement risk from the commercial Dungeness crab fishery by restricting presence of actively fished vertical lines;
2. reduce co-occurrence of humpback whale, blue whale, and Pacific leatherback sea turtle with lost or abandoned California commercial Dungeness crab gear throughout the project area;
3. develop, evaluate, and require use of gear modifications that reduce the severity of entanglement if humpback whale, blue whale, or Pacific leatherback sea turtle become entangled in commercial Dungeness crab gear;
4. jointly develop with NMFS safe handling procedures for leatherback sea turtles that become entangled in pot/trap gear; and
5. support rapid entanglement response efforts that minimize the severity of entanglements in commercial Dungeness crab gear.

In keeping with CDFW's request for comments, we provide comments on alternatives considered.

Response 2-1

The comment summarizes the RAMP regulatory amendments and Conservation Plan objectives. Please note that the objectives stated in the current version of the Conservation Plan have been revised; the revised objectives are provided in Chapter 4, below, and in Volume II of the Final EIR. Because the comment does not raise a substantial environmental impact issue, no further response is warranted. The comment is noted for CDFW consideration.

Comment 2-2

Overall CEQA Considerations

CEQA is intended to provide for the long-term protection and enhancement of the state's environment.¹ CEQA requires that an "EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed, and it must permit the significant effects to be considered in the full environmental context."² CEQA defines "significant effect on the environment" as "a substantial, or potentially substantial, adverse change in the environment."³ In this instance, implementation of a robust, scientifically supported, well-enforced RAMP should minimize the California commercial Dungeness crab fishery's impact on the environment and provide a model for lessening the impacts of other state-managed trap fisheries through avoidance, minimization, mitigation, and monitoring of entanglements of Actionable Species in commercial fishing gear.

Response 2-2

The commenter's summary of CEQA requirements is noted. Because the comment does not raise a substantial environmental impact issue, no further response is warranted. The comment is noted for CDFW consideration.

Comment 2-3

Alternatives to be Analyzed

Considered but not evaluated further

3.3.2 Required Use of Pop-Up ("Ropeless") Gear

We disagree with CDFW's failure to evaluate in detail an alternative requiring the use of pop-up gear throughout the Fishing Season, rather than limiting the use of this type of gear to certain closures after April 1, because this upholds the status quo that allows for illegal take of protected species to occur and provides an unbalanced summarization of the alternative. Throughout the analysis of this alternative, the Department makes judgments and comparisons based on current, proposed, and hypothetical Fish and Game Code regulations. These inconsistent comparisons and evaluation metrics make it difficult to accurately determine if the alternative could feasibly accomplish the project's objectives.

Response 2-3

As discussed in Section 5.3 of the Draft EIR, CDFW, as the lead agency, may conclude that a particular alternative is infeasible and may reject an alternative on that basis provided that the decision maker adopts a finding, supported by substantial evidence, to that effect, and provided that such a finding reflects a reasonable balancing of the relevant economic, environmental, social, and other considerations supported by substantial evidence (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 401, 417; *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 998). As stated in CEQA Guidelines Section 15126.6, an EIR shall consider a range of alternatives that feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of project. This alternative is compared to the proposed project, and the proposed project would not have a significant impact on the environment. In addition, as stated in Section 5.3.2 of the Draft EIR, it is uncertain whether the Require Use of Pop-up ("Ropeless") Gear Alternative would meet the project objectives to reduce the severity of entanglements and reduce co-occurrence of Actionable Species and lost or abandoned gear. In addition, implementing this alternative could result in potential harm from gear conflicts and economic impacts on the fishery. During fall and winter, when Actionable Species are either absent or present in low numbers, the additional protective benefit of using pop-up gear is outweighed by concerns regarding gear conflict. For these reasons, this alternative was not evaluated in detail in the Draft EIR.

Comment 2-4

First, the initial framing of the alternative compares it with the current RAMP regulations, which require the Department's Director to implement management action 5 (Alternative Gear) which limits the use of alternative gear to during a closure occurring on April 1 or later within any closed Fishing Zone(s).⁴ Yet, proposed regulatory amendments to the RAMP being evaluated in DEIR would remove April 1st stipulation from the current regulation:

~~(5)(6) Alternative Gear: During a closure~~ Fishery Closure after the Fishing Season has opened occurring on April 1 or later, and upon authorization pursuant to subsection ~~(h)(i)~~, the Director shall allow the use of Alternative Gear within any closed Fishing Zone(s): for the remainder of the Fishing Season as defined by Fish and Game Code Section 8276.⁵

The EIR should compare the alternative to the proposed RAMP regulations, i.e. without the April 1st limit on pop-up gear use, because significant effects on the environment from vertical lines occur prior to April 1 that the EIR must consider.

Response 2-4

As stated in Section 5.3.2 of the Draft EIR, CDFW considered an alternative requiring the use of pop-up gear throughout the Fishing Season, rather than limiting the use of this type of gear to certain closures after April 1. This acknowledges that the alternative is being considered to the proposed project with the April 1 stipulation being removed.

Comment 2-5

Second, when discussing the process of calculating the cost of adopting the alternative, the Department references the difficulty in calculating the cost for each participant to purchase, install, and operate the required gear:

Calculating the cost for each participant to purchase, install, and operate the required gear is difficult, because the cost would depend on whether a single pop-up unit would be attached to each trap or whether the units could be deployed onto multi-trap gear configurations (CDFW, 2024, p. 5-3).

This does not make sense because under current California Fish and Game Code regulations, it is unlawful to operate multi-trap gear configurations for the commercial take of Dungeness Crab that use traps without a buoy.⁶ Therefore, it is impractical to comment on or evaluate the ability of pop-up gear to perform a function that is not allowed under current regulations.

Response 2-5

While the cited text acknowledges the difficulty in estimating the cost of requiring pop-up gear, Section 5.3.2 of the Draft EIR goes on to provide a good-faith cost estimate based on the best information available at the time of publication of the Draft EIR. The acknowledgement that various current and potential future factors would affect the cost of requiring pop-gear does not make the analysis inadequate.

Comment 2-6

Third, the Department's cost evaluation relies on equipment acquisition costs for a National Marine Sanctuary Foundation gear innovations testing project which could result in cost estimations that fail to consider all available gear systems.

Response 2-6

Section 5.3.2 of the Draft EIR contains an evaluation of the cost for the Required Use of Pop-Up ("Ropeless") Gear Alternative based on the best information available at the time of publication of the Draft EIR. The cost evaluation is not intended to consider all available gear systems.

Comment 2-7

We also disagree with the Department's discussion of entanglement risk that assumes risk is greatest in the spring. The Department should rewrite the EIR to avoid the implication that it is unnecessary to minimize entanglement risk during the fall and winter. Specifically, the below sentence inaccurately implies that entanglement is not a concern outside of spring:

“Furthermore, the need for pop-up and other types of alternative gear is greatest during spring closures, when the risk of entanglement becomes a concern and then continues to increase through the end of the Fishing Season” (CDFW, 2024, p. 5-3).

As witnessed during the 2016 marine heat wave, a changing climate and shifting oceanic conditions can significantly impact the movement and behavior of Actionable Species, leading to increased entanglements. California’s dynamic management framework to assess and mitigate entanglement risk must consider these changing conditions when considering alternatives. Furthermore, it is important that the Department consider how other protected species outside of the specified Actionable Species—that might be present in California waters all year—interact with the Dungeness Crab Fishery and might benefit from action taken.

Response 2-7

As discussed in Section 5.3.2 of the Draft EIR, while the need for alternative gear is greatest in the spring, the need continues through the end of the fishing season. Changing climatic conditions were considered in development of the proposed project and alternatives. Section 2.1 of the Draft EIR discusses historic conditions including the 2016 marine heat wave. Potential effects on other protected species are discussed in Section 3.6 of the Draft EIR.

Comment 2-8

Conclusion

Pop-up gear testing efforts have occurred in California’s waters for multiple years and have delivered promising results. The remaining uncertainty and the burden of addressing gear conflict and enforcement concerns falls on parties tasked with stopping the illegal take of protected species. Failing to fully evaluate this alternative in detail hinders the Department’s ability to assess and prepare for future authorized alternative gear options.

Response 2-8

See response to Comment 2-3.

3.2.2 Public Hearing

PH1 Vivian Halliwell

May 23, 2024

Comment PH1

Good morning. My name is Vivian Halliwell and I support the comments of the Pacific Coast Federation of Fishermen's Association that will be submitted in writing. I have a couple process comments. There are thousands of Dungeness crab permits and 11 people registered for this call. I had to go through three links or layers and paragraphs down in order to find the announcement for this meeting and several other people could not find it. So you're not getting much feedback if you don't reach people with your notice. The e-mail that was sent out on April 29 that was 3 days late and allows people to comment until June 13. Does that only apply to people who received that e-mail notice or to everyone? And now I would like to turn my comment time over to David Halliwell.

Response PH1

The commenter’s concerns about the process are noted. The comment period was extended to June 13 for all commenters.

PH2 David Halliwell

May 23, 2024

Comment PH2

Hey, good morning. This is David Halliwell. I have 50 consecutive seasons of crab fishing experience. I have the fishing vessel Corregidor. And we know from the day that about half of the whale entanglements involve derelict gear. So I think we need to focus on that because if we could reduce half the entanglement, that would be huge. And I don't

see a lot of attention being paid to it or money being paid to it. But we need to focus on the derelict gear, single and single buoy gear, which you are recommending now that we put in. There's a reason we put two buoys on the gear and that's how the buoys are there when we come back to find them. If you take that trainer bully off and the main bully gets messed up or, at a strong current, it may go down and then it gets missed when the traps are being picked up and now it's a derelict pot. And now you've got a significant liability in it. You're going to gather up some whales. So if you were going into some time and money were to be invested in focusing on that, I think we could make a major contribution to cutting down the number of entanglements, which is the idea. And a lot of time and money is being spent on other things that aren't nearly as effective. And I think that's my comment unless you have any questions.

Response PH2

The commenter's concerns about the derelict gear are noted. As discussed on page 2-19 of Section 2.3.4 of the Draft EIR, CDFW has implemented a formal lost and abandoned commercial Dungeness crab trap gear retrieval program since 2019. In addition, CDFW offers compensation for retrieval activities in exchange for the retrieved trap. As discussed in Section 2.5 of the Draft EIR, the amount of lost or abandoned gear is expected to decrease with implementation of the regulatory amendments because of improvements in the gear retrieval process (i.e., compensation for gear retrieval), vertical line/gear reductions, and alternative gear use.

PH3 David Halliwell

May 23, 2024

Comment PH3

How many entanglements are due to derelict gear? Could you give me that number again?

Response PH3

As discussed on pages 2-18 and 2-19 of Section 2.3.4 of the Draft EIR, of the 246 confirmed large whale entanglements between 2013 and 2020, only three are known to have occurred in lost or abandoned gear, and another 11 had "indications" of lost gear but could not be confirmed as such (Saez pers. comm. 2022). Despite this, CDFW considers lost or abandoned gear as a substantial source of marine life entanglement risk.

PH4 Troy Wakefield

May 23, 2024

Comment PH4

I just had a question for you, Ryan is number two and three, is that something that the department has to do or is that just part of this mitigation or not mitigation, but this process here?

Are you referring to the alternatives?

Yes, that permanent gear reduction or permanent shortening of season, is that just something that was in here? Is that something that will be done once this is done?

Response PH4

Pursuant to State CEQA Guidelines Section 15126.6(a), the Draft EIR describes a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. Evaluation of Alternatives 2 and 3 are included in the EIR consistent with the State CEQA Guidelines but are not currently being proposed as part of the regulatory amendments.

PH5 Troy Wakefield

May 23, 2024

Comment PH5

And just one other question. I don't fully understand this whole thing. But how come there was nothing on fiscal impacts on any of the fisheries? We've been talking a bunch about how much the rope's going to cost us all that. None of that was in here. Why was none of that looked at?

Response PH5

Pursuant to State CEQA Guidelines Section 15126.2, the focus of the EIR is on changes to the existing physical environmental conditions in the project area. However, fiscal impacts of the proposed regulatory amendments will be considered by CDFW as part of the approval process.

PH6 David Halliwell

May 23, 2024

Comment PH6

I thought it should be pointed out that whale populations are increasing across the board. And that's not reflected in the RAMP proposal, in fact, they go in the opposite way. They want to make it more restrictive when actually we're doing better than we're accomplishing the goal that was designed, which was to increase the whale population. And I don't see that addressed in this process. Thank you.

Response PH6

Blue whale and the Central America and Mexico Distinct Population Segments of humpback whale are currently listed as endangered under the federal ESA. The California commercial Dungeness crab fishery, which is managed by CDFW, is known to entangle endangered large whales and sea turtles. Therefore, CDFW is required to manage the California commercial Dungeness crab fishery in accordance with ESA until whale populations increase to a level allowing delisting of the species.

PH7 David Halliwell

May 23, 2024

Comment PH7

I just wanted to additionally point out that there's a lot of time and money and investment being spent on pop up gear, which doesn't seem to work very well and has lots of attractions. But we're not spending that kind of time and money on getting rid of the derelict gear out of the ocean, which would make an instant big difference. So there's a problem here. And if we're really trying to address the problem, we need to be focusing on the things that will actually address the problem and then reduce the number of entanglements. And this would be a slam dunk if the money spent on some of these other things were spent to pay people to go out after the season and see to it that every stray pot was gathered up and gotten out of the ocean, we'd be making real progress. And I think there should be more focus on that. Thank you.

Response PH7

See response to comment PH2.

PH8 Vivian Halliwell

May 23, 2024

Comment PH8

This is Vivian Halliwell, I want to comment on the local gear. My reports from people who've done the experiments with them find that they lose a lot of gear and if you lose 10 percent of your gear every time, you've lost 100 percent of it in 10 sets. So, so far the rope of gear is not working very well is my understanding. Thank you. And if it if it only

half deploys and doesn't come to the surface, which some of them do, then it's going to be an entanglement risk all the time that it's there.

Response PH8

The commenter's concerns about the effectiveness of local gear are noted. Because the comment does not raise a substantial environmental impact issue, no further response is warranted. The comment is noted for CDFW consideration.

PH9 David Halliwell

May 23, 2024

Comment PH9

Thank you. It's David again. That's a question for Ryan. I think I'm beginning to understand why there's so few people commenting on this process because all the major decisions will have been made long before August has arrived and it's up until the light of day. So I'm wondering how you feel about that.

Response PH9

All public comments submitted verbally or in writing will be reviewed and considered by CDFW when deciding whether to adopt the revised RAMP regulations and approve the project.

PH10 David Halliwell

May 23, 2024

Comment PH10

So will this comment be a part of the process for the decisions you're going to be making here in the next month or so?

Response PH10

See response to comment PH9.

4 REVISIONS TO THE DRAFT EIR

This chapter presents text changes made to the Draft EIR since its publication and public review to reflect revisions to the RAMP regulatory amendments described above in Chapter 2, “Project Updates” or to clarify activities that should be described as existing and ongoing rather than as changes resulting from the proposed project. The changes are presented in the order in which they appear in the original Draft EIR and are identified by the Draft EIR page number. In addition, a number of non-substantive edits have been made throughout the revised Draft EIR (Volume II) to clarify text, correct errors, or provide updated information. These edits are reflected in Volume II of this Final EIR and are not itemized below. None of the edits to the Draft EIR result in a new significant environmental impact or a substantial increase in the severity of an environmental impact, new or revised mitigation measures, or revisions to the alternatives analysis. Therefore, none of the edits would change the Draft EIR in a way that would deprive the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (State CEQA Guidelines Section 15088.5) The revisions made to the Draft EIR do not constitute “significant new information” requiring recirculation. (See Public Resources Code Section 21092.1; CEQA Guidelines Section 15088.5.)

4.1 EXECUTIVE SUMMARY

To provide updates related to the ITP process since publication of the Draft EIR, the “Incidental Take Permit” section on page ES-4 of the Draft EIR is revised as follows:

Original:

CDFW would request a 15-year-term, renewable ITP from NMFS. This ITP duration would allow the ITP term to align with required Marine Mammal Protection Act (MMPA) authorizations that must occur every 3 years, provide sufficient time to implement the CP and evaluate the adaptive management framework, and provide greater predictability for fishery participants. In addition, this period would likely encompass multiple large-scale oceanographic regimes that have been directly linked to episodic fluctuations in entanglement frequency (Santora et al. 2020). By the end of the 15-year period, additional research would likely become available to further inform the conservation of Actionable Species and the approval of future ITPs. CDFW also notes that fishery managers in Oregon and Washington are seeking ITPs with similar permit terms.

Revised:

CDFW is requesting a 15-year-term, renewable ITP from NMFS. This 15-year permit would provide sufficient time to implement the CP and evaluate the adaptive management framework and provide greater predictability for fishery participants. CDFW also notes that fishery managers in Oregon and Washington are seeking ITPs with similar permit terms.

To provide updates related to allowable take limits requested since publication of the Draft EIR, the “Incidental Take Permit” section on page ES-4 of the Draft EIR is revised as follows:

Original:

CDFW would request in its ITP application the following allowable take levels of Actionable Species by the California commercial Dungeness crab fishery: up to 58 humpback whales from the Mexico DPS, 34 humpback whales from the Central America DPS, 8 blue whales, and 2 Pacific leatherback sea turtles.

Revised:

CDFW requests in its ITP application the following allowable take levels of Actionable Species by the California commercial Dungeness crab fishery: up to 25 humpback whales from the Mexico DPS, 10 humpback whales from the Central America DPS, 6 blue whales, and 2 Pacific leatherback sea turtles.

To provide updates to the CP objectives made since publication of the Draft EIR, the “The Conservation Plan” section on page ES-4 of the Draft EIR is revised as follows:

Original:

CDFW has been working closely with NMFS to develop the CP for several years. The document has been going through the final stages of development as of Spring 2024. While the decision to approve and adopt the final document rests with NMFS, CDFW is not expecting the fundamental management framework it establishes to change substantially. The objectives of the CP are as follows:

1. reduce humpback whale, blue whale, and Pacific leatherback sea turtle entanglement risk from the commercial Dungeness crab fishery by restricting presence of actively fished vertical lines;
2. reduce co-occurrence of humpback whale, blue whale, and Pacific leatherback sea turtle with lost or abandoned California commercial Dungeness crab gear throughout the project area;
3. develop, evaluate, and require use of gear modifications that reduce the severity of entanglement if humpback whale, blue whale, or Pacific leatherback sea turtle become entangled in commercial Dungeness crab gear;
4. jointly develop with NMFS safe handling procedures for leatherback sea turtles that become entangled in pot/trap gear; and
5. support rapid entanglement response efforts that minimize the severity of entanglements in commercial Dungeness crab gear.

Revised:

CDFW has been working closely with NMFS to develop the CP for several years. The document has been going through the final stages of development as of December 2024. While the decision to approve and adopt the CP rests with NMFS, CDFW is not expecting the fundamental management framework to change substantially. Consistent with RAMP, the objectives of the CP are as follows:

1. reduce the co-occurrence of humpback whales, blue whales, and Pacific leatherback sea turtles with California commercial Dungeness crab fishing activity by implementing fishery management measures that reduce entanglement risk;
2. minimize the likelihood of Actionable Species entanglement in lost or abandoned California commercial Dungeness crab gear by increasing opportunities for derelict gear recovery and enhancing lost gear tracking and reduction measures;
3. mitigate the impacts of entanglements of Actionable Species by supporting entanglement reporting, education, and analysis to reduce the likelihood of serious or fatal injuries.

To clarify the project objectives, Section ES.2.3, “Project Objectives,” on pages ES-4 and ES-5 of the Draft EIR is revised as follows:

Original:

The objectives of the project are to:

1. use ongoing risk evaluation to reduce risk of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in commercial Dungeness crab gear throughout the project area using active management;
2. improve identification of entanglements of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area;
3. reduce the likelihood and/or severity of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area by authorizing the use of alternative fishing gear; and

4. strengthen regulatory authority to implement actions designed to reduce entanglement risks, including CP goals and measures and federal ITP requirements.

Revised:

The objectives of the project are to:

5. use ongoing risk evaluation to reduce risk of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in commercial Dungeness crab gear throughout the project area using active management;
6. improve identification of entanglements of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area;
7. reduce the likelihood and/or severity of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area by authorizing the use of alternative fishing gear;
8. strengthen regulatory authority to implement actions designed to reduce entanglement risks, including CP goals and measures and federal ITP requirements; and
9. resolve existing inefficiencies, deficiencies, and ambiguities within RAMP that limit CDFW's ability to respond to Actionable Species entanglement, enforce management actions, collect data, and improve management tools.

To remove references to restricting surface gear and active tending, Section ES.2.4, "Proposed Project," on page ES-5 of the Draft EIR is revised as follows:

Original:

The proposed amendments would add new RAMP components consisting of the management actions of restricting surface gear and active tending requirements as well as new buoy and line marking requirements.

Revised:

The proposed amendments would add RAMP components consisting of new buoy and line marking requirements and modifying existing RAMP components as described below.

To reflect revisions to the RAMP regulatory amendments since the Draft EIR, the "Proposed RAMP Regulatory Amendments" section on page ES-6 of the Draft EIR is revised as follows:

Original:

- ▶ remove Fleet Advisory as a management action;
- ▶ add restrictions to the amount of surface gear and mandatory active tending of crab gear as possible management actions;
- ▶ update fishery closure requirements by clarifying that all fishing gear must be removed from a closed Fishing Zone by the effective date of the fishery closure; and crabs from delayed or closed zones cannot be taken, possessed, sold, or landed, with special stipulations for crabs taken from these zone(s) right before closure;

Revised:

- ▶ remove Fleet Advisory as a management action;
- ▶ update fishery closure requirements by clarifying that all fishing gear must be removed from a closed Fishing Zone by the effective date of the fishery closure; and crabs from delayed or closed zones cannot be taken, possessed, sold, or landed, with special stipulations for crabs taken from these zone(s) right before closure;

Original:

- ▶ Require each main buoy to be legibly marked to identify the fishery and the operator.

Revised:

- ▶ Require each main buoy to be legibly marked to identify the fishery and permit holder.

To clarify the proposed entanglement allocations, the “RAMP Schedule and Thresholds” section on page ES-7 of the Draft EIR is revised as follows:

Original:

As for confirmed entanglement thresholds, CDFW would no longer discount a humpback whale entanglement based on the perceived severity of the entanglement. Instead, any confirmed entanglement of a humpback would be counted as an entanglement regardless of its perceived severity. Furthermore, following the mandatory marking of all surface gear starting November 1, 2025, each confirmed entanglement in Unknown Fishing Gear would be counted as a quarter of a confirmed entanglement in commercial Dungeness crab gear. Following the marking of the top 15 fathoms of all lines after November 1, 2028, CDFW would no longer account for any entanglement in Unknown Fishing Gear.

Revised:

As for confirmed entanglement thresholds, CDFW would no longer prorate a humpback whale entanglement based on the perceived severity of the entanglement. Instead, each confirmed entanglement of a humpback would be counted as a single entanglement regardless of its perceived severity based on requirements of an ITP. Furthermore, following the mandatory marking of all surface gear starting November 1, 2025, each confirmed entanglement in Unknown Fishing Gear would be counted as a quarter of a confirmed entanglement in commercial Dungeness crab gear. Following the mandatory marking of lines on all deployed Dungeness crab gear starting November 1, 2028, CDFW would no longer account for any entanglement in Unknown Fishing Gear as it relates to the commercial Dungeness crab fishery.

To remove surface gear restrictions and active tending, the “Management Actions” section on page ES-7 of the Draft EIR is revised as follows:

Original:

Management actions would include implementation of two new management tools:

1. Surface Gear Prohibition: The CDFW Director may prohibit the use of additional surface buoys and any surface line within any or all Fishing Zone(s) during the Fishing Season.
2. Active Tending Requirement: The CDFW Director may shorten the maximum service interval to four (4) hours and the maximum distance from a Dungeness crab fishing vessel to any and all of its crab traps that are placed into ocean waters to 2 miles during the Fishing Season for any Fishing Zone(s).

Issuance of a Fleet Advisory would no longer be included as an option. Furthermore, Fishery Closure/Fishery Delay would be extended to prohibition against possession, sale, and landing of Dungeness crabs taken from the closed/delayed Fishing Zones as well as mandatory removal of all Dungeness crab gear from the zone. Once a Fishing Zone closes, it would not reopen for the rest of the season and only Alternative Gear could be used to take Dungeness crab within it.

Revised:

Revisions to management actions would include extension of Fishery Closures/Fishery Delays to prohibit possession, sale, and landing of Dungeness crabs taken from the closed/delayed Fishing Zones as well as mandatory removal of all Dungeness crab gear from the zone. Once a Fishing Zone closes, it would not reopen for the rest of the season and only Alternative Gear could be used to take Dungeness crab within it.

To clarify what line colors would be allowed, the “Gear Identification Requirements” section on page ES-8 of the Draft EIR is revised as follows:

Original:

To improve the ability of CDFW and NMFS to identify and attribute Actionable Species take to the appropriate state’s commercial Dungeness crab fishery and improve the ability of NMFS to make negligible impact determinations under the MMPA, CDFW would amend current buoy marking requirements for commercial Dungeness crab to align with line marking requirements implemented for other state-managed commercial fisheries. CDFW would also implement line marking to further make the lines identifiable.

Revised:

To improve the ability of CDFW and NMFS to identify and attribute Actionable Species take to the appropriate state’s commercial Dungeness crab fishery and improve the ability of NMFS to make negligible impact determinations under the MMPA, CDFW would amend current buoy marking requirements for commercial Dungeness crab to align with line marking requirements implemented for other state-managed commercial fisheries. CDFW would also implement line marking to further make the lines identifiable, but would disallow line colors used for any other state or federal fishery operating in the US West Coast EEZ or in state waters of California, Oregon, or Washington.

To clarify the description of Alternative 2, Section ES.4 “Alternatives to the Proposed Project,” on page ES-9 of the Draft EIR is revised as follows:

Original:

- ▶ **Alternative 2: Permanently Reduce Gear Allotments Alternative** would reduce the potential for entanglements by permanently reducing the capacity of the commercial Dungeness crab fishery through reduced gear allotments. CDFW would revise the RAMP regulations based on the gear allotment reductions and apply for an ITP based on the CP.

Revised:

- ▶ **Alternative 2: Permanently Reduce Gear Allotments Alternative** would reduce the potential for entanglements by permanently reducing the number of vertical lines used for the commercial Dungeness crab fishery by reducing the maximum trap allotments. CDFW would revise the RAMP regulations based on the gear allotment reductions and apply for an ITP based on the CP.

To add aircraft trips to the impact summary, Table ES-2 under Impact 3.2-1 on page ES-11 of the Draft EIR is revised as follows:

Original:

Reasonably foreseeable compliance responses from implementation of the project would include the generation of criteria air pollutants and ozone precursors from the movement of commercial fishing and monitoring vessels throughout the project area.

Revised:

Reasonably foreseeable compliance responses from implementation of the project would include the generation of criteria air pollutants and ozone precursors from the movement of commercial fishing and monitoring vessels and aircraft trips throughout the project area.

To add aircraft trips to the impact summary, Table ES-2 under Impact 3.4-1 on page ES-12 of the Draft EIR is revised as follows:

Original:

The reasonably foreseeable compliance responses to the project would not include the construction of any new land-based or maritime facilities or infrastructure. Reasonably foreseeable compliance responses to the project would include the generation of GHG emissions from the movement of fishing and monitoring

vessels throughout the project area. However, this level of vessel activity would not be substantially more than what is currently occurring to commercially harvest Dungeness crab. Moreover, implementation of the project would not prohibit or prevent the deployment of fishing vessel–related regulations included in the 2022 Scoping Plan as overseen by CARB. This impact would be less than significant.

Revised:

The reasonably foreseeable compliance responses to the project would not include the construction of any new land-based or maritime facilities or infrastructure. Reasonably foreseeable compliance responses to the project would include the generation of GHG emissions from the movement of fishing and monitoring vessels and aircraft throughout the project area. However, this level of vessel and aircraft activity would not be substantially more than what is currently occurring to commercially harvest Dungeness crab. Moreover, implementation of the project would not prohibit or prevent the deployment of fishing vessel or aircraft–related regulations included in the 2022 Scoping Plan as overseen by CARB. This impact would be less than significant.

To remove active tending and clarify the project would not increase the number of vessel permits, Table ES-2 under Impact 3.5-1 on page ES-12 of the Draft EIR is revised as follows:

Original:

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of fishing permits issued or the number of vessels used for fishing and would result in only a limited increase in the number of survey and active tending vessel trips. This small increase in the number of survey and active tending vessel trips relative to the total number of vessel trips in the project area would not constitute a significant hazard to the public or environment from the routine transport, use, or disposal of hazardous materials. Therefore, this impact would be less than significant.

Revised:

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of vessel permits issued for the California Dungeness crab fishery and would result in only a limited increase in the number of survey vessel trips. This small increase in the number of survey vessel trips relative to the total number of vessel trips in the project area would not constitute a significant hazard to the public or environment from the routine transport, use, or disposal of hazardous materials. Therefore, this impact would be less than significant.

To remove active tending and clarify the project would not increase the number of vessel permits, Table ES-2 under Impact 3.5-2 on page ES-12 of the Draft EIR is revised as follows:

Original:

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of fishing permits issued or the number of vessels used for fishing and would result in only a limited increase in the number of survey and active tending vessel trips. The small increase in the number of survey and active tending vessel trips relative to the total number of vessels in the project area would not constitute a significant hazard to the public related to the release of hazardous materials into the environment from accidents involving maintenance activities or spills or from hazardous materials washed from the surface of the vessels. Therefore, this impact would be less than significant.

Revised:

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of vessel permits issued for the California Dungeness crab fishery and would result in only a limited increase in the number of survey vessel trips. The small increase in the number of survey vessel trips relative to the total number of vessels in the project area would not constitute a significant hazard to the public related to the release of hazardous materials into the environment from accidents involving maintenance

activities or spills or from hazardous materials washed from the surface of the vessels. Therefore, this impact would be less than significant.

To remove active tending, Table ES-2 under Impact 3.5-3 on page ES-13 of the Draft EIR is revised as follows:

Original:

Implementation of the proposed RAMP regulatory amendments would result in a limited increase in the number of survey vessel trips, but this small increase would not create a significant hazard to the public or the environment related to trips occurring in an area with a site included on a list of hazardous materials sites, because survey activities would not disturb the seafloor. In addition, while servicing traps during active tending has the potential to disturb the seafloor, these disturbances would be limited to the same locations. Implementation of the project would reduce the amount of lost or abandoned gear that could disturb hazardous materials sites through improvements to reporting requirements for gear use and lost or abandoned gear.

Revised:

Implementation of the proposed RAMP regulatory amendments would result in a limited increase in the number of survey vessel trips, but this small increase would not create a significant hazard to the public or the environment related to trips occurring in an area with a site included on a list of hazardous materials sites, because survey activities would not disturb the seafloor. Implementation of the project would reduce the amount of lost or abandoned gear that could disturb hazardous materials sites through improvements to reporting requirements for gear use and lost or abandoned gear.

To remove active tending and clarify that the trap gear retrieval program is not part of the project, Table ES-2 under Impact 3.6-1 on page ES-14 of the Draft EIR is revised as follows:

Original:

Project implementation would include systematic surveys to determine marine life concentrations in the project area, as well as continuation of the existing trap gear retrieval program, and revised active tending requirements. Implementation of these efforts could result in a minor increase in vessel and aircraft activity in the project area. Although more vessel and aircraft activity could result in an increased risk of marine mammal or sea turtle boat strikes or disturbance to special-status marine mammals, sea turtles, or seabirds, the modest increase in vessel and aircraft activity associated with these efforts would not be substantial, and existing regulatory protections (e.g., MPAs, National Oceanic and Atmospheric Administration (NOAA) Regulated Overflight Zones, provisions of NMFS scientific research permits) would prevent adverse effects on special-status wildlife. Specific measures implemented under the RAMP regulatory amendments may include closures or delays in opening of one or more Fishing Zone(s) in response to entanglement risk or other measures, including crab gear depth constraints. Closure or delay in opening a zone could result in a location shift to another zone, which may increase the magnitude or concentration of crab fishing activities in some Fishing Zones (i.e., resulting from season closures or delays) or inshore areas (i.e., resulting from implementation of depth constraints). An increase in the magnitude or concentration of crab fishing activities could result in disturbance to or loss of noncovered special-status species. However, the total fishing activity in the project area would not change substantially. This impact would be less than significant.

Revised:

Project implementation would include systematic surveys to determine marine life concentrations in the project area. Implementation of these efforts could result in a minor increase in vessel and aircraft activity in the project area. Although more vessel and aircraft activity could result in an increased risk of marine mammal or sea turtle boat strikes or disturbance to special-status marine mammals, sea turtles, or seabirds, the modest increase in vessel and aircraft activity associated with survey efforts would not be substantial, and existing regulatory protections (e.g., MPAs, National Oceanic and Atmospheric Administration (NOAA) Regulated Overflight Zones, provisions of NMFS scientific research permits) would prevent adverse effects on special-status wildlife. Specific measures implemented under the RAMP regulatory amendments may include closures

or delays in opening of one or more Fishing Zone(s) in response to entanglement risk, crab gear depth constraints, or other measures. Closure or delay in opening a zone could result in a location shift to another zone, which may increase the magnitude or concentration of crab fishing activities in some Fishing Zones (i.e., resulting from season closures or delays) or inshore areas (i.e., resulting from implementation of depth constraints). However, the total fishing activity in the project area would not change substantially. This impact would be less than significant.

To remove active tending and clarify elements of the project, Table ES-2 under Impact 3.7-1 on page ES-15 of the Draft EIR is revised as follows:

Original:

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of fishing permits issued or the number of vessels used for fishing and would result in only a limited increase in the number of survey vessel trips and active tending trips. This small increase in the number of survey vessel and active tending trips relative to the total number of vessels in the project area would not constitute a significant water quality impact related to the accidental release of pollutants from maintenance activities or spills or from pollutants washed from the surface of the vessels. Ballast water releases from fishing vessels are regulated by the 2013 VGP and in the future will be regulated by discharge standards established in the VIDA when they are published. The VGP establishes numeric discharge limitations and best management practices for ballast water. It is illegal to abandon vessels, and programs are in place through ABs 716 and 166 to deter vessel abandonment; therefore, abandonment of vessels would not result in a significant water quality impact under the project. Implementation of the proposed RAMP regulatory amendments would not increase the number of crab traps deployed. In addition, each trap is isolated spatially from other traps and is less than 5 feet in diameter. Disturbed seafloor sediment from crab trap deployment is dispersed by the current and resettles on the ocean floor and does not cause a significant water quality impact. All alternative gear is required to be certified by CDFW before use and to comply with all federal, state, and local regulations.

Revised:

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of Dungeness crab vessel permits issued and would result in only a limited increase in the number of survey vessel trips. This small increase in the number of survey vessel trips relative to the total number of vessels in the project area would not constitute a significant water quality impact related to the accidental release of pollutants from maintenance activities or spills or from pollutants washed from the surface of the vessels. Ballast water releases from fishing vessels are regulated by the 2013 VGP and in the future will be regulated by discharge standards established in the VIDA when they are published. The VGP establishes numeric discharge limitations and best management practices for ballast water. Implementation of the proposed RAMP regulatory amendments would not increase the number of crab traps deployed. In addition, each trap is isolated spatially from other traps and is less than 5 feet in diameter. Disturbed seafloor sediment from crab trap deployment is dispersed by the current and resettles on the ocean floor and does not cause a significant water quality impact. All alternative fishing gear in the California Dungeness crab fishery is required to be reviewed and certified by CDFW before use and to comply with all federal, state, and local regulations.

4.2 CHAPTER 1, "INTRODUCTION"

To remove references to restricting surface gear and active tending, Section 1.1, "Synopsis of Project Components Requiring Environmental Analysis," on page 1-1 of the Draft EIR is revised as follows:

Original:

The proposed regulatory amendments would add new RAMP components consisting of the management actions of restricting surface gear and active tending requirements as well as new buoy and line marking

requirements. The proposed amendments would also modify existing RAMP components. These regulatory changes are being proposed to satisfy requirements for the ITP pursuant to NMFS feedback, help streamline implementation processes to conserve staff resources, and clarify existing language to facilitate implementation and enforcement.

Revised:

The proposed amendments would add new RAMP components consisting of new buoy and line marking requirements. The proposed amendments would also modify existing RAMP components for clarity and consistency. These regulatory changes are being proposed to satisfy requirements for the ITP pursuant to NMFS feedback, help streamline implementation processes to conserve staff resources, and clarify existing language to facilitate implementation and enforcement.

4.3 CHAPTER 2, “PROJECT DESCRIPTION”

To provide updates related to the ITP process since publication of the Draft EIR, Section 2.1.1 “Incidental Take Permit” on page 2-2 of the Draft EIR is revised as follows:

Original:

CDFW would request a 15-year-term, renewable ITP from NMFS. This ITP duration would allow the ITP term to align with required Marine Mammal Protection Act (MMPA) authorizations that must occur every 3 years, provide sufficient time to implement the CP and evaluate the adaptive management framework, and provide greater predictability for fishery participants. In addition, this period would likely encompass multiple large-scale oceanographic regimes that have been directly linked to episodic fluctuations in entanglement frequency (Santora et al. 2020). By the end of the 15-year period, additional research would likely become available to further inform the conservation of Actionable Species and the approval of future ITPs. CDFW also notes that fishery managers in Oregon and Washington are seeking ITPs with similar permit terms.

Revised:

CDFW is requesting a 15-year-term, renewable ITP from NMFS. This 15-year permit would provide sufficient time to implement the CP and evaluate the adaptive management framework and provide greater predictability for fishery participants. CDFW also notes that fishery managers in Oregon and Washington are seeking ITPs with similar permit terms.

To provide updates related to allowable take limits requested since publication of the Draft EIR, Section 2.1.1 “Incidental Take Permit” on page 2-2 of the Draft EIR is revised as follows:

Original:

CDFW would request in its ITP application the following allowable take levels of Actionable Species by the California commercial Dungeness crab fishery: up to 58 humpback whales from the Mexico DPS, 34 humpback whales from the Central America DPS, 8 blue whales, and 2 Pacific leatherback sea turtles.

Revised:

CDFW requests in its ITP application the following allowable take levels of Actionable Species by the California commercial Dungeness crab fishery: up to 25 humpback whales from the Mexico DPS, 10 humpback whales from the Central America DPS, 6 blue whales, and 2 Pacific leatherback sea turtles.

To provide updates related to the December 2024 Draft Conservation Plan, Section 2.1.2 "The Conservation Plan," on pages 2-2 and 2-3 of the Draft EIR is revised as follows:

Original:

CDFW has been working closely with NMFS to develop the CP for several years. The document has been going through the final stages of development as of Spring 2024. While the decision to approve and adopt the final document rests with NMFS, CDFW is not expecting the fundamental management framework it establishes to change substantially. The objectives of the CP are as follows:

1. reduce humpback whale, blue whale, and Pacific leatherback sea turtle entanglement risk from the commercial Dungeness crab fishery by restricting presence of actively fished vertical lines;
2. reduce co-occurrence of humpback whale, blue whale, and Pacific leatherback sea turtle with lost or abandoned California commercial Dungeness crab gear throughout the project area;
3. develop, evaluate, and require use of gear modifications that reduce the severity of entanglement if humpback whale, blue whale, or Pacific leatherback sea turtle become entangled in commercial Dungeness crab gear;
4. jointly develop with NMFS safe handling procedures for leatherback sea turtles that become entangled in pot/trap gear; and
5. support rapid entanglement response efforts that minimize the severity of entanglements in commercial Dungeness crab gear.

To achieve these goals, CDFW plans to pursue a two-prong approach of avoidance and minimization. CDFW and the commercial Dungeness crab fishery would meet the first two objectives by first avoiding co-occurrence of Dungeness crab gear and Actionable Species. For co-occurrence that may inevitably occur, actions would be taken under the remaining three objectives to minimize the severity of any potential entanglement to the maximum extent practicable. As the primary instrument allowing CDFW to control the presence of active commercial Dungeness crab gear in the ocean, RAMP serves as the center piece of the CP's avoidance strategy.

Revised:

CDFW has been working closely with NMFS to develop the CP for several years. The document has been going through the final stages of development as of December 2024. While the decision to approve and adopt the final CP rests with NMFS, CDFW is not expecting the fundamental management framework to change substantially. Consistent with RAMP, the objectives of the CP are as follows:

1. reduce the co-occurrence of humpback whales, blue whales, and Pacific leatherback sea turtles with California commercial Dungeness crab fishing activity by implementing fishery management measures that reduce entanglement risk;
2. minimize the likelihood of Actionable Species entanglement in lost or abandoned California commercial Dungeness crab gear by increasing opportunities for derelict gear recovery and enhancing lost gear tracking and reduction measures;
3. mitigate the impacts of entanglements of Actionable Species by supporting entanglement reporting, education, and analysis to reduce the likelihood of serious or fatal injuries.

To achieve these goals, CDFW plans to pursue a two-prong approach of avoidance and minimization. CDFW and the commercial Dungeness crab fishery would meet the first two objectives by first avoiding co-occurrence of Dungeness crab gear and Actionable Species. For co-occurrence that may inevitably occur, actions would be taken under the remaining objective to minimize the severity of any potential entanglement to the maximum extent practicable. As the primary instrument allowing CDFW to control the presence of active commercial Dungeness crab gear in the ocean, RAMP serves as the centerpiece of the CP's avoidance strategy.

To remove references to restricting surface gear and active tending, Section 2.4 "Proposed Project," on page 2-20 of the Draft EIR is revised as follows:

Original:

The proposed amendments would add new RAMP components consisting of the management actions of restricting surface gear and active tending requirements as well as new buoy and line marking requirements. The proposed amendments would also modify existing RAMP components. These regulatory changes are being proposed to satisfy requirements for the ITP pursuant to NMFS feedback, help streamline implementation processes to conserve staff resources, and clarify existing language to facilitate implementation and enforcement.

Revised:

The proposed amendments would add new RAMP components consisting of new buoy and line marking requirements and modify existing RAMP components as described below. These regulatory amendments are being proposed to satisfy requirements for the ITP pursuant to NMFS guidance, help streamline implementation processes to conserve staff resources, and clarify existing language to facilitate implementation and enforcement.

To clarify the project objectives, Section 2.4.1, "Project Objectives," on pages 2-20 and 2-21 of the Draft EIR is revised as follows:

Original:

The objectives of the project are to:

1. use ongoing risk evaluation to reduce risk of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in commercial Dungeness crab gear throughout the project area using active management;
2. improve identification of entanglements of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area;
3. reduce the likelihood and/or severity of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area by authorizing the use of alternative fishing gear; and
4. strengthen regulatory authority to implement actions designed to reduce entanglement risks, including CP goals and measures and federal ITP requirements.

Revised:

The objectives of the project are to:

1. use ongoing risk evaluation to reduce risk of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in commercial Dungeness crab gear throughout the project area using active management;
2. improve identification of entanglements of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area;
3. reduce the likelihood and/or severity of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area by authorizing the use of alternative fishing gear;
4. strengthen regulatory authority to implement actions designed to reduce entanglement risks, including CP goals and measures and federal ITP requirements; and

5. resolve existing inefficiencies, deficiencies, and ambiguities within RAMP that limit CDFW's ability to respond to Actionable Species entanglement, enforce management actions, collect data, and improve management tools.

To reflect revisions to the RAMP regulatory amendments since the Draft EIR, Section 2.4.2 "Proposed RAMP Regulatory Amendments," on page 2-21 of the Draft EIR is revised as follows:

Original:

- ▶ remove Fleet Advisory as a management action;
- ▶ add restrictions to the amount of surface gear and mandatory active tending of crab gear as possible management actions;
- ▶ update fishery closure requirements by clarifying that all fishing gear must be removed from a closed Fishing Zone by the effective date of the fishery closure; and crabs from delayed or closed zones cannot be taken, possessed, sold, or landed, with special stipulations for crabs taken from these zone(s) right before closure;

Revised:

- ▶ remove Fleet Advisory as a management action.
- ▶ update fishery closure requirements by clarifying that all fishing gear must be removed from a closed Fishing Zone by the effective date of the fishery closure; and crabs from delayed or closed zones cannot be taken, possessed, sold, or landed, with special stipulations for crabs taken from these zone(s) right before closure;

To clarify the RAMP regulatory amendments described in the Draft EIR, Section 2.4.2 "Proposed RAMP Regulatory Amendments," on page 2-22 of the Draft EIR is revised as follows:

Original:

- ▶ require each main buoy to be legibly marked to identify the fishery and the operator;

Revised:

- ▶ require each main buoy to be legibly marked to identify the fishery and the permit holder;

To clarify the proposed entanglement allocations, the "RAMP Schedule and Thresholds" section on page 2-24 of the Draft EIR is revised as follows:

Original:

As for confirmed entanglement thresholds, CDFW would no longer discount a humpback whale entanglement based on the perceived severity of the entanglement. Instead, any confirmed entanglement of a humpback would be counted as an entanglement regardless of its perceived severity. Furthermore, following the mandatory marking of all surface gear starting November 1, 2025, each confirmed entanglement in Unknown Fishing Gear would be counted as a quarter of a confirmed entanglement in commercial Dungeness crab gear. Following the marking of the top 15 fathoms of all lines after November 1, 2028, CDFW would no longer account for any entanglement in Unknown Fishing Gear.

Revised:

As for confirmed entanglement thresholds, CDFW would no longer prorate a humpback whale entanglement based on the perceived severity of the entanglement. Instead, each confirmed entanglement of a humpback would be counted as a single entanglement regardless of its perceived severity based on requirements of an ITP. Furthermore, following the mandatory marking of all surface gear starting November 1, 2025, each confirmed entanglement in Unknown Fishing Gear would be counted as a quarter of a confirmed entanglement in commercial Dungeness crab gear. Following the mandatory marking of lines on all deployed Dungeness crab gear starting November 1, 2028, CDFW would no longer account for any entanglement in Unknown Fishing Gear as it relates to the commercial Dungeness crab fishery.

To remove surface gear restrictions and active tending, the “Management Actions” section on page 2-24 of the Draft EIR is revised as follows:

Original:

Management actions would include implementation of two new management tools:

1. Surface Gear Prohibition: The CDFW Director may prohibit the use of additional surface buoys and any surface line within any or all Fishing Zone(s) during the Fishing Season.
2. Active Tending Requirement: The CDFW Director may shorten the maximum service interval to four (4) hours and the maximum distance from a Dungeness crab fishing vessel to any and all of its crab traps that are placed into ocean waters to 2 miles during the Fishing Season for any Fishing Zone(s).

Issuance of a Fleet Advisory would no longer be included as an option. Furthermore, Fishery Closure/Fishery Delay would be extended to prohibition against possession, sale, and landing of Dungeness crabs taken from the closed/delayed Fishing Zones as well as mandatory removal of all Dungeness crab gear from the zone. Once a Fishing Zone closes, it would not reopen for the rest of the season and only Alternative Gear could be used to take Dungeness crab within it.

Revised:

Revisions to management actions would include extension of Fishery Closures/Fishery Delays to prohibit possession, sale, and landing of Dungeness crabs taken from the closed/delayed Fishing Zones as well as mandatory removal of all Dungeness crab gear from the zone. Once a Fishing Zone closes, it would not reopen for the rest of the season and only Alternative Gear could be used to take Dungeness crab within it.

To clarify what line colors would be allowed, the “Gear Identification Requirements” section on 2-25 of the Draft EIR is revised as follows:

Original:

To improve the ability of CDFW and NMFS to identify and attribute Actionable Species take to the appropriate state’s commercial Dungeness crab fishery and improve the ability of NMFS to make negligible impact determinations under the MMPA, CDFW would amend current buoy marking requirements for commercial Dungeness crab to align with line marking requirements implemented for other state-managed commercial fisheries. CDFW would also implement line marking to further make the lines identifiable.

Revised:

To improve the ability of CDFW and NMFS to identify and attribute Actionable Species take to the appropriate state’s commercial Dungeness crab fishery and improve the ability of NMFS to make negligible impact determinations under the MMPA, CDFW would amend current buoy marking requirements for commercial Dungeness crab to align with line marking requirements implemented for other state-managed commercial fisheries. CDFW would also implement line marking to further make the lines identifiable, but would disallow line colors used for any other state or federal fishery operating in the US West Coast EEZ or in state waters of California, Oregon, or Washington.

4.4 SECTION 3.2, “AIR QUALITY”

To add aircraft trips to the impact summary, Impact 3.2-1 on page 3.2-8 of the Draft EIR is revised as follows:

Original:

Reasonably foreseeable compliance responses from implementation of the project would include the generation of criteria air pollutants and ozone precursors from the movement of commercial fishing and monitoring vessels throughout the project area.

Revised:

Reasonably foreseeable compliance responses from implementation of the project would include the generation of criteria air pollutants and ozone precursors from the movement of commercial fishing and monitoring vessels and aircraft trips throughout the project area.

To remove active tending, Impact 3.2-1 on page 3.2-9 of the Draft EIR is revised as follows:

Original:

Implementation of the project would not result in an increase in the number of commercial fishing permits issued or the number of vessels used for fishing, but it would result in a limited increase in the number of survey and active tending vessel and survey aircraft trips.

Revised:

Implementation of the project would not result in an increase in the number of commercial fishing permits issued or the number of vessels used for fishing, but it would result in a limited increase in the number of survey vessel and aircraft trips.

4.5 SECTION 3.3, “ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

To remove active tending and clarify that the “fair start provision” and trap gear retrieval program is not part of the proposed project, Impact 3.3-1 on page 3.3-12 of the Draft EIR is revised as follows:

Original:

These specific measures could result in an increase in the magnitude or concentration of crab fishing activities in recently opened Fishing Zones, including those Fishing Zones that open under a depth restriction. However, the “fair start provision” would prevent an influx of crab fishing activities in recently opened Fishing Zones. Project implementation would include implementation of systematic surveys by survey vessels and aircraft to determine marine life concentrations and may include active tending that could result in a slight increase in vessel and aircraft activity in the project area. However, these activities would not involve substantial seafloor disturbance. Implementation of the existing trap gear retrieval program under 14 CCR Section 132.7 involves retrieval of lost or abandoned traps from the seafloor. If snagging of a previously unknown archaeological resource was to occur during these activities, this could result in the discovery or damage to an undiscovered subsurface archaeological resource. However, as described in the “Trap Gear Retrieval Program” section in the discussion of Impact 3.6-1, in Section 3.6, “Marine Biological Resources,” with project implementation, the incidence of lost or abandoned gear is anticipated to decrease; therefore, gear retrieval activities would not be expected to result in an increase in the discovery of or damage to undiscovered subsurface archaeological resources above baseline conditions. For these reasons, the project would not result in a substantial increase in seafloor–disturbing activities above baseline conditions that could result in discovery of or damage to undiscovered subsurface unique archaeological resources. Furthermore, current state law prohibits all unauthorized salvage and removal of artifacts from submerged shipwrecks, aircraft, and other archaeological resources in state waters (PRC Sections 6313 and 6314), and the project would be required to comply with existing state law. Therefore, the impact on unique archaeological resources, including shipwrecks, would be **less than significant**.

Revised:

These specific measures could result in an increase in the magnitude or concentration of crab fishing activities in recently opened Fishing Zones, including those Fishing Zones that open under a depth restriction. Project implementation would include implementation of systematic surveys by survey vessels and aircraft to determine marine life concentrations that could result in a slight increase in vessel and aircraft activity in the project area. However, these activities would not involve substantial seafloor disturbance. For

these reasons, the project would not result in a substantial increase in seafloor–disturbing activities above baseline conditions that could result in discovery of or damage to undiscovered subsurface unique archaeological resources. Furthermore, current state law prohibits all unauthorized salvage and removal of artifacts from submerged shipwrecks, aircraft, and other archaeological resources in state waters (PRC Sections 6313 and 6314), and the project would be required to comply with existing state law. Therefore, the impact on unique archaeological resources, including shipwrecks, would be **less than significant**.

To remove surface active tending and clarify that the “fair start provision” and trap gear retrieval program is not part of the proposed project, Impact 3.3-2 on pages 3.3-12 and 3.3-13 of the Draft EIR is revised as follows:

Original:

These specific conservation measures could result in an increase in the magnitude or concentration of crab fishing activities in recently opened Fishing Zones, including those Fishing Zones that open under a depth restriction. However, the “fair start provision” would prevent an influx of crab fishing activities in recently opened Fishing Zones. Project implementation would include implementation of systematic surveys by survey vessels and aircraft to determine marine life concentrations and revised active tending requirements that could result in a slight increase in vessel and aircraft activity in the project area. However, these activities would not involve a substantial increase in seafloor disturbance. Implementation of the trap gear retrieval program under 14 CCR Section 132.7 involves retrieval of lost or abandoned traps from the seafloor. If snagging of a previously unknown tribal cultural resource was to occur during these activities, this could result in the discovery or damage to an undiscovered subsurface tribal cultural resource. However, as described in the “Trap Gear Retrieval Program” section in the discussion of Impact 3.6-1, in Section 3.6, “Marine Biological Resources,” with project implementation, the incidence of lost or abandoned gear is anticipated to decrease; therefore, gear retrieval activities would not be expected to result in a substantial increase in the discovery of or damage to undiscovered subsurface tribal cultural resources above baseline conditions. In addition to subsurface artifacts, California native plants and animals can also be tribal cultural resources. Implementation of the previously discussed systematic surveys and trap gear retrieval program could result in an increase in vessel and aircraft activity in the project area. However, the modest increase in vessel and aircraft activity associated with these efforts would not be substantial, and existing regulatory protections (see Section 3.6, “Marine Biological Resources”) would prevent adverse effects on special-status wildlife.

Revised:

These specific conservation measures could result in an increase in the magnitude or concentration of crab fishing activities in recently opened Fishing Zones, including those Fishing Zones that open under a depth restriction. Project implementation would include implementation of systematic surveys by survey vessels and aircraft to determine marine life concentrations that could result in a slight increase in vessel and aircraft activity in the project area. However, these activities would not involve a substantial increase in seafloor disturbance. In addition to subsurface artifacts, California native plants and animals can also be tribal cultural resources. Implementation of the previously discussed systematic surveys could result in an increase in vessel and aircraft activity in the project area. However, the modest increase in vessel and aircraft activity associated with these efforts would not be substantial, and existing regulatory protections (see Section 3.6, “Marine Biological Resources”) would prevent adverse effects on special-status wildlife.

4.6 SECTION 3.4, “GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE”

To remove add aircraft trips to the impact summary, Impact 3.4-1 on page 3.4-5 of the Draft EIR is revised as follows:

Original:

The reasonably foreseeable compliance responses to the project would include the generation of GHG emissions from the movement of fishing and monitoring vessels throughout the project area. However, this level of vessel activity would not be substantially more than what is currently occurring to commercially harvest Dungeness crab. Moreover, implementation of the project would not prohibit or prevent the deployment of fishing vessel–related regulations included in the 2022 Scoping Plan as overseen by CARB. This impact would be **less than significant**.

Revised:

The reasonably foreseeable compliance responses to the project would include the generation of GHG emissions from the movement of fishing and monitoring vessels and aircraft throughout the project area. However, this level of vessel and aircraft activity would not be substantially more than what is currently occurring to commercially harvest Dungeness crab. Moreover, implementation of the project would not prohibit or prevent the deployment of fishing vessel or aircraft–related regulations included in the 2022 Scoping Plan as overseen by CARB. This impact would be **less than significant**.

To remove surface gear restrictions and active tending, Impact 3.4-1 on page 3.4-6 of the Draft EIR is revised as follows:

Original:

Implementation of the project would not result in an increase in the number of commercial fishing permits issued or the number of vessels used for fishing, but it would result in a limited increase in the number of survey and active tending vessel and survey aircraft trips.

Revised:

Implementation of the project would not result in an increase in the number of commercial fishing permits issued or the number of vessels used for fishing, but it would result in a limited increase in the number of survey vessel and aircraft trips.

4.7 SECTION 3.5, “HAZARDS AND HAZARDOUS MATERIALS”

To remove active tending and clarify the project would not increase the number of vessel permits, the summary for Impact 3.5-1 on page 3.5-7 of the Draft EIR is revised as follows:

Original:

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of fishing permits issued or the number of vessels used for fishing and would result in only a limited increase in the number of survey and active tending vessel trips. This small increase in the number of survey and active tending vessel trips relative to the total number of vessel trips in the project area would not constitute a significant hazard to the public or environment from the routine transport, use, or disposal of hazardous materials. Therefore, this impact would be **less than significant**.

Revised:

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of vessel permits issued for the California Dungeness crab fishery and would result in only a limited increase in the number of survey vessel trips. This small increase in the number of survey vessel trips relative to the total number of vessel trips in the project area would not constitute a significant hazard to the public

or environment from the routine transport, use, or disposal of hazardous materials. Therefore, this impact would be **less than significant**.

To remove active tending, Impact 3.5-1 on page 3.5-7 of the Draft EIR is revised as follows:

Original:

This number would increase slightly (likely not more than 5 to 10 trips per year) with implementation of the proposed RAMP regulatory amendments.

Active tending requirements that would require fishermen to remain in proximity to the trap gear and tend it more regularly could be imposed as a management action. Efforts to tend to gear more regularly during the crab season may result in an increase in vessel traffic from typical baseline vessel traffic during this period. Potential impacts resulting from an increase in vessel traffic would be the same as described above for vessel survey efforts. Currently, FGC Section 9004 requires each trap to be raised, cleaned, and serviced at intervals not to exceed 96 hours (weather conditions at sea permitting). Active tending requirements would reduce the maximum service interval to 4 hours. While this requirement may result in an increase in vessel traffic, these increases would be modest compared to baseline vessel activity (i.e., all recreational and commercial fishing vessels, recreational vessels, survey vessels, law enforcement vessels), because it would involve vessels already fishing in the area that would remain longer near trap gear, rather than a substantial number of additional vessels.

The small increase in the number of vessel trips associated with marine life concentration surveys and active tending requirements could result in a slightly higher risk of transport, use, or disposal of hazardous materials. However, relative to the total number of all vessels operating on the water in the project area, the increase in vessel traffic associated with these activities would be modest.

Revised:

This number would increase slightly (likely not more than 5 to 10 trips per year) with implementation of the proposed RAMP regulatory amendments.

The small increase in the number of vessel trips associated with marine life concentration surveys could result in a slightly higher risk of transport, use, or disposal of hazardous materials. However, relative to the total number of all vessels operating on the water in the project area, the increase in vessel traffic associated with these activities would be minimal.

To remove active tending and clarify the project would not increase the number of vessel permits, the summary for Impact 3.5-2 on page 3.5-8 of the Draft EIR is revised as follows:

Original:

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of fishing permits issued or the number of vessels used for fishing and would result in only a limited increase in the number of survey and active tending vessel trips. The small increase in the number of survey and active tending vessel trips relative to the total number of vessels in the project area would not constitute a significant hazard to the public related to the release of hazardous materials into the environment from accidents involving maintenance activities or spills or from hazardous materials washed from the surface of the vessels. Therefore, this impact would be **less than significant**.

Revised:

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of vessel permits issued for the California Dungeness crab fishery and would result in only a limited increase in the number of survey vessel trips. The small increase in the number of survey vessel trips relative to the total number of vessels in the project area would not constitute a significant hazard to the public related to the release of hazardous materials into the environment from accidents involving maintenance activities or spills or from hazardous materials washed from the surface of the vessels. Therefore, this impact would be **less than significant**.

To remove active tending, Impact 3.5-2 on page 3.5-8 of the Draft EIR is revised as follows:

Original:

As described under Impact 3.5-1, the number of active fishing vessels would not change with implementation of the proposed project. However, the number of survey and active tending vessel trips could increase slightly, which could result in a slightly higher risk of release of hazardous materials into the environment related to maintenance or spill or from being washed from the surface of the vessel.

Revised:

As described under Impact 3.5-1, the number of active fishing vessels would not change with implementation of the proposed project. However, the number of survey vessel trips could increase slightly, which could result in a slightly higher risk of release of hazardous materials into the environment related to maintenance or spill or from being washed from the surface of the vessel.

To remove active tending, the summary for Impact 3.5-3 on page 3.5-8 of the Draft EIR is revised as follows:

Original:

Implementation of the proposed RAMP regulatory amendments would result in a limited increase in the number of survey vessel trips, but this small increase would not create a significant hazard to the public or the environment related to trips occurring in an area with a site included on a list of hazardous materials sites, because survey activities would not disturb the seafloor. In addition, while servicing traps during active tending has the potential to disturb the seafloor, these disturbances would be limited to the same locations.

Revised:

Implementation of the proposed RAMP regulatory amendments would result in a limited increase in the number of survey vessel trips, but this small increase would not create a significant hazard to the public or the environment related to trips occurring in an area with a site included on a list of hazardous materials sites, because survey activities would not disturb the seafloor.

To remove active tending and clarify that the trap gear retrieval program is not part of the proposed project, Impact 3.5-3 on pages 3.5-8 and 3.5-9 of the Draft EIR is revised as follows:

Original:

Moreover, survey activities would not involve disturbance to the seafloor, and the activity would be subject to the provisions and limitations of Marine Protected Areas, as well as general operational and safety measures. In addition, shortening the service interval with the active tending requirement is not expected to result in a substantial increase in vessel trips because the increase in activity would involve vessels staying near the trap gear. This small increase in the number of vessel trips would be insignificant relative to the total number of all vessels in the project area. While active tending could result in disturbance to the seafloor, these disturbances would be limited to the same locations.

Fishery participants have commonly estimated annual gear loss of between 5 and 10 percent (CDFW 2021). Dungeness crab vessels can retrieve lost or abandoned gear belonging to another Dungeness crab vessel permit under 14 CCR Section 132.2. CDFW recently implemented a program to permit and incentivize retrieval of lost and abandoned commercial gear after the end of the Fishing Season under 14 CCR Section 132.7. Efforts to retrieve lost or abandoned trap gear would not change with project implementation. Qualified entities (e.g., sport or commercial fishing associations, nonprofit entities, local agencies, harbor or port district) would continue to be permitted by CDFW and compensated for retrieving lost or abandoned trap gear during the period between the closure of the Fishing Season and September 30. No more than 10 designated retrievers, and 10 associated vessels, are allowed to operate under a given Retrieval Permit. Efforts to retrieve lost or abandoned gear may result in an increase in vessel traffic from typical baseline vessel traffic during this period. This program would continue under the project.

A summary of commercial Dungeness trap gear retrieval for the period 2020 through 2023 is provided in Table 2-3. In 2020, the first year of the program, CDFW issued seven permits for trap gear retrieval to organizations in Crescent City, Trinidad, Eureka, Bodega Bay, San Francisco, Half Moon Bay, and Monterey Bay (CDFW 2020). In the same year, there were 13 Designated Retrievers (CDFW 2020). A total of 47 retrieval trips were recorded from July 30, 2020, to September 30, 2020 (CDFW 2020). In 2021, CDFW issued six permits for trap gear retrieval to organizations in Crescent City, Bodega Bay, San Francisco, Half Moon Bay, and Monterey Bay (CDFW 2021). In the same year, there were 12 Designated Retrievers (CDFW 2021). A total of 21 retrieval trips were recorded from June 7, 2021, to September 30, 2021 (CDFW 2021). In 2022, CDFW issued five permits for trap gear retrieval to organizations in Trinidad, San Francisco, Half Moon Bay, and Monterey Bay (CDFW 2022). In the same year, there were nine Designated Retrievers (CDFW 2022). A total of 30 retrieval trips were recorded from April to August (CDFW 2022). In 2023, CDFW issued three permits for trap gear retrieval to organizations in San Francisco and Half Moon Bay. There were five Designated Retrievers and a total of eight retrieval trips were recorded from April to September that year (CDFW 2024).

Although the number of gear retrieval permits, Designated Retrievers, and retrieval trips could increase over time, the intensity of trap gear retrieval efforts and associated vessel activity in the first 4 years of program implementation (i.e., 2020, 2021, 2022, 2023) was modest compared to baseline vessel activity (i.e., all recreational and commercial fishing vessels, recreational vessels, survey vessels, law enforcement vessels). Further, additional efforts to quantify gear use, including the requirement for fishery participants to self-report trap use and education efforts, may indicate a decrease in the amount of lost or abandoned trap gear and a potential reduction in the need for trap gear retrieval.

The list of qualified entities for the trap gear retrieval program is limited; the number of trap retrieval permits, designated retrievers, and retrieval trips has been relatively modest during the first 4 years of program implementation; and additional efforts are underway to reduce the amount of lost or abandoned trap gear. For these reasons, implementing the trap gear retrieval program would not result in a substantial increase in vessel traffic in the project area or a substantial increase in the risk of disturbance to a contamination site that would create a significant hazard to the public or the environment.

Specific measures implemented under RAMP may include closures or delays in opening of one or more Fishing Zone(s) in response to entanglement risk or other measures, including crab gear depth constraints.

Revised:

Moreover, survey activities would not involve disturbance to the seafloor, and the activity would be subject to the provisions and limitations of Marine Protected Areas, as well as general operational and safety measures.

Specific measures implemented under RAMP may include closures or delays in opening of one or more Fishing Zone(s) in response to entanglement risk or other measures, including crab gear depth constraints.

To clarify that the “fair start provision” is not part of the proposed project, Impact 3.5-3 on page 3.5-9 of the Draft EIR is revised as follows:

Original:

Depth constraints may be implemented to limit interactions of Actionable Species and crab fishery operations—for example, prohibiting take of crab seaward of the 50-fathom line to reduce interactions with blue whales. Implementation of depth constraints may result in increased concentration of crab gear in areas closer to shore if the same number of crab traps is set. Thus, season closures and delays and depth constraints could increase the concentration of crab gear in areas that may contain contamination sites.

The “fair start provision” (Fish and Game Code Section 8279.1) prohibits a vessel from taking, possessing onboard, or landing crab in an area where crab fishing was previously delayed because of marine life entanglement risk, human health risk (e.g., domoic acid), or poor crab quality for a period of 30 days from the date of the opening if that vessel previously participated in other commercial Dungeness crab fishing areas during the same season. This provision would apply to any Fishing Zone delayed because of marine life entanglement risk under RAMP and

when a delayed Fishing Zone opens under a depth restriction. The fair start provision would prevent an influx of crab fishing activities in recently opened Fishing Zones, including those zones that open under a depth restriction.

When crab traps are set or pulled up from the seafloor, they cause minor suspension of the surface layer of sediments on the seafloor.

Revised:

Depth constraints may be implemented to limit interactions of Actionable Species and crab fishery operations—for example, prohibiting take of crab seaward of the 50-fathom line to reduce interactions with blue whales. Implementation of depth constraints may result in increased concentration of crab gear in areas closer to shore if the same number of crab traps is set. Thus, season closures and delays and depth constraints could increase the concentration of crab gear in areas that may contain contamination sites.

When crab traps are set or pulled up from the seafloor, they cause minor suspension of the surface layer of sediments on the seafloor.

4.8 SECTION 3.6, “MARINE BIOLOGICAL RESOURCES”

To remove active tending and clarify that the trap gear retrieval program is not part of the project, the summary for Impact 3.6-1 on page 3.6-19 of the Draft EIR is revised as follows:

Original:

Project implementation would include systematic surveys to determine marine life concentrations in the project area, as well as continuation of the existing trap gear retrieval program, and revised active tending requirements. Implementation of these efforts could result in a minor increase in vessel and aircraft activity in the project area. Although more vessel and aircraft activity could result in an increased risk of marine mammal or sea turtle boat strikes or disturbance to special-status marine mammals, sea turtles, or seabirds, the modest increase in vessel and aircraft activity associated with these efforts would not be substantial, and existing regulatory protections (e.g., MPAs, National Oceanic and Atmospheric Administration (NOAA) Regulated Overflight Zones, provisions of NMFS scientific research permits) would prevent adverse effects on special-status wildlife. Specific measures implemented under the RAMP regulatory amendments may include closures or delays in opening of one or more Fishing Zone(s) in response to entanglement risk or other measures, including crab gear depth constraints. Closure or delay in opening a zone could result in a location shift to another zone, which may increase the magnitude or concentration of crab fishing activities in some Fishing Zones (i.e., resulting from season closures or delays) or inshore areas (i.e., resulting from implementation of depth constraints). An increase in the magnitude or concentration of crab fishing activities could result in disturbance to or loss of noncovered special-status species. However, the total fishing activity in the project area would not change substantially. This impact would be **less than significant**.

Revised:

Project implementation would include systematic surveys to determine marine life concentrations in the project area. Implementation of these efforts could result in a minor increase in vessel and aircraft activity in the project area. Although more vessel and aircraft activity could result in an increased risk of marine mammal or sea turtle boat strikes or disturbance to special-status marine mammals, sea turtles, or seabirds, the modest increase in vessel and aircraft activity associated with survey efforts would not be substantial, and existing regulatory protections (e.g., MPAs, National Oceanic and Atmospheric Administration (NOAA) Regulated Overflight Zones, provisions of NMFS scientific research permits) would prevent adverse effects on special-status wildlife. Specific measures implemented under the RAMP regulatory amendments may include closures or delays in opening of one or more Fishing Zone(s) in response to entanglement risk, crab gear depth constraints, or other measures. Closure or delay in opening a zone could result in a location shift to another zone, which may increase the magnitude or concentration of crab fishing activities in some Fishing Zones (i.e., resulting from season closures or delays) or inshore areas (i.e., resulting from implementation of depth

constraints). However, the total fishing activity in the project area would not change substantially. This impact would be **less than significant**

To remove active tending and the trap gear retrieval program, Impact 3.6-1 on page 3.6-19 of the Draft EIR is revised as follows:

Original:

Increased Vessel and Aircraft Disturbance as a Result of Implementing Systematic Surveys, the Existing Trap Gear Retrieval Program, or Revised Active Tending Requirements

Revised:

Increased Vessel and Aircraft Disturbance as a Result of Implementing Systematic Surveys

To remove active tending, Impact 3.6-1 on pages 3.6-20 and 3.6-21 of the Draft EIR is revised as follows:

Original:

Although implementation of systematic surveys to determine marine life concentrations would potentially result in an increase in vessel or aircraft traffic in the project area, because CDFW would use data collected during vessel-based and aerial surveys already being conducted by other agencies and organizations as part of the existing baseline of vessel and aircraft activity, this increase would be minor. Further, survey activities would be subject to the provisions and limitations of special closures, NOAA Regulated Overflight Zones, and NMFS scientific research permits, as well as general operational and safety measures. As a result, survey vessels and aircraft would avoid disturbance to marine mammals and seabirds, and systematic survey efforts would not result in a substantial increase in vessel or aircraft traffic in the project area.

Fishery participants have commonly estimated annual gear loss of between 5 and 10 percent (CDFW 2021). Dungeness crab vessels can retrieve lost or abandoned gear belonging to another Dungeness crab vessel permit under 14 CCR Section 132.2. CDFW recently implemented a program to permit and incentivize retrieval of lost and abandoned commercial gear after the end of the Fishing Season under 14 CCR Section 132.7, which may reduce the habitat impacts and risk of entanglement from lost gear. Under this program, Dungeness crab vessel permit holders are liable for the costs of recovering their lost or abandoned trap gear. This program would continue under the project.

The trap gear retrieval program is a strategy to reduce marine life entanglement risk by removing (either through the formal program or through voluntary efforts by the Dungeness crab fishery) lost or abandoned commercial Dungeness crab gear from the ocean. The risk of entanglement of both Actionable Species and noncovered special-status marine wildlife may be reduced through implementation of this program. Efforts to retrieve lost or abandoned trap gear is implemented by qualified entities (e.g., sport or commercial fishing associations, nonprofit entities, local agencies, harbor, or port district) that are permitted by CDFW and compensated for retrieving lost or abandoned trap gear during the period between the closure of the Fishing Season and September 30. No more than 10 Designated Retrievers, and 10 associated vessels, are allowed to operate under a given Retrieval Permit. Efforts to retrieve lost or abandoned gear may result in an increase in vessel traffic from typical baseline vessel traffic during this period. Potential impacts resulting from an increase in vessel traffic would be the same as described above for systematic survey efforts.

A summary of commercial Dungeness trap gear retrieval for the period 2020 through 2023 is provided in Table 2-3. In 2020, the first year of the program, CDFW issued seven permits for trap gear retrieval to organizations in Crescent City, Trinidad, Eureka, Bodega Bay, San Francisco, Half Moon Bay, and Monterey Bay (CDFW 2020). In the same year, there were 13 Designated Retrievers (CDFW 2020). A total of 47 retrieval trips were recorded from July 30, 2020, to September 30, 2020 (CDFW 2020). In 2021, CDFW issued six permits for trap gear retrieval to organizations in Crescent City, Bodega Bay, San Francisco, Half Moon Bay, and Monterey Bay (CDFW 2021). In the same year, there were 12 Designated Retrievers (CDFW 2021). A total of 21 retrieval trips were recorded from June 7, 2021, to September 30, 2021 (CDFW 2021). In 2022, CDFW issued five permits for trap gear retrieval to organizations in Trinidad, San Francisco, Half Moon Bay, and Monterey Bay (CDFW 2022). In the same year, there were nine Designated Retrievers (CDFW 2022). A total of

30 retrieval trips were recorded from April to August (CDFW 2022). In 2023, CDFW issued three permits for trap gear retrieval to organizations in San Francisco and Half Moon Bay. There were five Designated Retrievers and a total of eight retrieval trips were recorded from April to September that year (CDFW 2024).

Although the number of gear retrieval permits, Designated Retrievers, and retrieval trips could increase over time, the intensity of trap gear retrieval efforts and associated vessel activity in the first 4 years of program implementation (i.e., 2020, 2021, 2022, 2023) was modest compared to baseline vessel activity (i.e., all recreational and commercial fishing vessels, recreational vessels, survey vessels, law enforcement vessels). Further, additional efforts to quantify gear use, including the requirement for fishery participants to self-report trap use and education efforts, may result in a decrease in the amount of lost or abandoned trap gear and a potential reduction in the need for trap gear retrieval.

Because the list of qualified entities for the trap gear retrieval program is limited; because the number of trap retrieval permits, designated retrievers, and retrieval trips has been relatively modest during the first 4 years of program implementation; and because additional efforts are underway to reduce the amount of lost or abandoned trap gear, the trap gear retrieval program would not contribute to a substantial increase in vessel traffic in the project area or a substantial increase in the risk of marine mammal boat strikes or disturbance to marine mammals or seabirds.

Active tending requirements that would require fishermen to remain in proximity to the trap gear and tend it more regularly could be imposed as a management action. Efforts to tend to gear more regularly during the crab season may result in an increase in vessel traffic from typical baseline vessel traffic during this period. Potential impacts resulting from an increase in vessel traffic would be the same as described above for vessel survey efforts. Currently, FGC Section 9004 requires each trap to be raised, cleaned, and serviced at intervals not to exceed 96 hours (weather conditions at sea permitting). Active tending requirements would reduce the maximum service interval to 4 hours. While this requirement may result in an increase in vessel traffic, these increases would be modest compared to baseline vessel activity (i.e., all recreational and commercial fishing vessels, recreational vessels, survey vessels, law enforcement vessels), because it would involve vessels already fishing in the area that would remain longer near trap gear, rather than a substantial number of additional vessels. Further, closer monitoring of deployed gear resulting from active tending requirements could provide benefits for both Actionable Species take minimization and entanglement reporting.

Active tending would not result in a substantial increase in vessel traffic in the project area or a substantial increase in the risk of marine mammal boat strikes or disturbance to marine mammals or seabirds, because the increase in activity would involve vessels staying near the trap gear, rather than a substantial number of additional vessels.

Increased Magnitude or Concentration of Crab Fishing as a Result of Closures, Delays, or Depth Constraints

Revised:

Although implementation of systematic surveys to determine marine life concentrations would potentially result in an increase in vessel or aircraft traffic in the project area, because CDFW would use data collected during vessel-based and aerial surveys already being conducted by other agencies and organizations as part of the existing baseline of vessel and aircraft activity, this increase would be minor. Further, survey activities would be subject to the provisions and limitations of special closures, NOAA Regulated Overflight Zones, and NMFS scientific research permits, as well as general operational and safety measures. As a result, survey vessels and aircraft would avoid disturbance to marine mammals and seabirds, and systematic survey efforts would not result in a substantial increase in vessel or aircraft traffic in the project area.

Increased Magnitude or Concentration of Crab Fishing as a Result of Closures, Delays, or Depth Constraints

To clarify the “fair start provision” is not part of the project, Impact 3.6-1 on page 3.6-21 of the Draft EIR is revised as follows:

Original:

Season closures and delays and depth constraints would be intended to reduce the risk of entanglement of Actionable Species; however, an increase in the magnitude of crab fishing or increased concentration of crab gear as a result of these specific management measures could result in an increased risk of entanglement (i.e., due to more crab traps), vessel strikes (i.e., due to more boats), or disturbance to noncovered marine mammal species or seabirds, especially those species associated with inshore areas (e.g., gray whales) where depth constraints would be implemented.

The “fair start provision” (Fish and Game Code Section 8279.1) prohibits a vessel from taking, possessing onboard, or landing crab in an area where crab fishing was previously delayed because of marine life entanglement risk, human health risk (e.g., domoic acid), or poor crab quality for a period of 30 days from the date of the opening if that vessel previously participated in other commercial Dungeness crab fishing areas during the same season. This provision would apply to any Fishing Zone delayed because of marine life entanglement risk under RAMP and when a delayed Fishing Zone opens under a depth restriction. The fair start provision would prevent an influx of crab fishing activities in recently opened Fishing Zones, including those Zones that open under a depth restriction. The 30-day period associated with the fair start provision would therefore prevent a single Fishing Zone from experiencing a substantial increase in the magnitude or concentration of crab fishing activities, which would reduce the likelihood of these activities resulting in disturbance to or loss of noncovered special-status wildlife species.

Revised:

Season closures and delays and depth constraints would be intended to reduce the risk of entanglement of Actionable Species; however, an increase in the magnitude of crab fishing or increased concentration of crab gear as a result of these specific management measures could result in an increased risk of entanglement (i.e., due to more crab traps), vessel strikes (i.e., due to more boats), or disturbance to noncovered marine mammal species or seabirds, especially those species associated with inshore areas (e.g., gray whales) where depth constraints would be implemented.

To clarify the trap gear retrieval program is not part of the project, Impact 3.6-1 on page 3.6-21 of the Draft EIR is revised as follows:

Original:

Conclusion

Impacts on special-status wildlife resulting from systematic survey efforts to determine marine life concentrations, implementation of a trap gear retrieval program, and crab fishing delays or closures or crab gear depth constraints would be **less than significant**.

Revised:

Conclusion

Impacts on special-status wildlife resulting from systematic survey efforts to determine marine life concentrations, and crab fishing delays or closures or crab gear depth constraints would be **less than significant**.

To remove active tending and clarify the trap gear retrieval program is not part of the project, Impact 3.6-2 on page 3.6-22 of the Draft EIR is revised as follows:

Original:

As described above under Impact 3.6-1, implementation of the RAMP regulatory amendments is specifically intended to reduce the risk of entanglement of Actionable Species migrating or otherwise moving through the project area. However, project implementation could result in increased vessel traffic from implementation of systematic surveys to determine marine life concentrations, from implementation of the

trap gear retrieval program, and from active tending requirements. If these efforts were conducted in important migratory corridors or close to nursery sites or known foraging grounds, the normal movement, breeding behavior, or foraging behavior of marine wildlife species could be disrupted. Disruptions to the normal behavior of marine wildlife species could lead to abandonment of nursery sites or foraging habitat. In addition, disruption of an established movement corridor could result in increased exposure to predation if a species must move through less protected waters. Vessel operation in important migratory corridors or close to nursery sites or known foraging grounds also could result in disturbance, injury, or mortality to wildlife (e.g., vessel strikes) or interruption of normal breeding or foraging behavior.

For the same reasons described for Impact 3.6-1, above, survey vessels and aircraft would avoid substantial disturbance to wildlife movement corridors and nursery sites, and systematic survey efforts and implementation of the trap gear retrieval program would not result in a substantial increase in vessel traffic in the project area. Impacts on wildlife movement corridors and wildlife nursery sites resulting from project implementation would be **less than significant**.

Revised:

As described above under Impact 3.6-1, implementation of the RAMP regulatory amendments is specifically intended to reduce the risk of entanglement of Actionable Species migrating or otherwise moving through the project area. However, project implementation could result in increased vessel traffic from implementation of systematic surveys to determine marine life concentrations. If these efforts were conducted in important migratory corridors or close to nursery sites or known foraging grounds, the normal movement, breeding behavior, or foraging behavior of marine wildlife species could be disrupted. Disruptions to the normal behavior of marine wildlife species could lead to abandonment of nursery sites or foraging habitat. In addition, disruption of an established movement corridor could result in increased exposure to predation if a species must move through less protected waters. Vessel operation in important migratory corridors or close to nursery sites or known foraging grounds also could result in disturbance, injury, or mortality to wildlife (e.g., vessel strikes) or interruption of normal breeding or foraging behavior.

For the same reasons described for Impact 3.6-1, above, survey vessels and aircraft would avoid substantial disturbance to wildlife movement corridors and nursery sites, and systematic survey efforts would not result in a substantial increase in vessel traffic in the project area. Impacts on wildlife movement corridors and wildlife nursery sites resulting from project implementation would be **less than significant**.

4.9 SECTION 3.7, “HYDROLOGY AND WATER QUALITY”

To remove active tending and clarify elements of the project, the summary for Impact 3.7-1 on page 3.7-7 of the Draft EIR is revised as follows:

Original:

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of fishing permits issued or the number of vessels used for fishing and would result in only a limited increase in the number of survey vessel trips and active tending trips. This small increase in the number of survey vessel and active tending trips relative to the total number of vessels in the project area would not constitute a significant water quality impact related to the accidental release of pollutants from maintenance activities or spills or from pollutants washed from the surface of the vessels. Ballast water releases from fishing vessels are regulated by the 2013 VGP and in the future will be regulated by discharge standards established in the VIDA when they are published. The VGP establishes numeric discharge limitations and best management practices for ballast water. It is illegal to abandon vessels, and programs are in place through ABs 716 and 166 to deter vessel abandonment; therefore, abandonment of vessels would not result in a significant water quality impact under the project. Implementation of the proposed RAMP regulatory amendments would not increase the number of crab traps deployed. In addition, each trap is isolated spatially from other traps and is less than 5 feet in diameter. Disturbed seafloor sediment from crab trap

deployment is dispersed by the current and resettles on the ocean floor and does not cause a significant water quality impact. All alternative gear is required to be certified by CDFW before use and to comply with all federal, state, and local regulations. No violations or impairment of water quality standards or beneficial uses would result from implementation of the project. Therefore, this impact would be **less than significant**.

Revised:

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of Dungeness crab vessel permits issued and would result in only a limited increase in the number of survey vessel trips. This small increase in the number of survey vessel trips relative to the total number of vessels in the project area would not constitute a significant water quality impact related to the accidental release of pollutants from maintenance activities or spills or from pollutants washed from the surface of the vessels. Ballast water releases from fishing vessels are regulated by the 2013 VGP and in the future will be regulated by discharge standards established in the VIDA when they are published. The VGP establishes numeric discharge limitations and best management practices for ballast water. Implementation of the proposed RAMP regulatory amendments would not increase the number of crab traps deployed. In addition, each trap is isolated spatially from other traps and is less than 5 feet in diameter. Disturbed seafloor sediment from crab trap deployment is dispersed by the current and resettles on the ocean floor and does not cause a significant water quality impact. All alternative fishing gear in the California Dungeness crab fishery is required to be reviewed and certified by CDFW before use and to comply with all federal, state, and local regulations. No violations or impairment of water quality standards or beneficial uses would result from implementation of the project. Therefore, this impact would be **less than significant**.

To remove active tending, Impact 3.7-1 on page 3.7-8 of the Draft EIR is revised as follows:

Original:

Implementation of the proposed RAMP regulatory amendments would slightly increase the number of vessels used for surveys and active tending. Under current conditions, there are fewer than 10 survey vessel trips per season.

Revised:

Implementation of the proposed RAMP regulatory amendments would slightly increase the number of vessels used for surveys. Under current conditions, there are fewer than 10 survey vessel trips per season.

To clarify that vessel abandonment would not change with the project, Impact 3.7-1 on page 3.7-8 of the Draft EIR is revised as follows:

Original:

The 2013 VGP establishes numeric effluent limits and best management practices for ballast water to protect water quality. Each vessel with coverage under the VGP is required to create a Ballast Water Management Plan that outlines how they will implement mandatory ballast water management practices. The 2013 VGP was originally set to expire in 2018 and be replaced by the VIDA. VIDA discharge regulations are proposed for publishing in the Fall of 2024 and, until those regulations are effective, the VGP regulations remain in effect.

Vessel Abandonment

If implementation of the proposed RAMP regulatory amendments makes it too costly or difficult for vessel owners to continue in the Dungeness crab industry, there could be an increase in vessel abandonment. Abandoned vessels pose a risk to water quality because of associated hazardous material, including paint, oil, solvents, batteries, and other wastes. It is illegal in California to abandon a vessel, and the California Legislature has passed multiple bills to address the issue. AB 716 allows vessels with registrations expired for more than 1 year to be removed from a public waterway by law enforcement officers. AB 716 increased the maximum penalty for abandoning a vessel to \$3,000 and allows courts to require violators to pay the actual costs of removal and storage in addition to the fine. AB 166 created a statewide vessel turn-in program that

allows owners of unwanted boats to give vessels to a public agency for disposal rather than abandon them. Compliance with and enforcement of these laws would reduce the risk of water quality contamination from abandoned vessels.

Seafloor Disturbance

When crab traps are set or pulled up from the ocean floor, they cause minor suspension of the surface layer of sediments on the seafloor.

Revised:

The 2013 VGP establishes numeric effluent limits and best management practices for ballast water to protect water quality. Each vessel with coverage under the VGP is required to create a Ballast Water Management Plan that outlines how they will implement mandatory ballast water management practices. The 2013 VGP was originally set to expire in 2018 and be replaced by the VIDA. VIDA discharge regulations are proposed for publishing in the Fall of 2024 and, until those regulations are effective, the VGP regulations remain in effect.

Seafloor Disturbance

When crab traps are set or pulled up from the ocean floor, they cause minor suspension of the surface layer of sediments on the seafloor.

To clarify that the trap gear retrieval program is not part of the project, Impact 3.7-1 on page 3.7-8 of the Draft EIR is revised as follows:

Original:

Seafloor Disturbance

When crab traps are set or pulled up from the ocean floor, they cause minor suspension of the surface layer of sediments on the seafloor. This increase in turbidity temporarily affects water quality in the immediately surrounding area. However, suspended material is dispersed by the current and eventually settles back to the seafloor. Traps are typically 3 to 3.5 feet in diameter and are dispersed throughout a fishing area. Only one trap is permitted per line per FGC Section 9012, which prevents multi-trap trawls that would drag on the seafloor and cause increased disturbance when the line is pulled up. CDFW estimates that the number of traps deployed during the 2022-2023 season was 106,006 (CDFW 2024). This would result in a temporary, isolated disturbed area of approximately 23 acres per year over the entire project area of 141,954,505 acres.

Lost or abandoned trap gear could also disturb the seafloor as currents move the traps. Fishery participants have commonly estimated annual gear loss of between 5 and 10 percent (CDFW 2024). Dungeness crab vessels can retrieve lost or abandoned gear belonging to another Dungeness crab vessel permit under 14 CCR Section 132.2. CDFW recently implemented a program to permit and incentivize retrieval of lost and abandoned commercial gear after the end of the Fishing Season under 14 CCR Section 132.7, which could reduce the habitat impacts from lost gear. Under this program, Dungeness crab vessel permit holders are liable for the costs of recovering their lost or abandoned trap gear. This program would continue under the project.

Revised:

Seafloor Disturbance

When crab traps are set or pulled up from the ocean floor, they cause minor suspension of the surface layer of sediments on the seafloor. This increase in turbidity temporarily affects water quality in the immediately surrounding area. However, suspended material is dispersed by the current and eventually settles back to the seafloor. Traps are typically 3 to 3.5 feet in diameter and are dispersed throughout a fishing area. Only one trap is permitted per line per FGC Section 9012, which prevents multi-trap trawls that would drag on the seafloor and cause increased disturbance when the line is pulled up. CDFW estimates that the number of

traps deployed during the 2022-2023 season was 106,006 (CDFW 2024). This would result in a temporary, isolated disturbed area of approximately 23 acres per year over the entire project area of 141,954,505 acres.

To remove active tending, the trap gear retrieval program, and vessel abandonment, the conclusion for Impact 3.7-1 on page 3.7-9 of the Draft EIR is revised as follows:

Original:

Conclusion

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of permits issued or the number of vessels used for fishing and would result in only a limited increase in the number of survey and active tending vessel trips. This small increase in the number of boat trips relative to the total number of all vessels in the project area would not constitute a significant marine water quality impact from accidental release of pollutants related to maintenance activities, spills, or wash from the surface of the vessel. Each Dungeness crab trap is small and isolated spatially from other traps; therefore, the sediment that is disturbed by trap deployment and retrieval disperses and resettles on the ocean floor and would not constitute a significant water quality impact. In addition, the lost gear retrieval program (14 CCR Section 132.7) would continue to be implemented under the project to minimize the amount of lost gear that would be transported by currents and disturb ocean floor sediments. The VGP establishes numeric effluent limitations and requires best management practices to prevent water quality impacts from ballast water. It is illegal to abandon vessels, and programs are in place through ABs 716 and 166 to deter vessel abandonment. Alternative gear is required to be certified by CDFW before use and must comply with all federal, state, and local regulations described in Section 3.7.1, "Regulatory Setting," above. Implementation of the project would not conflict with any aspect of the established water quality standards for California's coast, bays, lagoons, or estuarine waters. Based on the evaluation presented above, there would be no significant changes to water quality under the project that would adversely affect aquatic life or human health. No violations or impairment of water quality standards or beneficial uses would result from implementing the project. Therefore, the impact of project implementation on water quality would be **less than significant**.

Revised:

Conclusion

Implementation of the proposed RAMP regulatory amendments would not result in an increase in the number of permits issued or the number of vessels used for fishing and would result in only a limited increase in the number of survey vessel trips. This small increase in the number of boat trips relative to the total number of all vessels in the project area would not constitute a significant marine water quality impact from accidental release of pollutants related to maintenance activities, spills, or wash from the surface of the vessel. Each Dungeness crab trap is small and isolated spatially from other traps; therefore, the sediment that is disturbed by trap deployment and retrieval disperses and resettles on the ocean floor and would not constitute a significant water quality impact. The VGP establishes numeric effluent limitations and requires best management practices to prevent water quality impacts from ballast water. Alternative gear is required to be reviewed and certified by CDFW before use and must comply with all federal, state, and local regulations described in Section 3.7.1, "Regulatory Setting," above. Implementation of the project would not conflict with any aspect of the established water quality standards for California's coast, bays, lagoons, or estuarine waters. Based on the evaluation presented above, there would be no significant changes to water quality under the project that would adversely affect aquatic life or human health. No violations or impairment of water quality standards or beneficial uses would result from implementing the project. Therefore, the impact of project implementation on water quality would be **less than significant**.

4.10 CHAPTER 4, “CUMULATIVE IMPACTS”

To remove active tending and the trap gear retrieval program, Section 4.3.2, “Archaeological, Historical, and Tribal Cultural Resources,” on page 4-7 of the Draft EIR is revised as follows:

Original:

As discussed under Impact 3.3-1, impacts on undiscovered subsurface unique archaeological resources resulting from implementation of the reasonably foreseeable compliance responses to the project, including Fishing Zone opening delays and early closures, the gear retrieval program, systematic vessel and aircraft surveys to determine marine life concentrations throughout the project area, and active tending, would be less than significant because additional seafloor–disturbing activities above baseline conditions would not occur and because current state law prohibits all unauthorized salvage and removal of artifacts from submerged shipwrecks, aircraft, and other archaeological resources in state waters.

Revised:

As discussed under Impact 3.3-1, impacts on undiscovered subsurface unique archaeological resources resulting from implementation of the reasonably foreseeable compliance responses to the project, including Fishing Zone opening delays and early closures, systematic vessel and aircraft surveys to determine marine life concentrations throughout the project area would be less than significant because additional seafloor–disturbing activities above baseline conditions would not occur and because current state law prohibits all unauthorized salvage and removal of artifacts from submerged shipwrecks, aircraft, and other archaeological resources in state waters.

To remove active tending and the trap gear retrieval program, Section 4.3.5, “Marine Biological Resources,” on page 4-8 of the Draft EIR is revised as follows:

Original:

Project implementation could adversely affect special-status wildlife species, wildlife movement corridors, and wildlife nursery sites through increased vessel and aircraft travel associated with systematic surveys to determine marine life concentrations, increased vessel traffic associated with the trap gear retrieval program and active tending, and changes in the magnitude or concentration of crab fishing activity (i.e., number of boats, number of traps, concentration of traps inshore) as a result of season delays, closures, or depth constraints.

Revised:

Project implementation could adversely affect special-status wildlife species, wildlife movement corridors, and wildlife nursery sites through increased vessel and aircraft travel associated with systematic surveys to determine marine life concentrations and changes in the magnitude or concentration of crab fishing activity (i.e., number of boats, number of traps, concentration of traps inshore) as a result of season delays, closures, or depth constraints.

4.11 CHAPTER 5, “ALTERNATIVES”

To clarify the project objectives, Section 5.2.1, “Attainment of Project Objectives,” on page 5-2 of the Draft EIR is revised as follows:

Original:

The objectives of the project are to:

1. use ongoing risk evaluation to reduce risk of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in commercial Dungeness crab gear throughout the project area using active management;

2. improve identification of entanglements of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area;
3. reduce the likelihood and/or severity of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area by authorizing the use of alternative fishing gear; and
4. strengthen regulatory authority to implement actions designed to reduce entanglement risks, including CP goals and measures and federal ITP requirements.

Revised:

The objectives of the project are to:

1. use ongoing risk evaluation to reduce risk of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in commercial Dungeness crab gear throughout the project area using active management;
2. improve identification of entanglements of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area;
3. reduce the likelihood and/or severity of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area by authorizing the use of alternative fishing gear;
4. strengthen regulatory authority to implement actions designed to reduce entanglement risks, including CP goals and measures and federal ITP requirements; and
5. resolve existing inefficiencies, deficiencies, and ambiguities within RAMP that limit CDFW's ability to respond to Actionable Species entanglement, enforce management actions, collect data, and improve management tools.

To clarify the alternative description, Section 5.3.2, "Required Use of Pop-Up ("Ropeless") Gear," on page 5-3 of the Draft EIR is revised as follows:

Original:

There is increasing interest in replacing standard trap configurations (which include persistent vertical lines between the traps and surface buoys) with pop-up gear (which does not have a persistent line extending from the trap to the surface). Therefore, CDFW considered an alternative requiring the use of pop-up gear throughout the fishing season, rather than limiting the use of this type of gear to certain closures after April 1.

Revised:

There is increasing interest in replacing standard trap configurations (which include persistent vertical lines between the traps and surface buoys) with pop-up gear (which does not have a persistent line extending from the trap to the surface). Therefore, CDFW considered an alternative requiring the use of pop-up gear throughout the fishing season.

To clarify the description of Alternative 2, Section 5.4 "Alternatives Selected for Detailed Analysis," on page 5-4 of the Draft EIR is revised as follows:

Original:

- ▶ **Alternative 2: Permanently Reduce Gear Allotments Alternative** would reduce the potential for entanglements by permanently reducing the capacity of the commercial Dungeness crab fishery through reduced gear allotments. CDFW would revise the RAMP regulations based on the gear allotment reductions and apply for an ITP based on the CP.

Revised:

- ▶ **Alternative 2: Permanently Reduce Gear Allotments Alternative** would reduce the potential for entanglements by permanently reducing the number of vertical lines used for the commercial Dungeness crab fishery by reducing the maximum trap allotments. CDFW would revise the RAMP regulations based on the gear allotment reductions and apply for an ITP based on the CP.

To provide clarifications and corrections to the description of Alternative 1, Section 5.4.1, "Alternative 1: No Project Alternative," on page 5-4 of the Draft EIR is revised as follows:

Original:

As required by CEQA, the No Project Alternative is evaluated in this Draft EIR. Under Alternative 1, the No Project Alternative, the California commercial Dungeness crab fishery would continue to be operated according to adopted regulations (14 CCR Section 132.8) that became effective on November 1, 2020, and the current RAMP regulations. The RAMP regulations would not be modified and CDFW would not apply for an ITP for the Actionable Species based on the CP. Because the current RAMP regulations would continue to be in effect under this alternative, the No Project Alternative would meet most of the project objectives. However, the presence of actively fished vertical lines would not be regulated, and entanglements of Actionable Species could continue to occur. Furthermore, the development and required use of gear modifications, which would reduce the severity of entanglements if whales or sea turtles become entangled in commercial Dungeness crab gear, would not occur.

Revised:

As required by CEQA, the No Project Alternative is evaluated in this EIR. Under Alternative 1, the No Project Alternative, the California commercial Dungeness crab fishery would continue to operate according to the current provisions of the Fish and Game Code and existing RAMP regulations (14 CCR Section 132.8). The existing RAMP regulations would not be amended and CDFW would not apply for an ITP for the Actionable Species based on the CP. Because the current RAMP regulations would continue to be in effect under this alternative, the No Project Alternative would meet most of the project objectives. However, the presence of actively fished vertical lines would not be reduced. Furthermore, the No Project Alternative would not meet the project objective to resolve inefficiencies, deficiencies, and ambiguities within RAMP that limit CDFW's ability to respond to Actionable Species entanglement, enforce management actions, collect data, and improve management tools.

To remove active tending, the Hazards and Hazardous Materials subsection under Section 5.4.1, "Alternative 1: No Project Alternative," on page 5-5 of the Draft EIR is revised as follows:

Original:

However, the potential hazards impacts of the proposed project associated with additional survey and active tending vessel trips would be minimal. Therefore, overall impacts related to hazards and hazardous materials associated with Alternative 1 would be **similar** to those described for the proposed project.

Revised:

However, the potential hazards associated with additional survey vessel trips under the proposed project would be minimal. Therefore, overall impacts related to hazards and hazardous materials associated with Alternative 1 would be **similar** to those described for the proposed project.

To clarify the description of Alternative 2, Section 5.4.2 "Alternative 2: Permanently Reduce Gear Allotments," on page 5-6 of the Draft EIR is revised as follows:

Original:

Implementing Alternative 2 would permanently reduce the capacity (i.e., amount of crab gear used during the Fishing Season) of the commercial Dungeness crab fishery through reductions in gear allotments and thereby would reduce the potential for co-occurrence of Actionable Species and crab gear. The number of

traps a given vessel can deploy is specified by the tier level of the Dungeness crab vessel permit. The existing tiers were established following extensive negotiation with the fleet.

Revised:

Implementing Alternative 2 would permanently reduce the amount of Dungeness crab gear in the water by reducing the trap allotments and associated vertical lines; thereby, decreasing the potential for co-occurrence of Actionable Species and crab gear. The number of traps a given vessel can deploy is specified by the tier level of the Dungeness crab vessel permit. The existing tiers were established following extensive stakeholder meetings with the fleet and Dungeness Crab Task Force.

To clarify the description of Alternative 3, Section 5.4.3 "Alternative 3: Permanently Shortened Season," on page 5-8 of the Draft EIR is revised as follows:

Original:

Under this alternative, California's commercial Dungeness crab fishery operations would no longer be aligned with those in Oregon and Washington. In addition, although season delays and early closures under RAMP may shorten some Fishing Seasons, permanently shortened seasons would greatly reduce fishing opportunity during otherwise low-risk years. A delayed start to the season would mean fishery participants would no longer provide crab for the Thanksgiving and Christmas holidays, eliminating key markets that support the economic viability of the fishery. An early end to the season would disproportionately affect vessels that traditionally harvest through the spring and early summer months. Although an economic analysis prepared during the RAMP rulemaking process (CDFW 2020) indicates that the fishery, as a whole, could achieve similar levels of harvest despite a Fishing Season delay or early closure, the impacts on specific sectors of the fleet may be far greater.

Furthermore, permanently restricting the fishery to a shorter period would likely have more dramatic effects on the economic viability and composition of the fleet than year to year variations in the length of the Fishing Season. Restricting operations to a specified 2- or 3-month period could compound any negative impacts resulting from adverse climate change effects, harmful algal blooms, trade disputes, or other external pressures. CDFW's interest in maintaining an economically viable fishery includes maintaining a diversity of business plans and avoiding disproportionate impacts on certain sectors of the fleet. Although larger vessels that generally transition to other fisheries after the initial 6–8 weeks of the season might not be affected, CDFW anticipates that this alternative would have a disproportionate impact on smaller, artisanal operators who rely on being able to fish for a greater proportion of the season. Alternative 3 would also include revisions to the RAMP regulations based on the shortened Fishing Season, and application for an ITP based on the CP.

Revised:

Under Alternative 3, California's commercial Dungeness crab fishing season would be permanently shortened, and operations would no longer be aligned with those in Oregon and Washington. Although season delays and early closures under current RAMP regulations may result in shortened fishing seasons due to management triggers being reached, permanently shortening the commercial fishing seasons may greatly reduce fishing opportunity during otherwise low-risk years. A delayed start to the season would mean fishery participants would no longer provide crab for the Thanksgiving and Christmas holidays, eliminating key markets that support the economic viability of the fishery. An early end to the season would disproportionately affect vessels that traditionally harvest through the spring and early summer months. Although an economic analysis prepared during the RAMP rulemaking process (CDFW 2020) indicates that the fishery, as a whole, could achieve similar levels of harvest despite a fishing season delay or early closure, the impacts on specific sectors of the fleet may be far greater.

Furthermore, permanently restricting the fishery to a shorter period would likely have more dramatic effects on the economic viability and composition of the fleet than year to year variations in the length of the fishing season. Restricting operations to a specified 2- or 3-month period could compound any negative impacts

resulting from adverse climate change effects, harmful algal blooms, trade disputes, or other external pressures. CDFW's interest in maintaining an economically viable fishery includes maintaining a diversity of business plans and avoiding disproportionate impacts on certain sectors of the fleet. Although larger vessels that generally transition to other fisheries after the initial 6–8 weeks of the season might not be affected, CDFW anticipates that this alternative would have a disproportionate impact on smaller, direct-to-consumer operators who rely on being able to fish for a greater proportion of the season. Alternative 3 would also include amending the existing RAMP regulations to shorten the current fishing seasons, and submitting an application for an ITP based on the CP.

5 REFERENCES

- California Department of Fish and Wildlife. 2020. *Dungeness Crab Enhanced Status Report*. Available: <https://marinespecies.wildlife.ca.gov/dungeness-crab/management/>. Last updated December 30, 2020. Accessed January 13, 2023. CDFW. See California Department of Fish and Wildlife.
- . 2021. *Lost or Abandoned Commercial Dungeness Crab Trap Gear Retrieval during 2021*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=199037&inline#:~:text=Under%20the%20program%2C%20CDFW%20issues,crab%20gear%20from%20the%20ocean>. Accessed February 27, 2023.
- CDFW. See California Department of Fish and Wildlife.

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6 LIST OF PREPARERS

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Appendix A

Comment Letters Received
on the Draft EIR

MEMORANDUM

DATE: May 16, 2024

TO: Philip Hess, Case Planner
County of Ventura

FROM: Yunsheng Su, PWA-WP Case Reviewer

SUBJECT: 80310 20 Lower Ragsdale Dr., Suite 100, Monterey, CA, 93940
APN:001001001
CEQA Review Comments and Conditions

Pursuant to your request dated 5/13/2024, this office has reviewed the submitted materials and provides the following comments.

PROJECT LOCATION:
20 Lower Ragsdale Dr., Suite 100, Monterey, CA, 93940
Location Map:

Notice of Availability - California Commercial Dungeness Crab Fishery RAMP Regulatory Amendments Draft EIR

**Notice of Availability and Public Comment Opportunity for a
Draft Environmental Impact Report**

**PROJECT TITLE - California Commercial Dungeness Crab Fishery Risk
Assessment and Mitigation Program Regulatory Amendments EIR**
(former Project Title - California Commercial Dungeness Crab Fishery EIR)

State Clearinghouse No. 2022090320

Pursuant to the State of California Public Resources Code (PRC) Section 21091(a) and the Guidelines for the Implementation of the California Environmental Quality Act (CEQA) Guidelines, the California Department of Fish and Wildlife (CDFW) has released for public review a draft environmental impact report (Draft EIR) that evaluates the environmental effects of amending Title 14 Section 132.8 of the California Code of Regulations (CCR) codifying the Risk Assessment and Mitigation Program (RAMP) for the California commercial Dungeness crab fishery. The regulatory amendments would refine and further develop existing RAMP provisions to reduce the risk and severity of marine life entanglements and improve identification of entanglements in California commercial Dungeness crab gear. The RAMP amendments would also strengthen California's regulatory authority to implement Conservation Plan measures to support the National Marine Fisheries Service's (NMFS's) discretionary approval and issuance of an Incidental Take Permit (ITP) for the potential take of specified Actionable Species under Section 10 of the federal Endangered Species Act for the California commercial Dungeness crab fishery (the "project").

Project Title: California Commercial Dungeness Crab Fishery RAMP Regulatory Amendments

Draft EIR Review Period: April 26, 2024, to June 10, 2024, at 5:00 p.m.

Project Location: The project area encompasses the portion of the US Exclusive Economic Zone (the area within 200 nautical miles of the shoreline) extending from the California/Oregon border in the north to the California/Mexico border in the south. The Northern Management Area extends from Oregon to the Sonoma-Mendocino County line, and the Central Management Area extends from the Sonoma-Mendocino County line to Mexico. This would be streamlined into five Fishing Zones with the following latitudinal boundaries:

- Zone 1: From the California/Oregon border (42° N latitude) to Cape Mendocino (40° 10' N latitude)
- Zone 2: From Cape Mendocino to the Sonoma/Mendocino county line (38° 46' 12" N latitude)
- Zone 3: From Sonoma/Mendocino county line to Pigeon Point (37° 11' N latitude)
- Zone 4: From Pigeon Point to Lopez Point (36° N latitude)
- Zone 5: From Lopez Point to Point Conception (34° 27' N latitude)

Project Description: The proposed amendments to 14 CCR Section 132.8 (RAMP) constitute the proposed project for purposes of CEQA compliance. They are part of CDFW's comprehensive strategy to avoid, minimize, mitigate, and monitor entanglements of Actionable Species: blue whale (*Balaenoptera musculus*), Central America and Mexico Distinct Population Segments of humpback whale (*Megaptera novaeangliae*), and Pacific leatherback sea turtle (*Dermochelys coriacea*), in commercial Dungeness crab fishing gear off the coast of California. The proposed amendments would add new RAMP components consisting of the management actions of restricting surface gear and active tending requirements as well as new buoy and line marking requirements. The proposed amendments would also modify existing RAMP components. These regulatory changes are being proposed to satisfy requirements for the ITP pursuant to NMFS feedback, help streamline implementation processes to conserve staff resources, and clarify existing language to facilitate implementation and enforcement.

PROJECT DESCRIPTION:

Pursuant to the State of California Public Resources Code (PRC) Section 21091(a) and the Guidelines for the Implementation of the California Environmental Quality Act (CEQA Guidelines), the California Department of Fish and Wildlife (CDFW) has released for public review a draft environmental impact report (Draft EIR) that evaluates the environmental effects of amending Title 14 Section 132.8 of the California Code of Regulations (CCR) codifying the Risk Assessment and Mitigation Program (RAMP) for the California commercial Dungeness crab fishery. The regulatory amendments would refine and further develop existing RAMP provisions to reduce the risk and severity of marine life entanglements and improve identification of entanglements in California commercial Dungeness crab gear. The RAMP amendments would also strengthen California’s regulatory authority to implement Conservation Plan measures to support the National Marine Fisheries Service’s (NMFS’s) discretionary approval and issuance of an Incidental Take Permit (ITP) for the potential take of specified Actionable Species under Section 10 of the federal Endangered Species Act for the California commercial Dungeness crab fishery (the “project”). Project Title: California Commercial Dungeness Crab Fishery RAMP Regulatory Amendments Draft EIR Review Period: April 26, 2024, to June 10, 2024, at 5:00 p.m. Project Location: The project area encompasses the portion of the US Exclusive Economic Zone (the area within 200 nautical miles of the shoreline) extending from the California/Oregon border in the north to the California/Mexico border in the south. The Northern Management Area extends from Oregon to the Sonoma-Mendocino County line, and the Central Management Area extends from the Sonoma-Mendocino County line to Mexico. This would be streamlined into five Fishing Zones with the following latitudinal boundaries: □ Zone 1: From the California/Oregon border (42° N. latitude) to Cape Mendocino (40° 10' N latitude) □ Zone 2: From Cape Mendocino to the Sonoma/Mendocino county line (38° 46.125' N latitude) □ Zone 3: From Sonoma/Mendocino county line to Pigeon Point (37° 11' N latitude) □ Zone 4: From Pigeon Point to Lopez Point (36° N latitude) □ Zone 5: From Lopez Point to Point Conception (34° 27' N latitude) Project Description: The proposed amendments to 14 CCR Section 132.8 (RAMP) constitute the proposed project for purposes of CEQA compliance. They are part of CDFW’s comprehensive strategy to avoid, minimize, mitigate, and monitor entanglements of Actionable Species: blue whale (*Balaenoptera musculus*), Central America and Mexico Distinct Population Segments of humpback whale (*Megaptera novaengliae*), and Pacific leatherback sea turtle (*Dermochelys coriacea*), in commercial Dungeness crab fishing gear off the coast of California. The proposed amendments would add new RAMP components consisting of the management actions of restricting surface gear and active tending requirements as well as new buoy and line marking requirements. The proposed amendments would also modify existing RAMP components. These regulatory changes are being proposed to satisfy requirements for the ITP pursuant to NMFS feedback, help streamline implementation processes to conserve staff resources, and clarify existing language to facilitate implementation and enforcement.

1-1
cont.

APPLICATION COMPLETENESS:

Complete - from our area of concern.

1-2

ENVIRONMENTAL IMPACT ANALYSIS:

Item 31a. Flood Control Facilities/Watercourses – Ventura County Public Works Agency, Watershed Protection is deemed to be Less Than Significant.

The proposed project is situated about 999 feet from the None, which is a WP jurisdictional redline channel. No new or modified direct stormwater drainage connections to this WP channel, activities within WP’s easement, or activities over, under, or within the redline channel appear to be proposed or indicated on the applicant’s submitted materials.

1-3

This proposed project would result in NO increase of impervious area within the subject property.

WP staff determines that the environmental impact is less than significant (LS) on redline channels under the jurisdiction of the Ventura County Public Works Agency - Watershed Protection.

Item 17b. Hydraulic Hazards - FEMA is deemed to be Less Than Significant.

The project site is in a location identified by the Federal Emergency Management Agency (FEMA) as an area of Minimal Flood Hazard Zone X Unshaded. This is evidenced on FEMA Map Panel 06111C0000 effective January 20, 2010. The proposed development is therefore, deemed to be Less Than Significant for Hydraulic Hazards - FEMA.

1-4

WATERSHED PROTECTION COMMENTS:

None.

WATERSHED PROTECTION CONDITIONS:

None.

1-5

If you have any questions, please feel free to contact me by email at Yunsheng.Su@Ventura.Org or by phone at 805-654-2005.

END OF TEXT.



June 10, 2024

Amanda Canepa
California Department of Fish and Wildlife
Marine Region
20 Lower Ragsdale Drive, Suite 100
Monterey, CA 93940

Submitted electronically: R7CEQA@wildlife.ca.gov

Re: Comments on CA Commercial Dungeness Crab Fishery RAMP Regulatory Amendments: Draft EIR

Dear Ms. Canepa,

On behalf of the Center for Biological Diversity and our members and supporters, we submit the following comments to the California Department of Fish and Wildlife (CDFW) on the Draft Environmental Impact Report for the California Commercial Dungeness Crab Fishery Risk Assessment and Mitigation Program (RAMP) Regulatory Amendments.

The Draft Environmental Impact Report (EIR) evaluates the environmental effects of CDFW's proposed amendments to Title 14 Section 132.8 of the California Code of Regulations codifying the RAMP for the California commercial Dungeness crab fishery. RAMP is a dynamic management framework for the Dungeness crab fishery that provides the Department's Director with management responses informed by the best available science to reduce and mitigate entanglement risk for humpback whales, blue whales, and Pacific leatherback sea turtles (collectively "Actionable Species"). It is important that the proposed amendments prioritize the reduction of risk and severity of marine life entanglements and improve identification of entanglements in California commercial Dungeness crab gear. The objectives of the RAMP regulatory amendments are as follows:

1. use ongoing risk evaluation to reduce risk of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in commercial Dungeness crab gear throughout the project area using active management;
2. improve identification of entanglements of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area;
3. reduce the likelihood and/or severity of entanglement of humpback whales, blue whales, and Pacific leatherback sea turtles in California commercial Dungeness crab gear throughout the project area by authorizing the use of alternative fishing gear; and
4. strengthen regulatory authority to implement actions designed to reduce entanglement risks, including Conservation Plan goals and measures and federal incidental take permit (ITP) requirements.

2-1

Expanding on Objective 4 listed above, the Department states that the proposed amendments would grant them the necessary authority to implement the state’s Conservation Plan measures to support the National Marine Fisheries Service’s (NMFS’s) discretionary approval and issuance of an ITP for the California commercial Dungeness crab fishery, authorizing take of specified Actionable Species under Section 10 of the federal Endangered Species Act (ESA). The Conservation Plan includes the following objectives:

1. reduce humpback whale, blue whale, and Pacific leatherback sea turtle entanglement risk from the commercial Dungeness crab fishery *by restricting presence of actively fished vertical lines*;
2. reduce co-occurrence of humpback whale, blue whale, and Pacific leatherback sea turtle with lost or abandoned California commercial Dungeness crab gear throughout the project area;
3. develop, evaluate, and require use of gear modifications that reduce the severity of entanglement if humpback whale, blue whale, or Pacific leatherback sea turtle become entangled in commercial Dungeness crab gear;
4. jointly develop with NMFS safe handling procedures for leatherback sea turtles that become entangled in pot/trap gear; and
5. support rapid entanglement response efforts that minimize the severity of entanglements in commercial Dungeness crab gear.

2-1
cont.

In keeping with CDFW’s request for comments, we provide comments on alternatives considered.

Overall CEQA Considerations

CEQA is intended to provide for the long-term protection and enhancement of the state’s environment.¹ CEQA requires that an “EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed, and it must permit the significant effects to be considered in the full environmental context.”² CEQA defines “significant effect on the environment” as “a substantial, or potentially substantial, adverse change in the environment.”³ In this instance, implementation of a robust, scientifically supported, well-enforced RAMP should minimize the California commercial Dungeness crab fishery’s impact on the environment and provide a model for lessening the impacts of other state-managed trap fisheries through avoidance, minimization, mitigation, and monitoring of entanglements of Actionable Species in commercial fishing gear.

2-2

Alternatives to be Analyzed

Considered but not evaluated further

3.3.2 Required Use of Pop-Up (“Ropeless”) Gear

2-3

We disagree with CDFW’s failure to evaluate in detail an alternative requiring the use of pop-up gear throughout the Fishing Season, rather than limiting the use of this type of gear to certain closures after April 1, because this upholds the status quo that allows for illegal take of protected species to occur and provides an unbalanced summarization of the alternative. Throughout the

¹ Pub. Res. C. § 21001.

² CEQA Guidelines, Cal. Code Regs. Tit. 14, § 15125(c).

³ Pub. Res. C. § 21068.

analysis of this alternative, the Department makes judgments and comparisons based on current, proposed, and hypothetical Fish and Game Code regulations. These inconsistent comparisons and evaluation metrics make it difficult to accurately determine if the alternative could feasibly accomplish the project’s objectives.

2-3
cont.

First, the initial framing of the alternative compares it with the current RAMP regulations, which require the Department’s Director to implement management action 5 (Alternative Gear) which limits the use of alternative gear to during a closure occurring on April 1 or later within any closed Fishing Zone(s).⁴ Yet, proposed regulatory amendments to the RAMP being evaluated in DEIR would remove April 1st stipulation from the current regulation:

~~(5)(6)~~ Alternative Gear: During a closure Fishery Closure after the Fishing Season has opened occurring on April 1 or later, and upon authorization pursuant to subsection ~~(h)~~(i), the Director shall allow the use of Alternative Gear within any closed Fishing Zone(s); for the remainder of the Fishing Season as defined by Fish and Game Code Section 8276.⁵

2-4

The EIR should compare the alternative to the proposed RAMP regulations, i.e. without the April 1st limit on pop-up gear use, because significant effects on the environment from vertical lines occur prior to April 1 that the EIR must consider. Second, when discussing the process of calculating the cost of adopting the alternative, the Department references the difficulty in calculating the cost for each participant to purchase, install, and operate the required gear:

Calculating the cost for each participant to purchase, install, and operate the required gear is difficult, because the cost would depend on whether a single pop-up unit would be attached to each trap or whether the units could be deployed onto multi-trap gear configurations (CDFW, 2024, p. 5-3).

2-5

This does not make sense because under current California Fish and Game Code regulations, it is unlawful to operate multi-trap gear configurations for the commercial take of Dungeness Crab that use traps without a buoy.⁶ Therefore, it is impractical to comment on or evaluate the ability of pop-up gear to perform a function that is not allowed under current regulations. Third, the Department’s cost evaluation relies on equipment acquisition costs for a National Marine Sanctuary Foundation gear innovations testing project which could result in cost estimations that fail to consider all available gear systems.

2-6

We also disagree with the Department’s discussion of entanglement risk that assumes risk is greatest in the spring. The Department should rewrite the EIR to avoid the implication that it is unnecessary to minimize entanglement risk during the fall and winter. Specifically, the below sentence inaccurately implies that entanglement is not a concern outside of spring:

2-7

⁴ Cal. Code Regs. Tit. 14, § 132.8 (e)(5).

⁵ Proposed Regulatory Text, Cal. Code Regs. Tit. 14, § 132.8.
<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=221966&inline>.

⁶ Fish and Game C. §§ 9005–9007.

“Furthermore, the need for pop-up and other types of alternative gear is greatest during spring closures, when the risk of entanglement becomes a concern and then continues to increase through the end of the Fishing Season” (CDFW, 2024, p. 5-3).

As witnessed during the 2016 marine heat wave, a changing climate and shifting oceanic conditions can significantly impact the movement and behavior of Actionable Species, leading to increased entanglements. California’s dynamic management framework to assess and mitigate entanglement risk must consider these changing conditions when considering alternatives. Furthermore, it is important that the Department consider how other protected species outside of the specified Actionable Species—that might be present in California waters all year—interact with the Dungeness Crab Fishery and might benefit from action taken.

2-7
cont.

Conclusion

Pop-up gear testing efforts have occurred in California’s waters for multiple years and have delivered promising results. The remaining uncertainty and the burden of addressing gear conflict and enforcement concerns falls on parties tasked with stopping the illegal take of protected species. Failing to fully evaluate this alternative in detail hinders the Department’s ability to assess and prepare for future authorized alternative gear options.

2-8

Sincerely,

Ben Grundy
Oceans Campaigner
Center for Biological Diversity
bgrundy@biologicaldiversity.org

California Commercial Dungeness Crab Fishery RAMP Regulatory Amendments Draft Environmental Impact Report (EIR) Public Meeting May 23, 2024

WEBVTT

Andrea Shephard, Ascent:

This is the public presentation on the draft EIR for the California Commercial Dungeness Crab Fishery Risk Assessment and Mitigation Program regulatory amendments. We will be summarizing today those proposed regulatory amendments as well as the environmental analysis and conclusions in the draft EIR. And again, I will state that you'll have an opportunity to provide oral comments today during this presentation, at the end of the presentation. And we will also provide instructions on how to provide written comments. We do ask that if you do provide oral comments today that you also present those in writing if possible. We would greatly appreciate that although we are recording today's presentation and the questions and or and the comments. And again, once again, we're here to listen and record your comments for later response in the final EIR. Next slide, please.

0:58

So thank you again for attending. As I said, the presentation is being recorded. That's to facilitate an accurate transcript of the comments. All video cameras will remain off during the presentation and the microphones your microphones will be muted at the end of the meeting will provide the opportunity to raise your hand and then you'll be unmuted and can provide your oral comments. Written comments are due and will be accepted by mail or e-mail until or on June 10th, 2024. If you're having any issues with Zoom or need clarification on project description information during the meeting, please use the Q&A function to submit your questions and we will do our best to address those throughout the presentation. All video cameras, again for participants will be off and microphones muted. Please keep in mind that the purpose of this meeting is to receive comments on the draft EIR that was prepared for the project. This means that comments should focus on the adequacy of the environmental analysis. If you need clarification again during the presentation, please use the Q&A function. And lastly, if you are having any Zoom issues, please also use the Q&A function and Tracy will try to assist you. Tracy's gonna walk through the Zoom functions very quickly here just to make sure everybody can communicate properly. Go ahead, Tracy.

02:26

Tracy Prybyla, Ascent:

Great, Thank you so much, Andrea. So if you do have any questions of grabbing any issues with Zoom or if you have a need a clarification on a feature of the proposed regulatory amendments, you can use the Q&A function at the bottom of your screen. It should look like a couple of chat bubbles. So that's the question and answer function. It's probably at the bottom of the screen. Depending on your version of Zoom, it may be at the top of the screen or the side of your screen, but should be wherever all your other Zoom controls are. And so if you have a clarifying question, we will do our best to address them throughout the presentation.

03:17

Sorry, I have. So this is just a slide that shows you what that Q&A button looks like and then it should pop up another window. Type your question in there. We will receive it and do our best to address it.

If you have joined via mobile, it's at the bottom of your screen and it's the same. It's you click on the Ask a Question button and that is all I have about Zoom meeting controls.

03: 41

Andrea Shephard, Ascent:

All right, thank you, Tracy. I wanted to introduce the folks that are with us today from the project team, our our key team members. If you could turn your cameras on just for a moment, that would be great. With us today from California Department of Fish and Wildlife for CDFW is Ryan Bartling, who's a Senior environmental scientist and supervisor and the lead for this project. We also have Amanda Kanepa, environmental scientist, who is helping to manage this effort with CDFW and also Garrett Wheeler, who's an attorney with CDFW and has participated in this process from the from Ascent Environmental. Our environmental team consists of myself as the project manager, Andrea Shepherd. We also have with us Curtis Alling, who's the principal and Stephanie Rasmussen, my assistant project manager on this. And then you've already met Tracy Pribila, who is helping with the Zoom logistics. And again, is your, your key person if you have any issues, hopefully no one's having any issues. All right, so next slide please.

04:54

So during today's call or presentation, excuse me, during today's presentation, we will be talking about the regulatory amendments to Title 14, Section 132.8 of the California Code of Regulations, which is the risk assessment and mitigation program for the California commercial Dungeness crab fishery. We will go over the proposed amendments. Before that, we'll provide some background and information on the existing ramp regulations. Then we'll provide a summary of the regulatory amendments. We'll go over the environmental review process itself under the California Environmental Quality Act and present the draft EIR conclusions, and then we'll open it up for public input on the adequacy of the draft EIR. So I'm going to turn it over to Ryan Bartling now from CDFW. Ryan's going to present the background and project description information. Go ahead, Ryan.

06:05

Ryan Bartling, CDFW:

Thanks, Andrea. And just there's a little bit of a lag on my side, so apologies for the toggling. Again, my name is Ryan Bartling. I'm the student broad mill scientist for the department's Marine Region. I'm gonna cover briefly some project background and then we'll turn it back over to Andreas shortly. But first, if you could go to the next slide, please.

06:28

So just as a way of a little bit of background. So as many of you know, entanglements on the West Coast have been increasing in more recent years involving whales and sea turtles, specifically blue whales, leatherback sea turtles and humpback whales. These under ramp are what we consider actionable species and they're also protected under the Endangered Species Act. Those entanglements are a result of the trap and lines and buoys that are used in the in that fishery. The next slide please.

07:03

So being a little bit more background, the legislature directed the department to adopt regulations to manage entanglement risk in the commercial budget as crab fishery back in 2018. It was Senate Bill 1309. If you're interested in the history, it added a section to Fish and Game Code 8276.1. And then that was the format or the initiate the process for the department to circulate and adopt eventually

adopt regulations known as RAMP. But those regulations became in came into being in October of 2020. It was done in collaboration with the Dungeons Crab fishing Air Working group, which is a variety of stakeholders, including state agencies, crab fishermen, environmental NGOs, scientists and others. And it formally established that program. It had prior been a in a pilot stage and it's again to evaluate and respond to attachment risk in the commercial bunches crab fishery. Next slide please.

08:21

So some quick kind of background on the program itself and how it's implemented. So risk assessments are conducted monthly or bimonthly and those are it's, they're informed by the best available science. Within the RAMP program itself, there are triggers that are required, required when marine life concentration abundancies are are to a certain level or in the event of an entanglement. It's again, it's focused on actual species, blue whales, humpback whales and leatherback sea turtles. The program itself gives the director the ability to modify the fishing season or even the operation of the fishery. There are five tools essentially are in the toolbox so to speak, in the program itself. One being the fleet fleet advisory, the other delay or season closure, a depth constraint, gear reductions, and then the ability for the director to authorize the use of alternative gear. This program really underpins the department's effort to put together a conservation plan. We are seeking an insult take take permit for the Duchess crab fishery under Section 10 of the Endangered Species Act. So collectively it's known as the project. Next slide please.

09:51

So just a little bit more detail on kind of the the nuts and bolts of ramp itself. Within the program, there's a suite of management considerations that the directory uses to make informed decisions about management or management changes. Management considerations include things such as ocean forage conditions, historic migration patterns, economic impact to the fleet, information from NOAA and so on. There's also within the program, mandatory data reporting requirements, specifically around trap gear reporting, location, depths, number of traps fished. And then there's a vessel tracking or electronic monitoring component whereby all commercial fishing vessels that are participating in California, they must have an electronic tracker on board. And then as I mentioned a moment ago, the director can also authorize the use of alternative gear. Alternative gear is can be gear modifications used to existing gear types or it can be new or innovative gear. And again, just to reiterate, the RAMP program itself supports our application for Intel tape permit in this fishery. Next slide please.

11:07

So this is a little bit of again more background history. So the current regulations are RAMP one point O as they kind of become known informed initial drafting of this of that conservation plan that was submitted as as a first draft to NOAA back in 2019. It's gone through several iterations since that or sorry 2020. It's gone through several iterations since that time. The conservation measures now based on guidance from NIMS and continued development are really informing the proposed amendments. The conservation plan itself is not subject to CDFW discretionary approval, but the RAMP regulations are. The conservation plan is a a federal process as part of an insult take permit. And again the proposed amendments will support final submission of our conservation plan and what we expect Noah may require as part of that issuance of an insult take permit. Next slide, please.

12:08

So the project itself, just some overview information. My next item please.

12:12

So the current ramp regulations cover a project area that extends from the US, I'm sorry, the Oregon, California border down to the US Mexico border and out to about 200 miles, which is known as the exclusive economic zone. Functionally the fishery itself, really it occurs primarily north of Point Conception, an area north of Santa Barbara to the Mecca or to the Oregon, California border. There are also within, within that area, the fishery has historically been broken into two management areas, the northern management area. So that's an area north of the Sonoma Mendocino County line to the Oregon and border and then the central management area, which is at all those areas S to the US Mexico border. Next one please.

13:16

So objective of the ramp regulatory amendments again, it's the objective of the program primarily is to use a risk evaluation process to reduce risk of those actual species. Again, this the two whales, blue whales, humpbacks and then leatherback sea turtles that another objective of the amendments are to improve identification of gear involved in entanglement, specifically commercial budget of scrap gear throughout that project area. And then to reduce the likelihood or severity of entanglement in the fishery by authorizing the use of alternative gear. And again, that alternative gear is defined as modifications to existing gear types or the use of new or innovative gear, things such as ropeless or pop up devices. And then again, another objective is to really strengthen the regulatory authority to implement actions to reduce risks. And this is in line with the conservation plan goals and it will be a measure and would it be required as part of the issuance under that incidental take permit? Next slide please.

14:36

And then finally just a little bit more about something key changes and for those of you that joined the action the ramp public process over this week, this is just a more consolidated list. The key changes in Title 14 of the California Code of Regulations This program falls under Section 132.8. We are proposing to modify the impact scoring, really trying to simplify that and align with the better and new guidance from an Epsilon take of endangered species that has also effects some of the triggers within the regulations themselves and has specific actions that are required. But we're also looking to simplify the fishing zones under ramp. Probably there are, there are 7, but functionally and through our implementation experience and date, we're proposing to simplify that to five management zones. We're also looking to simplify management, simplify and consolidate primarily those management considerations they get in based on our implementation experience. There's room for some clarity and simplification. We're also looking then the proposed changes to bolster electronic monitoring requirements, essentially making it clear what's required during certain situations when the equipment fails or the transmission requirements to the department or its authorized agent. And then more significant change it would be adding gear marking requirements and gear marking would include enhanced marking on the buoys and trailer buoys as well as a specific line color requirement in the fishery. And in this instance for California, we are proposing purple and black. And then last but not least, allowing for conditional authorization of alternative gear. There's a lot of interest in alternative gear development and departments and departments view we need additional conditional conditions that we can more clearly authorize what the director might be able to use in this fishery. It's somewhat modeled after the experimental fishing permit program. So that's all I've got for project overview and background. Andrea, I guess I think it's time to turn it back over to you.

16:58

Andrea Shephard, Ascent:

Thank you, Ryan. So I'm gonna spend the next several minutes going over the environmental review process and summarizing conclusions of the draft EIR and then we'll open it up to comments on the draft EIR. So next slide please. So the law that we're responding to with preparation of this draft EIR is the California Environmental Quality Act, which was enacted back in 1970. In a nutshell, Sequa or the California Environmental Quality Act requires public agencies to evaluate and disclose the environmental effects of their proposed actions to adopt feasible mitigation measures for those effects that are determined to be significant. And when we say significant, we mean substantial adverse change in the physical environment. Also, it's intended to disclose and offer opportunity for public review. This meeting is one example of Sequa's public and agency review and comment opportunity. And then Sequa is intended to result in informed decision making. That is so that agencies that approve projects do so with an understanding of their environmental effects and so that they can make commitments to adopt measures that will avoid or reduce any adverse environmental effects. Next slide please.

18:23

So there are several types of environmental documents described in SEQUA, and each applies to a specific set of criteria depending on the potential for environmental impact. An EIR or environmental impact report is usually prepared when a project has the potential to result in a substantial adverse change in the physical environment, including when there's the potential for the impact, the potential for the impact to not be reduced to a less than significant level with implementation of mitigation. However, a lead agency can also choose to prepare an EIR when the project would not result in significant effects and would know it would not require mitigation measures. And this is this is an example of that CDFW has chosen to prepare an EIR for this project. However, as you'll see through the summary of the environmental analysis, no significant impacts were identified. So what is an EIR? It's an informational document. It's, it's intended to inform the public, agency, decision makers and the public on significant effects of the project, identify possible ways to minimize those effects, and describe reasonable alternatives to the project that could substantially lessen or any significant effects. It also discloses to the public why a project was approved, if that project is approved, why that project was approved in the face of any significant effects that could not be mitigated. And then lastly, I wanted to state that it's important to understand that a final EIR will be prepared after this public review process. And when the final EIR is complete, it has to be certified that it meets all of the secret requirements before the agency, the lead agency, in this case CDFW. May determine whether or not to approve the project or an alternative to the project. Next slide please.

20:26

So this slide summarizes the environmental review process that has been undertaken for this proposed project to date. The process started with the issuance of a Notice of Preparation, or NOP, on September 19th, 2022 that was sent or issued to responsible agencies, interested parties and organizations and other private individuals and that might have an interest in the project. The purpose of the NOP was to provide notification that an EIR or Environmental Impact Report was being prepared by CDFW and that it, and it was, excuse me, sorry, and it was to provide a 30 day public scoping period to solicit input on the scope and content of the document. CDFW also held a public scoping meeting on October 4th, 9/20/22 during that 30 day public review period to inform everyone of the proposed project and give an opportunity for oral comments on the scope and content of the EIR. The scoping period ended on October 18th, 2022, at which time we embarked on preparation of

the draft EIR. The draft EIR took into account the comments that were received during the scoping. And it was issued for 45 day public review period on April 26th, 2024. That's so we're in the public scoping or excuse me, public review period right now for the draft EIR. This is a 45 day. Which will end on June 10th. Although folks that received the EIR via e-mail notification, those notifications went out a few days late and were received on April 29th. So those folks will have until June 13th to review and respond to or comment on the document in addition to provide oral comments. Today during the public meeting, written comments will be received and again those will be received through the end of the review period. Following close of the comment period, we will prepare a final EIR which will include responses to the comments we receive on the draft and it will document any revisions to the draft EIR made in response to those comments. We are currently anticipating that the final EIR will be released in late August and that CDFW will determine whether to certify the EIR and approve the project in September, which would allow time for the rule making process to be completed by November 1st. If there are any substantial changes based on comments, then you know that that timeline may vary a little bit. Next slide, please.

23:17

So during the scoping process for the EIR, the following issue areas were eliminated from detailed consideration in the document and that the reason for that was because the project would not have an effect on those resource areas. So these are listed here. We have aesthetics, mineral resources, geology, you know, various resources that clearly the project would not cause an effect. Next slide, please.

23:46

The resources identified here, air quality, archaeological, historical and tribal cultural resources, greenhouse gases and climate change hazards and hazardous materials and marine biological resources and water quality are the resource areas that were evaluated in detail in the draft EIR. In summary, the EIR concluded that the proposed ramp regulations or regulatory amendments would not result in any potentially significant impacts to these resources and there and therefore no mitigation measures were required in the EIR. The project would not have any construction related emissions. There were no, you know, significant effects on the physical environment that would occur from these proposed regulatory amendments. Next slide please.

24:36

SQL also requires in an EIR that a range of reasonable alternatives to the project be described which would could feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and then the EIR would evaluate the comparative merits of those alternatives. In this case, the draft EIR determined that implementation of the RAMP regulations would not result in any significant effects on the environment, and in light of this outcome, the alternatives analysis in the draft EIR focused on potential feasible alternatives that might reduce adverse environmental effects, regardless of their level of significance. So the draft EIR evaluated the No project alternative, which compares the impacts of approving the proposed regulatory amendments with not approving them, and that is a requirement under SEQUA. In addition, there were two action alternatives that were evaluated in the EIR. The first one, the permanently reduced gear allotments alternative, would permanently reduce the capacity of the commercial Dungeness crab fishery through reductions in gear allotments and thereby would reduce the potential for Co occurrence of actionable species in crab gear. The second alternative was permanently shortened season alternative. My understanding is that implementation of the RAMP

regulatory amendments would create uncertainty for fishery participants related to potential delays and early closures of the fishery fishing season and therefore CDFW are considered this alternative that would permanently shorten the length of the crab fishing season to a historically low risk. For entanglements to reduce the the risk, although alternatives two and three, the action alternatives could further reduce the lesson significant impacts associated with the project. Because implementing the proposed project would not result in any significant environmental effects on the environment. The reductions of environmental impacts that would occur with implementation of the alternatives would not not be substantial. So that concludes the summary of the conclusions of the environmental document.

26:56

We'd like to open it up to public comment at this time.

27:03

So next slide describes how to provide comments on the draft EIR. While the and I just wanted to provide a few reminders while you're looking at this slide, remember that the purpose of today's meeting is to hear comments on the draft EIR. We will have the Zoom transcript automatically generated from the meeting to be certain that all comments are accurately captured. But we are also asking that you please follow up with written comments by e-mail or postal mail and that information is provided here. So if you're If you're sending comments via postal mail, please send them to the attention of Amanda Kanepa at California Department of Fish and Wildlife, Marine Region 20, Lower Ragsdale Dr. Suite 100, Monterey, CA 93940. If you're sending them by e-mail, please send them to the e-mail address shown here, which is R7 Sequa at wildlife.ca.gov. Please include in the subject line the the words California commercial dungeon described fishery ramp regulatory amendments. And again, if you want to provide oral comments today, please just use the zoom function to raise your hand. That should be at the bottom of your screen. And I believe it'll either be in the raise hand, it'll, it'll say raise hand or they'll, they'll be a no. I'm thinking of Microsoft Teams. My apologies. It, it, it should just say raise hand.

28:45

And I'm going to turn it over to Tracy here so that she can explain in more detail. But I should say that if you're on the phone, you can also press *9 to unmute yourself when Tracy calls on you.

29:04

Tracy Prybyla, Ascent:

Great, thank you so much, Andrea, just a couple of reminders about providing oral comments today. If you are representing an organization, please clearly state that at the beginning and also state your name comments are being recorded. Please focus your comments on environmental issues and analysis and we will have a three minute timer on the screen just to make sure that everyone has time to provide their comments. Once everybody's had the ability to provide an initial comment, we'll accept additional comments.

29:40

So excuse me, so this screen just shows you you're looking for that raised hand feature that just has a little hand. It may be depending on your version of Zoom, it might be under reactions. And once you have been called on, I will be calling on you based on the name that is that you signed up with. You will get a notice that says the host would like you to unmute your microphone. At that point you will be able to unmute and start talking. And I will not start the timer until we have heard you start talking.

It does not look like we have anyone who has joined via phone, but if anyone else joins to provide comments via phone, you need to press *9 to indicate that you would like to speak. All right, so at this time we will start accepting comments.

30:38

Vivian Halliwell, I believe that you have your hands up and you should be able to unmute now.

30:47

Vivian Halliwell:

Good morning. My name is Vivian Halliwell and I support the comments of the Pacific Coast Federation of Fishermen's Association that will be submitted in writing. I have a couple process comments. There are thousands of Gungeness crab permits and 11 people registered for this call. I had to go through three links or layers and paragraphs down in order to find the announcement for this meeting and several other people could not find it. So you're not getting much feedback if you don't reach people with your notice. The e-mail that was sent out on the April 29th, that was three days late and allows people to comment till June 13. Does that only apply to people who received that e-mail notice or to everyone as that's a question? And now I would like to turn my comment time over to David Helliwell.

PH-1

32:02

David Halliwell:

Hey, good morning. This is David Helliwell. I have A50 consecutive seasons of crab fishing experience. I have the fishing vessel Corregidor. And we know from the day that about half of the whale entanglements involve derelict gear. So I don't think we need to focus on that because if we could reduce half the entanglement, that would be huge. And I don't see a lot of attention being paid to it or money being paid to it. But we need to focus on the derelict gear, single and single buoy gear, which you are recommending now that we put in. There's a reason we put two buoys on the gear and that's how the buoys are there when we come back to find them. If, if you take that, that trainer bully off and the bully main bully gets mossed up or, or at a strong current, it may go down and then it maybe it gets missed when the traps are being picked up and now it's a derelict pot. And now you've got a, a, a significant liability in it. You're going to gather up some, gather up some whales. So if you were going into some time and money were to be invested in focusing on that, I think we could do a make a major contribution to cutting down the number of entanglements, which is the idea. And a lot of time and money is being spent on other things that aren't nearly as effective. And I think that's my comment unless you have any questions.

PH-2

33:27

Tracy Prybyla, Ascent:

Thank you for your comment.

33:30

Vivian Halliwell:

Can you answer the question about the due date on the written comment, Ryan?

33:41

Andrew Shephard, Ascent:

Do you want to address that?

33:42

Ryan Bartling, CDFW:

I'm sorry, Andrea. Yeah, because of the differential, I think we will. We would default to June 13th so that everyone has the same opportunity regardless of how you were notified or received notification.

33:54

Vivian Halliwell:

Thank you.

33:57

David Halliwell:

Hey Ryan, you gave me the numbers the other day of how much, how many entanglements are due to derelict here? Could you give me that number again?

PH-3

34:07

Ryan Bartling, CDFW:

Hi, David, it's Ryan. Yeah, I don't have the exact numbers. I mean, we do know there's a proportion of derelict gear that's been involved. I think it's a very difficult thing to know. We can't pinpoint in most instances when exactly the whale became entangled, even within a month or two months or three. So it's difficult to know whether it's derelict or whether it's gear that was picked up in season. But we do have an entanglement. You're welcome to e-mail me or give me a call and I can direct you to the full entanglement history.

34:40

David Halliwell:

Yeah, I would guess that if it's after the season, whales that are entangled when the season is closed are entangled in derelict gear. Otherwise it would, it wouldn't be out there.

35:00

Tracy Prybyla, Ascent:

Thank you for your comment. Is there anyone else in the meeting who would like to comment?

35:09

We do need you to raise your hand and zoom if you would like to comment so that we know to call on you. So be sure to use that raise hand feature to let us know that you would like to speak. OK, It looks like Troy Wakefield has their hand raised. Troy, can you hear me?

35:31

Troy Wakefield:

Yes, we can hear you. I, I just had a question for you, Ryan is number two and three, is that something that the department has to do or is that just part of this mitigation or not mitigation, but this process here, are you referring to the alternate?

PH-4

35:50

Ryan Bartling, CDFW:

Just that for my clarity, are you referring to the alternatives?

35:53

Troy Wakefield:

Yes, that permanent gear reduction or permanent shortening of season, I mean, is that just something that was in here? Is that something that will be done once this is done?

PH-4 cont.

36:03

Ryan Bartling, CDFW:

No, that's just and Andrea you correct me if I'm if I'm out of step here, but no, those are just alternatives that were analyzed as far considered as a part of this process.

36:14

Andrea Shephard, Ascent:

Yeah, there are there are alternatives to the project that are considered under CEQA. It's it's up to the discretion of CDFW based on the review process and so forth. If you know, they were to move forward with with an alternative, but at this time, I I don't believe that there's interest in moving forward with those alternatives.

36:41

Troy Wakefield:

And just one other question. I I don't, I'm really like this game, so I'll fully understand this whole thing. But how come there was nothing like on fiscal impact and all that on any of the fisheries? I mean, you know, we've been talking a bunch about how much the rope's going to cost us all that. I mean, none of that was in here. I don't. Why was none of that looked at?

PH-5

37:04

Andrea Shephard, Ascent:

Yeah, the environmental review process focuses on physical effects on the environment and not on socio economic effects. And so those aren't required to be addressed in an environmental document.

37:17

Troy Wakefield:

Gotcha. Thank you. Yeah, that was it for me.

37:25

Tracy Prybyla, Ascent:

OK. Thank you for your comments.

37:31

If there is anyone else who would like to speak, we do need you to use that raise hand feature in Zoom so I know to call on you. All right, just a reminder that we will be accepting written comments via mail and e-mail through June 13th. It sounds like e-mail is R7C, EQ a@wildlife.ca.gov. All right. It does not look like anyone new has raised their hand. If those who have already spoken have additional comments, just go ahead and raise your hand again and I will call on you.

38:37

Vivian, your hand is raised. Would you like to speak again?

38:49

Vivian Halliwell

No, I just didn't lower it.

38:51

Tracy Prybyla, Ascent:

Thank you.

38:52

Gotcha. All right. Well, I do want to thank everyone for coming today. We this, this meeting is happening until 10. So we are going to stay on the line, but no one currently has their hands raised.

39:10

We do not expect to be providing additional information. So you are welcome to leave whenever you'd like or you are welcome to stay with us until 10. Thank you so much. We'll keep the screen up so that you can write down that address that you would, if you would like to mail written comments or e-mail written comments. And thank you again for attending and for your comments.

39:39

Andrea Shephard, Ascent:

Yes, and thanks Jason for organizing the meeting and and doing the analysis. So thank you.

39:56

Tracy Prybyla, Ascent:

Just want to thank everyone again for coming. And if you think of something else that you would like to say, raise your hand and I'll call on you. We will accept verbal comments till 10:00 AM. Vivian, you have your hand raised.

40:15

David Halliwell:

It's David Halliwell again. I, I thought it should be pointed out that whale populations are increasing across the board. And if that's not reflected in the. In the in the ramp proposals, in fact, they go in the opposite way. They want to make it more restrictive when actually we're doing better than we're accomplishing the goal that was designed, which was to increase the whale population. And I don't see that addressed in this process. Thank you.

PH-6

40:44

Tracy Prybyla, Ascent:

Thank you for your comment. Yes, Vivian, you have your hand raised.

40:58

David Halliwell:

Am I on? Yeah, yeah, it's I, I just wanted to additionally point out that the there's a lot of time and money and investment being spent on pop up gear, which doesn't seem to work very well and has lots of attractions. But we're not spending the that kind of time and money on, on getting rid of the derelict gear out of the ocean, which would make a an instant big difference. So there's there's a problem here. And if we're really trying to address the problem, we need to be focusing on the things that will, will actually address the problem and then reduce the number of of entanglements. And this would this would be a slam dunk if the if the money spent on the some of these other things were spent to pay people to go out after the season and see to it that every, every stray pot was gathered up and gotten out of the ocean, We'd be making real progress. And I think there should be more focused on that. Thank you.

PH-7

41:45

Tracy Prybyla, Ascent:

Thank you, David.

41:46

Vivian Halliwell:

This is Vivian. Well, I want to comment on the local gear. My reports from people who've done the experiments with them find that they lose a lot of gear and if you lose 10% of your gear every time, you've lost 100% of it in 10 sets. So, so far the rope of gear is not working very well is my understanding. Thank you. And if it if it only half deploys and doesn't come to the surface, which some of them do, then it and it's going to be an entanglement risk all the time that it's there.

42:20

Tracy Prybyla, Ascent:

Thank you for your comments.

42:29

Tracy Prybyla, Ascent:

Yes, Vivian and David, you should be allowed to speak.

42:31

David Halliwell:

I'm just curious when the data from this meeting, how will it be posted so that people can see it? Well, the the comments.

42:41

Andrea Shephard, Ascent:

So once the review period closes, at the end of the 45 day review period, we'll collect all the comments on the EIR and then we will prepare responses to them and those will be documented in a final EIR. The final EIR will include all of the comments that were received today, will will include a transcript of this meeting, copies of all of the written comments that we received. And then the responses will be published in the final EIR along with any changes that are made to the EIR in response to those comments. So we are currently anticipating that that final EIR may be out in I think late August. That timeline may change depending on whether responses to comments require, you know, changes in in approach and so forth and how many comments we receive

43:13

David Halliwell:

So it will be August before any of these comments see the light of day.

43:44

Andrea Shephard, Ascent:

but it's yeah, more than likely it would be August when the final EIR is published.

43:51

David Halliwell:

Thank you.

43:57

Tracy Prybyla, Ascent:

Yes, Vivian and David, you should be able to speak.

44:01

David Halliwell:

Thank you. It's David again. That's a question for Ryan. I'm, I, I think I'm beginning to understand why there's so few people commenting on this process because all the major decisions that will have been made long before August arrived and it's up until the light of day. So I'm, I wonder how you feel about that.

PH-9

44:24

Ryan Bartling, CDFW:

Sorry, I'm trying to unmute just for clarity that's that's, that's not actually accurate this process. So on the ramp regulations themselves just as an information item, we've received almost 4000 comments. So we there is definitely a high level of public engagement on the ramp regulation process. There clearly may be a little less interest in the environmental sequence component, but we are actively reviewing and able to be considering all those. And so that is why there is it takes time to review each of these regulation packages because of the scope and a variety of comments that we've received.

45:06

David Halliwell:

So will this comment be a part of the the process for the decisions you're gonna be making here in the next month or so?

PH-10

45:15

Ryan Bartling, CDFW:

I mean in both processes, yes. Every comment is considered, evaluated and responded to as appropriate.

45:25

David Halliwell:

Thank you, Ryan.

45:28

Ryan Bartling, CDFW:

Thanks for the question, David.

45:35

Tracy Prybyla, Ascent:

As we are getting towards the end of our meeting time, I just want to thank everyone again for their time and energy in coming and participating. I'd love to remind everyone that the draft EIR is available for download at [HTTPS:// wildlife.ca.gov/notices/CEQA](https://wildlife.ca.gov/notices/CEQA) that's spelled CEQA. e-mail or mail comments will be accepted through June 13th. The e-mail address is R7CEQA@wildlife.ca.gov and the mailing address please send attention: Amanda Canapa at California Department of Fish and Wildlife, Marine Region 20 Lower Ragsdale Dr., Suite 100, Monterey, CA 93940.

46:57

Thank you so much everyone for attending. We're just about at the end of our time. I hope that you have a great rest of your day today.

47:02

Andrea Shephard, Ascent: Thank you again everyone.