

STANDARDIZED BYCATCH REPORTING METHODOLOGY SCOPING REPORT

This scoping report provides a summary of information to assist the Council in completing its consistency review as required by National Marine Fisheries Service (NMFS) under the standardized bycatch reporting methodologies (SBRM) [final rule](#). This document provides background information to review the use of SBRM in the Council’s fishery management plans. Staff compiled initial findings of the advisory body management teams (ABs) and provide further insight and recommendations of how to continue the review and amendment process (if applicable). The review must be complete by February 2022.

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1.0 INTRODUCTION AND ORGANIZATION OF THE ANALYSIS

NOAA Fisheries filed a [final rule](#) to implement a provision of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). This provision requires that all fishery management plans establish a standardized reporting methodology to assess the amount and type of bycatch occurring in a fishery. The final rule establishes requirements and provides guidance to regional fishery management councils and the Secretary of Commerce regarding the development, documentation, and review of such methodologies, commonly referred to as standardized bycatch reporting methodologies (SBRMs).

At the November 2020 Council meeting ([Agenda Item C.3](#)), advisory bodies conducted an initial consistency review of their respective fishery management plans (FMP) and supporting documentation to identify where the FMP is consistent or not consistent with the rule. This report tiers off those initial reviews to verify those findings and discuss a potential timeline for completing the review and develop any amendments (as necessary) by the deadline. The final rule states that all FMPs must be consistent with the rule within 5 years of its effective date (deadline is February 21, 2022). To meet the deadline, the Council tentatively scheduled a scoping session for the June Council meeting, selection of preliminary preferred alternatives for September and selection of final preferred alternatives for November.

The Council's FMPs that are subject to this review are:

- 1) Pacific Coast Groundfish;
- 2) Coastal Pelagic Species;
- 3) Pacific Coast Salmon; and
- 4) Highly Migratory Species.

According to the final rule, the SBRM review should provide sufficient information for NMFS to determine whether an FMP needs to be amended. If the Council finds a need to adjust or establish SBRMs for any FMP, it should give guidance to NMFS on how to do so to be consistent with the FMP. The review should be documented but does not need to be contained in an FMP. In addition, the documentation should include information that shows where FMPs are consistent with the rule. This information will then be transmitted by the Council to NMFS for consideration and a final decision.

1.1 Purpose of an SBRM

“Standardized reporting methodology” is as an established, consistent procedure or procedures used to collect, record, and report bycatch data in a fishery, which may vary from one fishery to another. The definition of SBRM envisions that a Council may include more than one data collection, recording, and reporting procedure in its SBRM. A Council could decide that a combination of procedures is appropriate for a fishery. In such a case, the FMP must still identify what the established, consistent procedures are for the fishery.

Establishing an SBRM is a requirement of the MSA. Therefore, the rule is based on the MSA's definition of “bycatch,” which includes fish which are harvested in a fishery, but which are not sold or kept for personal use and includes economic discards and regulatory discards. Such term does not include fish released alive under a recreational catch and release fishery management program, including prohibited species (i.e., marine mammals, seabirds and other species protected under national policies).

This FMP review must focus on how the reporting methodologies for each fishery in an FMP meets the purpose of SBRM, based on an analysis of four requirements:

- The characteristics of the bycatch occurring in the fishery.

- The feasibility of the methodology from cost, technical and operational perspectives.
- The uncertainty of the data resulting from the methodology.
- How the data resulting from the methodology will be used to assess the amount and type of bycatch occurring in the fishery.

1.1.1 Characteristics of Bycatch in the Fishery

Section 600.1610(a)(2)(i) provides that a Council must address information about the characteristics of bycatch in the fishery when available, including, but not limited to, the amount of bycatch occurring in the fishery, the importance of bycatch in estimating the fishing mortality of fish stocks, and the effect of bycatch on ecosystems. Bycatch can be affected by several aspects of a fishery, including gear types used, how gear is deployed, gear selectivity, fishing effort, fishing locations, and existing management measures. A Council may consider these operational aspects when selecting the collection, monitoring, and reporting procedures that constitute the SBRM for a fishery.

1.1.2 Feasibility of the Methodology

Section 600.1610(a)(2)(ii) requires that the implementation of an SBRM be feasible from cost, technical, and operational perspectives. Data collection, reporting, and recording procedures can be expensive, logistically challenging to design and implement, involve new and cutting-edge technologies, and necessitate the consideration of the safety of human life at sea. It is reasonable and appropriate for a Council to analyze issues of feasibility when establishing or reviewing an SBRM and to ultimately choose a methodology that is in fact feasible (*i.e.*, capable of being implemented) from cost, technical, and operational perspectives. If a Council chooses to establish an SBRM that may be adjusted in response to changes in costs or funding, the Council should provide guidance to NMFS on how to adjust the implementation of the SBRM consistent with the FMP.

1.1.3 Data Uncertainty

Section 600.1610(a)(2)(iii) requires Councils to address the uncertainty of the data resulting from the SBRM. This section also requires that an SBRM be designed so that the uncertainty associated with the resulting bycatch data can be described, quantitatively or qualitatively. Eliminating data uncertainty is not an end in itself, but the rule recognizes that Councils should seek to minimize uncertainty in the resulting data, recognizing that different degrees of uncertainty may be appropriate for different fisheries. NMFS does not believe it is appropriate to establish accuracy, precision, or reliability standards for bycatch data or estimates to be applied across all fisheries.

1.1.4 Data Use

Section 600.1610(a)(2)(iv) requires a Council to address how the data resulting from an SBRM are used to assess the amount and type of bycatch occurring in the fishery. Section 600.1605(a) clarifies that, although bycatch assessment is not part of the SBRM, bycatch assessment must be considered as described in this provision. Councils must consult with its SSC and/or the regional NMFS science center, as appropriate, on reporting methodology design considerations such as data elements, sampling designs, sample sizes, and reporting frequency.

Councils must consider the scientific methods and techniques available to collect, record, and report bycatch data that could improve the quality of bycatch estimates. As bycatch data collection technologies improve, NMFS anticipates that a Council will consider those technological advances when establishing and reviewing SBRMs.

2.0 OUTCOMES OF THE PRELIMINARY REVIEW

Council staff compiled the initial findings of the November 2020 advisory body (AB) reports (Table 1) and added additional notes and references. Notes within the table identify whether the initial review found consistency with the final rule (marked with a ‘yes’, noting where that information can be found) and where the FMP may be inconsistent (marked with a ‘no’). Council staff examined the AB reports and note that the ABs preliminary decisions marked with a ‘yes’ are likely accurate. Council staff will continue to work with each AB to verify and document where the FMPs are consistent and what documents contain the SBRM information. This information is needed for NMFS to determine where FMPs are consistent with the final rule.

Council staff also examined the potential deficiencies noted by the ABs marked ‘no’. Initial findings show that most fisheries under the FMP are inconsistent with the final rule in either *Data Uncertainty* or *Data Use* categories. The recreational highly migratory species (HMS) fishery was noted to be inconsistent under all categories. We examined the descriptions of all categories discussed in the final rule to get a sense of what is required. We also examined the respective FMPs and supporting documentation (e.g., Stock Assessment and Fishery Evaluation (SAFE) documents, FMP Appendices, Salmon Preseason Reports, etc.) to see if the preliminary decisions are accurate and where changes may be warranted. Council staff provide further discussions and recommendations by FMP to help guide the scoping process and assist the ABs and the Council in determining if an FMP amendment is warranted.

In general, the Groundfish FMP seems to be consistent with the SBRM final rule and likely will not need an amendment. However, the [GMT report](#) noted that some information in the FMP is outdated and could be revised to update the FMP to clearly present the current SBRMs. The [CPSMT report](#), [STT report](#) and [HMSMT](#) report noted some deficiencies *Data Uncertainty* and *Data Use*; however, at this time it is unclear if an amendment for these FMPs are needed. It is possible that supporting documents could be changed to address these issues; Section 3.1 through 3.3 of this report provide additional information.

As noted earlier there are inconsistencies in all categories regarding the HMS Private Recreational Boat Fishery. Further discussions are needed with the HMSMT and NMFS staff to examine the issue. However, Council staff note that standardized methods in each state *are* used to collect bycatch information in this fishery and some of this information is summarized in the SAFE. Therefore, additional language may be needed within Appendix C of the HMS FMP or the SAFE document that references these methods. Additional information is provided under section 3.4.

The Council will need to determine where FMPs are not consistent and decide if an FMP amendment is necessary. Several potential courses of action could be taken to finish the review and transmit a determination to NMFS for final review.

- 1) **FMP Amendment Process:** General FMP language could be developed to correct inconsistencies, including language that references supporting documentation (i.e., SAFE, Appendices, etc.) that provides further details about SBRMs for each fishery. This approach would require an FMP amendment. Preliminary adoption of the language could be developed after the June 2021 meeting. The Council could take action to modify FMP language in September 2021 (Preliminary Preferred Alts) and November 2021 (Final Preferred Alts). Supporting documents could be modified as needed with or without Council input. These changes would be transmitted to NMFS through a letter with an analytical document that describe how the FMPs are consistent. The analysis would also

include the proposed changes to FMP language, changes to supporting documents (if applicable) and why these were made.

- 2) **No FMP Amendment/Modify FMP Supporting Documents:** If it is decided that clarifying language outside the FMP is needed to make the FMP consistent with SBRM rule, staff could work with NMFS and Council Advisory Bodies after the June meeting to update supporting documents (i.e., SAFE, FMP Appendices, etc.). No FMP amendment is needed under this scenario. Supporting information that describe what was changed to bring consistency would be transmitted to NMFS through a letter. Supporting documents that describe how the FMPs are already consistent would also be transmitted to NMFS. If the Council would like further review of the language to ensure the changes to supporting documents are discussed openly and changes are agreeable, then the Council could review the proposed changes in September or November 2021 to finalize the consistency review.
- 3) **No FMP Amendment:** If an FMP is found to be consistent, an FMP amendment is not needed. Supporting information that describe how the FMP is consistent with the final rule would be transmitted to NMFS through a letter and final report.

It's expected that one consistency review package would be developed for all FMPs and transmitted to NMFS after the November 2021 Council meeting. Council staff do not anticipate separate processes for each FMP to finalize the consistency reviews.

Key for Review Criteria Headers in Table 1:

Standardized reporting methodology: Does the FMP describe an established, consistent procedure or procedures used to collect, record, and report bycatch data in a fishery.

Purpose: Does the SBRM meet the purpose? The purpose of an SBRM is to collect, record, and report bycatch data in a fishery that, in conjunction with other information, are used to assess the amount and type of bycatch occurring in the fishery.

Characteristics of bycatch: Does the FMP address information about the characteristics of bycatch in the fishery when available, including, but not limited to, the amount of bycatch occurring in the fishery, the importance of bycatch in estimating the fishing mortality of fish stocks, and the effect of bycatch on ecosystems?

Feasibility: Is implementation of the SBRM feasible from cost, technical, and operational perspectives?

Data Uncertainty: Does the FMP address the uncertainty of the data resulting from the SBRM? This section also requires that an SBRM be designed so that the uncertainty associated with the resulting bycatch data can be described, quantitatively or qualitatively.

Data Use: Does the FMP address how the data resulting from an SBRM are used to assess the amount and type of bycatch occurring in the fishery?

Table 1. Criteria and Checklist for Each FMP. Key: ‘yes’ means the FMP meets each requirement with a reference to section number(s) in the FMP or supporting documentation. ‘No’ means it is not found or may be inconsistent with the SBRM final rule.

FMP/Fishery	Contain SBRM?	Meet the Purpose?	Consider characteristics of bycatch?	Feasibility check?	Address data uncertainty?	Address data use?
Groundfish/Trawl Sector	YES (6.4.1.2)	YES (6.4.1.2)	YES (6.4.1.2)	YES (6.4.1.1 & 6.4.1.2)	YES (6.4.1.2)	YES (6.5.3)
Groundfish/Limited Entry Fixed Gear	YES (6.4.1.2)	YES (6.4.1.2)	YES (6.4.1.2)	YES (6.4.1.1 & 6.4.1.2)	YES (6.4.1.2)	YES (6.5.3)
Groundfish/Open Access	YES (6.4.1.2)	YES (6.4.1.2)	YES (6.4.1.2)	YES (6.4.1.1 & 6.4.1.2)	YES (6.4.1.2)	YES (6.5.3)
Groundfish/Recreational	YES (6.4.1.3)	YES (6.4.1.3)	YES (6.4.1.3)	YES (6.4.1.3)	YES (6.4.1.3)	YES (6.5.3)
CPS (Sardine/Squid/Mackerel)	YES FMP 2.2.1.1, 2.2.2.7, and 4.7 and SAFE ch.4	YES SAFE ch. 4	YES SAFE ch. 4	YES FMP 2.2.2.7 SAFE ch. 4	NO, Suggest adding text to describe uncertainty	YES FMP 2.1.7, 2.2.1.1, SAFE ch. 4

FMP/Fishery	Contain SBRM?	Meet the Purpose?	Consider characteristics of bycatch?	Feasibility check?	Address data uncertainty?	Address data use?
Salmon/Troll	YES FMP (3.5)	YES FMP (3.5)	YES FMP (3.5.3)	YES	NO, Suggest adding text to describe uncertainty	YES (FMP 3.5.3; SAFE Table I-7; Pre-II Table 6; Pre-III Table 6; 2003 EIS)
Salmon/Recreational	YES FMP (3.5)	YES (3.5)	YES FMP (3.5.3)	YES	NO, Suggest adding text to describe uncertainty	Yes (FMP 3.5.3; SAFE Table I-7; Pre-II Table 6; Pre-III Table 6; 2003 EIS)
HMS/Drift Gillnet Fishery for Swordfish and Sharks	YES; FMP 6.2.3 (Fishery Observer Authority for Protected Species Observation) and 6.3.1	YES; FMP 6.3.1 (SBRM General Statement of Compliance, observers & logbooks)	YES; Appendix C section C.3.1	YES; Appendix C section C.3.1	NO, Suggest adding text to describe uncertainty	NO, Summary info is avail, App C describes some use in stock assessments, may need more info
HMS/North Pacific Albacore Surface Hook and Line Fishery	YES; FMP 6.2.3 (Fishery Observer Authority) FMP 6.3.1 Appendix C section C.3.2	YES; FMP 6.3.1(SBRM General Statement of Compliance, observers & logbooks)	YES; Appendix C section C.3.2	YES; FMP 6.2.3 Appendix C section C.5.1.5	NO, Suggest adding text to describe uncertainty	NO, Summary info
HMS/High Seas Deep-set Longline Fishery	YES; FMP 6.2.3 (Fishery Observer Authority for Protected Species Observation) FMP 6.3.1	YES; FMP 6.3.1(SBRM General Statement of Compliance, observers & logbooks)	YES; Appendix C Section C.3.2	YES; Appendix C Section C.5.1, C.5.2, C.5.5	NO, Suggest adding text to describe uncertainty	NO, Summary info is limited.
HMS/Harpoon Swordfish Fishery	YES; FMP 6.3.1	YES; FMP 6.3.1(SBRM General Statement of Compliance)	YES; FMP 6.3	YES; FMP 6.3	NO, Suggest adding text to describe uncertainty	NO, Summary info

FMP/Fishery	Contain SBRM?	Meet the Purpose?	Consider characteristics of bycatch?	Feasibility check?	Address data uncertainty?	Address data use?
HMS/Tropical Tuna Purse Seine Fishery	YES; FMP 6.3.1	YES; FMP 6.3.1(SBRM General Statement of Compliance, International mgt for bycatch monitoring)	YES; Appendix C Section C.3.5	YES; Appendix C Section C.5	NO, Suggest adding text to describe uncertainty or ref internationally monitored and managed program.	NO, No data in SAFE, data is collected via international management
HMS/Coastal Purse Seine Fishery	Yes; FMP 6.2.3 (Fishery Observer Authority for Protected Species Observation) FMP 6.3.1	Yes; FMP 6.3.1(SBRM General Statement of Compliance)	Yes; Appendix C Section C.3.6	Yes; Appendix C Section C.5	No, Suggest adding text to describe uncertainty	No, Summary info
HMS/Recreational Party/Charter Boat Fishery	Yes; FMP 6.2.3 (Fishery Observer Authority) FMP 6.3.1	Yes; FMP 6.3.1(SBRM General Statement of Compliance)	Yes; Appendix C Section C.3.7	Yes; Appendix C Section C.3.7	No, Suggest adding text to describe uncertainty	No, Summary info, Summary info for California
HMS/Private Recreational Boat Fishery	FMP 6.3.1(SBRM General Statement of Compliance) No (See append C C.5.1.7 Identifies MRFS as the source, but ORBS and OSP and CRFS are the recent data sources)	No (No discussion or ref to the sampling methods used by the states. They are standardized and meet the purpose). SAFE doc summarizes tables of albacore catch (no discard) and other HMS catch & released in Cali.	No (append C discusses bycatch data and quality of data; some discussion of why fish are not kept)	Maybe (need to check w states, RecFIN will be the new data source for MRFS; question is are the state data sets being added to RecFIN for tracking/summaries?	No (append C discusses that data is variable and may not reflect true data; state sampling plans discuss models and some uncertainty of the data)	No, Summary info by state, Summary info for California (Need to look at how bycatch data is used at the federal level regarding impacts and setting albacore and Big eye bag limits).

3.0 SUMMARY OF SBRM STATUS BY FMP AND FISHERY

3.1 Pacific Coast Groundfish

Section 6.4 of the groundfish FMP provides a general statement regarding SBRM and the various data collection methods used to assess total mortality.

“Fishery managers participating in the Council process need accurate estimates of total fishing mortality. Total fishing mortality data are needed to set accurate harvest specifications and management measures and to adjust management measures inseason so that ACLs/OYs may be achieved, but not exceeded. Various state, Federal, and tribal catch monitoring systems are used in west coast groundfish management.”

The groundfish FMP provides details of bycatch methodologies in several sections of the FMP (6.4.1.2 for Commercial Fisheries and 6.4.1.3 for Recreational Fisheries). All commercial fisheries include an observer component to estimate bycatch. These [observation rates](#) and standardized methodologies to estimate bycatch were developed for each sector over time since 2001 per the Council. The Council has set the priority for observing these fishery sectors throughout the years and observation rates vary from 100% to roughly 20%, depending on the sector observed and the Council’s priorities for monitoring bycatch. Bycatch estimation methods were developed for each sector and modified as needed by the Northwest Fisheries Science Center. The main source of information that documents the methodologies, data uncertainty and use of the data can be found in [NMFS annual reports](#) that estimate bycatch and mortality. Specifically, groundfish mortality reports such as “[Estimated Discard and Catch of Groundfish Species in the 2018 U.S. West Coast Fisheries](#)” provides qualitative and quantitative information regarding the methodologies used for each fishery sector and the statistical uncertainty of the data for the estimates. Therefore, the FMP and supporting documents seem to be consistent with the SBRM final rule for all commercial fisheries.

The GMT noted that some information may be outdated regarding recreational fishery estimation methods, such as references to the use of Marine Recreational Fisheries Survey as a recreational fishery sampling and estimation method. This method is no longer the main source of information since standardized state methodologies are now used. These methodologies are briefly described in the FMP along with how the data is stored and utilized to estimate total bycatch in the groundfish fishery. The details of the data collection methods are provided in external document as noted in the reference section below. However, uncertainty of the data collected is not described in the FMP and it is unclear if the FMP needs to describe this information. Some discussion of variance in the data is provided in the state sampling methodologies. Therefore, it may be prudent to clarify in the SAFE document the current process for estimating recreational fishery bycatch information, reference where to find the state methodologies, and add qualitative discussions regarding the uncertainty of the bycatch estimations (some information could be taken from the state sampling methodologies). Staff note that these items may not be necessary since all of the criteria may already be met for the SBRM final rule.

Council staff recommendations:

1. No FMP amendment.
2. Potentially add to the SAFE document qualitative information that discusses data uncertainty in recreational fisheries, summary information of the current process for estimating recreational fishery bycatch information, and reference where to find the state methodologies.

Reference documents:

1. [Pacific Coast Groundfish FMP](#)

2. Groundfish FMP [SAFE](#)
3. Oregon’s Ocean Recreational Boat Survey ([ORBS](#)), Washington’s Ocean Sampling Program ([OSP](#)) and California Recreational Fisheries Survey ([CRFS](#)).
4. Example for annual discard and catch: “[Estimated Discard and Catch of Groundfish Species in the 2018 West Coast Fisheries](#)”

3.2 Coastal Pelagic Species

As identified by the CPS management team, the CPS FMP contains various sections that discuss authorized data collection via logbooks, observers, fish tickets, and port sampling by state (OR, WA, CA). However, the bulk of reporting and qualitative data collection information are contained in chapter 4 of the CPS SAFE document. Although the SAFE identifies that a standardized reporting methodology is required, there is no detailed summary of the methods used for bycatch data collection (e.g., landed catch accounting via fish tickets, port sampling protocols or at sea discard catch accounting). Bycatch data is summarized in [Appendix A](#) of the SAFE document that displays all species landed for a given fishery or state and typically identifies the data source (e.g., SAFE Table 4-5, CDFW Wetfish Sampling Database). However, there is no description of the methods used and why they qualify as standardized.

Data uncertainty is generally not discussed; however, nearly all catch is landed and enumerated by some method at the point of landing via a fish ticket or port sampling. Further discussion in the FMP or elsewhere is needed about the quality of data and how much is observed by port sampling to examine the uncertainty of the data collected and how the data is expanded to get total catch for all species landed for each state. The state sampling methods could be referenced if they contain this discussion. The FMP identifies that at seas discard is to be avoided and has been observed in the past; however, the current source of discard information (i.e., logbooks or observers) or the quality and uncertainty of the data is generally not discussed. Therefore, this information should be added.

Staff Recommendation:

1. Discuss the source of bycatch data reported in the SAFE document (i.e., logbooks, fish tickets, port sampling methodology), add a description of the methods used and why they qualify as standardized. Discuss the uncertainty of the data produced. Place information in the SAFE document.
2. Add references links to state sampling data collection methodologies or summarize methods briefly. Place information in the SAFE document.

Reference documents:

1. CPS [FMP](#) December 2020
2. CPS [SAFE](#) December 2020
3. CPS SAFE [Appendix A](#) December 2020 (Tables 4-3 through 4-14)

3.3 Pacific Coast Salmon

Section 3.5.3 of the Salmon FMP provides a general statement regarding SBRM:

“Within the salmon preseason planning process, management alternatives will be assessed for the effects on the amount and type of salmon bycatch and bycatch mortality. Estimates of salmon bycatch and incidental mortalities associated with salmon fisheries will be included in the modeling assessment of total fishery impact and assigned to the stock or stock complex projected to be impacted by the

proposed management measures. The resultant fishery impact assessment reports for the ocean salmon fisheries will specify the amount of salmon bycatch and bycatch mortality associated with each accompanying management alternative. The final analysis of Council-adopted management measures will contain an assessment of the total salmon bycatch and bycatch mortality for ocean salmon fisheries, and include the percentage that these estimates represent compared to the total harvest projected for each species, as well as the relative change from the previous year's total bycatch and bycatch mortality levels.”

Under the salmon FMP, the primary bycatch that occurs is bycatch of salmon species, therefore, the statement provides an overview of bycatch estimation process and points to supporting documentation such as the Salmon Pre-season Reports [II](#) and [III](#). These reports document estimates of bycatch for chinook and coho salmon as it relates to the setting of exploitation rates for commercial and recreational salmon fisheries and the projected fishery landings, bycatch, and bycatch mortality under the potential alternatives. However, the source of the estimates and uncertainty is not described in the FMP. Section 8.3 of the Preseason II report provides a qualitative discussion about the expect level of impact to other non-target species (i.e., rockfish, halibut, lingcod) as it relates the annual setting of exploitation rates. The report indicates that the most recent environmental impact statement provides a discussion of impacts (See 2003 Programmatic EIS). The EIS identifies that incidental take of groundfish species is accounted for via the Groundfish FMP and management measures:

“During the groundfish process, expected groundfish bycatch in the salmon fishery is estimated, based on the previous year’s incidental catch levels. While the levels of salmon catch fluctuate from year to year, the amount of groundfish taken as incidental catch is very low so that changes in the salmon fishery do not substantially alter the projections for harvest-related mortality in the groundfish fishery.”

This may be sufficient for SBRM however further investigation is needed about the uncertainty of the non-target species data that is collected under the groundfish FMP and how it is used in salmon catch modeling.

Council staff recommendations:

1. Add discussion and references links to methodologies for commercial salmon bycatch estimates that are used in the modeling of impacts. Place info in Pre-season Report II.
2. Add discussion and reference links to methodologies for recreational bycatch estimates that are used in the modeling of impacts. Discuss sources of bycatch estimates for salmon and other non-target species such as groundfish. Place info in Pre-season Report II.
3. Add qualitative information regarding data use and uncertainty for recreational and commercial fisheries. Place info in Pre-season Report II.

Reference documents:

1. [Pacific Coast Salmon FMP Through Amendment 20](#)
2. [2021 Pre-season II Report](#)
3. [2021 Pre-season III Report](#)
4. 2003 Programmatic EIS - Final Programmatic environmental impact statement for Pacific salmon fisheries management off the coasts of Southeast Alaska, Washington, Oregon, and California, and in the Columbia River basin.

3.4 Highly Migratory Species

Section 6.3.1 of the HMS [FMP](#) provides the following general statement regarding SBRM:

“The Council examined existing bycatch reporting methodologies and found that current logbook requirements for the various fisheries (states, NMFS and IATTC), together with periodic recreational fishing surveys and port sampling, have provided an important source of information on catch and bycatch for all HMS fisheries (Appendix C, section 5). Nonetheless, certain additional measures were considered to provide improved standardization of logbook reporting and better ground-truthing of the logbook data through pilot observer programs for some of the presently unobserved fisheries. Observer programs are authorized consistent with observer sampling plans prepared by NMFS (Section 6.2.3). All commercial and recreational party or charter/CPFV fishing vessels must maintain and submit to NMFS logbook records containing catch and effort statistics, including bycatch. These measures, together with existing reporting requirements, should provide for a comprehensive standardized bycatch reporting system.”

This general statement notes compliance with the SBRM and attempts to identify the data collection methods used for each fishery to meet the SBRM requirement. Additional sections of the FMP provide some fishery-specific information such as authorizations for observer requirements, what method is used to collect data for a fishery, and some discussion of how the data is used.

We note that the FMP, Appendix C and the SAFE documents may provide the majority of SBRM information and all methods for data collection in each fishery are standardized (see list of source documents below). However, the information that describes the bycatch data collection, recording and reporting procedures for each fishery (as required by the SBRM rule) may be lacking.

Table 1 in this document was developed by the HMSMT and Council staff to identify sections of documents that may meet or not meet the SBRM requirements. Some deficiencies were noted in the *Data Uncertainty* and *Data Use* categories therefore this document will examine the available information in the FMP to assess necessary changes. In addition, we note where information may exist outside the FMP that would meet the requirements or if language must be developed. The HMSMT also noted that the private recreational fishery may be deficient in all categories of the SBRM requirements. However, staff note that data *is* collected but details are needed that describe how the FMP meets the SBRM requirements for these categories; several source documents are cited below that could be used to develop language needed to meet the requirements.

[Appendix C](#) provides descriptions of SBRM and data collection efforts as well as qualitative discussions regarding bycatch monitoring. The current [SAFE](#) document is online and contains commercial and recreational catch, landings, and revenue tables. In addition, [Commercial fishery descriptions and recent data summaries](#) can also be found within the SAFE document along with [recreational fishery information](#) with data summaries for albacore targeted fisheries and other HMS species. We note that bycatch data for each fishery is collected through various sources but mainly through observers, logbooks and dockside or telephone interviews. Some qualitative descriptions of the uncertainty around the data collected exists for a few fisheries such as the harpoon and hook-and-line albacore fishery. We also note that the bycatch information is usually not reported or displayed in SAFE document tables; however, the data *is* collected by the states and available if desired or necessary to address management concerns. So, a description of data uncertainty and how the data is used in management is likely needed.

Regarding HMS/Tropical Tuna Purse Seine Fishery, this fishery is generally managed under the Inter American Tropical Tuna Commission with NMFS staff providing recommendations for agreement and implementation. This fishery is not described in the FMP, rather it is described in [Appendix A](#) of the FMP. It's unclear how SBRM would apply to this fishery since it is internationally managed under the Tuna Conventions Act of 1950. Further discussion is needed on how to review the FMP for consistency with SBRM. If SBRM applies then the data collection methods, uncertainty and data use should be further described in the FMP or elsewhere.

When the FMP was developed in 2003, NMFS was tasked with the development of the observer sampling designs, in consultation with the Council, the states, and industry, and the sampling program was to be at a level sufficient (in combination with other monitoring efforts) to provide reliable estimates of bycatch in each sector. This is now complete, and the fisheries are observed; therefore, this information should be updated to reflect what fisheries are observed and the source of this information should be referenced.

The current FMP language may need refinement or additional language may be needed to address the deficiencies noted by the HMSMT and Council staff. It's possible that an FMP amendment may not be necessary and language could be added to Appendix C or the SAFE document that qualitatively discusses the uncertainties in the data and how the data is used to assess the amount and type of bycatch occurring in each fishery. It may be necessary to briefly describe the state sampling methods for private recreational fisheries and the tropical tuna purse seine fishery with references statements to where this information can be found. Staff provide a list of recommendations as a starting point for scoping and further development.

Staff Recommendations

Update FMP or supporting documents with the following:

1. Refine existing text to describe the data collection method used for each fishery (i.e., observer data, logbooks, state sampling programs) and where this information resides for access by managers and analysts. This could be a table that simply shows each fishery and the collection method used (i.e., observers, logbooks, etc.) and a reference to the source of the methods that describe how it is collected.
2. Update text to discuss the current NMFS observer program that is now set up.
3. Add summary text regarding private recreation sampling efforts (similar to Groundfish FMP – See below in List of Source Information); provide text that references state sampling methods to find details of current methods.
4. Add text that describes qualitatively the level of uncertainty for bycatch data being collected in each fishery. Some text exists in documents that supported the development of the HMS FMP (i.e., Appendix C, FMP EIS). These could be summarized or incorporated by reference.
5. Add text that describes how the bycatch data is used for fishery management and stock assessments, as necessary. Discuss whether bycatch is monitored to identify management issues or future concerns.

Reference documents:

1. HMS [FMP](#) Through Amendment 5 - April 24, 2018
2. HMS FMP [Appendix A](#) – Description of the Fisheries
3. HMS FMP [Appendix C](#) – Bycatch of Fish in HMS Fisheries
4. HMS FMP [Environmental Impact Statement](#) - 2004
5. Stock Assessment and Fishery Evaluation ([SAFE](#))
6. Recommendations for U.S. West Coast Highly Migratory Species Observer Programs with Options for Levels of Significance – Exhibit E.1.attachment 2, June 2005
7. Oregon's Ocean Recreational Boat Survey ([ORBS](#)), Washington's Ocean Sampling Program ([OSP](#)) and California Recreational Fisheries Survey ([CRFS](#)) – Note: Section 6.4.1.3 of the Groundfish FMP contains summary text that describes the state sampling programs.