

**Coastal Zone Management Act Consistency Determination
for Tinian Harbor Repairs**

September 2020

Submitted to:

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Table of Contents

1	Introduction	1
1.1	Description of the Proposed Action Area	1
1.2	Description of the Proposed Action	3
1.2.1	Repair of the RO-RO Ramp	3
1.2.2	Anode Installation on the North Quay Wall	4
1.2.3	Topside Repairs, Installation, and Construction in Berths 1 and 2.....	4
1.3	Protective Measures and Best Management Practices	5
2	Enforceable Policies of the CNMI Coastal Management Program.....	7
3	Northern Mariana Islands Administrative Code, Chapter 15-10, Part 300	14
3.1	Standards for Coastal Resources Management (CRM) Permit Issuance: General Criteria 14	
3.2	Northern Mariana Islands Administrative Code, Chapter 15-10, Part 300 – Specific Criteria: Areas of Particular Concern	17
3.2.1	Lagoon and Reef APC (§15-10-315) and Coral Reefs APC (§15-10-325)	17
3.2.2	Shoreline APC (§15-10-335).....	19
3.2.3	Port and Industrial APC (§15-10-340)	19
3.2.4	Coastal Hazards APC (§15-10-345)	20
4	Northern Mariana Islands Administrative Code, Chapter 15-10, Part 500 – Standards for Determining Major Siting: Specific Criteria	22
5	Public Law 3-47	24
5.1	Water Resources	24
5.2	Biological Resources.....	25
5.2.1	Coral	25
5.2.2	Essential Fish Habitat	25
5.2.3	ESA-Listed Species.....	27
5.3	Socioeconomic Resources	27
5.4	Cultural Resources.....	28
6	Coastal Zone Consistency Concluding Statement	30
7	References	31

List of Figures

Figure 1. Proposed Action Area within Tinian Harbor	2
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List of Tables

Table 1. CNMI's Enforceable Policies and Applicability to the Proposed Action	7
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List of Acronyms and Abbreviations

Acronym	Definition
APC	Area of Particular Concern
BMP	Best Management Practices
BECQ	Bureau of Environmental and Coastal Quality
CATEX	Categorical Exclusion
CD	Consistency Determination
CFR	Code of Federal Regulations
cm	centimeters
CNMI	Commonwealth of the Northern Mariana Islands
CRM	Coastal Resources Management
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DA	Department of the Army
DCRM	Division of Coastal Resources Management
EFH	Essential Fish Habitat
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
ft	feet
ft ²	square feet
ft ³	cubic feet
in	inches
km	kilometers
km ²	square kilometers
m	meters
m ²	square meters
m ³	cubic meters
mi	miles
mi ²	square miles
N. Mar. I. Code	Northern Mariana Islands Code
NMFS	National Marine Fisheries Service
NRHP	National Register of Historic Places
NWP	Nationwide Permit
PCN	Pre-Construction Notification
RO-RO	Roll-On-Roll-Off
SPiRe®	Sheet Pile Repair
U.S.	United States
USACE	United States Army Corps of Engineers
WQC	Water Quality Certification

1 INTRODUCTION

Joint Region Marianas (JRM), United States Navy, proposes to make various repairs to port facilities in Tinian Harbor, specifically, repair of the Roll-On-Roll-Off (RO-RO) ramp, north quay wall, and berths 1 and 2. This document provides the Commonwealth of the Northern Mariana Islands (CNMI) Coastal Management Program with the Department of the Navy's (Navy's) Consistency Determination under Coastal Zone Management Act (CZMA) §307(c)(1) [or (2)] and 15 Code of Federal Regulations (CFR) Part 930, Subpart C, for Tinian Harbor repairs. The information in this Consistency Determination (CD) is provided pursuant to 15 CFR §930.39. This activity includes repairs of Tinian Harbor as detailed in Section 1.2. The Navy has determined that Tinian Harbor repairs have the potential to affect the land or water uses or natural resources of the CNMI as described in this CD.

The CZMA's consistency provision requires federal actions that have reasonably foreseeable effects on any land or water use or natural resource of the coastal zone (also referred to as coastal uses or resources, or coastal effects) to be consistent with the enforceable policies of a coastal state's federally approved coastal management plan. Tinian Harbor is entirely within the coastal zone of the CNMI; therefore, the Tinian Harbor repairs must be consistent or consistent to the maximum extent practical with the enforceable policies of the CNMI coastal management program.

Tinian Harbor was constructed by the U.S. military in the mid-1940's and is comprised of a breakwater, a main quay wharf (i.e., north quay wall), two finger piers, a connecting pier, and a RO-RO ramp, all which have received little to no maintenance since their original construction. Proposed repairs to the RO-RO ramp, north quay wall, and berths 1 and 2, all owned by the CNMI, are currently scheduled to occur between fall 2020 and summer 2021 in support of Joint Military Exercises in the CNMI. However, rescheduling due to COVID 19 or at the discretion of the U.S. Navy could result in this activity occurring as part of a future military training or exercise event. The purpose of the Proposed Action is to create a suitable port facility to enhance training exercises in Tinian that allow for large-scale surface deployment needed to conduct joint/combined operations. Repairs would restore harbor capabilities that have degraded due to age and lack of maintenance and ensure the port remains operational for future Navy exercises and use, while consistent with the Tinian Harbor master plan (Moffatt & Nichol 2018). Viable port and harbor repairs are mission essential to offload personnel, equipment, and supplies in support of Joint Military Exercises, as well as improve accessibility in the event of need for humanitarian aid or disaster response.

1.1 Description of the Proposed Action Area

The Proposed Action would take place within Tinian Harbor located on the southwest coast of Tinian (Figure 1). Tinian, the second largest island in the CNMI, is approximately 39 square miles (mi²; 100 square kilometers [km²]) in size and is located 120 miles (mi; 193 kilometers [km]) north-northeast of Guam in the western Pacific Ocean.

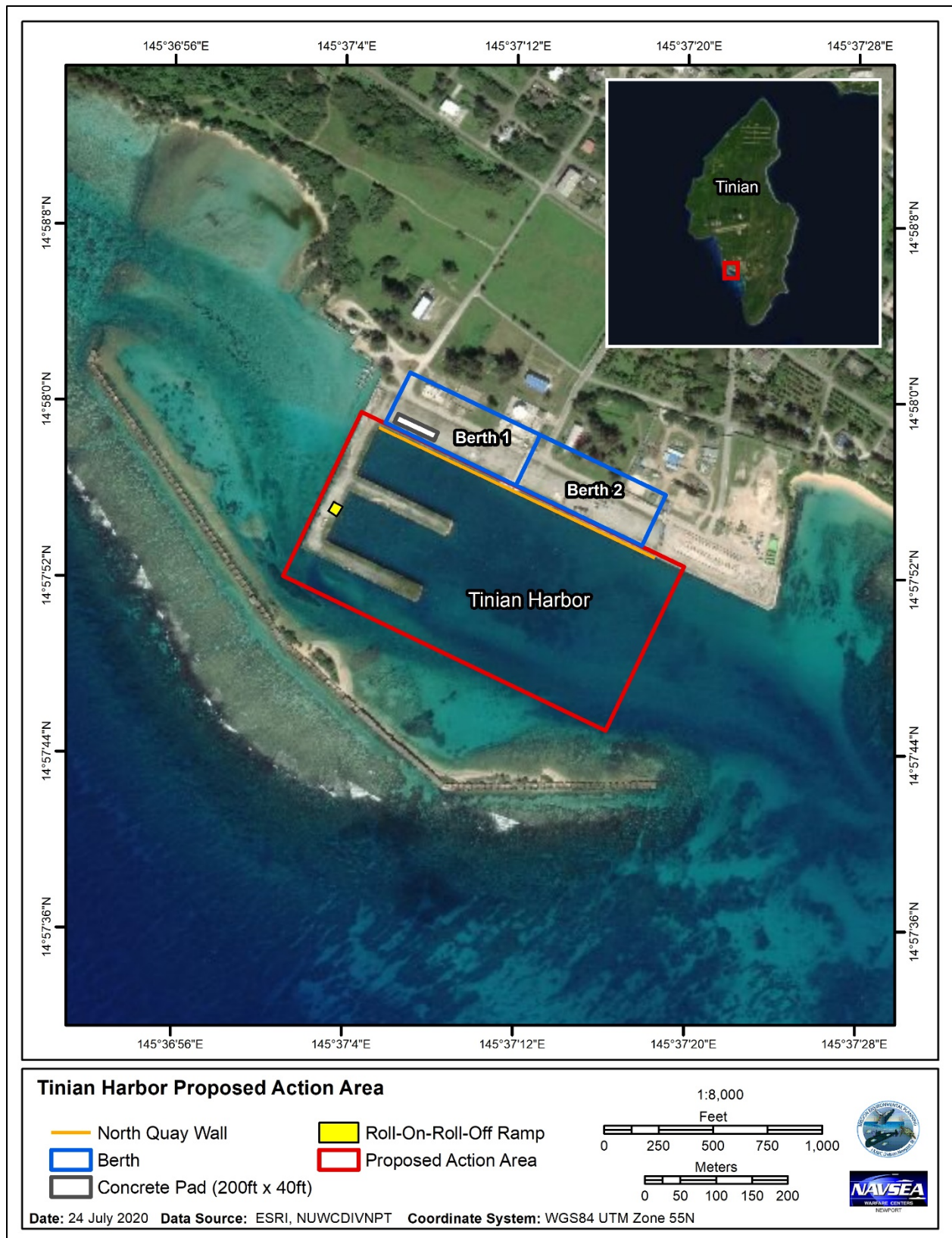


Figure 1. Proposed Action Area within Tinian Harbor

1.2 Description of the Proposed Action

The Proposed Action is to repair the deteriorated RO-RO ramp, topside concrete spalling, and north quay wall. Along the north quay wall, berths 1 and 2 require repairs to the existing pile caps, as well as replacement of new pile cap fenders and mooring bollards, and addition of a concrete pad on the existing pier. These repairs are needed to re-establish operational efficiency of Tinian Harbor and pier infrastructure. Specifically, Tinian Harbor repairs would include:

- RO-RO ramp – repair of ramp and repairs to the steel sheet piles retaining the ramp on the connecting pier
- North quay wall – installation of zinc anodes to provide cathodic protection
- Berths 1 and 2 – repair of concrete pile cap and replacement of pile cap fenders and mooring bollards
- Berth 1 – addition of a concrete pad to connect top pile cap to existing concrete pavement on the existing pier to stabilize the area

Topside repairs would occur in fall 2020 and in-water repairs would occur in summer 2021. The entire Proposed Action would be expected to be completed in approximately 6 months. All waterfront facilities in Tinian Harbor, to include quay walls, piers, and breakwaters are constructed of various combinations of reinforced concrete, sheet pile walls, and stone/earth backfill. Some existing components of the berths on the north quay wall would be demolished, including six bollards in berths 1 and 2 and an existing ramp, concrete pad, electric box, and fencing in berth 1. Demolition of these components would involve the use of a jackhammer and a saw for breaking up concrete, as well as some heavy equipment for removal. No components of the RO-RO ramp would be removed or demolished and no components of the piers, berths, or quay wall would be removed or demolished without being replaced in-kind.

1.2.1 Repair of the RO-RO Ramp

As part of the Proposed Action, topside structural and cosmetic repairs to the concrete spalling on either side of the RO-RO ramp on the connecting pier would be completed. The RO-RO ramp is a 30 by 30 foot (ft; 9 by 9 meter [m]) structure which requires only minor repairs to the topside concrete surface of the ramp; however, significant repairs to the steel sheet piles retaining the ramp would also occur as part of the Proposed Action. Sheet pile reinforcement would be required in order for the ramp to continue serving as a landing ramp and berthing space in the future.

Overall, repair of the ramp and repairs to the steel sheet piles retaining the ramp on the connecting pier would take approximately 7–10 days. Concrete repairs on the RO-RO ramp would consist of replacing concrete spalls on the ramp, as well as two small mooring bollards on either side of the ramp. Topside repairs would require the use of various construction material delivery vehicles (i.e., dump trucks). No heavy equipment would be required to support the topside repairs.

The repair of sheet piles along the 30 ft (9 m) section of the RO-RO ramp would be accomplished using a system commercially known as a Sheet Pile Repair (SPiRe®) system, which would be custom ordered and constructed by QuakeWrap™. SPiRe® panels would be constructed with lightweight honeycomb or 3-dimensional fabric sandwiched between sheets of resin-saturated, fiber-reinforced polymer fabric. The SPiRe® panels would be constructed offsite to match the shape of the sheet piles and affixed to the face of the deteriorated sheet pile using anchor bolts. A 36 ft (11 m) dive vessel would be utilized to support divers installing the panels. Installation of the panels would be expected to take no more than seven days, depending on weather and sea conditions in Tinian Harbor. In order to expose as much of the existing sheet pile as possible, an air-hose attached to a compressor would be used to open a 6 inch (in;

15 centimeter [cm]) deep by 1 in (2.5 cm) wide trench along the bottom edge of the existing sheet pile. The volume of sediments redistributed on the seafloor is estimated to be approximately 1.25 cubic feet (ft³; 0.035 cubic meters [m³]). The panels must attach to a flat surface, so the grinder would be used to remove any organisms that have colonized the existing sheet pile.

SPiRe® panels would be hand lowered to divers in the water and installed one by one with the bottom edge being placed into the excavated trench. An underwater impact drill would be used to make holes for the anchor bolts which would be used to attach the panels. Anchor bolts would be tightened underwater with a simple mechanical wrench, or, if needed, an impact wrench. These tools would be used for short bursts of 15–30 seconds, then would remain off for approximately 2 minutes. This would be repeated for approximately one hour, two or three times a day until the task is complete. Spaces between the panels and steel sheet pile would be filled with grout or resin. This action would eliminate the need to remove old sheet pile and drive in new sheet pile. Any polishing (smoothing) of the existing sheet pile would be done at the top edge of the sheet pile near the water's surface using a grinder. The grinder would be used for a duration of three minutes, approximately five times over the course of three hours each day until the task is complete. The top edge of sheet pile may be underwater or above the water's surface at any given moment. In accordance with QuakeWrap™ material safety data sheets, when not in use, all materials will be stored in original containers and placed in a cool, dry, locked shipping container designated as a hazardous materials locker. All disposal of QuakeWrap™ materials would be contracted out and properly disposed of using on-island agencies. Once parts A and B of the resin are mixed and cured, the resin is not harmful and can be discarded similar to concrete. All local regulations would be followed for disposal.

1.2.2 Anode Installation on the North Quay Wall

The north quay wall (1,400 ft [427 m] in length) requires the installation of anodes to provide cathodic protection, a corrosion control method for protection of undersea metallic structures (Ahmad 2006). Installation of the zinc anodes would take up to 35 days to complete. Anode installation would be performed by divers supported by the 36 ft (11 m) dive vessel. Support vessels would be moored to existing topside mooring hardware when engaged in project work. Anodes would be installed using an underwater welder every 20 ft (6 m) along the entire length of the 1,400 ft (427 m) north quay wall, with at least one zinc anode per sheet pile column. Vertically, more than one anode may be installed at 20-ft (6-m) intervals. A small area on the wall may need to be scraped clean of encrusting organisms in order to weld the anode to the wall. This scraping would be done with a simple handheld knife.

1.2.3 Topside Repairs, Installation, and Construction in Berths 1 and 2

Berths 1 and 2, located on the topside of the north quay wall (Figure 1), require pile cap repairs, which would entail the removal of deteriorated concrete with a sawcutter, chip hammer, and/or hydrojetting tools. As a result of concrete removal, reinforcement bars may be exposed, which would also be cleaned of rust and debris. Once the area has been cleared, the surface would be roughened and repair concrete or patching mortar would be used to repair damaged areas of the pile cap. Pile cap repair would take approximately two days.

New mooring bollards would also be installed in berths 1 and 2. The three existing bollards in each berth would be demolished, sawcutting the edges of concrete around the bollards. Once clear of debris, the area for bollard installation would be coated with a rebar corrosion inhibiting bonding agent. The cleared and coated area would then be filled with repair concrete or patching mortar. The concrete would be cured and the bollards would be installed by cementing them in place. The entire installation would take approximately 30 days.

Pile cap fenders, which are either foam-filled or arch fenders, would be installed at each berth along the north quay wall. Working from a floating platform, crew would install pad eyes using a battery operated drill. The foam-filled fenders would attach to the pad eyes with anchor bolts and shackles. Arch fenders would also be installed by workers on a floating platform using anchor bolts.

A concrete pad would be poured in a grass area of the pier between existing asphalt and pile cap and would take approximately 40 days to complete. The pad would measure 200 by 40 ft (61 by 12 m). An existing asphalt lot (measuring 200 linear ft [61 m]) adjacent to the grass area at berth 1 would be demolished to make room for the concrete pad, in addition to an existing ramp (measuring 8 cubic yards [2.3 m³]), an electric box, and fencing (measuring 350 linear ft [107 m]). All ground disturbance for this construction would be limited to man-made compacted basecourse added to the area during previous construction. Heavy equipment would be used to complete this demolition and construction, including a jackhammer, sawcutter, excavator with bucket and bull prick attachment, backhoe with a bucket, dump truck, forklift, roller, loader, and a skid steer. A water truck and centrifugal water pump would also be used for all topside work including the placement of the concrete pad, repair of concrete defects, and replacement of the mooring bollards. The jackhammer would be utilized intermittently for approximately 4–6 hours per day for 5 days.

During all demolition activities, catchment devices would be used to ensure no concrete chips or debris enter the water. Demolished material would be kept briefly in a pile located 100 ft (30 m) away from the seawall and would be surrounded by straw wattles for containment until removal from the site.

1.3 Protective Measures and Best Management Practices

The Proposed Action will implement a series of protective measures including Best Management Practices (BMPs) during site preparation and in-water work to avoid and minimize impacts to protected marine species and Essential Fish Habitat (EFH). Throughout the duration of their involvement in this Proposed Action, all workers associated with this Proposed Action, irrespective of their employment arrangement or affiliation (e.g., employee, contractor, etc.), shall be briefed on these BMPs and the compliance requirements.

- During the Proposed Action, a distance of 50 yds (46 m) will be maintained from protected hammerhead shark or sea turtle species.
- The Proposed Action would utilize lookouts to monitor for protected species and should any observed scalloped hammerhead shark or sea turtle approach within 50 yds (46 m) of the location of the Proposed Action activities, work will stop until the animal departs the area. No effort will be made to herd or otherwise harass the animal into departing.
- Construction materials, including SPiRe® panels, will be secured on the pier or support boat so that they cannot be carried into the water by wind, rain, or high surf.
- Diver deployment and in-water activities must be planned methodically to avoid direct physical impact to coral not on the existing sheet piling during in-water activities.
- SPiRe® panels shall be lifted and routed to minimize effects to corals.
- During all demolition activities, catchment devices will be used to ensure no concrete chips or debris enter the water. Demolished material will be kept briefly in a pile located 100 ft (30 m) away from the seawall and will be surrounded by straw wattles for containment until removal from the site.

- All in-water activities will cease during the primary coral spawning events each year for hard (scleractinian) and soft (octocorallia) corals. The 2021 coral spawning period is estimated to be 21 days total, including 8 days prior to the full moon and 14 days after:
 - Soft corals: May 18–June 8 (Full moon May 26)
 - Hard corals: July 5–August 6 (Full moon July 23–24)

2 ENFORCEABLE POLICIES OF THE CNMI COASTAL MANAGEMENT PROGRAM

The CNMI Coastal Management Program includes the enforceable policies listed in Table 1. This table includes enforceable policies of CNMI's Coastal Management Program from the CNMI Coastal Resource Management Rules and Regulations, which can be found in the Northern Mariana Islands Administrative Code, Chapter 15-10. The Coastal Management Act of 1983 (Public Law 3-47) established a Coastal Resources Management Office within the Office of the Governor. This public law includes the Policy Elements listed below in Table 1. The justification for excluding some enforceable policies for further analysis is also provided in Table 1. Policies that the Navy has determined to be applicable to the Proposed Action are described in more detail in Chapters 3 through 5 of this CD.

Table 1. CNMI's Enforceable Policies and Applicability to the Proposed Action

Enforceable Policy		Applicability to the Proposed Action	Included for Additional Analysis
Description	Legal Citation		
Northern Mariana Islands Administrative Code, Chapter 15-10, Part 100			
Part 100—General Provisions: Definitions	15-10-020	Not applicable. This section establishes definitions that are incorporated by reference into this CD.	No
Northern Mariana Islands Administrative Code, Chapter 15-10, Part 200			
Part 200—CRM ¹ Permit Application Process	15-10-205	Not applicable. The Proposed Action does not include any new construction or development. The Navy is not applying for permits with the CNMI.	No
Part 200—CRM Permit Application Process: Decision on Permit Process	15-10-230		No
Northern Mariana Islands Administrative Code, Chapter 15-10, Part 300			
Part 300—General Standards for all CRM Permits	15-10-301	Not applicable based on analysis. The Proposed Action would not have a negative significant adverse impact on the coastal environment or its resources and would comply with designated water uses. Any significant impacts are beneficial and the action proponent would be consistent with general management standards, though the Navy will not be applying for permits as they are a federal agency.	Yes (see Section 3.1)

Enforceable Policy		Applicability to the Proposed Action	Included for Additional Analysis
Description	Legal Citation		
Part 300—Standards for CRM Permit Issuance: General Criteria	15-10-305	Applicable. The Proposed Action would not result in a significant degradation of coastal resources. Further, the Proposed Action would not result in any potential negative impacts to cultural resources and would positively impact aesthetic enjoyment of coastal resources.	Yes (see Section 3.1)
Part 300—Standards for CRM Permit Issuance: Specific Criteria APC ² : Lagoon and Reefs	15-10-315	Applicable according to the CNMI permitting tool. The Proposed Action is consistent with the highest use priorities and would comply with given management standards including avoiding significant adverse impacts to reefs and corals to the greatest extent practicable.	Yes (see Section 3.2.1)
Part 300—Standards for CRM Permit Issuance: Specific Criteria APC: Managaha and Anjota Islands	15-10-320	Not applicable. The proposed action area does not include the Islands of Managaha (Saipan) or Anjota (Rota).	No
Part 300—Standards for CRM Permit Issuance: Specific Criteria APC: Coral Reefs	15-10-325	Applicable as the area is not geographically defined. Management standards are the same as those applied to the Lagoon and Reefs APC.	Yes (see Section 3.2.1)
Part 300—Standards for CRM Permit Issuance: Specific Criteria APC: Wetlands and Mangroves	15-10-330	Not applicable. The proposed action area does not include the Areas of Particular Concern: wetlands and mangroves.	No
Part 300—Standards for CRM Permit Issuance: Specific Criteria APC: Shorelines	15-10-335	Applicable according to the CNMI permitting tool. The Proposed Action is consistent with moderate use priorities and would comply with given management standards.	Yes (see Section 3.2.2)
Part 300—Standards for CRM Permit Issuance: Specific Criteria APC: Ports and Industrial Areas	15-10-340	Applicable according to the CNMI permitting tool. The Proposed Action consists of the highest use priorities and would comply with given management standards.	Yes (see Section 3.2.3)
Part 300—Standards for CRM Permit Issuance: Specific Criteria APC: Coastal Hazards	15-10-345	Applicable according to the CNMI permitting tool. The Proposed Action is in FEMA ³ Zone V, a coastal high hazard flood zone. The Proposed Action is consistent with moderate use priorities and is funded by an entity of the federal government for its construction. The Proposed Action would facilitate recreational opportunities along the shoreline and would comply with the given management standards.	Yes (see Section 3.2.4)

Enforceable Policy		Applicability to the Proposed Action	Included for Additional Analysis
Description	Legal Citation		
Part 300—Standards for CRM Permit Issuance: Specific Criteria Height Density, Setback, Coverage, and Parking Guidelines	15-10-350	Not applicable. The Proposed Action does not include any construction of new structures on any shoreline setbacks (A through D). Any potential removal or demolition of components on the existing piers would be replaced in-kind and the concrete pad on the pier would be placed to provide additional stability to the area.	No
Northern Mariana Islands Administrative Code, Chapter 15-10, Part 500			
Part 500—Standards for Determination of Major Siting	15-10-501	Applicable. While the Proposed Action fits some criteria, federal agencies are exempt from major siting permits (See Chapter 4 for additional details).	Yes (see Chapter 4)
Part 500—Standards for Determining Major Siting: Specific Criteria	15-10-505	Applicable. Although federal agencies are exempt from major siting permitting, they are required to meet designated criteria.	Yes (see Chapter 4)
Northern Mariana Islands Administrative Code, Chapter 15-10, Part 600			
Part 600—CRM Permit Conditions: Mandatory Conditions	15-10-610	Not applicable. Federal agencies are not required to obtain State permits unless otherwise required by a federal law, other than the CZMA.	No
Northern Mariana Islands Administrative Code, Chapter 15-10, Part 700			
Part 700—CRM Permit Amendment: Transfer of Interest	15-10-705	Not applicable. Federal agencies are not required to obtain State permits unless otherwise required by a federal law, other than the CZMA.	No
Northern Mariana Islands Administrative Code, Chapter 15-10, Part 800			
Part 800—Enforcement of CRM Permits: Permit Enforcement Notice	15-10-815	Not applicable. Federal agencies are not required to obtain State permits unless otherwise required by a federal law, other than the CZMA.	No
Part 800—Enforcement of CRM Permits: Remedies	15-10-830	Not applicable. Federal agencies are not required to obtain State permits unless otherwise required by a federal law, other than the CZMA.	No
Northern Mariana Islands Administrative Code, Chapter 15-10, Part 1200			
Part 1200—CRM Public Records Retention	15-10-1201	Not applicable. Federal agencies are not required to obtain State permits unless otherwise required by a federal law, other than the CZMA.	No
Public Law 3-47			
Policy Element 1: Encourage land-use master planning, floodplain management, and the development	Public Law 3-47	Not applicable. This policy pertains to the Government of CNMI.	No

Enforceable Policy		Applicability to the Proposed Action	Included for Additional Analysis
Description	Legal Citation		
of zoning and building code legislation.			
Policy Element 2: Promote, through a program of public education and public participation, concepts of resource management, conservation and wise development of coastal resources.	Public Law 3-47	Not applicable. This policy pertains to the Government of CNMI.	No
Policy Element 3: Promote more efficient resources management through: A. Coordination and development of resource management laws and regulations into a readily identifiable program; B. Revision of existing unclear laws and regulations; C. Improvement of coordination among Commonwealth agencies; D. Improvement of coordination between Commonwealth and federal agencies; Establishment of educational and training programs for Commonwealth government personnel and refinement of supporting technical data.	Public Law 3-47	Not applicable. This policy pertains to the Government of CNMI.	No
Policy Element 4: Plan for and manage any use or activity with the potential for causing a direct and significant impact on coastal resources. Significant adverse impacts shall be mitigated to the extent practicable.	Public Law 3-47	Applicable. The Proposed Action is consistent with the highest use priorities and would comply with given management standards including avoiding significant adverse impacts to APCs when possible. Section 1.3 discusses the best management practices of the Proposed Action.	Yes (see Section 3.2 and Chapter 5)
Policy Element 5: Give priority for water-dependent development and consider the need for water-related and water-oriented locations in its siting decisions.	Public Law 3-47	Not applicable. The Proposed Action does not involve new development or siting decisions of any kind.	No
Policy Element 6: Provide for adequate consideration of the national interest, including that involved in planning for, and in the siting of, facilities (including energy facilities in, or which significantly affect, the Commonwealth's coastal zone) which are necessary to meet	Public Law 3-47	Not applicable. The Proposed Action does not involve new development of facilities.	No

Enforceable Policy		Applicability to the Proposed Action	Included for Additional Analysis
Description	Legal Citation		
requirements which are other than local in nature.			
Policy Element 7: Not to permit to the extent practicable, development of identifiable hazardous lands, including floodplain, erosion-prone areas, storm wave inundation areas, air installation crash and sound zones and major fault lines, unless it can be demonstrated that such development does not pose unreasonable risks to the health, safety or welfare of the people of the commonwealth, and complies with applicable laws.	Public Law 3-47	Not applicable. The Proposed Action does not involve new development.	No
Policy Element 8: Mitigate, to the extent practicable adverse environmental impacts, including those aquifers, beaches, estuaries, and other coastal resources while developing an efficient and safe transportation system.	Public Law 3-47	Not applicable. The Proposed Action does not involve development of a transportation system.	No
Policy Element 9: Require any development to strictly comply with erosion, sedimentation, and related land and water use districting guidelines, as well other related land and water use policies for such areas.	Public Law 3-47	Not applicable. The Proposed Action does not involve new development.	No
Policy Element 10: Maintain or improve coastal water quality through control of erosion, sedimentation, runoff, siltation, sewage and other discharges.	Public Law 3-47	Applicable. The CD includes an analysis of the Proposed Action and coastal water quality.	Yes (see Section 5.1)
Policy Element 11: Recognize and respect locations and properties of historical significance throughout the Commonwealth, and ensure that development which would disrupt, alter, or destroy these, is subject to Commonwealth laws and regulations.	Public Law 3-47	Applicable. While the Proposed Action does not involve new development, this CD includes an analysis of the Proposed Action and historic and cultural areas of significance.	Yes (see Section 5.4)
Policy Element 12: Recognize areas of cultural significance, the development of which would disrupt the cultural practices associated with such areas, which shall be subject to a consultation	Public Law 3-47	Applicable. The Proposed Action does not involve new development or development in areas of cultural significance. The CD includes an analysis of the Proposed Action and historic and cultural areas of significance.	Yes (see Section 5.4)

Enforceable Policy		Applicability to the Proposed Action	Included for Additional Analysis
Description	Legal Citation		
process with concerned ethnic groups and any applicable laws and regulations.			
Policy Element 13: Require compliance with all local air and water quality laws and regulations and any applicable federal air and water quality standards.	Public Law 3-47	Applicable. The Proposed Action would have no effect on air quality. The CD includes an analysis of the Proposed Action and compliance with local water quality laws and regulations.	Yes (see Sections 3.2.1 and 5.1)
Policy Element 14: Not permit, to the extent practicable, development with the potential for causing significant adverse impact in fragile areas such as designated and potential historic and archaeological sites, critical wildlife habitats, beaches, designated and potential pristine marine and terrestrial communities, limestone and volcanic forests, designated and potential mangrove stands and other wetlands.	Public Law 3-47	Not applicable. The Proposed Action does not involve new development.	No
Policy Element 15: Manage ecologically significant resource areas for their contribution to marine productivity and value as wildlife habitats, and preserve the functions and integrity of reefs, marine meadows, salt ponds, mangroves and other significant natural areas.	Public Law 3-47	Applicable. The CD includes an analysis of the Proposed Action and ecological resources.	Yes (see Sections 3.2.1 and 5.2)
Policy Element 16: Manage the development of the local subsistence, sport and commercial fisheries, consistent with other policies.	Public Law 3-47	Not applicable based on analysis. The Proposed Action would not alter local fisheries or the survival of local fish populations.	Yes (see Sections 3.2.1 and 5.3)
Policy Element 17: Protect all coastal resources, particularly sand, coral and fish from taking beyond sustainable levels and in the case of marine mammals and any species on the Commonwealth endangered species list, from any taking whatsoever.	Public Law 3-47	Not applicable based on analysis. The Proposed Action would not cause take of marine resources beyond sustainable levels or cause take of threatened or endangered resources of any kind.	Yes (see Section 5.2)
Policy Element 18: Encourage preservation and enhancement of and respect for, the Commonwealth's scenic resources through the development of,	Public Law 3-47	Not applicable based on analysis. The Proposed Action would improve the aesthetics of the connecting pier and berths 1 and 2 by repairing the damaged components of the structure. The	Yes (see Section 5.3)

Enforceable Policy		Applicability to the Proposed Action	Included for Additional Analysis
Description	Legal Citation		
increased enforcement of, and compliance with, sign, litter, zoning, building codes, and related land use laws.		Proposed Action would comply with sign, litter, zoning, building codes, and related land use laws.	
Policy Element 19: Discourage, to the maximum extent practicable, visually objectionable uses so as not to significantly degrade scenic views.	Public Law 3-47	Not applicable based on analysis. The Proposed Action would improve the aesthetics of the connecting pier and berths 1 and 2 by repairing the damaged components of the structure.	Yes (see Section 5.3)
Policy Element 20: Encourage the development of recreation facilities which are compatible with the surrounding environment and land uses.	Public Law 3-47	Not applicable. The Proposed Action does not involve the development of recreational facilities.	No
Policy Element 21: Encourage the preservation of traditional rights of public access to and along the shorelines consistent with the rights of private property owners.	Public Law 3-47	Not applicable based on analysis. The Proposed Action does not alter traditional public access to and along the shoreline; however, the repair of structures within the harbor would improve access for the public.	Yes (see Sections 3.2.2 and 5.3)
Policy Element 22: Pursue agreements for the acquisition of use of any lands necessary to guarantee traditional public access to and along the shorelines.	Public Law 3-47	Not applicable based on analysis. This policy pertains to the Government of CNMI. The Proposed Action does not involve the acquisition of lands or alter traditional public access to and along the shoreline; the repair of the structures within the harbor would improve access for the public.	Yes (see Sections 3.2.2 and 5.3)
Policy Element 23: Encourage agricultural development and the preservation and maintenance of critical agricultural lands for agricultural uses.	Public Law 3-47	Not applicable. The Proposed Action does not involve agricultural development or land used for agricultural purposes.	No

¹CRM = Coastal Resource Management

²APC = Areas of Particular Concern

³FEMA = Federal Emergency Management Agency

Enforceable policies that have been included in this CD for additional analysis are discussed below. The Navy is not applying for any permits; therefore, permitting enforceable policies and major siting are also not applicable and are further discounted in Chapters 3 and 4. This CD further addresses the following five enforceable policies of applicable Areas of Particular Concern (APC):

- Lagoon and Reefs
- Coral Reefs
- Shorelines
- Ports and Industrial Areas, and

- Coastal Hazards.

This CD also examines Policy Elements of Public Law 3-47. The Policy Elements discussed in further detail include 4, 10-13, 15-19, 21, and 22. These have been analyzed based on the type of coastal resources that may be impacted and include water resources, biological resources, socioeconomic resources, and cultural resources.

3 NORTHERN MARIANA ISLANDS ADMINISTRATIVE CODE, CHAPTER 15-10, PART 300

3.1 Standards for Coastal Resources Management (CRM) Permit Issuance: General Criteria

The Navy is not applying for permits with the Division of Coastal Resources Management (DCRM). Although the activities to be conducted would require a permit if conducted by a private entity (15 Northern Mariana Islands Code [N. Mar. I. Code] part 100), the regulations implementing CZMA provide that federal agencies are not required to obtain state permits unless otherwise required by a federal law, not including CZMA itself (15 CFR § 930.39(e)). However, the Navy is required to ensure that the Proposed Action is consistent to the maximum extent practicable with the enforceable policies that are contained in CNMI's Coastal Management Program.

The following is the Navy's analysis of §15-10-305: (a) cumulative impacts, (b) compatibility, (c) alternatives, (d) conservation, (e) compliance with local and federal laws, (f) ensuring access to clean and healthful environment, (g) effect on existing public services, (h) adequate access, (i) setbacks, (j) management measures for non-point source pollution, and (k) buffers for environmentally sensitive areas.

(a) Cumulative Impacts. *"The DCRM Director and CRM Agency Officials shall assess the "cumulative impact" of proposed projects as defined in §15-10-020(x). This determination shall consider the impact of existing uses and activities on coastal resources and determine whether the added direct and secondary impact(s) of the proposed project seeking a CRM permit will result, when added to the existing use, in a significant degradation of the coastal resources. Consideration shall include potential coastal nonpoint source pollution, watershed setting, and receiving waters of the watershed in which a project is situated, and ability to accommodate future climatic change where relevant information is available. Where applicable, cumulative impact analysis should also consider, and minimize potential negative impacts to cultural resources and aesthetic enjoyment of coastal resources. Development proposals shall incorporate measures to avoid or minimize adverse impacts of the project. These measures shall be implemented at the applicant's expense, and may include actions that minimize or avoid adverse impacts by limiting the magnitude or degree or the action or mitigation to restore the ecosystem functions or values of the affected environment."*

The Navy has determined that the Proposed Action would not require cumulative analysis as it would be covered by a Categorical Exclusion. The activities would not result in nonpoint source pollution, interfere with watershed setting, or impact receiving waters of the watershed in which the proposed activities are to occur. Furthermore, the Proposed Action would not result in any potential negative impacts to cultural resources and would positively impact aesthetic enjoyment of coastal resources. Therefore, the Proposed Action would not induce cumulative impacts that would significantly degrade coastal resources within the CNMI coastal zone.

(b) Compatibility. *"The DCRM Director and CRM Agency Officials shall determine, to the extent practicable, whether the proposed project is compatible with existing adjacent uses and is not contrary to designated land and water uses being followed or approved by the Commonwealth government, its departments or agencies."*

The Navy has assessed the compatibility of the Proposed Action with management standards and use categories specified for APCs. This analysis is included below in Section 3.2. Based on this analysis, the Proposed Action is compatible with the management standards and use categories for APCs.

(c) Alternatives. *“The DCRM Director and CRM Agency Officials shall determine whether or not a reasonable alternative site exists for the proposed project.”*

The Navy has assessed that there are no reasonable alternative sites as these repairs are essential to restore the capabilities of Tinian Harbor and ensure the port remains operational for future Navy exercises and use. Based on this analysis, there are no other reasonable alternative sites that meet Department of Defense’s requirement to maintain military readiness that would not require new construction. Construction would occur in the harbor, which is a commercial port. Any construction would be to repair existing structures, rather than breaking down the existing pier and rebuilding or allowing the pier to fall further into disrepair.

(d) Conservation. *“The DCRM Director and CRM Agency Officials shall determine, to the extent practicable, the extent of the impact of the proposed project, including construction, operation, maintenance and intermittent activities, on its watershed and receiving waters, marine, freshwater, wetland, and terrestrial habitat, and preserve, to the extent practicable, the physical and chemical characteristics of the site necessary to support frank and living resources now and in the future.”*

The Navy has evaluated the Proposed Action and potential impacts on its watershed and receiving waters, marine, freshwater, wetland, and terrestrial habitat. The Proposed Action would maintain the existing pier and use of the existing pier, while minimizing construction in order to preserve, to the extent practicable, the physical and chemical characteristics of the site necessary to support water quality and living resources.

The likelihood of disturbance of Endangered Species Act (ESA)-listed corals is low due to the low density of these species in the proposed action area within Tinian Harbor. Smith (2019) observed no specimens of the ESA-listed coral species on any of the piers (including the RO-RO ramp) or quay walls, or any portions of the seafloor surveyed within the proposed action area. Other, non-ESA-listed coral species were observed. Coral cover on the seafloor was estimated at <1 percent, and all corals observed on the seafloor were recorded as growing on anthropogenic materials. The localized disturbance of the bottom would not alter the function or habitat provided by marine substrates. Turbidity can impact corals by reducing the amount of light that reaches these organisms and by clogging siphons for filter-feeding, which would cause stress to the corals (Philipp and Fabricius 2003). However, the effects of in-water activities on water quality would be indirect, short term, local, and inconsequential, particularly as water quality in the harbor is poor and Tinian Harbor is turbid (Sections 3.2.1 and 5.1). The water conditions dictate that the coral species observed in Tinian Harbor are those species able to survive in poor water quality/high turbidity conditions (Smith 2020). As sediment trenching would occur over a one-day timeframe and BMPs would be implemented (Section 1.3), this temporary and localized increase in turbidity in the immediate footprint around the existing sheet piling would cause no long-term or population effects to ESA-listed corals or EFH that may be present on the surrounding seafloor. Any indirect effects associated with in-water activities would be discountable. While temporary disturbance of the coral community may occur, the Proposed Action would ensure that continuing degradation of the connecting pier, north quay wall, and berths 1 and 2 would not impact water quality and living resources in the future. During all demolition activities for topside work on berths 1 and 2, catchment devices would be used to ensure no concrete chips or debris enter the water.

(e) Compliance with local and federal laws. *“The DCRM Director and CRM Agency Officials shall require compliance with federal and CNMI laws, including, but not limited to, air and water quality standards,*

land use, federal and CNMI constitutional standards, and applicable permit processes necessary for completion of the proposed project.”

Per the U.S. Environmental Protection Agency Green Book on the Mariana Islands (40 CFR 81.354), a conformity analysis is not required for the action since the Islands are in attainment of National Ambient Air Quality Standards.

In the most recent annual water quality report, published in 2018 by the BECQ, Tinian Harbor was reported as impaired for dissolved oxygen. Additionally, biological monitoring data ranked this watershed as “Poor” for its aquatic habitat, and as impaired for the “Propagation and Support of Aquatic Life” use designation. One water quality monitoring site within Tinian Harbor measured for excessive Enterococci bacteria contamination potentially from failing septic systems in this area (Yuknavage et al. 2018). Therefore, the most recent water quality reports indicate that the waters in and around the proposed action area are poor or impaired with regards to measurable environmental quality standards. The Proposed Action may cause a temporary and localized increase in turbidity, but would not contribute to decreased water quality within the proposed action area. The Proposed Action would not have any effect on air and water quality standards (§65-130-605(e)(1)) and would comply with all applicable federal and CNMI laws.

Under Section 401 of the Clean Water Act (CWA), the CNMI BECQ is responsible for issuing or denying a Section 401 Water Quality Certification (WQC) for any project/activity that requires a federal license or permit and may result in a water pollutant discharge to surface waters of the Commonwealth. A WQC application and Supplemental Document has been submitted to the CNMI BECQ for review.

(f) Ensuring access to clean and healthful environment. *“Projects shall be undertaken and completed so as to maintain and, where appropriate, enhance and protect the Commonwealth’s inherent natural beauty and natural resources, so as to ensure the protection of the people’s constitutional right to a clean and healthful environment.”*

The Proposed Action would maintain the existing pier and use of the existing pier while minimizing construction. The Proposed Action would ensure that the connecting pier, north quay wall, and berths 1 and 2 would not continue to degrade and fall into disrepair, which would enhance and protect the Commonwealth’s inherent natural beauty and natural resources.

(g) Effect on existing public services. *“Activities and uses which would place excessive pressure on existing facilities and services to the detriment of the Commonwealth’s interests, plans and policies, shall be discouraged.”*

The Proposed Action would maintain, and potentially enhance, access to existing facilities and services within Tinian Harbor and the CNMI coastal zone.

(h) Adequate access. *“The DCRM Director and CRM Agency Officials shall determine whether the proposed project would provide adequate public access to and along the shoreline.”*

The Proposed Action would not hinder public access to anywhere within the coastal zone and would increase adequate public access to and along the shoreline.

(i) Setbacks. *“The DCRM Director and CRM agency officials shall determine whether the proposed project provides adequate space between the building footprint of a project and identified hazardous lands including floodplains, erosion-prone areas, storm wave inundation areas, air installation crash and sound zones, and major fault lines, unless it can be demonstrated that such development does not pose unreasonable risks to the health safety, and welfare of the people of the Commonwealth, and complies with applicable laws.”*

The Proposed Action would not involve construction of a building and would, therefore not require a building setback. Further, there are no major fault lines in the proposed action area. The Proposed Action would not pose an unreasonable risk to the health, safety, and welfare of the people of the Commonwealth and would comply with all applicable laws.

(j) Management measures for non-point source pollution. *“The DCRM Director and CRM Agency Officials shall determine if the management measures outlined in the permit application are adequate for the control of nonpoint source pollution resulting from project construction, operations, and maintenance, including intermittent activities such as repairs, routine maintenance, resurfacing, road or bridge repair, cleaning, and grading, landscape maintenance, chemical mixing, and other nonpoint sources. DCRM may impose additional conditions to include management measures for control of nonpoint source pollution that are a result of particular site conditions, such as soil type, soil erodibility, soil permeability, slope, drainage patterns and other issues, in order to prevent potential nonpoint source pollution impacts on adjacent or downstream APCs.”*

BMPs for spill prevention and waste management are included in the BMP guidance documents: (a) Construction Site Chemical and Material Control Handbook and (b) CNMI Erosion & Sediment Control Field Guide. Appropriate BMPs will be followed as outlined in Section 1.3.

(k) Buffers for environmentally sensitive areas. *“The DCRM Director and CRM Agency Officials shall determine the adequacy of vegetative buffer zones between the project footprint and environmentally sensitive areas including high risk flood zones, wetlands, and highly erodible slopes, and shorelines, considering current conditions and future projections as they are available and applicable.”*

The proposed action area is within a high risk flood zone, however the Proposed Action would have no effect on the flood zone as the structures (connecting pier, north quay wall, and berths 1 and 2) undergoing maintenance already exist.

Conclusion. The Navy analyzed the extent of the Proposed Action relative to the eleven criteria of Part 300, §15-10-305 to evaluate consistency with this enforceable policy for projects that may directly and significantly impact APCs within the CNMI coastal zone. Based on this analysis, the Proposed Action is consistent to the maximum extent practicable with this enforceable policy.

3.2 Northern Mariana Islands Administrative Code, Chapter 15-10, Part 300 – Specific Criteria: Areas of Particular Concern

CNMI Administrative Code 1.5.3 § 15-10-310 establishes definitions and use priorities for APCs. Table 1 lists each APC and sub-classification, and determines whether the project has a nexus with the various APCs. Five APCs have potential connection with project activities and are described in more detail below, with cross reference to management standards and use priorities established in CNMI Administrative Code 1.5.3 § 15-10-310. These APCs include the Lagoon and Reef APC, Coral Reefs APC, Shoreline APC, Port and Industrial APC, and Coastal Hazards APC.

3.2.1 Lagoon and Reef APC (§15-10-315) and Coral Reefs APC (§15-10-325)

Management standards for both of these areas include: (1) Subsistence usage of coastal areas and resources shall be ensured; (2) Living marine resources, particularly fishery resources, shall be managed so as to maintain optimum sustainable yields; (3) Significant adverse impacts to reefs and corals shall be prevented; (4) Lagoon and reef areas shall be managed so as to maintain or enhance subsistence, commercial and sport fisheries, as well as commercial marine sports operations; (5) Lagoon and reef areas shall be managed so as to assure the maintenance of natural water flows, natural circulation patterns, natural nutrient and oxygen levels and to avoid the discharge of toxic wastes, sewage,

petroleum products, siltation and destruction of productive habitat; (6) Areas and objects of historical and cultural significance shall be preserved and maintained; and (7) Lagoon and reef preservation areas shall be designated where practicable.

The Lagoon and Reef APC enforceable policy is applicable according to the CNMI permitting tool. The Coral Reefs APC is applicable because it is not area-specific and the Proposed Action has the potential to affect coral. While the Proposed Action would reduce the quantity of coral on the pier pilings, this reduction would be temporary as the new surface being installed would provide habitat for future corals to colonize. Recolonization of the panel would occur and it is assumed that coral diversity would remain similar upon recolonization due to the water quality and level of turbidity in Tinian Harbor. Temporary and localized increased turbidity caused by in-water activities has the potential to impact Lagoon and Reef APC. Trenching and panel installation activities would temporarily suspend sediment, impacting benthic substrate and the turbidity within the water column for a short period of time. This would only occur in a narrow area adjacent to footprint of the RO-RO ramp. In shallow harbors (such as Tinian Harbor), natural processes (e.g., wave action, tidal cycles, storms), as well as human activity (e.g., vessel traffic) regularly disturb sediment and cause the surrounding area to be naturally turbid. The predominant bottom type in the proposed action area is sand or sand/rubble mix (U.S. Army Corps of Engineers 2018), which has large grains and tends to settle very quickly when disturbed. Given the brief periods and limited area where turbidity would be elevated, and the already high turbidity of the proposed action area, additional disturbance to the water column in the proposed action area would be minimal. Sediments would be expected to settle out of the water column rapidly in the same manner that they would after any natural or anthropogenic disturbance.

The commercial port of Tinian Harbor, which is within the Makpo watershed, is classified as Class A waters by the CNMI BECQ, which are protected for “recreational use and aesthetic enjoyment.” The BECQ monitors Tinian’s marine water on a rotational eight week sampling interval. The BECQ tests a variety of factors including pH, dissolved oxygen, turbidity, chlorophyll-a, dissolved nutrients, and Enterococci, a type of bacteria. Historically, sewage outfalls, sewer collection overflows, sedimentation from unpaved roads and development, urban runoff, reverse osmosis brine discharges, and agriculture are the most significant stressors on the marine water quality of the CNMI (Bearden et al. 2010; Yuknavage et al. 2018). In the past, the Makpo Valley subwatershed coastal waters have been listed as impaired based on bacterial, nutrient, dissolved oxygen, and biological criteria. The sources of pollution include wastewater treatment systems and urban runoff, as well as “unidentified sources” (Yuknavage et al. 2018).

In the most recent annual water quality report, published in 2018 by the BECQ, Tinian Harbor was reported as impaired for dissolved oxygen. Additionally, biological monitoring data ranked this watershed as “Poor” for its aquatic habitat, resulting in a listing as impaired for the “Propagation and Support of Aquatic Life” use designation. One water quality monitoring site within Tinian Harbor was listed as impaired for the “Recreational” use designation due to excessive Enterococci bacteria. The exact source of the Enterococci contamination was unknown, but thought to be from fresh water seeps carrying wastewater from failing septic systems in this area (Yuknavage et al. 2018). Therefore, the most recent water quality reports indicate that the waters in and around the proposed action area are poor or impaired with regards to measurable environmental quality standards. Due to the already degraded nature of the water quality in the area and the fact that waters are expected to return to their baseline conditions shortly after the project has completed, the Proposed Action may cause a temporary and localized increase in turbidity, but would not contribute to decreased water quality within the proposed action area.

Examples of use priorities for the Lagoon and Reef APC are located in CNMI Administrative Code §15-10-315. The Proposed Action is consistent with the lagoon and reef highest use priorities as the project would (ii) promote or enhance public recreation and access and is also a (iii) water-dependent project, which is compatible with adjacent uses. The Proposed Action is consistent with the coral reefs highest use priority (ii) creation of underwater preserves in pristine area or restoration projects in impacted areas. Further, the Proposed Action would comply with the given management standards including avoiding significant adverse impacts to reefs and corals whenever practicable. The Proposed Action also would comply with the following acceptable uses: “Enhancement of public recreation or public access to the marine environment” and “Water-dependent projects which are compatible with adjacent uses and have minimal adverse impacts” because it would improve public access to the waterfront for coastal recreation such as boating and fishing. The Proposed Action would not hinder activities that are considered high priority use categories and would not contribute to low priority use or unacceptable use categories.

3.2.2 Shoreline APC (§15-10-335)

Management standards for this APC include: (1) The impact of onshore activities upon wildlife, coastal and marine systems, or aesthetic resources, as well as natural coastal processes shall be minimized; (2) The effects of shoreline development on natural beach processes shall be minimized; (3) The effects of onshore and nearshore activities or development shall minimize changes to existing shoreline morphology and vegetation; (4) The unpermitted taking of sand, gravel, or other aggregates and minerals from the beach and nearshore areas shall not be allowed including sand, gravel, or other aggregates and minerals within the APC; and (5) Where possible, public landholding along the shore shall be maintained and increased, for the purpose of access and hazard mitigation, through land trades with the Department of Public Land, or its successor agency, land purchases, creation of easements, and where no practicable alternative exists, through the constitutional authority of eminent domain.

This APC enforceable policy is applicable according to the CNMI permitting tool. Examples of use priorities for the Shoreline APC are located in CNMI Administrative Code §15-10-335. The Proposed Action is consistent with moderate use priorities including (iii) improvements to or expansion of existing water-oriented structures which are compatible with designated land uses and do not otherwise conflict with or obstruct public recreation use of coastal areas or other water-dependent water-related uses; and (iv) projects that result in enhancements of existing structures that may include upgraded building standards or on-site hazard mitigation or adaption projects.

Further, the Proposed Action would comply with the given management standards including minimizing the impact on aesthetic resources and natural coastal processes. For additional considerations for permits on shorelines, the Proposed Action is water-dependent and appropriately located in the Port and Industrial APC. The Proposed Action would also enhance coastal recreational opportunities because it would improve access to the waterfront for coastal recreation such as boating and fishing. The Proposed Action also would comply with the following acceptable use: “Floating, non-permanent docks or post [and] pier wooden boardwalks that would withstand long-term impacts of natural coastal processes.” Additionally, the Proposed Action would not hinder activities that are considered high priority use categories and would not contribute to low priority use or unacceptable use categories.

3.2.3 Port and Industrial APC (§15-10-340)

Management standards for this APC include: (1) Projects shall be undertaken and completed so as to maintain and, where appropriate, enhance and protect the Commonwealth’s inherent natural beauty and natural resources and so as to ensure the protection of the people’s constitutional right to a clean and healthful environment; (2) In the siting of port and industrial development, its suitability in terms of

meeting the long-term economic and social expectations of the Commonwealth; (3) Recognize the limited availability of the port and industrial resources in making allocation decisions; (4) Ensure that development is done with respect for the Commonwealth's inherent natural beauty and the people's constitutionally protected right to a clean and healthful environment; (5) Develop improvements to infrastructure in the port and industrial APC; (6) Prohibit projects which would result in significant adverse impacts, including cumulative impacts on coastal resources outside the port and industrial APC; (7) Conserve shoreline locations for water-dependent projects; (8) Consider and assist in resolution of possible conflicts by identifying and planning for the potential exercise of military retention area options affecting port resources; (9) Locate, to the maximum extent practicable, petroleum based coastal energy facilities within the port and industrial APC; (10) Consider development proposals from the perspective of federal port related opportunities and constraints which are applicable to the Commonwealth; and (11) The amount of shoreline frontage utilized by any project, regardless of the extent to which the project may be water-dependent, shall be minimized to the greatest extent practicable.

This APC enforceable policy is applicable according to the CNMI permitting tool. Examples of use priorities for the Port and Industrial APC are located in CNMI Administrative Code §15-10-340. Sediments would be expected to settle out of the water column rapidly in the same manner that they would after any natural or anthropogenic disturbance. Furthermore, the Proposed Action results in repairs to the infrastructure of Tinian's port and maintains the integrity of the pier structures, thus re-establishing access to existing facilities and services within Tinian Harbor and the CNMI coastal zone. Repairs would restore harbor capabilities that have degraded due to age and lack of maintenance of the pier structures. The Proposed Action is consistent with the highest use priorities including (i) water-dependent port and industrial activities and uses located on the APC shoreline and is compatible with the given management standards. The Proposed Action also would comply with the following acceptable use: "Industrial activities and uses that would cause significant pollution, traffic congestions, or other adverse impacts, if situated outside the APC." Additionally, the Proposed Action would not hinder activities that are considered high priority use categories and would not contribute to low priority use or unacceptable use categories.

3.2.4 Coastal Hazards APC (§15-10-345)

Management standards for this APC include: (1) If the project will have a detrimental impact on existing landforms or coastal processes that provide natural resistance from the forces of coastal hazards such as beaches, wetlands, shoreline/strand vegetation, and cliff lines, impacts to these coastal resources shall be avoided to the maximum extent possible; (2) If the project is located in a geologically unstable zone such as cliff lines, severe slopes (greater than 30%), coastal headlands or outcroppings, appropriate mitigation to prevent threat to human life, safety and the environment must be applied; (3) If the project is located within an area which has historically been known to flood or be at high risk to storm wave inundation or erosion, all design plans must be approved by the Department of Public Works Building Control Officer for compliance with the applicable building code; and (4) If construction of the project may endanger human life or safety due to its design or siting it shall not be allowed.

This APC enforceable policy is applicable according to the CNMI permitting tool. Examples of use priorities for the Coastal Hazards APC are located in CNMI Administrative Code §15-10-345. It is not uncommon for "super typhoons", a typhoon exceeding wind speeds of 175 mi (281 km) per hour, to affect the Island of Tinian. Typhoon Yutu devastated Tinian in October of 2018, causing damage and debris within Tinian Harbor. The Proposed Action is in Federal Emergency Management Agency (FEMA) Zone V, a coastal high hazard flood zone. The Proposed Action is consistent with moderate use priorities including (iv) projects which result in the improvement of existing structures in terms of increasing resilience to coastal hazards. The Proposed Action is funded by an entity of the federal government for

its construction and would enhance recreational opportunities of the shoreline and is compatible with the given management standards. Additionally, the Proposed Action would not hinder activities that are considered high priority use categories and would not contribute to low priority use or unacceptable use categories.

Conclusion. The Navy analyzed the extent of the Proposed Action relative to the APCs specified in Part 300, § 15-10-310 of the CNMI Administrative Code. While the Navy identified the Lagoon and Reef APC, Shoreline APC, Port and Industrial APC, and Coastal Hazards APC as potentially overlapping with the proposed action area, and those coastal effects of the Proposed Action may be reasonably foreseeable, the Proposed Action would not contribute to unacceptable use categories and does not interfere with high priority use categories. Based on this analysis, the Proposed Action is consistent to the maximum extent practicable with this enforceable policy cited at Part 300, § 15-10-310 of the CNMI Administrative Code.

4 NORTHERN MARIANA ISLANDS ADMINISTRATIVE CODE, CHAPTER 15-10, PART 500 – STANDARDS FOR DETERMINING MAJOR SITING: SPECIFIC CRITERIA

The Navy analyzed the Proposed Action in reference to criteria specified for “major sitings” pursuant with Part 500 §15-10-505 of the CNMI Administrative Code. The Navy analyzed proposed activities based on the following criteria: (a) project site development, (b) minimum site preparation, (c) adverse impact on fish and wildlife, (d) cumulative environmental impact, (e) full project proposal required, (f) future development options, (g) mitigation of adverse impacts, (h) cultural-historic/scenic values, and (i) watershed conservation. Potential criteria that warrant the Proposed Action as a major siting are evaluated below. While criteria would be met, no permit application is required according to 15 CFR 930.39(e).

Project Site Development. The proposed action area has been planned and managed to ensure compatibility with existing and projected uses of the site and surrounding area.

Minimum Site Preparation. The Proposed Action would occur in an area with pre-existing infrastructure and would require minimum site preparation.

Adverse Impact on Fish and Wildlife. Impacts to natural resources and wildlife habitats include a temporary and localized reduction in coral quantity. Upon completion of the pier repairs and installation of the panels, corals would have the opportunity to recolonize the panels covering the existing sheet piles. ESA-listed marine species that may occur in the proposed action area include the endangered Central-West Pacific distinct population segment (DPS) of green sea turtle (*Chelonia mydas*); the endangered hawksbill sea turtle (*Eretmochelys imbricata*), the threatened Indo-West Pacific DPS of scalloped hammerhead shark (*Sphyrna lewini*); and two threatened corals—*Acropora globiceps* and *Seriatopora aculeata*. There is no critical habitat within the proposed action area. Potential effects to ESA-listed species are discussed in Section 5.2. The potential effects of the Proposed Action on ESA-listed fish, sea turtles, and corals, as well as EFH are analyzed by the following two stressors: in-water activities and construction noise. The Proposed Action will implement a series of BMPs (Section 1.3) during site preparation and in-water work to avoid and minimize impacts to ESA-listed marine species and EFH. In accordance with the ESA and the Magnuson-Stevens Fishery Conservation and Management Act, the Navy consulted with the National Marine Fisheries Service. The ESA consultation concluded that pursuant to the ESA, the Proposed Action may affect, but is not likely to adversely affect ESA-listed species in the proposed action area. Additionally, the EFH Assessment concluded that pursuant to the Magnuson-Stevens Fishery Conservation and Management Act, in-water activities associated with the Proposed Action would potentially have a temporary and minimal adverse impact on water column and bottom substrates, and an adverse impact on biogenic habitats that serve as EFH for the Bottomfish and Seamount Groundfish and Pelagic Fish Management Units, however any adverse effects on the quality and/or quantity of EFH would be limited in spatial scope and fouling communities would eventually recolonize.

Cumulative Environmental Impact. The Navy has determined that the Proposed Action would not require cumulative analysis (see Section 3.1(a)). The Proposed Action would not induce cumulative impacts that would significantly degrade the coastal resources within the CNMI coastal zone.

Full Project Proposal Required. The full project proposal can be found in Section 1.2. This project will ensure the port of Tinian remains operational for future exercises and is in line with the Tinian Harbor master plan (Moffatt & Nichol 2018).

Future Development Options. The small planes that carry visitors inter-island cannot handle some types of cargo, thus larger cargo items must arrive by sea. Therefore, any future development projects would

require use of Tinian Harbor for shipping cargo, as well as fuel. The Proposed Action would allow for future development options on the island of Tinian by maintaining access to Tinian Harbor.

Mitigation of Adverse Impacts. Potential adverse impacts would be mitigated in compliance with BMP guidance documents as referenced in Ch. 3, part j and the BMPs in Section 1.3.

Cultural-Historical/Scenic Values. The Proposed Action would promote the Commonwealth goals with respect to cultural, historical, and scenic values. Based on a review of previously conducted historical, architectural, and archaeological surveys, as well as discussions with Navy local cultural resource experts, the Navy has determined, as described in this consultation (See Section 5.4), that the Proposed Action would have no adverse effects on cultural or historic resources pursuant to the National Historic Preservation Act.

Watershed Conservation. No areas within the coastal zone would be susceptible to erosion or sediment loss. Any turbidity resulting from the Proposed Action would be temporary and localized and would not impact the conservation of the watershed. Rather, the Proposed Action would protect the natural integrity of the water bodies and natural drainage systems. The Proposed Action does not hinder or interfere with ecological functions necessary to maintain riparian and aquatic biota and protects to the extent practicable the natural integrity of water bodies and natural drainage systems.

In accordance with Section 404 of the CWA (33 U.S.C. 1344; “Section 404”) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403; “Section 10”), Section 404 requires Department of Army (DA) authorization for the discharge (placement) of dredged and/or fill material into waters of the U.S., including wetlands. Section 10 requires DA authorization for the placement of structures in, under or over navigable waters of the U.S. and/or other work affecting the course, location, condition or navigable capacity of such waters. A Pre-Construction Notification (PCN) has been submitted to the United States Army Corps of Engineers (USACE) in order to obtain a written Nationwide Permit (NWP) verification from the Corps for NWP 3 – Maintenance. The CNMI BECQ relies on information provided in the PCN to aid in the review of the WQC.

Conclusion. The Navy analyzed the Proposed Action as a “major siting” using the nine evaluation criteria specified in Part 500, § 15-10-505 of the CNMI Administrative Code. None of the activities described in the Proposed Action would conflict with the specifications provided in the evaluation criteria; therefore, the Proposed Action is consistent to the maximum extent practicable with this enforceable policy cited at Part 500, § 15-10-505 of the CNMI Administrative Code.

5 PUBLIC LAW 3-47

The Coastal Management Act of 1983 (Public Law 3-47) established a Coastal Resources Management Office within the Office of the Governor. It includes the Policy Elements listed as in Table 1. Below is an analysis of how the Proposed Action may impact the Coastal Resources of Tinian.

Analysis of effects from in-water physical disturbance includes the following activities (associated with the in-water portion of the Proposed Action): diver presence, in-water installation of the panels to existing sheet piling of the RO-RO ramp (including use of an air hose to open a small trench), installation of zinc anodes on the north quay wall, and topside repairs. These activities are referred to as trenching, panel installation, and welding. Movement of sediment from around the existing sheet pile would occur during a one-day period. Overall, in-water repair activities in Tinian Harbor would occur over a period of approximately two months. The most likely effects from in-water activities would be localized disturbance that may cause behavioral reactions in nearby species and a localized temporary increase in turbidity as divers and objects move during trenching, panel installation, and welding. There would be no in-water disturbance as a result of topside repairs to berths 1 and 2.

Analysis of effects from acoustics pertains to construction noise, which includes a hydraulic impact drill used to create holes for the anchor bolts to affix panels to the existing sheet pile; a hydraulic impact wrench used to fasten anchor bolts; a grinding tool used to smooth the top edge of the existing sheet pile level with the top edge of the panels being installed; and heavy equipment (e.g., a jackhammer, sawcutter, chip hammer, and/or hydrojetting tools as well as trucks) used to remove deteriorated concrete and pier components in berths 1 and 2. Given the range of tool noise data, it is assumed for the purpose of analysis that underwater tools would create broadband noise ranging from 60 Hertz (Hz) through 8 kilohertz (kHz) and at a received source level of 158–167 decibels referenced at 1 micropascal at 1 meter (dB re at 1 μ Pa at 1 m). Noise created during the installation of panels on the connecting pier would occur for no more than seven days. Over the course of the seven days, tool use would be intermittent (short bursts of 15–30 seconds, then off for 2 minutes) as divers drill holes in the panels, fasten anchor bolts, and level the existing sheet piles with the top edge of the panels. Panel installation noise would occur for one hour, 2–3 times a day for seven days. For topside repairs on the connecting pier and berths 1 and 2, noise levels would range from 70–112 A-weighted decibels (dBA), which would include the in-air grinding tool and compressor, as well as a jackhammer, sawcutter, and various heavy construction vehicles (e.g., bulldozer, truck, roller). During topside repairs to berths 1 and 2, overall construction noise may occur over approximately 2 months. Noise created by the jackhammer would occur for no more than five days and its use would be intermittent (short bursts of 3–10 seconds, then off for 2 minutes) as workers break up the asphalt on the pier. Jackhammer noise would occur for 30 minute intervals (on and off) for 4–6 hours per day for five days.

5.1 Water Resources

Policy Elements 10 and 13 from Table 1 reference water quality within the CNMI coastal zone. Below is the analysis of the Proposed Action's impacts on water resources.

Movement of sediment from around the existing sheet pile would occur during a one-day period. The volume of sediments redistributed on the seafloor is estimated to be approximately 1.25 ft³ (0.035 m³) and this sediment redistribution would occur in the area immediately along the bottom edge of the existing sheet pile. Trenching and panel installation activities would suspend sediment, impacting benthic substrate and the turbidity within the water column. This would only occur in a narrow area adjacent to footprint of the RO-RO ramp. In shallow harbors (such as Tinian Harbor), natural processes (e.g., wave action, tidal cycles, storms) as well as human activity (e.g., vessel traffic) regularly disturb sediment and cause the surrounding area to be naturally turbid. The predominant bottom type in the

proposed action area is sand or sand/rubble mix (U.S. Army Corps of Engineers 2018), which has large grains and tends to settle very quickly when disturbed. Given the brief periods and limited area where turbidity would be elevated, and the already high turbidity of the proposed action area, additional disturbance to the water column in the proposed action area would be minimal. Sediments would be expected to settle out of the water column rapidly in the same manner that they would after any natural or anthropogenic disturbance.

Given that the most recent water quality reports from the CNMI BECQ indicate that the waters in and around the proposed action area are poor or impaired with regards to measurable environmental quality standards (Yuknavage et al. 2018), the level of sediment disturbance resulting from the Proposed Action would not have a measureable impact on water quality.

Conclusion. Based on the above analysis, the Navy finds that the Proposed Action is fully consistent with the enforceable Policy Elements 10 and 13 on coastal resources of the CNMI coastal management plan.

5.2 Biological Resources

Policy Elements 4, 15, and 17 in Table 1 reference coastal resources, ecologically significant resource areas (e.g., reefs), and resources such as coral, fish, and ESA-listed species. Below is the analysis of the Proposed Action's impacts on these biological resources within the CNMI coastal zone.

5.2.1 Coral

Because the entire shoreline is either limestone cliffs and rocky outcrops or sand beach, there are no mangroves or coastal wetlands present on Tinian. Coral abundance in Tinian Harbor ranges from absent to rare throughout the area (U.S. Army Corps of Engineers 2018). While isolated colonies may be located on the seafloor, the majority of present coral has settled on the man-made structures within Tinian Harbor (U.S. Army Corps of Engineers 2018). Smith (2019) completed a coral assessment of the north quay wall, pier faces, and RO-RO ramp in Tinian Harbor and found no specimens of any ESA-listed corals (*A. globiceps* or *S. aculeata*) on any of the piers, the quay wall, or on any portions of the seafloor surveyed (adjacent to the piers and quay wall). Common non ESA-listed coral species in Tinian Harbor include coral from the taxa Merulinidae and Poritidae. Species of non ESA-listed corals reported in the Smith (2019) survey include *Pavona varians*, *Neomeris sp.*, *Pavona cactus*, and *Porites rus*. Any (non ESA-listed) coral species colonizing the existing sheet pile would be impacted by the installation of the panels over the sheet pile on the RO-RO ramp. Although coral colonies that are present on the existing sheet piles may be dislodged, damaged, or destroyed as a result of the panel installation, the existing sheet piles are heavily degraded and do not provide stable habitat for these colonies. Therefore, replacing the degraded existing sheet piles with an upgraded, stable alternative would provide new, suitable substrate on the RO-RO ramp for the growth of newly recruited corals that, in turn, may provide habitat for fish species in the future.

5.2.2 Essential Fish Habitat

EFH for the following Management Units is present within the proposed action area: Bottomfish and Seamount Groundfish and Pelagic Fish. Repairs on the RO-RO ramp would result in the temporary loss of the fouling community on those substrates. Installation of zinc anodes on the north quay wall would result in a minor reduction in the quality of EFH due to shading or reduced water circulation on the quay wall. Trenching and panel installation activities would temporarily suspend sediment, impacting benthic substrate and the turbidity within the water column. This would only occur in a narrow area adjacent to footprint of the RO-RO ramp.

As stated above (Section 5.1), in shallow harbors, natural processes and human activity regularly disturb sediment and cause the surrounding area to be turbid and relatively poor quality habitat. In addition, the sediment type of the proposed action area is large-grained and tends to settle very quickly when disturbed. Given the brief periods and limited area where turbidity would be elevated, and the already high turbidity of the proposed action area, additional disturbance to the water column in the proposed action area from trenching and diver activity would be minimal. Implementation of protective measures and BMPs (see Section 1.3) such as cessation of activity during coral spawning periods would further reduce the potential for adverse impacts to EFH.

Within the water column, in-water activities have the potential to cause behavioral reactions among fish which may be dependent on the habitat (i.e., EFH) within the proposed action area. However, most fish species are mobile and the impact would likely be limited to temporary avoidance behavior. In most cases, fish would seek shelter in nearby hard bottom habitats and rapidly resume normal behavior after in-water activities have been completed in the proposed action area. No permanent impacts would be expected.

For benthic substrate EFH, in-water activities have the potential to impact the quality of habitat for fish and invertebrates in the benthic substrate immediately adjacent to trenching, panel installation, and welding activities; however, the area of bottom directly impacted by the Proposed Action is limited to the approximately 1.25 ft³ (0.035 m³) of sediment in which trenching which would occur. The percentage of available habitat impacted by the Proposed Action is minimal relative to the overall amount of habitat available. In most cases, fish and crustaceans may seek shelter in nearby habitats and rapidly resume normal behavior after the in-water activities have been completed, and no permanent impacts to benthic substrates used as habitat would be expected. Individual, non-ESA-listed sessile organisms located on the benthic EFH adjacent to existing sheet piles have the potential to be injured or killed by trenching and panel installation activities. However, the impacts would be limited to a very small area, so the number of organisms potentially impacted would be very small, particularly relative to the overall populations in the area. As most benthic invertebrates would recolonize quickly, impact to the habitat value of benthic substrates would be minimal. Due to the limited impact of in-water activities on the species for which EFH has been designated, temporary and localized disturbances to the benthic substrate EFH caused by in-water activities associated with the Proposed Action would result in minor temporary damage to benthic substrates and localized avoidance behaviors.

For biogenic habitat EFH, the primary impact would be along the RO-RO ramp face. Repairs on the RO-RO ramp would result in the unavoidable loss of approximately 450 ft² (42 m²) of coral and 450 ft² (42 m²) of other biogenic habitat (primarily turf, filamentous and coralline algae), though a similar fouling community would eventually grow on the new substrate and no permanent net loss of habitat would occur. Installation of zinc anodes on the north quay wall would potentially result in temporary to permanent impacts to approximately 150 ft² (14 m²) of biogenic habitat along the north quay wall due to shading or reduced water circulation. Divers will attempt to minimize impacts by avoiding established coral colonies when selecting sites to place anodes. Due to the 8 in (20 cm) standoff distance for the anodes, water flow is not substantially reduced due to being raised from the sheet pile surface. Growth around and under the anodes is likely. Although the Proposed Action would result in loss of biogenic habitat designated as EFH, the existing sheet piles are heavily degraded, and no longer provide a stable substrate for biological growth. Repair of these piles would provide a stable substrate for the growth of a fouling community, and may eventually improve the quality of EFH.

Based on this analysis, the Proposed Action may result in a minor and temporary reduction of habitat quality, but no reduction in habitat quantity for water column and benthic substrate EFH, and a long term, but not permanent reduction in the quantity and quality of biogenic habitat EFH designated for

the Bottomfish and Seamount Groundfish and Pelagic Fish Management Units. The implementation of BMP's and mitigation measures as detailed in the EFH Assessment would be expected to reduce the impact to EFH.

5.2.3 ESA-Listed Species

ESA-listed marine species that may occur in the proposed action area include the endangered Central-West Pacific DPS of green sea turtle; the endangered hawksbill sea turtle, the threatened Indo-West Pacific DPS of scalloped hammerhead shark, and two threatened corals—*A. globiceps* and *S. aculeata*. There is no critical habitat within the proposed action area. From several years of Navy funded sea turtle monitoring in the CNMI, the most likely sea turtle in the Proposed Action Area would be the green sea turtle. Satellite tagging data from 2013-2019 determined that the majority of green sea turtle occurrence was outside of Tinian Harbor. While juvenile scalloped hammerhead sharks are known to inhabit shallow coastal bays, their occurrence in Tinian Harbor is likely to be infrequent or rare due to the small spatial extent of the harbor and impaired water quality. Only limited sightings of small numbers of *A. globiceps* have been documented in Tinian Harbor and only along the eastern edge of the north quay wall in 2016. In the last Navy funded coral survey in 2019, no *S. aculeata* corals were observed.

Given the slow movement of objects by divers underwater within the proposed action area, collision between any object and an ESA-listed species is considered to be discountable. The most likely effects from in-water activities to ESA-listed species would be localized disturbance that may cause behavioral reactions and a localized temporary increase in turbidity as divers and objects move during trenching, panel installation, and welding. The most likely effects to ESA-listed sea turtles and fish from acoustic stressors are auditory masking and behavioral reactions. There would be no effect on any ESA-listed coral species from acoustic stressors given their limited ability to detect sound. Behavioral responses of ESA-listed sea turtles and fish could include disruption or alteration of natural activities such as swimming and feeding; these species may dive, surface, or change swimming direction in response to the in-water disturbance. Implementation of protective measures and BMPs (Section 1.3) would ensure that ESA-listed sea turtles and scalloped hammerhead sharks would not be within 50 yards (yds; 46 m) of divers as they are performing installation activities. Disturbance caused by in-water activities and the presence of divers working may result in short-term and local displacement of ESA-listed sea turtles and fish; however, no long-term or population level effects would be expected. A temporary and localized increase in turbidity in the immediate footprint around the sheet piling would cause no long-term effects to any ESA-listed species nor would the Proposed Action cause take of any ESA-listed species.

Conclusion. Based on the above analysis, the Navy finds that the Proposed Action, with the implementation of protective measures and BMPs, is consistent to the maximum extent practicable with enforceable Policy Elements 4, 15, and 17 of the CNMI coastal management plan.

5.3 Socioeconomic Resources

Policy Elements 16, 18, 19, 21, and 22 from Table 1 reference aesthetic resources, fisheries resources, and local access to the shoreline within the CNMI coastal zone. Below is the analysis of the Proposed Action's impacts on these socioeconomic resources.

The proposed Tinian Harbor repairs would restore harbor capabilities that have degraded due to age and lack of maintenance and ensure the port remains operational while consistent with the Tinian Harbor master plan (Moffatt & Nichol 2018). The existing sheet pile of the RO-RO ramp on the connecting pier and the concrete spalling on that same pier both require repair. The north quay wall requires erosion protection in the form of the installation of zinc anodes. In addition, berths 1 and 2

require the repair of concrete pile caps and replacement of pile cap fenders and mooring bollards. In berth 1, a concrete pad would be added to the existing pier to further stabilize the area between pile cap and existing pavement. Repairs along berths 1 and 2 would make the berths functional, as fenders and mooring bollards are currently damaged or missing and the pier is missing sections of concrete. The Proposed Action may be essential to the continued functionality (and even existence) of the piers.

On the connecting pier, much of the Proposed Action would occur below the water line (and is therefore not visible); however, the installation of panels over the existing degraded sheet pile would significantly improve the aesthetics of the connecting pier within Tinian Harbor. Many of the components on berths 1 and 2, including pile caps, bollards, and fenders are severely degraded or missing. Replacement of these components and removal of the fencing on site would improve the aesthetics of berths 1 and 2. Aesthetically, locals and tourists utilizing the harbor would benefit from the Tinian Harbor repairs.

Because these repairs would keep the connecting pier, north quay wall, and pier components in berths 1 and 2 from further degradation, locals and tourists could continue to access and utilize the structures in Tinian Harbor for docking vessels. Harbor repairs would allow and enhance access to fishing vessels and sites, as well as tourism vessels and dive sites. Other vessels, such as those supplying fuel or commodities to the island of Tinian would also benefit from repairs to the RO-RO ramp, which is used to offload goods, and the north quay wall and berths 1 and 2, where the largest vessels that must deliver fuel and goods to Tinian must dock.

Conclusion. Based on the above analysis, the Navy finds that the Proposed Action is consistent to the maximum extent practicable with enforceable Policy Elements 16, 18, 19, 21, and 22 of the CNMI coastal management plan.

5.4 Cultural Resources

Policy Elements 11 and 12 from Table 1 reference cultural resources within the CNMI coastal zone. Below is the analysis of the Proposed Action's impacts on these cultural resources.

As of 2015, the Tinian Harbor area has been studied in 17 historical, architectural, or archaeological surveys, most within the last 30 years. Two eligible properties were identified as being within or near the proposed action area upon review of these surveys. The structures of Tinian Harbor have been identified in several of these surveys as being eligible for listing within the National Register of Historic Places (NRHP) under NRHP Criterion A because of their military significance (relation to development of the B-29 air base and the atomic bombing mission of World War II) and under NRHP Criterion C because of their engineering significance (reflective of Seabee engineering ingenuity). Although past surveyors have recognized that the harbor is in a deteriorated state, they have concluded that sufficient integrity remains to maintain its listing eligibility. The completion of repairs to deteriorated sections of the structures in the harbor could support the harbor's retention of its eligibility status. The House of Taga, a historic property with the largest erected latte stones in the Marianas, is located just inland of the harbor and has been determined to be eligible for listing in the NRHP; however, the House of Taga is outside of the proposed action area so there would be no impacts to this site. Human remains and burials related to both pre-contact and World War II casualties may also exist within the harbor. Ground disturbance for the concrete pad construction would be limited to man-made compacted basecourse added to the area during previous construction; no native soil would be disturbed. Although the Proposed Action would potentially affect Tinian Harbor, there would be no adverse effects to the cultural resources in the harbor for the following reasons: (1) the repairs would affect only a portion of the harbor structures and would not alter the harbor as a whole; (2) no components of the piers, berths, quay wall, or RO-RO ramp would be removed or demolished without being replaced in-kind; and (3) the

repairs would provide benefits to the integrity and continued use of the harbor in accordance with the Tinian Harbor Master Plan..

Therefore, the Proposed Action is fully consistent with enforceable Policy Elements 11 and 12 on cultural significance of the CNMI coastal management plan.

6 COASTAL ZONE CONSISTENCY CONCLUDING STATEMENT

The Navy analyzed the extent of the Proposed Action relative to the CNMI Administrative Code and Public Law 3-47. The applicable enforceable policies and Policy Elements were analyzed above and the Navy concluded that the APCs potentially overlap with the Proposed Action and coastal effects may be reasonably foreseeable; however, the Proposed Action would not contribute to unacceptable use categories and would not interfere with high priority use categories. In addition, there would be no adverse impacts to water resources, biological resources, socioeconomic resources, or cultural resources as discussed under the Policy Elements of Public Law 3-47. Based on this analysis, the Navy finds that the Proposed Action is consistent to the maximum extent practicable with the enforceable policies of the CNMI Administrative Code and Policy Elements of Public Law 3-47.

Pursuant to 15 C.F.R. §930.41, the CNMI Coastal Management Program has 60 days from the receipt of this letter in which to concur with or object to this Consistency Determination, or to request an extension under 15 C.F.R. §930.41(b).

The CNMI Coastal Management Program response should be sent to:

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7 REFERENCES

- Ahmad, Z. (2006). *Principles of Corrosion Engineering and Corrosion Control* (Vol. 1st Edition): Butterworth-Heinemann.
- Bearden, B., Castro, F., Houk, P., & Chambers, B. (2010). Commonwealth of the Northern Mariana Islands Integrated 305(b) and 303(d) Water Quality Assessment Report.
- Moffatt & Nichol. (2018). *Tinian Harbor Master Plan*.
- Philipp, E., & Fabricius, K. E. (2003). Photophysiological stress in scleractinian corals in response to short-term sedimentation. . *Journal of Experimental Biology and Ecology*, 287, 57-78.
- Smith, S. (2020). *Tinian Harbor Coral Reef Discussion*. Personal communication via to Dickenson, N.,
- Smith, S. H. (2019). May 2019 Assessment of Selected Portions of Tinian Harbor, Tinian Island, Commonwealth of the Northern Mariana Islands. Naval Information Warfare Center Pacific: Naval Information Warfare Center Pacific. p. 25.
- U.S. Army Corps of Engineers. (2018). Tinian Harbor Modification Study, Island of Tinian, Commonwealth of the Northern Mariana Islands: Interim Feasibility Report Tinian Harbor Modification Study. Honolulu District.
- Yuknavage, K., Arriola, J., Benavente, D., Camacho, R., Chambers, D., Derrington, E., Kaipat, J., & Johnson, M. (2018). *Commonwealth of the Northern Mariana Islands Integrated 305(b) and 303(d) Water Quality Assessment Integrated Report*. p. 272 pp.