



WESTERN
PACIFIC
REGIONAL
FISHERY
MANAGEMENT
COUNCIL

9.B.3(1)
204th CM

DRAFT

**Annual Catch Limits and Accountability Measures for the Commonwealth of
the Northern Mariana Islands Bottomfish in 2026–2029**

Western Pacific Fishery Management Council
1164 Bishop Street, Suite 1400
Honolulu, HI 96813

August 19, 2025

Table of Contents

1	Introduction	4
1.1	Background Information	4
1.2	Proposed Action	4
1.3	Purpose and Need	4
1.4	Action Area	4
1.5	Best Scientific Information Available	4
1.6	Overview of ACL and AM Development Process	5
1.7	Public Review and Involvement	6
1.8	List of Preparers	6
2	Summary of Bottomfish Fishery Information	7
2.1	CNMI Bottomfish MUS	7
2.1.1	Estimation of OFL	7
2.1.2	Stock Status	8
2.1.3	Development of ABC, ACL, ACT, and AM	10
3	Current Task for the SSC	12
3.1	ABC Options for CNMI Bottomfish	12
3.1.1	Option 1: No Action – Do not set the ABCs	12
3.1.2	Status Quo – Set ABCs at 84,000 lb based on the 2020-2025 catch projections provided in the 2019 benchmark stock assessment	12
3.1.3	Option 3: Set ABC based on the stock projections provided by the 2025 update stock assessment and utilize the result of the P* analysis to set the ABC	13
3.1.4	Option 4: Set ABC based on the 2025 stock assessment update and set the ABC lower than the outcome of the P* analysis	13
4	Current Task for the Council	14
4.1	ACL Options for CNMI Bottomfish MUS	14
4.1.1	Option 1: No Action – Do not specify ACLs	14
4.1.2	Option 2: Status quo - Specify the ACL and ACT based on the 2024 package	15
4.1.3	Option 3: Specify the ACL based on the SSC recommended ABC and ACT based on results from the SEEM analysis	15
4.1.4	Option 4: Specify ACL and ACT lower than P* and SEEM analysis	16
5	Summary of New Information for the Impact Analysis	17
6	References	18

List of Tables

Table 1. CNMI BMUS probabilities of overfishing (%) in fishing years 2025-2029	7
Table 2. Recent history of ACL and ACT for CNMI bottomfish fishery. For each ACT and ACL specified, the fishery has post-season adjustment AMs.	9
Table 3. P* scores for setting the 2020 ABC.	11
Table 4. SEEM scores for setting the ABC in 2020, indicating no change in the criteria scores.	12
Table 5. Possible ACLs and ACTs based on percent reductions from the probability of overfishing as determined by the revised P* and SEEM analyses for CNMI BMUS. The number in the parentheses represents the probability of overfishing, or P*.	16

List of Figures

Figure 1. Relationship between OFL, ABC, ACL, and ACT	5
Figure 2. Kobe plot of relative biomass and relative exploitation rate from the best fitting production model for CNMI from 2000 to 2023. Source: Bohaboy and Matthews (2025).	10

1 Introduction

1.1 Background Information

Fisheries for bottomfish management unit species (BMUS) in federal waters of the exclusive economic zone (EEZ; generally 3-200 nmi) around the Commonwealth of the Northern Mariana Islands (CNMI) are governed by the fishery ecosystem plan for the Mariana Archipelago (FEP). The FEP was developed by the Western Pacific Fishery Management Council (Council) and implemented by the National Marine Fisheries Service (NMFS) under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act or MSA). In the CNMI, bottomfish fisheries harvest an assemblage, or complex of species that include emperors, snappers, groupers, and jacks.

In accordance with the Magnuson-Stevens Act, the FEPs and their implementing regulations at 50 CFR 665.4, NMFS must specify an annual catch limit (ACL) and implement accountability measures (AMs) for BMUS. ACLs are recommended by the Council in consideration of the best available scientific, commercial, and other information about the fishery for that stock or stock complex. The ACL may not exceed the acceptable biological catch (ABC) recommended by the Council's Scientific and Statistical Committee (SSC).

1.2 Proposed Action

The proposed action is to specify ACLs, and AMs for the CNMI BMUS managed under the Mariana Archipelago FEP for fishing years 2026 through 2029.

1.3 Purpose and Need

The purpose and need for this action are the same as described in the 2022 EA, Section 1.3. The purpose of this action is to comply with the requirements of the Magnuson-Stevens Act and the provisions of the FEP and implementing regulations, which require NMFS to set ACLs and AMs for Pacific Island bottomfish MUS, as recommended by the Council and based on the best scientific, commercial, and other information available about the fish. This action is needed to prevent overfishing and provide long-term sustainability of fishery resources while allowing fishery participants to continue to benefit from their utilization. AMs are needed to correct or mitigate overages of the ACL should they occur.

1.4 Action Area

The action area is the same as described in the 2023 EA, Section 1.4. The action area is the general area of jurisdiction under the FEP, which includes all waters and associated marine resources within the EEZ around the CNMI.

1.5 Best Scientific Information Available

In May 2025, NMFS Pacific Islands Fisheries Science Center (PIFSC) completed a stock assessment update for bottomfish in the CNMI, utilizing data from 2000 through 2023 (Bohaby and Mathews, 2025). The Western Pacific Stock Assessment Review (WPSAR) concluded the stock assessment was “complete with no consequential deviations from the 2019 benchmark assessment (Langseth et al 2019), represents ‘best scientific information available’, and hence is appropriate for management decision-making purposes and informing the setting of risk-based annual catch limits” (Chaloupka et al., 2025). The stock assessment concluded that BMUS in CNMI were likely not overfished and were not experiencing overfishing in 2023. The assessment

results included projections of stock biomass and catch over the next five years that can be used to inform ACLs for the CNMI BMUS. Detailed information, including the full description of data sources and modeling approaches, diagnostics of assessment model performance, assessment results, and discussion of similarities and differences with the 2019 benchmark stock assessment can be found in Bohaboy and Matthews (2025).

1.6 Overview of ACL and AM Development Process

Federal regulations at 50 CFR 665.4 (76 FR 37285, June 27, 2011) require NMFS to implement an ACL and AM(s), as recommended by the Council, based on the best scientific, commercial, and other information available for the fishery. In accordance with the Magnuson-Stevens Act and the Mariana FEP, there are three required elements in the development of an ACL as shown in Figure 1: calculating the ABC, determining an ACL that may not exceed the ABC, and developing AMs.

In the first step, the Council's SSC calculates an ABC that is set at or below the stock's overfishing limit (OFL). The OFL is an estimate of the catch level above which overfishing is occurring and corresponds with the Maximum Fishing Mortality Threshold (MFMT). In accordance with Federal regulations at 50 CFR 600.310 implementing National Standard 1 of the Magnuson-Stevens Act, the probability of overfishing (P^* , pronounced P-star) cannot exceed 50 percent and should be a lower value. Thus, the ABC is the maximum amount the fishery can catch that provides at least a 50 percent chance, or better, of not overfishing the stock.

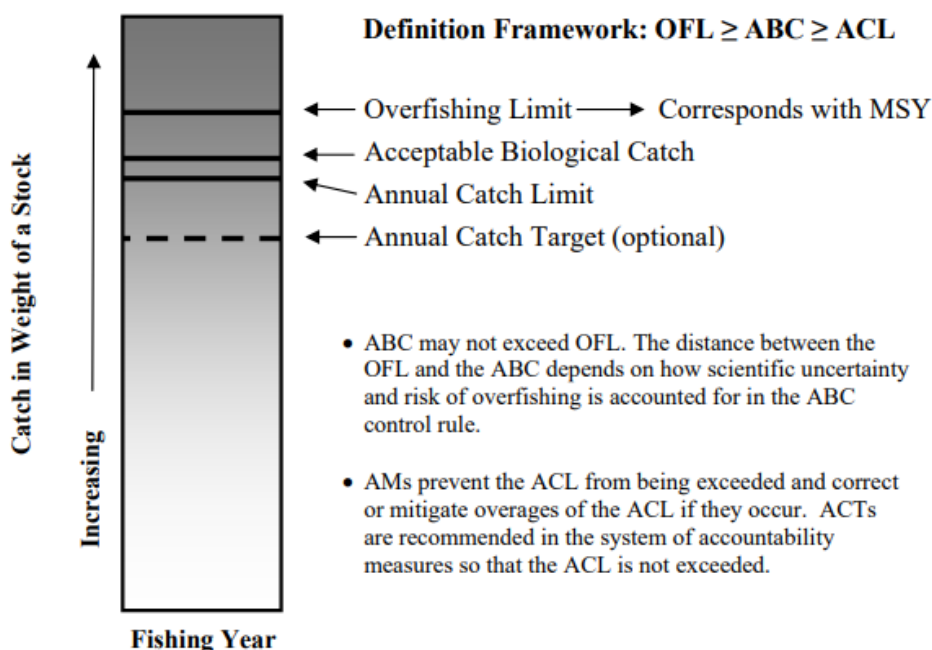


Figure 1. Relationship between OFL, ABC, ACL, and ACT

Second, the Council must recommend an ACL that does not exceed the ABC recommended by the SSC. An ACL set below the ABC further reduces the probability that actual catch will exceed the ABC or OFL and result in overfishing. The SSC may reduce the ABC below the OFL considering factors evaluated in a P^* analysis. The Council may then reduce the ACL below the

ABC in consideration of social, economic, ecological, and management (SEEM) factors in a SEEM analysis (see Hospital et al., 2019 for SEEM considerations). While the P* analysis considers management uncertainty arising from underreporting and misreporting of catch, the SEEM analysis is more forward-looking and considers uncertainty arising from concerns about compliance and/or management capacity.

The third and final element in the ACL process is the inclusion of AMs. There are two categories of AMs, in-season AMs and post-season AMs. In-season AMs prevent an ACL from being exceeded and may include closing the fishery, closing specific areas, changing bag limits, setting an annual catch target (ACT), or other methods to reduce catch. Post-season AMs reduce the ACL and/or ACT in subsequent years if the ACL is exceeded to mitigate potential impacts to fish stocks. Additionally, National Standard 1 and the FEP describe performance standards that identify conditions when a system of ACLs and AMs should be reevaluated. Generally, if any fishery exceeds an ACL more than once in a four-year period, as a performance standard the Council is required to re-evaluate the ACL process for that fishery and adjust the system as necessary to improve its performance and effectiveness in ensuring sustainability of the fishery. The Council can also choose a higher performance standard to provide more conservative management for vulnerable stocks.

1.7 Public Review and Involvement

NMFS and the Council provided several opportunities to the public to provide input on the development of the proposed ACL and AMs. At its 155th meeting in June 2025, the Council's SSC considered and discussed the outcomes of the peer review from the report of the Western Pacific Stock Assessment Review (WPSAR) Panel Chair, Dr. Milani Chaloupka. In the same meeting, PIFSC released the final 2025 stock assessment update for the CNMI BMUS stock (Bohaby and Matthews, 2025) incorporating recommendations from the WPSAR review (Chaloupka et al., 2025). The SSC considered this stock assessment update as BSIA for the CNMI bottomfish fishery for the purposes of determining stock status and setting harvest limits. At its 203rd meeting in June 2025, the Council received a presentation from PIFSC on the assessment update, accepted the SSC BSIA recommendation, and directed staff to develop potential ABC and ACLs for initial action at the 204th meeting in September 2025. Both the Council and SSC meetings were open to the public and advertised through notices in the *Federal Register* (FR, Date) and on the Council website.

1.8 List of Preparers

Western Pacific Regional Fishery Management Council

Angela Dela Cruz, CNMI Island Coordinator, WPRFMC, Preparer

Zach Yamada, Fishery Analyst, WPRFMC, Preparer

NMFS PIRO Sustainable Fisheries Division

Keith Kamikawa, Fishery Management Specialist, PIRO SFD, Preparer

Brett Schumacher, Fish and Wildlife Administrator, PIRO SFD, Reviewer

2 Summary of Bottomfish Fishery Information

2.1 CNMI Bottomfish MUS

2.1.1 Estimation of OFL

Estimated posterior distributions of assessment model parameters were used in forward projections to estimate the probability of overfishing (P^* —the probability that H is greater than H_{MFMT}) from 2026–2029 under a range of future catches and accounted for uncertainty in the distribution of estimates of model parameters from the posterior of the assessment model. The projected total catch scenarios ranged from 0 to 90,000 lb per year in 1,000-lb increments and were applied beginning in 2026 assuming each value for the future annual catch was constant through all projection years. In addition to catch, corresponding quantities of interest, including stock biomass, harvest rate, and probability of the stock being overfished ($B/B_{MSY} < 0.7$) were also calculated. The future catch corresponding to a 50 percent risk of overfishing can be considered the OFL (Table 1).

Table 1. CNMI BMUS probabilities of overfishing (%) in fishing years 2025-2029

P*	2026	2027	2028	2029
0.50	90,000	88,000	86,000	84,000
0.49	90,000	87,000	84,000	82,000
0.48	88,000	85,000	83,000	81,000
0.47	87,000	84,000	81,000	80,000
0.46	85,000	83,000	80,000	79,000
0.45	84,000	81,000	79,000	78,000
0.44	82,000	80,000	77,000	76,000
0.43	80,000	78,000	76,000	76,000
0.42	78,000	76,000	76,000	74,000
0.41	77,000	76,000	74,000	73,000
0.40	76,000	74,000	73,000	72,000
0.39	74,000	72,000	71,000	70,000
0.38	72,000	71,000	70,000	69,000
0.37	71,000	70,000	69,000	68,000
0.36	69,000	68,000	68,000	67,000
0.35	67,000	67,000	66,000	66,000
0.34	66,000	65,000	65,000	64,000
0.33	64,000	64,000	64,000	63,000
0.32	63,000	62,000	62,000	62,000
0.31	61,000	61,000	61,000	61,000
0.30	59,000	60,000	59,000	59,000
0.29	59,000	59,000	58,000	58,000
0.28	56,000	57,000	57,000	56,000

0.27	55,000	55,000	55,000	55,000
0.26	53,000	53,000	54,000	54,000
0.25	52,000	52,000	52,000	53,000
0.24	49,000	51,000	51,000	51,000
0.23	48,000	49,000	50,000	50,000
0.22	46,000	47,000	48,000	48,000
0.21	44,000	45,000	46,000	47,000
0.20	42,000	43,000	45,000	45,000
0.19	39,000	42,000	43,000	44,000
0.18	38,000	39,000	41,000	42,000
0.17	35,000	38,000	39,000	40,000
0.16	33,000	35,000	38,000	39,000
0.15	31,000	33,000	35,000	37,000
0.14	28,000	31,000	33,000	35,000
0.13	26,000	29,000	31,000	33,000
0.12	23,000	26,000	29,000	31,000
0.11	21,000	24,000	26,000	29,000
0.10	19,000	22,000	24,000	26,000

Source: Bohaboy and Matthews (2025).

2.1.2 Stock Status

Under the FEPs, the BMUS are considered overfished if the stock biomass (B) falls below the Minimum Stock Size Threshold (MSST). The MSST is defined as 0.7 times the biomass necessary to produce maximum sustainable yield (MSY) on a continuing basis ($MSST = 0.7 \times B_{MSY}$). Overfishing occurs when the fishing mortality rate (F) or discrete fishing mortality rate, ($H = \text{catch} / \text{exploitable biomass}$, also known as the harvest rate) is greater than the MFMT. The MFMT varies depending on whether the stock is overfished. If the stock biomass is above the MSST, i.e., it is not overfished, then the MFMT equals the harvest rate that produces maximum sustainable yield (H_{MSY}). If the stock is overfished, i.e., biomass is below the MSST ($B < 0.7 \times B_{MSY}$), then H_{MFMT} declines from H_{MSY} in proportion to the ratio of biomass to the MSST.

In 2023, the most recent year for which stock status information is available, the relative harvest rate was $H_{2023}/H_{MFMT} = 0.38$, and the relative biomass was $B_{2023}/B_{MSY} = 0.96$ (Bohaboy & Mathews, Table 7). The stock assessment update indicated that the CNMI bottomfish complex in 2023 was not overfished and was not experiencing overfishing (Figure 2). Unlike the 2019 benchmark assessment, which suffered from the limited data and high uncertainty in the 2017 stock estimates, the 2025 stock assessment update benefited from a greater number of creel survey interviews between 2018 and 2023, especially in 2020-2022. This improved data quantity, combined with the lower overall catches, reduced uncertainty in the estimated terminal year stock status. In 2023, the most recent year for which annual BMUS catch data are available, the estimated total catch was 12,600 lb, which is well below the overfishing limit of 84,000 lb.

The CNMI BMUS MSY decreased between the two assessments. It is not clear what could be driving a recent trend of the decline in the estimated intrinsic growth rate (r) and carrying capacity (k) resulting in the decline in MSY. The H/H_{MSY} ratio and the probability that overfishing is occurring also decreased. The biomass for CNMI BMUS decreased by 105,400 lb, and the biomass at MSY and B/B_{MSY} also decreased. Thus, the probability that the stock is overfished decreased. The OFL in the terminal year decreased by 13,000 pounds.

Table 2 shows the CNMI BMUS catch from the recent 10 years. The catch estimate varies over time, with the average over the last three years being 44,054 pounds. This corresponds to 54 and 59 percent of the current ACL and ACT, respectively.

Table 2. Recent history of ACL and ACT for CNMI bottomfish fishery. For each ACT and ACL specified, the fishery has post-season adjustment AMs.

Year	Catch (lb)	ACL/ACT (lb)	Proportion of ACL/ACT caught
2014	7,740	228,000	6%
2015	10,386	228,000	5%
2016	54,335	228,000	26%
2017	48,007	228,000	31%
2018	652	NA	NA
2019	21,012	NA	NA
2020	45,547	84,000/78,000	55%/57%
2021	73,861	84,000/78,000	89%/91%
2022	47,191	84,000/78,000	62%/64%
2023	10,064	82,000/75,000	15%/17%
Average ₂₀₂₁₋₂₀₂₃	44,054		
Average ₂₀₁₄₋₂₀₂₃	32,035		

Source: WPFMC 2024

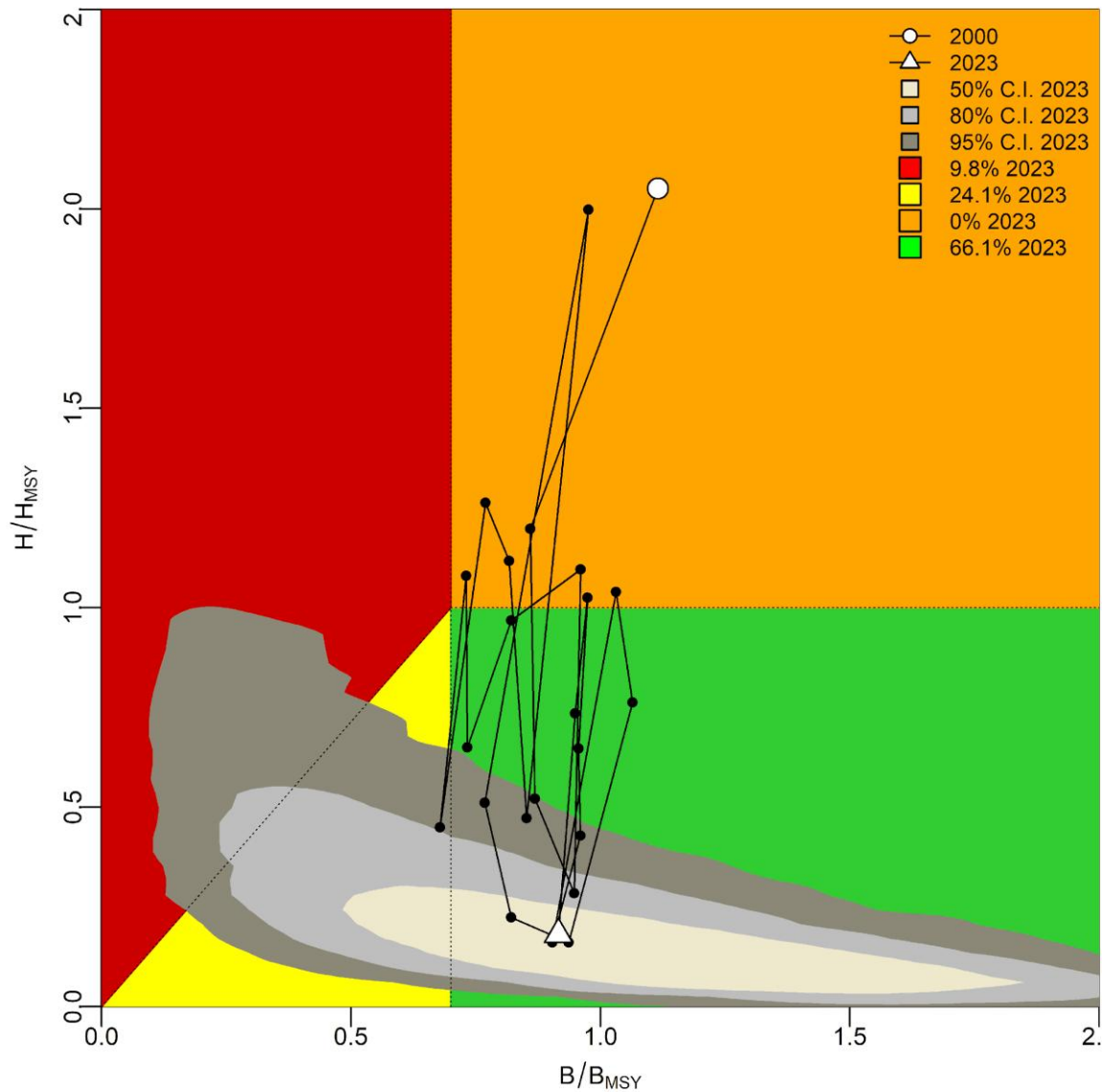


Figure 2. Kobe plot of relative biomass and relative exploitation rate from the best fitting production model for CNMI from 2000 to 2023. Source: Bohaboy and Matthews (2025).

2.1.3 Development of ABC, ACL, ACT, and AM

Scientific Uncertainties

The omnibus FEP amendment that established the ACL specification process requires the SSC to review the stock's scientific information and assign it a tier in the ABC control rule (WPRFMC and NMFS 2011). The CNMI BMUS stock is considered a tier 1-2 stock. Therefore, a P* analysis is used to quantify the scientific uncertainty in determining the appropriate risk level to set the ABC. The SSC may recommend an ABC that differs from the result of the control rule calculation based on factors such as data uncertainty, recruitment variability, declining trends in

population variables, and other factors determined relevant by the SSC, but must explain its rationale.

The stock assessment update did not use new information that changes the score for the Assessment Information dimension. The update added catch values from the boat-based creel surveys from 2018 to 2023. Thus, the Assessment Information dimension retains a reduction of 3.3 percent. The Uncertainty Characterization score also did not change with the new assessment update. The uncertainty surrounding the lack of process error in the projection of OFL remains the same, while the uncertainty surrounding the single point estimate of biomass from the 2020 P* analysis decreased due to the inclusion of additional years of data (WPRFMC 2020a). The biomass estimate from 2020 was reduced. Thus, maintaining the score for this dimension is precautionary. Stock Status dimension did not change and remained as not overfished and not experiencing overfishing. However, fishing mortality was below MFMT compared to the 2019 stock assessment when fishing mortality was near MFMT. Therefore, stock status was revised from reduction of 1 percent to 0. There was no new life history information incorporated in the assessment update. The level of fishery susceptibility remains the same, noting the catch trend was decreasing over time (WPRFMC 2020a).

Table 3. P* scores for setting the 2020 ABC.

P* Dimensions and Criteria	2020
Assessment Information	-3.3
<i>Reliable catch history</i>	<i>0.5 : unreported and recreational catch</i>
<i>Standardized CPUE</i>	<i>0.0 : improved standardization</i>
<i>Species specific data</i>	<i>1.0 : species complex assessment</i>
<i>All sources of mortality accounted for</i>	<i>0.0 : all known uncertainty accounted for</i>
<i>Fishery independent data</i>	<i>1.0 : not included</i>
<i>Tagging data</i>	<i>1.0 : not included</i>
<i>Spatial analysis</i>	<i>1.0 : not included</i>
Uncertainty Characterization	-2.5 : narrowed to 2 uncertainties
Stock Status	-0.0 : revised based on BSIA species complex
Productivity/Susceptibility	-4.2 : same P and S
TOTAL BUFFER	-10

Social, Economic, Ecological and Management Uncertainty

The SEEM analysis in 2020 for the benchmark assessment (WPRFMC 2020b) discussed the importance of the social and commercial dimension to the fishery, but there are insufficient ecological studies done on these species. Additionally, the fishery is weather dependent and Federal management applies only to Federal waters while territorial waters may still remain open even if the ACL and ACT is reached. Therefore the working group recommended no further reduction for the SEE dimensions when setting the ACL and a 5 percent reduction for the management dimension when setting the ACT (WPRFMC 2020b).

Table 4. SEEM scores for setting the ABC in 2020, indicating no change in the criteria scores.

SEEM Dimensions	2020
Social	<i>-0.0 : no reduction</i>
Economic	<i>-0.0 : no reduction</i>
Ecological	<i>-0.0 : no reduction</i>
Management & Monitoring	<i>-5.0 : uncertainty in complementary management and creel survey reporting</i>
TOTAL BUFFER	-5.0 :

3 Current Task for the SSC

Specifying the Acceptable Biological Catch

The SSC's current task is to specify the ABC for CNMI BMUS for the 2026-2029 fishing years. The ABC may not exceed the projected OFL, which is provided in the 2025 stock assessment update (Bohabor and Matthews 2025). The Council's ACL process is described in the Mariana FEP includes methods by which the ABC may be reduced from the OFL based on scientific uncertainties through a P* Analysis, as described in Section 2.1.3

3.1 ABC Options for CNMI Bottomfish

3.1.1 Option 1: No Action – Do not set the ABCs

Under Option 1, the SSC would not set an ABC for CNMI bottomfish for fishing years 2026–2029. This option would not comply with the Magnuson-Stevens Act (50 CFR 665.4) or the provisions of the Mariana Archipelago FEP, which require the Council to specify an ACL for all managed stocks and stock complexes in a fishery. According to the control rules, an ABC is required to set an ACL. Option 1 serves as the baseline for environmental effects analyses involving other options.

3.1.2 Status Quo – Set ABCs at 82,000 lb based on the 2020-2025 catch projections provided in the 2019 benchmark stock assessment

Under Option 2, the SSC would recommend the ABCs for CNMI BMUS for fishing years 2026 to 2029 equal to 82,000 lb, which corresponded to an estimated 39 percent risk of overfishing in 2025 based on the constant annual catch projections from 2020-2025 provided by the 2019 benchmark stock assessment (Langseth et al., 2019).

Basing the ABC specification on information from the previous assessment update does not comply with National Standard 2 of the Magnuson-Stevens Act, which requires the use of BSIA for management. This option also utilizes the information from the previous P* working group meeting in 2020 that accounted for the scientific uncertainties following the specification process described in the Mariana FEP.

3.1.3 Option 3: Set ABC based on the stock projections provided by the 2025 update stock assessment and utilize the result of the P* analysis to set the ABC

Under Option 3, the SSC would recommend using a 40 percent risk of overfishing to set the ABC at 72,000 lb for the 2026–2029 fishing years based on the results of the 2025 stock assessment update (Bohaboy and Matthews, 2025). The Council would use this number with the previous SEEM analysis to determine the final ACL (and ACT if needed). The catch level and those that follow represent catch expansions derived from the boat-based creel surveys, consistent with the results of the 2025 stock assessment update.

Given the levels of recent catch in the fishery relative to the proposed ABC, there is a higher chance that annual catch would exceed the ABC. Annual catch in 2021 did exceed the proposed ABC of 72,000 lb, but the recent three-year average catch from 2019 to 2021 was 47,066 lb. The average annual catch from 2021 to 2023 was 44,054 lb, which is 62 percent of the current 75,000 lb ACT. Given the current state of CNMI's bottomfish fleet and historical catch, it is unlikely that total catch in 2026–2029 would approach the ABC under this option.

3.1.4 Option 4: Set ABC based on the 2025 stock assessment update and set the ABC lower than the outcome of the P* analysis

Under this option, the SSC would utilize BSIA to set the ABC for fishing years 2026–2029. Similar to Option 3, the results of the P* analysis will be considered. However, under this option, the SSC may set the ABC lower than the results of the P* analysis as a precautionary approach to cover scientific uncertainties not previously identified. The P* level of 40 percent for CNMI would be the upper bound of the risk level. The SSC may select a lower risk level and provide a rationale by describing the scientific uncertainties considered.

Under Option 4, the ABC for CNMI BMUS of 72,000 lb for the 2026–2029 fishing years and the Council would use this number with the previous SEEM analysis to determine the final ACL (and ACT if needed). The fishery has consistently landed below the ACL except for one anomalously high year. Fishery operations have remained consistent since ACLs were first implemented. The average annual catch from 2021 to 2023 was 46,465 lbs, which is 62 percent of the current ACT of 75,000 lb. Given the current state of CNMI's bottomfish fleet, it is unlikely that total catch in 2026–2029 would approach the ABC under this option.

4 Current Task for the Council

Specifying the Annual Catch Limits

The Council's current task is to specify the ACL for the bottomfish fishery in the CNMI for fishing years 2026–2029, based on the ABC recommended by the SSC. The Council's ACL specification process allows for setting limits for up to four fishing years and must ensure that the ACL does not exceed the SSC's ABC.

The ACL-setting process, as outlined in the FEPs, includes the option to reduce the ACL from the ABC based on management uncertainties using a SEEM Uncertainty Analysis. The previous CNMI SEEM working group, which convened on January 31, 2020, scored the four SEEM dimensions, 1) social; 2) economic; 3) ecological; and 4) management uncertainties, using the standardized framework developed by the Social Science Planning Committee (Hospital et al., 2019). Management uncertainty was further divided into monitoring and management capacity sub-categories.

The CNMI P* working group previously concluded that an 11 percent reduction from the OFL was appropriate to account for scientific and management uncertainty. However, based on the results of the 2025 stock assessment update the stock status was below MFMT compared to the results of the benchmark stock assessment that found that the fishery was near MFMT. Therefore, the Council may consider revising the P* analysis to a 10 percent reduction. The Council may choose to revisit or reaffirm this reduction using the updated data and catch projections provided in the 2025 assessment update. Projections indicate that an annual catch of 72,000 lb corresponds to a 40 percent risk of overfishing, which would represent the maximum OFL under federal guidelines. The ABC and subsequent ACLs will be derived by applying the appropriate risk buffer to this value.

4.1 ACL Options for CNMI Bottomfish MUS

4.1.1 Option 1: No Action – Do not specify ACLs

Under Option 1, the Council would not specify an ACL for the bottomfish fishery in the CNMI for the 2026-2029 fishing years. This alternative would not comply with the Magnuson-Stevens Act or the provisions of the Marianas FEP, which require NMFS to specify an ACL for all stocks and stock complexes.

Expected Fishery Outcome

Under this option, not specifying an ACL is not expected to result in large adverse effects on the conduct of the fishery, including gear types used, areas fished, level of catch or effort, target and non-target stocks, or protected species for CNMI. This is because, based upon the best available commercial and scientific information, the CNMI bottomfish fishery historically harvests less than the stock complex's MSY, and is not constrained by the ACLs. As shown in Table 3, the estimated catches of CNMI bottomfish have consistently remained below the estimated OFL of 84,000 lb. The catches were also below the long-term MSY of 93,600 lb, except for 2012. The catch in 2012 was 140,631 lb, roughly three times the average catch.

This is the highest level of catch since NMFS implemented a catch limit system in fishing year 2012. The estimated commercial component of that catch did not significantly increase. In recent years, the fishery has not reached the ACL. In recent years, the fishery has not reached the ACL and future catch is expected to be similar to catch in recent years. Therefore, the expected fishery outcome under Option 1 would not be expected to have major adverse effects on the conduct of the fishery in CNMI.

The BSIA produced a more conservative estimate of MSY and OFL projections. Under this option, not specifying an ACL may not result in adverse effects on the conduct of the fishery particularly on the target stocks, area fished, and level of catch and effort.

4.1.2 Option 2: Status quo - Specify the ACL and ACT based on the 2024 package

Under this option, the Council would recommend ACLs and ACTs for the CNMI bottomfish fishery based on the results of the 2019 benchmark stock assessment and the associated P* and SEEM analysis for fishing years 2026–2029. However, this option does not comply with National Standard 2 on the use of BSIA. As a post-season AM, if the average total catch from the most recent three years exceeds the ACL, NMFS would reduce the ACL in the following fishing year by the amount of the overage. If the ACL was exceeded more than once during the 2026–2029 period, the Council would re-evaluate CNMI bottomfish management as required under Magnuson-Stevens Act implementing regulations.

Expected Fishery Outcome

Under Option 2, CNMI BMUS would be subject to an ACL of 82,000 lb for the 2026–2029 fishing years. The fishery has consistently landed below the ACL except for an unusually high catch in 2012. Fishery operations have remained consistent since ACLs were first implemented. The average annual catch from 2021 to 2023 was 44,054 lb, which is 60 percent of the 74,000 lb ACT. Given the current state of CNMI’s bottomfish fleet, it is unlikely that total catch in 2026–2029 would approach the ACL under this option. Therefore, the impacts to fishermen would be similar to those described in Option 1.

4.1.3 Option 3: Specify the ACL based on the SSC recommended ABC and ACT based on results from the SEEM analysis

Under Option 3, the Council may recommend specification of ACLs for the CNMI bottomfish fishery based on the results of the 2025 stock assessment update and revised P* and SEEM analysis. This option would also utilize the results of the CNMI P* and SEEM analyses taking into consideration the management and monitoring uncertainty to further the risk of overfishing by five percent to specify the ACL at 72,000 lb (P*=40 percent) and set an ACT of 66,000 lb (P*=35 percent).

The previous ACL set for 2024-2025 was based on this 39 percent risk of overfishing but corresponded to a higher catch level. However, this option assumes a revised level of scientific uncertainty, and the same level of monitoring, and management uncertainty is still applicable even with the fishery not having exceeded the ACL at any point in 2024-2025.

The post-season AM under Option 3 would apply as described in Option 2. In contrast to Option 2, Option 3 is consistent with all requirements of the Magnuson-Stevens Act, the Mariana FEP, and implementing regulations.

Expected Fishery Outcome

Under Option 3, fishing for CNMI BMUS would be subject to an ACL of 72,000 lb and ACT of 66,000 lb for the 2026-2029 fishing year. The fishery is not expected to change the way it fishes or where it fishes except in the years when catch is relative high (i.e., 2012, 2021). The fishery has consistently landed below the proposed ACL except for the years when the fishery landed an order of magnitude higher compared to all other years. Fishery operations have remained consistent since ACLs were first implemented. The average annual catch from 2020 to 2023 was 44,054 lbs, which is only 67 percent of the ACT of 66,000 lb. Given the current state of CNMI's bottomfish fleet, there is a lower chance that total catch in 2026-2029 would approach the ACL under this option. If the fishery were to attain the ACL, NMFS could implement the post-season AM if the most recent three-year catch average exceeds the proposed ACL.

Since there is no data that would allow NMFS to implement an in-season closure to prevent the ACL from being exceeded, the AM under this alternative would be the same as those described under Option 2. Therefore, the impacts to fishermen would be similar to those described in Option 2.

4.1.4 Option 4: Specify ACL and ACT lower than P* and SEEM analysis

Under this option, the Council may recommend specifying an ACL and ACT lower than the revised 2020 P* and SEEM analysis for the 2026 to 2029 fishing years. Catch limit options are 2 to 10 percent lower than the ACLs and ACTs indicated by the results of the revised P* and SEEM analysis.

Table 5. Possible ACLs and ACTs based on percent reductions from the probability of overfishing as determined by the revised P* and SEEM analyses for CNMI BMUS. The number in the parentheses represents the probability of overfishing, or P*.

Option	ACL	ACT
ACL at P* and SEE	72,000 (40)	66,000 (35)
ACL at P* and SEE -2%	69,000 (38)	63,000 (33)
ACL at P* and SEE -5%	66,000 (35)	61,000 (30)
ACL at P* and SEE -8%	62,000 (32)	55,000 (27)
ACL at P* and SEE -10%	59,000 (30)	53,000 (25)

This option would operate as described in Option 2 and 3, with a lower ACL and ACT based on the results of the 2025 stock assessment update (Bohaboy and Matthews 2025). This option provides a more conservative approach to account for scientific and management uncertainties not identified in the P* and SEEM analyses.

Expected Fishery Outcome

Under Option 4, the allowable catch would depend on the ACL selected by the Council. Using the information from the assessment update resulted in lower allowable catch levels compared to the previous stock assessment. However, the fishery is not likely to reach the ACLs if the fishery performance is similar to fishery performance over the past 20 years. The fishery is not expected to change the way it fishes or where it fishes except in the years when catch is relative high (i.e., 2012, 2021). The fishery has consistently landed below the proposed ACL except for the years when the fishery landed an order of magnitude higher compared to all other years. Fishery operations have remained consistent since ACLs were first implemented. The average annual catch from 2020 to 2023 was 44,054 lb, which is 67 percent of the 66,000 lb ACT. Given the current state of CNMI's bottomfish fleet, there is a low chance that total catch in 2026–2029 would approach the ACL under this option. As a post-season AM, if the average catch from the most recent three years exceeds the ACL, NMFS would reduce the ACL in the following year by the amount of the overage.

Since there is no data that would allow NMFS to implement an in-season closure to prevent the ACL from being exceeded, the AM under this alternative would be the same as those described under Option 2. Therefore, the impacts to fishermen would be similar to those described in Option 2.

5 Summary of New Information for the Impact Analysis

The table below summarizes the new information (if any) that can be used to evaluate the impacts of the options to the target stocks and the environment.

New info on physical resources	There is no new information available. The action will not likely have an adverse impact to the physical environment.
New info on biological resources	
• Target	Based on the 2025 stock assessment update (Bohaboy and Matthews), the CNMI BMUS fishing is not overfished nor experiencing overfishing.
• Non-target	The bottomfish fishery harvests both deep snapper complex and the shallow water reef fish species complex. The action will not likely change the conduct of the fishery. It is a hook and line fishery and the species composition is anticipated to remain similar to previous years.
• Bycatch	CNMI bottomfish fishery had 0% bycatch in 2023. Therefore, the action is not likely to have an adverse impact on bycatch species.
• Protected species	On July 15, 2025, NMFS issued a final rule to designate critical habitat for five threatened Indo-Pacific coral species of marine habitat in the CNMI. On January 22, 2018, NMFS issued a final rule to list the giant manta ray as a threatened species under the ESA (83 FR 2916). On January 30, 2018, NMFS issued a final rule to list the oceanic whitetip shark as threatened under the ESA (83 FR 4153). In response to these

	<p>listings, NMFS reinitiated consultation under ESA on June 5, 2019, as required by 50 CFR 402.16. Based on the information in the biological evaluation prepared to support this consultation (NMFS 2019a), NMFS determined that the bottomfish fishery in Guam (1) may affect, and is likely to adversely affect, the oceanic whitetip shark; and (2) may affect, but is not likely to adversely affect, the giant manta ray. NMFS reinitiated consultation to determine whether the bottomfish fishery in Guam is likely to jeopardize the continued existence of the oceanic whitetip shark, and to seek concurrence that the fishery is not likely to adversely affect the giant manta ray. On June 6, 2019, NMFS determined that during the period of consultation, the continued operation of the bottomfish fishery in Guam is not likely to jeopardize the oceanic whitetip shark or the giant manta ray; would not violate ESA section 7(a)(2); or result in an irreversible or irretrievable commitment of resources precluding implementation of any reasonable and prudent alternatives (2019b).</p> <p>The 2019 Biological Opinion found no adverse impacts on the oceanic whitetip shark and giant manta ray from the CNMI bottomfish fishery.</p>
<ul style="list-style-type: none"> • Biodiversity and eco-function 	<p>The action is not likely to have an adverse effect on biodiversity and ecosystem function since the fishery has been landing well below the ACL since 2012 until the new assessment generated a conservative catch projection estimate. The bycatch rates are very low, and fishing methods do not impact the habitat.</p>
New info on socio-economic setting	<p>No new socio-economic information aside from the updated fishing participation data from the Territory Annual SAFE Report</p>
New info on management setting	
<ul style="list-style-type: none"> • Marine Protected Areas 	<p>No new information and the actions are not likely to adversely affect the management of MPAs. The fishery does not occur inside protected areas.</p>
<ul style="list-style-type: none"> • EFH/HAPC 	<p>No change in EFH/HAPC for the Territory bottomfish in the Marianas</p>

6 References

Bohaboy, E.C., and Matthews, T. (2025). *Stock assessment update of the bottomfish management unit species of the Commonwealth of the Northern Mariana Islands, 2025*. (NMFS-PIFSC Technical Memorandum Series, NMFS-PIFSC-179). Pacific Islands Fisheries Science Center.

- Chaloupka, M., Itano, D., Leon Guerrero, K. 2025. Western Pacific Stock Assessment Review Panel Summary of “Stock assessment update of the bottomfish management unit species of the Commonwealth of the Northern Mariana Islands, 2025.” Honolulu, Western Pacific Regional Fishery Management Council.
- Langseth B, Syslo J, Yau A, Carvalho F. 2019. Stock assessments of the bottomfish management unit species of Guam, the Commonwealth of the Northern Mariana Islands, and American Samoa, 2019. NOAA Tech Memo. NMFS-PIFSC-86, 177 p. (+ supplement, 165 p.). doi:10.25923/bz8b-ng72.
- Hospital J, Schumacher B, Ayers A, Leong K, Severance C. 2019. A Structure and Process for Considering Social, Economic, Ecological, and Management Uncertainty Information in Setting of Annual Catch Limits: SEEM. PIFSC Internal Report IR-19-011.
- NMFS. 2021. Environmental Assessment for Annual Catch Limit Specifications and Accountability Measures for Guam and the CNMI Bottomfish, including a Regulatory Impact Review. April 14, 2021. 103 p.
- WPRFMC, 2020a. CNMI P* Working Group Report. Western Pacific Regional Fishery Management Council. Honolulu, Hawaii 96813
- WPRFMC, 2020b. CNMI SEEM Working Group Report. Western Pacific Regional Fishery Management Council. Honolulu, Hawaii 96813
- WPRFMC, 2024. Annual Stock Assessment and Fishery Evaluation Report for the Mariana Archipelago Fishery Ecosystem Plan 2023. Remington T, DeMello J, Ishizaki A. (Eds.). Western Pacific Regional Fishery Management Council. Honolulu, Hawaii 96813. 274 p.