



RISK ASSESSMENT MITIGATION PROGRAM REGULATIONS

Although this document contains an excerpt from the California Code of Regulations, Title 14, it is the reader's responsibility to know and obey all laws and regulations in effect while participating in activities affected by these regulations. This document does not provide complete coverage of all Dungeness crab or commercial fishing laws and regulations. Changes to either code may occur at any time during the year.

Any discrepancies between this document and the codes(s) from which it was prepared will be enforced and adjudicated according to the official code(s) in effect on the date the activity takes place.

§ 132.8. Risk Assessment Mitigation Program: Commercial Dungeness Crab Fishery

(a) The following definitions apply to this Section:

- (1) "Actionable Species" means Blue Whales, Humpback Whales, and Pacific Leatherback Sea Turtles.
- (2) "Alternative Gear" means gear modifications and other gear innovations, including but not limited to ropeless gear, as authorized by the department pursuant to subdivision (h).
- (3) "Close" or "closure" means the take and possession of Dungeness crab for commercial purposes is prohibited by the Director, unless use of Alternative Gear is authorized pursuant to subsections (e) and (h).
- (4) "Confirmed Entanglements" means the following:
 - (A) "Confirmed Entanglement with California Commercial Dungeness Crab Gear" means a marine life entanglement of an Actionable Species in California Commercial Dungeness Crab Gear reported to the department by NOAA. The reported information may include entangled species, gear marking, and a determination by NOAA regarding the severity of the entanglement and any subsequent disentanglement, if available.
 - (B) "Confirmed Entanglement with Unknown Fishing Gear" means a marine life entanglement of an Actionable Species in Unknown Gear reported to the department by NOAA. The reported information may include entangled species, and a determination by NOAA regarding the severity of the entanglement and any subsequent disentanglement, if available.
 - (C) The department will provide relevant fishery information to NOAA to support entanglement investigation and response.
 - (D) An entanglement determined, either at time first reported or through NOAA final determination of injury or mortality (pursuant to subsection (a)(9) below), to have occurred after the death of the Actionable Species will not be considered a Confirmed Entanglement.
 - (E) In the event a Confirmed Entanglement involves gear from multiple fisheries, and NOAA identifies the fishing gear resulting in the initial entanglement, the entanglement will be attributed to that fishery. If the fishery resulting in the initial entanglement cannot be determined, the entanglement will be attributed equally among the fisheries.
- (5) "Fishing Grounds" means the area of the Fishing Zone between shore and 100 fathoms. The 100-fathom contour is defined by approximating a particular depth contour by connecting the appropriate set of waypoints adopted in Federal regulations and published in Title 50, Code of Federal Regulations Part 660, Section 660.73 (Revised December 12, 2018), incorporated by reference herein.
- (6) "Fishing Season" means any period of time in which it is lawful to deploy California Commercial Dungeness Crab gear, including presoak time periods under Fish and Game Code Section 8283, and any delays or early closures pursuant to this regulation, public health concerns under Fish and Game Code Section 5523, or quality testing under Fish and Game Code Section 8276.2.
- (7) "Fishing Zone" means any of the following areas that extend from zero to 200 nautical miles offshore (*U.S. Exclusive Economic Zone*).
 - (A) Zone 1: From the California/Oregon border (42° N. latitude) to Cape Mendocino (40° 10' N. latitude).

(B) Zone 2: From Cape Mendocino to the Sonoma/Mendocino county line (38° 46.125' N. latitude).

(C) Zone 3: From Sonoma/Mendocino county line to Pigeon Point (37° 11' N. latitude).

(D) Zone 4: From Pigeon Point to Lopez Point (36° N. latitude).

(E) Zone 5: From Lopez Point to Point Conception (34° 27' N. latitude).

(F) Zone 6: From Point Conception to the U.S./Mexico Border.

(G) Zone 7: "Pacific Leatherback Sea Turtle Foraging Area" from Point Arena (38° 57. 5' N. latitude) to Point Pinos (36° 38.314' N. latitude).

(8) "Fleet" means holders of valid California Dungeness Crab vessel permits.

(9) "Impact Score Calculation" means the sum of Impact Scores, which are values representing severity of injury caused by Confirmed Entanglements with California Commercial Dungeness Crab Gear or Confirmed Entanglements with Unknown Fishing Gear, as defined in subsection (a)(4) and referenced in subsection (c)(1)(A). The Impact Score is determined by evaluation of evidence available to the department and will be revised if NOAA provides a final determination of injury or mortality pursuant to NMFS Policy Directive 02-238-01 Process for Injury Determinations (Issued January 27, 2012, renewed July 2014), incorporated by reference herein.

(10) "Marine Life Concentrations" means measures of local abundance of Actionable Species (Humpback Whales, Blue Whales, and Pacific Leatherback Sea Turtles) within Fishing Grounds between Point Conception and the California/Oregon Border.

(11) "NOAA" means the National Oceanic and Atmospheric Administration, and its constituent agencies, including the National Marine Fisheries Service ("NMFS"), employees, and staff.

(12) "Risk Assessment" means the assessment of risk for potential entanglement of Actionable Species with California commercial Dungeness crab gear by the Director.

(13) "Unknown Fishing Gear" means gear not identifiable in origin to a specific fishery. This definition excludes gear that is identifiable to non-fishery origins (e.g. mooring lines or research equipment including, but not limited to, weather buoys and navigational aids).

(14) "Working Group" means the California Dungeness Crab Fishing Gear Working Group, established by the department, in partnership with the Ocean Protection Council and NOAA, on September 21, 2015, as defined by its most recent charter as it may be amended from time to time (www.opc.ca.gov/whale-entanglement-working-group/).

(b) Risk Assessment Schedule: The Director shall conduct Risk Assessments as follows:

(1) The Director shall evaluate entanglement risk and need for management action as information becomes available, but at least monthly between November 1 and June 30 or the close of the Fishing Season, whichever is earlier.

(2) The Director will provide a minimum of 48 hours-notice of anticipated Risk Assessment to the Working Group and to any person who is subscribed to the Whale Safe Fisheries email list serve (visit the Whale Safe Fisheries webpage to subscribe: <https://wildlife.ca.gov/Conservation/Marine/Whale-Safe-Fisheries>). The notification will also provide all non-confidential data under consideration by the department.

(3) For any Risk Assessment, and prior to taking a management action, the Director shall consider the most recently dated Working Group management recommendation.

(4) While the Fleet is operating under a management action pursuant to this section, the Director will perform an additional Risk Assessment when new information becomes available. If such Risk Assessment indicates that the triggers in subsection (c) are no longer met, or a different management response is more appropriate, the Director shall lift or modify any restrictions in a manner that promotes fair and orderly fisheries as determined on a case by case basis.

(c) Triggers for Management Action: The Director shall restrict the take of commercial Dungeness crab as follows. If two or more triggers are attained for the same Fishing Zone, the more restrictive management action shall apply.

(1) Confirmed Entanglements as defined in subsection (a)(4) shall be evaluated during a single Fishing Season, averaged over a three-year period beginning with the 2021 calendar year (inclusive), and applied for each individual Actionable Species as specified below.

(A) Impact Score:

1. For Humpback Whales:

- a. A Confirmed Entanglement in California Commercial Dungeness Crab Gear shall be scored as 0.75, unless the animal is deceased, in which case it shall be scored as one (1).
- b. A Confirmed Entanglement in Unknown Fishing Gear shall be scored as 0.38, unless the animal is deceased, in which case it shall be scored as 0.5.

2. For Blue Whales and Pacific Leatherback Sea Turtles:

- a. A Confirmed Entanglement in California Commercial Dungeness Crab Gear shall be scored as one (1).
- b. A Confirmed Entanglement in Unknown Fishing Gear shall be scored as 0.5.

(B) Impact Score Calculation - Actions Taken During a Fishing Season:

1. Humpback Whales: For each Confirmed Entanglement during a single Fishing Season, the Director shall implement a Fishing Zone closure, or other management action as described in subsection (e) that the Director demonstrates protects Humpback Whales based on best available science. If an Impact Score Calculation of three (3) or more is reached, the Director will close the remainder of the Fishing Season statewide.
2. Blue Whales: For each Confirmed Entanglement during a single Fishing Season, the Director shall implement a Fishing Zone closure, or other management action as described in subsection (e) that the Director demonstrates protects Blue Whales based on best available science.
3. Pacific Leatherback Sea Turtles: For each Confirmed Entanglement during a single Fishing Season, the Director shall implement a Fishing Zone closure, or other management action as described in subsection (e) that the Director demonstrates protects Pacific Leatherback Sea Turtles based on best available science.

(C) Impact Score Calculation - Actions Taken During a Calendar Year:

1. Humpback Whales: For any Confirmed Entanglement that causes the average total annual Impact Score Calculation during the previous two calendar years and current calendar year to exceed two (2), the Director shall consult with NOAA and the Working Group. After consultation, the Director shall implement a management action(s) described in subsection (e).
2. Blue Whales: For any Confirmed Entanglement that causes the average total annual Impact Score Calculation during the previous two calendar years and current calendar year to exceed one (1), the Director shall consult with NOAA and the Working Group. After consultation, the Director shall implement a management action(s) described in subsection (e).
3. Pacific Leatherback Sea Turtle: For any Confirmed Entanglement where the average total annual Impact Score Calculation during the previous two calendar years and current calendar year is greater than or equal to one (1), the Director shall consult with NOAA and the Working Group. After consultation, the Director shall implement a management action(s) described in subsection (e).

(2) Marine Life Concentrations: for the purposes of determining Marine Life Concentrations in this subsection (c)(2), the Director may only consider data for Actionable Species from current surveys and telemetry monitoring of Actionable Species designed, conducted, or approved by NOAA or the department as an indication of Marine Life Concentrations in Fishing Zones during the timeframes of November 1 until the Fishing Season opens statewide, and March 1 until the Fishing Season closes statewide. Surveys shall be conducted systematically across a full range of Fishing Zone depths when weather and visibility conditions enable accurate detection of Actionable Species. A survey is only current through the first Risk Assessment immediately following the survey.

(A) For the period of November 1 until the Fishing Season opens statewide:

1. If data are unavailable by November 1, the Fishing Season will be delayed in that Fishing Zone(s) until December 1.
2. If data are unavailable by December 1, the Fishing Season will be delayed in that Fishing Zone(s) until December 15.
3. If data are unavailable by December 15, the Fishing Season will be delayed in that Fishing Zone(s) until December 31.

4. If there are data to inform marine life concentrations under this subsection in each Fishing Zone(s), the following applies:

a. Humpback Whales – If the number of Humpback Whales is greater than or equal to 20, or there is a running average of five (5) or more animals over a one-week period within a single Fishing Zone (excluding Zone 7), the Director shall implement a Fishing Season delay or other management action as described in subsection (e) that the Director demonstrates protects Humpback Whales based on best available science.

b. Blue Whales – If the number of Blue Whales is greater than or equal to three (3), or there is a running average of three (3) or more animals over a one-week period, within a single Fishing Zone (excluding Zone 7), the Director shall implement a Fishing Season delay or other management action as described in subsection (e) that the Director demonstrates protects Blues Whales based on best available science.

c. Pacific Leatherback Sea Turtle – The Director shall not open any Fishing Zone containing a Pacific Leatherback Sea Turtle, unless the Director demonstrates other management action as described in subsection (e) protects Pacific Leatherback Sea Turtles based on best available science.

(B) For the period of March 1 until Fishing Season closes statewide:

1. If data are unavailable by March 15 for each Fishing Zone, the Director shall implement a management action as described in subsection (e) for the Zone(s).

2. If there are data to inform marine life concentrations under this subsection in each Fishing Zone(s), the following applies:

a. Humpback Whales – If the number of Humpback Whales is greater than or equal to 10, or a running average of five (5) within a single Fishing Zone (excluding Zone 7), the Director shall implement a Fishing Zone closure or other management action as described in subsection (e) that the Director demonstrates protects Humpback Whales based on best available science.

b. Blue Whales - If the number of Blues Whales is greater than or equal to three (3), or there is a running average of three (3) or more animals over a one-week period within a single Fishing Zone (excluding Zone 7), the Director shall implement a Fishing Zone closure or other management action as described in subsection (e) that the Director demonstrates protects Blue Whales based on best available science.

c. Pacific Leatherback Sea Turtle - If the number of Pacific Leatherback Sea Turtles is greater than or equal to one (1) within any Fishing Zone, the Director shall implement a Fishing Zone closure or other management action as described in subsection (e) that protects Pacific Leatherback Sea Turtles based on best available science.

(d) Management Considerations: The Director shall base decisions made under this section on best available science. In doing so, the Director will, to the maximum extent possible, rely on scientific information relevant to a management issue, such that any conclusions drawn are reasonably supported and not speculative, and publicly available. The Director shall consider the following information to assess appropriate management action under subsection (e) if action under subsection (e) is specified by subsection (c):

(1) Working Group management action recommendation and best available science made available to the department related to considerations identified in this subsection.

(2) Information from NOAA.

(3) Effectiveness of management measures to minimize entanglement risk.

(4) If deciding between management measures that equivalently reduce entanglement risk, total economic impact to the Fleet and fishing communities, with impacts anticipated to increase for delays in the fall and decline in the spring.

(5) Data availability within and across Fishing Zones. Application of management measures can be limited to a Fishing Zone if data are available for that zone. If data are not available, historical data or data from an adjacent Fishing Zone may be used.

(6) Known historic marine life migration patterns. Entanglement risk is expected to decrease in the fall when Actionable Species are anticipated to leave the Fishing Grounds. Conversely, entanglement risk is expected to increase in the spring when Actionable Species return.

(7) Fishing Season dynamics, including factors that impact the concentration or geographic location of fishing effort, amount of fishing gear deployed in a Fishing Zone, and season delays based on quality testing and/or public health closures or hazards.

(8) Known distribution and abundance of key forage (such as anchovy, krill or jellyfish concentrations) and their influence on Actionable Species' feeding behavior.

(9) Ocean conditions (including but not limited to temperature, upwelling, El Niño, La Niña, weather, currents) that influence presence and aggregation of marine life (such as habitat compression) and affect vessel operations.

(10) Current Impact Score Calculation within Fishing Season and calendar year.

(11) Marine Life Concentrations and their spatial distribution over the course of the current Fishing Season as an indication of marine life migration into or out of Fishing Grounds and across Fishing Zones.

(e) Management Actions: When specified in subsection (c), and upon consideration of information outlined in subsection (d), the Director shall implement one or more of the following management action(s) due to risk of marine life entanglement:

(1) Fleet Advisory: If the level of risk is elevated and/or anticipated to increase but more restrictive management actions are not necessary, the Director may issue an advisory notice to the Fleet to employ voluntary efforts and/or measures to reduce the risk of entanglements (i.e., best fishing practices) and to avoid triggering additional management actions.

(2) Depth Constraint: The Director may use a depth constraint during the Fishing Season, within any or all Fishing Zone(s), where Dungeness crab may not be taken or possessed in waters within a specified depth range. "Depth" is defined by approximating a particular depth contour by connecting the appropriate set of waypoints adopted in Federal regulations and published in Title 50, Code of Federal Regulations Part 660, sections 660.71 through 660.73 (Revised December 12, 2018), incorporated by reference herein.

(3) Vertical Line/Gear Reduction: The Director may decrease the number of vertical lines or amount of gear (e.g., number or percentage of traps) an individual permit holder can use such that there will be a reduction in the total number of lines in use. The Director will determine the reduction amount based on the most recent information provided pursuant to subsection (g). Gear reduction may occur statewide, or within any or all Fishing Zone(s). Buoy tags issued pursuant to Fish and Game Code Section 8276.5 shall be reduced consistent with a Director's declaration, and all unused buoy tags shall be onboard the permitted vessel and available for inspection by the department upon request.

(4) Fishery Closure: The Director may prohibit the take and possession of commercial take of Dungeness crab within any Fishing Zone(s).

(5) Alternative Gear: During a closure occurring on April 1 or later, and upon authorization pursuant to subsection (h), the Director shall allow the use of Alternative Gear within any closed Fishing Zone(s).

(f) Notification process for management actions taken in response to Risk Assessment. The Director shall comply with the following when taking a management action(s) pursuant to subsections (c) and (e).

(1) Management actions shall be transmitted via a Director's declaration. The declaration shall describe the following:

(A) Information supporting the determination of management action pursuant to subsection (c).

(B) Relevant management considerations from subsection (d).

(C) Rationale for nexus between management considerations in subsection (d) and any chosen management action under subsection (e).

(D) Duration of management action.

(E) Authorization of the Lost or Abandoned Dungeness Crab Trap Gear Retrieval Program described in Section 132.7 and/or Alternative Gear if applicable.

(2) The Director shall provide a minimum of 72 hours' notice to ensure a fair and orderly operation of the Fleet before implementing any management action regarding take of Dungeness crab.

(3) Notice of any management actions shall be communicated, at a minimum, via the "Whale Safe Fisheries" email list-serve and the department's "Whale Safe Fisheries" webpage (<https://wildlife.ca.gov/Conservation/Marine/Whale-Safe>).

Fisheries). The department will request the U.S. Coast Guard issue a Broadcast Notice to Mariners via VHF/Channel 16.

(g) Mandatory Data Reporting Requirements

(1) Fishing Activity Reporting Requirement: When participating in the California commercial Dungeness crab fishery, all vessels must submit bi-weekly reports that include permit number, current Fishing Zone, depth range, and number of traps deployed at the time of reporting. Reports shall be submitted on or before the first and 16th day of each month. At the conclusion of the Fishing Season the number of lost traps shall also be reported on the final bi-weekly report that is submitted to the department. All reports shall be submitted via email or text to Whalesafefisheries@wildlife.ca.gov.

(2) Electronic Monitoring:

(A) When operating under a depth constraint or when using Alternative Gear pursuant to subsection (e), all vessels must have an operational electronic monitoring system affixed to their vessel and must be recording location while engaged in any fishing activity for commercial Dungeness crab. Electronic monitoring systems must be capable of tracking and recording vessel location using GPS coordinates at a frequency of no less than once a minute during fishing operations. Electronic monitoring data shall be made available to the department or authorized agent upon request for the duration of the fishing period and 60 days thereafter.

(B) By the 2023-24 Fishing Season, all vessels will be required to carry an electronic monitoring device that is capable of tracking and recording vessel location using GPS coordinates at a frequency of no less than once a minute during fishing operations when participating in the California commercial Dungeness crab fishery. Data shall be made available to the department within 72-hours of request.

(3) Alternative Gear Reporting Requirement: Any permit holder using Alternative Gear is required to submit an annual report summarizing pounds of crab harvested with Alternative Gear, amount and location of gear deployed, and amount and location of lost gear. The report shall be submitted within 30 days of the close of the Fishing Season to Whalesafefisheries@wildlife.ca.gov.

(4) All information collected pursuant to this subsection (g) shall remain confidential to the extent permitted by law. Insofar as possible, the information shall be compiled or published as summaries, so as not to disclose the individual record or business of any person.

(h) Alternative Gear:

(1) Authorization

(A) Upon written request, the department shall authorize Alternative Gear types for use to take Dungeness crab for commercial purposes as allowed pursuant to this section.

(B) The department shall authorize Alternative Gear that meets the following criteria:

1. Detectability: detectability by the department, fishermen and public, including description how location of Alternative Gear is available visually or virtually, equipment specifications including costs, and any required specialized equipment or training to deploy, operate, or detect the gear. If "ropeless," the gear must be used with software that enables department law enforcement and other fishing vessels within ¼ mile of the gear to identify the location of the gear at all times when it is deployed.

2. Retrieval: means of retrieval, including description of release mechanism, equipment and any specialized training needed to deploy and/or retrieve Alternative Gear, description of safeguards and procedures to minimize gear loss and ghost gear, with gear loss rates of no more than 10%. Gear must include a back-up release capability so it will surface in the event of an equipment failure and must include a gear recovery plan if the gear does not rise to the surface.

3. Ability to Identify: means of Alternative Gear identification, including the method or description of the mechanism required for the department to identify Alternative Gear to permit holder both remotely when submerged, and at the surface.

4. Benefit: evidence Alternative Gear reduces risk or severity of entanglement.

5. Enforceability: including means by which department law enforcement can find and retrieve the Alternative Gear at sea and costs of any necessary equipment and/or training. Department law enforcement must be able to retrieve and redeploy the gear.

(C) Written requests for Alternative Gear authorization shall be submitted to the department at WhaleSafeFisheries@wildlife.ca.gov. Written requests shall contain the following information:

1. Name, address, and contact information of requestor; and, if applicable, name, address, and contact information of Alternative Gear manufacturer.
2. Detailed description of each component of the Alternative Gear and how it operates.
3. Alternative Gear research trial results, including (i) the number, depth and location of trials; (ii) gear loss rates of no more than 10%, and (iii) description of the ocean conditions during trials.
4. Documentation of how the Alternative Gear performs to meet the criteria outlined in subsection (h)(1)(B) above.
5. Description of an Alternative Gear recovery plan in the event retrieval is unsuccessful.
6. Description of gear retrieval system required by department law enforcement to retrieve and deploy gear.
7. Signed statement verifying all information provided is accurate.

(D) The department may decline to authorize Alternative Gear in writing within 60 days of receipt of written request on the following considerations, upon review of a written request:

1. Written request is incomplete because it does not contain the information required under (h)(1)(C) or does not include details sufficient for the department to determine whether the proposed Alternative Gear meets criteria set forth in subsection (h)(1)(B).
2. As described by the requestor, the gear does not meet criteria set forth in subsection (h)(1)(B).
3. Gear retrieval equipment or technology is cost prohibitive to the department.
4. Gear does not comply with other applicable Federal, State or local laws or regulations.
5. Gear relies on technology that is proprietary and not routinely available to the department or public.

(2) Deauthorization: The department may deauthorize Alternative Gear on a case-by-case basis if that equipment no longer meets the criteria listed in (h)(1)(B). If deauthorization occurs during the Fishing Season, the Fleet will be notified by the department in the manner described in (f)(3) and will have 8 days to remove Alternative Gear from Fishing Grounds or by the end of the season, whichever occurs first.

(3) The department shall keep a current list of all authorized Alternative Gear on its Whale Safe Fisheries webpage (<https://wildlife.ca.gov/Conservation/Marine/Whale-Safe-Fisheries>).

Note: **Authority:** Section 8276.1, Fish and Game Code.

Reference: Sections 8276, 8276.1, 8276.5, 9002.5, 9008, Fish and Game Code.

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