

## 4.0 Preventing Overfishing and Achieving Optimum Yield

This chapter describes the framework for controlling catch from HMS fisheries to achieve the overall objective of optimum yield. As discussed throughout, domestic catches are often only a small fraction of the stock-wide harvest. (The HMS SAFE document periodically reports the fraction of stock-wide catch represented by West Coast fisheries). Most HMS MUS support large and widespread international fisheries that are best managed cooperatively with other nations through the two Pacific tuna RFMOs.

Some HMS MUS, such as sharks, possess life histories characterized by low productivity. Not only are they more easily overfished, but recovery takes longer, i.e., the species are less resilient to overfishing. Some of these species have a localized distribution and life stage needs, concentrated within the U.S. West Coast EEZ, thus supporting smaller fisheries that tend to be more regional than international. Their management should be more conservative, and may require more proactive and targeted regional leadership for species with localized distributions.

Managing conservatively means being precautionary, especially when there are large uncertainties in how a stock is being affected by fishing. Besides lowering the threshold for taking remedial action, it could mean preventing rapid growth of fisheries to prevent overshooting of management goals, or taking steps to protect the reproductive potential of stocks.

The goal of the MSA, as amended by the Sustainable Fisheries Act of 1996 and Magnuson-Stevens Conservation and Management Reauthorization Act of 2006, is to ensure the long-term sustainability of fisheries and fish stocks by halting or preventing overfishing and by rebuilding overfished stocks. The MSA requires developing fishery management plans for exploited species of U.S. seas including shelf, anadromous, and highly migratory species whose ranges extend beyond the EEZ. By its National Standard 1, optimum yield is the ultimate goal for each fishery.

National Standard 1 Guidelines, as required by the MSA and published in the Code of Federal Regulations (50 CFR 600.310) were developed to assist in implementing the MSA.

### 4.1 Reference Points Including Maximum Sustainable Yield, Optimum Yield, and Status Determination Criteria

Reference points are guideposts for managing exploited stocks based on stock biomass and the amount of catch (and thus fishing mortality) that is occurring. They are used to determine if overfishing is occurring or a stock is overfished. In either case, control rules or other predetermined procedures are triggered to reduce fishing mortality. However, for most HMS MUS stock rebuilding will be ineffective without international cooperation. For such species, domestic regulations must be predicated on the relative impact of West Coast fisheries.

#### 4.1.1 Reference Points Required for All Stocks

Section 303(a)(15) of the MSA applies “unless otherwise provided for under an international agreement in which the United States participates” (P.L. 109-479 104(b)(1)). This exception applies to stocks or stock complexes subject to management under an international agreement, which is defined as “any bilateral or multilateral treaty, convention, or agreement which relates to fishing and to which the United States is a party” (see MSA section 3(24)). Maximum sustainable yield, optimum yield, and status determination criteria would still need to be specified for stocks subject to this exception.

Maximum sustainable yield (MSY): MSY is the largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological, environmental conditions and fishery

technological characteristics (e.g., gear selectivity), and the distribution of catch among fleets. For management purposes MSY is usually expressed in terms of the following reference points:

MSY fishing mortality rate ( $F_{MSY}$ ): The fishing mortality rate that, if applied over the long term, would result in MSY.

MSY stock size ( $B_{MSY}$ ): The long-term average size of the stock or stock complex, measured in terms of spawning biomass or other appropriate measure of the stock's reproductive potential that would be achieved by fishing at  $F_{MSY}$ .

Status determination criteria (SDC) are quantifiable thresholds (or their proxies) that are used to determine if overfishing has occurred, or if the stock or stock complex is overfished. "Overfished" relates to biomass of a stock or stock complex, and "overfishing" pertains to a rate or level of removal of fish from a stock or stock complex. SDC are:

Maximum fishing mortality threshold (MFMT): The level of fishing mortality (F), on an annual basis, above which overfishing is occurring. The MFMT or reasonable proxy may be expressed either as a single number (a fishing mortality rate or F value), or as a function of spawning biomass or other measure of reproductive potential.

Overfishing limit (OFL): The annual amount of catch that corresponds to the estimate of MFMT applied to a stock or stock complex's abundance and is expressed in terms of numbers or weight of fish. The OFL is an estimate of the catch level above which overfishing is occurring.

Minimum stock size threshold (MSST): The level of biomass below which the stock or stock complex is considered to be overfished.

Optimum yield (OY): The amount of fish that will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities and taking into account the protection of marine ecosystems.

#### *4.1.2 Reference Points Required for Stocks Subject to MSA Section 303(a)(15)*

Acceptable biological catch (ABC): A level of a stock or stock complex's annual catch that accounts for the scientific uncertainty in the estimate of OFL and any other scientific uncertainty, and should be specified based on the ABC control rule.

Annual catch limit (ACL): The level of annual catch of a stock or stock complex that serves as the basis for invoking accountability measures (AMs). The ACL cannot exceed the ABC, but may be divided into sector-specific ACLs.

For domestically managed stocks an ABC control rule must be established. This control rule is a specified approach to setting the ABC for a stock or stock complex as a function of the scientific uncertainty in the estimate of OFL and any other scientific uncertainty.

National Standard 1 Guidelines provide an exception to the requirement to establish ABCs, ACLs, and AMs for stocks or stock complexes subject to management under an international agreement. By inference, the above reference points would need to be established for stocks not subject to this international exception and are wholly managed domestically.

## 4.2 Maximum Sustainable Yield

Because MSY is a long-term average, it need not be estimated annually. It must be based on the best scientific information available, and should be re-estimated as required by changes in long-term environmental or ecological conditions, fishery technological characteristics, or new scientific information.

As part of the biennial process (see Chapter 5), the HMSMT will review recent stock assessments or other information as described below, and submit a draft SAFE document for review at the September Council meeting containing MSY estimates, noting if they are a change from the current value. At the request of the Council, the Scientific and Statistical Committee (SSC) will review these estimates and make recommendations to the Council on their application in management decisions. Based on this advice, the Council may recommend revisions to MSY estimates to NMFS.

MSY is estimated based on the amount of information available about the stock. MSY is specified as an absolute quantity, either in weight or number of fish. For management purposes, the estimate of MSY by itself is less relevant than the reference points,  $F_{MSY}$  and  $B_{MSY}$ , that may be derived from it. However, for many HMS, a deterministic estimate of MSY may not be possible. In these cases proxy values for MSY-based reference points may be used. These MSY-related reference points may be specified in various ways, for example relative to a stock depletion level (biomass relative to unfished biomass) or spawning potential ratio (the spawning potential per recruit referenced to the unfished level).

The following describes the relationship between available information and the estimation of MSY:

For regularly assessed stocks: A plausible estimate of MSY (and other MSY-based reference points) or their proxies may be determined from the assessment. Because HMS assessments are generally conducted by working groups outside of the Council process, selections for status determinations may be based on what the science providers (e.g. ISC working groups, IATTC staff, SPC staff) provide in their reports. Based on advice from the SSC, the Council may recommend changes in the way that MSY is estimated in the assessment, and such recommendations would be forwarded to the RFMO conducting or sponsoring the stock assessment through the U.S. delegation for consideration when conducting future assessments. In that event, the Council could recommend to retain any current MSY estimate in the FMP or regulations, or propose an alternate estimate.

For unassessed stocks with catch history and additional information on relative abundance or stock productivity: The HMSMT reviews the best available stockwide catch data, or if not available, regional catch data and all additional information on a stock's productivity including relative abundance or catch and effort data, if available. The Council may recommend MSY or proxy estimates for NMFS to use in making those determinations, based on the catch time series and additional information.

For unassessed stocks with catch history but lacking further information on relative stock abundance or productivity: The HMSMT reviews the best available stockwide catch data, or if not available, regional catch data. The Council may recommend MSY or proxy estimates based on a catch-based method such as the Depletion Corrected Average Catch (DCAC), Depletion Based Stock Reduction Analysis (DB-SRA), or in the case of a relatively stable catch history without indications of stock depletion, an average of selected catch levels.

No matter the method used to estimate MSY or select a proxy, the relative impact of U.S. West Coast fisheries may help to inform the Council's recommendations.

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from it. However, for many HMS, a deterministic estimate of MSY may not be possible. In these cases proxy values for MSY-based reference points may be used. These MSY-related reference points may be specified in various ways such as referenced to a stock depletion level (biomass relative to unfished biomass) or spawning potential ratio (the spawning potential per recruit referenced to the unfished level).

### 4.3 Optimum Yield

OY is defined as MSY reduced by relevant socioeconomic factors, ecological considerations, and fishery-biological constraints so as to provide the greatest long-term benefits to the Nation. Therefore, OY cannot be set greater than MSY, and must take into account the need to prevent overfishing and rebuild overfished HMS stocks. To the extent possible, the relevant social, economic, and ecological factors used to establish OY for an HMS stock or fishery should be quantified and reviewed in historical, short-term, and long-term contexts. National Standard 1 Guidelines includes examples of factors that may be considered when determining OY. Normally, OY should not be greater than the ABC or ACL, if identified (see below). However, since OY is a long-term average and ABCs and ACLs are set annually there may be instances where the ABC or ACL could exceed the OY on a short-term basis. The OYs specified when this FMP was approved shall remain in effect until changed by recommendation of the Council, after considering recommendations of the SSC, and approval by NMFS. If the Council incorporates a new management unit species into the FMP, the OY shall be determined preferably concurrently or as soon as possible thereafter by recommendation of the Council, after considering input by the SSC, HMSMT, and approval by NMFS. OY specifications will be reported in the HMS SAFE.

Although required, specifying OY for internationally managed stocks is problematic, because achieving OY is intended to produce the greatest benefit to the Nation and prevent overfishing. For most of the HMS FMP MUS stocks, fisheries managed under this FMP catch a very small proportion (in some cases less than one percent) of stock-wide catch. Therefore, for internationally-managed stocks, the Council may consider fishing levels that are agreed upon by the U.S. at the international level when specifying OY.

A stock's vulnerability should be a key consideration in specifying OY. Vulnerability is a combination of a stock's productivity, which depends upon its life history characteristics, and its susceptibility to the fishery. Productivity refers to the capacity of the stock to produce MSY and to recover if the population is depleted, and susceptibility is the potential for the stock to be impacted by the fishery.

When specifying OY, the Council may consider a reduction from the estimate of MSY based on stock vulnerability along with the other factors discussed above. A 25% reduction could be considered as a starting point for specifying OY based on vulnerability. For stocks subject to MSA Section 303(a)(15), because they are not subject to an international agreement in which the United States participates, the procedures for specifying the ABC and ACL should be taken into account so that on average the ABC does not exceed OY.

### 4.4 Assessment of Stock Status

National Standard 2 requires using the best scientific information available in management. This requires periodic updating of stock status for comparing against status determination criteria. Stock status will be reported in SAFE reports (Section 4.6). In the case of species under international management, the Council should recommend adopted SDCs as limit reference points to be considered by the appropriate RFMO (see also Section 2.1).

The methods for determining SDCs (described below) imply an ability to determine the level of biomass relative to its unfished level ( $B_0$ ) and (at least conceptually) relative to  $B_{MSY}$ , and to determine the level of mortality ( $F$ ) relative to some target level like  $F_{MSY}$ . This may be possible only for certain assessed stocks,

depending on the amount of information available for stock assessments (see Section 4.2 regarding information available for assessments and determining MSY). When a stock assessment has not been completed, the biomass level could be estimated by the decline in catch rate (CPUE) or, with sufficient information on stock and recruitment, by percent spawning potential ratio (SPR), or proxies based on SPR, e.g.,  $B_{50\%}$  or  $F_{50\%}$ . In these cases, it may be necessary to use proxy values to compute SDCs. For data-poor stocks, MSY or OY estimates based on catch history alone may be the only information available for management, and the  $F/F_{MSY}$  and  $B/B_{MSY}$  ratios must be derived from those estimates. In these cases, proxy values could be based on average stock-wide catch over an appropriate time period.  $F_{MSY}$  and  $B_{MSY}$  proxies can be scaled as fractions of  $B_0$  or multiples of  $M$ , respectively, e.g.,  $B_{MSY}=0.5B_0$  or  $F_{MSY}=1.0M$ .

Both MSY and OY refer to a species' sustainable catch, stock-wide. For some species there is no stock-wide catch information, and some (e.g., mako shark, dorado) occur within the management area as the edges of wider distributions, so even their maximum, regional catch levels are unlikely to reflect stock production. While stock-wide MSY is unknown for those species, the local catches can be used to estimate a local or regional MSY.

#### 4.4.1 Status Determination Criteria

The Council will monitor each managed HMS stock with regard to whether overfishing is occurring and whether the stock is overfished in relation to status determination criteria (MFMT and MSST). The Secretary will use the following status determination criteria to identify stocks subject to overfishing or that have become overfished as specified at MSA section 304(e).

**MFMT** equals  $F_{MSY}$ . The **OFL** is the annual amount of catch that corresponds to the estimate of MFMT applied to a stock or stock complex's abundance and is expressed in terms of numbers or weight of fish. The OFL is an estimate of the catch level above which overfishing is occurring.

**MSST** is calculated as the greater of:

$$B_{MSST} = (1-M)B_{MSY} \text{ when } M \text{ (natural mortality)} \leq 0.5, \text{ or}$$

$$B_{MSST} = 0.5B_{MSY} \quad \text{when } M > 0.5$$

MSST or a reasonable proxy must be expressed in terms of spawning biomass or other reproductive potential. Should the estimated size of an HMS stock in a given year fall below this threshold, the stock is considered overfished.

**Overfishing** occurs when fishing mortality  $F$  is greater than the MFMT mortality or catch exceeds OFL for one year or more. Similarly, a stock is **overfished** when its size falls below the MSST stock biomass. MSA Section 304(e) and 304(i) describe required responses when a stock is subject to overfishing, approaching the overfished condition (i.e., if there is overfishing and the stock is expected to be overfished within two years) and when it is overfished. If Section 304(e) applies and overfishing is occurring, harvest rates in fisheries managed under this FMP must be reduced below the MFMT. This would be especially urgent when a stock is approaching an overfished condition. If the stock is overfished, a rebuilding plan must be prepared within one year to rebuild the stock. The rebuilding plan must bring the stock back to the level producing MSY within a specified time period.

#### 4.4.2 Council Response to Overfishing

The Secretary will immediately notify the Council when a stock or stock complex is subject to overfishing or overfished. The Council must then take appropriate remedial action in relation to the applicability of Sections 304(e) and 304(i).

#### 4.4.2.1 International Overfishing

If the Secretary determines that a stock is overfished or approaching the condition of being overfished due to excess international fishing pressure, and for which there are no measures (or no effective measures) to end overfishing under an international agreement to which the United States is a party, then the Council will respond according to the procedures described in Section 304(i) of the MSA. This section requires the Council make recommendations for domestic regulations to address the relative impact of U.S. vessels and recommendations for international actions to end overfishing and rebuild affected stocks.

Section 304(i)(2) states that the “appropriate council” shall develop recommendations for domestic measures and international actions to end overfishing. The Pacific Council may notify NMFS for which HMS stocks it considers itself the appropriate council. NMFS may use this information when deciding whether the Pacific Council is obligated to develop recommendations pursuant to Section 304(i)(2). The Council also may use this assessment of appropriateness to prioritize the stocks for which it will identify management reference points. Any determination that this FMP is the primary FMP for any particular HMS MUS stock should also be taken into account (see Section 3.2). While catches by fisheries managed under this FMP would be the main factor in deciding whether it is the “appropriate council,” the Council may wish to reserve the right to develop recommendations for international actions for stocks that such fisheries are only modestly engaged in (e.g., South Pacific albacore).

On December 15, 2004, NMFS notified the Council that overfishing was occurring Pacific-wide on bigeye tuna and requested the Council to take appropriate action. Because this notification occurred before the 2007 MSA reauthorization when Section 304(i) was added, the Council incorporated rebuilding measures into this chapter of the FMP, pursuant to MSA Section 304I, by FMP Amendment 1. Given the subsequent implementation of the requirements in Section 304(i), this material was moved to Appendix J under Amendment 4.

#### 4.4.2.2 When International Fishing Pressure is not the Cause

Rebuilding of overfished stocks is a unilateral requirement by the MSA, but, as already noted, internationally fished stocks require cooperative catch reductions among the fishing nations for this rebuilding to be effective. U.S. responsibility for rebuilding is greater for stocks not subject to MSA Section 304(i) and the requirements at Section 304(e) apply.

When stock size (B or SSB) falls below its MSST level, fishing mortality must be reduced sufficiently to allow stock rebuilding at least back to  $B_{MSY}$  by a target rebuilding year, which is identified in a rebuilding plan adopted by the Council. ACLs are then set accordingly until the stock is rebuilt to  $B_{MSY}$ .

Under NMFS’s National Standard Guidelines, a number of factors enter into the specification of the time period for rebuilding. The lower limit of the specified time period for rebuilding is determined by the status and biology of the stock or stock complex and its interactions with other components of the marine ecosystem, and is defined as the amount of time that would be required for rebuilding if fishing mortality were eliminated entirely. If the lower limit is less than 10 years, then the specified time period for rebuilding may be adjusted upward to the extent warranted by the needs of fishing communities and recommendations by international organizations in which the United States participates, except that no such upward adjustment can result in the specified time period exceeding 10 years, unless management measures under an international agreement in which the United States participates dictate otherwise. If the lower limit is 10 years or greater, then the specified time period for rebuilding may be adjusted upward to the extent warranted by the needs of fishing communities and recommendations by international organizations in which the United States participates, except that no such upward adjustment can exceed the rebuilding period calculated in the absence of fishing mortality plus one mean generation time or equivalent period

based on the species' life-history characteristics. Overfishing restrictions and recovery benefits must also be fair and equitable among fishery sectors. Rebuilding of internationally managed fisheries must reflect traditional U.S. participation in those fisheries relative to that of other nations.

In general, rebuilding is to remedy stock depletion, but there can also be rebuilding to remedy **local depletion**. The latter rebuilding could be domestic and unilateral. Local depletion occurs when localized catches are in excess of replacement from local and external (via net immigration) sources of production. As such, it can occur independently of the status of the overall stock. The local depletion of abundance can be stronger than the concurrent stock-wide decrease (Squire and Au 1990). In all cases, the degree and extent of this depletion must be assessed relative to the health of the overall stock and the resiliency of the species.

#### 4.5 Management of Stocks Subject to MSA Section 303(a)(15) Because They Are not Subject to an International Agreement in which the United States Participates

Currently, stocks covered under the HMS FMP fall under the National Standard 1 Guidelines (50CFR600.310(h)(1)(ii)) as internationally managed and therefore are exempt from MSA 303(a)(15) which requires specification of ABC, ACLs, ACTs, and AMs. The Council has a long-standing practice of following the recommendations and resolutions of the RFMOs.

##### 4.5.1 *ABC, ACLs, ACTs, and Accountability Measures*

According to the National Standard 1 Guidelines, an ABC and a related ACL must be set for stocks managed under an FMP. However, the Guidelines include an exception to this requirement for stocks subject to management under an international agreement, which is defined as “any bilateral or multilateral treaty, convention, or agreement which relates to fishing and to which the United States is a party.” The Council will not normally set ABCs and ACLs for HMS MUS stocks that the Council has determined meet this criterion. However, application of this exception does not preclude the Council from setting an ACL (and identifying an associated ABC to facilitate setting the ACL) if circumstances warrant.

The ABC is a level of a stock's annual catch that accounts for scientific uncertainty in the estimate of OFL and any other scientific uncertainty. The ABC may not exceed the OFL. The HMSMT will develop ABC control rules for those managed stocks for which they are required. The ABC control rule will be reviewed by the Council's SSC. Based on that review, the Council will adopt the ABC control rule judged suitable by the SSC. Through this process, the ABC control rule may be revised from time to time based on the best scientific information available. The ABC will be expressed in terms of catch, or landings if the ABC control rule incorporates an estimate of bycatch or other sources of fishing mortality.

The Council will establish ACLs for those managed stocks for which they are required.

The ACL may not exceed the ABC. ACLs will be established for each year in the biennial management cycle (see Chapter 5). ACLs are established, reviewed, and may be adjusted as part of this management cycle described. ACLs may be subdivided as part of the biennial management process. This includes establishing separate sector-ACLs, and for stocks or stock complexes that have harvest in state waters, dividing the overall ACL between a Federal-ACL and a state-ACL.

The biennial management process will be used to implement AMs should they be required. AMs are management controls to prevent ACLs from being exceeded and to correct or mitigate overages of the ACL if they occur. AMs include ACTs and ACT control rules, which the Council also may establish if they would help ensure the ACL is not exceeded. An ACT is an amount of annual catch of a stock or stock complex that is the management target of the fishery, and accounts for management uncertainty in

controlling the actual catch at or below the ACL. The ACT control rule is a specified approach to setting the ACT for a stock or stock complex such that the risk of exceeding the ACL due to management uncertainty is at an acceptably low level.

Annually, the HMSMT will gather the requisite information needed to determine whether an ACL has been exceeded as soon as possible after the end of the fishing year (March 31). If catch exceeds the ACL more than once in the last four years, the system of ACLs and AMs will be reevaluated and modified if necessary. For the purposes of this evaluation a 3-year moving average or other multi-year approach may be used, if there are insufficient data to conduct the evaluation based on a single year's catch.

#### 4.5.2 *Precautionary Management for Stocks above the MSST but below $B_{MSY}$ or its Proxy*

Fishery management councils have considerable latitude in how they rebuild stocks depleted below  $B_{MSY}$  but not overfished. To rebuild stock biomass to  $B_{MSY}$ , a precautionary reduction from the ABC to the ACL should be considered. The reduction would be scaled to stock depletion in reference to the  $B_{MSY}$  target. This can take a linear form, so that the reduction from the ABC increases in proportion to the decline in biomass.<sup>2</sup> Other forms can be considered such as a series of stepped constant ACLs for different ranges of  $B_{MSY}$  values.

#### 4.6 Stock Assessment and Fishery Evaluation Report

The SAFE report is a document or set of documents that provides the Council with a summary of information concerning the most recent biological condition of stocks and the marine ecosystems in the management unit, and the social and economic condition of recreational and commercial fishing interests, fishing communities, and the fish processing industries. It summarizes, on a periodic basis, the best available scientific information concerning the past, present, and possible future condition of the stocks, marine ecosystems, and fisheries being managed under Federal regulation.

The Secretary of Commerce has the responsibility to assure that a SAFE report or similar document is prepared, reviewed annually, and changed as necessary. The Secretary or Council may utilize any combination of talent from Council, state, Federal, university, or other sources to acquire and analyze data and produce the SAFE report.

The SAFE report provides information to the Council and NMFS West Coast Region for determining annual harvest levels from each stock; documenting significant trends or changes in the resource, marine ecosystems, and fishery over time; and assessing the relative success of existing state and Federal fishery management programs. Information on bycatch and safety for each fishery should also be summarized. In addition, the SAFE report may be used to update or expand previous environmental and regulatory impact documents, and ecosystem and habitat descriptions.

National Standard 2 of the MSA requires that the best scientific information available be used in developing FMPs and implementing regulations. For HMS, except dorado and sharks, NMFS and the Pacific Council rely on analyses and assessments adopted by various international bodies (of which U.S. is an active participant), such as the IATTC, ISC, and WCPFC. For other species such as dorado and sharks, the HMSMT and NMFS develops stock and fishery assessments, provides peer reviews and presents the results to the Pacific Council. The guidelines for implementation of National Standard 2 require preparation of an annual SAFE report. The SAFE report will largely rely on international body assessments, NMFS directed

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<sup>2</sup> As an example, the Council's Pacific Coast Groundfish FMP identifies a "40-10" precautionary reduction predicated on an MSY proxy for roundfish of B40%. The linear reduction is scaled so that F or catch would be zero when stock size reaches 10% of its unfished size. Practically, however, catches would be managed under a rebuilding plan when the stock biomass falls below the MSST, which for roundfish is B25%.

assessments, and any new fishery information. Consistent with National Standard 2 guidelines for a SAFE report adapted for this FMP, the contents of the HMS SAFE report are listed below.

#### Each SAFE report

- Must be scientifically based, and cite data sources and interpretations.
- Report any changes to numerical estimates of MSY and OY adopted by the Council as a recommendation to NMFS as part of the biennial process described in Chapter 5.
- Report estimates of the MFMT, OFL, and MSST for each stock or stock complex, along with information by which the Secretary may determine: Whether overfishing is occurring with respect to any stock or stock complex; if any stock or stock complex is overfished; if the rate or level of fishing mortality applied to any stock or stock complex is approaching the MFMT; and if the size of any stock or stock complex is approaching the MSST.
- Should contain information on which to base harvest specifications, including ABCs, ACLs, and ACTs, if appropriate.
- May contain recommendations to the Council on matters concerning bycatch and incidental catch.
- May describe those management measures necessary to rebuild an overfished stock or stock complex to a level consistent with producing the MSY in such fishery.
- Include a table with the stock-specific OYs specified at the time the FMP was approved.
- May contain additional economic, social, community, essential fish habitat, and ecological information pertinent to the success of management or the achievement of objectives of this FMP.

Periodically, to align with the preparation of the Council's inventory of research and data needs prepared by the SSC, the SAFE will contain research and data need recommendations.

Each year, in September and November, the HMSMT will deliver one combined SAFE report for all species in this FMP to the Council. The SAFE report will follow the guidelines specified in National Standard 2 and will be used by the Council and NMFS to develop and evaluate regulatory adjustments under the framework procedure or the FMP amendment process. This information will provide the basis for determining annual harvest levels from each stock, documenting significant trends or changes in the resource, the bycatch, and the fishery over time, and assessing the relative success of existing state and Federal fishery management programs. In addition, the SAFE report can be used to update or expand previous environmental and regulatory impact documents, and ecosystem and habitat descriptions, including essential fish habitat (EFH).