

DRAFT Risk Assessment and Mitigation Program Regulations for Dungeness Crab Fishing
Gear Working Group Review

*The following regulations are subject to revision until going to Public Notice, currently
scheduled for May 2020*

Title 14, Section 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 (g).
- (3) “Best Available Science” means scientific information relevant to a management issue, based on statistically valid data such that any conclusions drawn are reasonably supported and not speculative, and publicly available. For the purposes of this regulation, this includes information outlined in subsection (d).
- (4) “Close” or “closure” means the take and possession of Dungeness crab for commercial purposes is prohibited by the Director, except for with the use of approved Alternative Gear.
- (5) “Confirmed Entanglement” means a marine life entanglement of an Actionable Species reported to the department by NOAA that includes species, gear type, and

severity of the entanglement. The department will provide any additional data to NOAA to support entanglement investigation and response.

(6) “Fishing Grounds” means the area of the Fishing Zone between shore and 100 fathoms.

(7) “Fishing Season” means November 15 through July 15, 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.

(8) “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 Horse Mountain (40° 05' N. latitude).

(B) Zone 2: From Horse Mountain 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 the U.S./Mexico border.

(F) Zone 6: “Pacific Leatherback Sea Turtle Foraging Area” from Point Arena (38° 57.5' N. latitude) to Point Pinos (36° 38.314' N. latitude).

9) “Fleet” means all fishermen that possess valid California Dungeness Crab vessel permits.

10) “Impact Score” means the sum of expected mortalities caused by Confirmed Entanglements in commercial Dungeness crab fishing gear and Unknown Fishing Gear. It is determined by evaluation of evidence available to the Department and NOAA, and is subject to revision after NOAA’s Injury Determination Process is completed.

11) “Marine Life Concentrations” means Humpback Whales, Blue Whales, and Pacific Leatherback Sea Turtles.

12) “NOAA” means the National Oceanic and Atmospheric Administration.

13) “Risk Assessment” means the assessment of risk for potential entanglement of Actionable Species with commercial Dungeness crab fishing gear.

14) “Unknown Fishing Gear” means fishing gear whose fishery of origin cannot be determined. This definition does not include gear identifiable in origin to other fisheries or to non-fishery origins (e.g. mooring lines or research equipment including but not limited to weather buoys and navigational aids) or fishing gear of a type or configuration that is not used in the Dungeness crab fishery.

15) “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 department 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 July 15 while the Fishing Season is open.
- (2) Director will provide 48 hours-notice of anticipated Risk Assessment to the Whale Safe Fisheries email list serve. Individuals interested in joining the email list serve can contact the department at Whalesafefisheries@wildlife.ca.gov.
- (3) At any Risk Assessment, and prior to taking action, the Director shall consider the most recently dated recommendation of the Working Group, on assessing entanglement risk and management response.
- (4) While the Fleet is operating under a management action pursuant to this section, the Director will perform additional risk analyses as additional information becomes available. If the triggers in subsection (c) are no longer met or a different management response becomes more appropriate, as indicated by Risk Assessment or other information, the Director shall expeditiously lift or modify any restrictions.

(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: shall be scored during a single Fishing Season and averaged over a three-year period beginning with the 2021 calendar year and applied for each individual Actionable Species as specified below.

(A) Impact Score:

1. A Confirmed Entanglement in commercial Dungeness crab fishing gear shall be scored as one (1) mortality.
2. A Confirmed Entanglement in Unknown Fishing Gear shall be scored as 0.5 mortality.
3. For Humpback Whales only, a Confirmed Entanglement in commercial Dungeness crab fishing gear will be scored as 0.7 mortality, unless the animal is deceased, in which case it will be scored as one (1) mortality.

(B) Humpback Whales:

1. During a single Fishing Season
 - a. For each Confirmed Entanglement during a single Fishing Season, the Director shall implement a minimum of a Fishing Zone closure, or other management action as described in subsection (e) that the Director demonstrates protects listed species based on Best Available Science.
 - b. If an Impact Score of three (3) or more is reached during a single Fishing Season, the Director will close the remainder of the Fishing Season statewide.

- c. During a Calendar Year: For any Confirmed Entanglement that causes the average total annual Impact Score during the previous two calendar years and current calendar year to exceed two (2), the Director shall close the Fishing Season statewide until the department consults with NOAA and the Working Group. After consultation the Director shall consider management action described in subsection (e).

(C) Blue Whales:

1. During a single Fishing Season: For each Confirmed Entanglement during a single Fishing Season the Director shall implement a minimum of a Fishing Zone closure, or other management action as described in subsection (e) that the Director demonstrates protects listed species based on Best Available Science.
2. During a Calendar Year: For any Confirmed Entanglement that causes the average total annual Impact Score during the previous two calendar years and current calendar year to exceed one (1), the Director shall close the Fishing Season statewide until the department consults with NOAA and the Working Group. After consultation the Director shall consider management action described in subsection (e).

(D) Pacific Leatherback Sea Turtle:

1. During a single Fishing Season: For each Confirmed Entanglement during a single Fishing Season the Director shall implement a minimum of a Fishing Zone closure, or other management action as described in subsection (e) that the Director demonstrates protects listed species based on Best Available Science.

2. During a Calendar Year: For any Confirmed Entanglement where the average total annual Impact Score during the previous two calendar years and current calendar year is greater than or equal to one, the Director shall close the Fishing Season statewide until the department consults with NOAA and the Working Group. After consultation the Director shall implement management action described in subsection (e).

(2) Marine Life Concentrations: the Director may only consider data from surveys and telemetry monitoring of Actionable Species designed, conducted, or approved by NOAA or the department during the timeframes of (1) November 1 until the Fishing Season opens statewide, and (2) March 1 until the Fishing Season closes statewide.

(A) From November 1 through December 31 or until the Fishing Season opens statewide, whichever is earlier:

1. If there are no data to inform marine life concentrations in each Fishing Zone(s) under this subsection, the following applies:
 - a. The Fishing Season will be delayed in that Zone(s) until December 1.
 - b. If data are unavailable by December 1 the Fishing Season will be delayed in that Fishing Zone(s) until December 15.
 - c. If data are unavailable by December 15, the Fishing Season will be delayed in that Fishing Zone(s) until December 31.
2. If there are data to inform marine life concentrations in each Fishing Zone(s) under this subsection, the following applies:

- a. Humpback Whales – If the number of animals is greater than or equal to 20 or there is a running average of 5 or more animals over a one-week period within a single Fishing Zone (excluding Zone 6), the Director shall implement a minimum of a Fishing Zone closure, or other management action as described in subsection (e) that the Director demonstrates protects listed species based on Best Available Science.

- b. Blue Whales – If the number of animals is greater than or equal to three (3) or there is a running average of 5 or more animals over a one-week period within a single Fishing Zone (excluding Zone 6), the Director shall implement a minimum of a Fishing Zone closure, or other management action as described in subsection (e) that the Director demonstrates protects listed species based on Best Available Science.

- c. Pacific Leatherback Sea Turtle – The Director shall not open any Fishing Zone containing an animal, or implement some other management action as described in subsection (e) that the Director demonstrates protects listed species based on Best Available Science.

(B) For the period of March 1 through July 15 or until Fishing Season closes statewide:

- 1. If there are no data to inform marine life concentrations under this subsection in each Fishing Zone(s), the Fishing Season shall close April 1 statewide and remain closed for the remainder of the normally scheduled season.

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

- a. Humpback Whales –
 - i. If the number of animals is greater than or equal to 10 within in a single Fishing Zone (excluding Zone 6), the Director shall implement a management action as described in subsection (e).
 - ii. If the number of animals is greater than or equal to 20 or there is a running average of 5 or more animals over a one-week period within a single Fishing Zone (excluding Zone 6), the Director close the Fishing Season statewide, or implement other management action as described in subsection (e) that the Director demonstrates protects listed species based on Best Available Science
 - b. Blue Whales - If the number of animals is greater than or equal to three (3) or there is a running average of 5 or more animals over a one-week period within a single Fishing Zone (excluding Zone 6), the Director shall implement a minimum of a Fishing Zone closure, or other management action as described in subsection (e) that the Director demonstrates protects listed species based on Best Available Science.
 - c. Pacific Leatherback Sea Turtle - If the number of animals is greater than or equal to one (1), the Fishing Season shall close statewide.
3. During a closure occurring on April 1 or later, the Director will authorize the use of Alternative Gear consistent with the process described in subsection (d)-(f).

(d) Management Considerations: the department shall consider the following information to assess appropriate management action once entanglement risk is determined pursuant to subsection (c):

(1) Information from NOAA

(2) Effectiveness of management measures to minimize risk

(3) Total economic impact to the Fleet and fishing communities, with impacts anticipated to increase for delays in the fall and decline in the spring.

(4) 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.

(5) Known historic marine life migration patterns, such as whether risk is declining as Actionable Species leave the Fishing Grounds in the fall or increasing as Actionable Species return in the spring.

(6) Progression of Fishing Season, such factors impacting potential concentration of fishing effort (for example dynamics associated with the opening of the Fishing Season, impacts of delays pursuant to quality testing and/or public health closures or hazards, anticipated location of the Fleet, and proportion of gear deployed).

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

(8) Ocean conditions (such as temperature, upwelling, El Niño) that influence presence and aggregation of marine life (such as habitat compression) and fleet behavior (such as weather conditions impacting vessel operations).

(9) Confirmed Entanglements, including information on severity of entanglement and any correction factor for mortality

10) Marine life concentrations and their spatial distribution as an indication of marine life migration into or out of Fishing Grounds.

11) Working Group recommendation, based on their independent Risk Assessment of the factors described in subsection (c) as well as Best Available Science related to considerations identified in this subsection.

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

(1) No Management Action: The Director may issue an advisory notice to the Fleet if the level of risk is elevated and/or anticipated to increase but has not yet triggered a required management action to encourage volunteer efforts to avoid triggering additional management actions.

(2) Depth Constraint: The Director may use a depth constraint during the Fishing Season, statewide or within any 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 (50 CFR Part 660, Subpart C, 80 Federal Register 63970, December 12, 2018).

(3) Vertical Line/Gear Reduction: The Director may decrease the number of vertical lines or amount of gear an individual permit holder can use based on their assigned tier allotment as specified in Fish and Game Code Section 8276.5, statewide or within any Fishing Zone(s). Permit holders shall have the specified proportion of buoy tags required pursuant to Fish and Game Code section 8276.5 onboard the permitted vessel and available for inspection by the department upon request.

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

(5) Alternative Gear: The Director may authorize the use of Alternative Gear certified pursuant to subsection (g), statewide or within any Fishing Zone(s). Any individual using Alternative Gear pursuant to this subsection will be required to submit an annual report to Whalesafefisheries@wildlife.ca.gov summarizing pounds of crab harvested with Alternative Gear, amount and location of gear deployed, and amount and location of lost gear.

(f) Notification process for management actions taken in response to entanglement risk. The Director shall comply with the following when taking a management action(s) pursuant to subsection (e).

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

(A) Information supporting the risk determination pursuant to subsection (c).

(B) Decision factors considered from subsection (d) and information relevant to each considered factor.

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

(D) Authorization of the lost gear recovery program 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 email list-serve and the department's "Whale Safe Fisheries" webpage. The department will request the US Coast Guard issue a Broadcast Notice to Mariners via VHF/Channel 16.

(g) Alternative Gear Authorization:

(1) The department shall authorize Alternative Gear types for use to take Dungeness crab for commercial purposes as allowed pursuant to this section upon written request.

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

(A) 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;

(B) Retrieval: means of retrieval, including description of release mechanism, equipment and any specialized training needed to deploy and/or retrieve Alternative Gear, mechanism to address equipment malfunction, safeguards to prevent gear loss number of successful deployments and retrievals of not less than 98%

(C) Ability to Identify: means of Alternative Gear identification, including description of mechanism to identify Alternative Gear to permit holder both remotely when submerged and at the surface;

(D) Benefit: evidence Alternative Gear reduces risk or severity of entanglement; and

(E) Enforceability: including means by which the department law enforcement can find and retrieve the Alternative Gear at sea and costs of any necessary equipment and/or training.

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

(A) Name, address, and contact information of requestor; and, if applicable, name, address, and contact information of Alternative Gear manufacturer;

(B) Detailed description of each component of the Alternative Gear and how it operates (minimum one-page);

- (C) Alternative Gear research trial results, including (i) the number, depth and location of trials (ii) number of successful deployments and retrievals of not less than 98%; and (iii) description of the ocean conditions during trials;

- (D) Documentation of how the Alternative Gear meets the following criteria outlined in subsection (3) below.

- (E) Description of an Alternative Gear recovery plan in the event retrieval is unsuccessful;

- (F) Description of a vessel electronic monitoring system used to document amount and location of fishing gear deployed; access to system data at the request of the department and

- (G) Signed statement verifying all information provided is accurate.