Western Pacific Community Development Plan Proposal

American Samoa Tautai Bottomfish Community Development Plan

Submitted to the Western Pacific Fishery Management Council
by the American Samoa Department of Marine and Wildlife Resources

Archie Soliai, Director, AS DMWR

1. Eligibility of Applicant

Archie Soliai, Director of the American Samoa Department of Wildlife Resources

The applicant is eligible for this program. In April 1999, American Samoa was identified as a fishing community (64 FR 19067).

American Samoa DMWR is the agency responsible for the management of fishery resources in American Samoa.

To be eligible to participate in the western Pacific community development program, a community must meet the following criteria:

1. Be located in American Samoa, Guam, Hawaii, or the Northern Mariana Islands (collectively, the Western Pacific);
2. Consist of community residents descended from aboriginal people indigenous to the Western Pacific who conducted commercial or subsistence fishing using traditional fishing practices in the waters of the Western Pacific;
3. Consist of individuals who reside in their ancestral homeland
4. Have knowledge of customary practices relevant to fisheries of the Western Pacific;
5. Have a traditional dependence on fisheries of the Western Pacific;
6. Are currently experiencing economic or other constraints that have prevented full participation in the Western Pacific fisheries and, in recent years, have not had harvesting, processing or marketing capability sufficient to support substantial participation in fisheries in the area; and
7. Develop and submit a community development plan to the Council and the NMFS.

2. Statement of Plan Purpose and Goals

Section 305(i)(2) of the Magnuson- Stevens Fishery Conservation and Management Act authorizes the Council and the Secretary of Commerce (Secretary), through NMFS, to establish a Western Pacific community development program (CDP) for any fishery under the authority of the Council and NMFS. The intent of the program is to provide Western Pacific communities access to fisheries that they have traditionally depended upon, but may not have the capabilities to support continued and substantial participation in, possibly due to economic, regulatory, or other barriers.

The American Samoa Bottomfish Community Development Plan will serve to preserve and protect American Samoa cultural fishing practices, support traditional and customary fishing practice, support customary and ceremonial fish distribution, and provide a framework for effective and culturally grounded management of the fishery. Fishery management is people management. However, an ecosystem-based approach recognizes that responsible actions by citizens and communities are necessary for long-term wise use of marine resources. In some cases, local involvement in natural resource management can help to rebuild the connections to the natural world lost in today's globalized and transient society (Levine, 2009).

The village customarily controlled usage rights to a lagoon and its resources. Individual and family fishing occurred on an almost daily basis, and villages sometimes organized group fishing for certain species. This practice is supported by the ASG village MPA program administered by DMWR. On some occasions, men fished outside the lagoons, and well offshore under leadership of a fishing expert, a *tautai*. Certain fish were reserved for the chiefs, and restrictions were occasionally made regarding the lagoon and pursuit and use of its resources. All of these practices were under the control of the village and its decision-making body, the village fono.

The CDP will implement a voluntary permit program for *tautai*. It seeks to establish an exemption to allow American Samoa fishermen to fish for and land bottomfish management unit species from US EEZ waters around the islands of American Samoa by allocating the annual catch limit (ACL), to registered permittees, *tautai*. If Federal waters are closed then the American Samoa Government (ASG) will protect their community by managing the harvest of bottomfish in their territorial waters through a voluntary permit and data collection program. Data collected from this program will improve and enhance biological resource and fishery participant information. Participation in the program will improve management compliance.

The ASG, through their boat registry program, will register all fishers, commercial, sport and subsistence fishermen conducting bottomfish fishing activities. It will implement a mandatory catch and trip reporting program as part of their participation in the CDP. Some of the information to be collected are: time and location of the fishing activity and catch (weight, species and number of pieces). Information can be used to identify seasonality of the fishery, location of the activity, species and weights, catch composition and gears to enhance data on the American Samoa bottomfish fishery.

The program will use the Catchit Logit program electronic monitoring of fishing activities. The Catchit Logit application suite is comprised of an administrative application that manages the user accounts, a fisher application that collects the fishing information, and a vendor application that connects the fish catch and sales information to determine the amount of fish that enters commerce and collect economic data. This electronic reporting platform removes the need to rely on expansions of creel survey data as long as all boat-based fishermen consistently report their catch, effort, and sales information. The intent of the trip can be recorded and notating that the trip was for cultural purposes. There will be no sales information associated with the trip. The platform also makes the data collection near-real time. The electronic reporting can also serve to validate the information collected in the creel surveys. Additionally, information can be gathered on the motivation for the effort whether it is a cultural demand, subsistence or for commercial purposes.

3. Description of the Specific Fishing Activity Being Proposed

The boat-based bottomfish fishery is a hook and line fishery targeting bottomfish management unit species: Lehi (*Aphareus rutilans*) uku (*Aprion virescens*), black trevally (*Caranx lugubris*), Lunartail grouper *(Variola louti)*, ehu (*Etelis carbunculus*), onaga (*Etelis coruscans*), redgill emperor *(Lethrinus rubrioperculatus)*, blueline snapper (*Lutjanus kasmira*), opakapaka (*P. filamentosus*), yelloweye snapper (*P. flavipinnis*), and gindai (*P. zonatus*). The 2020 SAFE Report shows that, over 20 years, there was an average 74 bottomfish trips and 13 mixed bottomfish and troll trips taken. Bottomfish fishing is conducted using hand powered, wooden and brass reels and jigging bait, usually bonito or skipjack tuna pieces over the bottom. There are estimated less than 30 boats conducting this activity on a part-time basis. A typical trip involves 4 fishermen on an overnight fishing trip primarily in territorial waters but has been recorded as fishing up to 20 miles from shore.

The overfished and experiencing overfishing determination in the American Samoa Bottomfish fishery triggers a regulatory requirement for NMFS and the Council. This action would burden the community which has a historical, cultural and practical dependence on the ocean to meet nutritional needs and support traditional cultural practices. It would further erode traditional cultural practice and law.

The American Samoa Government derives its authority from *Fa'asamoa* and traditional and customary practice recognized in the American Samoa Deeds of Cession with the United States. Continuance of bottomfish fishing will enhance management with identification of participants, documentation of fishing practices and materials, identification of culturally important species and identification of fishing grounds and seasons. Current regulations require marine vessel owners to register their boats at the Department of Public Safety Marine Patrol Division. The information is shared with the DMWR to monitor active and inactive vessels. Vessel activity is also verified through the creel survey system, which records whether a vessel went out to fish. The entire universe of active bottomfish boats and fishermen can be identified and monitored.

3.1 Overview

Recent scientific information indicates that bottomfish stock in American Samoa is in an overfished condition and the fishery is experiencing overfishing requiring the development of management and regulations that would restrict this activity, and the development of a rebuilding plan. Restriction of fishing in American Samoa would be detrimental to the American Samoa community. They are already becoming more dependent on the "black market" fish ferried from Samoa, "leakage" from the canneries and bycatch from commercial sources. This contributes to low prices and hampers development of fishing, fishing infrastructure and processing, while transferring environmental impacts to other fisheries that may be less able or willing to deal with those impacts.

A review of the available data from NMFS indicates that scientific information on this fishery is minimal and engaging with fishers (<30) at this granular level would reveal valuable information to guide management of this resource. The 2020 List of Fisheries (LOF) estimated that there were less than 30 participants in the American Samoa bottomfish fishery (85 FR 21095, April 16, 2020). Fishing for bottomfish primarily occurs using aluminum *alia* catamarans less than 32 feet in length that are outfitted with outboard engines and wooden hand reels that fishermen use for both trolling and bottomfish fishing. Fishermen typically fish less than 20 miles, currently much less so because only the

alias are left fishing, from shore because few vessels carry ice (WPRFMC, 2009). Since 2000, the boat-based segment of the fishery has landed between approximately 3,000 and 35,000 lb of BMUS annually.

Dependence on fishing to fill the community's needs may have declined, due to Westernization and the move from a subsistence-based economy to a cash-based economy, but fishing remains central to American Samoa communities. Fishing for Sunday village brunch (Toonai, where the untitled men serve the elders and titled men) is ubiquitous and provides for community cohesion, and social organization. Fish is used for gifting and sharing indicating a high cultural value. The red bottomfish, palu-loa (or onaga), is still being served at toonai and is highly desirable for elders at least in the western village like Leone (Epi Suafoa, pers. comm). Tracking of the value chain will contribute to the understanding of cultural and commercial value of fish at various stages of the chain. Large catches were not kept for personal consumption, but distributed by the village chiefs or village council among village members, with prized portions generally going to those with highest status (Severance and Franco, 1989). How a fish was distributed varied by species. For example, the head of a bonito was reserved for the high chief and the sides for the talking chiefs (Hiroa, 1930), while the head of the shark was reserved for village *aumaga*, or young men (Mead, 1930). Certain size classes or species of fish, such as skipjack tuna, had to be given to the high chief from the territory from which they were caught; failure to do so could result in severe punishment. *Tautai* (traditional master fishermen) may be reluctant to reveal their fishing grounds but a case can be made that participation in the AS CDP will provide needed information for effective sustainable management of the resource and location information can be protected by regulation.

Though commercial fishing is not a career opportunity, participation in fisheries is an important resource for American Samoan livelihoods. It provides for community resilience by maintaining traditional skills and providing an opportunity to reduce dependence on imported food product. Through this CDP, identification of participants, favored grounds, seasons, methods and gear, and importance of certain species will provide the granular detail to enhance the management of this activity and support the recovery of this fishery. The recognition of *Tautai* will protect traditional values and traditions.

Increased monitoring, reporting and documentation of this activity will provide better biological and historical data that will improve management of these resources. Currently, there is little data to determine the extent of the fishery in federal waters. Sources indicate that this, bottomfish fishery, is not composed of a large group of fishers so the list of participants can be easily managed, and the catch effectively monitored via a Community Development Program using identification of participants and catch and trip reporting to support management and enhance data received through the creel survey.

The territory will be implementing their local management plan. This plan will be complementary to the action taken by the NMFS and Council.

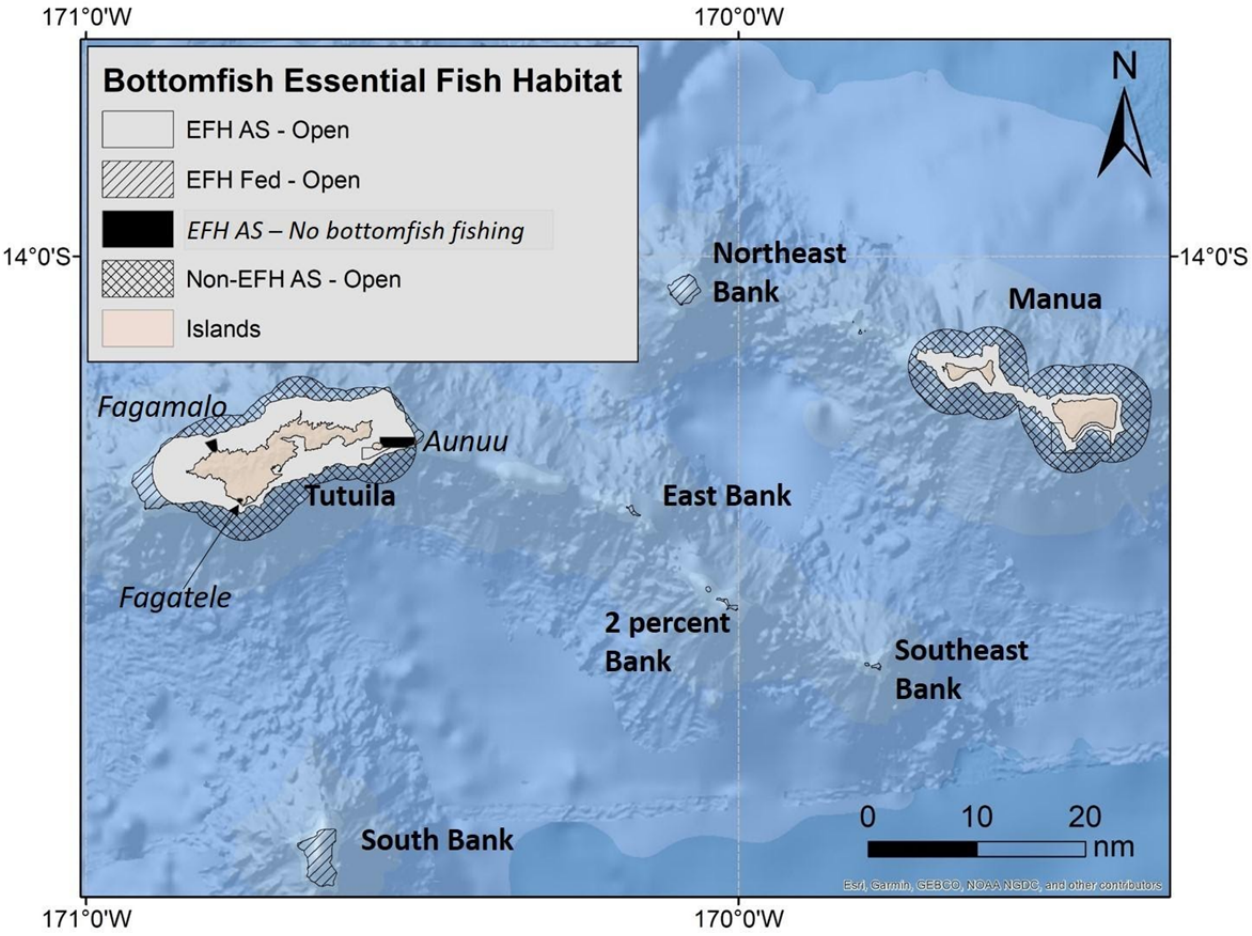
3.2 Location of the Proposed Fishing Activity – Tutuila, Olosega, Ofu, Manua and Swains islands

Four major fishing grounds were identified around the island of Tutuila: Taputapu, Matatula, Leone West Banks, and Steps Point (Severance and Franco 1989). There are no spatial data available separating the inshore, territorial waters (0 – 3 miles), from the offshore, US EEZ (beyond 3 miles), catch. Additionally, regarding archipelago-based, ecosystem-based management of marine resources, federal

management does not take into account management of fisheries in Samoa (Independent State of, or, formerly, Western Samoa) that will have an impact on the fishery resources of American Samoa.

Bottomfish fishing in American Samoa primarily takes place in the territorial waters. A permit system will provide information on the location of bottomfish fishing within the territorial waters.

The proposed *Tautai* permit system will document fishing participation in federal waters in American Samoa. Fishing in territorial waters and federal waters for commercial purposes are documented by the DMWR's Commercial Fishing Permit. Overlaying the Tautai permit system will document the non-commercial fishing participation in federal waters. Fishing in the nearshore areas, lagoons and shoreline adjacent to villages, is traditionally managed by the adjacent village and/or under the ASG Village MPA program.



Existing data reporting systems do not provide quantitative estimates of how much bottomfish catch comes from territorial versus Federal waters, and it is not possible to estimate catch of individual species from specific banks or fishing grounds. Essential Fish Habitat is defined as from the ocean's surface down to a depth of 400 meters.

By implementing voluntary fishing data reporting by vessels and fishers, information on the fishery can be greatly improved and National Standard 2 can be addressed.

3.3 Management Unit Species to be Harvested and Any Potential Bycatch

American Samoa bottomfish complex

Eleven species are identified in the American Samoa bottomfish complex.

American Samoa BMUS	EFH	HAPC
Lehi (*Aphareus rutilans*) uku (*Aprion virescens*), black trevally (*Caranx lugubris*), Lunartail grouper *(Variola louti)*, ehu (*Etelis carbunculus*), onaga (*Etelis coruscans*), redgill emperor *(Lethrinus rubrioperculatus)*, blueline snapper (*Lutjanus kasmira*), opakapaka (*P. filamentosus*), yelloweye snapper (*P. flavipinnis*), and gindai (*P. zonatus*).	**Eggs and larvae:** the water column extending from the shoreline to the outer limit of the EEZ down to a depth of 400 m (200 fm). **Juvenile/adults:** the water column and all bottom habitat extending from the shoreline to a depth of 400 m (200 fm)	All slopes and escarpments between 40–280 m (20 and 140 fm)

Throughout the development of the American Samoa bottomfish fishery in the 1900s, indigenous people harvested many of the same bottomfish species and used some of the same gears and techniques utilized currently (WPRFMC, 2009).

Bottomfish are typically harvested in deep waters, though some species are caught over reefs at shallower depths. The eteline snappers (e.g., *Etelis* and *Pristipomoides* spp.) are known to inhabit high-relief, deep slopes ranging from 80 to 400 m deep, and are primarily harvested using a vertical handline (see below). Other species, such as jacks, emperors, and lutjanid snappers are targeted by fishermen at shallower depths. Fishermen also catch the gray jobfish (*Aprion virescens*) by vertical handline, but this species is also harvested with drifting or slowly-moving vessels and trolling gear over relatively flat-bottom areas.

The Council and NMFS do not possess the spatial information or data to discern the amount of BMUS harvested in Federal versus territorial waters around American Samoa.

A moratorium on fishing on the offshore banks in federal waters would preclude the collection of fishery information needed to assess EFH and HAPC at those banks. Whether the moratorium occurs before or after the fishing activity Overfishing Limit (OFL).

There are no finfish or invertebrate species captured in the bottomfish fisheries whose capture or retention is prohibited by law. Sea turtle species, which are protected under the ESA, are the only fish (as defined by the MSA) that, if captured in the bottomfish fishery, would be considered regulatory

discards. No observer data are available regarding interactions with sea turtles in the bottomfish fishery in American Samoa. (WPRFMC. 2009)

Bycatch rates are relatively low in the bottomfish fisheries. Only hook-and-line gears are used in the bottomfish fisheries, and these gears strongly select for carnivores, particularly aggressive predators. These types of species, with the exception of sharks, tend to be favored in markets, thus they tend to be target species. The flesh of many shark species is difficult to market, and shark fins have recently become much more difficult to market because of the prohibition on finning (WPRFMC, 2009).

3.4 Gear type(s) to be used

Bottomfishing is conducted using handline or rod and reel, weighted baited hooks while fishing either drifting or anchored. The traditional method of fishing for deep water bottomfish is a vertical braided or monofilament line with multiple hooks, primarily circle hooks with fish or squid bait. Eteline snappers are targeted in deep water on high relief benthic structures. Shallow water snappers and groupers are caught on flatter relief bottoms. All fish have a high cultural value in the community.

Bottomfish fishermen normally fish using a vertical hook-and-line method in which weighted and baited lines are lowered and raised with hand-powered reels. The main line is typically 400 to 450-pound test, with hook leaders of 80 to 120-pound test monofilament. The hooks are circle hooks, generally of the Mustad (conventional scale) sizes 11/0, 12/0, and 13/0, and a typical arrangement uses six to eight hooks branching off the main line. The terminal weight is typically 5 to 6 lb. The hook leaders are typically 2 to 3 feet long and separated by about 6 feet along the main line. Fishermen may bait hooks with fish such as the big-eye scad (*Selar crumenopthalmus*) or squid. Sometimes, fishermen supplement lines with a chum bag containing chopped fish or squid suspended above the highest hook.

Federal regulations prohibit bottom trawls, bottom gillnets, explosives, and poisons (50 CFR Parts 665.104 and 665.406). Additionally, territorial regulations also prohibit the use of explosives, poisonous substances, and electrical devices, in addition to specifying requirements for which cast nets, gill nets, seines, surround nets, and drag nets may be used (ASCA § 24.0920 through 24.0933). Commercial and non-commercial fisheries for bottomfish occur primarily in nearshore waters from 0 to 3 nm, although some fishermen make longer trips to offshore banks in Federal waters

3.5 Frequency and Duration of the Proposed Fishing Activity

The American Samoa Bottomfish SAFE report 2019 reported that there was a ten year average of 72 Bottomfish trips taking Bottomfish Management Unit Species (BMUS) and 16 mixed troll and bottomfish trips taking BMUS. During the previous ten years there was a high of 122 trips and a low of 42 trips. Given the universe of less than 30 boats, each vessel may average two to five BMUS trips in a year, though, as always, there will be high trip vessels and low trip vessels. Data from this permit program can be used for spatial, seasonal and effort management.

<u>One year assessment of the program</u>

For the first year the program can be rolled out and the data analyzed. Changes to the program can be implemented through consultation with the participants in the program. This is called adaptive management. The assessment of the CDP will contribute to the two year review of the rebuilding plans. Under MSA 304(e)(7) and implementing regulations at 50 CFR 600.310(j)(3)(iv), the Secretary will review

rebuilding plans at least every two years to determine whether the plan has resulted in adequate progress towards ending overfishing and rebuilding the affected fish stock.

The proposed rebuilding plan would either close the fishery in Federal waters or set an ACL for American Samoa BMUS that would not support the community's nutritional, or cultural needs and erode ASG's authority to manage their resource for the benefit of their community. NMFS would use catch data from local resource management agencies to estimate landings for the stock complex for the fishing year, which begins on January 1 and ends on December 31 each year. As an in-season AM, if NMFS projects that the ACL has been attained, then Federal waters would be closed to bottomfish fishing at that point. Given the average amount of catch in recent years for the American Samoa bottomfish fishery relative to the 1,500 lb ACL, it is likely that the fishery would be closed in Federal waters soon after implementation of the ACL. As a post-season AM, if the ACL is exceeded relative to a three-year running average of catch for the fishery, a downward adjustment would be applied and the ACL for the subsequent year would be reduced by the amount of overage. The application of an ACL and AMs would likely not result in rebuilding of the stock complex in 10 years despite the projections due to continued fishing in territorial waters. Similarly, if a Federal closure of the fishery is implemented instead of an ACL and AMs, it is not likely that fishery would rebuild in nine years as projected, as the Federal action would also not prevent fishing in territorial waters. Without complementary territorial action and complementary action by other States any management activity, ACL, AM, closing of areas or reduction of fishing effort would have a limited effect on rebuilding the stock in 10 years. American fishers would be burdened by regulations preventing the practice of cultural practices and traditions, *Fa'asamoa,* and access to their fisheries while other States sharing the archipelago and ecosystem would continue to harvest and export their catch to American Samoa.

4. Justification for the Specific Fishing Activity Being Proposed

Continuance of cultural bottomfish fishing under the Western Pacific Community Development Program and rebuilding of the BMUS stock.

Fishing has been an important part of Samoan culture since before Western contact, but was generally not conducted as a commercial activity until the introduction of modern technology in the 1950s and 1960s. During and shortly after World War II, a ban on offshore fishing activities in American Samoa was put into place for security purposes. Fishing practices then changed in the 1950s and 1960s when outboard engines were introduced, allowing American Samoan boats to go farther and faster. However, this also made it necessary for boat owners and operators to sell a portion of their catch to pay for fuel and engine maintenance. To a certain extent, these changes disrupted traditional systems of fishing and fish distribution within villages, in some cases shifting fishing activities from a subsistence, cultural, and recreational activity to a more commercial venture. Up to this time, there were no local commercial fishing vessels or sport-fishing craft in American Samoa, and the concept of fishing to produce a marketable product for monetary gain was seen as incompatible with traditional Samoan cultural values, in which sharing of fish catch was extremely important.

National Standard 8 – Communities

Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the

importance of fishery resources to fishing communities by utilizing economic and social data that meet the requirement of paragraph (2) [i.e., National Standard 2], in order to (a) provide for the sustained participation of such communities, and (b) to the extent practicable, minimize adverse economic impacts on such communities.

5. Vessel information

Most of the bottomfish fishing and mixed troll bottomfish fishing is conducted by aluminum twin hulled vessels of 24 to 34 feet in length called *alia.* The craft is powered by single or twin outboard engines of about 40 – 50 horsepower. These vessels will carry up to four crew/fishermen. Most trips are overnight trips and the vessels generally do not carry ice so longer trips are not practicable. The average part-time boat will make 2 to 5 trips a year with a few boats that will high-line, fishing a greater number of trips per year. American Samoa also has a 50 nm 50 foot exclusion zone reserving the waters within 50 nm for boats under 50 feet in hull length.

Current regulations require marine vessel owners to register their boats at the Department of Public Safety Marine Patrol Division. The information is shared with the DMWR to monitor active and inactive vessels. Vessel activity is also verified through the creel survey system, which records whether a vessel went out to fish. The entire universe of active bottomfish boats and fishermen can be identified and monitored.

Current regulations require marine vessel owners to register their boats at the Department of Public Safety Marine Patrol Division. The information is shared with the DMWR to monitor active and inactive vessels. Vessel activity is also verified through the creel survey system, which records whether a vessel went out to fish. This proposed measure will require fishing vessel owners to disclose whether they intend to fish for bottomfish within the American Samoa EEZ and describe the disposition of the catch (i.e., whether it is for commercial purposes or intended to be shared to the community for a cultural event). The deepwater snappers are important for the Samoan cultural events, particularly the sharing of the different parts of the red fish to the chief(s) and elder members of the community. (Severance, et al 2013)

The proposed measure would also require registered vessels to notify the DMWR that they would be fishing the offshore banks 24 hours prior to departure. The vessel shall notify the DMWR of their expected arrival time for the data collectors to capture the catch information. The vessel will be required to report their catch in the electronic reporting application or be subject to a mandatory catch interview.

6. REFERENCES

Department of Marine and Wildlife Resources. February, 2021. American Samoa Territorial Bottomfish Fishery Management Plan Preliminary Draft

Fa'asili, U., and F. Sauafea. 2001. Technical input into the community fisheries management program of American Samoa. Secretariat of the Pacific Community. Field Report No. 5

FAO, Food and Agricultural Organization of the United Nations.
http://www.fao.org/fishery/facp/WSM/en

Itano, D., 1996. The development of small-scale fisheries for bottomfish in American Samoa (1961-1987). South Pacific Commission Fisheries Newsletter, 76 and 77, 5 p. and 11 p.

Kilarski, S., D. Klaus, J. Lipscomb, K. Matsoukas, R. Newton, and A. Nugent. 2006. Decision Support for Coral Reef Fisheries Management: Community Input as a Means of Informing Policy in American Samoa. A Group Project submitted in partial satisfaction of the requirements of the degree of Master's in Environmental Science and Management for the Donald Bren School of Environmental Management. University of California, Santa Barbara.

Kleiber, D. and K. Leong, 2018. Cultural Fishing in American Samoa. NOAA PIFSC Administrative Report H-18-03. https://doi,org/10.2.25923/.

Levine, A., and S. Allen. 2009. American Samoa as a fishing community. U.S. Dep. Commer., NOAA Tech. Memo., NOAA-TM-NMFS-PIFSC-19, 74 p.

Sauafea-Lea'u, F. 2008. Village Communities in American Samoa. Unpublished summary report of the CFMP program.

Severance, C., and R. Franco. 1989. Justification and Design of Limited Entry Alternatives for the Off-shore Fisheries of American Samoa, an examination of preferential fishing rights for native people of American Samoa within a limited entry context. Final report submitted to Western Pacific Regional Fishery Management Council.

Severance, C., 2010. Customary Exchange Maintains Cultural Continuity, Pacific Islands Fishery News. Western Pacific Regional Fishery Management Council, Honolulu, HI 96813.

Severance, C. R. Franco, M. Hamnett, C. Anderson, F. Aitaoto, 2013 " Effort Triggers, Fish Flow, and Customary Exchange in American Samoa and the Northern Marianas: Critical Human Dimensions of Western Pacific Fisheries" Pacifi9c Science vol 67. No. 3, 383-393

WPRFMC. 2009. *Fishery Ecosystem Plan for the American Samoa Archipelago.* Western Pacific Fishery Management Council. Honolulu, Hawaii. 220 p.

WPRFMC. 2021 Draft Proposed Rebuilding Plan for the American Samoa Bottomfish Fishery. Honolulu, Hawaii

WPRFMC. 2005. Fisheries Ecosystem Plan for the American Samoa Archipelago. Honolulu, HI