

Staff Summary for December 11-12, 2024

6. Experimental Fishing Permit (EFP) Major Amendment Request**Today's Item**Information Action

Receive, consider, and potentially act on a major amendment request for EFP (Commission tracking ID #2022-03) approved to test pop-up gear in the California Dungeness crab and hagfish fisheries.

Summary of Previous/Future Actions

- Commission approved EFP application February 9, 2023
- Department informed the Commission about an EFP major amendment request November 29, 2023
- Commission approved EFP major amendment February 14-15, 2024
- Department informed the Commission about a second EFP major amendment request August 23, 2024
- Published a notice of EFP major amendment request September 20, 2024
- Department transmitted recommendation for the EFP major amendment request October 31, 2024
- Published notice of receipt of Department recommendation November 8, 2024
- **Today discuss and consider approving EFP major amendment request December 11-12, 2024**

Background

The Commission and Department jointly administer the EFP Program, authorized by the California Fisheries Innovation Act of 2018 (California Fish and Game Code Section 1022) and established through regulations adopted by the Commission (Section 91). The program provides opportunities for fishers and scientific partners to obtain limited, short-term exemptions from state fishing laws and regulations to test and deploy new management approaches or pursue fishery-related research. For additional information about the program, see the Department's EFP webpage at <https://wildlife.ca.gov/Conservation/Marine/EFP> and the Commission's EFP webpage at <https://fgc.ca.gov/EFP>.

On February 9, 2023, the Commission approved EFP application #2022-03 to test the use of Sub Sea Sonics pop-up gear systems in conjunction with the Longsoaker Fishing System Guardian line management system in the California Dungeness crab fishery.

Pursuant to subsection (k)(2) of Section 91, an EFP holder may request amendments to an approved EFP at any time during the term of the permit. Proposed amendments are categorized as administrative updates, minor amendments, or major amendments. The regulations authorize Department approval of the first two; however, major amendments are subject to the same Department review, public notice and comment, Commission action, and Department issuance procedures as a new application, pursuant to subsection (k)(2)(A)(3) of Section 91. Major amendments are modifications to an approved EFP that exceed the allowances placed on the permit concerning the amount and type of species that may be

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taken, the geographic location where fishing may occur, the amount or type of gear that can be used, or the number of vessels or persons that may conduct the authorized activities.

Notably, this is the EFP holder's second major amendment request the Commission is acting upon this year. At its February 2024 meeting, the Commission approved the Department's recommendation to approve the EFP's (Commission tracking ID #2022-03) first major amendment request for several changes to the terms and conditions and to add testing of pop-up gear in the hagfish fishery, with new special conditions.

EFP Amendment Request Overview

The EFP holder requests amendments to 13 EFP terms and conditions, summarized in Table 1.

Department Review and Recommendation

The Department conducted its technical review of the EFP holder's amendment request and transmitted its recommendation to the Commission on October 31, 2024, including proposed special conditions as specified on form DFW 1103 (exhibits 2 and 3). The Commission provided a notice of receipt of recommendation to interested parties on November 8, 2024, providing the required 30 days of public review prior to the Commission hearing.

Today's Meeting

Today, the Department will present an overview of the major amendment request and provide its recommendations and rationale for each of the requests, including proposed special conditions, for Commission consideration and potential approval (Exhibit 3). Table 1 identifies the EFP holder requested condition amendments, and Department recommendations.

Staff notes that the EFP holder has expressed concern that they did not have the opportunity to discuss Department recommendations and work through alternatives before the recommendations were formalized and submitted to the Commission. The EFP Program regulations do not include a pre-application consultation for major amendment requests, and statute requires review of the request in an "expeditious manner." The requirement can present challenges to engaging with EFP holders once a major amendment request has been submitted and prior to the Department submitting its recommendation.

Table 1: Requested amendments to EFP and Department recommendations

Condition Type	EFP Holder Request	Department Recommendation
# of Authorized Agents (Fishers) and Vessels	Increase from 20 to unlimited	Supports increasing up to 40
Per-Vessel Trap Limit	Increase from 150 traps to the vessel's permitted tier allotment	Supports increasing limit up to 175 timed/acoustic release units and traps per vessel per trip
Traps per Trawl String	Increase maximum from 10 to 50 traps	Supports increasing up to 20

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Condition Type	EFP Holder Request	Department Recommendation
Concurrent Commercial Fishing Activity	Allow concurrent fishing for sablefish, coonstripe shrimp, spot prawn, and Chinook and Coho salmon, on same trip as EFP fishing for Dungeness crab	Does not support: No concurrent commercial fishing activity
Trap Service Interval	Increase from 96 hours (4 days) to 216 hours (9 days) in both Dungeness crab and hagfish fisheries	Supports increase to 168 hours (7 days) and replacing the current weather exemption with a waiver process
Pre-EFP Fishing Notice Requirement	Remove the 24-hour notice requirement	Does not support; requires a 24-hour notice to Department
Commercial Fishing License and Trap Permit Requirement	Exempt permit holders, entity administrators, and support staff that are only involved in implementation, testing, and gear support	Supports request with modifications: to clarify operations where permitting requirements do or do not apply; require approval of support staff by Department
Harvest Reporting	Report harvest as pounds of crab instead of number of crabs	Supports request
Gear Description for Trawl String and Buoy Marking	Revise descriptions to: (1) allow “on-demand line handling sleds” to satisfy the requirement for “marking at least one terminal end of the trawl” and clarify the sled is not a fishing trap; and (2) amend buoy marking requirements to accommodate spherical buoys in both Dungeness and hagfish fisheries.	Supports revision of gear description
Gear Loss Reporting	Specify contingency plans to facilitate trap recovery in the event of unforeseen setbacks for EFP participants	Supports lost gear reporting procedure
Electronic Monitoring System (EMS) Compliance	Direct the Department to work with EMS providers to notify fishers if their EMS is not working and develop subsequent contingencies for fishers	Supports clarifying the protocol for EFP participants’ response to non-functioning EMS

Significant Public Comments

The Commission received four comments by the public comment deadline. Commenters include the EFP holder (Exhibit 5), the administrator for the EFP (Exhibit 6), a non-governmental organization (Exhibit 7), and an EFP participant (Exhibit 8). In general, the comments are unanimous in their requests that the Commission approve the major amendment conditions as proposed; they also note frustration at the lack of time and opportunity to discuss options with the Department prior to the Department sending its recommendations to the Commission. Commenters propose modifications to two of their requested conditions as an alternative to the Department’s recommendation:

1. For the service interval, retain the weather exemption; and
2. for the per-vessel trap limit, approve a tiered trap allocation structure to start at 160 traps for Tier 7 and increase by 20 traps per tier up to Tier 1.

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Recommendation

Commission staff: Approve the EFP major amendment request with proposed special conditions, as recommended by the Department.

Department: Approve Sub Sea Sonics EFP (Commission tracking ID #2022-03) major amendment request with proposed special conditions as specified on form DFW 1103.

Exhibits

1. [Major amendment request, transmitted to the Commission from the Department on August 23, 2024](#)
2. [Department recommendation memo, received October 31, 2024](#)
3. [Draft form DFW 1103, including standard terms and proposed amended special conditions for major amendment](#)
4. [Department presentation](#)
5. [Letter from Bart Chadwick, EFP holder, received December 1, 2024](#)
6. [Email from Dan Fugere, Bodega Bay fisher and potential EFP participant, received December 1, 2024](#)
7. [Letter from Francine Kershaw, Senior Scientist, Natural Resources Defense Council, received December 2, 2024](#)
8. [Letter from Kim Kirchberg-Sawicki, President, Sustainable Seas Technology, received December 2, 2024](#)

Motion

Moved by _____ and seconded by _____ that the Commission approves the major amendment request for the EFP (Commission tracking ID #2022-03) with special conditions as recommended by the Department.

OR

Moved by _____ and seconded by _____ that the Commission approves the major amendment request for the EFP (Commission tracking ID #2022-03) with special conditions as recommended by the Department, except as follows: _____.

Major Amendment to [REDACTED] – Requested Changes

Goals of the EFP and Major Amendment for 2025

- Provide an opportunity for additional participants to gain direct experience with the gear while the gear awaits authorization under RAMP 2.0
- Allow for testing at larger scale that is more commensurate with the range of gear configurations, amounts of gear, numbers of fishers, and enforcement conditions that would be expected under authorization with RAMP 2.0
- Address limitations and issues that were identified in the current EFP to improve the efficacy of the EFP for achieving the goal of authorization under RAMP 2.0
- Act as a stop gap for alternative gear authorization under RAMP 2.0 because the applicant has already far exceeded the EFP data collection requirements put forth by CDFW for authorization but RAMP 2.0 is not yet in place

Requested Changes to the Terms and Conditions

Standard Conditions

5. The EFP holder or authorized agent shall provide Department staff with 24-hour notice prior to every fishing trip. The contact information for Department staff will be provided for this purpose at the time of permit issuance.

Requested Change: Remove the requirement for 24-hour notice prior to every fishing trip.

Rationale: There is no statutory requirement for 24-hour notice prior to fishing. There is already adequate real-time reporting available through electronic virtual gear marking and vessel tracking systems. Additional requirement for a manual 24-hour notice is redundant, burdensome and unnecessary. As the technology transitions from a small scale EFP toward authorization, these types of conditions should be removed so that the system can be utilized under realistic conditions of both fishing and enforcement.

Special Conditions

Authorized Agents and Vessels

1. This EFP is valid for only the authorized agents and vessels named below. The Department may allow up to a maximum of 20 authorized agents and 20 vessels for this EFP, as it deems necessary for research purposes.

Requested Change: We request that this condition be removed and that access to the EFP be unlimited by the terms and conditions of the EFP.

Rationale: A fundamental roadblock to acceptance of the technology in the fleet is the view that only a few fishers are allowed to access and profit from the technology. While there are many fishers that are interested in the technology, many of them have stated that they would not participate due to this limiting condition. At the same time, the spring Dungeness crab fishery has always seen limited participation because many vessels switch over to other fisheries at that time. Thus, removing this condition would remove an impediment to acceptance of the gear while likely only increasing participation by a moderate level.

General

3. The authorized agent and any person who assists the authorized agent shall possess a valid commercial fishing license issued pursuant to FGC Sections 7850, 8280.1, and Section 125, Title 14 CCR, prior to engaging in any commercial fishing operations authorized by this permit.

4. The authorized agent and any person who assists the authorized agent shall possess a valid general trap permit issued pursuant to FGC Section 9001, prior to engaging in any fishing operations authorized by this permit.

Requested Change: Add language that clarifies that Permit Holders, Entity Administrators, and support staff that are only involved in the implementation, testing and support of the on-demand gear are exempt from these licensing and permit requirements.

Rationale: It is currently unclear under the permit if these conditions apply to those personnel that are on the vessels at times to conduct training, testing, and observations only associated with the function of the on-demand gear. This change would provide that clarification.

7. No other EFP or commercial fishing activities shall take place on the same trip as this EFP, unless specifically authorized by this EFP.

Requested Change: We request that commercial fishing activities for Sablefish (Black Cod, *Anoplopoma fimbria*), Coon Stripe Shrimp (*Pandalus danae*), Spot Prawn (*Pandalus platyceros*), and Salmon (Chinook; *Oncorhynchus tshawytscha*, and Coho; *O. kisutch*) be specifically authorized to take place on the same trip as Dungeness crab fishing under this EFP.

Rationale: There is no potential bycatch cross-over between these species and Dungeness crab. There is no statutory basis for limiting access to other fisheries during EFP trips. A key issue identified during our EFP to date is that in order to make spring fishing viable for many fishers, they need to combine their servicing trips for Dungeness crab with other fishing trips. This change is consistent with our goals of making the EFP more accessible and more realistic.

Authorized Species, Take and Landing Requirements

12. All electronic fish tickets must have the state EFP number recorded in the “State Permit #” field, the number of individual crabs recorded under the “# of Fish” field, species of crab specified in the “Notes,” and be transmitted within 24-hours.

Requested Change: We request that the pounds of crab be reported rather than the number of individual crabs.

Rationale: Weighing crabs during landings is a standard practice. Counting individual crabs is not a standard practice and is generally only estimated by assuming a standard weight per individual crab. The language as it stands creates a risk that a fisher could be cited for not manually counting every individual crab, or for making a mistake when doing so. There is no statutory or biological reason for requiring fishers to count the number of individual crabs.

Gear Allowances, Specifications and Marking Requirements – Dungeness Crab

26. A maximum of 150 traps per vessel may be possessed or deployed per trip at any time when taking or attempting to take crab. This limitation shall not apply to lost or abandoned gear recovered pursuant to Sections 132.2, Title 14, CCR.

Requested Change: We request that the maximum number of traps be increased to the fishers full tier stack of gear.

Rationale: There is no statutory basis for limiting the number of traps other than to the fishers full tier stack or due to entanglement risk. Given that the on-demand

systems fully remove the vertical lines from the water column, there is no entanglement risk basis for limiting the number of traps. Increasing the amount of gear to the tier limit is consistent with our goals of testing the gear under realistic conditions. It also creates a fairer situation in which fishers that have earned higher tiers of gear access are allowed to benefit from that and are not imposed the same trap limit as everyone else. This increase is particularly critical to participation of larger vessels that rely on fishing large amounts of gear in order to be economically viable. This was a key lesson from the testing during the spring of 2024.

27. All authorized agents must comply with the following requirements with respect to deployment of the authorized pop-up gear fishing systems.

1. When fishing single traps, each trap shall be marked by a single line and buoy.
2. When fishing a string of traps (“trawl”), no more than ten traps shall be deployed when attached to a single string and at least one of the terminal traps shall be marked with a single line and buoy.

Requested Change: We request that this language be clarified to accommodate the use of an on-demand line handling sled used at one end or a terminal trap (fitted with a line handling retrofit system). It should also be clarified that the sled does not count as a fishing trap.

Rationale: The current language is not fully consistent with the gear that is being tested and just needs to be clarified to avoid any uncertainties.

27. All authorized agents must comply with the following requirements with respect to deployment of the authorized pop-up gear fishing systems.

1. When fishing single traps, each trap shall be marked by a single line and buoy.
2. When fishing a string of traps (“trawl”), no more than ten traps shall be deployed when attached to a single string and at least one of the terminal traps shall be marked with a single line and buoy.

Requested Change: We request that the number of traps per string be increased to fifty.

Rationale: There is no statutory basis for limiting the number of traps per string. This request is consistent with our goals of making the EFP more realistic and increasing

access. We have consistently heard from fishers that ten traps per string is generally not sufficient for efficient fishing operations, especially for all but the smallest vessels. Crab traps are generally set in lines of many traps (up to 100s), even when set as singles. Increasing the number of traps per string to 50 is critical to allow testing at the scale that will be necessary for the operation to be economically viable under authorization. Increasing the number of traps per string also helps to make the economics of the on-demand systems more viable because fewer on-demand units are required.

27. All authorized agents must comply with the following requirements with respect to deployment of the authorized pop-up gear fishing systems.

1. When fishing single traps, each trap shall be marked by a single line and buoy.
2. When fishing a string of traps (“trawl”), no more than ten traps shall be deployed when attached to a single string and at least one of the terminal traps shall be marked with a single line and buoy.

Requested Change: A requirement should be added that groundlines with the exception of the groundline between the first trap and the sled (when sleds are used), or between the second trap and the terminal trap with the popup system (where retrofits are used) should be neutral or sinking line. The single groundline between the first trap and the sled (when sleds are used), or between the second trap and the terminal trap with the popup system (where retrofits are used) should be floating line in order to facilitate the grappling system as a backup.

Rationale: This requirement minimizes the potential for groundlines to form floating loops that could represent an entanglement risk, while also allowing for the most reliable approach to using grappling as a backup system.

31. Buoy markings shall comply with requirements specified in Section 180.5, Title 14, CCR. Every buoy attached to crab gear pursuant to this EFP shall be marked exclusively with the operator's commercial fishing license identification number followed by the Identification Letters “ES.”

- a. Buoys that are 4 inches in diameter or greater shall have Identification Letters marked on four opposing sides.
- b. Buoys that are smaller than 4 inches in diameter shall have Identification Letters marked on two opposing sides.

c. The commercial fishing license identification number shall be at least 1.5 inches in height and drawn with a line no less than 0.25 inch thick.

d. The Identification Letters “ES” shall be at least 3 inches in height and drawn with a line no less than 0.25 inch thick.

Requested Change: We request that these requirements be changed to accommodate the limited surface area space for lettering that is available on spherical buoys.

Rationale: There is no statutory requirement for these marking requirements. It appears that these marking requirements were developed based on the available surface area on traditional foam crab trap buoys that are cylindrical in shape and have adequate area to accommodate the requirements. However, spherical buoys that are required to sustain the underwater pressure levels of on-demand gear do not have adequate surface area to accommodate these requirements. This puts fishers at risk of being cited for a requirement that simply cannot be met. The department should develop specific requirements that are applicable to spherical buoys. We are happy to provide samples or guidance as needed.

33. Pursuant to FGC Section 9004, authorized agents shall service their traps at intervals not to exceed 96 hours, weather conditions at sea permitting, unless otherwise authorized in writing by the Department. Additionally, when using gear where a pre-programmed timer device serves as the primary release mechanism, authorized agents must service their traps within two hours of the selected release interval, weather conditions at sea permitting.

Requested Change: For purposes of the EFP, we request relief from compliance with FGC Section 9004 and that the servicing interval under the EFP be increased to 9 days (216 hours).

Rationale: To our knowledge, there is no biological basis for this requirement. In addition, under the use of on-demand gear, there is no entanglement risk basis for this requirement. In addition, a key aspect of an EFP for on-demand gear is that the use of the gear requires learning and may require more time to service or may have unanticipated issue that don't allow for servicing. Further, it is well established that weather conditions during the spring often preclude servicing at a 96 hour interval. While weather delay is allowed for under FGC Section 9004, the 96 hour limit nevertheless imposes a risk and a pressure to the fisher to service gear under conditions that may not be safe, or otherwise risk being investigated. The EFP offers

and opportunity to explore the relaxation of this servicing interval requirement to a period that is more commensurate with what is actually achievable under spring fishing conditions, and allows more flexibility to the fishers to adjust their soak times to what is most effective for fishing. This could help to establish a basis for a more flexible servicing interval to be adopted under authorization.

33. Pursuant to FGC Section 9004, authorized agents shall service their traps at intervals not to exceed 96 hours, weather conditions at sea permitting, unless otherwise authorized in writing by the Department. Additionally, when using gear where a pre-programmed timer device serves as the primary release mechanism, authorized agents must service their traps within two hours of the selected release interval, weather conditions at sea permitting.

Requested Change: We request that a specific process be put in place that allow for other delay rationales other than weather. Mechanical breakdowns, illness, malfunction of vessel monitoring system, malfunction of the on-demand vessel system or marking system, and other significant hardships or breakdowns can and do happen to fishers during EFP participation and should not be the basis for a complicated and undefined approval process that can subject the fishers to potential citations for incidents that are clearly not under their control or malicious in any way. The EFP should contain a clear contingency plan for the occurrence of these types of incidents. Lack of this contingency plan will severely impact participation in the EFP because no one wants to risk an infraction in an EFP that would potentially limit their ability to participate in the fishery or other fisheries in general.

Gear Allowances, Specifications and Marking Requirements – Hagfish

40. Authorized agents shall comply with buoy marking requirements as defined in Title 14, Section 180.6 (c) CCR. In addition, every buoy attached to hagfish gear pursuant to this EFP shall be marked exclusively with the operator's commercial fishing license identification number followed by the Identification Letters "EH" followed by."

- a. Buoys that are 4 inches in diameter or greater shall have Identification Letters marked on four opposing sides.
- b. Buoys that are smaller than 4 inches in diameter shall have Identification Letters.
- c. The commercial fishing license identification number shall be at least 1.5 inches in height and drawn with a line no less than 0.25 inch thick.

d. The Identification Letters “EH” shall be at least 3 inches in height and drawn with a line no less than 0.25 inch thick.

e. All Identification Numbers and Identification Letters on a buoy shall be clearly and distinctly marked, in a color that contrasts with the buoy, and the numbers and letters shall be applied and maintained so that they are visible and legible.

Requested Change: See requested change for special condition 31.

Rationale: See requested change for special condition 31.

42. Pursuant to FGC Section 9004, authorized agents shall service their traps at intervals not to exceed 96 hours, weather conditions at sea permitting, unless otherwise authorized in writing by the Department. Additionally, when using gear where a pre-programmed timer device serves as the primary release mechanism, authorized agents must service their traps within two hours of the selected release interval, weather conditions at sea permitting.

Requested Change: See requested change for special condition 33.

Rationale: See requested change for special condition 33.

Other Requirements

43. No testing or fishing for crab or hagfish may take place unless a functioning electronic monitoring system is installed and used as specified by the Department. The electronic monitoring system must be a satellite or cellular based system designed to monitor location and movement of vessels using global positioning system (GPS) coordinates. The electronic monitoring system must be capable of accurately tracking and recording vessel location at a frequency of no less than once a minute without interruption during the entire fishing trip when participating in fishing operations covered under this EFP, including transiting to and from fishing area. Vessel location data shall be uploaded automatically and made available to the Department or an authorized agent within 24 hours. Authorized agents shall grant the Department access to all data upon request.

Requested Change: The Department should work with the electronic monitoring system providers to implement a notification system (text and email) for individual fishers if a system failure has occurred and their electronic monitoring system is not functioning. In addition, there needs to be a specific contingency plan added to the

EFP as to what a fisher is to do regarding their gear servicing if their electronic monitoring system is not functioning.

Rationale: Fishers need a simple and efficient means to be notified if they cannot fish due to a malfunction of their electronic monitoring system. Existing vessel tracking systems generally only activate when the vessel has traveled a certain distance from their berthing location. Thus, the fisher has not way of verifying that the system is functioning without starting their trip. For example, during spring 2024, we had a system that showed it was functional on the dashboard, but was not actively downloading trip data. Furthermore, there is currently no process for a fisher to follow if there electronic monitoring system is not functioning. A malfunction of the electronic monitoring system is not currently allowed under the delay rationale for the gear servicing interval. There needs to be a specific and clear contingency plan for fishers to follow in the event of a malfunction of the electronic monitoring system.

44. 24 hours prior to commencing a fishing trip during which EFP activity is expected to be conducted, notice of vessel name, targeted fishery, anticipated fishing dates, port of departure, and expected landing port shall be made via email to the Department's Law Enforcement Division (LEDMarineNotifications@wildlife.ca.gov) and Marine Region (WhaleSafeFisheries@wildlife.ca.gov). Upon request from the Department, authorized agents shall coordinate with the Department and allow for inspections of the traps and associated gear prior to deployment or when gear is being serviced at sea.

Requested Change: See requested change for standard condition 5.

Rationale: See requested change for standard condition 5.

49. The permittee shall adhere to the gear recovery plan as described in the EFP application. The permittee will further document all lost gear, including traps, buoys and other equipment and submit annually to the Department. Failure to keep or submit required information may result in revocation or suspension (including non-renewal) of the permit.

Requested Change: We request clarification on this condition with respect to when and to whom any reporting of lost gear needs to be conducted.

Rationale: During the spring 2024 testing, we followed all of the gear recovery requirements described in the EFP application. However, prior to our ability to

complete these efforts and conduct our reporting of lost gear, we were questioned by Department personnel expressing surprise that they did not know about gear that was potentially lost. If the Department has requirements for the reporting of lost gear beyond what is stated in the EFP application, then these requirements should be clarified in the terms and conditions of the EFP.

Memorandum

Date: October 30, 2024

To: Melissa Miller-Henson
Executive Director
California Fish and Game Commission

From: Charlton H. Bonham
Director

Subject: **Transmittal of an Experimental Fishing Permit Major Amendment Recommendation for Pop-Up Systems Testing in the Experimental Fishery for Dungeness crab and Hagfish (David Chadwick/Sub Sea Sonics/EFP #2022-03)**

On July 23, 2024, David Chadwick of Sub Sea Sonics submitted a Major Amendment Request for Experimental Fishing Permit (EFP) #2022-03 (Attachment 1) which includes several revisions to expand the scope of approved fishing activities and revise or remove existing EFP Terms and Conditions. The California Department of Fish and Wildlife (Department) accepted the request for technical review on August 22, 2024, and recommends California Fish and Game Commission (Commission) approve the majority of the requested changes as further detailed in the Recommended EFP Terms and Conditions (DFW1103, Attachment 2) and supplemental environmental documentation (Attachments 3 and 4).

Next Steps

Pursuant to subsection 91(f), Title 14, California Code of Regulations, the Department requests the Commission provide public notice and schedule the requested amendment for consideration no sooner than 30 days after public notice is given. The draft Notice of Receipt of Recommendation includes a summary of the proposed project (Attachment 5). The Commission, at its discretion, may finalize this document for use to comply with the public notice requirement prescribed in subsection 91(e)(2), Title 14, California Code of Regulations.

If you have any questions on this item, please contact Dr. Craig Shuman, Marine Regional Manager, at (805) 568-1246 or by email at R7RegionalMgr@wildlife.ca.gov.

Attachments:

1. Major Amendment Request for EFP #2022-03 (confidential information omitted)
2. Recommended EFP Terms and Conditions (DFW 1103)
3. California Environmental Quality Act (CEQA) Overview Memo
4. Draft CEQA Notice of Exemption
5. Draft Notice of Receipt of Recommendation

ec: Chad Dibble, Deputy Director
Wildlife and Fisheries Division

Melissa Miller-Henson, Executive Director
Fish and Game Commission
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MARINE FISHERIES: EXPERIMENTAL FISHING PERMIT TERMS AND CONDITIONS

Experimental Fishing Permit No. [REDACTED] Revision Date:

MARINE FISHERIES: EXPERIMENTAL FISHING PERMIT TERMS AND CONDITIONS

Pursuant to California Fish and Game Code (FGC) Section 1022 and Section 91, Title 14, California Code of Regulations (CCR), the Experimental Fishing Permit (EFP) holder is authorized to conduct experimental fishing activities according to the requirements of the EFP approved by the Fish and Game Commission (Commission) and issued by the California Department of Fish and Wildlife (Department).

EFP Holder/Entity Administrator Name: David Bartholomew Chadwick ([REDACTED]; EFP Holder)

Kim Sawicki ([REDACTED]; Entity Administrator)

EFP Holder Address: [REDACTED]

Entity Administrator Address: [REDACTED]

Authorized Agent Name: See authorized agent list on Page 3

Authorized Agent Address: See authorized agent list on Page 3

Vessel Name and ID #: See authorized vessel list on Page 3

Description of authorized activity:

Testing and commercial use of the Sub Sea Sonics timed and acoustic-release pop-up gear unit systems in conjunction with the Longsoaker Fishing Systems and Guardian line management handling systems and in the California Dungeness crab fishery and in the California hagfish fishery. The experimental fishing activities may only be conducted under the following conditions:

STANDARD TERMS

These standard terms shall apply to all persons or vessels conducting activities under the EFP.

1. The permit shall be operated only on the vessels named on this form, if applicable. Either the EFP holder or the authorized agent must be aboard the vessel when activities are being conducted under this permit, and both are responsible and accountable for meeting the requirements and limits of this permit.
2. Pursuant to FGC Section 7857(d), the EFP holder or authorized agent shall have a valid copy of the Department issued EFP attached to a signed copy of this form in possession when activities are being conducted under this permit.
3. All persons conducting activities under an EFP must comply with all appropriate state and federal fishing laws and regulations, including but not limited to those relating to protected species, minimum size limits, and seasons or areas closed to fishing that are not otherwise exempted by the permit (see special conditions).



MARINE FISHERIES: EXPERIMENTAL FISHING PERMIT TERMS AND CONDITIONS

- 4. The EFP holder and authorized agent shall cooperate with the Department by allowing personnel designated by the Department to board the fishing vessel on any fishing trip (if applicable) or enter a place of business operated by the EFP holder or authorized agent under this permit, to retrieve, observe, or inspect any logbook, records, data, equipment, procedures, or catch throughout the duration of the permit.
- 5. The EFP holder or authorized agent shall provide Department staff with 24-hour notice prior to every fishing trip. The contact information for Department staff will be provided for this purpose at the time of permit issuance.

SPECIAL CONDITIONS

As set forth in subsection 91(i), Title 14, CCR, special conditions may be placed on this permit for research purposes and the conservation and management of marine resources and the environment (see following page).

As set forth in subsection 91(k), Title 14, CCR, special conditions may be amended or repealed as necessary for research purposes and the conservation and management of marine resources and the environment.

As set forth in subsection 91(j), Title 14, CCR, it is unlawful to operate under an EFP in violation of the permit standard terms and special conditions as set forth on form DFW 1103.

RECEIPT AND ACKNOWLEDGEMENT

The permit is not valid until the EFP holder has certified by their signature below that they have: 1) read and understand the standard terms and special conditions of the permit; 2) unless otherwise specified in special conditions, paid the appropriate fees specified in Section 704, Title 14, CCR; and 3) returned a signed copy of this form to the Department.

I have read, understand and agree to abide by all standard terms and special conditions of this permit.

EFP Holder Signature _____ Date: _____

Received by License and Revenue Branch (LRB)

Fee \$ _____ Experimental Fishing Permit No. [REDACTED]

Revision Date _____

LRB Signature _____ Date: _____



Experimental Fishing Permit No. [REDACTED]

Revision Date:

Authorization and Special Conditions

List of approved special conditions, names and addresses of any additional authorized agents, and/or names and identification number of any additional authorized vessels.

Authorized Agents and Vessels

1. This EFP is valid for only the authorized agents and vessels named below. The Department may allow up to a maximum of ~~20~~ 40 authorized agents and ~~20~~ 40 vessels for this EFP, as it deems necessary for research purposes.

a. Authorized Agent Name and Address

1. Stephen F. Melz ([REDACTED]) - Owner/Operator F/V Jacqueline Dungeness and Rock Crab
[REDACTED]
2. Brand D. Little ([REDACTED]) - Owner/Operator F/V Pale Horse Dungeness and Rock Crab
[REDACTED]
3. Matthew A. Juanes ([REDACTED]) - Owner/Operator F/V Plumeria Dungeness and Rock Crab
[REDACTED]
4. Kevin R. Mellegers ([REDACTED]) - Owner/Operator F/V Areona Dungeness and Rock Crab
[REDACTED]
5. Justin Monckton ([REDACTED]) – Owner/Operator F/V Ava Mae Hagfish, Dungeness, and Rock Crab
[REDACTED]
6. Robert Monckton ([REDACTED]) – Owner/Operator F/V Judy Kay Hagfish, Dungeness, and Rock Crab
[REDACTED]
7. Gregg Tanji ([REDACTED]) – Owner/Operator F/V Sandy B Dungeness and Rock Crab
[REDACTED]
8. Mike Cohen ([REDACTED]) – Owner/Operator F/V Eagle Dungeness and Rock Crab
[REDACTED]
9. Frank Cunningham ([REDACTED]) – Owner/Operator F/V Carly Diane Dungeness and Rock Crab
[REDACTED]



10. Scott Edson ([REDACTED]) – Owner/Operator F/V Genesis
Dungeness and Rock Crab
[REDACTED]
11. Barry Day ([REDACTED]) – Owner/Operator F/V Rosella
Dungeness and Rock Crab
[REDACTED]
12. Dan Fugere ([REDACTED]) – Owner/Operator F/V Pamela Sue
Dungeness Crab and Rock Crab
[REDACTED]
13. Patrick Davis ([REDACTED]) – CEO F/V/ Susan T. Inc., F/V Cynthia
Dungeness Crab and Rock Crab
[REDACTED]
14. Jacob Emerling ([REDACTED]) – Owner/Operator F/V Sara Brent
Dungeness Crab and Rock Crab
[REDACTED]
15. John Eoin Davis ([REDACTED]) – Operator F/V Miss Jessie
Dungeness Crab and Rock Crab
[REDACTED]
16. Allen Wayne Stevenson ([REDACTED]) – Operator F/V Helen Ruth and F/V
Rosella
Dungeness Crab and Rock Crab
[REDACTED]

b. Authorized Project Vessel

1. F/V Jacqueline ([REDACTED])
2. F/V Pale Horse ([REDACTED])
3. F/V Plumeria ([REDACTED])
4. F/V Areona ([REDACTED])
5. F/V Ava Mae ([REDACTED])
6. F/V Judy Kay ([REDACTED])
7. F/V Sandy B ([REDACTED])
8. F/V Eagle ([REDACTED])
9. F/V Carley Diane ([REDACTED])
10. F/V Genesis ([REDACTED])
11. F/V Rosella ([REDACTED])
12. F/V Pamela Sue ([REDACTED])
13. F/V Cynthia ([REDACTED])



14. F/V Sara Brent ([REDACTED])

15. F/V Miss Jessie ([REDACTED])

16. F/V Helen Ruth ([REDACTED])

- 2. All parties (as specified in 1, above) operating under the authority of this permit must be informed of and agree to abide by all standard terms and special conditions of this permit.

General

- 3. The authorized agent and any person who assists the authorized agent in the operation of the fishing vessel, handling and recovery of commercial fishing gear, and processing of catch and bycatch shall possess a valid commercial fishing license issued pursuant to FGC Sections 7850, 8280.1, and Section 125, Title 14 CCR, prior to engaging in any commercial fishing operations authorized by this permit. This limitation does not apply to Department-approved support staff for this EFP. While aboard vessels conducting EFP activities, support staff may handle lines (associated with the EFP gear) and pop-up fishing systems (including acoustic transducers and deck units) without a commercial fishing license. Approved support staff are listed below and must possess a valid photo ID while on board. Requests for additional support staff will be considered a minor amendment to this EFP.
 - i. _____
 - ii. _____

- 4. The authorized agent and any person who assists the authorized agent in the operation of the fishing vessel, handling and recovery of commercial fishing gear, and processing of catch and bycatch shall possess a valid general trap permit issued pursuant to FGC Section 9001, prior to engaging in any fishing operations authorized by this permit. This limitation does not apply to Department-approved support staff for this EFP. While aboard vessels conducting EFP activities, support staff may handle lines (associated with the EFP gear) and pop-up fishing systems (including acoustic transducers and deck units) without a general trap permit. Approved support staff are listed below and must possess a valid photo ID while on board. Requests for additional support staff will be considered a minor amendment to this EFP.
 - i. _____
 - ii. _____

- 5. The authorized agent shall possess a valid commercial boat registration issued pursuant to FGC Section 7881, for the vessel named above and display the Department Boat Registration numbers in plain sight on each side of the vessel pursuant to FGC Section 7880.

- 6. All authorized agents shall only participate in one EFP per fishing trip when participating in multiple EFPs.

- 7. No other EFP or commercial fishing activities shall take place on the same trip as this EFP, unless specifically authorized by this EFP.



8. Authorized agents shall not deploy or be in possession of hagfish and crab traps on the same vessel during the same trip. Authorized agents also shall not possess or land loads or lots of hagfish and crab together at any time.

Authorized Species, Take and Landing Requirements

Dungeness Crab

9. Authorized agents may retain, possess, and land Dungeness crab when the commercial season is open in that Fishing Zone. Pursuant to FGC Section 8278, only male Dungeness crabs may be taken. No Dungeness crab less than 6 and one-quarter inches in breadth may be taken. Except that not more than one percent in number of any load or lot of Dungeness crab may be less than six and one quarter inches in breadth but not less than five and three quarters inches in breadth. Dungeness crab shall be measured by the shortest distances through the body from the edge of shell to edge of shell directly from front of points, lateral spines.
10. All incidental catch will be returned to the waters immediately to reduce mortality.
11. Authorized agents may fish for Dungeness crab and rock crab within the same trip if the authorized agent holds valid permits for those species. Unless specifically exempted by this EFP, adherence to all other regulations regarding the take of these species is required.
12. All electronic fish tickets must have the state EFP number recorded in the "State Permit #" field, the number of individual crabs recorded under the "# of Fish" field the number of pounds landed recorded, species of crab specified in the "Notes," and be transmitted within 24-hours.
13. All authorized agents shall notify the Department's Law Enforcement Division (LEDMarineNotifications@wildlife.ca.gov) of any landings of Dungeness crab made with EFP fishing gear during a fishery closure due to RAMP. The notification shall include the date, port of landing, number of pounds landed, electronic fish ticket number, and the full name of the receiver.

Hagfish

14. All electronic fish tickets must have the state EFP number recorded in the "State Permit #" field, the number of pounds landed recorded, the price specified, and be transmitted within 24-hours.
15. All authorized agents shall notify the Department's Law Enforcement Division (LEDMarineNotifications@wildlife.ca.gov) of any landings of hagfish made with EFP



fishing gear within 24 hours. The notification shall include the date and the fish ticket number.

Allowable Fishing Area and Time of Year

Dungeness Crab

16. Fishing activities shall only occur between the California/Oregon border (42° N. latitude) and Point Conception (34° 27' N. latitude) and no traps or gear shall be placed in the water or used seaward of the 100 fathoms line as defined in the Federal regulations and published in Title 50, Code of Federal Regulations Part 660.
17. Dungeness crab may only be taken, possessed, or landed during statutory season and is subject to domoic acid and quality take restrictions pursuant to in FGC Section 5523, 8276, Section 8276.1(d) and 8276.2. This permit exempts the agent from an early season closure pursuant to Section 132.8, Title 14 CCR, however, take, possession, and landing are prohibited when a season is delayed pursuant to Section 132.8, Title 14 CCR. For any waters closed early pursuant to 132.8, all non EFP Dungeness crab traps belonging to any EFP participant or applicant that has not been converted to EFP Dungeness crab traps, shall be removed from those closed waters by the effective dates as described in the Director's Declaration.
18. Authorized agents are subject to the requirement to remove all Dungeness crab traps from state waters by 11:59 pm on the last day of the fishing season, as defined in FGC Section 8276(d).
19. Fishing operations shall abide by all applicable Essential Fish Habitat closures for bottom contact gear as described in Federal Regulations (Title 50, Part 660, Subpart F).
20. Fishing activities shall not occur in any state Marine Protected Areas pursuant to Section 632, Title 14, CCR.

Hagfish

21. The authorized agents must suspend fishing operations or move fishing gear when directed by the Department in response to circumstances including elevated entanglement risk or in the event of an entanglement report in the fishing or testing location. The Department will provide notice by contacting each authorized agent via the phone and/or email address provided on the EFP application.
22. Fishing operations shall abide by all applicable Essential Fish Habitat closures for bottom contact gear as described in Federal Regulations (Title 50, Part 660, Subpart F).
23. Fishing activities shall not occur in any state Marine Protected Areas pursuant to Section 632, Title 14, CCR.



Gear Allowances, Specifications and Marking Requirements

Dungeness Crab

24. Authorized agents shall not affix buoy tags specified in subsection 132.1(b), Title 14, CCR and FGC Section 8276.5 to gear deployed under this EFP. Deployed gear shall include a trap tag as defined in subsection 132.1(a), Title 14, CCR.
25. A maximum of ~~450~~ 175 units of timed- and acoustic-release pop-up gear per vessel may be possessed or deployed per trip at any time when taking or attempting to take crab.
26. A maximum of ~~450~~ 175 traps per vessel may be possessed or deployed per trip at any time when taking or attempting to take crab. This limitation shall not apply to lost or abandoned gear recovered pursuant to Sections 132.2, Title 14, CCR.
27. All authorized agents must comply with the following requirements with respect to deployment of the authorized pop-up gear fishing systems (i.e., line handling sled or trap retrofit).
 1. When fishing single traps, an authorized pop-up fishing system consisting of a containment unit, single line, and at most two buoys (a main buoy and optional trailer buoy) shall be connected to each trap shall be marked by a single line and buoy.
 2. When fishing a string of traps (“trawl”), no more than ~~ten~~ 20 traps shall be deployed when attached to a single string and at least one of the terminal traps shall be marked with a single line and buoy. connected by a common groundline. An authorized pop-up fishing system consisting of a containment unit, single line, and at most two buoys (a main buoy and optional trailer buoy) shall be connected to at least one terminal end of each trawl. For purposes of determining trawl length, authorized pop-up fishing systems are not considered fishing traps.
28. All traps must comply with the requirements specified in FGC Section 9011 for Dungeness crab or rock crab. All traps used or deployed must have at least one destruct device pursuant to FGC Section 9003.
29. The permittee shall provide the Department access to the gear marking web-based application (Trap Timer app) and the Ropeless Regulatory Web Portal, as identified in the EFP application for data sharing and enforcement purposes.
30. For the interval between gear deployment and activation of the pop-up mechanism, authorized agents shall be exempted from the requirements to mark each trap with a buoy as defined pursuant to FGC Section 9005 and Sections 132.6(a) and 180.5, Title 14, CCR. Following release of the pop-up mechanism as identified in the EFP application, the location of each trap shall be indicated by the presence of one or more buoys at the surface, as specified in conditions 32 and 33.
31. Buoy markings shall comply with requirements specified in Section 180.5, Title 14, CCR. Every buoy attached to crab gear pursuant to this EFP shall be marked



exclusively with the operator's commercial fishing license identification number followed by the Identification Letters "ES."

- a. Buoys that are 4 inches in diameter or greater shall have Identification Letters marked on four opposing sides.
- b. Buoys that are smaller than 4 inches in diameter shall have Identification Letters marked on two opposing sides.
- c. The commercial fishing license identification number shall be at least 1.5 inches in height and drawn with a line no less than 0.25 inch thick.
- d. The Identification Letters "ES" shall be at least 3 inches in height and drawn with a line no less than 0.25 inch thick.
- e. All Identification Numbers and Identification Letters on a buoy shall be clearly and distinctly marked, and in a color that contrasts with the buoy: the numbers and letters shall be applied and maintained so that they are visible and legible.

32. Buoy Line Marking Requirements. The authorized agents will test and report on the efficacy and durability of marking lines when requested by the Department.

33. Traps fished under the authority of this EFP are exempted from the 96-hour trap service interval specified in FCG Section 9004. Pursuant to FGC Section 9004, authorized agents Permittees shall service (i.e., raise, clean, ensure mechanisms are properly functioning, and empty) their traps at intervals not to exceed 168 96 hours, weather conditions at sea permitting, unless otherwise authorized in writing by the Department. Additionally, when using gear with timed-release devices, permittees where a pre-programmed timer device serves as the primary release mechanism, authorized agents must service their traps within two hours of the selected release interval, weather conditions at sea permitting.

Hagfish

34. This permit exempts the agents from prohibition of pop-up gear as specified in Title 14, Section 180.6 (b) CCR.

35. For the interval between gear deployment and activation of the pop-up mechanism, authorized agents shall be exempted from the requirements to mark each trap with a buoy as defined pursuant to FGC Section 9005 and Sections 132.6(a) and 180.5, Title 14, CCR. Following release of the pop-up mechanism as identified in the EFP application, the location of each trap shall be indicated by the presence of one or more buoys at the surface, as specified in conditions 32 and 33.

36. As specified in Title 14, Section 180.6 (b) CCR no more than a total of 25-barrel traps per vessel may be possessed or deployed per trip. Each barrel trap shall be no greater than 45 inches in total length and have an outside diameter no greater than 25 inches at its widest point. Barrels may be attached to a maximum of three ground lines. If using barrel traps, no other hagfish trap type may be used or possessed aboard the vessel. When barrel traps are used or possessed aboard a vessel, no species of finfish other than hagfish shall be taken, possessed, or sold. All openings in traps used to take hagfish, excluding the entrance funnel, shall have a minimum diameter of 9/16 inch in



any dimension.

37. All authorized agents must comply with the following requirements with respect to deployment of the authorized pop-up gear fishing systems.
- When fishing barrel traps, a maximum of up to three ground lines may be utilized.
 - The ends of the string will be marked with:
 - the pop-up gear fishing system on one end and a single line and buoy on the other.
 - or a pop-up gear fishing system on both ends.
38. All traps used or deployed must have at least one destruct device pursuant to FGC Section 9003.
39. The permittee shall provide the Department access to the gear marking web-based application (Trap Timer app) and the Ropeless Regulatory Web Portal, as identified in the EFP application for data sharing and enforcement purposes.
40. Authorized agents shall comply with buoy marking requirements as defined in Title 14, Section 180.6 (c) CCR. In addition, every buoy attached to hagfish gear pursuant to this EFP shall be marked exclusively with the operator's commercial fishing license identification number followed by the Identification Letters "EH".
- Buoys that are 4 inches in diameter or greater shall have Identification Letters marked on four opposing sides.
 - Buoys that are smaller than 4 inches in diameter shall have Identification Letters.
 - The commercial fishing license identification number shall be at least 1.5 inches in height and drawn with a line no less than 0.25 inch thick.
 - The Identification Letters "EH" shall be at least 3 inches in height and drawn with a line no less than 0.25 inch thick.
 - All Identification Numbers and Identification Letters on a buoy shall be clearly and distinctly marked, in a color that contrasts with the buoy, and the numbers and letters shall be applied and maintained so that they are visible and legible.
41. Buoy Line Marking Requirements. The authorized agents will test and report on the efficacy and durability of marking lines when requested by the Department.
42. Traps fished under the authority of this EFP are exempted from the 96-hour trap service interval specified in FCG Section 9004. Pursuant to FCG Section 9004, authorized agents Permittees shall service (i.e., raise, clean, ensure mechanisms are properly functioning, and empty) their traps at intervals not to exceed 168 96 hours, weather conditions at sea permitting, unless otherwise authorized in writing by the Department. Additionally, when using gear with timed-release devices, permittees where a pre-programmed timer device serves as the primary release mechanism, authorized agents must service their traps within two hours of the selected release interval, weather conditions at sea permitting.

Other Requirements



43. No testing or fishing for crab or hagfish may take place unless a functioning electronic monitoring system is installed and used as specified by the Department. The electronic monitoring system must be a satellite or cellular based system designed to monitor location and movement of vessels using global positioning system (GPS) coordinates. The electronic monitoring system must be capable of accurately tracking and recording vessel location at a frequency of no less than once a minute without interruption during the entire fishing trip when participating in fishing operations covered under this EFP, including transiting to and from fishing area. Every authorized agent shall ensure that their system is functioning normally and transmitting location data at all times when conducting activities under this EFP. Whenever regular data transmission is interrupted, or the authorized agent is notified by the Department that data are not being received, the vessel shall return to port immediately until regular data transmission resumes. The authorized agent shall also immediately notify the Department's Law Enforcement division of the interruption at LEDMarineNotifications@wildlife.ca.gov and may request an extension of the trap service intervals specified in conditions 33 or 42. Vessel location data shall be uploaded automatically and made available to the Department or an authorized agent within 24 hours. Authorized agents shall grant the Department access to all data upon request.
44. 24 hours prior to commencing a fishing trip during which EFP activity is expected to be conducted, notice of vessel name, targeted fishery, anticipated fishing dates, port of departure, and expected landing port shall be made via email to the Department's Law Enforcement Division (LEDMarineNotifications@wildlife.ca.gov) and Marine Region (WhaleSafeFisheries@wildlife.ca.gov). Upon request from the Department, authorized agents shall coordinate with the Department and allow for inspections of the traps and associated gear prior to deployment or when gear is being serviced at sea.
45. Authorized agents shall follow the best practices for avoiding whale entanglement described in the attached guide. This includes fishing gear and incident reporting requirements.
46. The permittee shall provide training to Department personnel on any aspect of the permitted project on request.
47. The permittee shall comply with data reporting requirements, including those for lost gear, as described in Attachment A. Reports shall be submitted via email to the Department's Law Enforcement Division (LEDMarineNotifications@wildlife.ca.gov), Marine Region (WhaleSafeFisheries@wildlife.ca.gov), and EFP Program (EFP@wildlife.ca.gov).
48. The vessel shall be capable of safely carrying an observer when requested by the Department and provide that observer with accommodations equivalent to those provided to the captain and crew for both single and multi-day trips if multi-day trips are conducted. The observer shall be permitted to collect additional opportunistic biological data.



- ~~49. The permittee shall adhere to the gear recovery plan as described in the EFP application. The permittee will further document all lost gear, including traps, buoys and other equipment and submit annually to the Department. Failure to keep or submit required information may result in revocation or suspension (including non-renewal) of the permit.~~
49. Unless otherwise specified by the Department, the permittee shall submit reports pursuant to subsection 91(l), Title 14, CCR to the EFP Coordinator (EFP@wildlife.ca.gov) no later than 60 days after the permit expiration date.



Attachment A: Data Reporting Requirements

Dungeness Crab

1. **Deployment Data.** Permittee or authorized agent shall provide to the Department as soon as practical, but no more than 12 hours after deployment, the following data for each crab trap deployed:
 - a. The latitude and longitude of each trap, given to the highest precision allowed by onboard instrumentation (“location”). If multiple traps are deployed on a single line (“trawl”), the number of traps in the trawl, and the location of the first and last traps of the trawl.
 - b. The name and vessel ID of the vessel the trap was deployed from.
 - c. The experimental fishing permit number the trap is deployed under.
 - d. The time and date of deployment.
 - e. The time and date of the release mechanism is programmed to allow the marker buoy to surface.
2. **Recovery Data.** Permittee or authorized agent shall provide to the Department as soon as practical, but no more than 12 hours after recovery or attempted recovery, the following data for each crab trap deployed:
 - a. The time and date of recovery.
 - b. The location the gear was recovered.
 - c. The distance between the location where the gear was deployed and recovered.
 - d. The time elapsed between the programmed release time and recovery.
 - e. The location of any unrecovered traps.
3. **Gear Location Marking.** The permittee or authorized agent shall make fishing locations publicly available to other fishers and the public subject to direction of the Department. Communication of fishing location may include notification to local harbor districts and to the Department’s web pages, and/or other publicly accessible web pages. Via the Trap Timer gear marking app the permittee or authorized agent shall make available the following information for the purpose of avoiding gear conflict:
 - a. The location of deployed traps.
 - b. The location of the first and last traps in a trawl, as well as an indication that they are part of a trawl.
4. **Lost Gear Information.** Unrecoverable gear shall be reported via email to the Department as soon as possible, but not more than 12 hours after initial attempted recovery. This report shall contain:
 - a. The location of each trap. If multiple traps are deployed on a single line (“trawl”) the number of traps in the trawl, and the location of the first and last traps of the trawl.
 - b. The name and vessel ID of the vessel the trap was deployed from.
 - c. The experimental fishing permit number the trap is deployed under.
 - d. The time and date the gear was last serviced.
 - e. Summary of attempted recovery efforts.
 - f. Reason for loss (if known).



5. In addition to the requirements of subsection 91(l), Title 14, CCR, annual and final reports shall include:
 - a. A table or other database containing deployment and recovery data (requirements 1 and 2 of this attachment) for each trip conducted under the authority of this permit.
 - b. A summary of landing data including the number of each crab species landed at each port by each vessel.
 - c. The number of trips conducted by each vessel participating in the EFP, the total number of trap deployments, and the number of unsuccessful recoveries.
 - d. A summary of the efforts taken to recover lost gear, and the outcome of those efforts.

Hagfish

1. Deployment Data. Permittee or authorized agent shall provide to the Department as soon as practical, but no more than 12 hours after deployment, the following data for each fish trap deployed:
 - a. The latitude and longitude of the first and last traps, the number of barrel traps in each string, given to the highest precision allowed by onboard instrumentation (“location”).
 - b. The name and vessel ID of the vessel the trap was deployed from.
 - c. The experimental fishing permit number the trap is deployed under.
 - d. The time and date of deployment.
 - e. The time and date of the release mechanism is programmed to allow the marker buoy to surface.
2. Recovery Data. Permittee or authorized agent shall provide to the Department as soon as practical, but no more than 12 hours after recovery or attempted recovery, the following data for each string deployed:
 - a. The time and date of recovery.
 - b. The location the gear was recovered.
 - c. The distance between the location where the gear was deployed and recovered.
 - d. The time elapsed between the programmed release time and recovery.
 - e. Any gear deployment failures.
 - f. The location of any unrecovered traps.
3. Gear Location Marking. The permittee or authorized agent shall make fishing locations publicly available to other fishers and the public subject to direction of the Department. Communication of fishing location may include notification to local harbor districts and to the Department’s web pages, and/or other publicly accessible web pages. Via the Trap Timer gear marking app, the permittee or authorized agent shall make available the following information for the purpose of avoiding gear conflict:
 - a. The location of deployed traps.
 - b. The location of the first and last barrel traps in the string.



4. Lost Gear Information. Unrecovered gear shall be reported via email to the Department as soon as possible, but not more than 12 hours after initial attempted recovery. This report shall contain:
 - a. The number of traps in the multi-trap trawl, and the location of the trawl's first and last traps.
 - b. The name and vessel ID of the vessel the trap was deployed from.
 - c. The experimental fishing permit number the trap is deployed under.
 - d. The time and date the gear was last serviced.
 - e. Summary of attempted recovery efforts.
 - f. Reason for loss (if known).

5. In addition to the requirements of subsection 91(l), Title 14, CCR, annual and final reports shall include:
 - a. A table or other database containing deployment and recovery data (requirements 1 and 2 of this attachment) for each trip conducted under the authority of this permit.
 - b. A summary of landing data including the pounds of hagfish landed at each port by each vessel.
 - c. The number of trips conducted by each vessel participating in the EFP, the total number of string deployments, any deployment failures, and the number of unsuccessful recoveries.
 - d. A summary of the efforts taken to recover lost gear, and the outcome of those efforts.



Sub Sea Sonics Experimental Fishing Permit (EFP) Major Amendment

December 11, 2024

Presented to:

California Fish and Game Commission

Presented by:

Ryan Bartling
Senior ES Supervisor
Marine Region



Outline

- Overview of EFP
- EFP amendment requests
- Proposed Terms and Conditions
- CDFW recommendation



Overview of Sub Sea Sonics EFP

- CA/OR border to Pt Conception
- Uses strings of traps (pots)
 - Pop-up - Acoustic or timed
- Fisheries – Dungeness & Hagfish
- Currently allowed:
 - 20 fishers
 - 150 crab traps / 25 hagfish barrels
 - 10 traps per string crab/ 3 hagfish strings



Figure 1: Mid-water sled



Figure 2: Acoustic Pop-up unit AR4RT

Crab Pop-Up Gear Configuration

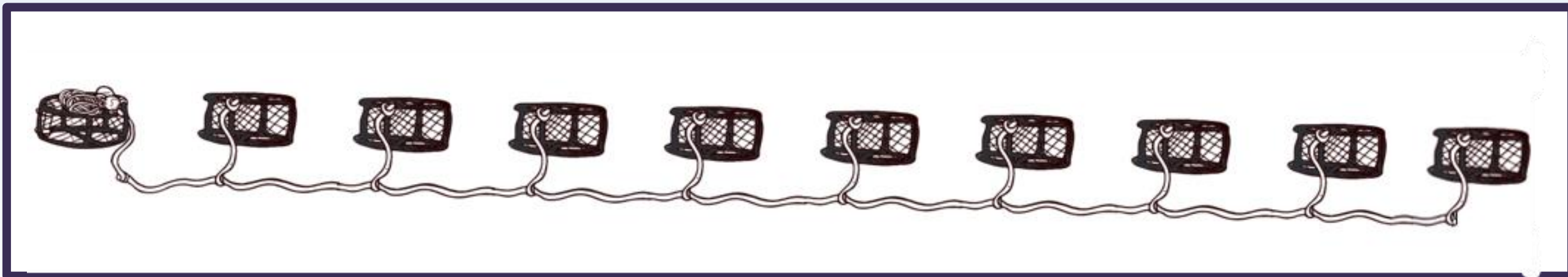


Figure 3. Proposed Dungeness crab trap configuration with pop-up unit on one end

Hagfish Pop-Up Gear Configuration

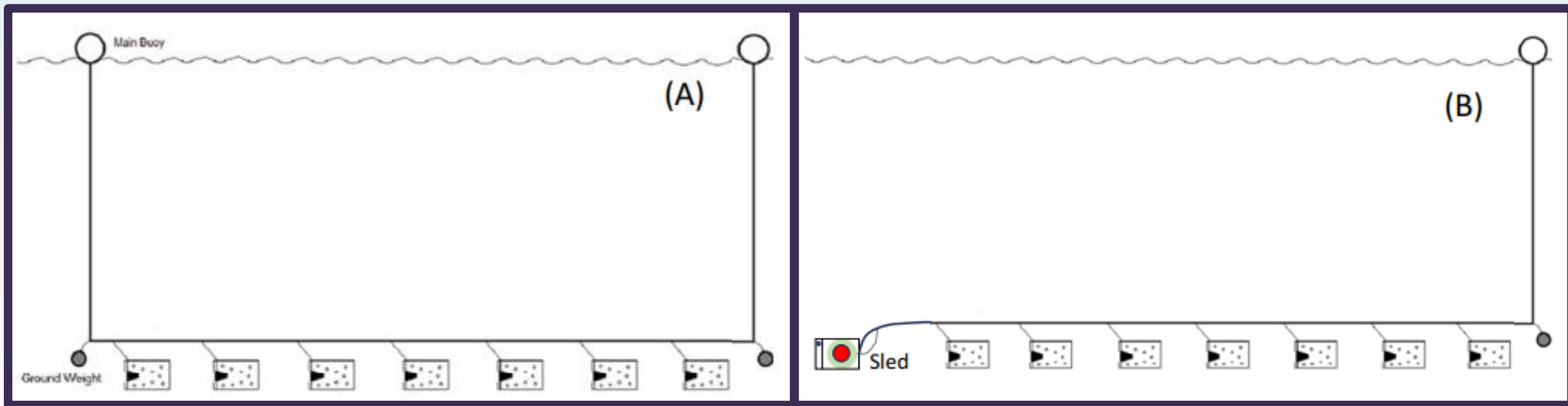


Figure 4: Traditional hagfish configuration (A) and proposed hagfish configuration (B).



EFP Amendment Requests (Crab)

- Increase traps per vessel (tied to permit)
- Up to 50 traps per string





EFP Amendment Requests (Crab and Hagfish)

- Allow unlimited authorized agents (fishers)
- Allow commercial fishing activities
- Increase service interval 9 days
- Remove 24-hour notice





Additional EFP Amendment Requests (Crab and Hagfish)

- Support staff exempt from permit/license requirements
- Revise landings reporting
- Clarification of gear description
- Change gear marking
- Notifications from EMS
- Clarification of Lost Gear Reporting

CDFW



Proposed Terms and Conditions

Updated or new terms from the previous term and conditions conditions are marked in ***bold italics***

Requested Conditions	Department Proposed Conditions
Allow unlimited authorized agents (fishers)	<i>Up to 40 authorized agents (fishers)</i>
Increase pots per vessel to fisher's tier	<i>Up to 175 timed/acoustic release units and traps per vessel per trip</i>
Up to 50 pots per string	<i>Up to 20 pots per string</i>
Allow concurrent commercial fishing activity	No concurrent commercial fishing activity
Increase service interval to 9 days and waiver	<i>Increase service interval to 7 days and waiver</i>
Remove 24-hour notification	Require 24-hour notification



Additional Proposed Terms and Conditions (Crab and Hagfish)

Updated or new terms from the previous term and conditions are marked in *bold italics*

Requested Conditions	Department Proposed Conditions
Support staff exempt from permit/license requirements	<i>Extended permitting requirements and added Department-approved support staff</i>
Revise landings reporting	<i>Revised landings reporting</i>
Revision of gear description	<i>Revision of gear description</i>
Notification from EMS	<i>Functioning EMS and additional protocol</i>
Lost Gear Reporting Procedure	Lost Gear Reporting Procedure



Recommendation

Approval of Major Amendment with Proposed
Department Special Conditions

Thank You

For additional information please contact:

EFP@wildlife.ca.gov



From: Bart Chadwick <[REDACTED]>

Sent: Sunday, December 1, 2024 08:51 AM

To: FGC <FGC@fgc.ca.gov>

Cc: 'Ryan Halonen' [REDACTED] 'Russ Mullins'

[REDACTED] 'Kim Sawicki' [REDACTED]

Subject: Comments on the Proposed Terms and Conditions for EFPT2-001 (EFP Tracking ID #2022-03)

Please find attached our comments on the Proposed Terms and Conditions for EFPT2-001 (Sub Sea Sonics Pop-up Gear Fishing; EFP Tracking ID #2022-03). We appreciate your consideration of these key items that will help determine the success of our EFP.

All the best

Bart

Bart Chadwick, PhD

Sub Sea Sonics

[REDACTED]

[REDACTED]

Phone: [REDACTED]

Cell: [REDACTED]

Fax: [REDACTED]

Email: [REDACTED]

www.subseasonics.com

To: California Fish and Game Commission

From: Bart Chadwick, Sub Sea Sonics

Subject: Comments on the proposed Major Amendment to EFPT2-001 "Testing of Pop-Up Gear in the California Dungeness Crab Fishery"

Date: 1 December 2024

Dear Commission Members

Sub Sea Sonics respectfully provides these public comments with respect to our proposed Major Amendment to EFPT2-001 entitled "Testing of Pop-Up Gear in the California Dungeness Crab Fishery." Bart Chadwick of Sub Sea Sonics is the permit holder for the EFP.

What We Have Achieved So Far

We have been working to provide access to alternative gear in the California Dungeness Crab fishery for the last five years. Over that time, we have led a major effort to secure grant funding, test and optimize the gear, recruit fishermen, execute EFPs and move the gear forward toward authorization. Extensive testing of the system was conducted during the spring of 2024 under EFPT2-001 in the California Dungeness crab fishery. Significant testing was also carried out under the same EFP during the spring of 2023. Previous testing was also carried out using single traps and the timed version of the release system (TR4RT) during 2021 in the California Dungeness crab fishery. In addition, significant testing of the system was conducted using single traps and the acoustic version of the release system in the California Spiny Lobster fishery and the Southeast US Black Sea Bass fishery during the winters of 2022-2023 and 2023-2024.

Last spring under this EFP, we conducted what to our knowledge is the single largest successful trial of pop-up fishing gear under actual fishing conditions. The EFP tested a fully integrated on-demand fishing system from Sub Sea Sonics and Guardian Ropeless consisting of the following components:

- Sub Sea Sonics AR4RT Acoustic Release
- Sub Sea Sonics ARI4RT Acoustic Deck Unit with Transducer
- Guardian Ropeless Line Handling System with required lines and floats
- Traps run in strings (trawls) with up to 10 traps per string
- Sub Sea Sonics Trap Timer Virtual Gear Marking App
- Sub Sea Sonics Ropeless Regulatory Portal
- Vessel Tracking System

Results from AR4RT/Guardian system testing under EFPT2-001 during the spring of 2024 provide the most direct measure of the system performance for the gear that is targeted for authorization. Nineteen authorized agents and 19 vessels were approved to participate in the testing. This included 5 vessels operating from San Francisco, 7 vessels operating from Bodega Bay, 4 vessels operating from Half Moon Bay, 1 vessel operating from Santa Cruz, and 1 vessel operating from Moss Landing. All of the vessels except the Areona in Santa Cruz were equipped with the AR4RT/Guardian Sleds with 15 strings of 10 traps each. The Areona was equipped with AR4RT/Guardian Retrofits with 16 strings of 8 traps each.

Following training, the combined fleet of participants conducted a total of 2361 gear sets during the period from 4/9/24 – 6/30/24. All testing was conducted under actual fishing conditions and allowed for retention and sale of catch. Each trial involved a string of 10 traps, with the exception of the Areona with 8 traps, so the total number of traps set during the trials was 23048. The trials were carried out over 277 individual trips (Table 1).

Locations of the gear during the trials were focused on the fishing grounds offshore from Bodega Bay/San Francisco (Zone 3) and Santa Cruz/Monterey (Zone 4). Deployment depths ranged from 19 – 325 ft with an average of 162 ft. Wave heights ranged from 1.4 – 11.5 ft with an average of 5.5 ft. Wind speeds ranged from 0.0 – 27.2 kts with an average of 9.1 kts. Overall, the release system (AR4RT) was successful in 98.9% of the tests, the line handling (Guardian) was successful in 98.9% of the tests, and the overall success rate of the on-demand system was found to be 98.0%. When the on-demand system did not work, grappling was generally effective as a backup method. Loss rates for gear was about 1.3%. An estimated total of 292000 pounds of Dungeness crab were landed by the participating vessels, indicating an average catch of about 15368 pounds for the 19 participating vessels. The complete report can be found [here](#).

Totals	Number	Percent
Strings Set	2361	
Strings Hauled	2357	99.8%
Traps Used	2678	
Traps Set	23048	
Traps Hauled	23014	99.9%
Traps Lost/Left1	34	1.3%
Release Success	2336	98.9%
Line Handle Success	2335	98.9%
Overall Popup Success	2314	98.0%
Strings Grappled	36	1.5%

Table 1. Summary of results from the spring 2024 testing under EFPT2-001.

What We Plan Under the Major Amendment

Our goal had been to provide sufficient data from the Spring 2024 EFP testing to allow the gear to be authorized. We far exceeded all requirements that we are aware of for these data requirements. However, due to the delay in the approval of RAMP 2.0 the Department chose not to authorize the gear. Based on the significant success we have achieved to date, and the lack of authorization of the gear by the Department, our goals for the EFP and Major Amendment for 2025 are:

- Provide an opportunity for additional participants to gain direct experience with the gear while the gear awaits authorization under RAMP 2.0
- Allow for testing at larger scale that is more commensurate with the range of gear configurations, amounts of gear, numbers of fishers, and enforcement conditions that would be expected under authorization with RAMP 2.0
- Address limitations and issues that were identified in the current EFP to improve the efficacy of the EFP for achieving the goal of authorization under RAMP 2.0

- Act as a stop gap for alternative gear authorization under RAMP 2.0 because the applicant has already far exceeded the EFP data collection requirements put forth by CDFW for authorization but RAMP 2.0 is not yet in place

Based on the lessons learned last spring, and the goals stated above, we submitted a full annual report and a request for Major Amendment to the Department in July of 2024. The key elements of the Major Amendment and their rationale are summarized below:

Remove the cap on the number of participants allowed to participate in the EFP. A fundamental roadblock to acceptance of the technology in the fleet is the view that only a few fishers are allowed to access and profit from the technology. While there are many fishers that are interested in the technology, many of them have stated that they would not participate due to this limiting condition. At the same time, the spring Dungeness crab fishery has always seen limited participation because many vessels switch over to other fisheries at that time. Thus, removing this condition would remove an impediment to acceptance of the gear while likely only increasing participation by a moderate level.

Request that the maximum number of traps be increase to the fishers full tier stack of gear. There is no statutory basis for limiting the number of traps other than to the fishers full tier stack or due to entanglement risk. Given that the on-demand systems fully remove the vertical lines from the water column, there is no entanglement risk basis for limiting the number of traps. Increasing the amount of gear to the tier limit is consistent with our goals of testing the gear under realistic conditions. It also creates a fairer situation in which fishers that have earned higher tiers of gear access are allowed to benefit from that and are not imposed the same trap limit as everyone else. This increase is particularly critical to participation of larger vessels that rely on fishing large amounts of gear in order to be economically viable. This was a key lesson from the testing during the spring of 2024.

Request relief from compliance with FGC Section 9004 and that the servicing interval under the EFP be increased to 9 days (216 hours). To our knowledge, there is no biological basis for this requirement. In addition, under the use of on-demand gear, there is no entanglement risk basis for this requirement. In addition, a key aspect of an EFP for on-demand gear is that the use of the gear requires learning and may require more time to service or may have unanticipated issues that don't allow for servicing. Further, it is well established that weather conditions during the spring often preclude servicing at a 96 hour interval. While weather delay is allowed for under FGC Section 9004, the 96 hour limit nevertheless imposes a risk and a pressure to the fisher to service gear under conditions that may not be safe, or otherwise risk being investigated. The EFP offers an opportunity to explore the relaxation of this servicing interval requirement to a period that is more commensurate with what is actually achievable under spring fishing conditions, and allows more flexibility to the fishers to adjust their soak times to what is most effective for fishing. This could help to establish a basis for a more flexible servicing interval to be adopted under authorization.

Request that the number of traps per string be increased to fifty. There is no statutory basis for limiting the number of traps per string. This request is consistent with our goals of making the EFP more realistic and increasing access. We have consistently heard from fishers that ten traps per string is generally not sufficient for efficient fishing operations, especially for all but the smallest vessels. Crab traps are generally set in lines of many traps (up to 100s), even when set as singles. Increasing the number of traps per string to 50 is critical to allow testing at the scale that will be necessary for the operation to be

economically viable under authorization. Increasing the number of traps per string also helps to make the economics of the on-demand systems more viable because fewer on-demand units are required.

What the Department has Proposed for Key Terms and Conditions

The proposed terms and conditions from the Department responded to these key requests with the following conditions:

- Increase the number of participants to 40
- Increase the number of traps per participant to 175
- Increase the service interval to 7 days and remove the weather exemption and replace it with a waiver process
- Increase the number of traps per string to 20

Based on feedback from our participants, the conditions for number of participants and number of traps per string are workable (though not ideal). However, the condition specifying the removal of the weather exemption has been met with a huge backlash, with a large percentage of the participants indicating they will not participate in an EFP during spring conditions without a weather exemption. In addition, there is been significant push back on the condition for the number of traps per participant because it provides lower tier fisherman with a full stack of gear, but higher tier fishermen with significantly less than half their stack of gear. This has led to a high likelihood that many of the larger vessels will not participate this year. These two items are discussed in more detail below.

Rationale for Retaining the Weather Exemption

The key rationales for retaining the weather exemption for our EFP are summarized below.

Our major amendment made no request to remove the weather exemption and when informed of the proposed change, we formally asked for the service interval item to be removed from our amendment and the Department would not remove it.

- Our request was simply to increase the service interval to a period that was consistent with the observed service interval during the spring of 2024. This would reduce the concern of fishermen that they might be investigated for exceeding a service interval that is not consistent with spring fishing conditions with experimental gear.
- There was no request to remove the weather exemption, this was initiated by the Department under the guise of our EFP amendment without being requested. It was also done without any consultation with the permit holder or participating fishermen.
- On October 12, 2024, following the decision by the Commission to approve a 7 day service interval with no weather exemption on the Southern Box Crab EFP, we formally requested that the Department remove our Major Amendment item requesting the extended service interval and default back to regulations with 96 hours and a weather exemption. The Department declined to allow us to remove this item and essentially forced us to include an amendment condition that we were no longer requesting.

There is no technical rationale for a 7-day service interval with no weather exemption, it is only based on the notion that it has been used in other unrelated fisheries. Invoking this condition without any

consideration for the environmental and operating conditions of the EFP fishing conditions is inappropriate and dangerous.

- The Department has provided no technical rationale for the selection of a 7 day service interval nor the removal of the weather exemption. The only rationale provided for the 7 day interval was a vague reference to that being used in the Southern California Spiney Lobster fishery, a fishery that operates primarily near shore and under substantially different environmental, operational, and economic conditions.
- The only rationale provided for removing the weather exemption was that it would make service interval enforcement easier for LED. While this is a rationale that should be considered, it should not be a deciding factor when the safety of fishermen is at risk. In addition, under the EFP enforcement already has access to much more effective tools than they have ever had to enforce a service interval including virtual gear marking, vessel tracking and weather reports.

Weather conditions during the spring are highly inconsistent with a 7-day service interval with no weather exemption, and lower yield rates require longer soak periods for economically viable fishing during the spring. Working with experimental gear is also potentially more time intensive than traditional gear especially when learning or when issues are encountered. Longer soak times combined with experimental gear and more limited weather windows increase the probability of enforcement actions with a 7-day service interval and no weather exemption.

- During the spring, longer soak times are normal due to the lower densities of crab available following the intensive derby season of fishing during the winter (Figure 1). In order to operate efficiently, fishermen need to extend their service intervals so they are not expending fuel, bait and labor on minimal return. This means that once they set the gear, at least 3-4 days must pass before they can effectively tend the gear again. With a 7-day service interval and no weather exemption, this means that any weather event that exceeds about 3 days could lead to a requirement to submit for a waiver and a potential citation.
- Weather events exceeding small craft advisory levels that extend for 3 or more days are very common during the spring (~18% probability), over twice as common as during the rest of the year (Figure 2). This means that fishermen will constantly be dealing with service interval exceedances for which they must beg forgiveness under a poorly defined waiver process.
- In addition, by its nature, our EFP is using new technology that requires a learning process and is subject to unforeseen issues. When the popup gear does not work, the fishermen must resort to the backup recovery method of grappling. Grappling can take a significantly longer amount of time, and is not always safe under the same conditions that are safe for hauling the popup gear. For example, if the 7 day service interval with no weather exemption had been in place last spring we would have had to request almost 90 waivers. With double that number of fishermen expected this spring, we would anticipate 180 waivers.

An inappropriate service interval combined with lack of a weather exemption will put fishermen's safety at risk and fishermen will have to weigh operating under unsafe conditions versus risking enforcement actions. Fishermen will choose not to participate in an EFP rather than risk a citation and losing their ability to make a living. Making enforcement of an unjustified service interval easier by forcing

fishermen to operate under unsafe conditions and in an economically unsustainable manner is not striking an appropriate balance.

- A key ramification of the removal of the weather exemption is that it will remove the decision making authority for vessel and crew safety from the captain and place it instead with the Department. A captain will thus have to weight safety of the vessel and crew against the unknown likelihood of a citation under a poorly defined waiver process.
- Given this untenable situation, a large number of captains will choose not to participate in the EFP, rather than be forced to fish under unsafe conditions or risk an enforcement action that could put their entire permit and livelihood in jeopardy. Thus the effect of the removal of the weather exemption will be to create another major roadblock to the implementation of alternative gear.

The Department is proposing to replace the weather exemption with a waiver process. The waiver process has not been made public, nor has it been discussed with any of the relevant stakeholders. Based on the indirect information we have obtained, the proposed process is completely unworkable according to our participating fishermen.

- The Department has proposed replacing the weather exemption with a waiver process. There has been no stakeholder involvement in either the removal of the weather exemption or the development of the waiver process. Our understanding based on indirect information from the Box Crab EFP is that this process will require fishermen to obtain written authorization to exceed the service interval by submitting an email with a long list of detailed information justifying the exceedance. Based on an undefined and unknown process, the Department would then decide whether or not they thought the exemption was warranted and either approve or deny the waiver. Thus, the determination of safe operating conditions would be removed from the vessel captain and placed with the Department decision making process. The sole justification for this change is that it will make the service interval more enforceable.
- This obviously goes against every principle of safety, where the safety of life at sea is preeminent over all other considerations during fishing operations. A captain operating his vessel at sea with changing weather conditions simply cannot comply with such a process. He may or may not have connectivity to submit an email. He may or may not have time to wait around for a response that could take hours to days to weeks. He can't be expected to jeopardize his crew and vessel while the Department decides whether or not it is safe for him to continue operating or not.
- In the scenario we face this spring, we anticipate that ~180 waivers would need to be requested based on the conditions and service intervals that were achieved last spring. Given the ~90 day window for spring fishing, this is an average of two waivers per day, although likely these would be submitted in tight clusters of 20-40 as they would be associated with weather events that could affect the entire fleet of participants. So this would require the Department to have in place a waiver process that could respond essentially instantly to a large number of requests and make a determination for every possible vessel and its specific situation as to whether or not it could or could not operate safely. This is just obviously not a viable solution.

In the bottom line, decisions around safety cannot be taken out of the hands of those responsible for safety. If the Department wants to develop alternative approaches to service intervals and their

enforcement, they should engage with the participating fishermen and other stakeholders and work together to come up with a solution that works for everyone. This effort could still happen, but to date there has been no dialogue from the Department and we have only been told that they will not have a dialogue about it and they are not required to. We therefore strongly recommend that the Commission approve the Major Amendment to EFPT2-001 but that they include the weather exemption either with the 7-day interval or the 4-day interval from the current regulations. The EFP cannot be successful with the proposed condition removing the weather exemption from the Department.

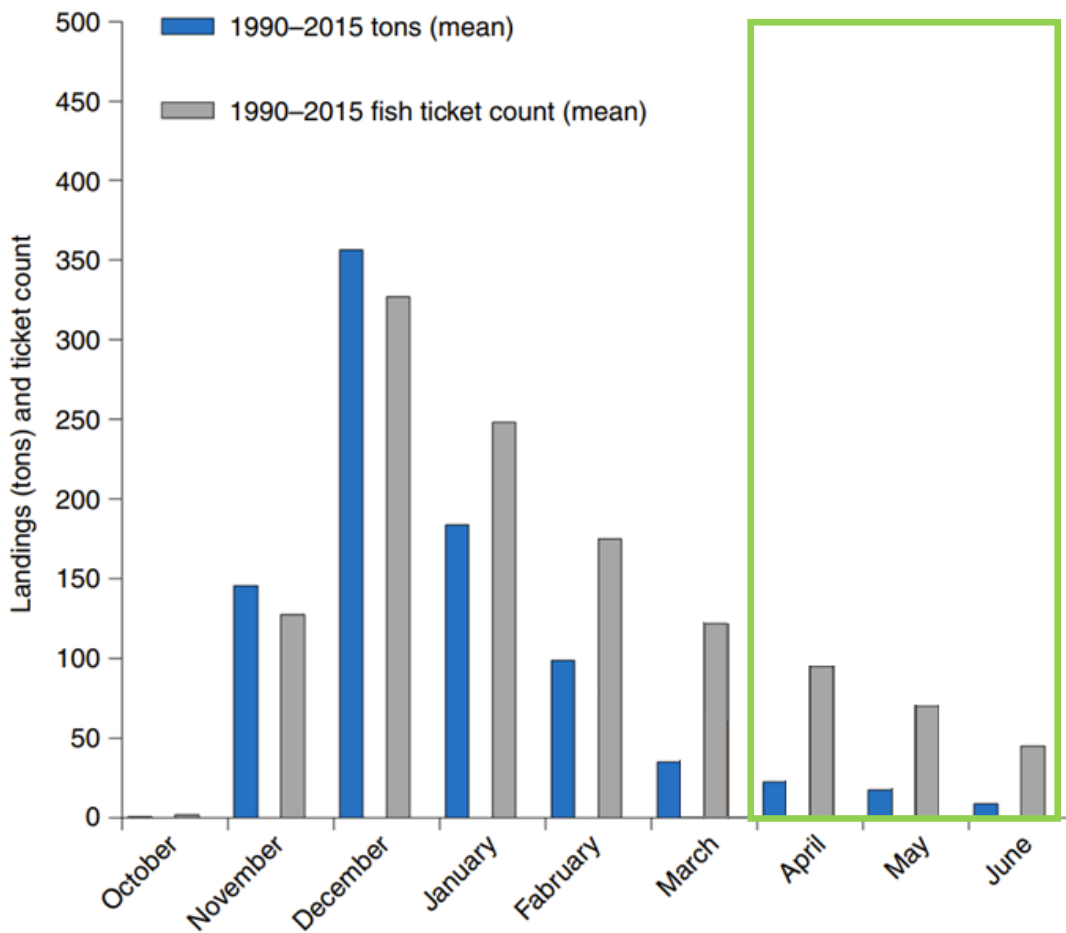


Figure 1. Landings by month in the California Dungeness Crab fishery showing the significant drop off in yield during the spring (adapted from Santora et al. 2020, Nature Communications).

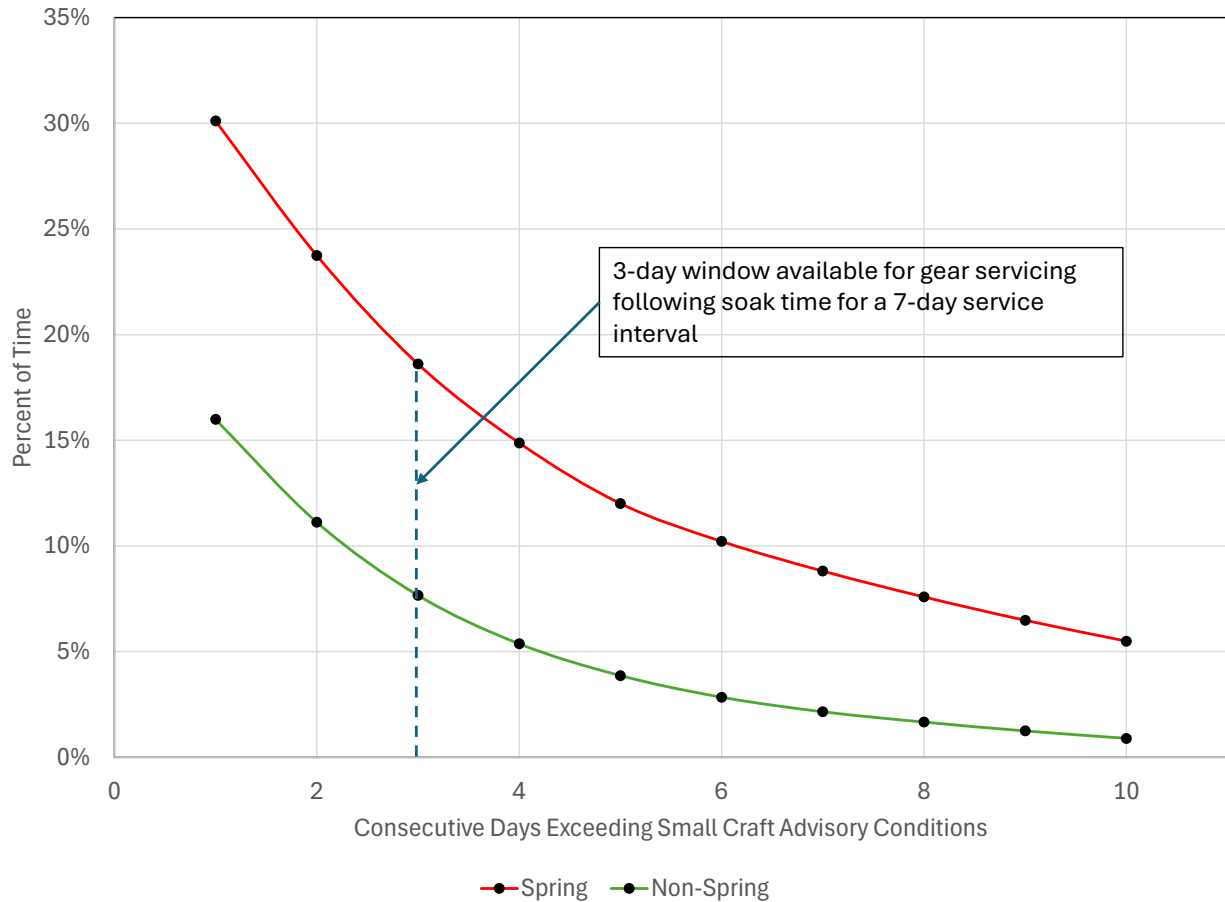


Figure 2. Percentage of time exceeding Small Craft Advisory conditions as a function of the number of consecutive days of occurrence during the spring (red) and non-spring (green) conditions. Based on ten years of data from the NDBC weather buoy at Bodega.

Rationale for a Tiered Structure for Trap Allocation

The Department is proposing that fishermen be limited to 175 traps per vessel irrespective of their permit tier. The rationale provided was that this is the maximum number of traps for Tier 7, and thus no one would have access to more traps than their current permit tier allows.

- An increase from 150 traps used last year to 175 traps does not represent a significant increase in scale. The EFP is an opportunity to assess the viability of the gear under realistic fishing conditions, which is one of our stated goals. Limiting the increase to only 25 traps does not move significantly in the direction of what is likely to be authorized if the spring fishery is to be viable economically.
- On a basic level, allowing 20 traps per string and then limiting the number of traps to 175 does not allow for optimization of the traps so that each string has 20 traps. This will mean that either fishermen will have to fish less than the maximum number of traps, or they will have to fish string with different numbers of traps. Fishing different numbers of traps on different strings is not well suited to either the gear operations or the popup gear marking systems.

- A fixed number of 175 traps provides Tier 7 fishermen with 100% of their full stack, while it only provides Tier 1 fishermen with 35% of their full stack (Figure 3). This does not provide a significant incentive for participation by larger boats with higher tier permits. Thus, many of the large boat participants on the EFP are indicating that they will likely not participate under this proposed distribution. As an alternative, participants have proposed a simple tiered structure starting at 160 traps for Tier 7 (representing 91% of full stack) and increasing 20 traps per tier up to a total of 280 traps for Tier 1 (representing 56% of full stack). While this still favors the lower tiers, it provides enough of an increment to incentivize the larger boats to continue to participate.
- The 40 participants and 175 trap limit recommended by the Department represents a total of 7000 traps. Given our current list of participants and their Tier levels, our proposal represents a total of about 6500 traps and even if we add more participants it will not increase to a level significantly above the total number that is included in the Department recommendation.

We therefore strongly recommend that the Commission approve the Major Amendment to EFPT2-001 but that they adopt the proposal from the participants for a simple tiered trap limit starting at 160 for Tier 7 and increasing by 20 traps per tier up to Tier 1.

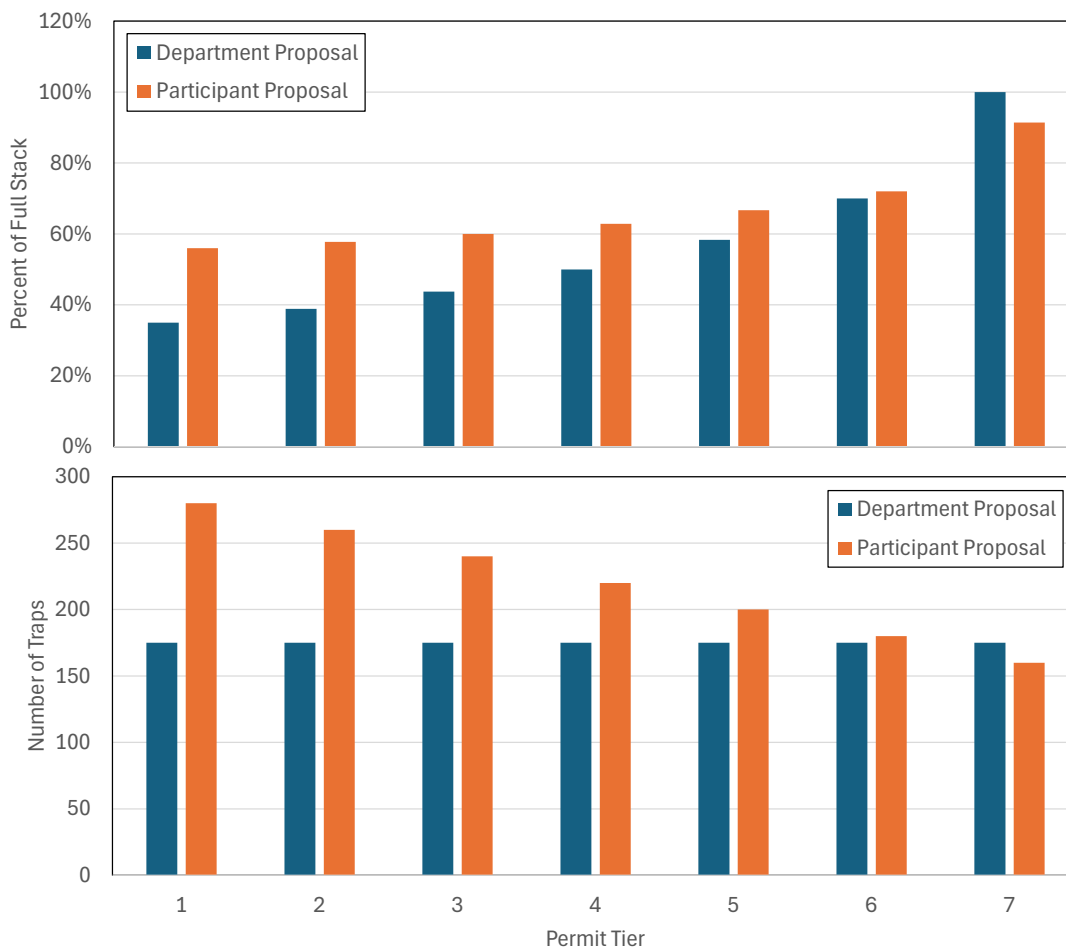
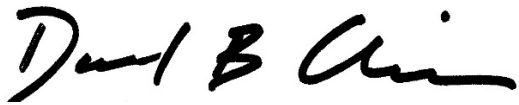


Figure 3. Percent of full stack and number of traps allocated under the limits proposed by the Department (blue) and the participants (orange).

We sincerely appreciate the consideration of this EFP Major Amendment by the California Fish and Game Commission and encourage you to support our goals of creating safe alternatives and opportunities for fishers in the California Dungeness crab fishery.

Very Respectfully

A handwritten signature in black ink that reads "Dart B Chadwick". The signature is written in a cursive style with a large, stylized 'D' and 'C'.

Bart Chadwick

Sub Sea Sonics

From: Kim Sawicki [REDACTED]

Sent: Monday, December 2, 2024 04:56 PM

To: FGC <FGC@fgc.ca.gov>

Subject: Comments on EFPT2-001 (Sub Sea Sonics Pop-up Gear Fishing; EFP Tracking ID #2022-03)

Dear President Murray and Commission Members,

Sustainable Seas Technology respectfully submits the attached supplemental comments on the Subsea Sonics Experimental Fishing Permit (#2022-1) Major Amendment Request (Agenda Item 6) on behalf of our EFP fishing partners and our research team.

Please don't hesitate to let me know if you have any questions or require further information.

Sincerely,

Kim Kirchberg-Sawicki

President

Sustainable Seas Technology

[REDACTED]

[REDACTED]

"The difference between the difficult and the impossible is that the impossible takes a little more time." -Lady Aberdeen

December 2, 2024
Samantha Murray, President
California Fish and Game Commission
P.O. Box 944209
Sacramento, CA 94244-2090

RE: Agenda Item 6: Dungeness Crab EFP (Commission tracking ID #2022-03) Major Amendment Request

Dear President Murray and Commission members,

Sustainable Seas Technology respectfully submits the following comments regarding the major amendment request for the Dungeness Crab Experimental Fishing Permit (EFPT2-001), for which I, Kim Sawicki, am the Entity Administrator. This EFP is critical for advancing on-demand (ropeless) fishing gear and ensuring sustainable, whale-safe fishing practices in California.

We appreciate the Department's efforts to manage and refine the terms of this EFP. However, in light of ongoing discussions and the feedback from participants, we strongly recommend the following considerations to support the success and safety of the program while addressing the needs of fishers:

1. Weather Exemption for Service Intervals:

The removal of the weather exemption for trap servicing intervals creates serious safety risks. Fishers participating in the EFP should not have to choose between complying with service intervals and ensuring the safety of their vessels and crews during poor weather conditions. The Department's proposed waiver process for weather exemptions is impractical for real-time decision-making at sea and risks overwhelming administrative resources. Based on the challenges faced during the previous season, participants estimate that up to 180 waivers may be required over a 90-day period—an unmanageable burden for both fishers and the Department.

We commend the Department for exploring creative solutions to enforce service intervals, but this EFP is not the appropriate venue for testing new processes. Instead, we encourage the Commission to retain the weather exemption as originally requested, ensuring the safety of participants while maintaining the EFP's primary goal: advancing data collection to support the authorization of pop-up gear.

2. Tiered Trap Allocation Proposal:

The Department's recommendation of a fixed 175-trap limit per vessel does not adequately reflect the diversity of permit tiers within the fishery. While this represents 100% of a Tier 7 permit's allocation, it constitutes only 35% for Tier 1 fishers. This disparity disincentivizes larger vessels from participating, risking attrition of critical stakeholders and undermining the EFP's objectives.

In response to this concern, participants have proposed a tiered structure starting at 160 traps for Tier 7 and increasing by 20 traps per tier up to 280 traps for Tier 1. This approach is a fair compromise that addresses the Department's concerns about ramping up too quickly while ensuring equitable opportunities for vessels of all sizes. We urge the Commission to adopt this tiered allocation to support full and diverse participation.

Avoiding Barriers to Participation

The overarching objective of these recommendations is to avoid unnecessary conditions that deter participation in the EFP. Fishermen volunteering for these programs are pioneers, working to improve the protection of California's marine resources. Their participation is essential for the development of effective pop-up gear systems, and any conditions that discourage their involvement jeopardize the significant investments made by fishers, project partners, and funders.

Each fishery has unique considerations, and EFP terms and conditions must reflect these nuances to ensure success. By addressing safety concerns and offering equitable participation opportunities, the Commission can set a strong precedent for sustainable, whale-safe fishing practices that balance environmental stewardship with the needs of the fishing community.

Thank you for your continued dedication to advancing innovative solutions for California's fisheries. We look forward to working collaboratively to achieve the goals of this EFP and appreciate your consideration of our comments.

Sincerely,

Kim Sawicki

Entity Administrator, SSS Dungeness Crab EFP

Sustainable Seas Technology

From: Kershaw, Francine <[REDACTED]>

Sent: Monday, December 2, 2024 04:21 PM

To: FGC <FGC@fgc.ca.gov>

Subject: Comments on Agenda Item 6: Sub Sea Sonics Experimental Fishing Permit Major Amendment Request

Dear President Murray and Commission members,

The Natural Resources Defense Council respectfully submits the attached comments on the major amendment request for the Sub Sea Sonics Experimental Fishing Permit to test pop-up gear in the California commercial Dungeness crab fishery (Agenda Item 6). We will also be reaching out in the coming days to request a meeting to discuss our concerns and recommendations.

Please don't hesitate to contact me if you have any questions or require further information.

Sincerely,

FRANCINE KERSHAW, PH.D. (she/her)

Senior Scientist | Marine Mammals, Oceans Division

NATURAL RESOURCES DEFENSE COUNCIL

917.450.0994 | FKERSHAW@NRDC.ORG

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December 2, 2024

Samantha Murray, President
California Fish and Game Commission
P.O. Box 944209
Sacramento, CA 94244-2090

RE: Agenda Item 6: Sub Sea Sonics Experimental Fishing Permit (Commission tracking ID #2022-03) Major Amendment Request

Dear President Murray and Commission members,

The Natural Resources Defense Council (NRDC) respectfully submits the below comments on the major amendment request for the Sub Sea Sonics Experimental Fishing Permit (EFP) to test pop-up gear in the California commercial Dungeness crab fishery. In partnership with the Marine Innovations Gear Alliance, NRDC supported the implementation of the Sub Sea Sonics EFP for the fishery in 2024 and, separately, has provided multi-year financial and project management support for the Sustainable Seas Technology EFP for the southern California experimental box and King crab fishery.

For the Sub Sea Sonics EFP to be successful it is important to prevent unnecessary barriers to participation. We therefore strongly recommend that the Commission approve the major amendment with the following modifications:

- 1. Inclusion of a weather exemption with any service interval determined.**
- 2. Adoption of a tiered trap limit starting at 160 for Tier 7 and increasing by 20 traps per tier up to Tier 1.**

Why a weather exemption is indispensable: The California Department of Fish and Wildlife (the Department) has recommended that the weather exemption to the service interval be removed from the EFP as part of the major amendment. This was not part of Sub Sea Sonics' original amendment request. Removal of the weather exemption creates serious safety concerns for the vessels and crew participating in the EFP, potentially creating situations where fishers feel pressured to service their gear in poor or dangerous weather conditions out of concern that they might otherwise violate the service interval requirement. Indeed, a significant number of captains currently signed up to participate in the EFP have indicated that they may need to withdraw due to the risks associated with being forced to choose between the safety of their vessel and their crew and an enforcement action that may impact their livelihood. Attrition of participants would seriously undermine the EFP's potential success, and stymie the state's progress in advancing pop-up gear.

In lieu of the weather exemption, the Department has proposed a waiver process. The Department also indicated that this would be an option for the southern California box and King crab EFP when the weather exemption was removed as part of the major amendment request heard by the Commission on

October 9, 2024. However, the waiver process shared with the southern box and King crab EFP holder specifies a written (*via* email) notification and approval process that is incompatible with the type of timely decision making that captains need to make at sea. Fishers in the southern California box and King crab EFP remain hesitant to participate in the EFP due to these concerns, jeopardizing the multi-year investment made by fishers, project partners, and funders to secure the EFP's success. A written waiver approval process also appears burdensome on the Department, particularly as weather conditions during the spring season are highly unpredictable. Based on the weather conditions and service intervals that were experienced last spring, Sub Sea Sonics has estimated that fishers will need to request, and the Department receive, process, and respond to, approximately 180 waivers across the 90-day season, averaging two waivers per day.

NRDC is supportive of continually working to improve fishing regulations and practices, and we commend the Department for exploring creative solutions to service interval enforcement, particularly given the recent challenges of enforcing them with a weather exemption. However, the Sub Sea Sonics EFP, and other EFPs that allow the testing of pop-up gear, are not the appropriate place to explore and test new enforcement solutions ultimately intended to apply to the entire fishery. These EFPs should be administered in a way that focuses on their primary and original objective—maximizing data collection to support the authorization of pop-up gear for commercial use in 2026. We are in support of the Department continuing to explore alternative approaches to service intervals and their enforcement, including types of waivers, through a separate, public process, that includes fishermen and other stakeholders.

Support for a tiered structure for trap allocation: The recommendation by the Department to authorize a fixed number of 175 traps per vessel—a 25 trap increase from the 2024 EFP—does not take into account the differences in trap numbers between different “tiers” of Dungeness crab fishing vessels. A fixed number of 175 traps provides Tier 7 fishers with 100% of their full stack, while it only provides Tier 1 fishers with 35% of their full stack. This limit disincentivizes participation in the EFP by larger vessels with higher tier permits. Indeed, many of the large boat participants on the EFP are indicating that they will likely not participate under this proposed distribution. Moreover, it is of benefit to maximize the number of traps deployed to create the most robust data set possible to support the potential authorization of pop-up gear by the Department in 2026. To meet the EFP's primary objective, participants would ideally be authorized to fish their full stack using pop-up gear, as originally requested by Sub Sea Sonics. In response to concerns raised by the Department regarding fishing the full stack in spring 2025, the participants and Sub Sea Sonics have proposed a simple tiered structure starting at 160 traps for Tier 7 (representing 91% of the full stack) and increasing 20 traps per tier up to a total of 280 traps for Tier 1 (representing 56% of the full stack). While this still favors the lower tiers, it provides enough of an increment to incentivize the larger boats to continue to participate. NRDC supports this proposal for the 2025 spring testing period, as a stepping stone towards authorization of the full stack for all tiers in 2026.

As an overarching matter, each fishery has its own unique considerations and it is important that EFP terms and conditions reflect those nuances so that the EFP participants, and the projects overall, are set up for success. Moreover, the fishers who have volunteered to participate in EFPs are pioneers working to improve the protection of California's ocean natural resources and are essential partners in the development of pop-up technologies. Their concerns should be thoughtfully considered and responded to. Fisher attrition from pop-up testing projects is seriously undermining the significant efforts and

investments made by the state of California to advance pop-up gear. This is also of concern to the EFP participants and the broader fishing community, as pop-up gear may represent one of the few tools available to fishers to cope with continuing entanglements of federally protected marine species, which is, ultimately, an unintended consequence of climate change. We hope that the Commission will support EFP holders and participants in their request to alleviate unnecessary barriers and maximize participation in these critically important projects.

We appreciate your consideration of our comments and thank you for your work and dedication, as well as that of the Department, to advance solutions to help realize whale-safe fishing in California.

Sincerely,

A handwritten signature in black ink, appearing to read 'Francine Kershaw', with a large, stylized flourish at the end.

Francine Kershaw, Ph.D.
Senior Scientist
Natural Resources Defense Council
fkershaw@nrdc.org | (917) 450-0994

From: Dan Fugere [REDACTED]

Sent: Sunday, December 1, 2024 06:49 PM

To: FGC <FGC@fgc.ca.gov>

Subject: Efp

Dear Commission Members

My name is Dan Fugere and I am a fisherman from Bodega Bay planning to participate in the Sub Sea Sonics popup gear EFP this spring. I am writing to urge you to approve the major amendment for this EFP and make changes to two of the EFP conditions that CDFW has proposed.

As part of an adjustment to the gear service interval the Department is proposing to remove the weather exemption and replace it with a waiver process. There has been no discussion with the fleet about this proposed change. Decisions around safety cannot be taken out of the hands of those responsible for safety. The Department's proposal would force fishermen to choose between safety and a potential citation. Weather conditions in our area during the spring can cause unsafe conditions for weeks at a time. Weather can change quickly and is not always predictable. A waiver process would take safety decisions away from captains and place them with the department and a waiver process could never be responsive enough to ensure timely and safe decisions. I am taking many risks to participate in this EFP process already. I should not have to also risk my life and livelihood to participate in an EFP. I therefore strongly recommend that the Commission approve the Major Amendment to EFPT2-001 but that you include the weather exemption ideally with the proposed 7-day interval or otherwise with the 4-day interval from the current regulations. The EFP cannot be successful with the proposed condition from the Department removing the weather exemption and this proposal will strongly discourage participation.

In addition, the Department is proposing that fishermen be limited to 175 traps per vessel irrespective of their permit tier. The rationale provided was that this is the maximum number of traps for Tier 7, and thus no one would have access to more traps than their current permit tier allows. However, a fixed number of 175 traps provides Tier 7 fishermen with 100% of their full stack, while it only provides Tier 1 fishermen with 35% of their full stack. Limiting the number of traps to 175 does not allow for optimization of the traps so that each string has 20 traps. An increase from 150 traps used last year to 175 traps does not represent a significant increase in scale compared to last spring. I therefore strongly recommend that the Commission approve the Major Amendment to EFPT2-001 but that you adopt the proposal from the participants for a simple tiered trap limit starting at 160 for Tier 7 and increasing by 20 traps per tier up to Tier 1. This would not substantially change

the overall amount of gear in the water, but would create a more fair balance that would not further discourage participation.

Thanks very much

Dan Fugere

FV Pamela Sue