

## **SUMMARY OF COMMENTS RECEIVED ON PROPOSED REGULATIONS AND GENERAL RESPONSES**

### **SUMMARY OF COMMENTS RECEIVED**

During the initial 45-day public comment period (May 15, 2020 to June 29, 2020) for the proposed Section 132.8 Risk Assessment and Mitigation Program (RAMP) regulations, the California Department of Fish and Wildlife (CDFW) received a total of 4,160 comments. Consistent with Government Code Section 11346.9(a)(3), comments were sorted into one of three categories.

- Category A consisted of form comment letters, with identical language in the body of each letter constituting seven comments (A1-A7 described below). Category A comments differ only in their subject and signature lines. Substantive elements of an example form comment letter were underlined and labeled and are included as a coversheet with Appendix 1 comments.
- Category B consists of letters with non-substantive or irrelevant language added to the form comments (i.e. those in Category A). Deviations from the form letter language has been highlighted in each Category B comment.
- Category C consists of letters which either (1) include substantive additional comments compared to the form comment language from those in Category A, and/ or (2) include new and relevant specific comments aside from the form comment.

Comment letters for Category C were numbered and each individual specific comment consistent with Government Code Section 11346.9(a)(3) was bracketed and assigned a cross-reference code for providing specific response in the Appendices. Responses to Specific Comments for the initial 45-day public comment period are presented in **Appendix 2**. During the public hearing held on June 29, 2020, 11 additional comments were received. A transcript of the hearing and the respective responses are included as **Appendix 3**. Comments received during the 15-day continuation notice are captured in **Appendix 4**, and additional comment received during the second public hearing held on August 3, 2020 and responses are included in **Appendix 5**.

Table 1 summarizes the comments received between May and August 2020. All comments received (either written or oral) were numbered sequentially throughout all appendices. Specifically, all comments received after the 45-day comment period were categorized under Category C, and those speakers or letters are numbered accordingly (i.e., letters C01-C95 span the 45-day comment period through the oral comments responded to during the 15-day continuation period).

**Appendix 1.** Summary of Comments Received and General Responses to Comments – Section 132.8, Title 14 (RAMP)

Table 1. Summary of Comments Received on the Proposed RAMP regulations, May-August, 2020.

<b>Notice Period</b>	<b>Category</b> (Appendix Location of Responses)	<b># Letters Received</b> (C-letter code)	<b>Number of Specific Comments</b>
45-day (May 15- June 29)	<b>A:</b> Form letter (exact verbatim) (Responded to in <b>Appendix 1</b> )	3,917	7/ letter
	<b>B:</b> Form letter plus non-substantive language or remarks not equivalent to additional comments	186	7/ letter, plus irrelevant language
	<b>C:</b> Comments with relevant/ substantive differences from form letter (Responded to in <b>Appendix 2</b> )	64 (C01-C64)	314
	<b>C:</b> June 29, 2020 Public Hearing (Responded to in <b>Appendix 3</b> )	12 speakers (C65-C75)	50
15-day (July 17 - Aug 3)	<b>C:</b> Written comments (Responded to in <b>Appendix 4</b> )	17 (C76-C92)	113
	<b>C:</b> August 3, 2020 Public Hearing (Responded to in <b>Appendix 5</b> )	3 speakers (C93-C95)	9

## **GENERAL RESPONSES**

Comments received during the 45-day and subsequent 15-day continuation period were grouped based on similarity in topic or concern. **General Responses A-O** to the public comments on the proposed RAMP regulations are concentrated on the following topics:

### **A. Form letter**

1. General support for stronger regulations to protect Actionable Species (Humpback Whales, Blue Whales, Pacific Leatherback Sea Turtles)
2. Regulations should do more to enhance monitoring, require protections in response to entanglements, and incentivize use of pop-up (“ropeless”) fishing gear
3. Reports of entanglements have increased at alarming rates, and CDFW should make sure this doesn’t continue
4. Specific areas of the ocean should be closed to crab fishing when increased numbers of Actionable Species are present and re-opened once they’ve left
5. Voluntary measures should not be substituted for closures when increased numbers of Actionable Species are present
6. Gear which uses vertical lines should not be allowed as Alternative Gear
7. Pop-up gear should be allowed during entire season, including when closed to traditional gear

### **B. Fishing Zone Boundaries**

1. Boundary between Zone 1 and Zone 2 should be moved from Horse Mountain to either Cape Mendocino, Gorda or Delgado Canyon
2. Southern boundary of Zone 5 should be moved to Point Conception
3. New zone should be added between Point Conception and Mexican border
4. Zone 6, “Pacific Leatherback Sea Turtle Foraging Area,” should encompass a smaller area
5. Concern over the extent of Fishing Zones to either 200 nautical miles offshore or an area larger than the Fishing Grounds within each Fishing Zones

### **C. Entanglements in unidentified gear**

### **D. Triggers and management actions in the absence of Marine Life Concentrations data**

### **E. Alternative Gear**

1. Update trap fishing gear and/or transition fishery to utilize innovative technologies that reduce entanglements
2. Definition should not be limited to or only reference “ropeless” gear
3. Specify allowable criteria for Alternative Gear authorization

**Appendix 1.** Summary of Comments Received and General Responses to Comments –  
Section 132.8, Title 14 (RAMP)

4. CDFW should provide financial accommodation for fishery to adopt alternative gear types

**F. Reporting requirements**

1. Bi-weekly Reporting Requirements
2. Electronic Monitoring
3. Confidentiality

**G. Alignment with Working Group Recommendations**

**H. Limit scope to Distinct Population Segments (DPS) listed under the federal Endangered Species Act (ESA)**

**I. Management actions when triggers under subsection (c) are reached**

1. Flexibility when triggers in (c)(1) reached, alternative to statewide closure
2. Revise “minimum of a Fishing Zone closure”

**J. Expedite review of entanglements**

**K. Balance protection of Actionable Species with economic impacts to the Fleet**

**L. Impact from ship strikes**

**M. Impact Score Calculations**

**N. Discretion and adaptive management**

1. Discretion when selecting management actions
2. Evaluating management measure effectiveness, adaptive management principles

**O. Speed of the rulemaking process**

*Note: References to subsections refer to Section 132.8, Title 14, CCR (proposed regulations) unless otherwise noted.*

**GENERAL COMMENT A – FORM LETTER**

**General Comment A1 – General support for stronger regulations to protect Actionable Species (Humpback Whales, Blue Whales, Pacific Leatherback Sea Turtles)**

**Comment letters:** Category A, Category B, C2-a, C14-a, C15-b, C18-a, C20-a, C21-a, C40-b

**Response:** CDFW agrees that additional regulations are needed to protect Actionable Species and reduce impacts from entanglements in commercial Dungeness crab fishing gear. While subsection 8276.1(c) of the Fish and Game Code provided interim authority for the Director to restrict fishery operations due to significant risk of marine life

**Appendix 1.** Summary of Comments Received and General Responses to Comments – Section 132.8, Title 14 (RAMP)

entanglement, the proposed regulations formalize and expand upon that interim authority, providing a more comprehensive approach to addressing this issue.

**General Comment A2 – Regulations should do more to enhance monitoring, require protections in response to entanglements, and incentivize use of pop-up (“ropeless”) fishing gear**

**Comment letters:** Category A, Category B

**Response:** Regarding enhanced monitoring, see General Response F1 and F2.

Regarding requiring protections in response to entanglements, CDFW amended subsection (c)(1)(C) to require the Director to “implement” a management action (rather than “consider” a management action) in instances where the Impact Score Calculation during a calendar year exceeds the stated average; see pages 22-23 of the Amended Initial Statement of Reasons (ISOR). This is in addition to the actions required under subsection (c)(1)(B) following each Confirmed Entanglement. The revised proposed regulations will ensure appropriate additional protections are enacted following Confirmed Entanglements in either California Commercial Dungeness Crab Gear or Unknown Fishing Gear.

Regarding how CDFW should incentivize use of pop-up gear, the comment does not offer specific recommendations, limiting CDFW’s ability to respond to this comment. However, responses regarding two specific suggestions included in other comments can be found in General Response A7 (allowing pop-up gear to be used during the entire fishing season) and General Response E4 (providing financial incentives for use of Alternative Gear).

**General Comment A3 – Reports of entanglements have increased at alarming rates, and CDFW should make sure this doesn’t continue**

**Comment letters:** Category A, Category B, C40-a

**Response:** As described on pages 1-2 of the Amended ISOR, an increase in whale entanglements was a primary driver for CDFW, NOAA, and the California Ocean Protection Council’s (OPC) to convene the California Dungeness Crab Fishing Gear Working Group (Working Group) in the fall of 2015. Among other projects, the Working Group’s efforts to design and pilot a program for assessing entanglement risk directly informed the Director’s implementation of the interim management authority under subsection 8276.1(c) of the Fish and Game Code and the design of the proposed regulations here. The proposed regulations, and the Conservation Plan currently under development as part of CDFW’s application for an Incidental Take Permit (ITP) under Section 10 of the federal ESA, reflect CDFW’s commitment to reduce marine life entanglements in this fishery to the maximum extent practicable.

In addition to the Conservation Plan and the proposed RAMP regulations, CDFW has implemented a standardized gear marking program for commercial trap fisheries, regulations limiting surface gear for the commercial Dungeness crab fishery, and the

**Appendix 1.** Summary of Comments Received and General Responses to Comments – Section 132.8, Title 14 (RAMP)

Lost or Abandoned Commercial Dungeness Crab Trap Gear Retrieval Program; supported Alternative Gear testing; and participated in annual development of a Best Practices Guide. While entanglement numbers in any given year are likely due to a combination of human and environmental factors, CDFW is confident the programs it has developed with its partners will help to continue the trend of decreasing entanglements seen in 2018 and 2019 while maximizing available fishing opportunity.

**General Comment A4 – Specific areas of the ocean should be closed to crab fishing when increased numbers of Actionable Species are present and re-opened once they've left**

**Comment letters:** Category A, Category B, C18-b, C21-b

**Response:** As described on page 23 of the Amended ISOR, historic migration patterns of Actionable Species indicate they enter the Fishing Grounds during the late spring and depart during the fall. This means the period of overlap with commercial Dungeness crab fishing activity is generally restricted to the beginning and end of the season. Subsections (c)(2)(A)4. and (c)(2)(B)2. require a delay in the season opener and an early season closure in any Fishing Zone, or other management actions that protect Actionable Species based on best available science, when observed abundances of Actionable Species exceed the specified thresholds. As described on pages 20-21 of the Amended ISOR, best available science related to the management considerations in subsection (d) may indicate a non-closure management action appropriately addresses the entanglement risk given the known location of Actionable Species in conjunction with the other listed factors; therefore, the proposed regulations provide that flexibility.

However, in the absence of recent survey data, subsections (c)(2)(A)1.-3. require a delayed season opener in the fall and subsection (c)(2)(B)1. requires implementation of a management action for that Fishing Zone. This ensures that, in the absence of information allowing a direct assessment of current Actionable Species presence within a given Fishing Zone, protective measures are taken (e.g. complete exclusion of fishing activity).

Subsection (b)(4) of the proposed regulation requires the Director to modify or lift any management restriction once triggers in subsection (c), including presence of Actionable Species, are no longer met.

**General Comment A5 – Voluntary measures should not be substituted for closures when increased numbers of Actionable Species are present**

**Comment letters:** Category A, Category B, C42-p, C69-c, C91-j

**Response:** The amended proposed regulations require the Director to implement a management action if triggers in subsection (c) are attained. The list of potential management actions in subsection (e) includes a Fleet Advisory to employ voluntary measures. As described on pages 33-34 of the Amended ISOR, a Fleet Advisory would

**Appendix 1.** Summary of Comments Received and General Responses to Comments –  
Section 132.8, Title 14 (RAMP)

be used if entanglement risk is elevated or expected to increase, but after review of the management considerations in subsection (d) the Director determines a more restrictive management response is not necessary at that time. CDFW considers inclusion of voluntary measures in the list of potential management actions necessary to increase flexibility and appropriate to implementing the protective elements of the RAMP in a way that minimizes impacts to the Fleet while still addressing entanglement risk. Under subsection (d)(3), CDFW and the Working Group will consider the effectiveness of any management measure, including voluntary actions, to minimize entanglement risk when selecting an appropriate management response.

**General Comment A6 – Gear which uses vertical lines should not be allowed as Alternative Gear**

**Comment letters:** Category A, Category B, C3-a, C20-b, C20-e, C42-z, C67-a

**Response:** While some forms of modified gear completely eliminate the vertical line (e.g. use of an inflated buoy to lift the trap to the surface), most of the pop-up gears in development and currently on the market include vertical lines. However, rather than being present the entire time the trap is in the ocean, the lines are coiled and stored near the trap until an acoustic trigger is received, allowing the buoys to pull the rope to the surface, at which point the fisherman can retrieve the gear. CDFW will consider all documentation submitted with certification requests, and only approve gears which demonstrate that it reduces the risk or severity of entanglement relative to traditional systems.

During other conversations with fishery participants occurring in parallel with development of the proposed regulations, longlining traps has been raised as another method for reducing presence of vertical lines. This practice, which is common in New England trap fisheries, uses a groundline to connect multiple traps along the seafloor, with vertical lines on a subset of the connected traps (usually one on each end). These vertical end lines could either be traditional rope and buoy configurations or use pop-up technology to further reduce presence of vertical lines. Currently, Section 9012 of the Fish and Game Code prohibits connecting multiple traps with a common line in Districts 6, 7, 8, and 9. Data from experimental use of trawls in currently prohibited areas, likely authorized under an Exempted Fishing Permit from the Fish and Game Commission, would inform potential changes to this statutory requirement.

**General Comment A7 – Pop-up gear should be allowed during entire season, including when closed to traditional gear**

**Comment letters:** Category A, Category B, C3-a, C15-a, C18-d, C20-d, C20-f, C20-g, C21-d, C34-b, C34-f, C40-j, C42-x, C42-z, C42-aa, C67-b, C69-b, C88-e, C88-g, C95c

**Response:** As described on page 35 of the Amended ISOR, the proposed regulations do not allow use of Alternative Gear in an open Fishing Zone due to concerns about gear conflicts with traditional Dungeness crab trap gear, other trap fisheries, and commercial trawl fisheries. Furthermore, the highest need for Alternative Gear is during closures in the spring, when entanglement risk is expected to continue increasing

**Appendix 1.** Summary of Comments Received and General Responses to Comments – Section 132.8, Title 14 (RAMP)

through the end of the Fishing Season as Actionable Species return to the Fishing Grounds. Allowing use of Alternative Gear in these situations allows for continued harvest of Dungeness crab in a way that poses a lower risk of entanglement, mitigating economic impacts of such closures. Since traditional commercial Dungeness crab gear will not be deployed in those areas for the remainder of the Fishing Season, the potential for gear conflict is reduced. During the fall and winter months, when Actionable Species are either absent from or present in low numbers within the Fishing Grounds, the additional protective benefit from use of Alternative Gear is outweighed by concerns regarding gear conflict.

If Alternative Gear was allowed through the entire Fishing Season, each of the approximately 450 vessels operating in the fishery would be required to have equipment to detect pop-up gear. This would result in additional economic costs to the entire Fleet to accommodate a select few participants who may want to use Alternative Gear. Given the uncertainty in what technology will be authorized, CDFW is taking a more measured approach to allowing new gear development.

As noted in the ISOR, at the time the proposed regulations were developed, CDFW was not aware of any specific Alternative Gears which met the criteria in subsection (h). Although gear trials have been successfully completed on the East coast, testing will still need to be conducted in California water to ensure performance standards listed in subsection (h) are met. As CDFW begins authorizing Alternative Gears under this subsection, and Alternative Gears begin to be used, CDFW may revise this limitation to allow for Alternative Gears to be used during additional periods of the Fishing Season.

**GENERAL COMMENT B – FISHING ZONE BOUNDARIES**

**General Comment B1 – Boundary between Zone 1 and Zone 2 should be moved from Horse Mountain to either Cape Mendocino, Gorda or Delgado Canyon**

**Comment letters:** C4-a, C10-a, C24-a, C30-a, C36-h, C68-a, C68-d

**Response:** CDFW addressed this comment in the revised proposed regulations; see pages 8-9 and 11 of the Amended ISOR. The boundary between Fishing Zones 1 and 2 has been revised from Horse Mountain (40° 5' N. latitude) to Cape Mendocino (40° 10' N. latitude) based on public comments citing concerns for vessels operating in areas around Shelter Cove and Fort Bragg. The revised area represents the northern extent of fishing activity for vessels landing in Shelter Cove, as documented in commercial landings data from the 2018-2019 and 2019-2020 seasons.

**General Comment B2 – Southern boundary of Zone 5 should be moved to Point Conception**

**Comment letters:** C19-a, C26-a, C32-a, C35-p, C36-h, C38-i, C43-h, C66-k, C74-c

**Response:** CDFW addressed this comment in the revised proposed regulations; see page 9 and 11 of the Amended ISOR. The southern boundary of Zone 5 was moved to



**Appendix 1.** Summary of Comments Received and General Responses to Comments – Section 132.8, Title 14 (RAMP)

Point Conception (34° 27' N. latitude) based on public comments noting that while Dungeness crab is rarely harvested below Point Conception, substantial numbers of whales are often present. The originally proposed boundaries of Fishing Zone 5 could result in management actions impacting fishing vessels operating out of Morro Bay due to presence of Actionable Species below Point Conception.

**General Comment B3 – New zone should be added between Point Conception and Mexican border**

**Comment letters:** C35-p, C36-h, C38-i, C43-h

**Response:** CDFW addressed this comment in the revised proposed regulations; see page 9 and 11 of the Amended ISOR. In addition to changes made under General Response B2, a new Fishing Zone 6 was added from Point Conception to the U.S./Mexico border and the Pacific Leatherback Sea Turtle Foraging Area was renumbered to Zone 7.

**General Comment B4 – Zone 6, “Pacific Leatherback Sea Turtle Foraging Area,” should encompass a smaller area**

**Comment letters:** C35-ss, C38-j, C43-h

**Response:** No changes to the area encompassing the Pacific Leatherback Sea Turtle Foraging Area were made, except that it was renumbered to Zone 7. As described on page 12 of the Amended ISOR, the boundaries of the Pacific Leatherback Sea Turtle Foraging Area encompass key foraging habitat where this species is most likely to occur, ensuring the management action taken will provide sufficient protection for any Pacific Leatherback Sea Turtles within the Fishing Grounds.

**General Comment B5 – Concern over the extent of Fishing Zones to either 200 nautical miles offshore or an area larger than the Fishing Grounds within each Fishing Zones**

**Comment letters:** C35-o, C38-k, C43-h, C74-c

**Response:** Although the extent of the Fishing Zones to 200 nautical miles offshore, as specified in subsection (a)(7), exceeds the boundaries of traditional Fishing Grounds, as specified in subsection (a)(5), the total area covered by the Fishing Zones is consistent with CDFW’s authority to manage the commercial Dungeness crab fishery and is necessary to describe the area over which management actions pursuant to the proposed regulation would apply. While the majority of commercial Dungeness crab fishing occurs within the area defined as the Fishing Grounds, some fishing activity does occur at depths greater than 100 fathoms, and CDFW would need management actions to apply to all areas where fishing might occur.

**GENERAL COMMENT C – ENTANGLEMENTS IN UNIDENTIFIED GEAR**

**Appendix 1.** Summary of Comments Received and General Responses to Comments –  
Section 132.8, Title 14 (RAMP)

The California commercial Dungeness crab fishery should not be penalized for entanglements caused by unidentified gear, since all traps from the fishery are marked. Unidentified traps could have originated from other fisheries in the state, as well as fisheries from out of state. Proposed regulations assign Impact Scores which impact the commercial Dungeness crab fishery even if it is eliminated as the source of the entanglement.

The current rules will over-penalize the crab fishery since the fishery has caused fewer and fewer entanglements in the last three years. All fixed gear in California will be required to mark their gear starting in 2020, which should mitigate the problem of unidentified gear.

**Comment letters:** C19-b, C26-b, C29-g, C32-e, C35-k, C35-v, C35-y, C35-z, C35-ee, C35-hh, C36-k, C41-c, C45-a, C66-ff, C71-c, C75-c

**Response:** Between 1982 and 2017, 53% of all Confirmed Entanglements involving Humpback Whales off the West Coast where gear could be identified were attributed to commercial Dungeness crab gear. It is the single most prevalent fishery to be attributed to entanglements. For 2017, 2018, and 2019, that number remained roughly the same at 48%. Therefore, it is reasonable to assume that the same proportions would apply to unidentified gear, and that half of all entanglements in unidentified gear are California commercial Dungeness crab gear.

While the new commercial trap marking requirements referenced in Section 180.5, Title 14, California Code of Regulations (CCR) for Spiny lobster, Rock crab, Tanner crab, Spot prawn, Coonstripe shrimp, and nearshore finfish are anticipated to reduce the frequency of entanglements in unidentified gear, they do not guarantee that the proportion of large whale entanglements in commercial Dungeness crab gear will decrease compared to other gear. Maximum potential trap numbers calculated for other California fisheries with commercial trap limits (i.e. Spiny lobster and Spot prawn fisheries) are an order of magnitude less than the maximum potential trap numbers for the Dungeness crab fishery, which is approximately 140,000 traps for all active permits. The higher amount of Dungeness crab gear compared to other commercial fisheries likely contributes to the proportion of entanglements attributable to the Dungeness crab fishery. The impact of new marking requirements and other improvements to documentation allowing a greater proportion of entanglements to be attributed to specific fisheries is unknown at this time. For example, it is possible that the proportion of identified fishing gear will increase but the proportion attributable to California commercial Dungeness crab gear will remain unchanged. If future data suggest that the California commercial Dungeness crab fishery is responsible for a different proportion of entanglements, CDFW may undertake additional rulemaking, if appropriate, to adjust the specified values.

If NOAA reports an entanglement to CDFW where California commercial crab gear is eliminated as the source of the entanglement, but a specific fishery cannot be identified,

**Appendix 1.** Summary of Comments Received and General Responses to Comments – Section 132.8, Title 14 (RAMP)

it would be considered a Confirmed Entanglement in Unknown Fishing Gear. However, for the in-season trigger, while every entanglement requires a management response, the Director can consider the full range of information in determining what the appropriate management response is. Additionally, if NOAA is able to identify the fishery of origin through the post-hoc forensic investigation, that entanglement would no longer be considered as a part of the Impact Scoring.

**GENERAL COMMENT D – TRIGGERS AND MANAGEMENT ACTIONS IN THE ABSENCE OF MARINE LIFE CONCENTRATIONS DATA**

The absence of data regarding Marine Life Concentrations should not automatically lead to season delay or early closure. Both historical information and data from adjacent areas can help inform entanglement risk in the absence of more up-to-date information. When data do become available, they should trigger an opening more quickly than the 15-day timeframe described. The rule penalizes the fishery for the agency's failure, and is arbitrary, overly precautionary, unsupported, and unnecessary especially considering that there are other management measures in place.

Early closure will have a disproportionate impact for the fishing communities in the Northern Management Area, since opening date for this area is generally later. At the same time, relatively few entanglements have been observed in this management area.

**Comment letters:** C25-c, C29-f, C35-ll, C35-mm, C35-qq, C36-bb, C36-dd, C37-a, C38-h, C39-p, C43-f, C45-c, C66-h, C72-a, C72-b, C72-c

**Response:** In response to public comments, CDFW removed the mandatory state-wide early closure in the event no data are available to inform Marine Life Concentrations in the spring, see page 27 of the Amended ISOR. Instead, the Director will be required to implement a tailored response on a Fishing Zone basis, in accordance with the management considerations outlined in subsection (d). Should these management considerations indicate that certain Fishing Zones, such as those further north, do not present a high entanglement risk based on other available information (i.e. level of fishing activity, forage, etc.), the Director will be able to implement less restrictive (i.e. non-closure) management actions.

In the fall, a Fishing Zone-specific delay will still occur if there are no current survey data to inform Marine Life Concentrations in that Fishing Zone. The Marine Life Concentration triggers are intended to be proactive and prevent entanglements before they can occur. As discussed on page 25 of the Amended ISOR, an absence of data does not mean there is no entanglement risk. Historical data suggest that during this time, Actionable Species are migrating through and leaving the Fishing Grounds for winter habitats in more southern latitudes. Without recent information confirming Actionable Species have exited the Fishing Grounds, the proposed regulations utilize a precautionary approach and delay the season opener to avoid entanglements, which would then trigger additional management actions. Under the Pacific States Marine Fisheries Commission Dungeness Crab Tri-State process the commercial Dungeness

**Appendix 1.** Summary of Comments Received and General Responses to Comments –  
Section 132.8, Title 14 (RAMP)

crab fishery is routinely delayed north of the Sonoma/Mendocino County line due to low meat quality conditions at the start of the Fishing Season. The Tri-State testing protocol allows for delays in 15-day increments which are the same time periods specified in the proposed regulation and therefore familiar with fishery participants.

Regarding delaying the season in increments less than 15-days during the fall, further discussion can be found on page 25 of the Amended ISOR. A timeframe of 15 days reflects an appropriate amount of time necessary to gather and analyze additional data, provide information to the Director, prepare necessary management documents, and provide adequate notice to the Fleet. Conducting surveys and associated data analyses frequently takes a week or more to complete. Less than 15 days would not provide sufficient time to complete the necessary tasks to undertake an updated risk assessment. Furthermore, the 15-day delays in the proposed regulations are consistent with the delays imposed for low crab quality north of the Sonoma/Mendocino county line (Fishing Zones 1 and 2).

**GENERAL RESPONSE E – ALTERNATIVE GEAR**

**General Comment E1 – Update trap fishing gear and/or transition fishery to utilize innovative technologies that reduce entanglements**

Commenters suggest updating fishing practices away from traditional trap gear and/or banning vertical lines because Alternative Gear types are readily available.

**Comment letters:** C3-a, C5-a, C7-a, C8-a, C11-a, C16-a, C17-b, C23-b, C27-c, C44-a, C49-b, C59-a, C78-a

**Response:** The proposed regulations provide a framework for authorizing Alternative Gear types for future use by the Fleet. This authorization process is meant to accommodate current and future gear development efforts. As described in **General Response A7**, additional testing needs to be conducted prior to authorization of new gear types. It is premature to establish any sort of phase out period for traditional gear as part of this rulemaking given there are no timelines for when certified Alternative Gear will be available.

**General Comment E2 – Definition should not be limited to or only reference “ropeless” gear**

Commenters state that the definition of Alternative Gear should not explicitly identify in its definition “ropeless gear,” and should be modified to include more gear innovations.

**Comment letters:** C3-a, C13-c, C35-h, C36-f, C66-d

**Response:** The definition of Alternative Gear in subsection (a) is defined to distinguish the use of these gear types from what is allowable gear under existing regulations and statute. The definition states: “Alternative Gear means gear modifications and other gear innovations, including but not limited to ropeless gear.” Ropeless gear is also known as pop-up gear. The definition includes reference to ropeless gear as an

**Appendix 1.** Summary of Comments Received and General Responses to Comments – Section 132.8, Title 14 (RAMP)

example of an Alternative Gear, but by its own terms does not limit or exclude other gear types or technologies. For the purposes of the proposed regulation, Alternative Gear is intended to be broadly defined to encompass a wide variety of potential configurations and technologies which would not otherwise be allowed for use in this fishery. Certain gear modifications which have been discussed during parallel conversations outside of this rulemaking process include weak links, alternative types of line, and GPS-enabled buoys. These modifications are currently allowed under existing regulation and can be used during the open Fishing Season. In addition, the criteria for authorization of Alternative Gear specified in subsection (h) does not exclude other gear types from being considered for authorization. Any gear type that meets the requirements of subsection (h) will be authorized by CDFW.

**General Comment E3 – Specify allowable criteria for Alternative Gear authorization**

Commenters requested specifying additional criteria for various reasons ranging from gear innovation companies working towards compliance, ensuring that gear that meet objective criteria are approved, to clarifying process such as disclosing a maximum cost threshold.

**Comment letters:** C3-a, C13-b, C20-c, C20-h, C42-w, C42-z, C67-c, C69-b

**Response:** Subsection (h)(1)(B) specifies criteria for how Alternative Gear will be evaluated for authorization by CDFW. CDFW made several updates to this section in the revised proposed regulations; see pages 41-42 of the Amended ISOR. CDFW considers the proposed language to sufficiently describe the necessary criteria for certifying use of Alternative Gear. CDFW will evaluate each application, including costs, on a case by case basis and as such has not specified a maximum cost threshold for the proposed regulation.

The following are responses to specific requested revisions in comment C20-c:

1. A requirement to specify that Alternative Gear eliminate all vertical lines except during retrieval and that gear surface on demand were not supported as this would prevent other Alternative Gears (e.g. release mechanisms) from being considered for authorization.
2. A requirement that software enables identification of gear within ¼ mile was incorporated in the revised proposed regulations, see page 41 of the Amended ISOR.
3. A requirement that law enforcement be able to retrieve and redeploy gear was also incorporated in the revised proposed regulations, see page 42 of the Amended ISOR.
4. Requirements regarding back-up release capability and a gear recovery plan were incorporated in the revised proposed regulations, see pages 41-42 of the Amended ISOR.

**Appendix 1.** Summary of Comments Received and General Responses to Comments –  
Section 132.8, Title 14 (RAMP)

5. A requirement for a minimum of 15 consecutive successful deployments was not considered as criteria for retrievability rates, which were amended in the revised proposed regulations to specify that Alternative Gear should have gear loss rates of no more than 10%, see pages 41-42 of the Amended ISOR.

**General Comment E4 – CDFW should provide financial accommodation for fishery to adopt alternative gear types**

Commenters requested CDFW to provide incentives for those investing in new alternative gear or help with grant funding for equipment for fishers to rent.

**Comment letters:** C3-a, C9-a, C13-e, C28-a

**Response:** As described in **General Responses A7 and E1**, Alternative Gear has not yet been authorized for use in the commercial Dungeness crab fishery and costs to fishery participants are currently unknown. As described on pages 60-61 of the Amended ISOR, the proposed regulations could induce investment in widespread Alternative Gear technologies that would eventually reduce the costs to the consumer. There is nothing to preclude fishery participants, or other interested groups or individuals, from seeking additional funding options to explore this area of concern.

**GENERAL COMMENT F – REPORTING REQUIREMENTS**

**General Comment F1 – Bi-weekly Reporting Requirements**

Many comments regarding the bi-weekly reporting requirements in subsection (g)(1) stated that mandatory reporting requirements should not be imposed on the Fleet. Some comments that generally supported gathering information on Fleet activity still raised concerns regarding the time intensive nature of the requirement, lack of timeliness when informing management decisions, and inability for CDFW to independently verify submissions. Across all comments, commenters variably expressed support for working collaboratively with industry to enhance available data regarding fishing dynamics or expressed a preference for electronic monitoring over the bi-weekly reports in subsection (g)(1). Additionally, comments suggested CDFW develop a form or online application for submission of this data.

**Comment letters:** A2, C29-h, C35-ggg, C42-s, C71-d

**Response:**

CDFW is committed to continuing to work collaboratively with industry, and the Working Group, to enhance available information regarding Fleet dynamics; however, at this time, such collaborations will supplement, rather than replace, the mandatory measures described in this subsection.

As explained on page 37 of the Amended ISOR, CDFW currently lacks important information on the location, depth and number of traps deployed. This hinders CDFW's ability to accurately assess potential overlap of Actionable Species and fishing activity,

**Appendix 1.** Summary of Comments Received and General Responses to Comments – Section 132.8, Title 14 (RAMP)

and therefore entanglement risk. The additional information requested in (g)(1) is anticipated to lead to a more nuanced management response over smaller areas, and therefore allow more fishing activity overall and reduce the potential economic impact of any management response. CDFW is simply requesting four specific pieces of information in each report, and reports are only required while the vessel is actively fishing.

In the interests of preserving flexibility, and acknowledging that not all participants have routine access to the internet (especially when at sea) CDFW has not created an online interface which fishery participants would be required to use when submitting these bi-weekly reports. Specifying reports are to be submitted via email or text, rather than on a paper logbook form (as required in some other fisheries) is intended to be consistent with current communication methods among the Fleet. This should be minimally burdensome to fishery participants and is estimated to require no more than between four to six hours per Fishing Season; it is also less burdensome for CDFW staff to collect and synthesize electronic submissions versus paper logbooks.

As with other self-reported fishery data, including commercial landing receipts and paper logbooks required in other fisheries, CDFW recognizes there are limitations due to accuracy from self-reporting. However, this is a minimally burdensome method to obtain critical information on fishing activity, and CDFW anticipates the electronic monitoring requirements under subsection (g)(2) will help address accuracy concerns.

**General Comment F2 – Electronic Monitoring**

Some comments expressed support for 100% electronic monitoring of the fishery. One comment specifically suggested the Fleet be transitioned to 100% mandatory monitoring by the 2021-22 Fishing Season. Other comments stated electronic monitoring, as structured in the originally proposed regulations, represented unnecessary costs to the Fleet, and that CDFW Law Enforcement Division personnel should enforce any fishery restrictions using other available tools. Multiple comments suggested the ping rate of once-per-minute was too high, and that the 15-minute ping rate allowable for participation in federally managed West Coast fisheries should be used instead. Comments also specifically mentioned that electronic monitoring systems already in use by the commercial fleet, including Automatic Identification System (AIS) and Vessel Monitoring System (VMS), should be allowed. One comment suggested the proposed regulations adopt the electronic monitoring framework used by Pacific States Marine Fisheries Commission. One comment stated that the proposed regulations were unclear as to what constitutes an operational electronic monitoring system and requested CDFW clarify. One comment suggested CDFW obtain external funding in order to implement 100% electronic monitoring.

**Comment letters:** A2, C3-a, C18-c, C21-c, C26-c, C29-h, C35-iii, C36-ii, C39-s, C42-t, C42-u, C43-a, C43-d, C71-d, C73-b, C91-o

**Appendix 1.** Summary of Comments Received and General Responses to Comments –  
Section 132.8, Title 14 (RAMP)

**Response:** As described on pages 37-39 of the Amended ISOR and in response to comments on the originally proposed regulations, CDFW added subsection (g)(2)(B) which implements a mandatory 100% electronic monitoring requirement by the 2023-24 Fishing Season. As explained on page 38 of the Amended ISOR, the requirement in (g)(2)(B) expands the existing proposed requirement for electronic reporting in subsection (g)(2)(A) for depth constraint or other management action, and applies it to the rest of the fleet.

Electronic monitoring is a commonly used tool in many federally managed fisheries to track and monitor vessels, and CDFW is exploring its use in other state-managed fisheries. While electronic monitoring can result in higher costs for fishery participants than relying solely on traditional enforcement techniques and self-reporting logs, the increased enforceability and improved quality of fishing information justify any added costs.

As discussed on pages 38-39 of the Amended ISOR, the ping rate of once per minute in the proposed regulations was selected to adequately monitor vessel movement and trap setting operations. Because the commercial Dungeness crab fishery can set and retrieve traps more rapidly than federal groundfish trap fisheries, a more frequent ping rate is required to differentiate between a vessel transiting and trap setting. VMS and AIS systems currently in use by commercial Dungeness crab fishery participants would be allowed so long as those systems meet the requirements of subsection (g)(2). The required ping rate and ability for CDFW to access that information may prevent their use, however CDFW will continue to evaluate this capability with industry to see if it can meet requirements under subsection (g)(2). The proposed regulations require that any electronic monitoring system or device be operational in that it must be turned on, logging vessel movement and location, and transmitting data.

Providing a three-year period for implementation allows time for the Fleet to collaborate with private companies to ensure technology is developed in a cost-effective manner, as well as time for outside funding partners to engage and possibly help defray the costs to the Fleet for electronic monitoring systems. OPC is currently funding a pilot program on an electronic monitoring platform that can comply with the requirements. In addition, CDFW anticipates participation and coordination with other West Coast states, fishery participants, and other interested parties to discuss data access and technology improvements that could be made to meet the 2023-24 season implementation deadline.

**General Comment F3 – Confidentiality**

Multiple comments requested the proposed regulations clarify information collected under subsections (g)(1) and (2) would be treated as proprietary and confidential, and not be subject to public disclosure. One comment specifically suggested CDFW model this language on standards in the federal Magnuson-Stevens Fishery Conservation and Management Act.



**Appendix 1.** Summary of Comments Received and General Responses to Comments –  
Section 132.8, Title 14 (RAMP)

**Comment letters:** C35-hhh, C35-iii, C36-hh, C73-a

**Response:**

In response to public comment, CDFW added subsection (g)(4) to address requests that that information collected under this subsection be treated as confidential to the extent permitted by law. The language used mirrors confidentiality provisions under Section 8022 of the Fish and Game Code, and this is further discussed on page 39 of the Amended ISOR.

**GENERAL COMMENT G – ALIGNMENT WITH WORKING GROUP RECOMMENDATIONS**

Comments expressed concern regarding the potential for the Director to implement management measures which are contrary to a majority or consensus recommendation of the Working Group. Comments requested the proposed regulations require the Director provide an explanation when taking such actions to prevent marginalization of the Working Group, promote industry confidence, bolster retention of fishery participants in the Working Group, and ensure accountability. One comment requested any CDFW staff analysis, which would be provided to the Director, be shared with the Working Group in advance of their deliberations.

**Comment letters:** C35-fff, C36-gg, C39-l, C41-d, C94-c

**Response:**

As discussed on page 15 of the Amended ISOR, the Working Group remains an important advisory body to the Director when determining an appropriate management response when either Marine Life Concentrations or Confirmed Entanglements reach the triggers outlined in subsection (c). The recommendation of the Working Group regarding appropriate management response is listed under subsection (d) as one of the items the Director must consider prior to taking management action. Any assessment of entanglement risk and resulting management action will be supported by the best available science, and under subsection (f)(1) the Director is required to describe the relevant information that was evaluated to inform a management response, and the rationale for the chosen management response. This declaration is intended to provide that rationale and ensure transparent decision-making and accountability by the Director to affected stakeholders.

In response to public comment, CDFW modified subsection (b)(2) to require that CDFW provide all non-confidential data under consideration as a part of the 48-hours notice of an anticipated Risk Assessment, see pages 14-15 of the Amended ISOR.

**GENERAL COMMENT H – LIMIT SCOPE TO DISTINCT POPULATION SEGMENTS (DPS) LISTED UNDER THE FEDERAL ENDANGERED SPECIES ACT (ESA)**

Definition of Actionable Species should be amended to only include specific DPS of Humpback Whales as opposed to Humpback Whales generally. Furthermore, species or DPS would only be considered Actionable Species as long as they are listed under

**Appendix 1.** Summary of Comments Received and General Responses to Comments – Section 132.8, Title 14 (RAMP)

the federal ESA. Other sections of the proposed regulations should be specific to “listed” species or DPS. This will ensure the scope of the RAMP is automatically refined and provides flexibility of the proposed regulations to respond to any delisting.

**Comment letters:** C35-f, C35-g, C35-aa, C35-gg, C35-pp, C36-e, C41-b, C43-i

**Response:** Discussion of the definition of Actionable Species is found on pages 5-6 of the Amended ISOR. Because it is usually impossible to identify a Humpback Whale to a DPS in real time, and to ensure adequate protections are taken, CDFW evaluates impacts based on the most encompassing grouping (i.e., the definition of the stock under the Marine Mammal Protection Act (MMPA)). While photographic evidence and genetic sampling can provide opportunities to identify which DPS a given Humpback Whale belongs to, this information is generally not available in real time. Even after forensic review, it may not be possible to identify a Humpback Whale to its source DPS. Safety considerations for entanglement response personnel, as well as genetic sampling equipment availability, may prevent collection of the necessary samples. Additionally, only four individuals on the West Coast have the permits necessary to collect tissue samples allowing for genetic analysis. The high-quality photographs of flukes or dorsal fins necessary to compare to identification databases are difficult to acquire due to swimming behavior changes from entangled gear and/or poor photographic image quality.

Additionally, while one or both of the Humpback Whale DPS’ known to occur off the California coast may be delisted in the future, this development is not expected within the next several years. Any changes to listing status would likely occur in such a timeframe that CDFW could undertake a parallel rulemaking to modify RAMP as appropriate. However, given the difficulties discussed above, even if listing status changes, CDFW may still find it necessary to evaluate impacts based on the Humpback Whale stock generally.

Lastly, as part of its Strategic Plan for 2020-2025, the OPC adopted the goal to develop a statewide whale and sea turtle protection plan with a target of zero mortality. Since the zero-entanglement goal applies to all whales and sea turtles regardless of status under the ESA or MMPA, CDFW is applying a broader definition for Actionable Species in recognition of this statewide goal.

**GENERAL COMMENT I – MANAGEMENT ACTIONS WHEN TRIGGERS UNDER SUBSECTION (C) ARE REACHED**

**General Comment I1 – Flexibility when triggers in (c)(1) reached, alternative to statewide closure**

Under subsections (c)(1)(B)1.-3. and (c)(1)(C)1.-3., the wording should be changed to “may” to provide flexibility.

**Comment letters:** C25-a, C35-ii, C38-e, C43-e, C86-g

**Appendix 1.** Summary of Comments Received and General Responses to Comments – Section 132.8, Title 14 (RAMP)

**Response:** Both subsections use the word “shall” to require that, in response to either an entanglement during a Fishing Season or the Impact Score Calculation trigger being met in any calendar year, the Director shall implement a management response. This response may be a Fishing Zone closure, but can also be a different management action if the Director finds that another management action protects the relevant species based on best available science. This allows the Director to retain the flexibility to implement a tailored management approach incorporating all relevant information as described in subsection (d), including the recommendation from the Working Group. The effect of the “shall” is that the Director cannot choose to do nothing. The Confirmed Entanglement triggers are built with specific rationales in mind, namely that they represent when actual take has occurred (and thus progression towards any take limits in a future ITP) or that prevailing conditions might be conducive to entanglements. If best available science as considered in subsection (d) cannot support a different management response, a Fishing Zone closure ensures a protective action is taken.

The exception is when an Impact Score Calculation of three (3) is reached for Humpback Whale in one season, a fishery closure must be implemented. This is intended to prevent additional entanglements which could trigger a future closure based on the multi-year trigger (which could result in greater economic impact to the fishery). Additionally, reaching the Impact Score Calculation of three is an indication that risk reduction measures implemented following each Confirmed Entanglement are not working correctly, or there may be anomalous environmental conditions. A fishery closure is appropriate to ensure protective action is taken.

**General Comment I2 – Revise “minimum of a Fishing Zone closure”**

Under subsections (c)(1)(B)1.-3., (c)(2)(A)4.b. and (c)(2)(B)2.a.-c. should be revised to allow the Director to consider other management actions than the “minimum” response of a Fishing Zone closure.

**Comment letters:** C25-b, C35-ff, C36-o, C36-p, C36-v, C66-g

**Response:** In response to public comment received, references to “minimum” were subsequently removed from these subsections, see pages 20-21 and 25-28 of the Amended ISOR. The term “minimum of a Fishing Zone” was meant to indicate the geographic extent of any management action. CDFW may implement either a Fishing Zone closure or other management action that protects Humpback Whales, Blue Whales or Pacific Leatherback Sea Turtles based on the best available science. When triggers are reached in subsection (c), CDFW will review the management considerations in subsection (d) when selecting the appropriate response from the options identified in subsection (e).

**GENERAL COMMENT J – EXPEDITE REVIEW OF ENTANGLEMENTS**

CDFW and NMFS should expedite the review, evaluation, and scoring of entanglements both during and outside the Fishing Season. This will provide the Fleet with a clear

**Appendix 1.** Summary of Comments Received and General Responses to Comments –  
Section 132.8, Title 14 (RAMP)

understanding of the current Impact Score at the start of each fishing season, allow for timely reductions of assigned Impact Scores when warranted, and prevent unnecessary closures during the season.

**Comment letters:** C38-b, C40-g, C43-g

**Response:** In response to other comments received on the originally proposed regulations, CDFW amended subsection (a)(4) to more clearly define CDFW involvement in confirming entanglements to providing relevant fishery information to NOAA, see pages 6-7 of the Amended ISOR. CDFW will provide such information in a timely fashion to aid NOAA in conducting a timely assessment of each reported entanglement. However, the time required to confirm a reported entanglement and identify the gear involved will depend on the specific circumstances and available documentation for each entanglement. Particularly given the fact that responsibility for confirming an entanglement lies with another agency, the proposed regulations do not contain specific language as to the time period within which a reported entanglement shall be reviewed or evaluated.

Regarding scoring of Confirmed Entanglements, subsection (c)(1)(A) specifies the default Impact Score which shall be assigned to a given Confirmed Entanglement. Unique circumstances regarding Confirmed Entanglements where the animal was deceased prior to becoming entangled and entanglements involving gear from multiple fisheries are addressed in the amendments to subsection (a)(4). For Confirmed Entanglements which are assigned the default Impact Score, CDFW will modify the assigned Impact Score based on updated information from NOAA (see **General Response M**).

**GENERAL COMMENT K – BALANCE PROTECTION OF ACTIONABLE SPECIES WITH ECONOMIC IMPACTS TO THE FLEET**

Commenters either assert regulations should or do not appropriately balance economic considerations of the Fleet with protection and conservation of Actionable Species. One comment specifically references Sections 7056(i), 7056(j) and 8280(a) of the Fish and Game Code.

**Comment letters:** C4-c, C35-a, C36-c, C49-c, C89-c, C91-c

**Response:**

CDFW has a dual mandate to conserve wildlife resources for their intrinsic value and their use by the public. CDFW must therefore balance protective measures for marine life with allowing commercial fishing activity. CDFW recognizes the importance of the Dungeness crab fishery to the state as described by the Legislature in Section 8280(a) of the Fish and Game Code. The intent of CDFW is to allow for a thriving fishery while still providing adequate protection to Actionable Species, which is in the long-term interest of the communities dependent on the fishery. As a result, CDFW has designed the proposed regulations to minimize fishery impacts to Actionable Species while

**Appendix 1.** Summary of Comments Received and General Responses to Comments –  
Section 132.8, Title 14 (RAMP)

avoiding negative economic impacts to the industry as much as possible, as detailed in the STD 399 and addendum. Additionally, CDFW considers the proposed regulation will aid in reducing bycatch in the Dungeness crab fishery, another goal expressed by the Legislature in Section 7056(d) of the Fish and Game Code.

With regards to implementation of specific management actions under subsection (d)(4), the Director shall consider information related to economic impacts to the Fleet and fishing communities. When two management actions would equally protect Actionable Species, the Director can implement a less economically impactful option. However, economic impacts must be balanced with the overriding need to appropriately address entanglement risk to Actionable Species.

**GENERAL COMMENT L – IMPACT FROM SHIP STRIKES**

Comments note that the proposed regulations should consider impact on Actionable Species from ship strikes, which potentially create a larger impact than fisheries.

**Comment Letters:** C4-b, C35-d, C35-III

**Response:** This comment is outside the scope of this rulemaking, which regulates the commercial Dungeness crab fishery. However, CDFW supports efforts by other agencies to reduce ship strikes, including but not limited to NOAA's Office of National Marine Sanctuaries as well as the Ocean Protection Council.

**GENERAL COMMENT M – IMPACT SCORE CALCULATIONS**

In addition to comments regarding Confirmed Entanglements in Unknown Fishing Gear (see **General Comment C**), multiple comments raised a variety of issues related to calculation of Impact Scores as described in subsections (a)(9) and (c)(1)(A). Multiple comments requested clarification of how CDFW would adjust initially assigned Impact Scores following completion of the official NOAA serious injury and mortality determination process and some requested CDFW incorporate relevant documents by reference. One comment stated that assignment of Impact Scores should be a collaborative effort by CDFW and NOAA.

Some comments requested lower Impact Scores be assigned when Actionable Species are successfully disentangled or an entanglement is deemed to have resulted in no harm to the animal. Most of these comments requested an Impact Score of zero, while one requested an Impact Score of 0.5 specifically for Pacific Leatherback Sea Turtles when released alive and cited a NOAA assessment of mortality and serious injury for this species in the Hawaiian longline fishery. Comments also stated that under the MMPA, non-serious injuries do not count towards Potential Biological Removal (PBR) for the stock, and assignment of a lower Impact Score is appropriate for these interactions. Some comments specifically mentioned that this lower Impact Score should be incorporated as a default value, rather than being implemented through adjustments based on final NOAA determinations regarding serious injury and mortality.

**Appendix 1.** Summary of Comments Received and General Responses to Comments – Section 132.8, Title 14 (RAMP)

Some comments requested that Impact Scores for Confirmed Entanglements of Blue Whales in Commercial Dungeness Crab Gear be adjusted to a value lower than one, similar to the method used for Humpback Whales. One comment stated that prorating Confirmed Entanglements of Humpback Whales in commercial Dungeness Crab Gear (i.e. assigning an Impact Score of less than 1) is not precautionary, as it ignores unreported and unconfirmed entanglements and sublethal effects for successful disentanglements. This comment stated that an Impact Score of 1 should be assigned for Humpback Whales, similar to treatment of Blue Whales and Pacific Leatherback Sea Turtles.

Multiple comments stated that subsection (c)(1)(C)(1) should be amended to replace the specific Impact Score Calculation values with references to population estimates, Stock Assessment Reports, and/or PBR. Some comments requested additional justification for the Impact Score Calculation value of “exceeds 2” for Humpback Whales, either requesting a higher (e.g. 2.7) or lower (e.g. 1.67 or 2) value.

**Comment Letters:** C35-s, C35-cc, C35-dd, C35-jj, C36-i, C36-l, C36-m, C36-n, C40-f, C42-d, C66-i, C66-j, C89-e, C89-f, C89-g, C91-e, C91-m, C94-b

**Response:** In response to public comment, CDFW amended the originally proposed regulations to specifically incorporate by reference NMFS Policy Directive 02-238-01 in the definition of Impact Score Calculation in subsection (a)(9). As described on pages 12-13 of the Amended ISOR, this document outlines NOAA’s injury determination process, and states that CDFW will modify Impact Score Calculations under (c)(1)(A) according to NOAA’s final determination of serious injury or mortality. Some comments on the revised regulations request further clarification regarding whether and how CDFW will revise assigned Impact Scores following the NOAA process. The revised language in subsection (a)(9) prevents CDFW from modifying the Impact Score other than to reflect the final NOAA mortality and serious injury determination, and provides assurances that CDFW will make any adjustments to the Impact Score that are indicated by NOAA.

Regarding assignment of lower Impact Scores for disentanglements of Actionable Species, the amendments to subsection (a)(9) described above allow for assignment of a lower Impact Score if NOAA determines the entanglement resulted in a lower degree of impact than reflected in the originally assigned Impact Score (see page 12 of the Amended ISOR). However, the official injury determination process does not occur in real time. Therefore, subsection (c) of the proposed regulations specifies an initial Impact Score, which will inform management actions unless NOAA provides CDFW with updated information, which could occur at a later date. This supports a precautionary approach to assessing impacts on Actionable Species. CDFW does not support initial assignment of lower Impact Scores due to human intervention. As described on pages 6-7 of the Amended ISOR, NOAA has the appropriate expertise to assess the mortality and serious injury resulting from a given entanglement. CDFW will assign an Impact Score of 1 to Confirmed Entanglements of Actionable Species other than Humpback

**Appendix 1.** Summary of Comments Received and General Responses to Comments –  
Section 132.8, Title 14 (RAMP)

Whales. CDFW does not support assignment of lower Impact Scores to Confirmed Entanglements of Blue Whales or Pacific Leatherback Sea Turtles at this time given the lack of data specific to California to inform a lower Impact Score. The differential treatment of Humpback Whales is supported by a draft report provided by NMFS West Coast Region Protected Resources Division and is described on pages 19-20 of the Amended ISOR. As with other aspects of the proposed regulations, CDFW may amend the regulations, if appropriate, based on additional scientific work and refinement of the RAMP by the Working Group and other experts. Regarding entanglements which are undetected, see page 19 of the Amended ISOR. Regarding assessment of mortality and serious injury for Pacific Leatherback Sea Turtles, see pages 51-53 of the Amended ISOR.

Regarding the Impact Score Calculations which would require management action under subsection (c)(1)(C)1., CDFW considered and rejected use of triggers tied to PBR during the scoping period for these regulations, see pages 50-51 of the Amended ISOR. Establishing trigger values based on population assessments or Stock Assessment Reports is impractical for similar reasons. Furthermore, scoping conversations with NOAA indicate an issued ITP will likely include specific numerical values for allowable take. Setting triggers for management action indexed to PBR would create a disconnect between the anticipated analysis by NOAA and CDFW's regulatory program. Referencing PBR would also decrease clarity and specificity of the proposed regulations, since the regulated public would need to correctly identify current PBR and multiply by the specified percentage before being able to assess current take levels relative to triggers. Regarding establishing the Impact Score Calculation value either higher, lower, or at 2 for Humpback Whales, the value was selected based on the 10% of PBR threshold and scoping conversations with NOAA regarding potential negligible impact analyses which would be conducted under the MMPA as part of the ITP process, see pages 16-23 of the Amended ISOR. These scoping conversations were recently formalized in NMFS Procedure 02-204-02 (June 17, 2020), Criteria for Determining Negligible Impact under MMPA Section 101(a)(5)(E). Furthermore, scoping conversations with NOAA indicate that an issued ITP would likely include whole number take limits, and rounding up to the nearest whole number is appropriate.

**GENERAL COMMENT N – DISCRETION AND ADAPTIVE MANAGEMENT**

**General Comment N1 – Discretion when selecting management actions**

Comments express concern regarding the amount of discretion granted to the Director and the subjective manner in which discretion would be used within the proposed regulatory framework. Additional language should be added which provides clarity and certainty to interested parties, e.g. why certain management actions listed in subsection (e) would be selected.

**Comment Letters:** C35-b, C35-oo, C-40-h, C42-a, C42-o, C42-q, C42-r

**Response:**

**Appendix 1.** Summary of Comments Received and General Responses to Comments – Section 132.8, Title 14 (RAMP)

Earlier versions of the proposed RAMP regulations included specific management actions for each trigger. However, further scoping with the Working Group indicated that approach was too prescriptive, and wouldn't allow for the Working Group and Director to adequately consider the context when recommending the most appropriate management response. In some cases, this would lead to unnecessarily punitive measures for the Fleet and/or be insufficiently protective of Actionable Species. As noted in the Amended ISOR, CDFW therefore created the approach outlined in subsections (c) and (d), whereby the Director can consider a defined suite of additional information, including a management recommendation from the Working Group, and select from a defined set of management responses.

The proposed regulatory language is written to maintain some degree of adaptability to avoid unnecessary economic impacts on the fishery due to changing environmental conditions and changes in fishing effort. This is justified since risk tolerance, effectiveness of management action, and economic impacts change throughout the course of any given Fishing Season as well as between different Fishing Seasons. In addition, the timing and location of Actionable Species presence or an entanglement along with considerations described in subsection (d) will be important factors that the Director will need to evaluate when choosing an appropriate management action. Given the inherent uncertainty and interplay of these considerations for any given situation, it is not possible to predetermine an appropriate specific management response. Although a predetermined management response may provide clarity to the Fleet on what action they could expect under a given circumstance, it may not provide for an effective or correct management response in terms of actually responding to and reducing the entanglement risk or minimizing the economic impact on the Fleet. Flexibility in the choice of a management response is necessary to ensure the Director can consider all timely and relevant information in formulating the most appropriate management response.

**General Comment N2 – Evaluating management measure effectiveness, adaptive management principles**

Working Group should review all management measures enacted to evaluate their efficacy in decreasing further interactions/entanglements and their economic impact to the industry.

Subsection (d)(3) should specify how management measure effectiveness will be judged, and on what basis.

Regulations should include adaptive management concepts and principles, including a 3-year review period to determine effectiveness of the risk assessment process and whether numerical values in subsection (b) are still appropriate and in accordance with best available science.

**Comment Letters:** C29-i, C35-e, C35-ww, C35-mmm, C36-d, C39-a, C39-e, C39-f, C66-e, C71-e



**Appendix 1.** Summary of Comments Received and General Responses to Comments –  
Section 132.8, Title 14 (RAMP)

**Response:**

While post-implementation review by the Working Group is not explicitly included in the proposed regulations, subsection (d)(3) requires the Director to consider, and encourages the Working Group to discuss the effectiveness of the proposed management measure to minimize entanglement risk. Furthermore, subsection (d)(4) specifies economic impacts to the Fleet as a consideration for those measures which will equivalently reduce entanglement risk. The proposed regulations define the how the Working Group interacts with CDFW's RAMP process, but do not limit the ability of the Working Group to continue to address large whale entanglements in Dungeness crab fishing gear through other avenues. The Working Group's Charter further defines the broader goals of the Working Group, which includes working to find solutions to reduce entanglements and develop innovations for the commercial fishery.

Evaluating the RAMP program, including effectiveness of implemented management measures, is a responsibility of CDFW under a future ITP and an area where the Working Group will continue to provide valuable insight. CDFW anticipates management measure effectiveness would be assessed given time of year, progression of the Fishing Season, experience from implementation of similar management measures from prior seasons, and other factors. However, given the expressed interest of the Working Group and broader Fleet in this topic, CDFW has opted not to specify metrics in this rulemaking in order to allow for an adaptive approach.

The proposed regulatory language was drafted to comply with Administrative Procedures Act (APA) standards, including clarity. At the same time, the proposed regulations were designed to accommodate adaptive management to the extent possible. Adaptive measures include the suite of options that the Director must choose from, data sources used to inform the decision, including Working Group input to evaluate the appropriate management action. Numerical values will continue to be evaluated based on the best available science and CDFW can undertake additional rulemaking to adjust such elements as appropriate. For example, CDFW anticipates permits received under the MMPA will require a 3-year evaluation cycle as a part of that permitting process. Additionally, CDFW may update regulations, if appropriate, based on changes in stock status and associated negligible impact thresholds as documented in Stock Assessment Reports or similar documents routinely produced by NOAA. In the shorter term, and as described in the Amended ISOR, the Working Group and its Advisors have first-hand knowledge of fishery operations and access to the latest scientific information. Each time a RAMP threshold is triggered, the Working Group will have an opportunity to review existing information, evaluate ongoing management, and suggest appropriate management response to the CDFW Director.

**GENERAL COMMENT O – SPEED OF THE RULEMAKING PROCESS**

Multiple comments expressed frustration at the amount of time taken to implement additional protections for Actionable Species.

**Appendix 1.** Summary of Comments Received and General Responses to Comments –  
Section 132.8, Title 14 (RAMP)

**Comment Letters:** C49-a, C50-a, C52-a, C57-a

**Response:** CDFW only had the authority to develop and implement a program in January 1, 2019 with the passage of SB 1309. Since that time, CDFW, in consultation with the Working Group and other stakeholders, drafted and noticed these proposed regulations, adopted them in advance of the November 1, 2020 deadline mandated by statutes, and requested an effective date of November 1, 2020 to ensure implementation during the 2020-21 commercial Dungeness crab season.