UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

MEMORANDUM FOR: Chris Oliver
Assistant Administrator for Fisheries

CLEARED THROUGH: Michael Tosatto
Regional Administrator, Pacific Islands Regional Office
on January 31, 2020

FEB 06 2020

FROM: Jennifer M. Wallace
Acting Director, Office of Sustainable Fisheries

SUBJECT: Recommended Stock Status Determinations for American Samoa Bottomfish Multi-Species Complex and Guam Bottomfish Multi-species Complex

For American Samoa Bottomfish Multi-species Complex I recommend:
- Changing the overfished status from not overfished to overfished; and
- Changing the overfishing status from not subject to overfishing to subject to overfishing.

For Guam Bottomfish Multi-Species Complex I recommend:
- Changing the overfished status from not overfished to overfished; and
- Maintaining the overfishing status as not subject to overfishing.

BACKGROUND

The National Marine Fisheries Service and Western Pacific Fishery Management Council manage the American Samoa bottomfish multi-species complex under the Fishery Ecosystem Plan (FEP) for the American Samoa Archipelago and the Guam bottomfish multi-species complex under the FEP for the Mariana Archipelago. These complexes include multiple species of snappers, groupers, emperors, and jacks. In a final rule published February 8, 2019 (FR 84 2767), NMFS reclassified several bottomfish species as ecosystem component species. As a result, the new stock assessments evaluated a subset of the previous complexes. Also, the most recent stock assessments for the bottomfish complexes incorporated additional fishing trip information that was not included in previous assessments. This resulted in changes to historical trends in catch and catch-per-unit-effort. For the American Samoa multi-species bottomfish complex, the new assessment indicates that the revised complex has been overfished and subject to overfishing since 2006 and not just since the previous stock assessment in 2015. For the Guam bottomfish complex, the new assessment indicates the stock has been overfished since 2014.

CURRENT STATUS

- The 2009 FEPs specified the same overfished and overfishing status determination criteria (SDC) for the bottomfish stock complexes in American Samoa and Guam. A stock/stock complex is overfished if the stock biomass (B) falls below the Minimum

Printed on Recycled Paper

Stock Size Threshold (MSST). The MSST equals $(1-M)\times B_{MSY}$, where M is the natural mortality rate and B_{MSY} is the biomass that produces the maximum sustainable yield. The stock/stock complex is subject to overfishing if the fishing mortality rate (F) exceeds the Maximum Fishing Mortality Threshold (MFMT). The value of MFMT changes depending on whether the stock is overfished or not. If the stock/stock complex is not overfished, then $MFMT=F_{MSY}$. If the stock/stock complex is overfished then the MFMT declines from F_{MSY} in proportion to B/MSST.

American Samoa Multi-Species Bottomfish Complex

- The previous assessment was finalized in 2015, using data through 2013, and included seventeen species in the bottomfish complex. The 2015 assessment supported a determination that the stock was not subject to overfishing and was not overfished. This assessment used a Bayesian surplus production model.
- The stock was not subject to overfishing because F_{2013} (0.02) was less than the MFMT (0.238) and was not overfished because B_{2013} (547,000 lb) was greater than the MSST (233,590 lb).

Guam Multi-Species Bottomfish Complex

- The previous assessment was finalized in 2015, using data through 2013, and included seventeen species in the bottomfish complex. The 2015 assessment supported a determination that the stock was not subject to overfishing and was not overfished. This assessment used a Bayesian surplus production model.
- The stock was not subject to overfishing because F_{2013} (0.12) was less than the MFMT (0.352) and was not overfished because B_{2013} (264,200 lb) was greater than the MSST (113,570 lb).

INFORMATION THAT SUPPORTS RECOMMENDED STATUS CHANGE

- The SDC remain unchanged since the last assessments.

American Samoa Multi-Species Bottomfish Complex

- The most recent assessment was finalized in 2019, using data through 2017 and includes eleven species in the bottomfish complex. The 2019 assessment supports a determination that the stock complex is subject to overfishing and is overfished. This assessment used a state-space Bayesian surplus production model within the framework Just Another Bayesian Biomass Assessment (JABBA).
- This assessment supports a determination that the stock complex is overfished because B_{2017} (102,600 lb) is less than the MSST (191,000 lb) and is subject to overfishing because F_{2017} (0.15) is greater than the MFMT (0.057).

Guam Multi-Species Bottomfish Complex

- The most recent assessment was finalized in 2019, using data through 2017, and includes thirteen species in the bottomfish complex. The 2019 assessment supports a determination that the stock complex is overfished but not subject to overfishing. This assessment used a state-space Bayesian surplus production model within the framework JABBA.

- This assessment supports a determination that the stock complex is overfished because B_{2017} (143,000 lb) is less than the MSST (174,160 lb) but is not subject to overfishing because F_{2017} (0.11) is less than the MFMT (0.14).

- These stock assessments represent the best scientific information available for supporting stock status and management advice for the bottomfish multi-species complexes of American Samoa and Guam.

RECOMMENDATION

I recommend that you:

- Determine that American Samoa bottomfish multi-species complex is overfished and is subject to overfishing.
- Determine that Guam bottomfish multi-species complex is overfished and not subject to overfishing.

1. I concur. _____ 1/6/20 .
Date

2. I do not concur. _____ .
Date