2020 REPORT TO CONGRESS – ADDITIONAL STOCK STATUS INFORMATION

Introduction

The 2020 Status of U.S. Fisheries Report to Congress (Report to Congress) provides an annual overview of the overfishing and overfished status of all federally managed stocks and stock complexes, and identifies stocks rebuilt as of December 31, 2020. This document contains the legislative requirements for reporting, related stock status information, and additional supporting material for the 2020 Report to Congress.

Legislative Requirements for the Report to Congress

Section 304(e)(1) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires an annual report to Congress and the Regional Fishery Management Councils (Councils) on the status of fisheries within each Council's area of authority and identify those that are *overfished* or *approaching an overfished condition*. National Standard 1 (NS1) guidelines require that the Secretary notify the Councils whenever the Secretary determines that a stock is *subject to overfishing*, *overfished*, or *approaching an overfished condition*. Section 304(e)(1) of the MSA requires that for those fisheries managed under a fishery management plan (FMP) or an international agreement, the status shall be determined using the criteria for *overfishing* specified in such plan or agreement.

Status Determination Criteria

Section 303(a)(10) of the MSA requires that FMPs specify objective and measurable criteria for identifying when the fishery to which the plan applies is *overfished*. NS1 guidelines further clarify that FMPs must contain status determination criteria (SDC), i.e., measurable factors for determining both *overfishing* and *overfished* status.

Overfishing and Overfished – What's the Difference?

Each FMP must specify the maximum sustainable yield (MSY) for the stocks and stock complexes that require conservation and management. The MSY is the largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing conditions. Because the MSA defines "overfishing" and "overfished" in terms of the capacity of a fishery to achieve MSY on a continuing basis, the SDC must relate to MSY. If data are not available to specify overfishing and overfished SDCs based on MSY or MSY proxies, alternative types of SDCs that promote sustainability can be used. As further explained in the NS 1 Guidelines, additional terminology and concepts assist with compliance as described below.

Overfishing occurs whenever a stock or stock complex is subjected to a level of fishing mortality (F) or total catch that jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis. The maximum fishing mortality threshold (MFMT) means the level of fishing mortality, on an annual basis, above which overfishing is occurring. The overfishing limit (OFL) means 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. If the current fishing mortality rate (F) is above the MFMT or the catch exceeds the OFL, then the stock or stock complex is subject to overfishing.

A stock or stock complex is overfished when its biomass has declined below the minimum stock size threshold (MSST). The MSST is the level of stock abundance or biomass (B) below which the capacity of the stock or stock complex to produce MSY on a continuing basis has been jeopardized. A stock or stock complex is approaching an overfished condition when it is projected that there is more than a 50 percent chance that the biomass of the stock or stock complex will decline below the MSST within two years, based on trends in fishing effort, fishery resource size, and other appropriate factors.

SDCs are the measurable and objective factors, such as MFMT, OFL, and MSST, or their proxies, that are used to determine if overfishing has occurred, or if the stock or stock complex is overfished. The overfishing and overfished definitions in the FMP describe *how* overfishing and overfished are determined using the SDCs.

Specifying SDC Level and Stocks in Need of Conservation and Management

Overfishing and overfished stock status is reported at the level SDC are specified in the FMP. Some species contain several sub-stocks within the same FMP or in several different FMPs. Stock units may change because of new stock assessments or from changes in the management units, resulting in consolidation or splitting of stocks. The SDC are updated accordingly to reflect new stock units.

SDC can also be specified at the stock complex level. Stock complexes may contain multiple species that are grouped together because they share similar life histories and are retained in the same fisheries. For some stock complexes, one or more stocks are assessed and the stock(s) serves as an indicator of status for all stocks within the stock complex. Other stocks are grouped together as a data-poor approach to setting SDC for the complex.

For most managed stocks, the FMPs provide both overfishing and overfished definitions that use SDC based on MSY or MSY proxies. However, some managed stocks do not have definitions for both overfishing and overfished contained in their FMPs. These stocks will have an *unknown* overfishing and/or overfished status. Other managed stocks have overfishing and overfished definitions, but do not have the data necessary to estimate the SDC (MFMT, OFL, or MSST) for making overfishing or overfished stock status determinations. These stocks will also have an *unknown* overfishing and/or overfished stock status.

Not every fishery is in need of conservation and management. Some stocks may be included in an FMP in order to achieve ecosystem management objectives, but do not require conservation and management. SDC are not required for stocks or stock complexes designated as ecosystem component species.

Updating Numerical Reference Points and Stock Assessments

While overfishing and overfished definitions describe *how* overfishing and overfished status are determined, the numerical estimates of the SDC - MFMT, MSST, and OFL – must be calculated to provide a numerical reference point. For stocks whose overfishing and overfished SDC are derived from stock assessments, MFMT and MSST are usually re-calculated each time a stock assessment is conducted. If the stock assessment indicates that F exceeded the MFMT, the stock is subject to overfishing, and if B fell below the MSST, the stock is overfished.

For stocks whose overfishing SDC are derived by calculating OFLs based on stock assessments, the OFLs are typically re-calculated annually. For OFLs derived through data-poor methods, the OFLs are usually not re-calculated as frequently. If catch for the stock exceeds the OFL the stock is subject to overfishing.

The timing and data available for updating status determinations varies. Some stocks are assessed annually, but the average time between stock assessments is 3-5 years. Some stocks are rarely or never assessed, due to data limitations. Because catch data are available annually, overfishing determinations based on catch/OFL comparisons can be made every year, where catch/OFL is the SDC. The overfishing and overfished definitions for all stocks and stock complexes and the basis for the current stock status determinations can be found here.

Best Scientific Information Available and Making Stock Status Determinations

National standard 2 (NS2) guidelines require that conservation and management measures shall be based on the best scientific information available (BSIA). Consequently, status determinations must be based on BSIA.

After a stock assessment or other information is finalized and NOAA Fisheries ensures that it is the BSIA for supporting stock status determinations, the Assistant Administrator for NOAA Fisheries then uses that data to make the determinations on behalf of the Secretary of Commerce. The procedures for making stock status determinations are contained in the *NOAA Fisheries Framework for Determining that Stock Status Determinations and Catch Specifications are Based on the Best Scientific Information Available*.

In rare instances, new information indicates that the BSIA for determining stock status requires use of an SDC other than that specified in an FMP. When this occurs, NOAA Fisheries works with the appropriate regional fishery management council to ensure that the FMP is updated as necessary to adopt the new SDC. In some cases, the stock status may be reported based on the SDC determined to be BSIA during the interim. If this occurs, the information will be noted in the stock status tables footnotes until the new SDC are adopted in the FMP.

Stock Status Tables and Year-to-Year Comparisons of Overfishing and Overfished Stocks

The Report to Congress provides the total numbers of stocks listed as "subject to overfishing"/ "not subject to overfishing" and "overfished"/ "not overfished." The stock status tables provide the overfishing and overfished status of every stock and stock complex, identify stocks that are approaching an overfished condition, indicate what management action is required, list stocks in

rebuilding plans, and specify which species are contained in stock complexes. Stocks are grouped by Fish Stock Sustainability Stock (FSSI) stocks, non-FSSI stocks, and ecosystem component stocks. For more information, see the Fish Stock Sustainability Index

Prior to 2000, if stocks were *either* subject to overfishing or overfished, they were listed in the Report to Congress as overfished. Since 2000, NMFS has reported the stocks in separate categories for "overfished" and "overfishing" determinations. Consequently, the number of overfished stocks reported prior to 2000 is not comparable to the numbers reported from 2000 onward. In addition, the number of stocks listed as subject to overfishing or overfished in the early 2000's should not be compared to numbers in current reports. In earlier years, some stocks were listed at the stock level when they should have been reported at the stock complex level, which significantly increased the number of stocks listed as subject to overfishing or overfished.

Management Action Required

If a stock is listed as subject to overfishing or overfished, the action necessary to correct the status is indicated in the Management Action Required column of the stock status tables. For example, the management action required for stocks subject to overfishing is to reduce mortality. For newly declared overfished stocks, the action is to implement a rebuilding program, and for stocks in rebuilding plans, the action is to continue rebuilding.

Rebuilding Program Progress

A stock determined to be overfished is required to have a rebuilding plan implemented within two years and continue under rebuilding measures until the stock is rebuilt to the target level. This target level is the biomass (B) or stock size that supports MSY on a continuing basis, commonly referred to as B_{MSY}. During rebuilding, a stock typically increases in abundance so that it is no longer overfished because B>MSST, but has not yet increased to the higher B_{MSY} level to achieve rebuilt status. Such stocks are noted in the stock status table as *not overfished – rebuilding*.

The stock status tables provide information for stocks in rebuilding plans, including the number of years the rebuilding plan has been in place and the target number of years for the stock to rebuild. While most rebuilding plans have a target rebuilding year for when the stock is expected to rebuild, some plans do not because they lack the data necessary to estimate when the stock will be rebuilt. Additional information on rebuilding plans can be found here.

In some cases, although a stock is identified as overfished or subject to overfishing, a domestic rebuilding plan under the MSA is not required. This would include stocks managed under an international agreement that are overfished due to excessive international fishing pressure. For such stocks, domestic management measures are not likely to end overfishing because the domestic fisheries contribute very little to the overall fishing mortality.

In addition, recovery of severely overfished stocks that are listed under the Endangered Species Act (ESA) are managed under the more restrictive provisions of the ESA, rather than under the

MSA.

Stock Assessments that Fail to Support Known Status Determinations

In some cases, a stock assessment fails to provide overfishing or overfished stock status recommendations. When cases like this arise, stocks that have a current unknown status will continue to be listed as unknown. Stocks that have a current known status based on a previous assessment will continue to be listed as known based on the previous assessment. The most recent assessment that could not provide a stock status recommendation will be noted in a footnote in the stock status tables.

Changing a Known Stock Status to Unknown

Once the status of a stock is determined, or "known," NOAA Fisheries continues to report that stock status until new information warrants a change to a different status. The agency encourages retaining a known stock status, whenever possible. Some situations, such as aging assessments or flawed assessment models, can lead to a formal re-evaluation of stock status and sometimes results in a change from a known to an unknown status. Stock status changes to unknown are reviewed on a case by case basis. Since 2020, to promote consistent and transparent agency decisions, stock status changes are evaluated using the *Procedural Guidance for Changing Assessed Stock Status from Known to Unknown*. Stock changes from a known to an unknown status require a stock status decision memo signed by the Assistant Administrator for NOAA Fisheries.