Generic Framework Amendment 2 to the Puerto Rico, St. Croix, and St. Thomas and St. John Fishery Management Plans: Updates to the Spiny Lobster Overfishing Limit, Acceptable Biological Catch, and Annual Catch Limit

181st Caribbean Fishery Management Council

Briefing Book Version

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Abbreviations and Acronyms Used in this Document

ABC	acceptable biological catch
ACL	annual catch limit
CEA	cumulative effects analysis
CFMC	(Council); Caribbean Fishery Management Council
DNER	Department of Natural and Environmental Resources (Puerto Rico)
DPNR	Department of Planning and Natural Resources (United States Virgin Islands)
DPS	distinct population segment
EA	environmental assessment
EEZ	exclusive economic zone
FMP	fishery management plan
F_{MSY}	fishing mortality rate yielding maximum sustainable yield
MFMT	maximum fishing mortality threshold
MSA	(Magnuson-Stevens Act); Magnuson-Stevens Fishery Conservation and Management Act
MSST	minimum stock size threshold
MSY	maximum sustainable yield
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
OFL	overfishing limit
OY	optimum yield
SDC	status determination criteria
SEDAR	Southeast Data, Assessment, and Review (stock assessment)
SEFSC	Southeast Fisheries Science Center
SSC	Scientific and Statistical Committee
USVI	United States Virgin Islands

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Chapter 1. Introduction

1.1 What Action is Proposed?

Framework Amendment 2 to the Comprehensive Fishery Management Plan (FMP) for the Puerto Rico Exclusive Economic Zone (EEZ) (Puerto Rico FMP), Framework Amendment 2 to the Comprehensive FMP for the St. Croix EEZ (St. Croix FMP), and Framework Amendment 2 to the Comprehensive FMP for the St. Thomas and St. John EEZ (St. Thomas and St. John FMP) (collectively Framework Amendments 2), includes actions to update the overfishing limit (OFL), acceptable biological catch (ABC), and annual catch limit (ACL) for spiny lobster for each FMP consistent with recommendations from the Caribbean Fishery Management Council's (Council) Scientific and Statistical Committee (SSC).

1.2 Why is the Council Considering Action?

The Council is considering revising the OFL, ABC, and ACL for spiny lobster under each FMP to incorporate information from a 2022 update assessment to the 2019 Southeast Data, Assessment, and Review (SEDAR) 57 U.S. Caribbean Spiny Lobster stock assessments for Puerto Rico, St. Croix, and St. Thomas and St. John. The update assessment updated the SEDAR 57 data inputs through terminal year 2021 only, and revised the OFL and ABC projections for years 2024-2026, and as such was not a full population assessment. Thus, the update assessment did not update the maximum sustainable yield (MSY) or MSY proxy, maximum fishing mortality threshold (MFMT), and minimum stock size threshold (MSST) estimated in the SEDAR 57 assessment for each FMP and specified in Generic Framework Amendment 1 to the Puerto Rico FMP, St. Croix FMP, and St. Thomas and St. John FMP (Framework Amendments 1). Thus, these references presented in Table 1.1 have not changed and are not proposed to be changed.

Table 1.1. Management reference points from SEDAR 57 spiny lobster stock assessments for each island/island group.

Management Reference Point	Puerto Rico	St. Croix	St. Thomas/St. John
MSY proxy*	432,501	127,742	133,601
MFMT (F_{SPR30})	0.197	0.203	0.244
MSST (0.75*SSB_{MFMT}) (1,000 eggs)	8.48 E+07	2.30 E+07	2.13 E+07

* Values are in pounds whole weight.

At the December 2022 Council meeting, the Council's SSC recommended both variable OFLs and ABCs (i.e., values change each year) and a constant-catch OFL and ABC (i.e., values based on a 3-year average) for years 2024-2026 for spiny lobster under each FMP. The Council chose

to use the constant-catch OFL and ABC values (Table 1.2), and to set constant-catch ACLs from the constant-catch ABCs. This approach is consistent with the previous approach selected in Framework Amendments 1 (CFMC 2022). The Council requested staff begin development of Framework Amendments 2 to specify new catch levels for spiny lobster in Puerto Rico, St. Croix, and St. Thomas and St. John based on the ABC and OFL recommendations from the SSC.

Table 1.2. Overfishing limit and acceptable biological catch values for spiny lobster for fishing years 2024-2026 for each island/island group. Values are in pounds whole weight.

Fishery Management Plan	OFL	ABC
Puerto Rico	426,858	376,452
St. Croix	163,823	144,478
St. Thomas and St. John	158,993	140,218

Source: SEFSC December 2022

1.3 Statement of Purpose and Need

The purpose of Framework Amendments 2 is to update OFLs, ABCs, and ACLs for spiny lobster under the Puerto Rico, St. Croix, and St. Thomas and St. John FMPs to account for the 2022 update assessment to the 2019 SEDAR 57 stock assessments.

The need for Framework Amendments 2 is to update management measures for spiny lobster stocks based on best scientific information available to prevent overfishing and achieve optimum yield, consistent with the requirements of the Magnuson-Stevens Fishery Management and Conservation Act.

1.4 Where Will the Action Have an Effect?

The Council is responsible for managing fishery resources, including spiny lobster, in federal waters in the U.S. Caribbean region (Figure 1.1). Federal waters around Puerto Rico range 9-200 nautical miles (17-370 kilometers) from the shore of the Commonwealth of Puerto Rico to the outer boundary of the U.S. Caribbean EEZ. Federal waters around St. Croix and around St. Thomas and St. John range 3-200 nautical miles (6-370 kilometers) from the shore of the respective United States Virgin Islands (USVI) island/island group to the outer boundary of the U.S. Caribbean EEZ.

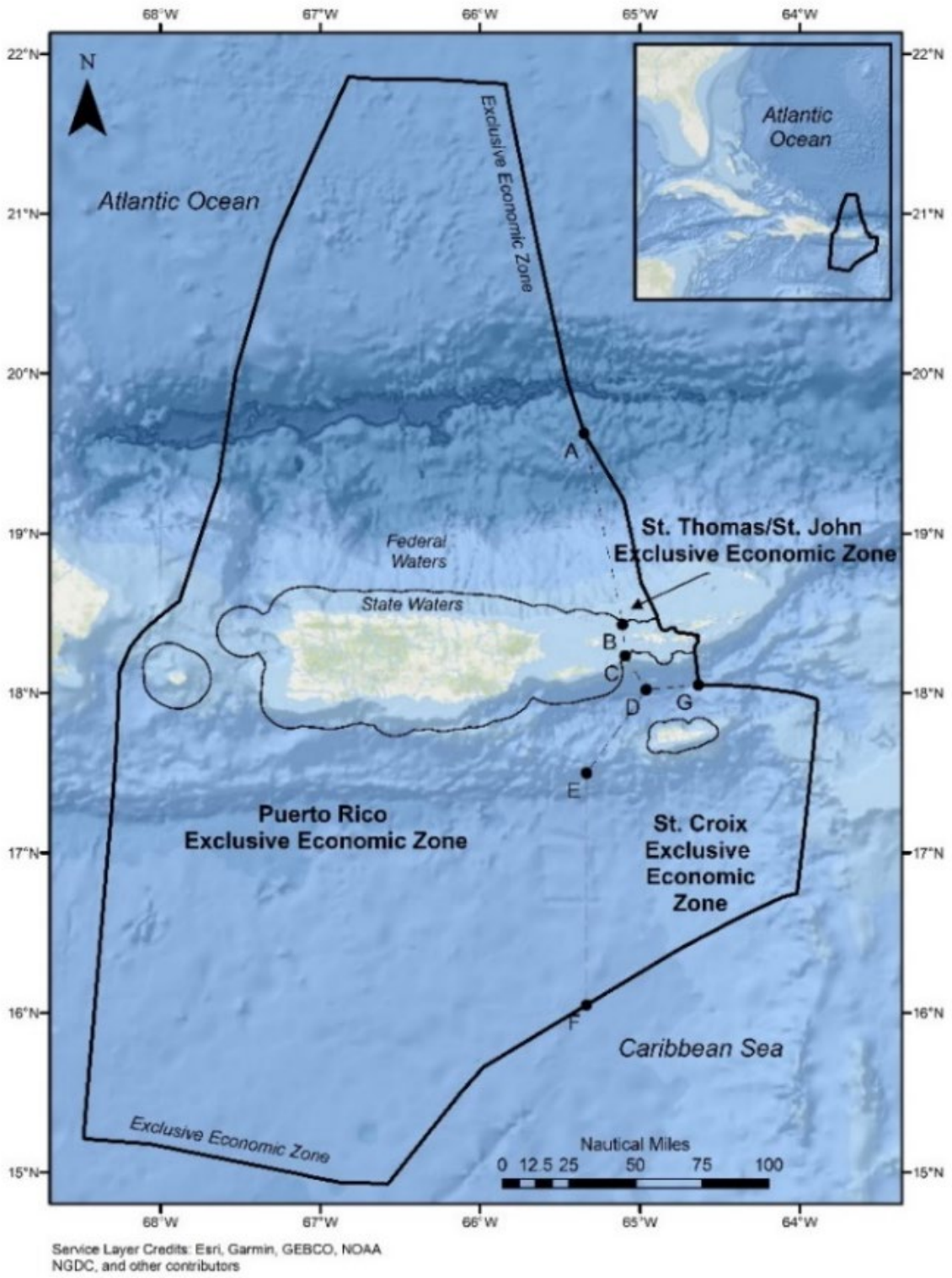

Figure 1.1. U.S. Caribbean region with boundaries between the Puerto Rico, St. Croix, and St. Thomas and St. John management areas.

1.5 History of Federal Fisheries Management

The Puerto Rico, St. Croix, and St. Thomas and St. John FMPs established management measures for fishing in federal waters around each respective island. Each FMP updated the list of species included for federal management and how those species would be grouped into stocks or stock complexes; specified management reference points for managed stocks and stock complexes; updated accountability measures (AM); described essential fish habitat for managed species; and updated framework procedures. Additionally, the FMPs retained other management measures established under the previous U.S. Caribbean-wide FMPs (Reef Fish FMP of Puerto Rico and the USVI, Spiny Lobster FMP of Puerto Rico and the USVI, Queen Conch FMP of Puerto Rico and the USVI, and Corals and Reef Associated Plants and Invertebrates FMP of Puerto Rico and the USVI) that apply to the respective island management area (e.g., seasonal and area closures, minimum size limits, recreational bag limits).

Puerto Rico FMP (CFMC 2019a), St. Croix FMP (CFMC 2019b), and St. Thomas and St. John FMP (CFMC 2019c)

The Puerto Rico FMP, St. Croix FMP, and St. Thomas and St. John FMP were effective October 13, 2022 (87 FR 56204). Below is an annotated list of fishery management actions implemented under each of the Puerto Rico, St. Croix, and St. Thomas and St. John FMPs specific to spiny lobster.

- Prohibited harvest of egg-bearing females and required fishermen to land spiny lobster intact;
- Prohibited harvest of spiny lobster with spear and hook gear and with a gillnet or trammel net;
- Included descriptions for spiny lobster trap identification, construction specifications, and tending restrictions;
- Specified a minimum size limit of 3.5 inches (8.9 centimeters) carapace length;
- Specified a recreational bag limit of 3 spiny lobsters per person/day, not to exceed 10 spiny lobsters per vessel/day, whichever is less;
- Included import restrictions;
- Included a four-tiered ABC Control Rule used to define management reference points;
- Specified sustainable yield level (an OFL proxy), ABC, and ACL for spiny lobster;
- Described the AMs and closure provision for spiny lobster; and
- Described the essential fish habitat for spiny lobster.

Framework Amendments 1 (CFMC 2022)

Framework Amendment 1 to each of the Puerto Rico, St. Croix, and St. Thomas and St. John FMPs updated management reference points for spiny lobster based on the 2019 SEDAR 57 spiny lobster stock assessments for Puerto Rico, St. Croix, and St. Thomas and St. John and application of the Council's ABC Control Rule (SEDAR 57 Stock Assessment Report).

Framework Amendments 1 used the constant-catch approach for specifying the OFLs and ABCs for each FMP, and used the constant-catch ABCs to derive the spiny lobster constant-catch ACLs equal to 0.95 of ABCs. Framework Amendments 1 also revised the process for triggering an AM to compare the average of the most recent three years of spiny lobster landings to the average ACLs in place during those years.

Chapter 2. Proposed Actions and Alternatives

2.1 Action 1: Update the Puerto Rico Spiny Lobster Overfishing Limit (OFL), Acceptable Biological Catch (ABC), and Annual Catch Limit (ACL)

Alternative 1. No Action. The OFL, ABC, and ACL (which equals optimum yield [OY]) for spiny lobster would remain as specified under Framework Amendment 1 to the Puerto Rico Fishery Management Plan (FMP), which used the constant-catch approach for specifying the OFLs and ABCs and set constant-catch ACLs equal 0.95 of the ABC.

Alternative 2. Update the OFL and ABC for spiny lobster for the period of 2024-2026 based on the constant-catch approach selected by the Caribbean Fishery Management Council (Council) and set the ACL equal to the ABC, until modified.

Alternative 3. Update the OFL and ABC for spiny lobster for the period of 2024-2026 based on the constant-catch approach selected by the Council and set the ACL equal to 0.95 of the ABC, until modified.

Alternative 4. Update the OFL and ABC for spiny lobster for the period of 2024-2026 based on the constant-catch approach selected by the Council and set the ACL equal to 0.90 of the ABC, until modified.

Discussion

Alternative 1 would retain the OFL, ABC, or ACL set for fishing year 2024 and subsequent fishing years in Framework Amendment 1 for spiny lobster in Puerto Rico following the 2022 update assessment to the Southeast Data, Assessment, and Review (SEDAR) 57 stock assessment, and thus would not be based on the best scientific information available. The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) states "conservation and management measures shall be based upon the best scientific information available." 50 C.F.R. 600.315(a). Framework Amendment 1 to the Puerto Rico FMP specified the OFL, ABC, and ACL values for 2021-2023 and for 2024 and subsequent years (2024+). The Council set the ACLs for the Puerto Rico spiny lobster stock for 2021-2023 and for 2024+ at 95% of the ABC for those respective periods. The Council's Scientific and Statistical Committee (SSC) recommended more conservative ABC values for 2024+ due to the greater degree of scientific uncertainty associated with the time between the assessment and the OFL and ABC projections. For Framework Amendment 2, the 2024+ values specified under Framework Amendment 1 are used as the no action alternative (Table 2.1). **Alternative 1** is not

a viable alternative because it would be inconsistent with the requirements of the Magnuson-Stevens Act to base management measures on the best scientific information available.

Alternatives 2, 3, and **4** would update the OFL and ABC for spiny lobster in Puerto Rico based on the average of the 2024-2026 projections from the SEDAR 57 update assessment (SEFSC December 2022), and would set the ACL based on the SSC's ABC recommendation and considering varying degrees of management uncertainty (Table 2.1). Management uncertainty refers to uncertainty in the ability of managers to constrain catch to the ACL, and the uncertainty in quantifying the true catch amounts. Sources of management uncertainty could include late reporting, misreporting, or underreporting of catch amounts, as well as lack of sufficient in-season management, including in-season closure authority. No management uncertainty means that managers believe that the reported landings accurately represent the actual catch for the stock, and the ACL would be set equal to the ABC because there would be little to no variation expected between reported landings and catch targets each year. However, when there is some uncertainty in the reported landings (e.g., higher than or less than the actual catch for the stock), managers may be more conservative and set the ACL at a level lower than the ABC. Where management uncertainty exists, the greater the buffer between the ACL and ABC, the less risk there is of exceeding catch targets and possibly overfishing the stock.

Alternative 2 would set the ACL equal to the ABC, and would reflect no management uncertainty. **Alternative 3** would set the ACL at 95% of the ABC, which reflects the same level of management uncertainty as in Framework Amendment 1. **Alternative 4** would set the ACL at 90% of the ABC, which reflects a greater level of management uncertainty than **Alternative 3**. The ACL under **Alternative 2** would allow for the largest annual catch of spiny lobster, followed by **Alternative 3**, and then **Alternative 4**. **Alternative 4** would offer the largest reduction between the ACL and the ABC, providing less of a risk of overfishing, but potentially triggering an accountability measure (AM) more frequently if catch exceeds the ACL.

Since 2018, annual commercial landings (adjusted) of spiny lobster in Puerto Rico have ranged between 350,000 and 550,000 pounds whole weight (lbs ww) (SEFSC December 2022). Thus, the low end of the annual harvest of this top-targeted species is close to the current and proposed ACLs under each alternative (Table 2.1). Harvest of spiny lobster in territorial waters is not prohibited when a fishing season closure is applied in federal waters.

Table 2.1. Overfishing limit, acceptable biological catch, and annual catch limit for spiny lobster in Puerto Rico under the Action 1 alternatives. All values are in pounds whole weight.

Alternative	OFL	ABC	ACL
Alt. 1 (no action)	438,001	386,279	366,965
Alt. 2 (ACL=ABC)	426,858	376,452	376,452
Alt. 3 (ACL=ABC x 0.95)	426,858	376,452	357,629
Alt. 4 (ACL=ABC x 0.90)	426,858	376,452	338,807

2.2 Action 2: Update the St. Croix Spiny Lobster OFL, ABC, and ACL

Alternative 1. No Action. The OFL, ABC, and ACL (which equals OY) for spiny lobster would remain as specified under Framework Amendment 1 to the St. Croix FMP, which used the constant-catch approach for specifying the OFLs and ABCs and set constant-catch ACLs equal 0.95 of the ABC.

Alternative 2. Update the OFL and ABC for spiny lobster for the period of 2024-2026 based on the constant-catch approach selected by the Council and set the ACL equal to the ABC, until modified.

Alternative 3. Update the OFL and ABC for spiny lobster for the period of 2024-2026 based on the constant-catch approach selected by the Council and set the ACL equal to 0.95 of the ABC, until modified.

Alternative 4. Update the OFL and ABC for spiny lobster for the period of 2024-2026 based on the constant-catch approach selected by the Council and set the ACL equal to 0.90 of the ABC, until modified.

Discussion

Alternative 1 would retain the OFL, ABC, or ACL set for fishing year 2024 and subsequent fishing years in Framework Amendment 1 for spiny lobster in St. Croix following the 2022 update assessment to the SEDAR 57 stock assessment, and thus would not be based on the best scientific information available. The Magnuson-Stevens Act states "conservation and management measures shall be based upon the best scientific information available." 50 C.F.R. 600.315(a). Framework Amendment 1 to the St. Croix FMP specified the OFL, ABC, and ACL values for 2021-2023 and for 2024 and subsequent years (2024+). The Council set the ACLs for the St. Croix spiny lobster stock for 2021-2023 and for 2024+ at 95% of the ABC for those respective periods. The Council's SSC recommended more conservative ABC values for 2024+ due to the greater degree of scientific uncertainty associated with the time between the assessment and the OFL and ABC projections. For Framework Amendment 2, the 2024+ values specified under Framework Amendment 1 are used as the no action alternative (Table 2.1). **Alternative 1** is not a viable alternative because it would be inconsistent with the requirements of the Magnuson-Stevens Act to base management measures on the best scientific information available.

Alternatives 2, 3, and **4** would update the OFL and ABC for spiny lobster in St. Croix based on the average of the 2024-2026 projections from the SEDAR 57 update assessment (SEFSC December 2022), and would set the ACL based on the SSC's ABC recommendation and

considering varying degrees of management uncertainty (Table 2.2). Management uncertainty refers to uncertainty in the ability of managers to constrain catch to the ACL, and the uncertainty in quantifying the true catch amounts. Sources of management uncertainty could include late reporting, misreporting, or underreporting of catch amounts, as well as lack of sufficient in-season management, including in-season closure authority. No management uncertainty means that managers believe that the reported landings accurately represent the actual catch for the stock, and the ACL would be set equal to the ABC because there would be little to no variation expected between reported landings and actual catch targets each year. However, when there is some uncertainty in the reported landings (e.g., higher than or less than the actual catch for the stock), managers may want to be more conservative and set the ACL at a level lower than the ABC. Where management uncertainty exists, the greater the buffer between the ACL and ABC, the less risk there is of exceeding catch targets and possibly overfishing the stock.

Alternative 2 would set the ACL equal to the ABC, and would reflect no management uncertainty. **Alternative 3** would set the ACL at 95% of the ABC, which reflects the same level of management uncertainty as in Framework Amendment 1. **Alternative 4** would set the ACL at 90% of the ABC, which reflects a greater level of management uncertainty than **Alternative 3**. The ACL under **Alternative 2** would allow for the largest annual catch of spiny lobster, followed by **Alternative 3**, and then **Alternative 4**. **Alternative 4** would offer the largest reduction between the ACL and the ABC, providing less of a risk of overfishing, but potentially triggering an accountability measure more frequently if catch exceeds the ACL.

Annual commercial landings of spiny lobster in St. Croix since 2014 have been less than 50,000 lbs ww (SEFSC December 2022), which is well below the current and proposed ACL values under each alternative (Table 2.2).

Table 2.2. Overfishing limit, acceptable biological catch, and annual catch limit for spiny lobster in St. Croix under the Action 2 alternatives. All values are in pounds whole weight.

Alternative	OFL	ABC	ACL
Alt. 1 (no action)	144,219	127,189	120,830
Alt. 2 (ACL=ABC)	163,823	144,478	144,478
Alt. 3 (ACL=ABC x 0.95)	163,823	144,478	137,254
Alt. 4 (ACL=ABC x 0.90)	163,823	144,478	130,030

2.3 Action 3: Update the St. Thomas and St. John Spiny Lobster OFL, ABC, and ACL

Alternative 1. No Action. The OFL, ABC, and ACL (which equals OY) for spiny lobster would remain as specified under Framework Amendment 1 to the St. Thomas and St. John FMPs, which used the constant-catch approach for specifying the OFLs and ABCs and set constant-catch ACLs equal 0.95 of the ABC.

Alternative 2. Update the OFL and ABC for spiny lobster for the period of 2024-2026 based on the constant-catch approach selected by the Council and set the ACL equal to the ABC, until modified.

Alternative 3. Update the OFL and ABC for spiny lobster for the period of 2024-2026 based on the constant-catch approach selected by the Council and set the ACL equal to 0.95 of the ABC, until modified.

Alternative 4. Update the OFL and ABC for spiny lobster for the period of 2024-2026 based on the constant-catch approach selected by the Council and set the ACL equal to 0.90 of the ABC, until modified.

Discussion

Alternative 1 would retain the OFL, ABC, or ACL set for fishing year 2024 and subsequent fishing years in Framework Amendment 1 for spiny lobster in St. Thomas and St. John following the 2022 update assessment to the SEDAR 57 stock assessment, and thus would not be based on the best scientific information available. The Magnuson-Stevens Act states "conservation and management measures shall be based upon the best scientific information available." 50 C.F.R. 600.315(a). Framework Amendment 1 to the St. Thomas and St. John FMP specified the OFL, ABC, and ACL values for 2021-2023 and for 2024 and subsequent years (2024+). The Council set the ACLs for the St. Thomas and St. John spiny lobster stock for 2021-2023 and for 2024+ at 95% of the ABC for those respective periods. The Council's SSC recommended more conservative ABC values for 2024+ due to the greater degree of scientific uncertainty associated with the time between the assessment and the OFL and ABC projections. For Framework Amendment 2, the 2024+ values specified under Framework Amendment 1 are used as the no action alternative (Table 2.1). **Alternative 1** is not a viable alternative because it would be inconsistent with the requirements of the Magnuson-Stevens Act to base management measures on the best scientific information available.

Alternatives 2, 3, and **4** would update the OFL and ABC for spiny lobster in St. Thomas and St. John based on the average of the 2024-2026 projections from the SEDAR 57 update assessment (SEFSC December 2022), and would set ACLs based on the SSC's ABC recommendation

considering varying degrees of management uncertainty (Table 2.3). Management uncertainty refers to uncertainty in the ability of managers to constrain catch to the ACL, and the uncertainty in quantifying the true catch amounts. Sources of management uncertainty could include late reporting, misreporting, or underreporting of catch amounts, as well as lack of sufficient in-season management, including in-season closure authority. No management uncertainty means that managers believe that the reported landings accurately represent the actual catch for the stock, and the ACL would be set equal to the ABC because there would be little to no variation between the reported landings and the catch targets each year. However, when there was some uncertainty in the reported landings (e.g., higher than or less than the actual catch for the stock), then managers would want to be more conservative and set the ACL at some reduced level of the ABC. Where management uncertainty exists, the greater the buffer between the ACL and ABC, the less of exceeding catch targets and possibly overfishing the stock.

Alternative 2 would set the ACL equal to the ABC, and would reflect no management uncertainty. **Alternative 3** would set the ACL at 95% of the ABC to reflect the same level of management uncertainty as in Framework Amendment 1. **Alternative 4** would set the ACL at 90% of the ABC to reflect a greater level of management uncertainty than **Alternative 3**. The ACL under **Alternative 2** would allow for the largest annual catch of spiny lobster, followed by **Alternative 3**, and then **Alternative 4**. **Alternative 4** would offer the largest reduction between the ACL and the ABC, providing less of a risk of overfishing, but potentially triggering an accountability measure more frequently if catch exceeds the ACL.

Annual commercial landings of spiny lobster in St. Thomas and St. John since 2018 have been near 100,000 lbs ww (SEFSC December 2022), which is slightly below the current and proposed ACL values under each alternative (Table 2.3).

Table 2.3. Overfishing limit, acceptable biological catch, and annual catch limit for spiny lobster in St. Thomas and St. John under the Action 3 alternatives. All values are in pounds whole weight.

Alternative	OFL	ABC	ACL
Alt. 1 (no action)	150,497	132,725	126,089
Alt. 2 (ACL=ABC)	158,993	140,218	140,218
Alt. 3 (ACL=ABC x 0.95)	158,993	140,218	133,207
Alt. 4 (ACL=ABC x 0.90)	158,993	140,218	126,196

Chapter 3. Affected Environment

This section describes the environment and resources in federal waters around Puerto Rico, St. Croix, and St. Thomas and St. John that would be affected by the proposed actions. Information on the physical, biological/ecological, economic, social, and administrative environments of Puerto Rico and the U.S. Virgin Islands (USVI) are described in detail in the Puerto Rico Fishery Management Plan (FMP) (CFMC 2019a), the St. Croix FMP (CFMC 2019b), and the St. Thomas and St. John FMP (CFMC 2019c) (collectively the Island-based FMPs), which are incorporated herein by reference and summarized below.

3.1 Description of the Physical Environment

The U.S. Caribbean is located in the eastern portion of the Caribbean archipelago, about 1,100 miles (mi) (1,770 kilometers [km]) east-southeast of Miami, Florida (Olcott 1999). The region is composed of the Commonwealth of Puerto Rico in the Greater Antilles and the USVI in the Lesser Antilles, both of which separate the Caribbean Sea from the western central Atlantic Ocean. The USVI are part of the Virgin Islands chain, which lies in the northeastern Caribbean about 50 mi (80 km) east of Puerto Rico's main island, and consists of four major islands: St. Croix, St. Thomas, St. John, and Water Island (DPNR 2005). The U.S. Caribbean Exclusive Economic Zone (EEZ) covers approximately 75,687 mi^2 (196,029 km^2), which, for management purposes, is divided into the Puerto Rico, St. Croix, and St. Thomas and St. John management areas (see Figure 1.1).

The coastal marine environments of Puerto Rico and the USVI are characterized by a wide variety of habitat types, with 21 distinct benthic habitats types delineated (Kendall et al. 2001). The Final Environmental Impact Statement for the Generic Essential Fish Habitat Amendment (EFH Amendment; CFMC 2004) summarized the percent distribution for all habitats in the U.S. Caribbean from the 2,121 mi^2 (5,494 km^2) of total bottom area mapped from aerial photographs. This total included both Puerto Rico (1,934 mi^2 [5,009 km^2]) and the USVI (187 mi^2 [485 km^2]), and covered from the shoreline to about 66 feet (ft) (20 meters [m]) depth.

3.1.1 Puerto Rico

Federal waters around Puerto Rico extend 9 - 200 nautical miles (17 - 370 km) from the shoreline, covering approximately 65,368 mi^2 (169,303 km^2). Puerto Rico includes the adjacent inhabited islands of Vieques and Culebra as well as various other isolated islands without permanent populations including Mona, Monito, and Desecheo. The main island of Puerto Rico is is approximately 110 by 35 mi (177 by 56 km) and is surrounded on three sides by deep ocean waters: the Mona Passage to the west (> 3,300 ft [1,000 m] deep); the Puerto Rico Trench to the north (~28,000 ft [8,500 m] deep); and the Venezuelan Basin of the Caribbean Sea to the south

(~16,400 ft [5,000 m] deep). To the east, Puerto Rico shares the shallow-water shelf platform with St. Thomas and St. John, USVI.

For Puerto Rico, the following areas have been designated as Habitat Areas of Particular Concern (HAPC) by the Caribbean Fishery Management Council (Council) for coral and reef fish species, which are managed with seasonal closures that are also applicable to spiny lobster:

- Tourmaline Bank - closed December 1 through the last day of February, each year, to all fishing, including spiny lobster; and
- Abrir la Sierra Bank - closed December 1 through the last day of February, each year, to all fishing, including spiny lobster.

3.1.2 St. Croix

Federal waters around St. Croix extend 3 - 200 nautical miles (6 – 370 km) from the shoreline, covering approximately 9,216 mi^2 (23,870 km^2). The island of St. Croix is surrounded by the Caribbean Sea. St. Croix is located about 46 mi (74 km) south of St. Thomas and St. John and lies on a different geological platform than Puerto Rico, St. Thomas, and St. John. St. Croix is separated from those islands by a 2.5 mi (4 km) deep trench (CFMC 2004). The St. Croix shelf is much narrower and shallower than that of the northern islands (Goenaga and Boulon 1992), and has a total area of approximately 99 nm^2 (343 km^2) (Gordon 2010). Most of the shelf area is less than 80 ft (24.4 m) deep (Kojis and Quinn 2011).

For St. Croix, the following areas have been designated as HAPC by the Council for coral and reef fish species, which are managed with seasonal closures that are also applicable to spiny lobster:

- Red Hind Spawning Aggregation Area (Lang Bank) - closed December 1 through the last day of February, each year, to all fishing, including spiny lobster; and
- Mutton Snapper Spawning Aggregation Area - closed March 1 through June 30, each year, to all fishing, including spiny lobster.

3.1.3 St. Thomas and St. John

Federal waters around St. Thomas and St. John extend 3 - 200 nautical miles (6 – 370 km) from the shoreline, covering approximately 1,103 mi^2 (2,856 km^2). The islands of St. Thomas and St. John are bordered by the Atlantic Ocean to the north and the Caribbean Sea to the south. The island of St. Thomas is bordered to the west by the islands of Vieques and Culebra, and to the east by St. John, which is bordered on the east by the British Virgin Islands. The shelf shared by the islands of St. Thomas and St. John is about 8 mi (12.9 km) wide on the south and 20 mi (32.2 km) wide on the north (Goenaga and Boulon 1992) with an area of approximately 510 nm^2 (1751 km2). Most of the shelf area is greater than 80 ft (24.4 m) deep (Kojis and Quinn 2011).

For St. Thomas and St. John, the following areas are managed with year-round or seasonal closures that are applicable to spiny lobster:

- Hind Bank Marine Conservation District - closed year-round to all fishing, including spiny lobster; and
- Grammanik Bank - closed February 1 through April 30, each year, to all fishing, including spiny lobster.

3.1.4 Essential Fish Habitat (EFH)

EFH is defined in the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) as "those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 U.S. C. 1802(10)). EFH for spiny lobster was identified in the Caribbean Sustainable Fisheries Act (SFA) Amendment (CFMC 2005) and mapped in the EFH Amendment (CFMC 2004), and described in the Island-based FMPs (CFMC 2019a, CFMC 2019b, CFMC 2019c).

Specific EFH identified for all species in the Island-based FMPs include both estuarine/inshore (e.g., estuarine emergent and mangrove wetlands, submerged aquatic vegetation, intertidal flats, palustrine emergent and forested systems, and estuarine water column) and marine/offshore (e.g., live/hard bottom habitats, coral and coral reefs, seagrass and algal plains, sand and shell substrate, and the marine water column) areas.

In Puerto Rico, St. Croix, and St. Thomas and St. John, EFH for spiny lobster consists of all waters from mean high water to the outer boundary of the U.S. Caribbean EEZ (habitats used by phyllosome larvae) and seagrass, benthic algae, mangrove, coral, and live/hard bottom substrates from mean high water to 100 fathoms depth (habitats used by other life stages).

3.2 Description of the Biological and Ecological Environments

The Island-based FMPs (CFMC 2019a-c) include a description of the biological and ecological environments for the species managed in federal waters in the respective island/island group, including spiny lobster, which is incorporated herein by reference and summarized below.

3.2.1 Description of the Species

3.2.1.1 Life History

The Caribbean spiny lobster, *Panulirus argus* (hereafter referred to as spiny lobster), occurs in the Western Central and South Atlantic Ocean, including the Caribbean Sea and the Gulf of Mexico, ranging from North Carolina in the north to Brazil in the south. Spiny lobster occur from the extreme shallows of the littoral fringe to depths exceeding 328 ft (100 m) (Kanciruk

1980; Munro 1974). In the U.S. Caribbean, the distribution of spiny lobster extends to the edge of the shelf, which is described as the 100-fathom contour (183 m) (CFMC 1981).

Shallow-water areas with mangroves and seagrass (*Thalassia testudinum*) beds serve as nursery areas (Munro 1974), with the spiny lobsters generally moving offshore when they reach reproductive size (Phillips et al. 1980). Adult spiny lobsters are found on shelf areas that offer adequate shelter in the form of reefs, wrecks or other forms of cover (Munro 1974). Spiny lobsters are primarily carnivores, feeding upon smaller crustaceans, molluscs, and annelids (Cobb and Wang 1985). This species shelters communally by day and emerge to feed at night (Munro 1974).

3.2.1.2 Status of the Stocks

The 2019 SEDAR 57 spiny lobster assessments applied an integrated statistical catch-at-age (Stock Synthesis version 3.30) model using data through 2016. The St. Croix and St. Thomas and St. John stocks approached the levels corresponding to $F_{SPR30\%}$ and $S_{SPR30\%}$ during the mid to late 2000s. Since that time, a reduction in fishing mortality has allowed the stock spawning output to increase. The Puerto Rico stock was already exploited when the time series began (1983). Fishing mortality was initially above $F_{SPR30\%}$, but declined and remained below that threshold after 1986, with exceptions (e.g., during 1999-2005). Spawning output remained below $S_{SPR30\%}$ from the initial year through 1992, but has since remained above $S_{SPR30\%}$, except between 2000 and 2007. Based on the management thresholds (i.e., minimum stock size threshold [MSST] and maximum fishing mortality threshold [MFMT]) from SEDAR 57, the spiny lobster stocks in Puerto Rico, St. Croix, and St. Thomas and St. John were not considered overfished and were not undergoing overfishing.

Using the same management thresholds (i.e., MSST and MFMT) that were accepted for use in the SEDAR 57 assessments, the 2022 update assessment found that (1) the Puerto Rico stock in 2021 was undergoing overfishing (i.e., current fishing mortality is above MFMT) and was not considered overfished (i.e., current Spawning Output is above MSST); (2) the St. Croix stock in 2021 was not undergoing overfishing and was not considered overfished; and (3) the St. Thomas and St. John stock in 2021 was not undergoing overfishing and was not considered overfished.

3.2.1.3 Responses to Climate Change

There is a lack of research and long-term data on the impacts of climate change on Caribbean marine ecosystems and fishery resources (Oxenford 2017). The majority of the research to date has been outside of the Caribbean. Those research efforts mainly examined the effects of one or two stressors over short-term laboratory experiments, which is unlikely to accurately reflect the real complexity of long-term climate change effects on U.S. Caribbean reef ecosystems. Additionally, climate change research and data efforts need to consider cumulative effects of

stressors on individual species and on ecosystems as a whole, while also considering other anthropogenic stressors that chronically occur in the region.

Climate change can affect spiny lobster populations as the coral reef ecosystems in which they reside shift due to increases in water temperatures and extreme weather events (e.g., hurricanes). These climate change-related shifts can also affect the food chain that the spiny lobsters rely on. Additionally, the extended larval phase of spiny lobsters makes them particularly vulnerable to climate variability, specifically the warming of surface temperatures.[1] Ross and Behringer (2019) found that in addition to affecting the survival and size at metamorphosis of spiny lobsters, especially post-larval and juvenile lobsters, changes in temperature and salinity also altered the spiny lobsters ability to identify chemosensory cues, such as selecting suitable shelters, which may result in decreased survivorship due to impaired behaviors.

3.2.2 Bycatch

The Puerto Rico, St. Croix, and St. Thomas and St. John FMPs each include a bycatch practicability analysis for the species managed under each FMP, which is incorporated herein by reference, and pertinent portions are summarized below.

Fisheries that are noted for producing large amounts of bycatch (e.g., trawling) are essentially absent from the U.S. Caribbean. Thus, bycatch is not as significant an issue in Puerto Rico, St. Croix, and St. Thomas and St. John, compared to other regions. What little bycatch that does occur is generally confined to regulatory discards. Under the Island-based FMPs, regulatory discards specific to spiny lobster could include:

- Sublegal lobsters: federal laws prohibit the harvest of spiny lobster under 3.5 inches (8.9 cm) in carapace length; and
- Egg-bearing female spiny lobsters (i.e., berried).

In Puerto Rico, St. Croix, and St. Thomas and St. John, spiny lobster are harvested commercially in federal waters using trap gear (both fish trap and spiny lobster trap) and by hand or snare collection while diving. Recreational harvest of spiny lobster in federal waters is thought to mostly be conducted while diving, though recreational data are not available at this time. All legal spiny lobsters caught by commercial fishermen in the Puerto Rico, St. Croix, and St. Thomas and St. John fisheries are assumed to be retained and assumed discards include sublegal and berried spiny lobsters (SEDAR 57 2019). Consensus opinion during the SEDAR 57 data workshop was that discard mortality of spiny lobsters was negligible.

The actions in this Framework Amendment are not expected to significantly increase or decrease the magnitude of bycatch or bycatch mortality in the Puerto Rico, St. Croix, and St. Thomas and

[1] http://www.fao.org/fi/static-media/MeetingDocuments/WECAFC/WECAFC2019/17/Ref.35e.pdf

St. John fisheries that target spiny lobster. Additionally, since fishermen in the U.S. Caribbean region traditionally utilize most resources harvested, and the amount of bycatch from the fisheries targeting spiny lobster are minimal and are not expected to change under this amendment, little to no affect to mammals or birds would be expected from the proposed actions.

3.2.3 Protected Species

Within the U.S. Caribbean, some species and their habitats are protected under the Marine Mammal Protection Act (MMPA), the Endangered Species Act (ESA), or both. A brief summary of these two laws and more information is available on the NMFS Office of Protected Resources website.[2] At least 17 species of whales and dolphins have been reported in or near U.S. waters in the northeastern Caribbean (Mignucci-Giannoni 1998), including waters around Puerto Rico. All 17 marine mammal species are protected under the MMPA. Three of these species (i.e., sperm, sei, and fin whales) are also listed as endangered under the ESA.[3] In addition to these three marine mammals, five species or distinct population segments (DPS) of sea turtles (green - North Atlantic DPS and the South Atlantic DPS; hawksbill; leatherback; loggerhead - Northwest Atlantic DPS); four species or DPSs of fish (Nassau grouper; scalloped hammerhead shark - Central and Southwest Atlantic DPS; oceanic whitetip shark; giant manta ray); and seven species of coral (elkhorn coral, staghorn coral, rough cactus coral, pillar coral, lobed star coral, mountainous star coral, and boulder coral) occur in the U.S. Caribbean and are also protected under the ESA. ESA designated critical habitat for the green sea turtle, hawksbill sea turtle, leatherback sea turtle, and *Acropora* corals also occur within the Council's jurisdiction. Critical habitat for green and hawksbill sea turtles occurs entirely within Puerto Rico state waters, and over 99% of the critical habitat for leatherback sea turtles around St. Croix occurs within USVI state waters. Designated critical habitat of *Acropora* corals in Puerto Rico and the USVI extended from the mean low water line seaward to the 98 foot (30 meter) depth contour (73 FR 72209), the majority of which occur in state waters.

The National Marine Fisheries Service (NMFS) completed a biological opinion on September 21, 2020, evaluating the impacts of the Puerto Rico, St. Croix, and St. Thomas and St. John fisheries on Endangered Species Act (ESA)-listed species that occur in the U.S. Caribbean region (NMFS 2020). In the biological opinion, NMFS determined that the authorization of the fisheries conducted under each island FMP is not likely to adversely affect sperm, sei, and fin whales; the Northwest Atlantic DPS of loggerhead sea turtle; giant manta rays; or critical habitat of green, hawksbill, or leatherback sea turtles. The biological opinion also determined that the authorization of the island-based fisheries is not likely to jeopardize the continued existence of the North Atlantic DPS of green sea turtle, South Atlantic DPS of green sea turtle, hawksbill sea turtle, Nassau grouper, oceanic whitetip shark, Central and Southwest Atlantic DPS of scalloped

[2] https://www.fisheries.noaa.gov/protecting-marine-life

[3] Five DPSs of humpback whales are listed under the ESA; however, the West Indies DPS, which is the only DPS present in the U.S. Caribbean, is not listed as endangered or threatened (81 FR 62259).

hammerhead shark, elkhorn coral, staghorn coral, rough cactus coral, pillar coral, lobed star coral, mountainous star coral, or boulder star coral, or result in the destruction or adverse modification of designated *Acropora* critical habitat.

An incidental take statement for select ESA species was included in the biological opinion, and reasonable and prudent measures to minimize the impact of the incidental takes were specified, along with terms and conditions to implement them.

The actions contained in this Framework Amendment are not anticipated to change the operation of the Puerto Rico, St. Croix, or St. Thomas and St. John fisheries in a manner that would cause effects to ESA-listed species or critical habitat that were not considered in the 2020 biological opinion.

3.3 Description of the Fisheries Targeting Spiny Lobster

The fisheries of the U.S. Caribbean region provide food, livelihoods, and income to residents and visitors alike. The region's fisheries (federal and state[4]) can be divided into commercial, recreational, and subsistence sectors. Commercial fishermen pursue multiple species using multiple gear types and are characterized as "artisanal" because their fishing vessels tend to be less than 45 ft (13.7 m) long, have small crews, yield small revenues (when compared to revenues from commercial fishing in the continental U.S.), and their seafood processors are small-scale producers.

In the Caribbean SFA Amendment (CFMC 2005), fishable habitat was defined as those waters less than or equal to 100 fathoms (183 m). The majority of fishing activity for Council-managed species occurs in that area. The total area of fishable habitat (less or equal to 100 fathoms) in the U.S. Caribbean is estimated to be approximately 2,932 mi^2 (7,594 km^2), of which only 13.7% (403 mi^2 [1,045 km^2]) is in the U.S. Caribbean EEZ.

Spiny lobster, managed in U.S. Caribbean federal waters since 1985, are targeted by commercial and recreational fishermen in Puerto Rico, St. Croix, and St. Thomas and St. John, although recreational data are not available for spiny lobster. Spiny lobster accounted for 27% ($2,250,000 of $8,196,752) of the total dollar amount of commercial landings reported in 2019 for Puerto Rico and 29% ($863,902 of $3,008,940) for the USVI (NMFS 2021a).

Annual catch limits (ACL) for spiny lobster were specified under the Island-based FMPs. For each FMP, in the event that spiny lobster commercial landings exceed the ACL, an

[4] State means each of the several states, the District of Columbia, the Commonwealth of Puerto Rico, American Samoa, the Virgin Islands, Guam, the Northern Mariana Islands, and any other Commonwealth, territory, or possession of the United States (50 CFR 600.10).

accountability measure (AM) would be triggered and would apply to both fishing sectors (i.e., commercial and recreational fishing). Recreational fishermen are limited to a daily bag limit of three spiny lobster per person per day, with no more than 10 spiny lobster per vessel per day. A minimum size limit of 3.5 inches (8.9 centimeters) for spiny lobster applies to both commercial and recreational fishing in the U.S. Caribbean region.

In 2017, Hurricanes Irma and Maria devastated the islands of the U.S. Caribbean as well as their fisheries. Reported landings of spiny lobster since then have been reduced in the USVI fisheries, but have recovered to pre-hurricane levels in Puerto Rico. In 2020, the fisheries were impacted by the COVID-19 pandemic, which severely reduced fishing effort. Ninety-four percent of Puerto Rico commercial fishermen and 81% of USVI fishermen stopped fishing for some period in the first half of 2020 (NMFS 2021b).

3.3.1 Puerto Rico

Landings of spiny lobster are available from self-reported commercial fishermen logbooks since 1983, and include information on fishing gear type and location where the catch was landed. Commercial fishermen target multiple species using multiple gear types during the same fishing trip, with 63.2% of fishermen using at three gear types during a fishing trip (Griffith et al. 2007). Approximately half of the commercial fishermen target spiny lobster (Matos-Caraballo and Agar 2011). In 2019,[5] 373 commercial fishermen in Puerto Rico reported landings of spiny lobster.

Commercial divers selectively target a diverse group of highly valued species including spiny lobster (Agar and Shivlani 2016) and fishermen using trap gear target reef fish, deep-water snappers, and spiny lobster. Fish traps are used to catch spiny lobster and various reef fish (e.g., snappers, wrasses, grunts, groupers, and parrotfish), while lobster traps mainly catch spiny lobster (Agar et al. 2017). Fish traps are more common than lobster traps because of their versatility in catch, with 66% of commercial fishermen using fish traps and 20% using a combination of fish and lobster traps (Agar et al. 2017).

Landings of spiny lobster in Puerto Rico have generally increased each year since ACLs were established in 2012, with a brief decline in 2017 when Hurricanes Irma and Maria hit the region (Table 3.3.1). Reporting of harvest location from unknown areas has improved since 2012, with the majority of the spiny lobster landings since 2013 reported from state waters (0-9 nautical miles). In Puerto Rico, more than half of the spiny lobster landings were reported using dive gear, followed by trap gear, and then net gear (Table 3.3.2). Other species commonly caught on commercial fishing trips in Puerto Rico that target spiny lobster include queen conch, hogfish, and queen triggerfish, among others (Table 3.3.3).

[5] At the time of amendment preparation, the most recent and complete year of landings available was from 2019.

Table 3.3.1. Number of commercial fishermen in Puerto Rico who reported landings of spiny lobster for 2012-2019, the total landings (in pounds), and the percent reported from state waters (0-3 nautical miles), federal waters (3-200 nautical miles), or unknown location.

Year	Number of Fishermen	Spiny Lobster Landings (lbs)*	Percent from State Waters	Percent from Federal Waters	Percent from Unknown Area
2012	290	385,811	26%	11%	63%
2013	325	275,424	71%	8%	21%
2014	345	376,779	77%	8%	15%
2015	351	418,273	78%	9%	13%
2016	344	449,233	87%	7%	5%
2017	328	283,221	91%	7%	3%
2018	320	520,829	93%	5%	3%
2019	373	489,243	90%	8%	2%

* Puerto Rico landings are adjusted using an expansion factor determined by Department of Natural and Environmental Resources staff at the Fisheries Research Laboratory, which is based on intercept sampling of commercial fishermen.
(Source: NMFS SERO 2023)

Table 3.3.2. Percent of spiny lobster landings in Puerto Rico for 2012-2019 reported by gear type.

Year	Diving	Traps	Nets*
2012	58%	39%	3%
2013	64%	30%	6%
2014	59%	35%	6%
2015	57%	38%	5%
2016	53%	41%	6%
2017	58%	37%	5%
2018	62%	34%	4%
2019	57%	37%	6%

* Values include landings from gill nets and trammel nets that are prohibited gear types for harvest of spiny lobster in federal waters.
(Source: NMFS SERO 2023)

Table 3.3.3. Adjusted commercial landings (in pounds whole weight) and the number of trips that reported spiny lobster and co-occurring species in Puerto Rico in 2018 and 2019.

Species	2018 Landings	2018 Trips	2019 Landings	2019 Trips
Lobster Spiny	520,829	10,964	488,734	12,365
Conch Queen	172,718	3,520	100,809	3,485
Hogfish	62,939	2,841	52,893	3,131
Triggerfish Queen	44,933	2,279	45,646	2,925
Boxfish, Unspecified	31,144	1,975	33,562	2,305
Grouper Red Hind	26,422	1,387	23,117	1,460
Octopus, Unspecified	15,833	989	14,238	1,305
Parrotfishes, Unspecified	23,518	868	25,508	1,231
Snapper Mutton	21,327	944	18,782	1,168
Snapper Lane	18,856	623	21,595	1,031
Snapper, Unspecified	14,068	615	14,351	835
Porgy, Unspecified	11,325	498	9,437	735
Snapper Yellowtail	11,551	530	10,836	713
Grunt, Unspecified	14,606	262	15,788	529
Lionfish	3,883	225	4,698	291
Snapper Cubera	4,186	206	3,742	280
Goatfish Spotted	4,483	172	3,374	205
Crab, Unspecified	657	156	1,036	196
Jack Bar	3,639	124	3,332	165
Grouper, Unspecified	3,321	155	2,862	161
Squirrelfish	1,896	123	1,844	159
Snapper Silk	5,673	111	3,952	154

(Source: NMFS SERO 2023)

3.3.2 St. Croix

Landings of spiny lobster in St. Croix are available from self-reported commercial logbooks since 1975, and include information on fishing gear type and location where the catch was landed. In the USVI, landings are assumed to be fully reported and correction factors are not used. Commercial fishermen target a variety of species using multiple gear types, with 70% using more than one method of fishing (e.g., diving, line fishing, trap fishing) (Kojis et al. 2017). Kojis et al. (2017) found that 59.6% of the commercial fishermen in St. Croix targeted spiny lobster. In 2021,[6] 30 commercial fishermen in St. Croix reported landings of spiny lobster.

In St. Croix, commercial landings reported for dive gear have consistently been greater than landings reported for hook-and-line or trap gear. Half the fishermen surveyed in St. Croix reported owning their own SCUBA gear, and almost all reported using snares (to target spiny lobster) or spears (to target reef fish) during diving operations (Kojis et al. 2017). In St. Croix, fish traps are used to catch spiny lobster and various reef fish (e.g., snappers, groupers, and triggerfish), while lobster traps primarily catch spiny lobster, although only one fishermen reported using lobster traps.

Since ACLs were established in 2012, landings of spiny lobster in St. Croix have remained under 100,000 lbs, with slightly more than half each year reported from state waters (Table 3.3.4). In St. Croix, the majority of spiny lobster are harvested by hand (i.e., while diving), followed by trap gear (Table 3.3.5). Other species commonly caught on commercial fishing trips in St. Croix that target spiny lobster include stoplight parrotfish, queen triggerfish, red hind grouper, and queen conch, among others (Table 3.3.6)

Table 3.3.4. Number of commercial fishermen in St. Croix who reported landings of spiny lobster for 2012-2021, the total landings (in pounds), and the percent reported from state waters (0-3 nautical miles), federal waters (3-200 nautical miles), or unknown location.

Year	Number of Fishermen	Spiny Lobster Landings (lbs)	Percent from State Waters	Percent from Federal Waters	Percent from Unknown Area
2012	43	87,073	51%	49%	0%
2013	32	59,398	57%	41%	2%
2014	29	39,724	64%	30%	5%
2015	29	44,963	55%	38%	7%
2016	26	31,582	63%	31%	7%
2017	27	26,193	65%	29%	6%
2018	15	10,970	59%	39%	2%
2019	19	15,721	59%	30%	11%
2020	25	22,312	41%	52%	7%
2021	30	39,422	51%	49%	0%

(Source: NMFS SERO 2023)

[6] At the time of amendment preparation, the most recent and complete year of landings available was from 2021.

Table 3.3.5. Percent of spiny lobster landings in St. Croix for 2012-2021 reported by gear type.

Year	Diving	Traps
2012	82%	18%
2013	90%	10%
2014	94%	6%
2015	87%	13%
2016	97%	3%
2017	89%	11%
2018	94%	6%
2019	92%	8%
2020	91%	9%
2021	85%	15%

(Source: NMFS SERO 2023)

Table 3.3.6. Number of trips and landings (in pounds) of spiny lobster reported in St. Croix for 2018-2021, the landings and number of trips for the top co-occurring species reported on the same trips reporting spiny lobster.

Species	2018 Landings	2018 Trips	2019 Landings	2019 Trips	2020 Landings	2020 Trips	2021 Landings	2021 Trips
Lobsters, Spiny	10,970	313	15,721	395	22,312	447	39,422	914
Parrotfish, Stoplight	6,020	159	3,976	108	14,441	212	19,585	473
Triggerfish, Queen	2,977	146	2,221	140	3,409	211	8,153	465
Grouper, Red Hind	893	90	1,575	113	3,529	195	7,253	449
Snapper, Gray	427	48	320	39	2,220	156	3,617	288
Parrotfish, Redfin	1,128	65	934	71	1,424	98	5,929	286
Schoolmaster	1,163	84	1,908	115	2,130	121	4,173	231
Grouper, Coney	666	77	850	63	2,898	177	3,231	219
Grunt, Bluestriped	844	77	698	67	2,738	186	2,895	201
Surgeonfish, Doctorfish	667	59	821	58	2,836	172	2,458	186
Surgeonfish, Blue Tang	194	37	827	63	2,947	179	2,375	175
Angelfish, Gray	516	54	392	46	2,229	151	1,930	156
Conch, Queen	6,466	105	7,950	114	3,893	89	8,413	144
Snapper, Mutton	493	63	442	41	2,713	165	2,066	144
Grunt, White	65	10	931	60	2,298	151	2,347	143
Angelfish, French	594	59	83	22	2,470	156	1,759	142
Blue Runner	455	29	174	10	2,465	138	2,156	129
Squirrelfish	41	5	178	14	1,840	128	1,444	123
Surgeonfish, Ocean	410	29	297	16	2,654	140	1,967	120
Goatfish, Unspecified	509	49	75	16	2,203	140	1,527	118
Angelfish, Queen	70	8	295	18	2,180	129	1,672	107
Grunt, Tomtate	470	28	220	20	2,276	127	1,436	101
Hind, Rock	268	32	348	29	2,080	138	1,171	100

Species	2018 Landings	2018 Trips	2019 Landings	2019 Trips	2020 Landings	2020 Trips	2021 Landings	2021 Trips
Parrotfish, Redtail	1,864	74	3,568	115	1,701	73	1,711	94
Parrotfish, Redband	371	38	655	60	2,020	138	1,632	67
Snapper, Lane	370	28	250	12	1,909	131	1,048	66
Parrotfish, Princess	102	6	331	23	447	32	1,067	65
Parrotfish, Queen	707	42	326	22	363	26	1,163	65
Grunt, Margate	13	2	146	24	214	29	327	46
Lionfish	65	9	37	8	89	14	144	36

(Source: NMFS SERO 2023)

3.3.3 St. Thomas and St. John

Landings of spiny lobster in St. Thomas and St. John are available from self-reported commercial logbooks since 1974, and include information on fishing gear type and location where the catch was landed. In the USVI landings are assumed to be fully reported and correction factors are not used. Commercial fishermen target a variety of species using multiple gear types, with 80.8% using more than one method of fishing (e.g., trap fishing, line fishing, net fishing, or diving) (Kojis et al. 2017). Kojis et al. (2017) found that 44% of the commercial fishermen in St. Thomas and St. John target spiny lobster. In 2021,[7] 29 commercial fishermen in St. Thomas and St. John reported landings of spiny lobster.

In St. Thomas and St. John, fish traps are used to catch spiny lobster and various reef fish (e.g., triggerfish, grouper, angelfish, surgeonfish, grunts, porgies, snappers, and parrotfish), while lobster traps primarily catch spiny lobster. Kojis et al. (2017) found that roughly 40% of commercial fishermen used fish traps and 11-12% of commercial fishermen used plastic or wire lobster traps. Only 32% commercial fishermen fished by diving and most skin and SCUBA divers used snares for catching spiny lobster (Kojis et al. 2017).

Since ACLs were established in 2012, landings of spiny lobster in St. Thomas and St. John have remained fairly stable peaking in 2016, with the majority of the annual landings initially reported from federal waters, then shifting to half from each of state and federal waters (Table 3.3.7). In St. Thomas and St. John, the majority of spiny lobster are harvested using trap gear, with a small percentage harvested using dive gear (Table 3.3.8). Other species commonly caught on commercial fishing trips that target spiny lobster include queen triggerfish, red hind grouper, and gray angelfish, among others (Table 3.3.9).

[7] At the time of amendment preparation, the most recent and complete year of landings available was from 2021.

Table 3.3.7. Number of commercial fishermen in St. Thomas and St. John who reported landings of spiny lobster for 2012-2021, the total landings (in pounds), and the percent reported from state waters (0-3 nautical miles), federal waters (3-200 nautical miles), or unknown location

Year	Number of Fishermen	Spiny Lobster Landings (lbs)	Percent from State Waters	Percent from Federal Waters	Percent from Unknown Area
2012	32	83,157	24%	76%	0%
2013	29	84,513	16%	79%	5%
2014	29	92,261	18%	81%	1%
2015	29	109,455	29%	69%	3%
2016	30	121,695	34%	61%	5%
2017	29	91,911	41%	59%	0%
2018	28	86,708	55%	45%	0%
2019	29	98,608	44%	56%	0%
2020	35	94,328	42%	58%	0%
2021	29	99,174	52%	48%	0%

(Source: NMFS SERO 2023)

Table 3.3.8. Percent of spiny lobster landings in St. Thomas and St. John for 2012-2021 reported by gear type.

Year	Diving	Traps
2012	2%	98%
2013	1%	99%
2014	1%	99%
2015	1%	99%
2016	2%	98%
2017	6%	94%
2018	7%	93%
2019	1%	99%
2020	2%	98%
2021	2%	98%

(Source: NMFS SERO 2023)

Table 3.3.9. Number of trips and landings (in pounds) of spiny lobster reported in St. Thomas and St. John for 2018-2021, the landings and number of trips for the top co-occurring species reported on the same trips reporting spiny lobster.

Species	2018 Landings	2018 Trips	2019 Landings	2019 Trips	2020 Landings	2020 Trips	2021 Landings	2021 Trips
Lobsters, Spiny	86,708	806	98,608	867	94,328	1013	99,174	1035
Triggerfish, Queen	20,587	438	17,985	421	23,975	501	18,981	424
Grouper, Red Hind	13,538	433	14,732	397	17,390	485	12,738	396
Angelfish, Gray	7,543	418	6,659	359	7,432	452	6,342	382

Species	2018 Landings	2018 Trips	2019 Landings	2019 Trips	2020 Landings	2020 Trips	2021 Landings	2021 Trips
Grunt, White	6,248	354	6,748	360	7,715	426	6,341	332
Doctorfish	3,708	359	4,263	342	4,667	408	4,160	331
Cowfish, Scrawled	4,603	385	3,986	350	4,751	399	3,722	320
Snapper, Yellowtail	2,850	359	2,643	322	2,745	378	2,032	303
Squirrelfish	2,837	353	3,031	355	3,719	403	2,946	301
Surgeonfish, Blue Tang	2,484	313	2,465	285	2,672	352	2,242	294
Parrotfish, Stoplight	3,048	309	3,570	293	3,067	351	2,688	290
Grunt, Bluestriped	3,584	320	4,068	312	4,097	369	3,077	285
Grouper, Coney	2,089	323	2,224	290	2,322	364	1,801	276
Angelfish, French	3,411	302	2,844	247	3,211	313	2,718	267
Porgy, Saucereye	3,714	347	3,267	310	3,278	340	2,690	267
Parrotfish, Redtail	2,207	255	2,743	288	2,658	329	1,915	256
Triggerfish, Unspecified	4,721	351	3,560	272	2,724	320	1,654	245
Grunt, Cottonwick	1,743	253	1,361	229	1,513	259	1,415	217
Hogfish	2,180	222	2,292	205	3,113	274	2,256	202
Snapper, Mutton	2,663	183	1,663	145	2,674	199	2,294	164
Crab, Unspecified	1,417	136	896	127	951	134	1,293	163
Angelfish, Queen	1,330	178	1,734	209	1,600	219	1,179	156
Grunt, Margate	2,279	189	2,278	156	2,086	154	1,511	115
Lionfish	1,940	128	2,076	123	1,390	114	1,341	112
Grouper, Yellowfin	1,270	69	899	49	874	58	1,474	90
Snapper, Lane	2,036	122	619	71	844	98	961	88
Grouper, Red	1,075	53	983	46	1,096	57	1,864	70
Snapper, Blackfin	1,828	50	2,527	82	1,677	91	898	63
Grunt, Tomtate	110	20	160	24	230	28	370	53
Porgy, Jolthead	592	75	288	34	361	40	362	42

(Source: NMFS SERO 2023)

3.4 Description of the Economic Environment (in progress)

The Island-based FMPs (CFMC 2019a-c) include a description of the economic environment for species managed in federal waters, including spiny lobster.

3.4.1 Puerto Rico

3.4.1.1 General Economic Conditions
3.4.1.2 Economic Description of the Fishery

3.4.2 St. Croix

3.4.2.1 General Economic Conditions
3.4.2.2 Economic Description of the Fishery

3.4.3 St. Thomas and St. John

3.4.3.1 General Economic Conditions
3.4.3.2 Economic Description of the Fishery

3.5 Description of the Social Environment (in progress)

The social environments of Puerto Rico, St. Croix, and St. Thomas and St. John are described in detail in the Island-based FMPs (CFMC 2019a-c).

3.5.1 Puerto Rico

3.5.2 St. Croix

3.5.3 St. Thomas and St. John

3.5.4 Environmental Justice (EJ) Considerations

3.5.4.1 Puerto Rico
3.5.4.2 St. Croix
3.5.4.3 St. Thomas and St. John

3.6 Description of the Administrative Environment

The Island-based FMPs (CFMC 2019a-c) include a description of the administrative environment, which is incorporated herein by reference and summarized below

3.6.1 Federal Fishery Management

Federal fishery management is conducted under the authority of the Magnuson-Stevens Act (16 U.S.C. 1801 et seq.), originally enacted in 1976 as the Fishery Conservation and Management Act. The Magnuson-Stevens Act claims sovereign rights and exclusive fishery management authority over most fishery resources within the U.S. EEZ, an area extending from the seaward boundary of each coastal state to 200 nautical miles from shore, as well as authority over U.S. anadromous species and continental shelf resources that occur beyond the EEZ.

Responsibility for federal fishery management decision-making is divided between the U.S. Secretary of Commerce (Secretary) and eight regional Fishery Management Councils that represent the expertise and interests of constituent states. Regional Fishery Management Councils are responsible for preparing, monitoring, and revising management plans for fisheries needing management within their jurisdiction. The Secretary is responsible for promulgating regulations to implement proposed plans and amendments after ensuring that management measures are consistent with the Magnuson-Stevens Act, and with other applicable laws summarized in Appendix A. In most cases, the Secretary has delegated this authority to NMFS.

The Caribbean Fisheries Management Council is responsible for the conservation and management of fishery stocks within federal waters surrounding Puerto Rico, St. Croix (USVI), and St. Thomas and St. John (USVI). These waters extend to 200 nautical miles (nmi) offshore from the seaward boundaries of Puerto Rico (9 nmi from shore) and the USVI (3 nmi from shore). The Council consists of seven voting members: four members appointed by the Secretary, at least one of whom is appointed from each of the Commonwealth of Puerto Rico and the USVI; the principal officials with marine fishery management responsibility and expertise for the Commonwealth of Puerto Rico and the USVI, who are designated as such by their Governors; and the Regional Administrator of NMFS for the Southeast Region.

The Council's Scientific and Statistical Committee reviews the data and science used in assessments, FMPs, and amendments. Regulations implementing the FMPs are enforced through actions of the NOAA's Office for Law Enforcement, the U.S. Coast Guard, and various state authorities.

The public is involved in the fishery management process through participation at public meetings, on advisory panels and through council meetings that, with few exceptions for discussing personnel matters, are open to the public. The regulatory process is in accordance

with the Administrative Procedure Act, in the form of "notice and comment" rulemaking, which provides extensive opportunity for public scrutiny and comment, and requires consideration of and response to those comments.

3.6.2 Puerto Rico and U.S. Virgin Islands Fisheries Management

The purpose of state representation at the Council level is to ensure state participation in federal fishery management decision-making and to promote the development of compatible regulations in state and federal waters. The state governments have the authority to manage their respective fisheries including enforcement of fishing regulations, and exercises legislative and regulatory authority over their states' natural resources through discrete administrative units. Although each agency listed below is the primary administrative body with respect to the state's natural resources, all states cooperate with numerous state and federal regulatory agencies when managing marine resources.

3.6.2.1 Commonwealth of Puerto Rico

The Commonwealth of Puerto Rico has jurisdiction over fisheries in state waters extending up to 9 nmi from shore. Those fisheries are managed by Puerto Rico's Department of Natural and Environmental Resources (DNER) per Puerto Rico Law 278 of November 29, 1998 as amended, known as Puerto Rico's Fisheries Law, which establishes public policy regarding fisheries. Section 19 of Article VI of the Constitution of the Commonwealth of Puerto Rico provides the foundation for the fishery rules and regulations. Puerto Rico Fishing Regulations 6902, implemented in 2004, included regulations for the management of marine managed areas for fisheries purposes and imposed regulations for the protection of several species such as the Nassau grouper and the red hind. Puerto Rico Regulations 7949, implemented in 2010, is the current regulatory mechanism for management of fishery resources in Puerto Rico state waters as well as for those resources and areas with shared jurisdiction with the U.S. government through the Council.

3.6.2.2 U.S. Virgin Islands

The USVI has jurisdiction over fisheries in state waters extending up to 3 nmi from shore. The USVI's Department of Planning and Natural Resources (DPNR) is responsible for the conservation and management of USVI fisheries and enforcement of boating and fishing regulations. The DPNR's Division of Fish and Wildlife (DFW) is responsible for data collection pertaining to the fisheries of the USVI. The DFW monitors commercial and recreational fisheries and provides recommendations to the DPNR Commissioner on matters relating to fisheries management. Rules and regulations for the USVI fisheries are codified in the Virgin Islands Code, primarily within Title 48 Chapter 12.

More information about these agencies can be found from the following web pages:

Puerto Rico DNER: https://www.drna.pr.gov/
USVI DPNR: https://dpp.vi.gov/agency/department-planning-and-natural-resources

Chapter 4. Environmental Consequences (in progress)

4.1 Action 1: Update the Puerto Rico Spiny Lobster Overfishing Limit (OFL), Acceptable Biological Catch (ABC), and Annual Catch Limit (ACL)

Summary of Management Alternatives

Alternative 1. No Action. Retain the overfishing limit (OFL), acceptable biological catch (ABC), and annual catch limit (ACL) (which equals optimum yield) for spiny lobster as specified under Framework Amendment 1 to the Puerto Rico Fishery Management Plan for 2024 and subsequent fishing years, until modified.

Alternative 2. Update the OFL and ABC for spiny lobster for 2024 and subsequent fishing years based on the constant-catch approach selected by the Caribbean Fishery Management Council (Council) and set the ACL equal to the ABC, until modified.

Alternative 3. Update the OFL and ABC for spiny lobster for 2024 and subsequent fishing years based on the constant-catch approach selected by the Council and set the ACL equal to 0.95 of the ABC, until modified.

Alternative 4. Update the OFL and ABC for spiny lobster for 2024 and subsequent fishing years based on the constant-catch approach selected by the Council and set the ACL equal to 0.90 of the ABC, until modified.

4.2 Action 2: Update the St. Croix Spiny Lobster OFL, ABC, and ACL

Summary of Management Alternatives

Alternative 1. No Action. Retain the overfishing limit (OFL), acceptable biological catch (ABC), and annual catch limit (ACL) (which equals optimum yield) for spiny lobster as specified under Framework Amendment 1 to the St. Croix Fishery Management Plan for 2024 and subsequent fishing years, until modified.

Alternative 2. Update the OFL and ABC for spiny lobster for 2024 and subsequent fishing years based on the constant-catch approach selected by the Caribbean Fishery Management Council (Council) and set the ACL equal to the ABC, until modified.

Alternative 3. Update the OFL and ABC for spiny lobster for 2024 and subsequent fishing years based on the constant-catch approach selected by the Council and set the ACL equal to 0.95 of the ABC, until modified.

Alternative 4. Update the OFL and ABC for spiny lobster for2024 and subsequent fishing years based on the constant-catch approach selected by the Council and set the ACL equal to 0.90 of the ABC, until modified.

4.2.1 Effects on the Physical Environment

4.2.2 Effects on the Biological/Ecological Environment

4.2.3 Effects on the Economic Environment

4.2.4 Effects on the Social Environment

4.2.5 Effects on the Administrative Environment

4.3 Action 3: Update the St. Thomas and St. John Spiny Lobster OFL, ABC, and ACL

Summary of Management Alternatives

Alternative 1. No Action. Retain the overfishing limit (OFL), acceptable biological catch (ABC), and annual catch limit (ACL) (which equals optimum yield) for spiny lobster as specified under Framework Amendment 1 to the St. Thomas and St. John Fishery Management Plan for 2024 and subsequent fishing years, until modified.

Alternative 2. Update the OFL and ABC for spiny lobster for 2024 and subsequent fishing years based on the constant-catch approach selected by the Caribbean Fishery Management Council (Council) and set the ACL equal to the ABC, until modified.

Alternative 3. Update the OFL and ABC for spiny lobster for 2024 and subsequent fishing years based on the constant-catch approach selected by the Council and set the ACL equal to 0.95 of the ABC, until modified.

Alternative 4. Update the OFL and ABC for spiny lobster for 2024 and subsequent fishing years based on the constant-catch approach selected by the Council and set the ACL equal to 0.90 of the ABC, until modified.

4.3.1 Effects on the Physical Environment

4.3.2 Effects on the Biological/Ecological Environment

4.3.3 Effects on the Economic Environment

4.3.4 Effects on the Social Environment

4.3.5 Effects on the Administrative Environment

4.4 Cumulative Effects Analysis

Chapter 5. Regulatory Impact Review (in progress)

5.1 Introduction

The National Marine Fisheries Service (NMFS) requires a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest. The RIR does three things: (1) it provides a comprehensive review of the level and incidence of impacts associated with a proposed or final regulatory action; (2) it provides a review of the problems and policy objectives promoting the regulatory proposals and an evaluation of the major alternatives that could be used to solve the problem; and (3) it ensures that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost-effective way. The RIR also serves as the basis for determining whether the regulations are a "significant regulatory action" under the criteria provided in Executive Order (E.O.) 12866. This RIR analyzes the impacts this action would be expected to have on the spiny lobster fishery of the U.S. Caribbean.

5.2 Problems and Objectives

5.3. Description of the Fishery

5.4 Impacts of Management Measures

5.4.1 Action 1: Update the Puerto Rico Spiny Lobster OFL, ABC, and ACL

5.4.2 Action 2: Update the St. Croix Spiny Lobster OFL, ABC, and ACL

5.4.3 Action 3: Update the St. Thomas and St. John Spiny Lobster OFL, ABC, and ACL

5.5 Public and Private Costs of Regulations

5.6 Determination of Significant Regulatory Action

Chapter 6. Regulatory Flexibility Act Analysis (in progress)

6.1 Introduction

The purpose of the Regulatory Flexibility Act (RFA) is to establish a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes to fit regulatory and informational requirements to the scale of businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure such proposals are given serious consideration. The RFA does not contain any decision criteria; instead the purpose of the RFA is to inform the agency, as well as the public, of the expected economic effects of various alternatives contained in the regulatory action and to ensure the agency considers alternatives that minimize the expected economic effects on small entities while meeting the goals and objectives of the applicable statutes (e.g., the Magnuson Stevens Fishery Conservation and Management Act [Magnuson-Stevens Act]).

With certain exceptions, the RFA requires agencies to conduct an initial regulatory flexibility analysis (IRFA) for each proposed rule. The IRFA is designed to assess the effects various regulatory alternatives would have on small entities, including small businesses, and to determine ways to minimize those effects. An IRFA is primarily conducted to determine whether the proposed regulatory action would have a significant economic effect on a substantial number of small entities. In addition to analyses conducted for the Regulatory Impact Review (RIR), the IRFA provides: (1) a description of the reasons why the action is being considered by the agency; (2) a succinct statement of the objectives of, and legal basis for, the proposed regulatory action; (3) a description and, where feasible, an estimate of the number of small entities to which the proposed regulatory action will apply; (4) a description of the projected reporting, record-keeping, and other compliance requirements of the proposed regulatory action, including an estimate of the classes of small entities that will be subject to the requirements of the report or record; (5) an identification, to the extent practicable, of all relevant federal rules, which may duplicate, overlap, or conflict with the proposed rule; and (6) a description of any significant alternatives to the proposed regulatory action which accomplish the stated objectives of applicable statutes and would minimize any significant economic effects of the proposed regulatory action on small entities.

6.2 Statement of the need for, objective of, and legal basis for the proposed rule

6.3 Description and estimate of the number of small entities to which the proposed action would apply

6.4 Description of the projected reporting, record-keeping and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for the preparation of the report or records

6.5 Identification of all relevant federal rules, which may duplicate, overlap or conflict with the proposed rule

6.6 Significance of economic effects on small entities

Substantial number criterion

Significant economic effects

Disproportionality: Do the regulations place a substantial number of small entities at a significant competitive disadvantage to large entities?

Profitability: Do the regulations significantly reduce profits for a substantial number of small entities?

Summary

6.7 Description of significant alternatives to the proposed action and discussion of how the alternatives attempt to minimize economic impacts on small entities

Chapter 7. List of Preparers

List of personnel that assisted with development of the Generic Framework Amendment 2.

Table 7.1. List of interdisciplinary plan team members and other contributors.

Name	Agency	Title
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CFMC = Caribbean Fishery Management Council, NMFS = National Marine Fisheries Service,
SFD = Sustainable Fisheries Division, PRD = Protected Resources Division,
SEFSC = Southeast Fisheries Science Center, SERO = Southeast Regional Office,
GC = General Counsel, OLE= Office of Law Enforcement

Chapter 8. List of Agencies, Organizations, and Persons Consulted

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Appendix A. Other Applicable Law

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (16 U.S.C. 1801 et seq.) provides the authority for fishery management in federal waters of the exclusive economic zone. However, fishery management decision-making is also affected by a number of other federal statutes designed to protect the biological and human components of U.S. fisheries, as well as the ecosystems that support those fisheries. Major laws affecting federal fishery management decision-making are summarized below.

Administrative Procedure Act (APA)

All federal rulemaking is governed under the provisions of the APA (5 U.S.C. Subchapter II), which establishes a "notice and comment" procedure to enable public participation in the rulemaking process. Under the APA, the National Marine Fisheries Service (NMFS) is required to publish notification of proposed rules in the Federal Register and to solicit, consider and respond to public comment on those rules before they are finalized. The APA also establishes a 30-day wait period from the time a final rule is published until it takes effect, which can be waived in certain instances.

The proposed rule associated with this Framework Amendment will include a request for public comment, and if approved, upon publication of the final rule, there will most likely be a 30-day wait period before the regulations are effective in compliance with the APA.

Coastal Zone Management Act (CZMA)

The CZMA of 1972 (16 U.S.C. 1451 et seq.) encourages state and federal cooperation in the development of plans that manage the use of natural coastal habitats, as well as the fish and wildlife those habitats support. When proposing an action determined to directly affect coastal resources managed under an approved coastal zone management program, NMFS is required to provide the relevant State agency with a determination that the proposed action is consistent with the enforceable policies of the approved program to the maximum extent practicable at least 90 days before taking final action. NMFS may presume State agency concurrence if the State agency's response is not received within 60 days from receipt of the agency's consistency determination and supporting information as required by 15 C.F.R. §930.41(a).

Upon submission to the Secretary of Commerce, NMFS will determine if this Framework Amendment is consistent with the Coastal Zone Management programs of Puerto Rico and the U.S. Virgin Islands (USVI), to the maximum extent possible. Their determination will then be submitted to the responsible agencies under Section 307 of the CZMA administering approved Coastal Zone Management programs.

Information Quality Act (IQA)

The IQA (Public Law 106-443) effective October 1, 2002, requires the government to set standards for the quality of scientific information and statistics used and disseminated by federal agencies. Information includes any communication or representation of knowledge such as facts or data, in any medium or form, including textual, numerical, cartographic, narrative, or audiovisual forms (includes web dissemination, but not hyperlinks to information that others disseminate; does not include clearly stated opinions).

Specifically, the IQA directs the Office of Management and Budget (OMB) to issue government wide guidelines that "provide policy and procedural guidance to federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by federal agencies." Such guidelines have been issued, directing all federal agencies to create and disseminate agency-specific standards to: (1) ensure information quality and develop a pre-dissemination review process; (2) establish administrative mechanisms allowing affected persons to seek and obtain correction of information; and (3) report periodically to OMB on the number and nature of complaints received.

Scientific information and data are key components of fishery management plans (FMP) and amendments and the use of best available information is the second national standard under the Magnuson-Stevens Act. To be consistent with the IQA, FMPs and amendments must be based on the best information available. They should also properly reference all supporting materials and data, and be reviewed by technically competent individuals. With respect to original data generated for FMPs and amendments, it is important to ensure that the data are collected according to documented procedures or in a manner that reflects standard practices accepted by the relevant scientific and technical communities. Data will also undergo quality control prior to being used by the agency and a pre-dissemination review.

Endangered Species Act (ESA)

The ESA of 1973 (16 U.S.C. Section 1531 et seq.) requires that federal agencies must ensure actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or destroy or adversely modify the habitat designated as critical habitat (habitat essential to the species' conservation). The ESA requires NMFS to consult with the appropriate administrative agency (itself for most marine species, and the U.S. Fish and Wildlife Service for all remaining species) when proposing an action that may affect threatened or endangered species or critical habitat. Consultations are necessary to determine the potential impacts of the proposed action. They conclude informally when proposed actions may affect but are "not likely to adversely affect" threatened or endangered species or designated critical habitat. Formal consultations, resulting in a biological opinion, are required when proposed actions may affect and are "likely to adversely affect" threatened or endangered species or designated critical habitat.

NMFS completed a biological opinion on September 21, 2020, evaluating the impacts of the Puerto Rico, St. Croix, and St. Thomas and St. John fisheries on ESA-listed species. Refer to Section 3.2.3 for additional information.

Marine Mammal Protection Act (MMPA)

The MMPA established a moratorium, with certain exceptions, on the taking of marine mammals in U.S. waters and by U.S. citizens on the high seas. It also prohibits the importing of marine mammals and marine mammal products into the United States. Under the MMPA, the Secretary of Commerce (authority delegated to NMFS) is responsible for the conservation and management of cetaceans and pinnipeds (other than walruses). The Secretary of the Interior is responsible for walruses, sea otters, polar bears, manatees, and dugongs.

In 1994, Congress amended the MMPA, to govern the taking of marine mammals incidental to commercial fishing operations. The MMPA requires a commercial fishery to be placed in one of three categories, based on the relative frequency of incidental serious injuries and mortalities of marine mammals. Category I designates fisheries with frequent serious injuries and mortalities incidental to commercial fishing; Category II designates fisheries with occasional serious injuries and mortalities; Category III designates fisheries with a remote likelihood or no known serious injuries or mortalities. To legally fish in a Category I and/or II fishery, a fisherman must obtain a marine mammal authorization certificate by registering with the Marine Mammal Authorization Program (50 CFR 229.4) and accommodate an observer if requested (50 CFR 229.7(c)) and they must comply with any applicable take reduction plans.

NMFS has determined that fishing activities conducted under the Puerto Rico, St. Croix, and St. Thomas and St. John FMPs will have no adverse impact on marine mammals. In the 2023 List of Fisheries published by NMFS, all gear types used to harvest spiny lobster (e.g., trap/pot, dive, hand/mechanical collection) in the Puerto Rico, St. Croix, and St. Thomas and St. John fisheries are considered Category III (87 FR 55348). This classification indicates the annual mortality and serious injury of a marine mammal stock resulting from any fishery is less than or equal to one percent of the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock, while allowing that stock to reach or maintain its optimum sustainable population. This Framework Amendment does not change the list of authorized gear types in these fisheries and as such would not alter this determination.

Paperwork Reduction Act (PRA)

The PRA of 1995 (44 U.S.C. 3501 et seq.) regulates the collection of public information by federal agencies to ensure that the public is not overburdened with information requests, that the federal government's information collection procedures are efficient, and that federal agencies adhere to appropriate rules governing the confidentiality of such information. The PRA requires

NMFS to obtain approval from the Office of Management and Budget before requesting most types of fishery information from the public. This action does not contain a collection-of-information requirement for purposes of the PRA.

Small Business Act

The Small Business Act of 1953, as amended, Section 8(a), 15 U.S.C. 634(b)(6), 636(j), 637(a) and (d); Public Laws 95-507 and 99-661, Section 1207; and Public Laws 100-656 and 101-37 are administered by the Small Business Administration. The objectives of the act are to foster business ownership by individuals who are both socially and economically disadvantaged; and to promote the competitive viability of such firms by providing business development assistance including, but not limited to, management and technical assistance, access to capital and other forms of financial assistance, business training and counseling, and access to sole source and limited competition federal contract opportunities, to help the firms to achieve competitive viability. Because most businesses associated with fishing are considered small businesses, NMFS, in implementing regulations, must assess how those regulations will affect small businesses.

Essential Fish Habitat (EFH)

The Magnuson-Stevens Act includes EFH requirements, and as such, each existing and new FMPs must describe and identify EFH for the fishery, minimize to the extent practicable adverse effects on that EFH caused by fishing, and identify other actions to encourage the conservation and enhancement of that EFH.

The areas affected by the proposed action have been identified as EFH for managed species, as described under the Puerto Rico, St. Croix, and St. Thomas and St. John FMPs. As specified in the Magnuson-Stevens Act, EFH consultation is required for federal actions, which may adversely affect EFH. Any required consultation requirements will be completed prior to implementation of any new management measures.

National Environmental Policy Act (NEPA)

The NEPA of 1969 (42 U.S.C. 4321 et seq.) requires federal agencies to consider the environmental and social consequences of proposed major actions, as well as alternatives to those actions, and to provide this information for public consideration and comment before selecting a final course of action. This document contains an Environmental Assessment to satisfy the NEPA requirements.

Executive Orders

E.O. 12630: Takings

The Executive Order on Government Actions and Interference with Constitutionally Protected Property Rights, which became effective March 18, 1988, requires that each federal agency prepare a Takings Implication Assessment for any of its administrative, regulatory, and legislative policies and actions that affect, or may affect, the use of any real or personal property. Clearance of a regulatory action must include a takings statement and, if appropriate, a Takings Implication Assessment. The NOAA Office of General Counsel will determine whether a Takings Implication Assessment is necessary for this amendment.

E.O. 12866: Regulatory Planning and Review

Executive Order 12866, signed in 1993, requires federal agencies to assess the costs and benefits of their proposed regulations, including distributional impacts, and to select alternatives that maximize net benefits to society. To comply with E.O. 12866, NMFS prepares a Regulatory Impact Review (RIR) for all fishery regulatory actions that either implement a new fishery management plan or significantly amend an existing plan. RIRs provide a comprehensive analysis of the costs and benefits to society associated with proposed regulatory actions, the problems and policy objectives prompting the regulatory proposals, and the major alternatives that could be used to solve the problems. The reviews also serve as the basis for the agency's determinations as to whether proposed regulations are a "significant regulatory action" under the criteria provided in E.O. 12866 and whether proposed regulations will have a significant economic impact on a substantial number of small entities in compliance with the Regulatory Flexibility Act.

NMFS has preliminarily determined that the proposed action would not have a significant economic impact on a substantial number of small entities.

E.O. 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations

This Executive Order mandates that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions. Federal agency responsibilities under this Executive Order include conducting their programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons from participation in, denying persons the benefit of, or subjecting persons to discrimination under, such, programs policies, and activities, because of their race, color, or national origin. Furthermore, each federal agency responsibility set forth under this Executive

Order shall apply equally to Native American programs. Environmental justice considerations are discussed in Chapter 3.

The action in this Framework Amendment is not expected to negatively impact minority or low-income populations.

E.O. 12962: Recreational Fisheries

This Executive Order requires federal agencies, in cooperation with states and tribes, to improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities through a variety of methods including, but not limited to, developing joint partnerships; promoting the restoration of recreational fishing areas that are limited by water quality and habitat degradation; fostering sound aquatic conservation and restoration endeavors; and evaluating the effects of federally-funded, permitted, or authorized actions on aquatic systems and recreational fisheries, and documenting those effects. Additionally, it establishes a seven-member National Recreational Fisheries Coordination Council responsible for, among other things, ensuring that social and economic values of healthy aquatic systems that support recreational fisheries are considered by federal agencies in the course of their actions, sharing the latest resource information and management technologies, and reducing duplicative and cost-inefficient programs among federal agencies involved in conserving or managing recreational fisheries. The Council also is responsible for developing, in cooperation with federal agencies, states and tribes, a Recreational Fishery Resource Conservation Plan, to include a five-year agenda. Finally, the Order requires NMFS and the U.S. Fish and Wildlife Service to develop a joint agency policy for administering the ESA.

E.O. 13089: Coral Reef Protection

The Executive Order on Coral Reef Protection (June 11, 1998) requires federal agencies whose actions may affect U.S. coral reef ecosystems to identify those actions, utilize their programs and authorities to protect and enhance the conditions of such ecosystems; and, to the extent permitted by law, ensure that actions they authorize, fund or carry out not degrade the condition of that ecosystem. By definition, a U.S. coral reef ecosystem means those species, habitats, and other national resources associated with coral reefs in all maritime areas and zones subject to the jurisdiction or control of the United States (e.g., federal, state, territorial, or commonwealth waters).

The Comprehensive Amendment to the Fishery Management Plans (FMP) of the U.S. Caribbean (CFMC 2005) designated habitats of particular concern in Puerto Rico and St. Croix for managed corals and established management measures to minimize, to the extent practicable, adverse effects caused by fishing on those habitats. There are no implications to coral reefs by the actions proposed in this amendment.

E.O. 13132: Federalism

The Executive Order on Federalism requires agencies, when formulating and implementing policies, to be guided by the fundamental Federalism principles. The Order serves to guarantee the division of governmental responsibilities between the national government and the states that was intended by the framers of the Constitution. Federalism is rooted in the belief that issues not national in scope or significance are most appropriately addressed by the level of government closest to the people. This Order is relevant to FMPs and amendments given the overlapping authorities of NMFS, the states, and local authorities in managing coastal resources, including fisheries, and the need for a clear definition of responsibilities. It is important to recognize those components of the ecosystem over which fishery managers have no direct control and to develop strategies to address them in conjunction with appropriate international, state, tribal, and local entities.

No federalism issues have been identified relative to the action proposed in this Framework Amendment.

E.O. 13112: Invasive Species

This Executive Order requires agencies to use their authority to prevent introduction of invasive species, respond to and control invasions in a cost effective and environmentally sound manner, and to provide for restoration of native species and habitat conditions in ecosystems that have been invaded. Further, agencies shall not authorize, fund, or carry out actions that are likely to cause or promote the introduction or spread of invasive species in the U.S. or elsewhere unless a determination is made that the benefits of such actions clearly outweigh the potential harm; and that all feasible and prudent measures to minimize the risk of harm will be taken in conjunction with the actions.

This action will not introduce, authorize, fund, or carry out actions that are likely to cause or promote the introduction or spread of invasive species in the U.S. or elsewhere.

E.O. 13158: Marine Protected Areas (MPA)

Executive Order 13158 (May 26, 2000) requires federal agencies to consider whether their proposed action(s) will affect any area of the marine environment that has been reserved by federal, state, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural or cultural resource within the protected area.

This action will not affect any MPAs in federal waters off Puerto Rico, St. Croix, or St. Thomas and St. John.