3. Commercial California halibut and white seabass set gill net

Today's Item **Information ☐** **Action ☒**

Consider authorizing publication of notice of intent to amend regulations regarding set gill net service interval, gear marking and mesh depth in the California halibut and white seabass set gill net fisheries.

Summary of Previous/Future Actions

• Marine Resources Committee (MRC) vetting	2022 – 2023, various; MRC
• MRC discussion and recommendation	November 16, 2023; MRC
• **Today's notice hearing**	**April 17-18, 2024**
• Discussion hearing	June 19-20, 2024
• Adoption hearing	August 14-15, 2024

Background

California's commercial set gill net fisheries are governed by state law and regulations set by the Commission; these fisheries utilize distinct net types: a larger mesh (minimum 8.5 inches) for targeting California halibut, and a smaller net (minimum 6 inches) for targeting white sea bass. Both fisheries are inherently multi-target, but also catch non-targeted species as bycatch. Bycatch is discarded due to size, sex, legality, and/or marketability. The regulations being proposed today focus on improving bycatch management.

The impetus for the proposed regulations stems from a bycatch evaluation specifically focused on the California halibut fishery, which is part of the Department's broader California halibut fishery management review referred to MRC by the Commission in 2020. The Department's bycatch evaluation, guided by the Marine Life Management Act (MLMA), involved collaborating with research partners, Commission staff, industry representatives, and non-governmental organizations. The multi-year process aimed to assess the "acceptability" of bycatch in the California halibut set gill net fishery based on legal considerations, sustainability threats, impacts on other fisheries, and ecosystem effects, consistent with the MLMA. The process is outlined in the *2018 Master Plan for Fisheries, A Guide for Implementation of the Marine Life Management Act*.

The proposed regulations represent the culmination of a four-step evaluation process, leading to developing management measures to address bycatch deemed unacceptable in the California set gill net fishery and to improved data collection efforts. MRC served as a public forum that facilitated robust stakeholder discussions throughout 2022 and 2023, addressing data analyses and interpretations, information gaps, and potential solutions for bycatch concerns (see exhibits 1 and 2 for more details). The MRC recommendation for this initial regulatory phase was approved by the Commission in December 2023, with the understanding that the Department continues to explore longer-term management options.

Proposed Regulations

The proposed regulations, as detailed in exhibits 3-6, would add a new Section 174.1 and serve as an initial phase of management measures in the California set gill net fishery. The proposal aims to reduce bycatch and fill data gaps through improved data collection with three elements: A net service interval, gear marking, and a maximum net height.

1. Establish a net service interval for checking or raising set gill nets (also known as *soak time*). Currently there is no requirement in regulation limiting how long gill nets are left unattended, which can affect the survival rate of discarded fish, and the survival rates of sharks and other elasmobranchs. A service interval range of 24 to 48 hours is proposed, with provisions for flexibility in complying during unsafe weather, catastrophic events, or undue hardship, and for determining net abandonment. The Commission would select the final service interval before or at the adoption hearing.

2. Require set gill net permittees to mark gear by incorporating a 1-inch wide, 1-foot-long colored nylon strap weaved into the existing head rope every 20 fathoms. In the event of entanglement with marine life, this marking will clearly identify the gear as being from the California set gill net fishery. Three color options are included to provide opportunity for input from fishermen and manufacturers; the Commission would select the required color(s).

3. Establish a maximum net height (also known as *mesh depth*) for both California halibut and white seabass set gill nets. Current law establishes specific dimensions for mesh size and net length for the California halibut fishery, as well as a minimum mesh size for the white seabass fishery, but does not establish requirements for net height in either fishery. The proposed maximums of 25 meshes deep for California halibut and 50 meshes deep for white seabass are anticipated to reduce bycatch and prevent the expansion of set gill net gear height.

Today the Department will present an overview of the proposed regulations and rationale for each (Exhibit 7).

Significant Public Comments (N/A)

Recommendation

Commission staff: Authorize publication of a notice of intent to amend regulations as recommended by the Department and MRC. Request that the Department provide a recommendation for soak time and gear marking color at the discussion hearing.

Committee: Authorize publication of a notice of intent to amend regulations with a range for the required service interval of 24 to 48 hours.

Department: Authorize publication of a notice of intent to amend regulations with a required service interval range of 24 to 48 hours and three options for gear marking colors as described in the draft initial statement of reasons (ISOR; Exhibit 4).

Exhibits

1. Staff summary from November 16, 2023 MRC meeting (*for background purposes only;* exhibits for the item are available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=216813&inline)
2. Staff summary from March 19, 2024 MRC meeting (*for background purposes only*)
3. Department memo transmitting draft ISOR, received April 9, 2024
4. Draft ISOR
5. Draft proposed regulatory language
6. Draft economic and fiscal impact statement (Std. 399)
7. Department presentation

Motion

Moved by _____ and seconded by _____ that the Commission authorizes publication of a notice of its intent to add Section 174.1 related to commercial California halibut and white seabass set gill nets, with a required service interval range of 24 to 48 hours and three options for gear marking color as discussed today. The Commission requests that the Department provide a recommendation for soak time and gear marking color at the discussion hearing for the rulemaking.

COMMITTEE STAFF SUMMARY FOR NOVEMBER 16, 2023 MRC
For Background Purposes Only

2. EVALUATION OF BYCATCH IN THE CALIFORNIA HALIBUT SET GILLNET FISHERY IN SUPORT OF THE FISHERY MANAGEMENT REVIEW

Today's Item **Information ☐** **Action ☒**

Receive and discuss potential management measures proposed by the Department to address bycatch concerns and information gaps in the California halibut set gillnet fishery, provide direction on next steps, and potentially develop committee recommendation.

Summary of Previous/Future Actions

• Commission referred California halibut management review to MRC	August 19-20, 2020
• Commission referred bycatch evaluation for California halibut management review to MRC	December 15-16, 2021
• MRC received updates on bycatch evaluation	March 24 and July 14, 2022; MRC
• MRC received Department bycatch evaluation report; MRC recommendation to conduct bycatch acceptability evaluation for set gill nets (approved by Commission in December 2022)	November 17, 2022; MRC
• MRC received Department updates on bycatch evaluation for the California halibut gill net fishery	March 14 and 16, 2023; MRC
• MRC received and discussed Department evaluation of bycatch acceptability; MRC recommendation for potential management measures to reduce bycatch (approved by the Commission in August 2023)	July 20, 2023; MRC
• **Today receive and discuss management measures to address gillnet bycatch; potential MRC recommendation**	**November 16, 2023; MRC**

Background

Management review of the California halibut fishery commenced in late 2020, consistent with the requirements of the Marine Life Management Act (MLMA) and using the framework outlined in *2018 Master Plan for Fisheries, A Guide for Implementation of the Marine Life Management Act* (master plan) for meeting those requirements. A key requirement of the fishery management review is evaluating and addressing unacceptable bycatch in a way that limits bycatch to acceptable types and amounts.

The California halibut fishery management review has presented the first opportunity to use the four-step framework for evaluating bycatch laid out in Chapter 6 of the master plan, to: collect information on the type and amount of catch (Step 1); distinguish target, incidental, and bycatch species (Step 2); determine "acceptable" types and amounts of bycatch (Step 3); and address unacceptable bycatch (Step 4). See Exhibit 1 for background information about the

development and completion of steps 1 and 2 for the California halibut set gill net and trawl fisheries.

For steps 3 and 4 of the bycatch evaluation framework, MRC recommended and the Commission supported separating set gill nets from trawl fisheries. The Commission is currently focused on completing steps 3 and 4 of the bycatch evaluation framework for set gill nets before transitioning to trawl fisheries.

In July 2023, the Department presented its California halibut set gill net bycatch evaluation report that included analysis of the master plan bycatch inquiries for twelve species, thereby fullflling Step 3 of the bycatch evaluation framework. See Exhibit 2 for background information about the development and completion of Step 3.

Following in-depth dialogue among diverse partcipants and the Department, MRC recommended the bycatch evaluation framework proceed to Step 4, to develop potential management measures for reducing bycatch within the California halibut targeted fishery, noting the measures would also apply to other set gill net target fisheries. MRC recommended the Department focus on potential management measures in 11 categories: (1) soak time limits, (2) gear marking (to address potential for undocumented entanglements), (3) fisher-suggested bycatch reduction measures (e.g., reduced gill net height [mesh depth]), (4) gear loss reporting, (5) logbook improvements, (6) electronic monitoring technology, (7) observer coverage, (8) potential limits on permit transferability and/or retiring latent permits, (9) non-retention of giant sea bass and white sharks (may require legislative action), (10) temporal closures, and (11) other measures that may reduce bycatch and/or discard mortality of white sharks and tope sharks.

In August 2023, the Commission approved the MRC recommendation and requested that the Department develop the potential measures in consultation with fishery participants and stakeholders. In addition, the Commission requested the Department look into the potential ramifications of leglislative action to prohibit retention of white sharks, such as possible negative effects to white shark researchers who have historically utilized commercial set gill nets to assist with research initiatives.

Update

In response to the Commission's request, Department staff has had meetings with set gillnet fishermen and has met with representatives from environmental non-governmental organizations (ENGOs) to discuss potential management measures that would address bycatch concerns that are congruently feasible for the fleet. Department staff met with set gillnet fishermen in person the week prior to the November MRC meeting, to further discuss management options and Department recommendations. In addition, Commission and Department staff met with staff from the National Marine Fisheries Service to discuss and better understand entanglements of marine mammals within the set gillnet fishery, and met with academics regarding options to reduce byatch mortality of sensitive elasmobranch species (such as certain sharks).

Today's Meeting

The Department will present a summary of outreach efforts to engage the set gillnet fleet and interested stakeholders, present the findings and options for potential management measures, and highlight areas for potential MRC guidance (Exhibit 3). The Department identifies near-term recommendations, including a proposal for regulation changes (referred to as "Phase 1") consisting of soak time limits, increased gear markings, and mesh depth limits (management measures 1, 2 and 3), as well as developing a pilot project for electronic monitoring, electronic logbooks, and observer coverage (management measures 5, 6 and 7) intended to improve data collection. The proposed improvements could help fill data gaps and provide information needed to inform the development of other management measures (such as 10 and 11); as a result, the other measures may require more time to fully develop for a potential, subsequent rulemaking once data gaps are filled. The Department currently does not have recommendations for the remaining management measures (4, 8 and 9) but will discuss their exploration at today's meeting.

Lastly, consistent with the Commission's request, the Department will share data on commercial white shark landings and highlight that white sharks caught in set gill nets have not been utilized for research purposes since 2012.

Today's discussion is intended to help shape a potential MRC recommendation.

Significant Public Comments

1. Four ENGOs (exhibits 4-7) and a joint letter signed by 27 ENGOs (Exhibit 8) support pursing management measures consistent with Commission direction, and offer recommendations for specific measures, including:
    - A 24-hour soak time limit (exhibits 6 – 8)
    - Temporal closures to protect tope (aka soupfin) sharks (exhibits 5 – 8)
    - Area closures for biodiversity hotspots, such as the Channel Islands (exhibits 6 – 8)
    - Robust gear markings (exhibits 4 and 6 – 8)
    - Gear loss reporting (exhibits 6 – 8)
    - Bycatch hard caps (exhibits 6 and, 7)
    - Prohibiting take of giant sea bass and white sharks (exhibits 4 and 7)
    - Phasing out permits (Exhibit 4)
    - Net height restrictions (exhibits 4, 7, and 8)
    - Logbook requirements (exhibits 7 and 8)
    - Observer programs (exhibits 6 – 8), for which one ENGO attached a observer program scoping report (Exhibit 7)

2. One of the ENGOs completed an analysis on the underreporting of marine mammal bycatch within California set gillnet fisheries, which it submitted by the October supplemental comments deadline and resubmitted for today's discussion (Exhibit 9). The report compares self-reported logbook data to observer-based estimates of marine mammal take in the set gillnet fishery, concluding that only 6% of marine mammal interactions were reported by fishermen. Based on the analysis, the ENGO advocates for resuming observer coverage, electronic monitoring, and increased logbook requirements within set gillnet fisheries to obtain accurate bycatch data.

Recommendation

Commission staff: Support the Department's near-term recommendations, and request the Department return to MRC in March 2024 with specific details for the proposed management measures and a timeline for initiating in 2024 the Department-recommended rulemaking. In addition, request that the Department continue to explore other long-term management options with fishery participants and stakeholders for a potential future rulemaking.

Department: Pursue near-term recommendations including a Phase 1 rulemaking (including soak time limits, increased gear marking, and mesh depth restrictions), and a pilot project developed to evaluate data improvements, including observer coverage and electronic logbooks and monitoring (Exhibit 3).

Exhibits

1. Staff summary from November 17, 2022 MRC meeting, Agenda Item 5 (for background purposes only)
2. Staff summary from July 20, 2023 MRC meeting, Agenda Item 3 (for background purposes only)

Committee Direction/Recommendation

The Marine Resources Committee recommends that the Commission (1) support development of a rulemaking to include soak time limits, increased gear marking, and mesh depth restrictions in the set gillnet fishery, (2) add the rulemaking to the rulemaking timetable for 2024 with a specific timeline to be determined, and (3) request the Department return to the next Committee meeting with details for the proposed measures and potential timeline. In addition, support the Department pursuing a pilot project for data improvements, including observer coverage and electronic logbooks and monitoring.

COMMITTEE STAFF SUMMARY FOR NOVEMBER 17, 2022 MRC
For background purposes only

5. ASSESSING AND ADDRESSING BYCATCH IN CALIFORNIA FISHERIES

Today's Item **Information ☐** **Action ☒**

(A) ***Overview of process for evaluating and addressing fishery bycatch***
Review the four-step process for limiting bycatch to acceptable types and amounts as outlined in the 2018 Marine Life Management Act (MLMA) master plan for fisheries.

(B) ***Evaluating bycatch in the California halibut fishery***
Receive Department update on analysis of bycatch data for the California halibut fishery to support fishery management review.

(C) ***Determining acceptable bycatch types and amounts***
Discuss potential approaches to completing inquiries for determining what bycatch is "acceptable" within a specific fishery and develop potential committee recommendation.

Summary of Previous/Future Actions

• FGC referred California halibut management review to MRC	Aug 19-20, 2020; Webinar/Teleconference
• DFW update on California halibut stock assessment and management review	Mar 16, 2021; MRC, Webinar/Teleconference
• DFW update; MRC recommendation to schedule bycatch review discussion	Nov 9, 2021; MRC, Webinar/Teleconference
• FGC referred bycatch review to MRC	Dec 15-16, 2021; Webinar/Teleconference
• FGC received update on bycatch evaluation for California halibut management review	Mar 24, 2022; MRC, Webinar/Teleconference
• DFW written update on bycatch evaluation for California halibut	Jul 14, 2022; MRC, Santa Rosa
• **Today's update and discussion on bycatch evaluation for halibut; potential MRC recommendation**	**Nov 17, 2022; MRC, San Diego**

Background

The California halibut fishery is a multi-sector commercial and recreational fishery managed under FGC authority. In 2019, as part of the fisheries prioritization process required by the Marine Life Management Act (MLMA) and outlined in *2018 Master Plan for Fisheries, A Guide for Implementation of the Marine Life Management Act*, California halibut was prioritized for management review. In Aug 2020, DFW recommended that it initiate the management review process for California halibut; FGC concurred and referred the topic to MRC.

One key driver in halibut's high priority ranking included potential risks to bycatch species (including sub-legal-sized halibut) in commercial trawl and set gillnet fisheries. Bycatch, as defined by MLMA for state-managed fisheries, means "…*fish or other marine life that are taken in a fishery but are not the target of the fishery. Bycatch includes discards*" (California Fish and Game Code Section 90.5). MLMA requires that DFW manage every sport and commercial

marine fishery in a way that *limits bycatch to acceptable types and amounts* (Fish and Game Code Section 7056(d)), and specifies information, analysis, and management measures required to accomplish this for each fishery (Fish and Game Code Section 7058).

The master plan established a bycatch evaluation framework in Chapter 6 (“Ecosystem-based objectives") as guidance for achieving the requirements of Section 7058. The framework is detailed in a section titled “Limiting bycatch to acceptable types and amounts” (Exhibit 1). The section draws largely from the work of a group of diverse stakeholders, called the Bycatch Working Group, convened by FGC in 2015 to help inform review of bycatch management. The framework in the master plan is, in part, designed to help determine what constitutes “acceptable types and amounts” of bycatch for each fishery evaluated.

The California halibut fishery management review presents the first opportunity to utilize the master plan’s bycatch evaluation framework. In Dec 2021, FGC requested that MRC pursue the halibut bycatch evaluation as a separate work plan topic from the related fishery management review that the bycatch evaluation will inform, to ensure robust public engagement through this first evaluation process. In Mar 2022, DFW presented MRC with its approach to evaluating halibut fishery bycatch and, in Jul 2022, DFW provided a written update about its continued efforts and hurdles it is facing in analyzing halibut bycatch from the available data.

Today’s meeting is an opportunity to focus on the master plan guidance and discuss options for how to complete the steps in the process.

(A) ***Overview of process for evaluating and addressing fishery bycatch***

FGC staff will recap the four-step process laid out in the master plan framework to identify bycatch and consider its impacts (Exhibit 1):

Step 1 – Collect information on the amount and type of catch

Step 2 – Distinguish target, incidental, and bycatch species

Step 3 – Determine “acceptable” types and amounts of bycatch

Step 4 – Address unacceptable bycatch

Note that today’s meeting is focused on steps 1-3.

(B) ***Evaluating bycatch in the California halibut fishery (steps 1 and 2)***

Consistent with MRC discussion in Jul 2022, DFW has provided the recently-completed bycatch assessment report for the trawl and set gillnet California halibut fisheries that DFW developed in collaboration with an academic partner, which authored the final report (Exhibit 2). DFW believes that the report accomplishes the goals of steps 1 and 2 and is adequate to support the Step 3 analysis. DFW will present an overview of the complex assessment, methods and results—to help build a common understanding of the foundational data that can support the Step 3 evaluation of bycatch acceptability—and potential next steps for MRC consideration (Exhibit 3).

(C) ***Determining acceptable bycatch types and amounts (Step 3)***

The master plan specifies that DFW will determine if the amount and type of bycatch is unacceptable for a particular fishery using four criteria mandated in MLMA (Fish and Game Code Section 7058):

1. Legality of take of bycatch species
2. Degree of threat to the sustainability of the bycatch species
3. Impacts on fisheries that target the bycatch species
4. Ecosystem impacts

The master plan bycatch evaluation framework (Exhibit 1) lays out a detailed series of inquiries and recommended actions for each criterion under Step 3 that would be applied to each species of bycatch. The inquiries provide a structural basis for managers to consistently assess each criterion to determine what is "acceptable" bycatch in the fishery and to articulate the findings. However, given the number of bycatch species and the detailed inquiries that would need to be applied to each, it is necessary to prioritize which species to include in the Step 3 assessment. It is possible that selecting a handful of representative species for the assessment would be sufficient, as the benefit of proposed management actions will likely have benefits across multiple species.

Today's meeting provides an opportunity to explore how DFW might accomplish the bycatch inquiries for California halibut in a manner that is transparent, inclusive and timely. This discussion will inform MRC's direction or potential recommendation regarding an approach.

Significant Public Comments

A joint comment from two environmental non-governmental organizations emphasizes the importance of FGC's commitment to minimize fishery bycatch, with an initial focus on California halibut trawl and gill net gears, consistent with DFW's ecological risk assessment and prioritization. The organizations have conducted their own bycatch assessments of trawl and set gillnet gear in California using federal observer data and request a collaborative approach to implementing the bycatch inquiry. They also request that MRC provide direction on what additional analyses are needed and to outline the public process and timeline MRC will follow to make a recommendation to FGC (Exhibit 4).

Recommendation

FGC staff: (1) Recommend FGC support DFW moving forward with Step 3 of the bycatch evaluation to determine bycatch acceptability, using the bycatch analysis report DFW provided today (Exhibit 2) and a DFW-led workgroup of key communicators representing various interests to provide a forum for discussing responses to the Step 3 inquiries prior to bringing recommendations to MRC. (2) Recommend using MRC as a forum for broader discussion and, ultimately, MRC recommendation to FGC on DFW's findings. (3) Provide guidance on selection of bycatch species to begin Step 3.

DFW: Move forward with Step 3 of the framework in the master plan analysis based on the information contained in the steps 1 and 2 bycatch analysis report (Exhibit 2), and provide guidance on options for public engagement in determining bycatch acceptability.

Exhibits

1. Chapter 6 – "Ecosystem-based objectives: Limiting bycatch to acceptable types and amounts", extracted from *2018 Master Plan for Fisheries, A Guide to Implementation of the Marine Life Management Act*, dated June 2018
2. Report by Christopher M. Frees, DFW contractor: *Assessment of associated landed species and bycatch discards in the California halibut gill net and trawl fisheries*, received Nov 4, 2022
3. DFW presentation
4. Letter from Geoff Shester, Oceana, and Scott Webb, Turtle Island Restoration Network, received Nov 3, 2022

Committee Direction/Recommendation

The Marine Resources Committee recommends that the Commission (1) support the Department moving forward with evaluation of bycatch acceptability based on the analysis report submitted by the Department at the committee's November 2022 meeting; and (2) request that the Department pursue the following approach for completing the inquiries within the Step 3 evaluation framework and engaging stakeholders in the process: _____
_____.

COMMITTEE STAFF SUMMARY FOR JULY 20, 2023 MRC
For background purposes only

3. EVALUATION OF BYCATCH IN THE CALIFORNIA HALIBUT SET GILLNET FISHERY IN SUPPORT OF THE FISHERY MANAGEMENT REVIEW

Today's Item **Information ☐** **Action ☒**

Receive and discuss Department report summarizing its evaluation of fisheries bycatch and acceptability in the California halibut set gillnet fishery, provide committee direction on next steps, and potentially develop committee recommendation.

Summary of Previous/Future Actions

• Commission referred California halibut management review to MRC	Aug 19-20, 2020
• Commission referred bycatch evaluation for California halibut management review to MRC	Dec 15-16, 2021
• MRC received updates on bycatch evaluation for California halibut	Mar 24, 2022 and Jul 14, 2022
• MRC received bycatch evaluation report from Department; MRC recommendation for initial priorities in bycatch acceptability inquiry	Nov 17, 2022
• MRC received Department updates on bycatch inquiries for the California halibut gill net fishery	Mar 14 & 16, 2023
• **Today receive and discuss Department report on bycatch acceptability; potential MRC recommendation**	**Jul 20, 2023**

Background

Management review of the California halibut fishery commenced in late 2020, consistent with the requirements of the Marine Life Management Act (MLMA) and using the framework outlined in the *2018 Master Plan for Fisheries, A Guide for Implementation of the Marine Life Management Act* (master plan) for meeting those requirements. Steps taken by the Department have included pursuing stock assessments for the northern and southern stocks (2020-2021), exploring a scope and potential process for the multi-sector California halibut management review (2021), and, following Commission direction in December 2021, conducting an evaluation of bycatch in the California halibut fishery.

The California halibut fishery management review has presented the first opportunity to use the four-step framework for evaluating bycatch laid out in Chapter 6 of the master plan, to: collect information on the type and amount of catch (Step 1); distinguish target, incidental, and bycatch species (Step 2); determine "acceptable" types and amounts of bycatch (Step 3); and address unacceptable bycatch (Step 4).

At the November 2022 MRC meeting, the Department presented a report completed by a contracted academic scientist that evaluated and summarized catch and bycatch data compiled for the California halibut sectors with greatest bycatch concern: commercial trawl and

set gillnet halibut fisheries. Utilizing federal observer data provided by the National Marine Fisheries Service (NMFS), the Department and the contracted scientist used fishery expertise along with logbook and landings data to differentiate the subsets of observed sets targeting California halibut from other observed trawl and gillnet fishery sets. The report summarized target catch, top incidentally-caught species landed, top incidentally-caught species discarded, and discard mortality, fulfilling the information needs for steps 1 and 2 of the bycatch evaluation framework. See Exhibit 1 for additional background and context.

MRC supported relying on the Department-presented report as the foundation for completing Step 3 – evaluating acceptability of bycatch types and amounts. MRC discussed priorities for completing the detailed bycatch inquiries based on the new evaluation report, favoring an initial focus on top bycatch species from set gill nets targeting California halibut. In December 2022, the Commission approved an MRC recommendation to request the Department to (1) commence the step 3 evaluation of acceptability of bycatch in the *California halibut set gillnet fishery,* using the inquiries outlined in the master plan; (2) focus on completing bycatch inquiries for the *top ten species*; (3) engage stakeholders (halibut gillnet fishermen and stakeholder groups); and (4) bring results back to MRC in March 2023 for discussion and potential committee recommendation.

March MRC

In March 2023, the Department reported that it had completed Step 3 bycatch inquiries for 12 top bycatch species, as requested by the Commission, to help assess acceptability of bycatch types and amounts against the four criteria specified in the MLMA for determining acceptability: (1) legality of the take of bycatch species; (2) degree of threat to the sustainability of the bycatch species; (3) impacts on fisheries that target the bycatch species; and (4) ecosystem impacts (Fish and Game Code Section 7085(b)). The Department presented a summary of the inquiry results during the meeting, and committed to preparing a written report documenting its responses to inquiries and articulating its findings.

Discussion also centered around a separate evaluation conducted by two non-governmental organizations (NGOs), Oceana and Turtle Island Restoration Network (TIRN), in which they evaluated bycatch acceptability in set nets for all gillnet gear combined, in contrast to the subset of halibut sets analyzed by Department. The MRC co-chairs noticed discrepancies between the NGO and Department approaches, reporting and conclusions, and asked questions to help clarify differences in the differing analyses, and sources of divergent data and findings.

Following public discussion, MRC made four requests of the Department.

1. Look more closely at discrepancies between the NGO bycatch data and the Department data, including in relation to marine mammal and leatherback sea turtle entanglement.
2. Create a more comprehensive list of species that are retained and sold as incidental catch, including:
    (a) the percentage of fish that are caught and marketed, and
    (b) the percentage of species caught and discarded.

3. Clarify the bycatch percentage relative to pounds and number of individuals, to help reconcile the differences between the percentages reported by the NGOs and fishermen.
4. Provide a written report of the Department's evaluation of 12 top bycatch species that were summarized in the presentation, and return to today's MRC meeting with sufficient information to support a recommended determination regarding acceptability of bycatch types and amounts, to allow the process to advance to Step 4 (*addressing unacceptable bycatch types and amounts*) in the bycatch evaluation framework.

MRC also asked that Commission staff, the Department, and the two NGOs work together to reconcile differences in data and interpretations, where possible, to further advance discussions today.

Update

Since March, Commission and Department staff have strived to meet the MRC requests.

Commission, Department, and NGO Meetings

From April to July 2023, staff from the Commission, the Department, Oceana, and TIRN invested significant time through several meetings, covering multiple hours, to discuss and seek a shared understanding of bycatch within the California halibut set gillnet fishery and an analysis on the set gillnet fishery in general. Oceana and TIRN shared their raw data and methodology for several components of their report, including a description of how they extrapolated the combined California halibut and white seabass observer data to obtain fleetwide estimates. The Department summarized its raw observer data to share overall catch and bycatch rates of California halibut-only set gill nets. Each entity independently followed up with NMFS staff, researchers, and the literature to vet conclusions or interpretations or to clarify inconsistencies or uncertainty.

Commission staff completed an in-depth analysis of the NGO report (formally released in April), which included replicating analyses, evaluating assumptions, and reviewing key conclusions. Commission staff verbally shared with the NGOs where it disputed their conclusions due to inconsistencies with what the cited literature stated, flagged areas where there appeared to be erroneous information, and offered potential recommendations that would allow for a more conducive dialogue.

Overall, there was a collective exploration of respective findings and conclusions and, although there remain disagreements in interpretations, the discussions helped to expose limitations with the various sources of data, highlighted areas of concern related to particular species, and facilitated a deeper understanding of the potential impacts of the fishery. In addition, the dialogue identified areas where it may be possible to move forward with potential management measures; although the potential measures have not yet been formally vetted with fishermen – a crucial step in the overall process – staff have discussed potential management measures that could improve understanding of the impacts of this fishery through increased data collection and monitoring, and options intended to reduce bycatch impacts.

Discussions and Opportunities with Fishermen

Several fishermen in the set gillnet fishery who attended the last two MRC meetings reached out to Commission and Department staff to share their knowledge and expertise of the fishery. They are interested in helping shape future management measures and are offering new ideas to explore. In addition, they invited the MRC co-chairs, and Commission and Department staff to join them on the water to observe fishery operations first-hand. To date, staff from the Department has joined one set gillnet fishing trip, while the MRC co-chairs and Commission staff are scheduling potential dates.

Today's Meeting

The Department prepared a bycatch evaluation report that summarizes the information presented in March (Exhibit 2). The report summarizes the methods and results of the California halibut bycatch evaluations in Step 1 (species type and amount of catch) and Step 2 (distinguish target, incidental and bycatch species), as well as the outcomes of completing Step 3 (determine acceptable types and amounts of bycatch) bycatch inquiries from the master plan for 12 species (spreadsheet copies in report appendix). The report offers movement toward considering management measures under Step 4, to help fill significant data gaps that limit information about the actual impacts of gill nets used in the California halibut fishery, and explores others to minimize bycatch types and amounts found to be unacceptable.

In addition, the Department has shared a table with six years of cumulative observed catch data from the NMFS California Set Gill Net Observer Program filtered for California halibut-targeted sets (447 sets of 1,258 observed sets) (Exhibit 3). The data are in the same format as the summary table of unfiltered set gill net observed catch, prepared by Oceana and shared with the Commission in June, derived from the publicly available observed catch data for all set gill net (1,258 sets) for the same years. Together, these tables assist in differentiating between observed catch data attributable to the California halibut set gillnet fishery specifically.

The Department report acknowledges that "…there are significant data limitations and knowledge gaps to determine amounts and types of bycatch and potential risks to sustainability, fisheries, and ecosystems. Lack of data to understand the total amount of bycatch in an individual fishery may potentially be considered 'unacceptable' under the MLMA and could lead to discussions with industry, stakeholders, and managers to address the insufficient and uncertain sources of data. Regardless of an acceptability determination, Department staff continue to move forward towards solutions and have identified potential management measures to address information gaps related to data limitations and interactions with some bycatch species in the set gill net fishery" (from Exhibit 2, page 23).

Staff believes that the Department's analyses of the top bycatch species types and amounts as requested by MRC support responding to provide a solid foundation for addressing bycatch in the California halibut fishery through potential management measures, as well as to set additional goals for enhanced understanding of sustainability in the fishery. MRC may wish to clarify what knowledge gaps remain, and identify areas of uncertainty to pursue (e.g., further partitioning incidental catch species to identify those to be managed by target species standards

and those to be managed under bycatch management standards, defining what constitutes bycatch "types" and "amounts" for purposes of bycatch acceptability evaluations, etc.).

The Department's presentation for today's meeting (Exhibit 4) will highlight species that are caught and landed in the fishery, species that are caught and discarded in the fishery, and potential management measures for MRC and the Commission to consider if they support advancing to Step 4 without additional analyses.

Significant Public Comments

The Commission received nine comment letters related to bycatch with California set gillnet fisheries. General themes of the comments are summarized below; see Exhibit 5 for all comment letters combined.

Comments about the Department's California Halibut Bycatch Report

1. Oceana and TIRN express appreciation for the amount of work Department and Commission staff and MRC have dedicated to addressing the concerns arising from California set gill nets, including understanding data complexities, listening to stakeholder concerns, and undertaking California's first bycatch acceptability determination. However, they critique several aspects of the Department's recent bycatch evaluation report for California halibut set gill net (in Exhibit 2), expressing concern that it deviates from the MLMA standards and falls short on appropriate and precautionary management actions to reduce unacceptable bycatch. They also recommend three alternatives for potential comprehensive management pathways, which include specific management actions such as full observer coverage, hard bycatch caps, reduced soak time, and temporary or long-term phase-out of permits (see comment letters 3 and 8 in Exhibit 5).

Comments Regarding Bycatch Concerns in Set Gillnet Fisheries (All Targets)

2. Oceana completed a white paper with analysis on bycatch within the set gill net fishery (all targets) using publicly available federal observer data. The report investigates soak time, catch composition, discard mortality, and post-release mortality, and suggests bycatch mitigation measures as options to reduce overall bycatch and discard mortality. In addition, for incidentally caught and retained species, it highlights those species most commonly retained as 'secondary targets' and evaluates which target species have or lack management measures to ensure sustainability. The analysis includes appendices of observer data and extrapolates total estimates of catch, discard, and discard mortality for all observed species across 15 years combined. See comment letter 3 in Exhibit 5.
3. An academic research scientist expresses concern over take with set gill net of two protected species: giant sea bass – a species he actively studies – and juvenile white sharks. He underscores the importance of having management plans and stock assessments that can inform catch limits and sustainable harvests (comment letter 1 in Exhibit 5). An individual also expressed concern over set gill net impacts on highly impaired giant sea bass in Santa Barbara, is concerned that recent observer coverage

has been minimal, and would like to see a transition away from this gear type (comment letter 2).

4. A joint letter from 5 California senators and 14 assembly members expresses concern about the types and rates of bycatch in California's set gillnet gear fishery, and urges the Commission and Department to follow the approach and criteria laid out in the MLMA regarding determining acceptable bycatch. They acknowledge the management measures taken thus far in the fishery but believe further management measures are needed to protect California's biodiversity (comment letter 6).
5. Four comments letters coalesce around similar key points, such as the historical and global threat of set gill nets to regional population levels; the effects of set gill nets on the health and biodiversity of southern California's unique ecosystem; the high discard rate and discard mortality recorded by federal observers; and a request to the Commission to formally determine that the types and amounts of bycatch in set gill nets are unacceptable. One commenter is specifically concerned about the threat to pinnipeds, cetaceans, and elasmobranchs (comment letter 5), while another expresses that ecosystem-based fisheries management should take a precautionary approach (comment letter 4). Two commenters contrast set gill net gear with the lower bycatch rate of California halibut caught with hook and line gear (comment letters 7 and 9).

Recommendation

Commission staff: Initiate discussions about potential management measures that may improve set gill net data collection and fill data gaps, and aid in reducing impacts of bycatch types and/or amounts that the Commission finds to be potentially unacceptable in the California halibut fishery. Request that the Department continue exploring possible management options with fishery participants and stakeholders, and provide an update for discussion at the November 2023 MRC meeting.

Department: Discuss potential improvements to data collection and fill information gaps, and support Department to continue stakeholder discussions and prioritize management actions.

Exhibits

1. Staff summary from November 17, 2022 MRC meeting, Agenda Item 5 (for background purposes only)
2. Department bycatch evaluation report, dated June 21, 2023
3. NMFS observed catch in the set gill net sets targeting California halibut, 2007-2017
4. Department presentation on its evaluation of bycatch in the California halibut set gill net fishery, received July 7, 2023
5. Compilation of comment letters received between June 20 and July 7, 2023

Committee Direction/Recommendation

The Marine Resources Committee recommends that the Commission support the Department exploring potential management measures with fishery participants and stakeholders to improve set gill net data collection, fill information gaps, and aid in reducing unacceptable bycatch

impacts in the California halibut set gillnet fishery; and schedule the topic for discussion at the November 2023 MRC meeting.

Committee Staff Summary for March 19, 2024 MRC
For Background Purposes Only

3. Bycatch Evaluation in Support of the California Halibut Fishery Management Review (*Agenda item limited to 60 minutes*)

Today's Item **Information ☐** **Action ☒**

(A) ***Evaluation of bycatch in the California halibut set gillnet fishery:*** Receive a verbal update on the Department's progress in developing regulatory options for near-term fishery management measures and the longer-term management measures supported by the Commission to address bycatch concerns and information gaps.

(B) ***Committee direction on next steps for bycatch evaluation, specific to the California halibut trawl fishery***

Summary of Previous/Future Actions

• Commission referred California halibut management review to Marine Resources Committee (MRC)	August 19-20, 2020
• Commission referred bycatch evaluation for California halibut management review to MRC	December 15-16, 2021
• Received updates on bycatch evaluation for commercial California halibut *set gillnet and trawl fisheries*	March 24 and July 14, 2022; MRC
• Received and discussed Department bycatch evaluation report; MRC recommendation to conduct bycatch acceptability evaluation for California halibut *set gillnet fishery* (approved by Commission in December 2022)	November 17, 2022; MRC
• Received and discussed Department update on bycatch evaluation for the California halibut *set gillnet fishery*	March 14 and 16, 2023; MRC
• Received and discussed Department evaluation of bycatch acceptability for *set gill net gear*; MRC recommendation to develop management options to address bycatch concerns (approved by Commission in August 2023)	July 20, 2023; MRC
• Received and discussed potential management measures to address set gillnet bycatch; MRC recommendation for near- and long-term regulatory approach for specified measures (Commission approved MRC recommendation in December 2023 and scheduled near-term rulemaking)	November 16, 2023; MRC
• **Today receive and discuss Department's progress in developing near- and long-term regulatory options for California halibut *gillnet fishery***	**March 19, 2024; MRC**
• Commission notice hearing for near-term rulemaking	April 17-18, 2024

Committee Staff Summary for March 19, 2024 MRC
For Background Purposes Only

Background

Management review of the California halibut fishery commenced in late 2020, consistent with the requirements of the Marine Life Management Act (MLMA) and using the framework outlined in *2018 Master Plan for Fisheries, A Guide for Implementation of the Marine Life Management Act* (master plan) for meeting those requirements. A key requirement of the fishery management review is evaluating and addressing unacceptable bycatch in a way that limits bycatch to acceptable types and amounts.

The California halibut fishery management review has presented the first opportunity to use the four-step framework for evaluating bycatch laid out in Chapter 6 of the master plan, to: (1) collect information on the type and amount of catch, (2) distinguish target, incidental, and bycatch species, (3) determine "acceptable" types and amounts of bycatch, and (4) address unacceptable bycatch.

In November 2022, the Department provided a bycatch assessment report for the commercial trawl and set gillnet California halibut fisheries, fulfilling steps 1 and 2 of the bycatch evaluation framework. In December 2022, the Commission approved an MRC recommendation to separate evaluation of the set gill net gear type from the trawl gear type for the remaining California halibut bycatch evaluation steps. The Commission supported moving forward with steps 3 and 4 for the California halibut set gillnet fishery first, to be followed by the California halibut trawl fishery.

(A) Evaluation of Bycatch in the California Halibut Set Gillnet Fishery

In July 2023, the Department completed Step 3 of the bycatch evaluation framework and, in August 2023, the Commission approved the MRC recommendation to proceed to Step 4 of the bycatch evaluation framework to develop a suite of potential management measures to address bycatch concerns and data gaps.

In November 2023, the Department presented a suite of potential management measures for the set gillnet fishery, proposing a regulatory approach focused on several measures for near-term implementation and others to be explored and developed on a longer timeline. The near-term recommendations included soak time limits, increased gear markings, and mesh depth limits, while the long-term recommendations included developing a pilot project for electronic monitoring, electronic logbooks, and observer coverage. See Exhibit 1 for background information about the potential management measures.

At its December 2023 meeting, the Commission approved the MRC recommendation to support the Department developing a set gillnet rulemaking consisting of soak time limits (with a range of 24 to 48 hours), mesh height restrictions (25-mesh depth or net height maximum for California halibut-targeted set gill nets and 50-mesh depth or net height maximum for white seabass-targeted set gill nets), and gear marking developed in consultation with stakeholders. In addition, the Commission requested that, at today's MRC meeting, the Department provide an update on the rulemaking as well as information about potential electronic monitoring, electronic technology, and observer coverage for discussion purposes.

Committee Staff Summary for March 19, 2024 MRC
For Background Purposes Only

Update

Since December, Department staff has focused on engaging with members of the set gillnet fleet and Department law enforcement, to discuss elements of the near-term rulemaking. In February, the Commission approved adding the near-term rulemaking to its schedule to begin in April 2024. The Department has been developing rulemaking documents while simultaneously initiating exploratory efforts into potential long-term management measures.

Moreover, Commission and Department staffs learned about additional analyses of set gillnet bycatch recently conducted by the academic partner who completed the bycatch assessment report for trawl and set gill net California halibut fisheries, along with his graduate student. Their additional analyses use modeling techniques to better understand the impacts and drivers of bycatch in the set gillnet fishery for several sensitive species (e.g., marine mammals, tope sharks). They have shared preliminary results with Commission and Department staffs on estimated historical bycatch, drivers of bycatch risk, and bycatch hotspots, providing important context that could help inform soak time limits and potential future spatial/temporal closures. Their results also reinforce the Department's review of bycatch acceptability and demonstrate the type of analyses that would be helpful if conducted prior to any spatial or temporal closures. Key results, which the researchers agreed to allow us to share, include:

- The estimated yearly bycatch of California sea lion, northern elephant seal, harbor seal, and harbor porpoise falls well below the potential biological removal[1] for each species.
- Temporal and spatial variables (latitude, longitude, and depth) were more important than distance to shore, temperature, soak time, mesh size, or island area in determining the drivers of bycatch risk for the species evaluated.
- Marine mammal and shark species demonstrated different spatial bycatch hotspots. For example, California sea lions and harbor seals were more frequently captured in the northern region (at or above 34°N) around the Channel Islands, closer to shore, and in shallow water depths. In contrast, tope sharks were more often captured in the southern region away from the Channel Islands, offshore, and in deep water depths.

The academics are currently finishing their final report and manuscript, which will be shared with the Commission and Department to help inform future potential management measures.

Today's Meeting

Today the Department will provide a verbal summary of outreach efforts to engage the set gillnet fleet and interested stakeholders on the proposed near-term management measures, development of the near-term set gillnet rulemaking, and expected timeline. For long-term measures, the Department will share progress on options for electronic monitoring; it does not have an update on observer coverage or spatial/temporal closures at this time.

[1] Potential biological removal is defined by the Marine Mammal Protection Act as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population.

(B) Committee Direction on Next Steps for Bycatch Evaluation, Specific to the California Halibut Trawl Fishery

Given the anticipated timeline for completing Step 4 of the bycatch evaluation framework for the California halibut set gillnet fishery, the Department is poised to continue the bycatch evaluation process for the California halibut trawl fishery, starting at Step 3 of the framework. As mentioned in Agenda Item 2, the Department's evaluation of the California halibut trawl grounds in state waters will contribute to the broader evaluation of bycatch in the fishery for the trawl gear type. The Department is ready to proceed with Step 3 of the bycatch evaluation framework across both state and federal waters for the California halibut trawl fishery.

Today also presents an opportunity to reflect on and learn from the California halibut set gillnet fishery's bycatch evaluation process and identify any key insights or potential areas for improvement, and for MRC to provide direction and guidance to apply to the California halibut trawl fishery evaluation.

Significant Public Comments

An environmental non-governmental organization expresses gratitude for the analysis of bycatch in the California set gillnet fishery, but deems the current level of bycatch unacceptable and states a belief that there is a need for immediate action to protect oceans. For the short-term regulatory changes, they recommend implementing an 18-hour soak time limit, enforcing stricter regulations on gear loss, and managing mesh depth. In addition, they suggest a pilot project for electronic monitoring systems and observer coverage to support data improvements. Lastly, they advocate for the retirement of latent permits, establishing hard caps on bycatch, and gradually phasing out the fishery. (Exhibit 2)

Recommendation

Commission staff: (A) Discuss updates on advancing near- and long-term management measures for the California halibut set gillnet fishery; and (B) support initiating Step 3 of the bycatch evaluation framework for the California halibut trawl fishery, encompassing both federal and state waters, and offer guidance on the evaluation approach, drawing on the experience from the set gill net process.

Department: Continue the bycatch evaluation for California halibut trawl gear in both federal and state waters.

Exhibits

1. Staff summary from November 16, 2023 MRC meeting, Agenda Item 2 (*for background purposes only)*
2. Email and letter from Elizabeth Purcell, Environmental Policy Coordinator, and Teri Shore, Board of Directors, Turtle Island Restoration Network, received March 5, 2024

Committee Staff Summary for March 19, 2024 MRC
For Background Purposes Only

Committee Direction/Recommendation

The Marine Resources Committee recommends that the Commission support the Department's recommendation to move forward with an evaluation of bycatch for California halibut trawl gear, in both federal and state waters.

State of California
Department of Fish and Wildlife

Signed Original on File
Received April 9, 2024

M e m o r a n d u m

Date: April 2, 2024

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

From: Charlton H. Bonham
Director

Subject: **Submission of Initial Statement of Reasons for the April 17-18, 2024 Fish and Game Commission meeting to Add Section 174.1 to Title 14, California Code of Regulations, re: Set Gill Net Service Interval, Gear Marking and Mesh Depth**

Please find attached the Initial Statement of Reasons to add section 174.1, Title 14, California Code of Regulations. The proposed addition to the gill net or trammel net commercial fishing regulation aims to establish a set gill net service interval, require gear marking to identify set gill nets from California, and establish mesh depth (net height) limits for take of white seabass and California halibut. It is expected that the new regulation would become effective January 1, 2025. The proposed management measures are necessary to address potential bycatch concerns for the set gill net fishery.

If you have any questions or need additional information, please contact Dr. Craig Shuman, Marine Regional Manager at R7RegionalMgr@wildlife.ca.gov. The Department point of contact for this regulation should identify Environmental Scientist Miranda Haggerty. She can be reached at Miranda.Haggerty@wildlife.ca.gov.

ec: Chad Dibble, Deputy Director
Wildlife and Fisheries Division

Craig Shuman, D. Env., Region Manager
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Kirsten Ramey, Env. Program Manager
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Wildlife and Fisheries Division

State of California
Fish and Game Commission
Initial Statement of Reasons for Regulatory Action

Add Section 174.1
Title 14, California Code of Regulations
Re: Set Gill Net Service Interval, Gear Marking and Mesh Depth

I. Date of Initial Statement of Reasons:

II. Dates and Locations of Scheduled Hearings

(a) Notice Hearing:

Date: April 17-18, 2024 Location: San Jose

(b) Discussion Hearing:

Date: June 19-20, 2024 Location: Mammoth Lakes

(c) Adoption Hearing:

Date: August 14-15, 2024 Location: Fortuna

III. Description of Regulatory Action

(a) Statement of Specific Purpose of Regulatory Change and Factual Basis for Determining that Regulation Change is Reasonably Necessary

Unless otherwise specified, all section references in this document are to Title 14 of the California Code of Regulations (CCR).

The state of California manages the commercial set gill net fishery. The Department of Fish and Wildlife (Department) monitors the current 91 set gill net permits that are issued, of which 34 were active in the past year. The number of set gill netters has declined over time with increasing restrictions. From 1985-1990s there was a series of depth and area general gill net bans throughout northern California that limited all gill net fishing south of Point Conception. In 2000, an emergency gill net closure limited the use of all gill nets to federal waters south of Point Arguello in Santa Barbara County. In 2002, the gill net closure in northern California was made permanent. In 1994, Proposition 132 established the Marine Resource Protection Zone which banned all gill nets in nearshore waters. This banned gill nets within 3 miles of the mainland and 1 mile or 70 fathoms, whichever is less, surrounding the Channel Islands.

There are two main types of set gill nets, 8.5 minimum mesh which primarily targets California halibut (halibut), and 6-inch minimum mesh which primarily targets white seabass. Set gill nets have the potential to result in bycatch, where fish or other marine life taken in a fishery are not targeted and may be discarded because they are of an undesirable species, size, sex or quality or because they are not legal to take. “Acceptable bycatch” considers legality of take, potential threat to sustainability, impacts to other fisheries and the ecosystem (Department, 2018). Pursuant to the Marine Life Management Act (MLMA), over the past several years the Department has worked in coordination with research partners, Fish and Game Commission (Commission) staff, industry representatives, and the non-government organization (NGO)

community to complete a four-step process for determining whether the amount and type of bycatch are considered “acceptable” (Fish and Game Code (F&G Code) Section 7085). Step 4 of this bycatch evaluation is to develop management measures to address unacceptable bycatch and to improve data collection for the California set gill net fishery (Department, 2018). Subsections (a) through (c) of Section 174.1 outlined in this regulatory proposal are a direct result of this process, and an initial phase of regulations aimed to reduce bycatch in the California set gill net fishery.

CURRENT REGULATIONS

Current laws governing set gill nets are as follows:

Section 174 describes the permit required to use gill or trammel nets for commercial purposes, including qualifications, renewal, keeping records, conditions, revocations, and exemptions (implements F&G Code Section 8682). There are currently no service interval regulations for set gill nets.

Current gear marking regulations state set gill nets must be marked at both ends with buoys displaying fisherman’s identification number and specify the distance between markers shall not exceed 45 fathoms (F&G Code Section 8601.5).

Current laws specify that set gill nets with mesh size of not less than 8.5 inches may be used to take California halibut (F&G Code Section 8625(a)), and gill nets with meshes of a minimum length of 6 inches may be used to take white seabass (F&G Code Section 8623(d)).

PROPOSED REGULATIONS

Subsection 174.1(a)

Service interval is the amount of time that fishing gear remains in the water, between when it is first set and when it is retrieved. Service intervals vary among fisheries and are dependent on the target species, the specifications of the fishing gear, and the time it takes to service the gear and bring it aboard.

The Necessity of a Set Gill Net Service Interval Regulation

Currently, the California set gill net fishery does not have a maximum service interval defined in regulation, meaning gill netters can leave their nets in the water for any amount of time. Currently 72% of gill net logs report a 24 hour or less soak time, 23% report a 37–48-hour soak time and only 3% report over 56 hours (Figure 1). When asked during fleet outreach efforts, gill netters stated that they base the amount of time they soak their nets on how active fishing is. When fishing is slow, they will leave their nets out for 2 days, as their catch increases and it is a savings as fuel costs are cut in half.

Establishing a service interval duration has the potential to reduce bycatch impacts on some species, specifically discard mortality of sensitive species such as elasmobranchs. With a 24 hour or less soak time, 80% of all finfishes released are alive (except mackerel since they are an uncommon species with high discard mortality that skews the data- 53% with mackerel included), and 87% of all released elasmobranchs are alive (Figure 2). This mortality rate increases with longer service intervals, with 41% of finfish and 50% of elasmobranchs released

alive with soak times over 56 hours. However, there is an increase in the number of halibut caught in nets soaked over 24 hours (Figure 3), so allowing a longer soak time increases catch of halibut. Comparatively, the same trend is not seen in white seabass with the highest numbers being caught in 24 hour-soaked nets.

Proposed language in 174.1(a) for a service interval includes a range to be decided through the Commission public noticing process of 24 to 48 hours. The flexibility of allowing up to 48 hours between servicing nets would allow for fishers to determine the best time to pull nets depending on conditions and target species while also allowing for decreased fuel costs. During outreach efforts gill netters have voiced concern that a strict 24-hour service interval would be challenging to comply with given it takes longer to retrieve nets than to set them. Selecting a service interval between 25-35 hours could benefit fishers by providing reasonable time to pull their nets and still reduce bycatch mortality. It has been expressed that a 36-hour service interval is not reasonable to enforce as most gill netters deploy nets in the morning so retrieval would be in the middle of the night. The mortality rate does not substantially change in the 25–36-hour range for either finfishes or elasmobranchs. Additionally, the highest number of halibut per trip is reported from 25–36-hour range trips.

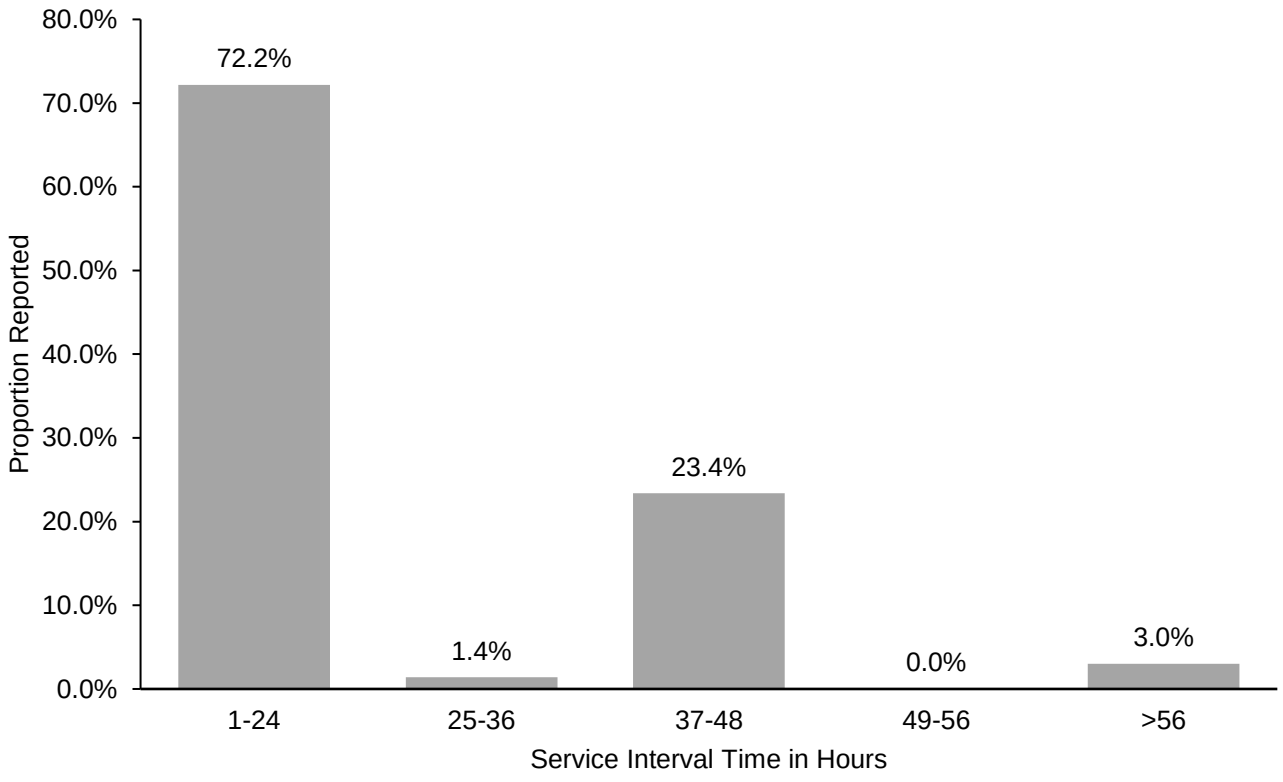

Figure 1. Range of service interval times and frequency reported in CDFW Gillnet Logs (2007-2022).

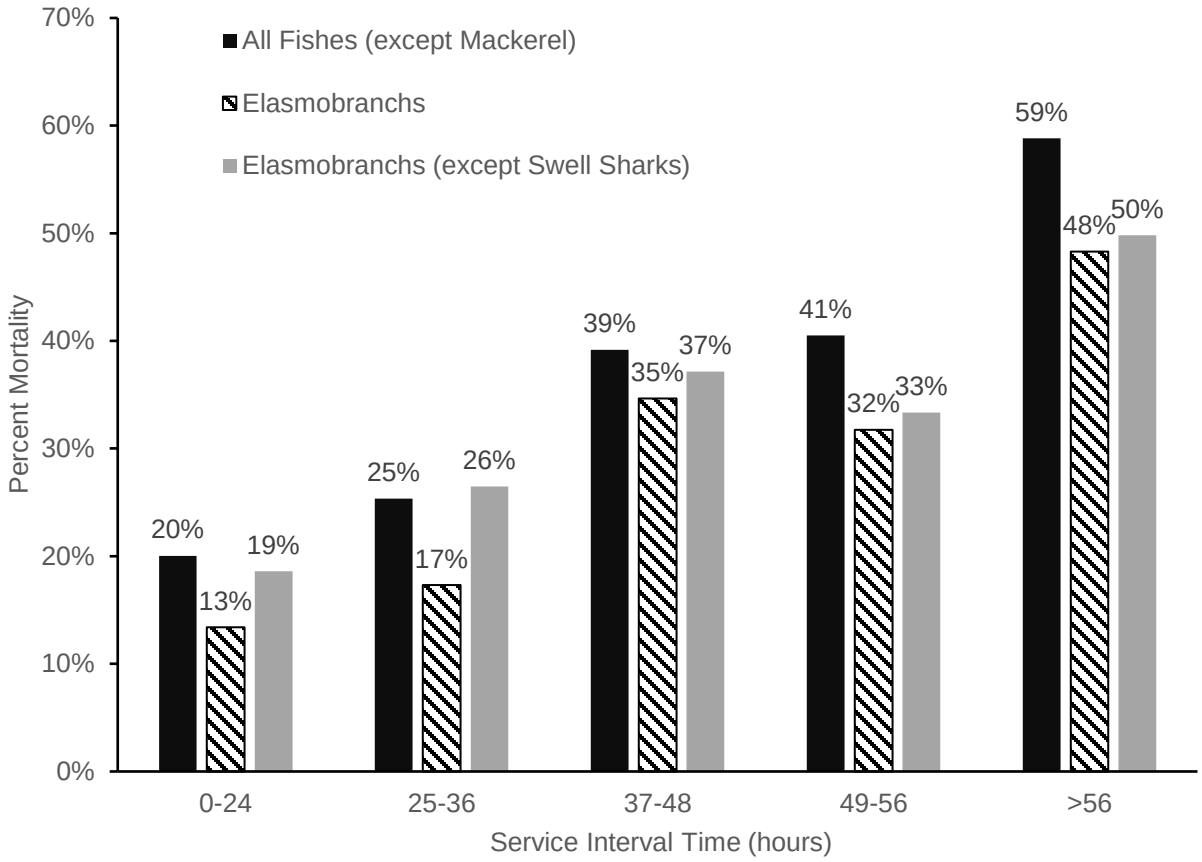

Figure 2. Percent mortality of species groups by service interval time based on federal observer data (Years- 2007, 2010, 2013, 2017). Mackerel are not commonly captured in gill nets and are excluded to prevent their high discard morality skewing the rate. Elasmobranchs are shown with and without swell sharks as they have a high survivability rate compared to other shark species.

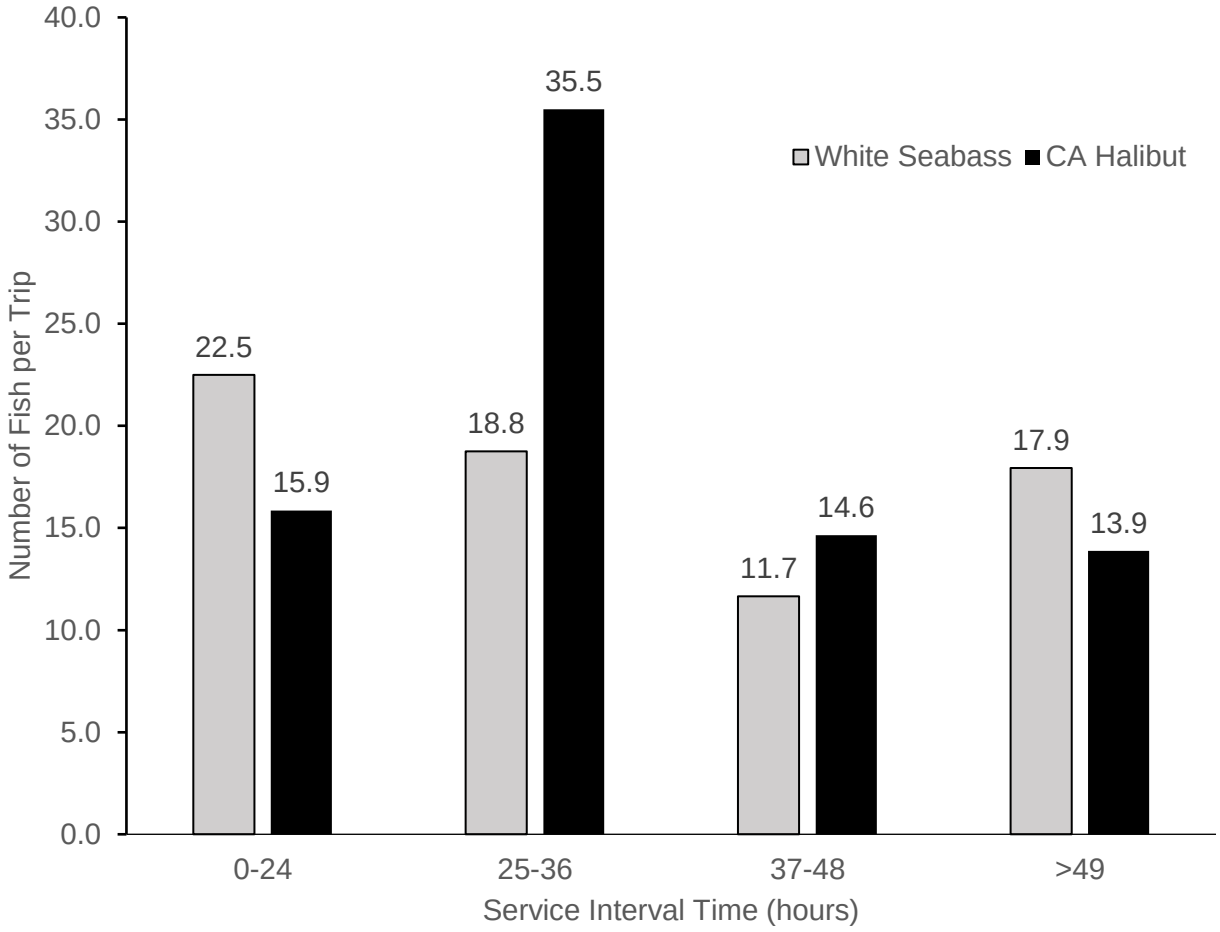

Figure 3. Number of California halibut and white seabass per soak time reported in CDFW Gillnet Logs (2007-2022).

Enforcement of the service interval regulation will be challenging without some type of electronic monitoring informing law enforcement officers of the location of gill net vessels when setting or retrieving nets. Monitoring service intervals through fishing activity logs is limited and cannot be verified unless enforcement is present or observing at all times. Electronic logbooks will only provide an honor-based system of reporting service intervals. Many of the vessels have the federal VMS system, but this system is only required for those landing or retaining groundfish and not for landing halibut or white seabass caught in gill nets. Electronic monitoring is anticipated to be pursued as part of a second phase of management improvements aimed to reduce bycatch in the California set gill net fishery but is not being included in this rulemaking.

Subsection 174.1(a)(1) and (2)

When implementing a service interval, it is important to include exemptions for the cases where a permittee might not be able to comply with the regulation due to undue hardship, or unsafe weather conditions or catastrophic events.

174.1(a)(1) - Due to the strict service interval time during outreach efforts, permittees have requested an allowance for alternative compliance where they may grant another permittee permission to remove their nets from the water if they are facing catastrophic events such as

vessel mechanical failure or debilitating illness. The process to request the Department's License and Revenue Branch to approve such an exemption and waiver allows the opportunity for a net to be serviced by another permittee. The issued waiver may provide flexibility for time constraints, landing prohibitions, or other conditions the Department may deem pertinent. This provision is necessary to provide flexibility for the permittee to still comply with the service interval for non-weather related unforeseen circumstances.

174.1(a)(2) - Law enforcement has expressed that email is the most efficient way for a permittee to notify the Department of unsafe weather conditions at sea. An email specific to set gill net unsafe weather exemption notifications has been set up (gillnetnotifications@wildlife.ca.gov) and it is required that permittees must send a message prior to the end of the service interval stating the reason for delay and the anticipated date and time of retrieval. Proposed subsection 174.1(a)(2)(B) provides that unsafe weather conditions include the issuance of a Small Craft Advisory by the National Weather Service, or issuance of another advisory that indicates winds of over 25 knots. This provision is necessary to provide flexibility for the permittee to still comply with the service interval for unforeseen or changing weather conditions.

Subsection 174.1(a)(3)

When set gill nets are not retrieved or are not marked with identification, they are considered abandoned. Proposed subsection 174.1(a)(3) includes a timeframe of 7 consecutive days for determination of abandonment without servicing, cleaning, or otherwise raising the net if there is no approved exemption pursuant to 174.1(a). Additionally, a set gill net is abandoned if the valid, required gear markings, per F&G Code Section 8601.5 and Title 14, CCR, Section 174.1(b) are not present or legible on the set gill net. The timeframe of 7 consecutive days was chosen as it provides ample time for Department staff to determine whether any permittee has been identified as the responsible party for the net. This subsection is necessary to establish a time limit for the Department's Law Enforcement Division to determine when set gill net gear is no longer in use and to provide a means for citation to any identified permittee, if abandonment is documented, consistent with F&G Code Section 8630.

Subsection 174.1(b)

Gear marking has been identified as an important tool to address concerns related to unidentified set gill net gear in marine mammal entanglements. While there are current gear marking regulations for set gill nets, mandating buoys with the fisher's identification number every 45 fathoms (F&G Code Section 8601.5), it does not clearly identify the set gill nets are from California fisheries.

The Necessity of a Gear Marking Regulation

In 2022, there were reports of 2 humpback whales and 1 gray whale entangled with unidentified gill nets off the California coast (NOAA 2022). Through outreach with the California set gill net fleet, an idea to incorporate a 1- inch wide, 1- foot long colored nylon strap weaved into the existing head rope was developed (Figure 4). Two set gill netters have trialed this marking system and have found no issues with backlash or entanglement, and have confirmed the markings can be added to existing gear while nets are being deployed preventing the economic burden of necessitating a break from fishing to install gear markings.

- Proposed language in 174.1(b) for marking of the headrope includes three options of colors to be decided through the Commission public noticing process of red, orange, or yellow, or possibly all of these. Providing three color options through this process would allow for permittee input on the final color or flexibility in all three colors, considering manufacturing availability of such nylon straps. These colors are necessary options to provide maximum visibility in ocean conditions.
- Proposed language in 174.1(b) for marking interval is proposed for 20 fathoms based on discussions with NOAA, industry representatives, stakeholders, or other organizations. Initial outreach with set gill net permittees indicates that this interval marking would be reasonable in terms of the labor it would take to add the markings to the net. Mandating this additional set gill net marking system to be displayed every 20 fathoms will allow for confirmation that a set gill net is from the California set gill net fishery if entangled.

Figure 4. Images of proposed gill net gear marking system submitted by gill netter trialing the system on their net. Individual fisher's identification number blurred out to protect identity.

During outreach with the fleet, they have requested to be given a year to update their gear with gill net markings to be in compliance with the proposed regulations. The planned compliance date would be January 1, 2026, given the overall planned regulation effective date of January 1, 2025.

Subsection 174.1(c)

There is currently no specification on the maximum net height (also known as mesh depth) for set gill nets. Fish and Game Code establishes specific dimensions for mesh size and net length for the California halibut fishery (F&G Code Section 8625(a)) and a minimum mesh size for the white seabass fishery (F&G Code Section 8623(d)). However, there are no standards for the maximum depth for either California halibut or white seabass.

The Necessity of a Mesh Depth Regulation

During bycatch evaluation outreach efforts with the set gill net fleet, it was brought up that standardizing net height for set gill nets is a management measure that has a potential to

reduce bycatch and prevent the expansion of set gill net gear. For the California halibut fishery, a maximum of 25 meshes deep, and for white seabass, a maximum of 50 meshes deep has received support from industry representatives. According to the Federal observer program observations that included mesh depth parameters on set gill net sets observed from 2006-2017, 91% of halibut targeted gill nets fish with nets a maximum of 25 mesh panels deep, and 93% of white seabass targeted nets fish with nets a maximum of 50 mesh panels deep.

(b) Goals and Benefits of the Regulation

The MLMA is intended to ensure the conservation, sustainable use, and restoration of California's marine living resources. In 2019, the Department assessed the state's fisheries under the 2018 Master Plan for Fisheries framework (Department, 2018). A prioritization process identified halibut as a species in need of management attention due to potential risks to bycatch species (including sub legal-sized halibut) and from a changing climate. The three proposed regulations are a direct result of the MLMA process, and the first phase of regulations aimed to reduce bycatch in the California set gill net fishery.

The benefits of the proposed regulation change include, but are not limited to:

- Opportunity to create a positive conservation impact in southern California.
- Imposing soak time restrictions that reduce the mortality of both discarded elasmobranchs and finfishes in the set gill net fishery.
- Reducing discarded bycatch in the set gill net fishery.
- Creating a gear marking system that will clearly identify where set gill nets are from if entangled on marine mammals.
- Industry supported and trialed gear marking system increases chances of success and prevents undue economic burden to the set gill net fleet.
- Preventing the expansion of set gill net fishing gear.
- Opportunity to be responsive to stake holder's feedback. The proposed regulations were created in response to constituents' comments throughout the California Halibut Scaled Management Process.

(c) Authority and Reference Sections from Fish and Game Code for Regulation

Authority: 7085, 8682

Reference: 1050, 1700, 7056, 8026, 8568, 8573, 8574, 8601, 8601.5, 8604, 8609, 8623, 8625, 8626, 8630, 8680, 8681

(d) Specific Technology or Equipment Required by Regulatory Change:

This regulation will require set gill netters to purchase nylon straps for gear marking.

(e) Identification of Reports or Documents Supporting Regulation Change

Evaluating Bycatch in the California Halibut Set Gill Net Fishery. CDFW 2023. Available from: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213366&inline

California Department of Fish and Wildlife. 2018. 2018 master Plan for Fisheries: A guide for Implementation of the Marine Life Management Action. Available from: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=159222&inline

California Department of Fish and Wildlife. 2023. California Halibut Scaled Management Process. Available from: https://wildlife.ca.gov/Conservation/Marine/CA-Halibut-Scaled-Management

NOAA Fisheries. 2022. West Coast Whale Entanglement Summary. 2022 West Coast Whale Entanglement Summary (noaa.gov)

(f) Public Discussions of Proposed Regulations Prior to Notice Publication

- Invites were sent to the entire fleet, 104 gill net permit holders, for two fleet-only information meeting options:
  - November 9, 2023 at the Santa Barbara Harbor
  - November 15, 2023 at the San Diego field office for the Department of Fish and Wildlife
- November 16, 2023, Marine Resources Committee meeting, San Diego
- March 19, 2024, Marine Resources Committee meeting, San Clemente
- Contacted active gill netters by phone on multiple occasions to get their input on the following topics:
  - Rationale for current gill net soak times
  - Reasonable distance between proposed gear marking system
  - Definition of net abandonment

IV. Description of Reasonable Alternatives to Regulatory Action

(a) Alternatives to Regulation Change

No alternatives to a regulatory change were identified by or brought to the attention of Commission staff that would have the same desired regulatory effect. Imposition of performance standards is not a reasonable alternative to these specifically prescribed procedures because management measures require action to be taken to address unacceptable bycatch, and a service interval would reduce bycatch. Similarly for mesh depth, specifications on mesh depth would mean improved efficiency in targeting halibut and white seabass, while reducing bycatch of other species. Alternative markings were voluntarily trialed including a colored tracer line weaved into the headrope, but during outreach efforts with the fleet it was decided the colored nylon strap was the most cost effective and efficient.

(b) No Change Alternative

Without the proposed changes, the outstanding issues concerning unacceptable bycatch in the set gill net fishery would remain unaddressed. The Department would be unable to meet its objectives under the 2018 Master Plan for Fisheries or requirements of the MLMA.

V. Mitigation Measures Required by Regulatory Action

The proposed regulatory action will have no negative impact on the environment; therefore, no

mitigation measures are needed.

VI. Impact of Regulatory Action

The potential for significant statewide adverse economic impacts that might result from the proposed regulatory action has been assessed, and the following initial determinations relative to the required statutory categories have been made:

(a) Significant Statewide Adverse Economic Impact Directly Affecting Businesses, Including the Ability of California Businesses to Compete with Businesses in Other States

The proposed action will not have a significant statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states. The proposed action will not have a significant statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states because this action will not affect the demand for goods and services related to the set gill net fisheries within the state.

(b) Impact on the Creation or Elimination of Jobs Within the State, the Creation of New Businesses or the Elimination of Existing Businesses, or the Expansion of Businesses in California; Benefits of the Regulation to the Health and Welfare of California Residents, Worker Safety, and the State's Environment

The Commission does not anticipate any impacts on the creation or elimination of jobs, the creation of new business, the elimination of existing businesses or the expansion of businesses in California. The Commission does not anticipate any benefits to the health and welfare of California residents, or worker safety. The Commission anticipates benefits to the State's environment by sustainably managing California's marine resources.

(c) Cost Impacts on a Representative Private Person or Business

The Commission is aware of the cost impacts that a representative private business would necessarily incur in reasonable compliance with the proposed action. Set gill net permit holders would have some additional gear-marking time and material costs and may have to undertake some additional vessel travel time to monitor nets if they do not already adhere to the proposed maximum gill net service interval (see STD399 and Addendum).

(d) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State:

The Department Law Enforcement Division (LED) staff anticipates a temporary increase in patrol boat time until the set gill net fleets adjust to the proposed regulations (see STD399 and Addendum).

(e) Nondiscretionary Costs/Savings to Local Agencies: None.

(f) Programs Mandated on Local Agencies or School Districts: None.

(g) Costs Imposed on Any Local Agency or School District that is Required to be Reimbursed Under Part 7 (commencing with Section 17500) of Division 4, Government Code: None.

(h) Effect on Housing Costs: None.

VII. Economic Impact Assessment

(a) Effects of the Regulation on the Creation or Elimination of Jobs Within the State

The Commission does not anticipate any impacts on the creation or elimination of jobs within the state because this proposed action should allow for ongoing fishing activity similar to current and historical levels which would not affect the demand for jobs.

(b) Effects of the Regulation on the Creation of New Businesses or the Elimination of Existing Businesses Within the State

The Commission does not anticipate any impacts on the creation of new business or the elimination of existing businesses within the state because this proposed action should allow for ongoing fishing activity similar to current and historical levels which would not affect the demand for goods and services related to the set gill net fishery within the state.

(c) Effects of the Regulation on the Expansion of Businesses Currently Doing Business Within the State

The Commission does not anticipate any impacts on the expansion of businesses currently doing business within the state because this action will not affect the demand for goods and services related to the set gill net fisheries within the state.

(d) Benefits of the Regulation to the Health and Welfare of California Residents

The Commission does not anticipate impacts on the health and welfare of California residents.

(e) Benefits of the Regulation to Worker Safety

The Commission does not anticipate benefits to worker safety in California.

(f) Benefits of the Regulation to the State's Environment

The Commission anticipates benefits to the state's environment through compliance with the MLMA and the 2018 Master Plan for Fisheries framework working to ensure the conservation, sustainable use, and restoration of California's marine living resources. The three proposed regulations are a direct result of the MLMA process, and the first phase of regulations aimed to reduce bycatch in the California set gill net fishery. These regulations aim to reduce discarded bycatch in the set gill net fishery, impose soak time restrictions that reduce the mortality of both discarded elasmobranchs and finfishes, and creating a gear marking system that will clearly identify where set gill nets are from, if entangled on marine mammals.

(g) Other Benefits of the Regulation

Unless otherwise specified, all section references in this document are to Title 14 of the California Code of Regulations (CCR).

The state of California manages the commercial set gill net fishery. The Department of Fish and Wildlife (Department) monitors the existing 91 set gill net permits that are issued, of which 34 were active in the past year. There are two main types of set gill nets: 8.5 minimum mesh which primarily targets California halibut, and 6-inch minimum mesh which primarily targets white seabass. Gill nets have the potential to result in bycatch, where fish or other marine life taken in a fishery are not targeted and may be discarded as they are not legal to take. “Acceptable bycatch” considers legality of take, potential threat to sustainability, impacts to other fisheries and the ecosystem. Pursuant to the Marine Life Management Act (MLMA), over the past several years the Department has worked in coordination with research partners, Fish and Game Commission (Commission) staff, industry representatives, and the non-government organization (NGO) community to complete a four-step process to determine whether the amount and type of bycatch are considered “acceptable” (Fish and Game Code (F&G Code) Section 7085). Step 4 of this bycatch evaluation is to develop management measures to address unacceptable bycatch and to improve data collection for the California set gill net fishery.

Proposed subsections (a) through (c) of Section 174.1 outlined in this regulatory proposal are a direct result of the bycatch evaluation process, and an initial phase of planned regulations aimed to reduce bycatch in the California set gill net fishery. The proposed regulations would establish a service interval for checking or raising set gill nets, require marking of gill net gear to address concerns related to unidentified set gill net gear in marine mammal entanglements, and define mesh depth for California halibut or white seabass to potentially reduce bycatch and prevent the expansion of set gill net gear.

Subsection 174.1(a). Proposes a service interval includes a range to be decided through the Commission public noticing process of 24 to 48 hours. The flexibility of allowing up to 48 hours between servicing nets would allow for fishers to determine the best time to pull nets depending on conditions and target species while also allowing for decreased fuel costs.

- Subsections (a)(1) and (a)(2) consider exemptions for the cases where a permittee might not be able to comply with the regulation due to unsafe weather conditions or catastrophic events. An allowance for alternative compliance may grant another permittee permission to remove their nets from the water if they are facing catastrophic events, such as vessel mechanical failure or debilitating illness.

Subsection 174.1(a)(3). Includes a timeframe of 7 consecutive days for consideration of abandonment without servicing, cleaning, or otherwise raising the net if there is no approved exemption pursuant to 174.1(a). Additionally, a set gill net is abandoned if the valid, required gear markings, per F&G Code Section 8601.5 and subsection 174.1(b) are not present or legible on the set gill net.

Subsection 174.1(b). Proposes a requirement for permittees to incorporate a 1- inch wide, 1-foot-long colored nylon strap weaved into the existing head rope. A proposed marking interval for the straps along the headrope is proposed for 20 fathoms based on discussions with

NOAA, industry representatives, stakeholders, or other organizations. Initial outreach with set gill net permittees indicates that this interval marking would be reasonable in terms of the labor it would take to add the markings to the net. Mandating this additional set gill net marking system to be displayed every 20 fathoms will allow for confirmation that a set gill net is from the California set gill net fishery if entangled.

Subsection 174.1(c). Current law establishes specific dimensions for mesh size and net length for the California halibut fishery (F&G Code Section 8625(a)) and a minimum mesh size for the white seabass fishery (F&G Code Section 8623(d)). However, there are no standards for the maximum net height (also known as mesh depth) for either California halibut or white seabass. A standard net height for set gill nets is a management measure that has a potential to reduce bycatch and would prevent the expansion of set gill net gear. For the California halibut fishery, a maximum of 25 meshes deep is proposed and for white seabass, a maximum of 50 meshes deep is proposed.

Benefit of the Regulations:

The Marine Life Management Act (MLMA) is intended to ensure the conservation, sustainable use, and restoration of California's marine living resources. In 2019, the Department assessed the state's fisheries under the 2018 Master Plan for Fisheries framework. A prioritization process identified halibut as a species in need of management attention due to potential risks to bycatch species (including sub legal-sized halibut) and from a changing climate. The three proposed regulations are a direct result of the MLMA process, and the first phase of regulations aimed to reduce bycatch in the California set gill net fishery.

The benefits of the proposed regulation change include, but are not limited to:

- Opportunity to create a positive conservation impact in southern California.
- Imposing soak time restrictions that reduce the mortality of both discarded elasmobranchs and finfishes in the set gill net fishery.
- Reducing discarded bycatch in the set gill net fishery.
- Creating a gear marking system that will clearly identify where set gill nets are from if entangled on marine mammals.
- Industry supported and trialed gear marking system increases chances of success and prevents undue economic burden to the set gill net fleet.
- Preventing the expansion of set gill net fishing gear.
- Opportunity to be responsive to stakeholder's feedback.

The proposed regulations were created in response to constituents' comments throughout the California Halibut Scaled Management Process.

Consistency and Compatibility with Existing Regulations:

The proposed regulations are neither inconsistent nor incompatible with existing state regulations. Section 20, Article IV, of the state Constitution specifies that the Legislature may delegate to the Commission such powers relating to the protection and propagation of fish and game as the Legislature sees fit. The Legislature has delegated to the Commission the power to adopt regulations governing aspects of the commercial gill net industry (F&G Code Section 8682). No other state agency has the authority to adopt regulations governing the issuance of

gill net permits as necessary to establish an orderly gill net fishery. The Commission has reviewed its own regulations and finds that the proposed regulations are neither inconsistent nor incompatible with existing state regulations. The Commission has examined the CCR for other gill net regulations; therefore, the Commission has concluded that the proposed regulations are neither inconsistent nor incompatible with existing state regulations.

Proposed Regulatory Language

Section 174.1, Title 14 CCR, is added to read:

§174.1. Set Gill Net Service Interval, Gear Marking and Mesh Depth

(a) Set Gill Net Service Interval: Every set gill net shall be raised, cleaned, serviced, and emptied at intervals not to exceed [24-48] hours, and no net shall be abandoned in the waters of this state.

(1) Undue Hardship Exemption – A permittee may request a waiver for exemption from the set gill net service interval requirement described in subdivision (a) if the permittee cannot comply due to a major mechanical failure or undue hardship resulting from circumstances beyond the control of the permittee.

(A) Waiver Request: The permittee shall request a waiver from the Department by sending an email to LRBCOMM@wildlife.ca.gov prior to the end of the service interval. The permittee's email request must include all of the following in order to be considered by the Department: (1) the permittee's general gill net permit number, (2) circumstances explaining the undue hardship or mechanical failure that prevent the permittee from complying, (3) the retrieving individual's general gill net permit number, and (4) coordinates indicating location of the nets. The permittee shall comply with the set gill net service interval unless the Department grants the waiver request.

(B) Waiver Compliance: All permittees shall follow all terms and conditions of the waiver. The waiver may include conditions such as time restrictions, landing prohibitions, or any other conditions the Department deems necessary. The waiver shall be null and void upon violation of the waiver terms and conditions. A copy of the waiver approved by the Department shall be onboard the retrieving vessel.

(2) Unsafe Weather Condition Exemption - Unsafe Weather Conditions: Upon notification to the Department, a permittee may be exempt from the set gill net service interval requirement described in subdivision (a) due to unsafe weather conditions at sea. The permittee shall raise, clean, and service all set gill nets for which they claim an exemption within 24 hours after the end of the unsafe weather conditions.

(A) Department Notification: The permittee shall notify the Department of the unsafe weather conditions by sending an email to gillnetnotifications@wildlife.ca.gov prior to the end of the service interval. The permittee's email request shall describe (1) the unsafe weather conditions which meet the definition below and (2) the affected coastal waters zone.

(B) Unsafe Weather Conditions Defined: Weather conditions at sea are considered unsafe if the National Weather Service issues a Small Craft Advisory or other advisory predicting sustained winds greater than 25 knots. The Small

Craft Advisory or other qualifying advisory shall apply to the same coastal waters zone where a set gill net is located, or the same coastal waters zone where the vessel must transit to reach a set gill net. The Small Craft Advisory or other qualifying advisory must also have been declared on the same calendar day that the set gill net service interval ends.

(3) Abandoned Set Gill Nets - It is unlawful to abandon a set gill net. Abandoned set gill nets may be seized by any person authorized to enforce these regulations or their authorized agent. A set gill net is abandoned if:

(A) a permittee leaves the set gill net in the water for 7 consecutive days and during that time fails to raise, clean, service, and empty the set gill net without an approved exemption or

(B) the valid, required gear markings are not present or legible on the set gill net.

(b) Gear marking: In addition to the requirements in Fish and Game Code Section 8601.5, starting January 1, 2026, all set gill nets shall be marked with a colored [red, orange and/or yellow] 1-inch-wide nylon strap and shall be woven into the corkline at intervals not to exceed every 20 fathoms. Each strap must contain the fisherman's identification number and hang a minimum of 1 foot in length to uniquely identify the gear as a California set gill net.

(c) Mesh depth: Gill nets used to take white seabass with meshes of a minimum length of six inches shall be no more than 50 meshes deep. Gill nets used to take California halibut with meshes of a minimum length of 8.5 inches shall be no more than 25 meshes deep.

Authority: Sections 7085 and 8682, Fish and Game Code.

Reference: Sections 1050, 1700, 7056, 8026, 8568, 8573, 8574, 8601, 8601.5, 8604, 8609, 8623, 8625, 8626, 8630, 8680 and 8681, Fish and Game Code.

STATE OF CALIFORNIA — DEPARTMENT OF FINANCE

ECONOMIC AND FISCAL IMPACT STATEMENT
(REGULATIONS AND ORDERS)

STD. 399 (Rev. 10/2019)

Draft Document

ECONOMIC IMPACT STATEMENT

DEPARTMENT NAME	CONTACT PERSON	EMAIL ADDRESS	TELEPHONE NUMBER
California Fish and Game Commission	David Thesell	fgc@fgc.ca.gov	916 653-4899

DESCRIPTIVE TITLE FROM NOTICE REGISTER OR FORM 400	NOTICE FILE NUMBER
Amend Section 174.1 Title.14, CCR, Re: Set Gill Net Service Interval, Gear Marking and Mesh Depth	Z

A. ESTIMATED PRIVATE SECTOR COST IMPACTS *Include calculations and assumptions in the rulemaking record.*

1. Check the appropriate box(es) below to indicate whether this regulation:

- [X] a. Impacts business and/or employees
- [X] b. Impacts small businesses
- [ ] c. Impacts jobs or occupations
- [ ] d. Impacts California competitiveness
- [ ] e. Imposes reporting requirements
- [ ] f. Imposes prescriptive instead of performance
- [ ] g. Impacts individuals
- [ ] h. None of the above (Explain below):

If any box in Items 1 a through g is checked, complete this Economic Impact Statement.
If box in Item 1.h. is checked, complete the Fiscal Impact Statement as appropriate.

2. The California Fish and Game Commission (Agency/Department) estimates that the economic impact of this regulation (which includes the fiscal impact) is:

- [X] Below $10 million
- [ ] Between $10 and $25 million
- [ ] Between $25 and $50 million
- [ ] Over $50 million *[If the economic impact is over $50 million, agencies are required to submit a Standardized Regulatory Impact Assessment as specified in Government Code Section 11346.3(c)]*

3. Enter the total number of businesses impacted: 34 active

Describe the types of businesses (Include nonprofits): Set Gill Net Permit holders: 91 permits with 34 Active (reported landings 2023)

Enter the number or percentage of total businesses impacted that are small businesses: 80%

4. Enter the number of businesses that will be created: 0 eliminated: 0

Explain: No impact on the demand for labor

5. Indicate the geographic extent of impacts:

- [ ] Statewide
- [X] Local or regional (List areas): Southern CA off shore below Pt. Arguello

6. Enter the number of jobs created: 0 and eliminated: 0

Describe the types of jobs or occupations impacted: N/A

7. Will the regulation affect the ability of California businesses to compete with other states by making it more costly to produce goods or services here? [ ] YES [X] NO

If YES, explain briefly:

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ECONOMIC IMPACT STATEMENT (CONTINUED)

B. ESTIMATED COSTS *Include calculations and assumptions in the rulemaking record.*

1. What are the total statewide dollar costs that businesses and individuals may incur to comply with this regulation over its lifetime? $ 19,890

   a. Initial costs for a small business: $ $1,989 Annual ongoing costs: $ 1,639 Years: 1

   b. Initial costs for a typical business: $ 350 Annual ongoing costs: $ 0 Years: 1

   c. Initial costs for an individual: $ N/A Annual ongoing costs: $ N/A Years: N/A

   d. Describe other economic costs that may occur: Typical (72% of permitees) will have one time $350 gear marking costs. The (28% that reported >24 hr service intervals) will have initial & ongoing higher service costs.

2. If multiple industries are impacted, enter the share of total costs for each industry: N/A

3. If the regulation imposes reporting requirements, enter the annual costs a typical business may incur to comply with these requirements. *Include the dollar costs to do programming, record keeping, reporting, and other paperwork, whether or not the paperwork must be submitted.* $ N/A

4. Will this regulation directly impact housing costs? ☐ YES ☒ NO

   If YES, enter the annual dollar cost per housing unit: $

   Number of units:

5. Are there comparable Federal regulations? ☐ YES ☒ NO

   Explain the need for State regulation given the existence or absence of Federal regulations: California Fish and Game Commission has authority to regulate marine fisheries

   Enter any additional costs to businesses and/or individuals that may be due to State - Federal differences: $ N/A

C. ESTIMATED BENEFITS *Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.*

1. Briefly summarize the benefits of the regulation, which may include among others, the health and welfare of California residents, worker safety and the State's environment: Reduced bycatch, improved data to identify marine mammal entanglements.

2. Are the benefits the result of: ☐ specific statutory requirements, or ☒ goals developed by the agency based on broad statutory authority?

   Explain: California Fish and Game Commission has authority to regulate marine fisheries.

3. What are the total statewide benefits from this regulation over its lifetime? $ difficult-to-monetize

4. Briefly describe any expansion of businesses currently doing business within the State of California that would result from this regulation: N/A

D. ALTERNATIVES TO THE REGULATION *Include calculations and assumptions in the rulemaking record. Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.*

1. List alternatives considered and describe them below. If no alternatives were considered, explain why not: No other alternatives were identified

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ECONOMIC IMPACT STATEMENT (CONTINUED)

2. Summarize the total statewide costs and benefits from this regulation and each alternative considered:

Regulation: Benefit: $ reduce bycatch Cost: $ $19,890

Alternative 1: Benefit: $ _____ Cost: $ _____

Alternative 2: Benefit: $ _____ Cost: $ _____

3. Briefly discuss any quantification issues that are relevant to a comparison of estimated costs and benefits for this regulation or alternatives: The benefits are reduced bycatch; save nontargeted species; help to identify unknown sources of marine mammal entanglement; maintain marine ecosystems.

4. Rulemaking law requires agencies to consider performance standards as an alternative, if a regulation mandates the use of specific technologies or equipment, or prescribes specific actions or procedures. Were performance standards considered to lower compliance costs? ☐ YES ☒ NO

Explain: Specific gear and techniques are found to be more effective and enforceable for marine fisheries.

E. MAJOR REGULATIONS *Include calculations and assumptions in the rulemaking record.*

California Environmental Protection Agency (Cal/EPA) boards, offices and departments are required to submit the following (per Health and Safety Code section 57005). Otherwise, skip to E4.

1. Will the estimated costs of this regulation to California business enterprises **exceed $10 million**? ☐ YES ☐ NO

If YES, complete E2. and E3
If NO, skip to E4

2. Briefly describe each alternative, or combination of alternatives, for which a cost-effectiveness analysis was performed:

Alternative 1: _____

Alternative 2: _____

(Attach additional pages for other alternatives)

3. For the regulation, and each alternative just described, enter the estimated total cost and overall cost-effectiveness ratio:

Regulation: Total Cost $ _____ Cost-effectiveness ratio: $ _____

Alternative 1: Total Cost $ _____ Cost-effectiveness ratio: $ _____

Alternative 2: Total Cost $ _____ Cost-effectiveness ratio: $ _____

4. Will the regulation subject to OAL review have an estimated economic impact to business enterprises and individuals located in or doing business in California exceeding $50 million in any 12-month period between the date the major regulation is estimated to be filed with the Secretary of State through12 months after the major regulation is estimated to be fully implemented?

☐ YES ☒ NO

If YES, agencies are required to submit a Standardized Regulatory Impact Assessment (SRIA) as specified in Government Code Section 11346.3(c) and to include the SRIA in the Initial Statement of Reasons.

5. Briefly describe the following:

The increase or decrease of investment in the State: _____

The incentive for innovation in products, materials or processes: _____

The benefits of the regulations, including, but not limited to, benefits to the health, safety, and welfare of California residents, worker safety, and the state's environment and quality of life, among any other benefits identified by the agency: _____

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FISCAL IMPACT STATEMENT

A. FISCAL EFFECT ON LOCAL GOVERNMENT *Indicate appropriate boxes 1 through 6 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

☐ 1. Additional expenditures in the current State Fiscal Year which are reimbursable by the State. (Approximate)
(Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

$ _____

☐ a. Funding provided in _____

Budget Act of _____ or Chapter _____ , Statutes of _____

☐ b. Funding will be requested in the Governor's Budget Act of _____

Fiscal Year: _____

☐ 2. Additional expenditures in the current State Fiscal Year which are NOT reimbursable by the State. (Approximate)
(Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

$ _____

Check reason(s) this regulation is not reimbursable and provide the appropriate information:

☐ a. Implements the Federal mandate contained in _____

☐ b. Implements the court mandate set forth by the _____ Court.

Case of: _____ vs. _____

☐ c. Implements a mandate of the people of this State expressed in their approval of Proposition No. _____

Date of Election: _____

☐ d. Issued only in response to a specific request from affected local entity(s).

Local entity(s) affected: _____

_____

☐ e. Will be fully financed from the fees, revenue, etc. from: _____

Authorized by Section: _____ of the _____ Code;

☐ f. Provides for savings to each affected unit of local government which will, at a minimum, offset any additional costs to each;

☐ g. Creates, eliminates, or changes the penalty for a new crime or infraction contained in _____

☐ 3. Annual Savings. (approximate)

$ _____

☐ 4. No additional costs or savings. This regulation makes only technical, non-substantive or clarifying changes to current law regulations.

☒ 5. No fiscal impact exists. This regulation does not affect any local entity or program.

☐ 6. Other. Explain _____

_____

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FISCAL IMPACT STATEMENT (CONTINUED)

B. FISCAL EFFECT ON STATE GOVERNMENT *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

☒ 1. Additional expenditures in the current State Fiscal Year. (Approximate)

$ 16,291

It is anticipated that State agencies will:

☒ a. Absorb these additional costs within their existing budgets and resources.

☐ b. Increase the currently authorized budget level for the _____ Fiscal Year

☐ 2. Savings in the current State Fiscal Year. (Approximate)

$ _____

☐ 3. No fiscal impact exists. This regulation does not affect any State agency or program.

☒ 4. Other. Explain CDFW anticipates shifts in work effort for the Department law enforcement division (LED) totalling approx. $16,291 that is absorbable and expected to tamper off in next FY.

C. FISCAL EFFECT ON FEDERAL FUNDING OF STATE PROGRAMS *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

☐ 1. Additional expenditures in the current State Fiscal Year. (Approximate)

$ _____

☐ 2. Savings in the current State Fiscal Year. (Approximate)

$ _____

☒ 3. No fiscal impact exists. This regulation does not affect any federally funded State agency or program.

☐ 4. Other. Explain _____

FISCAL OFFICER SIGNATURE	DATE

The signature attests that the agency has completed the STD. 399 according to the instructions in SAM sections 6601-6616, and understands the impacts of the proposed rulemaking. State boards, offices, or departments not under an Agency Secretary must have the form signed by the highest ranking official in the organization.

AGENCY SECRETARY	DATE

Finance approval and signature is required when SAM sections 6601-6616 require completion of Fiscal Impact Statement in the STD. 399.

DEPARTMENT OF FINANCE PROGRAM BUDGET MANAGER	DATE

ECONOMIC AND FISCAL IMPACT STATEMENT

STD. 399 Addendum

Add Section 174.1
Title 14, California Code of Regulations
Re: Set Gill Net Service Interval, Gear Marking and Mesh Depth

Economic Impact Statement

Overview

Over several years following guidance of the Marine Life Management Act (MLMA), the Department has worked in coordination with research partners, Commission staff, industry representatives, and the NGO community to complete a four-step process to determine whether the amount and type of bycatch associated with set gill net fishing are considered “acceptable”. The proposed management measures are to address bycatch concerns and to improve data collection for the California set gill net fishery. The three proposed regulations are a direct result of this process and the first phase of regulations aimed to reduce bycatch in the California set gill net fishery.

Cost Impacts of Proposed Actions

Potential economic impacts include costs to gill net permittees to service their gear at more frequent intervals and update their gear with specific markings. Through discussions with permittees, efforts have been made to moderate and/or phase the cost impacts of the proposed regulations.

Most gill net permittees already service their gear every 24 hours, although for those who service their gear at longer intervals a 24-hour interval would introduce additional fuel costs. The service interval options under consideration range from 24 to 48 hours.

The gill net marking system under consideration is specifically tailored to allow for the augmentation of existing nets with nylon webbing to avoid the higher cost burden of necessitating full net replacement.

Furthermore, the addition of electronic monitoring regulations to assist in monitoring service interval requirements is not being proposed at this time, only to be considered at a later date, to ease cost impacts to the set gill net fishery.

Gill Net service interval - The gill net service interval is the amount of time that fishing

gear remains in the water, between when it is first set and when it is retrieved. Reducing service interval time duration has the potential to reduce bycatch impacts on some species, specifically discard mortality for sensitive species such as sharks. Currently, no maximum service interval is defined in regulation. Service interval options range from 24 to 48 hours.

To estimate service interval costs for a diesel-powered vessel to service a set gill net, we assume that: the nets are 10 miles out or a 20-mile roundtrip; and fuel cost is $6.00 per gallon; and the average-sized vessel gets 2 miles per gallon during average sea conditions.

One service interval roundtrip = 20 miles at 2 MPG = 10 gallons x $6.00 = $60.00.

Currently 72% of gill net logs report a 24 hour or less service interval, 23% report a 37–48-hour service interval and only 3% report over 56 hours. If the reported service intervals are accurate, then 72% will not face higher fuel and time costs if a 24-hour service interval is adopted; and 95% would have no new costs if 48-hour service interval is adopted. To be conservative we will assume that the 24-hour interval is adopted such that about **28% will face additional service interval costs or $60 per roundtrip trip**. Those 28%, will have an extra 16 trips per season = $60 + $42 (1.5 hours of time) = **$102 per roundtrip x 16 trips = $1,632/year**

Gear marking - Additional gear markings to the ones already defined below in Fish and Game Code (8601.5) are necessary to uniquely identify California set gill net gear. Through outreach with gill net permittees an option to incorporate a colored nylon strap into the existing head rope is being proposed.

Permittees explained that a one foot hanging strap would include about another foot or two to weave the strap into the headrope such that one yard of strap would be the maximum length needed per marking. The set gill nets are 1500 fathoms (F) long and gear marking is proposed to be displayed every 20-30 fathoms. This results in 1,500 F/ 20 F = 75 points on the headrope that would be marked. Each gear mark would need a maximum of 1 yard (3 ft) per point on the headrope, resulting in 75 yards of nylon strap per gill net. The current price for the colored nylon straps is about $28 for 50 yards; one and one half would be needed for 75 yards = $42 per net.

One net = $42/net to add gear markings every 20 fathoms. The average of 6 nets per permitee would cost **$252 in one-time gear marking cost**.

Mesh depth- Fish and Game Code establishes specific dimensions for mesh size and net length for the California halibut fishery (8625(a)) and a minimum mesh size for the white seabass fishery (8623(d)). However, there are no standards for the maximum net

height (also known as mesh depth) for either California halibut or white seabass. A standard net height for set gill nets is a management measure that has a potential to reduce bycatch and would prevent the expansion of set gill net gear. For the California halibut fishery, a maximum of 25 meshes deep and for white seabass, a maximum of 50 meshes deep has received support from industry representatives.

No startup or ongoing costs are identified from proposed mesh depth regulations.

Section A, Estimated Private Cost Impacts, Question 1.

a. Impacts businesses

b. Impacts small businesses.

3. Total number of businesses impacted: Maximum of 91 gill net permittees: **34** active permit holders had at least one landing using set gill net gear in 2023. Of those, ten permit holders landed 78% of set gill net landings, and 12 permit holders had just 1-5 landings.

Section B. Estimated Costs, Question 1. What are the total statewide dollar costs that businesses and individuals may incur to comply with this regulation over its lifetime?

a. Initial costs for a small/typical business: Gear Marking: $252 materials + $98 (3.5 hours time[1]) = **$350** (total for a 72% typical business); 24-hr Service Interval 28% (10 permit holders) require 16 more roundtrips x $60 fuel + $42 (1.5 hrs. time) = **$1,639 summing to $1,989 per season.**

b. Annual ongoing costs for a small/typical business: Service Interval trips = **$1,639 for 28% of the fleet; for 72% (typical) no ongoing costs.**

Section C. Estimated Benefits, Question 3. Total statewide benefits = difficult-to-monetize (The statewide environmental benefits of reducing the set gill net bycatch are difficult to monetize as the bycatch is not traded and thus cannot be easily priced. See 2.3. below)

D. Alternatives to the Regulation. 1. List Alternatives considered:

No other alternatives to the proposed regulatory change were identified by or brought to the attention of Commission staff that would have the same desired regulatory effect. Alternative markings were voluntarily trialed including a colored tracer line weaved into

[1] First-Line Supervisors of Fishing Workers 2022 mean hourly wage, $28.28 https://www.bls.gov/oes/current/oes451011.htm

the headrope, but during outreach efforts with the fleet it was decided the colored nylon strap was the most cost effective and efficient.

No Change Alternative

Without the proposed changes, the outstanding issues concerning unacceptable bycatch in the set gill net fishery would remain unaddressed. The Department would be unable to meet the requirements of the MLMA.

2. Summarize the total statewide costs and benefits from this regulation:

Regulation Benefits: difficult-to-monetize

Regulation Costs: $1,989 x 28% (10 permit holders) = $19,890 per season (see Section B.1. Estimated Costs.)

3. Discuss any quantification issues that are relevant to a comparison of the estimated costs and benefits for this regulation:

The benefits include: reduced mortality of discarded elasmobranchs and finfishes in the set gill net fishery. A gear marking system that will clearly identify whether set gill nets played a role in entangled marine mammals. Some bycatch species caught and discarded may not survive. The carcass provides some ecosystem services but would have also done so in the course of their natural lifecycle. The role of California set gill nets in entangling large marine mammals, such as whales, is currently unknown, due to the lack of clear gear marking.

Fiscal Impact Statement

A. Fiscal Effect on Local Government

Answer 5. *No fiscal impact exists. This regulation does not affect any local entity or program.* No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution.

B. Fiscal Effect on State Government

Answer 1. Additional expenditures in the current State Fiscal Year = **$16,291**

a. Absorb these additional costs within existing budgets and resources.

4. Other. California Department of Fish and Wildlife Law Enforcement Division (LED) anticipates an initial increase and shift in effort to field monitoring and enforcement totally approximately $16,291, in the first year that is absorbable within currently existing

budgets. This initial shift in field monitoring and extra patrol boat time LED is anticipated to tamper off as the set gill net fleet adjusts to the new regulations.

Table 1. Set Gill Net LED Initial Implementation Costs

Program	Classification	Task	Rate	Hours	Total
LED	Fish and Game Warden – Range B	Inspections/Enforcement (at Sea)	$66.08	50.0	$3,304
LED	Patrol Boat	Inspections/Enforcement (at Sea)	$196.00	50.0	$9,800
		Subtotal			$13,104
		Overhead	24.32%	--	$3,187
		Program Total		**273.5**	**$16,291**

Notes: CalHR California State Civil Service Pay Scales by Classification July 2023; Rate is the median hourly salary including benefits (staff benefit rates: Peace Officer= 60.960%, and (24.32%) overhead.

C. Fiscal Effect on Federal Funding of State Programs

3. No fiscal impact exists.

Set Gill Net: Service Interval, Gear Marking & Mesh Depth

April 17, 2024

Presented to:

California Fish and Game Commission

Presented by:

Miranda Haggerty

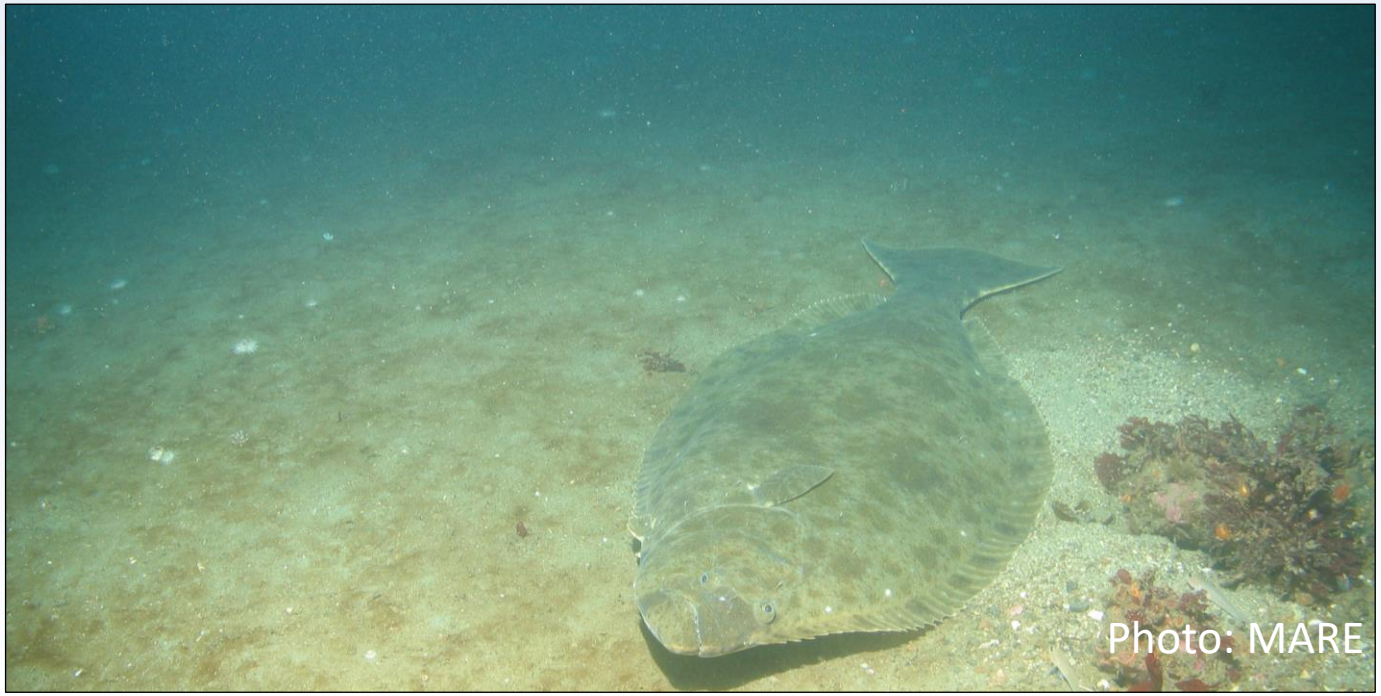
Environmental Scientist
Marine Region

Overview

- Background
- Phase I Regulatory Proposals
  - Service Interval
  - Gear Marking
  - Mesh Height
- Outreach Efforts
- Timeline

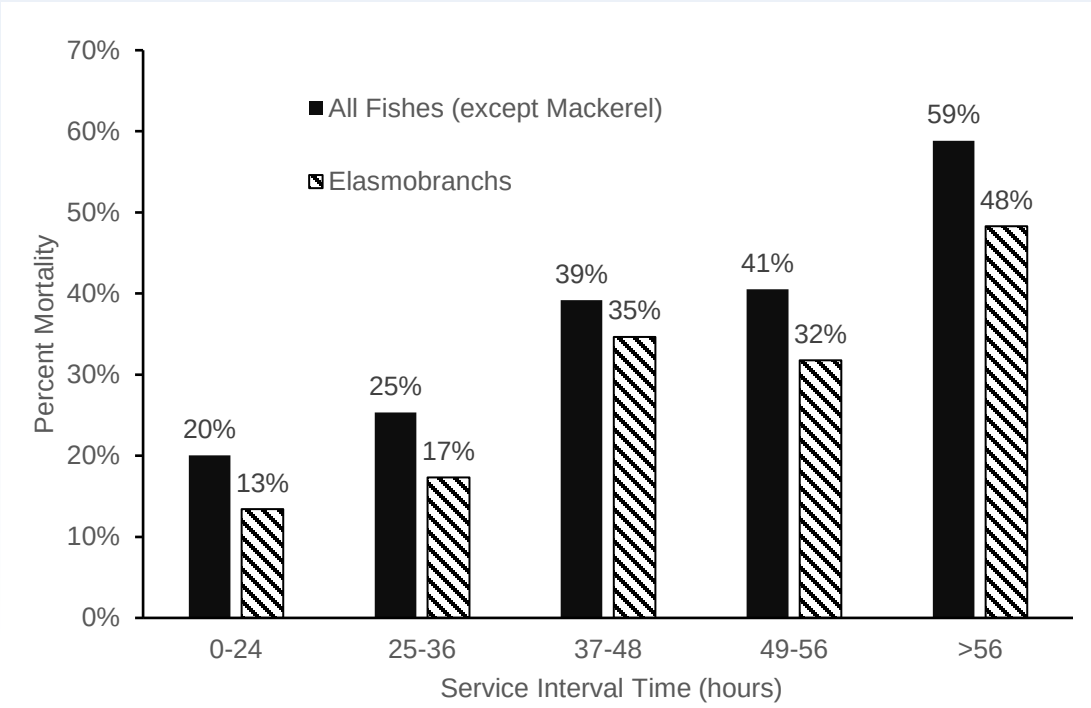
Background

- MLMA Bycatch Evaluation Process
- First phase of regulations to address bycatch in CA set gill net fishery



Service Interval Considerations

- Service interval options range from 24-48 hours
  - 72% of gill net logs report 24 hour or less soak time
  - Shorter service intervals have reduced mortality of discarded species
  - Longer service intervals allow gill netters to determine the best time to retrieve nets depending on conditions



Service Interval Exemptions

- Unsafe Weather Condition Exemption
  - Must send email to gillnetnotifications@wildlife.ca.gov prior to end of service interval
- Undue Hardship Exemption
  - Must request a waiver from the Department by sending an email to LRBCOMM@wildlife.ca.gov

- Abandoned nets- a set gill net is considered abandoned if left in the water for 7 consecutive days without an approved exemption request

Gear Marking Proposal

- Clearly identify set gill nets from California
- A one-inch colored nylon strap every 20 fathoms
  - Red, orange and/or yellow
  - Hang one foot off headrope
  - Includes fisherman's identification number

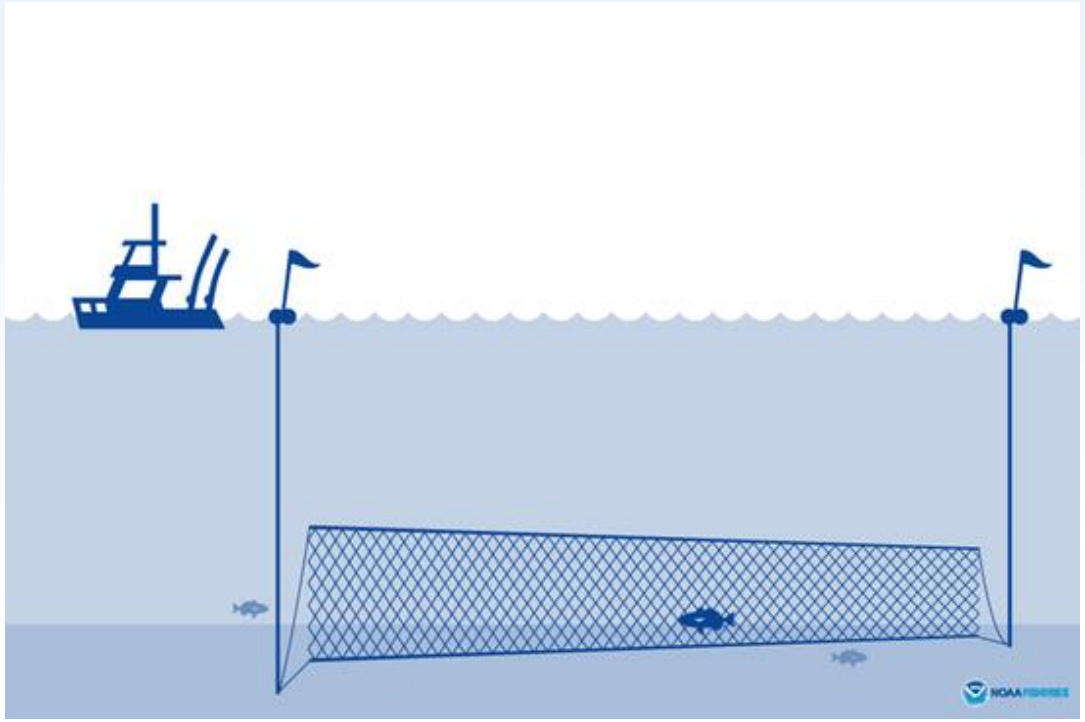
Photo Credit: Gill net permittee

Mesh Height Proposal

- No specifications for maximum mesh height (mesh depth)
- Maximum height regulation prevents expansion

- California halibut set nets (>8.5 in): 25 meshes deep maximum

- White seabass set nets (>6 in.): 50 meshes deep maximum



Outreach

- Fleetwide discussions in San Diego and Santa Barbara – November 2023
- NOAA Protected Resource Division
- Statewide Tribal notification sent on January 17, 2024

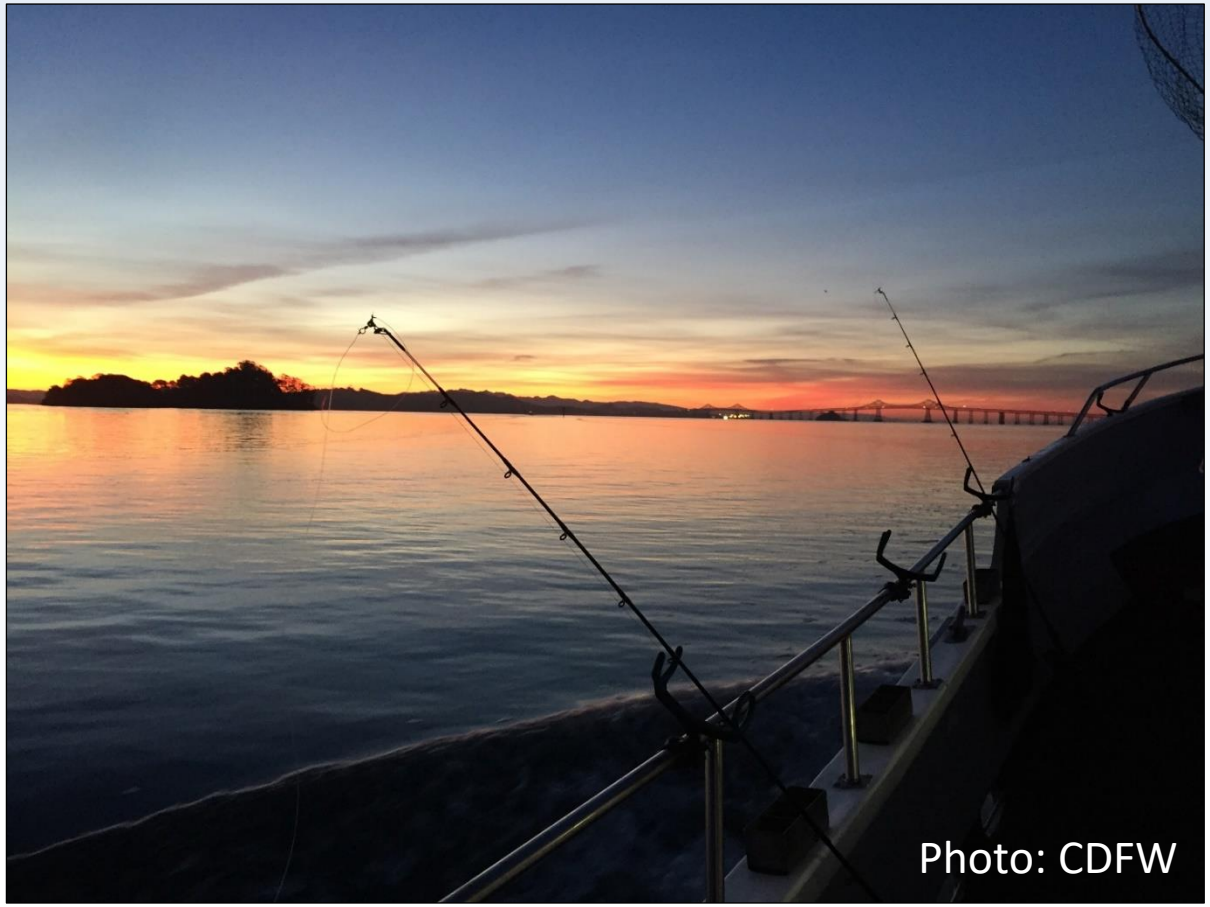


Photo: CDFW

Timeline

- Notice: April 17, 2024
- Discussion: June 19, 2024
- Adoption: August 14, 2024
- Effective Date: after October 1, 2024

Thank You

Miranda Haggerty, Environmental Scientist

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https://wildlife.ca.gov/Conservation/Marine/Nearshore

https://marinespecies.wildlife.ca.gov/california-halibut/