



Environmental Assessment

Replace Seawall at Smiling Cove Marina

May 2008



ENVIRONMENTAL ASSESSMENT

Replace Seawall at Smiling Cove Marina



National Park Service

American Memorial Park Saipan

**U.S. Department of the Interior
National Park Service**

**Environmental Assessment
Replace Seawall at Smiling Cove Marina**

**American Memorial Park
Garapan, Saipan**

Summary

At American Memorial Park, the National Park Service proposes to replace the existing sheet pile wall along the west side of the human-made causeway separating the Smiling Cove Marina entrance channel and Outer Cove Marina with a new sheet pile wall, and backfill the land side of the wall. The purpose of the proposed action is to provide a long-term solution for the prevention of further soil erosion and undermining that has occurred along the west bank of the causeway. The proposed action is needed to increase visitor safety along the west side of the causeway and protect other park and marine facilities (road, parking area, and marina).

This environmental assessment examines in detail two alternatives: no action and the National Park Service preferred alternative. The preferred alternative includes a new sheet pile seawall to replace the existing structure and replacement of approximately 70 linear feet of the concrete woven mattress with a riprap rock slope, just south of the end of the sheet wall.

The preferred alternative would have no or negligible impacts on geological resources; cultural landscapes, historic structures, ethnographic resources, Indian trust resources, archeological resources, and museum collections; wetlands, floodplains, and tsunamis; prime and unique farmlands; ecological critical areas, wild and scenic rivers, and other unique natural areas; air quality; environmental justice; park operations; scenic resources; soundscapes; and lightscapes.

Short-term impacts to soils, water quality, biotic communities, coastal and marine resources, threatened and endangered species and species of special concern would be negligible to minor and adverse, lasting only during the construction period. Long-term impacts to soils and threatened and endangered species and species of special concern would be negligible to minor and adverse. Long-term impacts to soils, biotic communities, and coastal and marine resources would be negligible to minor and beneficial. Long-term impacts to water quality, and threatened and endangered species and species of special concern would be minor and beneficial. Short- and long-term impacts to visitor use and experience and socioeconomics would be minor to moderate and beneficial.

Note to Reviewers and Respondents

If you wish to comment on the environmental assessment, you may mail or e-mail comments to the address below. Our practice is to make comments available for public review during regular business hours. Individual respondents may request that we withhold their name and/or home address from the record, which we will honor to the extent allowable by law. *If you want us to withhold your name and/or address, you must state this prominently at the beginning of your comment.* We will make all submissions from organizations and businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety.

Please address comments to: Superintendent; American Memorial Park; PO Box 5198 CHRB; Saipan, MP 96950

E-mail: wapa_superintendent@nps.gov

CONTENTS

SUMMARY I

ACRONYMS AND ABBREVIATIONS VII

INTRODUCTION 1

Purpose and Need	1
Purpose and Significance of the Park	1
Origin and Purpose of the Park	4
Previous Project Planning and Scoping	4
Previous Planning	4
Scoping	5
Issues and Impact Topics	5
Issues	5
Derivation of Impact Topics	6
Impact Topics Included in this Document	6
Impact Topics Dismissed from Further Analysis	7

ALTERNATIVES 13

Introduction	13
Alternative A: No-Action Alternative	13
Alternative B: Preferred Alternative	13
General Construction Schedule	14
Environmentally Preferred Alternative	15
Mitigation Measures of the Preferred Alternative	16
Alternatives Considered But Dismissed	18
Alternatives Comparison Table	19
Summary of Environmental Consequences / Impact Comparison Matrix	19

AFFECTED ENVIRONMENT 21

Location and General Description of American Memorial Park	21
The Project Area	21
Soils	22
Water Quality	25
Biotic Communities	26
Vegetation	26
Terrestrial Wildlife	29
Coastal and Marine Resources	30
Coral Reefs	30

CONTENTS

Nearshore Marine Waters	31
Threatened and Endangered Species and Species of Special Concern	31
Visitor Use and Experience	34
Socioeconomics	35
ENVIRONMENTAL CONSEQUENCES	37
Introduction	37
Methodology	37
Context, Duration and Intensity, and Type of Impact	37
Context	37
Duration	37
Intensity	38
Type of Impact	38
Impact Intensity Thresholds	38
Soils	38
Biotic Communities	39
Coastal and Marine Resources	39
Threatened and Endangered Species and Species of Special Concern	40
Water Quality	40
Visitor Use and Experience	41
Socioeconomics	42
Cumulative Effects	43
Projects that Make Up the Cumulative Impact Scenario	43
Impairment of American Memorial Park Resources or Values	44
Environmental Consequences—Alternative A: No Action	44
Soils and Geological Resources	44
Water Quality	45
Biotic Communities	46
Coastal and Marine Resources	47
Threatened and Endangered Species and Species of Special Concern	47
Visitor Use and Experience	48
Socioeconomics	49
Environmental Consequences—Alternative B: Preferred Alternative	50
Soils	50
Water Quality	51
Biotic Communities	52
Coastal and Marine Resources	53
Threatened and Endangered Species and Species of Special Concern	54
Visitor Use and Experience	56
Socioeconomics	56

CONSULTATION AND COORDINATION 59

Scoping 59

List of Preparers 59

REFERENCES 61

APPENDIX A: Agency Correspondence 65

APPENDIX B: Scoping and Public Review 107

APPENDIX C: Sheet Pile Wall Design 113

APPENDIX D: NPS Coastal Zone Management Act Consistency Determination 129

FIGURES

Figure 1. Area Map 2

Figure 2. Project Location Map 3

Figure 3. Sheet Pile Seawall Section Out of Alignment 23

Figure 4. Erosion of Fill Material Behind Sheet Pile Seawall 23

Figure 5. View of Western Side of Causeway from Across Smiling Cove 24

Figure 6. Ironwood Observed in Project Area 27

TABLES

Table 1. Mitigation Measures of the Preferred Alternative 16

Table 2. Comparative Summary of Potential Environmental Impacts 19

Table 3. Endangered, Threatened, Sensitive, and Rare Species Occurring Within AMME 32

CONTENTS

ACRONYMS AND ABBREVIATIONS

AM ME	American Memorial Park
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CNMI	Commonwealth of the Northern Mariana Islands
°C	Degrees Centigrade
°F	Degrees Fahrenheit
DEQ	Department of Environmental Quality
GMP	General Management Plan
NEPA	National Environmental Policy Act of 1969, as amended
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
PL	Public Law
U.S.	United States
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service

INTRODUCTION

American Memorial Park (AMME), on the island of Saipan, is in the village of Garapan in the Commonwealth of the Northern Mariana Islands (CNMI). The Northern Mariana Islands is an archipelago of 15 islands; the most densely populated are the southern islands of Saipan, Rota, and Tinian (figure 1). Saipan is the seat of the CNMI government. AMME is the only federal park in the CNMI, and was established in 1978 to commemorate American soldiers who fought in and those who lost their lives in the campaign on Saipan during World War II. The park is a subunit of War in the Pacific National Historical Park in Guam.

PURPOSE AND NEED

The National Park Service (NPS) proposes to replace the existing sheet pile wall along the west side of the human-made causeway separating the Smiling Cove Marina entrance channel and Outer Cove Marina with a new sheet pile wall, and backfill the land side of the wall. The proposed project would begin at the newer concrete mattress embankment approximately 840 feet to the south of the north end of the causeway and terminate at the north end of the causeway (figure 2). The purpose of the action is to provide a long-term solution for the prevention of further soil erosion and undermining that has occurred along the west bank of the causeway. The proposed action is needed to increase visitor safety along the west side of the causeway and protect other park and marine facilities (road, parking area, and marina).

Specific concerns include:

- safety of visitors and users of the causeway and Outer Cove Marina
- continued erosion and undermining of the causeway and potential long-term effects to the integrity of the causeway

An environmental assessment analyzes the preferred alternative and other alternatives and their impacts on the environment. This environmental assessment has been prepared in accordance with the National Environmental Policy Act of 1969, as amended (NEPA), and regulations of the Council on Environmental Quality (CEQ) (40 *Code of Federal Regulations* [CFR] 1508.9); NPS Director's Order – 12: *Conservation Planning, Environmental Impact Analysis, and Decision-making*; the National Historic Preservation Act of 1966 (as amended), the Endangered Species Act (1973), as amended, and the Federal Coastal Zone Management Act of 1972.

PURPOSE AND SIGNIFICANCE OF THE PARK

An essential part of the planning process is to understand the purpose of the park for which this environmental assessment is prepared.

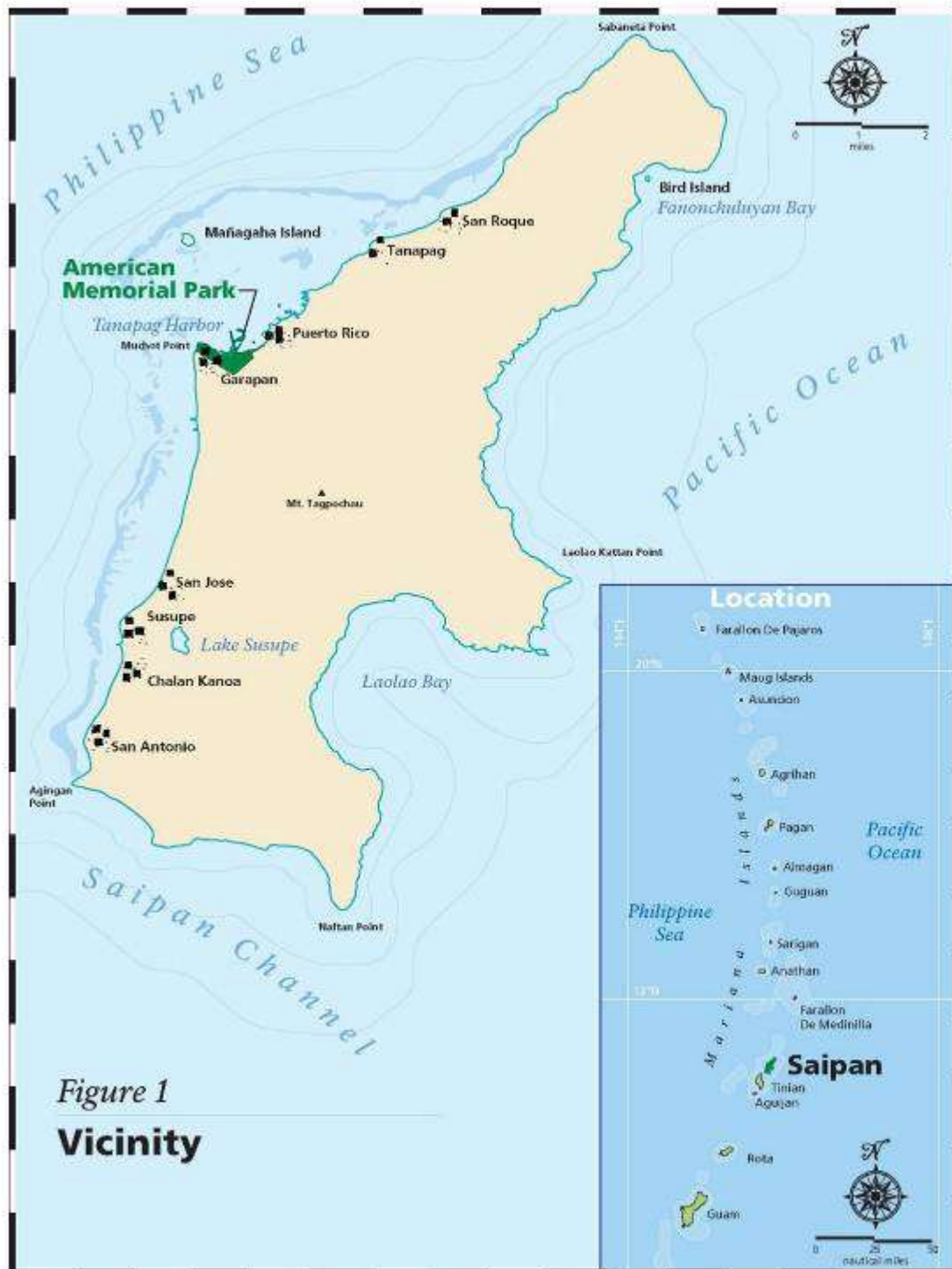


FIGURE 1. AREA MAP



FIGURE 2. PROJECT LOCATION MAP

Origin and Purpose of the Park

AM ME has its origins in Public Law (PL) 94-241 (March 24, 1976), a Covenant to Establish the Commonwealth of the Northern Mariana Islands. Among the details of PL 94-241 and its supporting agreements are substantial leases (some 18,182 acres) of Northern Mariana lands for military purposes. Of these lands that the U.S. military leased for military purposes, some lands were leased back to the Northern Mariana Islands. One of these leases at Garapan, Saipan, PL 94-241 states:

... the United States will make available to the Government of the Northern Marianas Islands 133 acres at no cost. This property will be set aside for public use as an American memorial park to honor the American and Mariana dead in the World War II Mariana Campaign. The \$2 million received from the Government of the United States for the lease of this property will be in a trust fund, and used for the development and maintenance of the park in accordance with the Technical Agreement.

In January 1978, the Physical Development Master Plan for the CNMI, Volume II, Saipan, was published. This document established conceptual guidelines for the type of development to occur within the park, proposing "...that the park have various mixtures of active and passive recreational facilities providing facilities for both the visitor and the local citizens." It envisioned the park as a recreation complex for island-wide activities (NPS GMP 1989).

On August 18, 1978 (PL 95-348), the U.S. Congress authorized and directed the National Park Service "to develop, maintain, and administer the existing American Memorial Park located at Tanapag Harbor Reservation, Saipan. The park shall be administered for the primary purpose of honoring the dead in the World War II Mariana campaign (NPS GMP 1989). The National Park Service was further directed to provide interpretative activities at the park and interpret historical aspects in four languages: English, Chamorro, Carolinian, and Japanese. The primary use of interpretation would be a description of the World War II battle for Saipan and its relationship to the Pacific theater. Secondary interpretative themes would encompass the ecological and environmental resources of the park. Lastly, the early history of Saipan could be interpreted to explain its relationship to subsequent historical events.

PREVIOUS PROJECT PLANNING AND SCOPING

Previous Planning

The National Park Service contracted a study to develop repair options for the sheet pile wall. The resulting report, *Damage to Outer Channel of Marina Repair Assessment* by Winzler & Kelly, January 22, 2007, documents the existing conditions, concepts for repair and replacement, permit requirements, and cost estimates. The concepts provided the basis for the alternatives considered in the planning process.

Scoping

Scoping is an effort to involve agencies and the general public in determining issues to be given detailed analysis in the environmental assessment and eliminate issues not requiring detailed analysis. Scoping allocates assignments among the interdisciplinary team members and/or other participating agencies; identifies related projects and associated documents; identifies permits, surveys, consultations, etc., required by other agencies; and creates a schedule that allows adequate time to prepare and distribute the environmental assessment for public review and comment before a final decision is made. Scoping seeks to obtain early input from any interested agency, or any agency with jurisdiction by law or expertise, including the CNMI Division of Historic Preservation; CNMI Division of Environmental Quality; U.S. Army Corps of Engineers (USACE), Honolulu District; National Oceanic Atmospheric Administration (NOAA), National Marine Fisheries Service; and U.S. Fish and Wildlife Service (USFWS). Responses were received from agencies during the scoping period and are included in appendix A. Agency input has been addressed in this environmental assessment.

Internal scoping was conducted by park staff and resource professionals of the National Park Service, Denver Service Center, and the Pacific support office beginning on August 8, 2007. This interdisciplinary process defined the purpose and need, identified potential actions to address the need, determined the likely issues and impact topics, and identified the relationship, if any, of the proposed action to other planning efforts at the park.

A public meeting was held on October 4, 2007, to discuss the proposals for the sheet pile seawall and the restroom relocation; approximately 30 people attended (see appendix B). A letter describing the proposed action was issued on February 27, 2008, and sent to approximately 70 people on the CNMI Council for Humanities and the Coastal Resources Management mailing lists. Comments were solicited during a public scoping period that ended March 28, 2008. No comments were received from the public. The public and agencies will also have an opportunity to review and comment on this environmental assessment.

ISSUES AND IMPACT TOPICS

Issues

Issues and concerns affecting this proposed action were identified from past NPS planning efforts, and input from scoping. The important issues are potential impacts to soils and geologic resources, biotic communities, coastal and marine resources, threatened and endangered species and species of special concern, water quality, visitor use and experience, and socioeconomics.

NEPA requires the consideration of impacts on affected ecosystems and is the basic national charter for the protection of the environment (CEQ Part 1500). NEPA requires federal agencies to use all practicable means to restore and enhance the quality of the human environment and to avoid and minimize any possible adverse effects of their actions upon the environment. The preferred alternative would minimize impacts to natural resources and

visitor use and experience, while protecting health and safety. Issues and mitigation measures are included in the rationale for selection of impact topics for further consideration or for dismissal from further consideration per the ensuing discussion.

Derivation of Impact Topics

Specific impact topics were developed to focus discussion and to allow comparison of the environmental consequences of each alternative. These impact topics were identified based on federal law, regulations, executive orders, NPS *Management Policies 2006*, and NPS knowledge of special or vulnerable resources. A brief rationale for the selection of each impact topic is given below, as well as the rationale for dismissing specific topics from further consideration.

Impact Topics Included in this Document

Soils and Geological Resources

Under the no-action alternative, soils (actually former fill materials) are being eroded and undermined along the shoreline. The proposed action would prevent future erosion of soils/fill materials; therefore, fill materials as soils are addressed as an impact topic in this environmental assessment. The causeway is a human-made spit of land and the proposed action would therefore not impact geological resources. Geological resources were dismissed from further analysis in this environmental assessment.

Biotic Communities

NEPA requires consideration of the impacts on affected ecosystems and requires federal agencies to use all practicable means to restore and enhance the quality of the human environment and to avoid and minimize any possible adverse effects of their actions on the environment. NPS policy is to protect the components and processes of naturally occurring biotic communities, including the natural abundance, diversity, and ecological integrity of plants and animals (NPS 2006). The proposed action has the potential to affect biotic communities; therefore, biotic communities are addressed as an impact topic in this environmental assessment.

Coastal and Marine Resources

The Federal Coastal Zone Management Act of 1972 requires federal agency activities to be consistent with a federally approved coastal management program. Marine resources are intrinsically linked to coastal resources and therefore addressed under one topic. Coastal and marine resources could be affected by sedimentation resulting from the proposed action; therefore, coastal and marine resources are addressed as impact topics in this environmental assessment.

Threatened and Endangered Species and Species of Special Concern

The Endangered Species Act of 1973, as amended, requires an examination of impacts on all federally listed threatened or endangered species. NPS policy also requires examination of impacts on federal candidate species, as well as state-listed threatened, endangered, candidate, rare, declining, and sensitive species. Therefore, threatened and endangered species and species of special concern are addressed as an impact topic in this environmental assessment.

Water Quality

The 1972 Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977, is a national policy to restore and maintain the chemical, physical, and biological integrity of the nation's waters; to enhance the quality of water resources; and to prevent, control, and abate water pollution. NPS *Management Policies 2006* provide direction for the preservation, use, and quality of water in national park units. Water quality could be affected by sedimentation resulting from the proposed action; therefore, water quality is addressed as an impact topic in this environmental assessment.

Visitor Use and Experience

The existing condition of the causeway has the potential to affect visitor use through deteriorating recreational facilities and public safety; therefore, visitor use and experience is addressed as an impact topic in this environmental assessment.

Socioeconomics

The no-action and preferred alternatives could affect local businesses using the Outer Cove Marina; therefore, socioeconomics is addressed as an impact topic in this environmental assessment.

Impact Topics Dismissed from Further Analysis

Cultural Landscapes and Historic Structures

As described by the NPS *Cultural Resource Management Guideline* (Director's Order – 28), a cultural landscape is,

... a reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions.

The sheet pile seawall protecting the rock groin causeway is 50 years of age and associated with World War II. However, both the seawall and the causeway it protects have been repaired innumerable times in the years following its construction. Numerous patches and the badly deteriorated condition of the sheet pile seawall have resulted in a loss of integrity. The seawall no longer retains the essential physical appearance that constituted its character at the conclusion of World War II, nor do the physical features of the seawall convey the feeling or association of the seawall with military activities on Saipan. The National Park Service is consulting with the CNMI Division of Historic Preservation regarding this project. Per section 106 of the National Historic Preservation Act, the National Park Service sent a letter to the CNMI Division of Historic Preservation on February 27, 2008, describing the project, integrity of the seawall, and its eligibility for listing in the National Register of Historic Places (NRHP). The letter requested concurrence from the CNMI with the finding of no historic properties affected. The National Park Service received concurrence from the CNMI Division of Historic Preservation on May 5, 2008 (see appendix A). The CNMI Historic Preservation Office concurred with no historic properties affected.

No cultural landscapes or historic structures meeting eligibility criteria for listing in the NRHP have been identified within the area of potential effect for this undertaking; therefore, cultural landscapes and historic structures were dismissed from further analysis in this environmental assessment. Public comment on the proposed undertaking would be accepted by the National Park Service during the public review period for this environmental assessment.

Ethnographic Resources

The National Park Service defines ethnographic resources as any

... site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it (Director's Order – 28: Cultural Resource Management Guideline, p. 191).

Because no ethnographic resources are known to exist in, or proximal to, the project area, ethnographic resources were dismissed from further analysis in this environmental assessment.

Indian Trust Resources

Secretarial Order 3175 requires that any anticipated impacts to Indian trust resources from a proposed project or action by Department of the Interior agencies be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and represents a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes. The lands comprising the park are not held in trust by the Secretary of the Interior for the benefit of Indians due to their status as Indians. Therefore, Indian trust resources were dismissed from further analysis in this environmental assessment.

Archeological Resources

An archeological survey of Micro Beach, adjacent to Smiling Cove Mariana, was conducted for the National Park Service in 1979 (*Archaeological Reconnaissance of American Memorial Park*, Saipan, CNMI, Michael Thomas and Samuel T. Price, 1979). There are known archeological features near Smiling Cove Mariana; however, these archeological features are outside the area of potential effect for the proposed action. The causeway, which is protected by the steel sheet pile seawall is human-made and no prehistoric archeological resources are present.

The National Park Service is consulting with the CNMI Division of Historic Preservation on this project and will accept public comment on the proposed undertaking during the public review period for this environmental assessment. If during construction, significant archeological resources are discovered, all work in the immediate vicinity of the discovery would be halted until the resources could be identified and documented and an appropriate mitigation strategy developed, if necessary, in consultation with the CNMI Division of Historic Preservation Office.

In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act of 1990 (25 *United States Code* [USC] 3001) would be followed. Because no impacts to NRHP-eligible archeological resources are anticipated, and any inadvertent discoveries would be addressed, archeological resources were dismissed from further analysis in this environmental assessment.

Museum Collections

Museum collections are generally not eligible for listing in the NRHP. Furthermore, this undertaking is not expected to impact museum objects; therefore, museum objects were dismissed from further analysis in this environmental assessment.

Wetlands

Executive Order 11990 (*Protection of Wetlands*) requires an examination of impacts to wetlands. There are no jurisdictional or NPS-defined wetlands documented within the project area. Therefore, wetlands were dismissed from further analysis in this environmental assessment.

Floodplains and Tsunamis

Executive Order 11988 (*Floodplain Management*) requires an examination of impacts to floodplains and potential risk involved in placing facilities within floodplains. NPS *Management Policies 2006*, Director's Order – 2: *Planning Guidelines*, and Director's Order – 12: *Conservation Planning, Environmental Impact Analysis, and Decision-making* provide guidelines for proposed actions in floodplains. The proposed action would not change or impact floodplains or change floodplain elevations. A tsunami is a series of waves created

when a body of water, such as an ocean, is rapidly displaced. Tsunamis can be caused by earthquakes, landslides, volcanic eruptions, and other mass movements above or below water. The proposed action would not change or cause impacts to tsunamis. It would also be anticipated that the sheet pile seawall would not change impacts caused by a devastating tsunami. Therefore, floodplains and tsunamis were dismissed from further analysis in this environmental assessment.

Prime and Unique Farmlands

In 1980, the CEQ directed federal agencies to assess the effects of their actions on farmland soils classified as prime or unique by the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). Prime or unique farmland is defined as soil, which particularly produces general crops such as common foods, forage, fiber, and oil seed; unique farmland produces specialty crops such as fruits, vegetables, and nuts. There are no prime or unique farmlands associated with the project area; therefore, prime and unique farmlands were dismissed from further analysis in this environmental assessment.

Ecologically Critical Areas, Wild and Scenic Rivers, Other Unique Natural Areas

No areas within the project footprint have been designated as ecologically critical, nor are there any existing or potential wild and scenic rivers. The mangrove wetlands are important natural vegetation stands and some occur within the natural area south of the proposed site, but the proposed action would not threaten the associated qualities of, or physically affect, these wetlands. Therefore, these topics were dismissed from further analysis in this environmental assessment.

Air Quality

The 1963 Clean Air Act, as amended (42 USC 7401 *et seq.*), requires land managers to protect air quality. Section 118 of the Clean Air Act requires parks to meet all federal, state, and local air pollution standards. NPS *Management Policies 2006* address the need to analyze potential impacts to air quality during park planning. The proposed action could have a slight effect through particulate and dust emissions during backfilling operations; however, this activity would have negligible and very short-term effects on air quality; therefore, air quality was dismissed from further analysis in this environmental assessment.

Environmental Justice

Executive Order 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*), requires all agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations or communities. No alternative under consideration would have disproportionately high and adverse health or environmental effects on minorities or low-income populations or communities as defined in the Environmental Protection Agency's

Draft Environmental Justice Guidance (July 1996). Therefore, environmental justice was dismissed from further analysis in this environmental assessment.

Park Operations

Effects on park operations from the proposed action would be negligible. Increased staff or additional equipment would not be required, nor would this proposed action result in additional maintenance activities. Therefore, park operations were dismissed from further analysis in this environmental assessment.

Scenic Resources

In an evaluation of scenic quality, both the visual character and visual quality of a viewshed are considered. A viewshed comprises the limits of the visual environment associated with the proposed action. The sheet pile wall has been in existence for over 40 years, and the proposed action does not relocate or expand the wall. The project area includes the causeway, roads, boats, marina facilities, and other human-made intrusions into the viewshed. During construction, construction equipment would be introduced into the viewshed, but this would be short term, and would occur only along the northern end of the existing causeway. Some trees would be removed during construction; however, other trees would remain resulting in a minimal visual effect. Therefore, scenic resources were dismissed from further analysis in this environmental assessment.

Soundscapes

In accordance with NPS *Management Policies 2006* and Director's Order – 47: *Sound Preservation and Noise Management*, an important part of the NPS mission is preservation of natural soundscapes associated with national park units. Natural soundscapes exist in the absence of human-caused sound. The natural ambient soundscape is the aggregate of all the natural sounds that occur in park units, together with the physical capacity for transmitting natural sounds. Natural sounds occur within and beyond the range of sounds that humans can perceive and can be transmitted through air, water, or solid materials. The frequency, magnitude, and duration of human-caused sound considered acceptable varies among NPS units, as well as potentially throughout each park unit, being generally greater in developed areas and less in undeveloped areas. This area accommodates use of private and commercial power boats, buses, personal automobiles, and maintenance and operational vehicles. Replacement of the sheet pile wall would have a noise consequence during construction with driving the sheet wall into place and earthmoving activities; however, these consequences would be short term and negligible and not result in a measurable increase in noise after construction. Because adverse impacts to soundscapes would be negligible and short term, soundscapes were dismissed from further analysis in this environmental assessment. Noise effects to biotic communities are discussed under the appropriate sections.

Lightscapes

In accordance with NPS *Management Policies 2006*, the National Park Service strives to preserve natural ambient lightscapes, which are natural resources and values that exist in the absence of human-caused light. Construction activities would only occur during the day and no new lighting would be installed as a result of the proposed action. Lightscapes would not be affected by the proposed action; therefore, lightscapes were dismissed from further analysis in this environmental assessment.

ALTERNATIVES

INTRODUCTION

The “Alternatives” section describes two management alternatives for repair or replacement of the seawall.

The no-action alternative describes the continuation of existing conditions without implementation of the proposed action. It does not imply or direct discontinuance of the present action or removing existing uses, developments, or facilities. The no-action alternative provides a basis for comparing the management direction and environmental consequences of the preferred alternative. Should the no-action alternative be selected, the National Park Service would respond to future needs and conditions associated with the seawall without major actions or changes in management direction.

The preferred alternative presents the NPS proposed action and defines the rationale for the action in terms of resource protection and management, visitor and operational use, costs, and other applicable factors. A summary table comparing the environmental consequences of the no-action and preferred alternatives is presented at the end of this section.

Additional alternatives considered and dismissed from detailed analysis are also discussed in this section.

ALTERNATIVE A: NO-ACTION ALTERNATIVE

Alternative A, the no-action alternative, would continue the existing conditions of the seawall. Should the no-action alternative be selected, the National Park Service would respond to future needs and conditions associated with the seawall without major actions or changes in the present course. The no-action alternative does not preclude short-term, minor repair or improvement activities for the seawall that would be part of routine maintenance.

ALTERNATIVE B: PREFERRED ALTERNATIVE

Alternative B is the NPS preferred alternative. The preferred alternative presents the NPS proposed action and defines the rationale for the action in terms of resource protection and management, visitor and operational use, and costs. The preferred alternative meets the planning objective of providing recreational opportunities and a safe visitor experience, and managing park and marine resources in this portion of AMME.

Under alternative B, a new sheet pile seawall would be constructed to replace the existing structure. The project would also involve replacing approximately 70 linear feet of the concrete woven mattress just south of the end of the sheet wall with a riprap rock slope. The concrete mattress has failed and the soils have eroded.

The new sheet pile seawall would begin at this rock slope. The wall would run north for approximately 800.0 feet to the end of the causeway. The wall would right angle to the east across the north end of the causeway for 54.0 feet. The wall would then right angle again to the south on the east side of the causeway for 82.0 feet and end in a riprap rock slope that ties into the existing riprap slope. The seawall would rise approximately 5.0 feet above mean sea level. The new seawall would be constructed within 1.0 foot of the existing sheet pile seawall (appendix C) and would be installed with the use of a pile driver. The existing sheet pile seawall would cut at elevation 2.0 feet +/- or removed, as necessary.

This alternative would include backfill and grading below the mean higher high water (approximately 2.0 feet above sea level). Additional fill would be brought in from the local limestone quarry. The ground surface would be graded to the top of the sheet pile wall and would be capped with a 5.0-foot-wide walkway abutting the sheet wall. A safety handrail would top the sheet pile seawall. Infiltration chambers would be placed within the project area to capture and divert stormwater runoff from the land surface and away from the new structure and fill material.

Contractor staging areas would be limited to the existing road and previously disturbed areas adjacent to the project area.

The CNMI Division of Environmental Quality (DEQ) and the USACE expects the following permits would be required:

- DEQ One-start Noncommercial Earthmoving and Erosion Control Permit
- DEQ Section 401 Water Quality Certification
- USACE Nationwide Permit 3 (Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act)
- Coastal Resources Management Federal Consistency Determination for the Coastal Zone Management Act (see appendix D)

The estimated cost for the proposed project would be approximately \$3.5 million (Winzler & Kelly 2007).

General Construction Schedule

The replacement of the sheet pile seawall would occur over approximately 12 months. The first six months would include securing permits, completing necessary plans, and procuring materials and equipment. The actual construction phase of the project would be completed in the second six-month period. It is anticipated that the pile driver would be employed during most of the construction phase.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

In accordance with Director's Order 12, the National Park Service is required to identify the "environmentally preferred alternative" in all environmental documents, including environmental assessments. The environmentally preferred alternative is determined by applying the criteria suggested in NEPA, which is guided by the CEQ. The CEQ provides direction that "[t]he environmentally preferred alternative is the alternative that will promote the national environmental policy as expressed in Section 101 of NEPA, which considers:

1. fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations
2. assuring for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings
3. attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences
4. preserving important historic, cultural, and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice
5. achieving a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities
6. enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources" (NEPA, section 101).

The no-action alternative is not the environmentally preferred alternative because it would not:

- assure safe facilities and the widest range of uses within the park (criteria 2 and 3)
- protect the park's natural resources and maintain an environment that supports choice (criterion 4)

The environmentally preferred alternative in this environmental assessment is the NPS preferred alternative, alternative B. Alternative B:

- Best fulfills criterion 1 by replacing the deteriorated seawall with a new seawall designed to minimize impacts to natural and cultural values, thus ensuring the responsibilities of each generation as trustee of the environment for succeeding generations.
- Would best meet criterion 2 by improving safety at the marina. Improving safety would enhance the functionality of the marina thus contributing to productive and esthetically and cultural pleasing surroundings.

- Best addresses criterion 3 by improving the maritime function of Smiling Cove Marina. The seawall would be designed to avoid or minimize impacts to natural and cultural resources, thus attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.
- Best meets criterion 4 by preserving important historic, cultural and natural aspects of our national heritage because this alternative improves conditions at Smiling Cove Marina and restores functionality of the seawall, thereby enhancing an environment that support diversity and variety of individual choice. Best meets criterion 5 because it improves conditions at the marina, allowing a balance between population and resource use that would permit high standards of living and a wide sharing of life's amenities.

In short, this alternative would protect visitor and employee health, safety, and welfare with a minimum of disturbance to natural resources.

MITIGATION MEASURES OF THE PREFERRED ALTERNATIVE

Mitigation measures are presented as part of the preferred alternative. These actions have been developed to lessen the adverse effects of the preferred alternative. Mitigation measures would be funded through the project construction budget, unless specifically noted below.

TABLE 1. MITIGATION MEASURES OF THE PREFERRED ALTERNATIVE

Resource Area	Mitigation	Responsible Party
General Considerations	The NPS project manager would ensure that the project remains confined within the parameters established in the compliance documents and that mitigation measures would be properly implemented.	National Park Service
	Construction zones would be identified and flagged before beginning construction and all disturbances would be confined to the flagged areas. All project personnel would be instructed that their activities must be confined to locations within flagged areas and all equipment and materials must remain within these areas. Disturbances beyond the actual construction zone would be prohibited. This does not exclude necessary temporary structures such as silt-control barriers.	Construction Contractor
	All tools, equipment, barricades, signs, surplus materials, and rubbish would be removed from the project work limits upon project completion. Any asphalt or concrete surfaces damaged due to work on the project would be repaired to original condition. All demolition debris would be removed from the project site, including all visible concrete and metal pieces.	Construction Contractor
	Engine idling of construction vehicles would be limited to reduce construction equipment emissions.	Construction Contractor

TABLE 1. MITIGATION MEASURES OF THE PREFERRED ALTERNATIVE

Resource Area	Mitigation	Responsible Party
General Considerations	Best management practices to reduce spills would be used during refueling and other activities that may release petroleum products into the environment.	Construction Contractor
	A hazardous spill plan would be in place, stating what actions would be taken in the case of a spill and preventive measures to be implemented such as placement of refueling facilities, storage, and handling hazardous materials, etc.	Construction Contractor
	All fuel, transmission or brake fluid leaks, or other hazardous waste leaks, spills, or releases would be reported immediately to the designated environmental manager. The environmental manager would be responsible for spill material removal and disposal to an approved off-site landfill and, if necessary, would notify the appropriate federal agency.	Construction Contractor
	All equipment on the project site would be maintained in a clean and well-functioning state to avoid or minimize contamination from automotive fluids and unnecessary noise.	Construction Contractor
	Staging for construction vehicles and equipment would be located in previously disturbed areas, outside of high visitor use areas, and would be clearly identified in advance.	Construction Contractor
	Construction activity must not interfere with the public's right to free navigation on all navigable waters of the United States.	Construction Contractor
	Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise would be installed	Construction Contractor
Vegetation	In an effort to avoid introduction of nonnative/noxious plant species, no imported topsoil or hay bales would be used.	Construction Contractor
	Reclaimed areas would be monitored after construction to determine if reclamation efforts are successful or if additional remedial actions are necessary. Remedial actions could include installation of erosion-control structures and controlling nonnative plant species. Additional remedial actions would be funded by the National Park Service or CNMI.	National Park Service / CNMI Department of Lands and Natural Resources
Water Quality	A silt fence would be installed in the water surrounding the project area and best management practices would be used for controlling nonpoint source pollution during construction and to control sedimentation and erosion during small storm events.	Construction Contractor
	Construction work would not occur during the hard coral spawning cycle, usually around the full moons of June, July, and August. If work would occur during those months, the University of Guam Marine Laboratory would be contacted for the exact spawning dates.	Construction Contractor
	Project-related materials (fill, revetment rock, pipe, etc.) would not be stockpiled in the water (intertidal zones, reef flats, stream channels, etc.).	Construction Contractor
	All project-related materials and equipment (dredges, barges, backhoes, etc.) placed in the water would be free of pollutants.	Construction Contractor
	All potential contaminants (rubbish or debris, introduction of alien species, etc.) would be avoided or kept out of the environment.	Construction Contractor

TABLE 1. MITIGATION MEASURES OF THE PREFERRED ALTERNATIVE

Resource Area	Mitigation	Responsible Party
Water Quality	Fueling project-related vehicles and equipment would take place away from the water, and a contingency plan to control petroleum product spills during the project would be developed. Absorbent pads and containment booms would be stored on-site to facilitate cleanup of any accidental petroleum spills.	Construction Contractor
	All debris removed from the marine/aquatic environment shall be disposed at an approved upland or ocean dumping site.	Construction Contractor
	Any under-layer fills used in the project shall be protected from erosion with stones (or core-loc units) as soon after placement as practicable.	Construction Contractor
	Any soil exposed near water as part of the project shall be protected from erosion (with plastic sheeting, filter fabric, etc.) after exposure, and stabilized as soon as practicable (with vegetation matting, hydroseeding, etc.).	Construction Contractor
Archeological Resources	If during construction, significant archeological resources are discovered, all work in the immediate vicinity of the discovery would be halted until the resources could be identified, documented, and an appropriate mitigation strategy developed, if necessary, in consultation with the CNMI Division of Historic Preservation Office.	Construction Contractor for discovery, NPS for consultation
	In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001) would be followed. Because no impacts to NRHP-eligible archeological resources are anticipated, and any inadvertent discoveries would be addressed, archeological resources was dismissed as an impact topic.	Construction Contractor for discovery, NPS for consultation
Threatened and Endangered Species	A monitor would be employed for this project during marine construction activities to monitor for the presence of sea turtles and other listed species. If sea turtles and other marine mammals enter the area, the monitor would have the authority to stop work. If necessary, consultation with the USFWS and the CNMI Coastal Resources Management Office would be conducted.	Construction Contractor for monitor, NPS for consultation

Alternatives Considered But Dismissed

During initial planning for this project, four additional alternatives were considered:

- Alternative 1: Backfill and grade eroded areas.
- Alternative 2: Excavate behind existing sheet pile and place wire-wrapped gabions behind the sheet pile, backfilling, and grading.
- Alternative 3: Add rock slope protection.
- Alternative 4: Construct a new reinforced concrete retaining wall behind the existing sheet pile wall.

The above alternatives only provided short- or mid-term solutions and do not meet the project purpose and need for a long-term solution. Therefore, the above alternatives were dismissed from detailed analysis.

ALTERNATIVES COMPARISON TABLE

No-Action Alternative	Preferred Alternative
There would be no improvements to approximately 840 feet of sheet pile seawall. Park and CNMI staff would respond to erosion and undermining without implementing actions beyond normal maintenance or temporary repairs. <u>Meets project objectives?</u> No. This alternative does not provide a long-term solution to address sheet pile seawall deficiencies or conditions as defined in the "Purpose and Need" section. Specifically, it does not address protecting park and marine facilities, replacing the seawall, safety improvements, and erosion control.	Approximately 840 feet of existing sheet pile wall would be replaced and soils backfilled behind the wall. On top of the sheet pile wall, a sidewalk and handrail would be installed. Riprap would be installed in the area of the undermined concrete mattress to the south of the sheet pile seawall. <u>Meets project objectives?</u> Yes. The preferred alternative meets the park planning objective of protecting park and marine facilities and providing a long-term solution that would provide safety improvements and erosion control.

SUMMARY OF ENVIRONMENTAL CONSEQUENCES / IMPACT COMPARISON MATRIX

TABLE 2. COMPARATIVE SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS

Potential Environmental Impacts		
Impact Topic	Alternative A: No-Action Alternative	Alternative B: Preferred Alternative
Soils	- Project specific: short- and long-term, minor to moderate, and adverse impacts - Cumulative: short- and long-term, minor to moderate adverse impacts	- Project specific: short- and long-term, negligible to minor, and adverse, and long-term, negligible to minor, and beneficial impacts - Cumulative: short-term, minor and long-term, negligible to minor and adverse impacts
Biotic Communities	- Project specific: short and long term, negligible to minor, and adverse - Cumulative: short- and long-term, minor, adverse, impacts	- Project specific: short term, negligible to minor, and adverse and long-term negligible to minor and beneficial impacts - Cumulative: short- and long-term, minor, adverse, and long-term, minor beneficial impacts

TABLE 2. COMPARATIVE SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS

Potential Environmental Impacts		
Impact Topic	Alternative A: No-Action Alternative	Alternative B: Preferred Alternative
Coastal and Marine Resources	- Project specific: short and long term, negligible to minor, and adverse - Cumulative: short- and long-term, minor to moderate, adverse impacts	- Project specific: short-term negligible to minor, and adverse and long-term, negligible to minor and beneficial impacts - Cumulative: short- and long-term, minor to moderate, adverse impacts, and long-term, negligible to minor, beneficial impacts
Threatened and Endangered Species and Species of Special Concern	- Project specific: short and long term, negligible to minor, and adverse - Cumulative: short- and long-term, negligible to moderate, adverse impacts	- Project specific: short and long term, negligible to minor, and adverse, and long-term, minor, and beneficial - Cumulative: short- term, minor, adverse impacts, and long-term, minor, and beneficial impacts
Water Quality	- Project specific: long term, negligible to minor, and adverse - Cumulative: short-term and long-term, negligible to minor, adverse impacts	- Project specific: short-term, negligible to minor, and adverse, and long-term, minor and beneficial impacts - Cumulative: short- and long-term, minor to moderate, and adverse impacts
Visitor Use and Experience	- Project specific: short- to long-term, minor to moderate, adverse impacts - Cumulative: short- and long-term, minor to moderate, adverse impacts	- Project specific: direct and indirect, short- and long-term, minor to moderate, beneficial impacts - Cumulative: direct and indirect short- and long-term, minor to moderate, beneficial impacts
Socioeconomics	- Project specific: indirect, long term, moderate, and adverse - Cumulative: indirect long-term, minor to moderate, and adverse impacts	- Project specific: direct and indirect, short- and long-term, minor to moderate, and beneficial impacts - Cumulative: direct and indirect, long-term, minor to moderate, beneficial impacts

AFFECTED ENVIRONMENT

This section provides a brief description of AM ME and describes resources that may potentially be affected by the proposed storm damage repairs (seawall replacement).

LOCATION AND GENERAL DESCRIPTION OF AMERICAN MEMORIAL PARK

AM ME encompasses approximately 133 acres on the island of Saipan (15° 10'N, 145° 45'E). The park is a combination of beachfront, recreation area, Smiling Cove Marina, walking and jogging path, secondary forest, wetlands, and mangrove forest patches. Elevation ranges from mean sea level to 10 feet. The climate is tropical; relative humidity is generally within 80% to 90%, with temperatures ranging from 68 degrees Fahrenheit (°F) (20 degrees Centigrade [°C]) to 89°F (32°C). Average annual rainfall is 83 inches. Saipan is repeatedly affected by tropical typhoons (often several per decade), which have caused major damage in the past.

Most park visitors are local residents, and the beach area experiences heaviest use. Recreation includes picnicking, swimming, fishing, boating, athletic events, and ceremonial activities. Most of the adjacent landowners are private and include the Hyatt and Victoria hotels. The park is bounded by public roads and the town of Garapan on the southern border. The CNMI government owns Puerto Rico Dump / Lower Base on the northeast side of the park and the waters to the west and north, including a beach and a boat harbor with an access channel created during World War II.

THE PROJECT AREA

The project area comprises the outer half of a causeway that runs from Smiling Cove Marina to the north for approximately 1,800 feet (see figure 2). The causeway is approximately 80 feet wide, dividing the Smiling Cove boat channel from Outer Cove Marina and Harbor to the west. It has a 20-foot-wide paved road surface with unpaved parking between the road and sheet pile wall to the south. The eastern side of the causeway in Outer Cove Marina has large stone armor protection. The stone armor is in good condition and shows no signs of failure.

The west embankment of the causeway is hardened with a meshed concrete mattress from the southern end approximately 1,200 feet to the north. At the end of the mattress, a steel interlocking sheet pile seawall begins and runs for approximately 850 feet to the northern tip of the causeway. The sheet pile seawall, constructed over 40 years ago, is badly corroded and failing.

The causeway has experienced localized failures and is likely, in its current condition, to experience additional failures at any time. The “Damage to Outer Channel of Marina Repair Assessment” (Winzler & Kelly 2007) describes the current condition of the sheet pile seawall as:

The southern slope has been undercut and the soil foundation is missing in places. The soil is only marginally supported by existing vegetation in places and represents a serious danger of collapsing, ... leaving the ground cantilevered and inadequately supported.

One section of the sheet pile seawall is significantly out of alignment by as much as 10 feet (figure 3). The misalignment is most likely a result of a combination of corrosion, soil pressure, and/or failure of the interlocking joint. Corrosion of the metal sheet pile is significant with the top 3 or 4 feet of the sheet pile completely missing, resulting in a jagged rusty projection of the remaining top edge. There is a continuous longitudinal cavity that has formed behind the sheet pile, most likely due to erosion of the backfill, and wave action during storms that overtop the rusted sheet pile face (figure 4).

SOILS

The project area lies within the Western Coastal Plain physiographic subdivision of the island of Saipan. The Western Coastal Plain starts at the beaches of San Roque to the north and continues south to Agingan Point, varying in width from approximately one-eighth of a mile to over a mile wide. It is predominantly composed of calcium carbonate sands, rising inland from sea level to an elevation of 15 to 20 feet. Seaward of the west coast beach is a shallow lagoon separated from the Philippine Sea by a barrier reef (Carruth 2003).

Saipan is a subsidiary peak on the Mariana Island arc and consists of a volcanic core overlain by younger limestone terraces. Approximately 90% of the surficial geology consists of limestones and calcareous deposits with exposed volcanic outwash comprising the remaining 10% of the land surface (Carruth 2003). In cross section, the geology of the project area consists of the oldest and deepest Sankakuyama Formation (dacitic flow and pyroclastic rocks), which is overlain by the Hagman Formation (andesitic pyroclastic rocks, lava flows, and water-laid volcanogenic sediments), then Tagpochau limestone (a complex of calcareous clastic rocks that intergrade with one another and rely mainly on fossil evidence to distinguish from other fragmented limestones), Tanapag limestone (dirty white to brownish coral-algal reef limestone and bioclastic limestone), and deposits of Pleistocene and Holocene age (consisting of younger terrace deposits of varied types of reworked volcanic materials, marsh deposits, recently emerged calcium carbonate [lime] sands, and present reef and beach deposits) (Carruth 2003, Perreault 2007).

The surficial geology of the project area consists of natural deposits of Pleistocene and Holocene age that were largely covered with artificial fill to create the human-made causeway of Tanapag Harbor (Carruth 2003).

A geotechnical investigation of the project area was conducted in 2008, which consisted of three test borings (boring 1 in the north end of the project, boring 2 in the center, and boring 3 in the south end) drilled to 80 feet below the surface behind the existing sheet pile seawall.



FIGURE 3. SHEET PILE SEAWALL SECTION OUT OF ALIGNMENT



FIGURE 4. EROSION OF FILL MATERIAL BEHIND SHEET PILE SEAWALL

Due to an access problem, the test borings were approximately 20 feet to 25 feet behind the existing sheet pile seawall. During the investigation, hard coralline limestone bedrock was encountered at approximately 70 feet deep in all three test borings (Winzler & Kelly 2008).

Groundwater does not exist in the project area specifically, but occurs on the mainland within the park. Groundwater that exists in the park occurs in ocean-island aquifers, which consist of a freshwater layer overlying a much denser ocean-derived saltwater layer. The permeable nature of the fragmented limestone allows the water to percolate, where it becomes perched atop the much less permeable underlying volcanic basement rocks (Perreault 2007). During the 2008 geotechnical investigation, groundwater level was gauged between 4.5 feet to 5.2 feet below the existing ground surface, with fluctuation of several feet anticipated due to tidal changes (Winzler & Kelly 2008).

The soils of Saipan are either highly weathered lateritic clays (oxisols or ultisols) or very young inceptisols. In the project area, artificial fill material was deposited to form the causeway that extends north into Tanapag Harbor. Figure 5 depicts the western side of the causeway where no soils were mapped in the project area by the USDA, NRCS.



FIGURE 5. VIEW OF WESTERN SIDE OF CAUSEWAY FROM ACROSS SMILING COVE

During the 2008 geotechnical investigation, the test borings in the northern and center portions of the project area (boring 1 and boring 2, respectively) revealed that the fill material consisted of dense to very dense, sandy limestone gravel to a depth of 15 to 20 feet below the surface. Underlying the sandy gravel was an alternating loose to medium dense layer, becoming dense from 40 feet to 50 feet, of silty sandy limestone or coral gravel extending to approximately 60 feet deep in borings 1 and 2. In boring 1, from approximately 60 feet to 70 feet deep, a 10-foot layer of very loose, silty sandy coral (limestone) gravel was encountered. This layer is likely the original sea bed. In boring 2, from approximately 60 to 70 feet deep, a 10-foot layer of very soft, dark brown clayey silt was encountered. Hard, coralline bedrock was encountered at approximately 70 feet deep in both borings (Winzler & Kelly 2008).

During the 2008 geotechnical investigation, the test boring in the south of the project area (boring 3) revealed that the fill material consisted of an alternating dense to medium dense to very dense layer of silty sandy limestone or coral gravel until hard, coralline bedrock is encountered at approximately 70 feet deep (Winzler & Kelly 2008).

WATER QUALITY

The CNMI DEQ (<http://www.deq.gov.mp>) regulates water quality and contaminants and is the permitting agency for pollution control, sewage disposal, and earth-moving activities in the CNMI. The water quality standards of the CNMI have two classifications for marine waters (AA and A), and two for fresh surface water (1 and 2). The coastal waters of the park to the north of Puntan Muchot are considered class A waters “protected for their recreational use and aesthetic enjoyment. Other uses are allowed as long as they are compatible with the protection and propagation of fish, shellfish, and wildlife, and recreation in and on these waters of a limited body contact nature.” The park coastal areas south of Puntan Muchot are class AA; to remain in their natural state with a minimum of alteration and no dumping permitted. Fresh waters of the park are class 1; with an absolute minimum of human influence and the prohibition of wastewater discharges and mixing zones for these waters (DeVerse and DiDonato 2006).

The park contains no streams; however, a constructed wetland flows through the park and discharges into the marina. It receives stormwater runoff from neighboring Garapan and brine discharged from private drinking water facilities. Surrounding land use has altered the hydrology of the natural wetlands in the park, raising concern that rising salinity levels would impact mangrove stands and aquatic organisms occurring in mangrove habitat. In addition to threats associated with terrestrial runoff, areas offshore of the park may be impacted by contaminants from a closed landfill adjacent to the park and heavy metals from unknown sources. Data reported by the CNMI DEQ from beach monitoring sites near the park between 1994 and 1999 demonstrate an overall decline in dissolved oxygen. Turbidity values for these same sampling sites varied more than the standards allow for both class A and class AA waters, but it is unclear whether this was due to natural conditions or human-related causes. Annual means of turbidity for each site decreased for all but one of the five park sampling sites (DeVerse and DiDonato 2006).

BIOTIC COMMUNITIES

This section describes the biotic environment within and adjacent to the causeway where the sheet pile seawall is to be repaired. The discussions include vegetation and the wildlife subsections of birds, mammals, reptiles, and amphibians.

Vegetation

Saipan experiences a tropical oceanic climate typical of the islands in the North Pacific. Temperatures range from 68°F (20°C) to 89°F (32°C); relative humidity is generally within the 80% to 90% range. The average annual rainfall is 83 inches, which falls primarily during the monsoon (wet) season (July to October). Saipan often experiences several typhoons each decade; some typhoons have caused major damage to vegetation and wildlife habitats (Snyder 2006). The average wind velocity is 10.5 mph, with persistent northeast and east-northeast trade winds during the dry season (January to May) and less intense, sporadic winds of varying directions during the wet season (Raulerson and Rinehart 1989).

The Nature Conservancy has defined ecological systems to represent recurring groups of biological communities that occur in similar physical environments and are influenced by similar dynamic ecological processes such as fire or flooding. Ecological systems represent classification units that are readily identifiable by conservation and resource managers in the field. The Nature Conservancy uses the World Wildlife Fund ecoregions classifications for all areas outside North America (NatureServe 2007). AM ME, and the whole of the Mariana Islands chain, occupies the World Wildlife Fund Marianas Tropical Dry Forests ecoregion, which is characterized by a relatively low diversity of plant species, including both native and naturalized species, and patchy remnants of mixed-species secondary forest due to heavy human exploitation. Sporadic patches and stands of mixed-species secondary forest occur throughout Saipan; however, remnants of the primary limestone forest occur on the island. These native forests were characterized by grand catchbirdtree (*Pisonia grandis*), *Dendrocnide latifolia*, *Cynometra ramiflora*, ifit (*Intsia bijuga*), and tiger's-claw (*Erythrina variegata*). *Premna serratifolia*, strangler fig or nunu (*Ficus prolixa*), and *Ficus tinctoria* were also common in this forest type (WWF 2008).

The park includes 128 species of vascular plants, 13 species (10%) of which are fern or fern allies. The remaining 115 species are flowering plants (angiosperms) with no conifers (gymnosperms) occurring within park boundaries. Fifty-six species (44%) are indigenous, with two species being endemic to the Marianas (Snyder 2006). Much of the park is characterized by nonnative plant species; wetlands vegetation types in particular are at risk for invasion by nonnative invasive plants, which may alter their structure. Invasive vines, including the scarlet gourd (*Coccinia grandis*) and chain-of-love (*Antigonon leptopus*) are overgrowing the edges of wetland stands (Snyder 2006). Inventories of the forest and mangrove wetlands ecosystems within the park are ongoing, and until completed, the severity of the invasive species effect is unknown. However, the potential for these ecologically and economically detrimental species to occur within the park is high (Snyder 2006).

The park supports the following vegetation types: mangrove swamps, marshes, grassy areas, coastal strand forest, coastal scrub, and weedy scrub. The project area occurs in the coastal scrub type and is characterized by common, early successional and later climax plant species, including ironwood (*Casuarina equisetifolia*), tangantangan (*Leucaena leucocephala*), Christmas bush or Siamweed (*Eupatorium odoratum* = *Chromolaena odorata*), Indian camphorweed (*Pluchea indica*), Indian fleabane (*Pluchea symphitifolia*), hunig (*Tournefortia argentea*), nanaso (*Scaveola sericea*), anil de pasto or anil indigo (*Indigofera suffruticosa*), wild tantan or virgate bundleflower (*Desmanthus virgatus*), banago (*Gnetum gnemon*), gasoso (*Colubrina asiatica*), Bermuda grass (*Cynodon dactylon*), temple grass (*Zoysia matrella*), beggar's tick (*Bidens alba*), and beach morning glory (*Ipomea pes-caprae*). A stand of varnish-leaf (*Dodonaea viscosa*) appears to be successfully colonizing one site, although storms may be detrimental to its continued survival. Several open areas are being invaded by temple grass, which is salt-tolerant and stabilizes sandy substrate (Raulerson and Rinehart 1989). Figure 6 is a photograph of an ironwood tree that has become established on the causeway, within the project area.



FIGURE 6. IRONWOOD OBSERVED IN PROJECT AREA

Mangrove swamps are characterized by mangle lahi (*Bruguiera gymnorrhiza*), the single Pacific mangrove species occurring within the park. Nonak (*Hernandia sonora*); binalo (*Thespesia populnea*); pago (*Hibiscus tiliaceus*), a common edge species; Indian fleabane (*Pluchea indica*); and the fern langayao (*Acrostichum aureum*) are commonly associated species in mangrove swamps. Ironwood (or gago) occurs in the mangrove swamp, but is more commonly adapted to sandy areas above standing water (Raulerson and Rinehart 1989). Mangrove swamps occur in and adjacent to the natural area, but have not become established on the causeway in the project area.

Marshes are characterized by langayao, gago, and tangantangan, the common tree species occurring in this area; saltgrass (*Paspalum distichum*); vines or lianas; and bulrush (*Scirpus littoralis*) on the margins. Marshes occur in and adjacent to the natural area and in the drainage channel, but have not become established on the causeway in the project area.

A grassy area in the southwest portion of the park interior is characterized by elephant grass (*Pennisetum purpureum*) and Guinea grass (*Panicum maximum*). This site receives significant amounts of moisture, but the dominant grasses are not wetlands indicator species (Raulerson and Rinehart 1989). Similar grassy patches have not become established on the causeway in the project area.

Coastal strand patches and stands represent secondary forests dominated by large trees including nonak, pahong (*Pandanus dubius*), binalo, and banago (*Jasminum marianum*), with a herbaceous understory including *Hymenocallis littoralis*, alaihai (*Ipomoea micrantha*), and bayogo dikika (*Mucuna gigantea*) in the understory. Many of these species are indicative of secondary forest succession proceeding toward a climax stage and also occur in swamps in areas of the park that have been previously disturbed. Several nonnative species, including tangantangan, that occur within the coastal strand forest indicate that this habitat was previously disturbed. Aggressive climbing vine species, including mile-a-minute (*Mikania scandens*), fofgu (*Ipomoea indica*), and ahgaga (*Momortica charantia*), provide shade cover and are supported by clinging to dead tangantangan (killed by an introduced psyllid (*Heteropsylla cubana*)). Eventually, these vines will be succeeded by shade tree species (Raulerson and Rinehart 1989). Coastal strand forests have not become established on the causeway in the project area.

The weedy scrub type occurs on a highly disturbed area on scraped limestone that has a thin soil cover. It is characterized by sedge nutgrass (*Fymbristylis cymosa*), *Desmodium* spp., orosne (*Polygala paniculata*), and hunig tasi (*Heliotropium procumbens*). Pago, a sprawling native and environmentally adaptable tree, tangantangan, an introduced tree species indicative of disturbed limestone habitats; and a terrestrial fern (*Nephrolepis hirsutula*) are also common to this type (Raulerson and Rinehart 1989). Weedy scrub vegetation has not become established on the causeway in the project area.

Terrestrial Wildlife

Mammals

Indigenous terrestrial mammals with the potential to occur within terrestrial habitats of the park include the CNMI-listed as endangered sheath-tailed bat (*Emballonura semicaudata*), a federal candidate species, and Mariana fruit bat (*Pteropus mariannus mariannus*), a proposed federally threatened species. The bat species are further discussed in the threatened and endangered species section of this environmental assessment.

Nonnative terrestrial mammals observed within park boundaries include domestic cattle (*Bos taurus*), domestic pig (*Sus scrofa*), feral pets including cats (*Felis catus*) and dogs (*Canis familiaris*), Norway rat (*Rattus norvegicus*), roof rat (*Rattus rattus*), Polynesian rat (*Rattus exulans*), and house mouse (*Mus musculus*) (USFWS 1983). These nonnative mammals pose threats to native ecosystems in the form of habitat destruction and predation or as disease vectors (Snyder 2006).

Reptiles and Amphibians

The introduced marine toad (*Bufo marinus*) is the single amphibian species that occurs within the park (USFWS 1983). Native terrestrial reptiles, including the snake-eyed skink (*Cryptoblepharus poecilopleurus*), blue-tailed skink (*Emoia caeruleocauda*), azure-tailed skink (*Emoia cyanura*), green tree skink (*Lamprolepis smaragdina*), mutilating skink (*Gehyra mutilata*), island gecko (*Gehyra oceanica*), and the mourning gecko (*Lepidodactylus lugubris*) could occur within park habitats. Other reptiles with the potential to occur in the park include the introduced or naturalized species green anole (*Anolis carolinensis*), curious skink (*Carlia fusca*), house gecko (*Hemidactylus frenatus*), brown tree snake (*Boiga irregularis*), and monitor lizard (*Varanus indicus*). The brown tree snake and monitor lizard have been observed elsewhere on Saipan and are potential threats to native bird and bat species (Snyder 2006). Brown tree snakes have extirpated many native ground- and tree-nesting bird species on Guam; monitor lizards also are a threat to ground-nesting birds. Many reptile and amphibian species, with the exception of the azure-tailed and blue-tailed skinks, could occur in the project area habitat and they appear tolerant of human presence.

Birds

Birds that occur within the park include several that are listed as species of special concern by the CNMI, e.g., collared kingfisher (*Halcyon chloris*), Micronesian honeyeater (*Myzomela rebratra*), bridled white-eye (*Zosterops conspicillata saypani*), golden white-eye (*Cleptornis marchei*), rufous fantail (*Rhipidura rufifrons*), Micronesian starling (*Aplonis opacus*), yellow bittern (*Ixobrychus sinensis*), white-throated ground-dove (*Gallicolumba xanthonura*), and Mariana fruit dove (*Ptilinopus roseicapilla*), the official bird of the CNMI (Snyder 2006). The red junglefowl (*Gallus gallus*) and Philippine turtle-dove (*Streptopelia bitorquata*), protected as a game species by the CNMI, are not native and occur within the park (USFWS 1983). These bird species are common to forest and/or wetland habitats and would not be expected to occur in the project area due to human presence and lack of available roosting or foraging habitat.

Introduced species, including the Eurasian tree sparrow (*Passer montanus*), are likely to occur in the project area and are adapted to and tolerant of human presence (USFWS 1983).

Several birds with the potential to occur in the park are federally and CNMI-listed as endangered, threatened, or are species of special concern. In general, protected and rare bird species are common to unoccupied forest or wetlands habitats and would not be expected to occur in the project area due to human disturbance and lack of suitable roosting and foraging habitat. They are discussed in more detail under the threatened and endangered species section of this environmental assessment.

Migratory shorebirds are common along the tidal flats, including the Puerto Rico mudflat adjacent to park wetlands, which serve as important resting and foraging habitats. Several migratory birds, protected under the Migratory Bird Treaty Act, temporarily reside within the park including golden plovers (*Pluvialis dominica*), Pacific reef-herons (*Egretta sacra*), redfooted boobies (*Sula sula rubripes*), whimbrels (*Numenius phaeopus*), sandpipers (*Actitis* sp.), and ruddy turnstones (*Arenaria interpres*) (Snyder 2006). Migratory birds may use the near-shore environment of the project area and adjacent mudflats and coastal waters.

Invertebrates

Terrestrial invertebrate species known to occur in the park include the guardian butterfly (*Hypolimnas anomala*), mangrove crabs (*Cardosoma carnifex* and *C. hirtipes*), hermit crab (*Coenobita brevimanus*), and introduced African land snail (*Achatina fulica*) (Starmer 2007). The humped tree snail (*Partula gibba*), a federal candidate species and a CNMI-listed species of special concern, occurs in park forests and mangrove wetlands, but is not likely to occur in the coastal scrub habitat of the project area (Snyder 2006). The humped tree snail is discussed in more detail under the threatened and endangered species section of this environmental assessment.

COASTAL AND MARINE RESOURCES

Coral Reefs

Coastal waters, including coral reefs, are not within the park's management authority and they occur outside the project area. However, a pending case before the U.S. Federal Court (*Commonwealth of the Northern Mariana Islands v. U.S.*, Civil Action No. 99-0028 at 35, D. N. Mar. I., filed Aug. 7, 2003) could bring the nearshore waters within park jurisdiction. The reefs adjacent to the Mariana Islands are diverse, well formed, in good-to-excellent condition (few reef areas have experienced bleaching), and are relatively well-studied. In the Mariana Islands, there are 119 species of non-scleractinian corals, 377 species of scleractinian corals, 26 species of hydrozoan coral, and 1,019 shore fishes. Investigations of coralline lethal orange disease, tumors, and black-band disease are currently being conducted (Snyder 2006). The reefs near the park have become established within the Managaha Lagoon, the only true lagoonal system within the Mariana Islands. Managaha Lagoon is enclosed by an extensive, well-developed barrier reef system and is the location of Saipan's principal harbor.

Nearshore Marine Waters

Spinner dolphin (*Stenella longirostris longirostris*), humpback whale (*Megaptera novaeangliae*), melon-headed whale (*Peponocephala electra*), and false killer whale (*Pseudorca crassidens*) are known to occur in the waters of offshore Saipan and are protected under the Marine Mammal Protection Act of 1972 (16 USC § 1361–1407, PL 92-522, October 21, 1972, 86 Stat. 1027, as amended) (NOAA 2008). However, these marine mammal species are unlikely to occur in waters surrounding the project area because the adjacent channel experiences a high volume of boat traffic. If protected marine mammal species are determined to be present and could be affected by a federal action, federal consultation must be undertaken with the USFWS or NOAA fisheries.

The nearshore waters around CNMI support over 150 species of algae, 3 sea grass species, 1 mangrove species, 101 crustacean species, 15 echinoderm species, 30 annelid species, 520 mollusk species, 28 sponge species, 11 ascidian species, and 2 gastropod species that are endemic to the southern Marianas and Guam (Snyder 2006). The nearshore waters around the park have been generally classified as sandy algae – sea grass (*Enhalus acoroides* - *Halophila minor*) habitat that is occupied by at least 31 species of fish and an as yet undetermined number of invertebrate species (USFWS 1983). However, the nearshore area that occurs directly adjacent the causeway's western side is dredged and consists of a sandy bottom 90% covered by a variety of algae and sea-grasses. Fewer fish and invertebrate species were observed in this dredged area including snappers (*Lutjanus kasmira*), goatfish (*Mulloidichthys flavolineatus*), jellyfish (*Cassiopea* sp.), and sea cucumbers (*Holothuria atra*) (USFWS 1983).

THREATENED AND ENDANGERED SPECIES AND SPECIES OF SPECIAL CONCERN

The Endangered Species Act (1973), as amended, requires an examination of impacts on all federally listed threatened or endangered species. NPS policy also requires examination of impacts on federal candidate species, as well as state (CNMI)-listed threatened, endangered, candidate, rare, declining, and special concern (species of special concern) species. Listed and rare species that are known in or could occur in the park include 3 plants, 1 invertebrate, 5 reptiles, 2 mammals, and 18 birds (table 3).

Available habitat on the causeway is characterized by coastal scrub trees, shrubs, and grasses that are predominantly nonnative species. Threatened, endangered, and rare species typically use or occur in the forest, wetlands, marsh, and marine habitats of the natural area and mainland shoreline south of the project area. The sheath-tail bat (federal threatened) could forage on insects that occur in the strip of coastal scrub vegetation that has become established in the project area. Listed and rare bird species that could use the small trees growing from the causeway for roosting and foraging include the bridled white-eye (species of special concern), Mariana gray swiftlet (federal endangered), Micronesian starling (species of special concern), and Mariana crow (federal endangered).

TABLE 3. ENDANGERED, THREATENED, SENSITIVE, AND RARE SPECIES OCCURRING WITHIN AMME

Species Name	Status	Discussion
<i>Lycopodium phlegmaria</i> var. <i>longifolium</i> Cat's tail	Species of Special Concern (CNMI)	Occurs in park in forested habitats (Snyder 2006) and is also known from Rota on a high plateau.
<i>Serianthes nelsonii</i> Fire tree	Federal Endangered	Large tree, endemic, occurs within the park forests (Snyder 2006) and in limestone forests of Guam and Rota, extremely rare.
<i>Zeuxine fritzii</i> Terrestrial orchid	Rare (CNMI)	Endemic species that occurs on the edge of the park in forested and mesic habitats (Snyder 2006) and is also known from Guam.
<i>Partula gibba</i> Humped tree snail	Federal Candidate Species of Special Concern (CNMI)	Land snail that occurs in the park natural area; close to extinction on Saipan following release of a predatory flatworm to control African snails. Common in forest habitat along road to Smiling Cove in 2003, but only a single snail was observed there in 2005 (Starmer 2007). Recently observed in park mangrove wetlands (2 individuals on <i>Pandanus dubius</i> leaves) (Williams et al. 2007).
<i>Caretta caretta</i> Loggerhead sea turtle	Federal Threatened	Foraging adult and juveniles could occur in waters surrounding the park and project area (Snyder 2006), but considered unlikely due to heavy boat traffic and human presence.
<i>Chelonia mydas</i> Green sea turtle	Federal Threatened	Attempted nesting on AMME beaches in recent past determined to be false nestings. In late 1990s, large numbers of juvenile green sea turtles occurred in the marina adjacent to the park boundary suggesting a successful nesting in or near the park (Snyder 2006). Foraging adults and juveniles could occur in waters surrounding the project area, but considered unlikely due to heavy boat traffic and human presence.
<i>Dermochelys coriacea</i> Leatherback sea turtle	Federal Endangered	Foraging adults and juveniles could occur in waters surrounding the park and project area (Snyder 2006), but considered unlikely due to heavy boat traffic and human presence.
<i>Eretmochelys imbricata</i> Hawksbill sea turtle	Federal Endangered	Attempted nesting on AMME beaches in recent past determined to be false nestings. Foraging adults and juveniles could occur in waters surrounding the park and project area (Snyder 2006), but considered unlikely due to heavy boat traffic and human presence.
<i>Perochirus ateles</i> Micronesian gecko	Endangered (CNMI)	Occurs within park forest habitats (Snyder 2006), but unlikely to occur on the causeway due to lack of suitable habitat and low tolerance to human presence.
<i>Emballonura semicaudata</i> Sheath-tailed bat	Federal Threatened	Occurs within park in forested habitats (Snyder 2006); roosts in rock cavities, small caves, and lava tubes; insectivorous; forages under forest canopies, but also in open areas potentially including the project area.
<i>Pteropus mariannus mariannus</i> Mariana fruit bat	Federal Threatened	Occurs within park in forested habitats (Snyder 2006); roosts in trees; forages on a variety of fruits, potentially including the project area.
<i>Acrocephalus luscinia</i> Nightingale reed-warbler	Federal Endangered	Insectivores that nest in tangantangan forest; mangrove wetlands; and reed wetlands habitats (Mosher and Fancy 2002, Mosher 2006). Uses 5 native tree species, 2 introduced tree species, and one native reed species for nesting and could forage in the project area. The species occurs on Saipan and Alamagan.
<i>Aerodramus vanikorensis bartschi</i> Mariana gray swiftlet	Federal Endangered, Endangered (CNMI)	Potential to occur in the park in forested and wetlands habitats (Snyder 2006). Species was not detected within park by Wilson et al. (2007).

TABLE 3. ENDANGERED, THREATENED, SENSITIVE, AND RARE SPECIES OCCURRING WITHIN AMME

Species Name	Status	Discussion
<i>Anas oustaleti</i> Mariana mallard	Federal Endangered	Possibly extinct species of wetlands and pond habitats (Snyder 2006). Species was not detected within park by Wilson et al. (2007).
<i>Aplonis opacus</i> Micronesian starling	Species of Special Concern (CNMI)	Occurs within the park in forested habitats (Snyder 2006).
<i>Cleptornis marchei</i> Golden white-eye	Species of Special Concern (CNMI)	Sampled within the park natural area in forest and wetlands habitats (Williams et al. 2007). The species occurs on Saipan and Aguiguan in forested and wetlands habitats.
<i>Corvus kubaryi</i> Mariana crow	Federal Endangered, Endangered (CNMI)	Potential to occur within the park in forested habitats (Snyder 2006).
<i>Gallicolumba xanthonura</i> White-throated ground-dove	Species of Special Concern (CNMI)	Sampled within the park natural area in forested and wetlands habitats (Williams et al. 2007). The species occurs on all islands in the CNMI, except Guam (extirpated), in forested and wetlands habitats.
<i>Gallinula chloropus guami</i> Mariana common moorhen	Federal Endangered, Endangered (CNMI)	An individual of this waterfowl was observed in a small pond in forested habitat on the south side of the park (Johnson 2004). Species was not detected within park by Wilson et al. (2007). The species occurs on Guam, Tinian, Saipan, and Rota.
<i>Halcyon chloris</i> Collared kingfisher	Species of Special Concern (CNMI)	Sampled within the park's natural area in wetlands and pond habitats (Williams et al. 2007). The species occurs on all islands from Rota through the Northern Islands in forested and wetlands habitats.
<i>Ixobrychus sinensis</i> Yellow-eyed bittern	Species of Special Concern (CNMI)	Occurs within the park in wetlands habitats (Snyder 2006).
<i>Megapodius laperouse</i> Micronesian megapode	Federal Endangered, Endangered (CNMI)	Potential to occur in the park in forested habitats. Species was not detected on park by Wilson et al. (2007).
<i>Monarcha takatsukasae</i> Tinian monarch	Federal Threatened, Threatened (CNMI)	Potential to occur within the park in forested habitats (Snyder 2006).
<i>Myzomela rebratra</i> Micronesian honeyeater	Species of Special Concern (CNMI)	Sampled within the park's natural area and was the second-most common species observed in forested habitats (Williams et al. 2007). The species occurs on all islands in the CNMI, except Guam (extirpated), in forested and wetlands habitats.
<i>Ptilinopus roseicapilla</i> Mariana fruit dove	Species of Special Concern (CNMI)	Sampled within the park's natural area in forested and wetlands habitats (Williams et al. 2007). The species occurs on Rota, Aguigan, Tinian, and Saipan in forested and wetlands habitats. Official bird species of the park.
<i>Rallus owstoni</i> Guam rail	Federal Endangered (Experimental Population)	Potential to occur within the park in wetlands habitat (Snyder 2006).
<i>Rhipidura rufifrons</i> Rufous fantail	Species of Special Concern (CNMI)	Sampled within the park's natural area in forested and wetlands habitats (Williams et al. 2007). The species occurs on Rota, Aguigan, Tinian, and Saipan in forested and wetlands habitats.

TABLE 3. ENDANGERED, THREATENED, SENSITIVE, AND RARE SPECIES OCCURRING WITHIN AMME

Species Name	Status	Discussion
<i>Zosterops conspicillatus saypani</i> Bridled white-eye	Species of Special Concern (CNMI)	Sampled within the park's natural area and was the most common species observed in forested and wetlands habitats (Williams et al. 2007). The species occurs on Tinian and Saipan in forested and wetlands habitats. Species can use scrubby secondary growth and urban areas as occur in the project area.
<i>Zosterops rotensis</i> Rota bridled white-eye	Federal Endangered, Endangered (CNMI)	Potential to occur within the park in forested and wetlands habitats.

The hawksbill sea turtle (federal endangered), leatherback sea turtle (federal endangered), loggerhead sea turtle (federal threatened), and the green sea turtle (federal threatened) occur in Pacific Ocean waters and also have the potential to occur and forage in the waters surrounding AMME and the project area. Two sea turtle species, green and hawksbill, have attempted nesting on park beaches in the recent past, but the attempts were determined to be “false nestings” (D. Minton, pers. comm. in Snyder 2006). However, in the late 1990s, large numbers of juvenile green sea turtles were observed in the marina adjacent to the park boundary, suggesting that a successful nesting occurred nearby, or potentially within the park (Snyder 2006). Foraging adult and juvenile sea turtles could use the waters surrounding the project area and use the beaches to rest, although sparingly due to boat traffic levels and human use, and the lack of suitable resting or nesting habitat on the causeway and nesting habitat onshore.

VISITOR USE AND EXPERIENCE

The primary purpose of the park is to honor the dead of the World War II Mariana campaign (NPS GMP 1989). Development of conceptual guidelines (1978) for the park facilitate a variety of active and passive recreational uses for tourists and local citizens. The park does not charge a user fee, so detailed visitor numbers and use information is not available.

The Arizona Memorial Museum Association, which operates the park bookstore, collected data during the first year of visitor center operations (June 2005–June 2006). Approximately 45,621 people visited the center during the first year of operation. Of the 45,621 visitors, approximately 17,545 (38%) were local; 10,982 (24%) were tourists from Asia; 3,346 (7%) were tourists from North America; and 358 (less than 1%) were military or other visitors. These numbers support the park staff estimation that the greatest users of the park facilities and amenities are Saipan residents. During fiscal year 2007 (October 2006–Sept 2007) overall visitation to the visitor center was 25,971 (Jordan 2006).

The visitor use and experience directly associated with the causeway and sheet pile seawall include Smiling Cove Marina and Outer Cove Marina, sightseeing, walking, and jogging.

Smiling Cove is operated by CNMI Division of Fish and Wildlife and is restricted to private recreational boats (no commercial services) due to restrictions of the federal sport fishing grant program. Smiling Cove Marina has 60 slips, all of which are occupied. It is difficult to estimate the use of Smiling Cove as boats are not used every day and only for recreation; however, most users would be local (M. Pangelinan pers. comm. 2008).

The CNMI Division of Land and Natural Resources manages Outer Cove Marina. Commercial boating operations include trolling, diving, dinner cruises, sunset cruises, and trips to Managaha Island. There are currently no other commercial marinas on the island that can support these types of boats and therefore these types of activities.

There are 31 slips in Outer Cove Marina, which is nearly at capacity. Again, the exact number of tourists using this area on a daily or monthly basis is not known; however, a 60-foot boat accommodates on average 70 to 100 passengers per day. Tourists are transported to Outer Cove Marina by bus and van (M. Pangelinan pers. comm. 2008).

SOCIOECONOMICS

The socioeconomic elements directly associated with the causeway and sheet pile seawall result from recreational use of Smiling Cove Marina and commercial use of Outer Cove Marina. Smiling Cove has 60 slips, all of which are occupied. Slip fees in Smiling Cove Marina are currently \$3.50 per foot per month for boats up to 21 feet long and \$4.00 per foot per month for boats over 21 feet in length. These rates represent a minimum of \$4,400.00 per month revenue to the CNMI (L. Denorio, pers. comm. 2008).

Slip fees for Outer Cove Marina range from \$5.00 per foot per month for boats up to 25 feet long to \$18.13 per foot per month for boats 60 feet in length. Monthly revenue from slip fees averages approximately \$14,000.00 per month for CNMI (M. Pangelinan, pers. comm. 2008).

Outer Cove Marina employs two full-time staff (manager and assistant), and Smiling Cove employs seven full-time staff (five marina employees, manager, and administrative support). CNMI Division of Land and Natural Resources uses staff from other divisions to support marina operations, as needed.

Direct economic benefits from commercial boating operations for trolling, diving, dinner cruises, sunset cruises, and trips to Managaha Island are not quantifiable. However, benefits of marina operations to the local economy include tourism fees, employment by commercial boating operations, boat maintenance and parts, fishing equipment sales, fuel sales, food sales, and taxes.

ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This section describes the potential environmental consequences associated with the no-action and preferred alternatives. The methodologies and assumptions for assessing environmental consequences are discussed, including consideration of context, intensity, and duration of impacts; cumulative impacts; and measures to mitigate impacts. As mandated by NPS policy, resource impairment is explained and then assessed for each alternative. Subsequent sections under the “Environmental Consequences” section are organized by impact topic, first for the no-action alternative, and then for the NPS preferred alternative.

METHODOLOGY

Overall, the National Park Service based these impact analyses and conclusions on the review of existing literature and park studies, information provided by experts at the park and in other agencies, professional judgments, and park staff insights.

CONTEXT, DURATION AND INTENSITY, AND TYPE OF IMPACT

The following definitions were used to evaluate the context, intensity, duration, and cumulative nature of impacts associated with project alternatives.

Context

Context is the setting within which an impact is analyzed such as local, parkwide, or regional. The CEQ requires that impact analyses include discussions of context. For this environmental assessment, local impacts would occur within the general vicinity of the causeway, while parkwide impacts would affect a greater portion of the park, and regional impacts would extend outside the limits of the park.

Duration

The duration of an impact is the time period for which the impacts are evident and are expressed in the short term or in the long term. A short-term impact would be temporary in duration and would be associated with seawall improvements, as well as the period of site restoration. Depending on the resource, impacts may last as long as construction takes place, or a single year or growing season, or longer. Impact duration for each resource is unique to that resource. Impact duration for each resource is presented in association with impact intensities in the following “Methodologies” section.

Intensity

Impact intensity is the degree to which a resource would be beneficially or adversely affected. The criteria that were used to rate the intensity of the impacts for each resource topic is presented later in this section under each topic heading.

Type of Impact

Impacts can be beneficial or adverse. Beneficial impacts would improve resource conditions, while adverse impacts would deplete or negatively alter resources.

IMPACT INTENSITY THRESHOLDS

Soils

All available information on soils, e.g., the imported fill material of the causeway potentially impacted in the park was compiled from previous studies and a geotechnical report for the causeway. Predictions about short- and long-term site impacts were based on previous projects with similar soils/fill materials and recent studies. The thresholds of change for the intensity of an impact to soils are defined as follows:

Impact Intensity	Intensity Definition
Negligible	Soils would not be affected or the effects to soils would be below or at the lower levels of detection. Any effects to soils would be slight.
Minor	The effects to soils would be detectable. Effects to soil area would be small and localized. Mitigation may be needed to offset adverse effects and would be relatively simple to implement and likely be successful.
Moderate	The effect on soils would be readily apparent and result in a change to the soil character over a relatively wide area. Mitigation measures would be necessary to offset adverse effects and likely be successful.
Major	The effect on soils would be readily apparent and substantially change the character of the soils over a large area. Mitigation measures to offset adverse effects would be needed, extensive, and their success could not be guaranteed.

Soil impacts would be considered short term if the soils recover in less than three years and long term if the recovery takes longer than three years.

Biotic Communities

All available information on biotic communities potentially impacted in the park was compiled from previous studies for the park. Predictions about short- and long-term site impacts were based on previous projects and recent studies. The thresholds of change for the intensity of an impact to biotic communities are defined as follows:

Impact Intensity	Intensity Definition
Negligible	An action that could affect biotic communities, but the change would be so small that it would not be of any measurable or perceptible consequence.
Minor	An action that could affect biotic communities, but the change would be slight and localized with few measurable consequences.
Moderate	An action that would result in readily apparent changes to affect biotic communities with measurable consequences.
Major	A severely adverse or exceptionally beneficial effect to biotic communities would result.

Biotic community impacts would be considered short term if the community recovers in less than one year and long term if the recovery takes longer than one year.

Coastal and Marine Resources

All available information on coastal and marine resources potentially impacted in the park was compiled from previous studies for the park. Predictions about short- and long-term site impacts were based on previous projects and recent studies. The thresholds of change for the intensity of an impact to coastal and marine resources are defined as follows:

Impact Intensity	Intensity Definition
Negligible	An action that could affect coastal and marine resources, but the change would be so small that it would not be of any measurable or perceptible consequence.
Minor	An action that could affect coastal and marine resources, but the change would be slight and localized with few measurable consequences.
Moderate	An action that would result in readily apparent changes to affect coastal and marine resources with measurable consequences.
Major	A severely adverse or exceptionally beneficial effect to coastal and marine resources would result.

Coastal and marine resources impacts would be considered short term if the community recovers in less than one year and long term if the recovery takes longer than one year.

Threatened and Endangered Species and Species of Special Concern

All available information on protected species potentially impacted in the park was compiled from previous studies for the park. Predictions concerning short- and long-term site impacts were based on previous projects and recent studies. The thresholds of change for the intensity of an impact to protected species are defined as follows:

Impact Intensity	Intensity Definition
Negligible	An action that could affect protected species, but the change would be so small that it would not be of any measurable or perceptible consequence.
Minor	An action that could affect protected species, but the change would be slight and localized with few measurable consequences.
Moderate	An action that would result in readily apparent changes to affect protected species with measurable consequences.
Major	A severely adverse or exceptionally beneficial effect to protected species would result.

Protected species impacts would be considered short term if the habitat, population, or individual recovers in less than one year and long term if the recovery takes longer than one year.

Water Quality

NPS *Management Policies* (2006) state that the National Park Service will “take all necessary actions to maintain or restore the quality of surface waters and ground waters within the parks consistent with the Clean Water Act and all other applicable federal, state, and local laws and regulations.”

A water quality standard defines the water quality goals of a water body by designating uses to be made of the water, by setting minimum criteria to protect the uses, and by preventing degradation of water quality through antidegradation provisions. The antidegradation policy is only one portion of a water quality standard. Part of this policy (40 CFR 131.12(a)(2)) strives to maintain water quality at existing levels if it is already better than the minimum criteria. Antidegradation should not be interpreted to mean that “no degradation” can or will occur, as even in the most pristine waters, degradation may be allowed for certain pollutants as long as it is temporary and short term.

Other considerations in assessing the magnitude of water quality impacts is the effect on those resources dependent on a certain quality or condition of water. Sensitive aquatic organisms, submerged aquatic vegetation, riparian areas, and wetlands are affected by changes in water quality from direct and indirect sources.

Given the above water quality issues and methodology and assumptions, the following impact thresholds were established in order to describe the relative changes in water quality (overall,

localized, short and long term, cumulatively, adverse, and beneficial) under the management alternatives.

Impact Intensity	Intensity Definition
Negligible	Impacts are chemical, physical, or biological effects that would not be detectable, would be well below water quality standards or criteria, and would be within historical or desired water quality conditions.
Minor	Impacts (chemical, physical, or biological effects) would be detectable, but would be well below water quality standards or criteria and within historical or desired water quality conditions.
Moderate	Impacts (chemical, physical, or biological effects) would be detectable, but would be at or below water quality standards or criteria in general; however, water quality standards, historical baseline, or desired water quality conditions would be altered on a periodic basis.
Major	Impacts (chemical, physical, or biological effects) would be detectable and would be frequently altered from the historical baseline or desired water quality conditions and/or chemical, physical, or biological water quality standards or criteria would be slightly and singularly exceeded on a regular basis.

For water quality, if following treatment, water quality recovers in less than one year, the impacts are considered short term. If recovery takes longer than one year following treatment, the impacts are long term.

Visitor Use and Experience

NPS *Management Policies 2006* state that the enjoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks and that the National Park Service is committed to providing appropriate, high-quality opportunities for people to enjoy the parks.

Part of the purpose of the park is to offer opportunities for recreation, education, inspiration, and enjoyment. Consequently, one of the park's management goals is to ensure that visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.

Public scoping input and park and CNMI staff observation of visitation patterns were used to estimate the effects of the actions in the various alternatives of this document. The impact on the ability of the visitor to experience a full range of park resources and recreational opportunities were analyzed. The potential for change in visitor use and experience proposed by the alternatives was evaluated by identifying projected increases or decreases in use of the marinas impacted by the causeway rehabilitation, and other visitor uses, and determining how these projected changes would affect the desired visitor experience (to what degree, and for how long). The thresholds of change for the intensity of an impact to visitor experience are defined as follows:

Impact Intensity	Intensity Definition
Negligible	The visitor would not be affected or changes in visitor experience would be below or at the level of detection. The visitor would not likely be aware of the effects associated with the alternative.
Minor	Changes in visitor experience would be detectable, although the changes would be slight. Some visitors would be aware of the effects associated with the alternative, but the effects would be slight and not noticeable by most visitors.
Moderate	Changes in visitor experience would be readily apparent to most visitors. Visitors would be aware of the effects associated with the alternative and might express an opinion about the changes.
Major	Changes in visitor experience would be readily apparent to all visitors; severely adverse or exceptionally beneficial. Visitors would be aware of the effects associated with the alternative and would likely express a strong opinion about the changes.

Impacts to visitor experience are considered short term if the effects last only as long as the duration of the treatment action (i.e., repair or construction period). Impacts are considered long term if the effects last longer than the duration of the treatment action.

Socioeconomics

The impact assessment for socioeconomics focused on the number of potential individuals impacted and the severity of the impact. The thresholds of change for the intensity of an impact are defined as follows:

Impact Intensity	Intensity Definition
Negligible	Changes in local socioeconomic conditions would occur, but would be so small that it would not be of any measurable or perceptible consequence.
Minor	Changes would occur in local socioeconomic conditions, but the change would be slight and localized with few measurable consequences.
Moderate	Changes would occur in local socioeconomic conditions and would result in readily apparent changes to local socioeconomic conditions with measurable consequences.
Major	Changes would occur in local socioeconomic conditions resulting in a severely adverse or exceptionally beneficial change to local socioeconomic conditions.

The effects to safety are considered short term if the effects last only for the duration of the treatment action (i.e., the repair, work, or construction is completed) and long term if the effects last beyond the duration of the treatment action.

Direct Versus Indirect

The following definitions of direct and indirect impacts are considered:

Direct— an effect that is caused by an action and occurs at the same time and in the same place.

Indirect— an effect that is caused by an action that is later in time or farther removed in distance, but is still reasonably foreseeable.

Cumulative Effects

The Council on Environmental Quality regulations, which implement NEPA, requires assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time.

Cumulative impacts are considered for both alternatives and are presented at the end of each impact topic discussion analysis.

Projects that Make Up the Cumulative Impact Scenario

To determine potential cumulative impacts, projects within the project area and surrounding park were identified. Potential projects identified as cumulative actions included any planning or development activity that was completed, that is currently being implemented, or that would be implemented in the reasonably foreseeable future.

These cumulative actions are evaluated in the cumulative impact analysis in conjunction with the impacts of each alternative to determine if they would have any additive effects on a particular natural resource, cultural resource, visitor use and experience, or the socioeconomic environment. Because some of these cumulative actions are in the early planning stages, the evaluation of cumulative effects was based on a general description of the project.

A number of other projects ongoing in the park were discussed relative to cumulative impacts. These projects are listed below.

- Dredge main boating channel to Tanapag Harbor (past).
- Repair (previous) seawall erosion (past).
- Replace restroom and sidewalks at Micro Beach (near future/present).
- Construct a new floating dock in the Smiling Cove Marina boat channel planned by CNMI Division of Land and Natural Resources (future).

IMPAIRMENT OF AMERICAN MEMORIAL PARK RESOURCES OR VALUES

In addition to determining the environmental consequences of the preferred and other alternatives, NPS *Management Policies 2006* and Director's Order – 12 require analysis of potential effects to determine if actions would impair park resources.

The fundamental purpose of the national park system, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. NPS managers must always seek ways to avoid or minimize, to the greatest degree practicable, adverse impacts on park and monument resources and values. However, the laws do give NPS management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given NPS management discretion to allow certain impacts within parks, that discretion is limited by statutory requirements that the National Park Service must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including opportunities that otherwise would be present for the enjoyment of those resources or values. An impact to any park resource or value may constitute impairment. However, an impact would more likely constitute impairment to the extent that it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park
- identified as a goal in the park general management plan (GMP) or other relevant NPS planning documents

Impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessioners, contractors, and others operating in the park. In the “Environmental Consequences” section, a determination on impairment is made in the conclusion statement of the appropriate impact topics for each alternative. The National Park Service does not analyze recreational values / visitor experience (unless impacts are resource based), socioeconomic values, health and safety, or park operations for impairment.

ENVIRONMENTAL CONSEQUENCES—ALTERNATIVE A: NO ACTION

Soils and Geological Resources

The no-action alternative would result in no change to existing impacts to soils/introduced fill materials and geological resources along the 800 feet of the park causeway in Tanapag Harbor because no construction activities would occur. Routine seawall maintenance activities would continue, but would be carried out within the existing seawall disturbance template.

Soils/introduced fill materials along the existing seawall of the causeway in the 800 feet of the project area would continue to receive adverse impacts due to erosion, which could cause continued soil/fill material loss due to regular wave action and storm events. Erosion in these areas could be exacerbated due to future storm events. Overall impacts to soils/introduced fill materials under the no-action alternative would be short and long term, minor to moderate, and adverse.

Cumulative Impacts. All of the past, present, and reasonably foreseeable future events listed above have the potential to affect soils and geological resources. All of the projects would involve ground-disturbing activities using equipment that would dump, grade, excavate, and compact soils/fill material in the construction area. These activities could result in soil compaction and erosion that would have short-term, minor, adverse impacts. Long-term impacts would be negligible with mitigation measures such as stockpiling and replacement of original fill material, and revegetation using appropriate and rapidly growing species on disturbed areas. The no-action alternative, in conjunction with past, present, and reasonably foreseeable future projects, would result in short- and long-term, minor to moderate, adverse cumulative impacts to soils/fill material.

Conclusion. Overall impacts to soils and geological resources under the no-action alternative would be short and long term, minor to moderate, and adverse. The no-action alternative, in conjunction with past, present, and reasonably foreseeable future projects, would result in short- and long-term, minor to moderate, adverse cumulative impacts to soils.

Impairment. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the park's establishing legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's GMP or other relevant NPS planning documents, there would no impairment of park resources or values.

Water Quality

Under the no-action alternative, no change to impacts relative to water quality would result. Eroding shorelines within the project area would continue to have localized effects on water quality as a result of sedimentation and deposition of debris into the harbor, resulting in a long-term, negligible to minor, adverse effect.

Cumulative Impacts. All of the past, present, and reasonably foreseeable future projects listed above have the potential to affect water quality. All of the projects would involve ground-disturbing activities that could leave soils susceptible to erosion of particulate matter that could impact water quality. Mitigation measures such as silt fences, revegetation, and reestablishment of terrestrial vegetation would reduce the level of adverse impacts. The cumulative projects would have a short-term, minor to moderate impact on water quality. The no-action alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short- and long-term, negligible to minor, adverse cumulative effects to water quality.

Conclusion. Impacts to water quality would be long term, negligible to minor, and adverse. The no-action alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short- and long-term, negligible to minor, adverse cumulative effects to water quality.

Impairment. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the park's establishing legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the monument, or (3) identified as a goal in the park's general management plan or other relevant NPS planning documents, there would be no impairment of park resources or values.

Biotic Communities

The no-action alternative would result in no change to existing impacts along the 800 feet of park causeway in Tanapag Harbor because no construction activities would occur. Routine maintenance activities would continue, but would be carried out within the existing seawall disturbance template. Vegetation along the 800 feet of the existing causeway in Tanapag Harbor would continue to receive short- and long-term, negligible to major, adverse impacts due to trampling and causeway erosion, which could affect individual plants. There would be no change to the existing conditions and no construction-related impacts to wildlife under the no-action alternative. Overall impacts to biotic communities under the no-action alternative would be short and long term, negligible to minor, and adverse.

Cumulative Impacts. All of the past, present, and reasonably foreseeable future projects listed above have the potential to affect biotic communities. All of the projects involve ground-disturbing activities that could destroy individual plants, disturb wildlife habitat, and likely result in the death of individuals. Mitigation measures such as temporary construction fencing and covering open trenches to keep wildlife out of construction areas, stockpiling and replacement of topsoil, revegetation, and collection and reestablishment of rapidly growing plant species on disturbed areas would reduce short- and long-term impacts. The cumulative projects would have short- and long-term, minor, adverse impacts to biotic communities. The no-action alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short- and long-term, minor, adverse cumulative impacts to biotic communities.

Conclusion. Impacts to biotic communities under the no-action alternative would be short and long term, negligible to minor, and adverse. The no-action alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short- and long-term, minor, adverse cumulative impacts to biotic communities.

Impairment. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the recreation area's establishing legislation, (2) key to the natural or cultural integrity of the recreation area or to opportunities for enjoyment of the recreation area, or (3) identified as a goal in the recreation area's general management plan or other relevant NPS planning documents, there would be no impairment of park resources or values.

Coastal and Marine Resources

The no-action alternative would result in no change to existing impacts along the 800 feet of the park causeway in Tanapag Harbor because no construction activities would occur. Routine maintenance activities would continue, but would be carried out within the existing seawall disturbance template and would be short and long term, negligible to minor, and adverse. There would be no change to the existing conditions and no construction-related impacts to coastal and marine resources under the no-action alternative. Overall impacts to coastal and marine resources under the no-action alternative would be short and long term, negligible to minor, and adverse.

Cumulative Impacts. All of the past, present, and reasonably foreseeable future projects listed above have the potential to affect coastal and marine resources. Mitigation measures such as temporary silt fencing, stockpiling and replacement of topsoil, revegetation, and collection and reestablishment of fast land vegetation in disturbed areas would reduce short- and long-term impacts. The cumulative projects would have short- and long-term, minor to moderate, adverse impacts to coastal and marine resources. The no-action alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short- and long-term, minor to moderate, adverse cumulative impacts to coastal and marine resources.

Conclusion. Impacts to biotic communities under the no-action alternative would be short and long term, negligible to minor, and adverse. The no-action alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short- and long-term, minor to moderate, adverse cumulative impacts to biotic communities.

Impairment. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the park's establishing legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's GMP or other relevant NPS planning documents, there would no impairment of park resources or values.

Threatened and Endangered Species and Species of Special Concern

The no-action alternative would result in no change to existing impacts along the 800 feet of park causeway in Tanapag Harbor because no construction activities would occur. Routine maintenance activities would continue, but would be carried out within the existing seawall disturbance template. Vegetation along the 800 feet of the existing causeway in Tanapag Harbor would continue to receive short- and long-term, negligible to major, adverse impacts due to trampling and causeway erosion, which could affect individual plants. There would be no change to the existing conditions and no construction-related impacts to protected species under the no-action alternative. Overall impacts to protected species under the no-action alternative would be short and long term, negligible to minor, and adverse.

Cumulative Impacts. All of the past, present, and reasonably foreseeable future projects listed above have the potential to affect protected species. All of the projects involve ground-

disturbing activities that could destroy individual plants, disturb habitat, and could result in the death of individuals. Mitigation measures such as temporary construction fencing and covering open trenches to screen wildlife away from construction areas, stockpiling and replacement of topsoil and subsoil, revegetation, and collection and reestablishment of rapidly growing plant species on disturbed areas would reduce short- and long-term impacts. The cumulative projects would have short- and long-term, minor to moderate, adverse impacts to protected species. The no-action alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short- and long-term, negligible to moderate, adverse cumulative impacts to protected species.

Conclusion. Impacts to protected species under the no-action alternative would be short and long term, negligible to minor, and adverse. The no-action alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short- and long-term, negligible to moderate, adverse cumulative impacts to protected species.

Impairment. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the park's establishing legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's GMP or other relevant NPS planning documents, there would no impairment of park resources or values.

Visitor Use and Experience

The no-action alternative would leave the sheet pile wall and causeway in their present condition with eroding wall and fast lands directly behind the wall. Although it is not anticipated that the sheet pile wall and causeway conditions would affect visitation numbers, the erosion, if allowed to continue, would affect parking along the roadway and may impact the ability of buses to access this section of the roadway and therefore visitors may have to be dropped off farther from some of the commercial boats.

The areas where the ground has been undermined would cause safety concerns for visitors walking on the causeway edge to enjoy the views. Despite periodic fixes of dumping riprap into eroded areas, the overall condition of this segment of causeway would deteriorate over time, adversely impacting visitor use and experience. Breaching the causeway could occur over time, particularly during cyclone-type storm events. Breaching the causeway could impact commercial operations by impacting marina facilities and thereby limiting the number of boats able to use the facilities. Continued erosion could also affect the Smiley Cove boat channel through deposition into the boat channel. These conditions would constitute short- to long-term, minor to moderate, adverse impacts to visitor use and experience.

Cumulative Impacts. All of the past, present, and reasonably foreseeable future projects listed above have the potential to affect visitor use and experience. Previous fixes to the eroded areas have improved visitor safety in the immediate area. Dredging the main boat channel to Tanapag Harbor is believed to have exacerbated beach erosion at Micro Beach. However, replacing the sidewalks and restroom at Micro Beach would be a beneficial effect to visitor use. A new floating dock in the Smiley Cove boat channel may inconvenience some boaters; however, it would create a safer loading and unloading experience for tourists. The cumulative

projects would have short-term, negligible to minor, adverse and beneficial impacts, and long-term, minor to moderate, beneficial and adverse impacts to visitor use and experience. The no-action alternative, in combination with the effects from past, present, and reasonably foreseeable future projects would result in short- and long-term, minor to moderate, adverse cumulative impacts to visitor use and experience.

Conclusion. Impacts to visitor use and experience under the no-action alternative would be short-term, minor to long-term, minor to moderate, adverse impacts to visitor use and experience. The no-action alternative, in combination with the effects from past, present, and reasonably foreseeable future projects would result in short- and long-term, minor to moderate, adverse cumulative impacts to visitor use and experience.

Socioeconomics

The no-action alternative would leave the sheet pile wall and causeway in its present condition. There would be no direct impacts to socioeconomics from implementing the no-action alternative; however, as the causeway continues to erode and becomes less structurally sound, the indirect impacts to the commercial businesses using the marina would be long-term, moderate, and adverse.

Cumulative Impacts. Some of the past, present, and reasonably foreseeable future projects listed above have the potential to indirectly affect socioeconomics. Dredging the main boat channel to Tanapag Harbor is believed to have exacerbated beach erosion at Micro Beach, which would indirectly affect use and therefore expenditures associated with this type of use of the park. However, replacing the sidewalks and restroom at Micro Beach would be a beneficial effect to socioeconomics by encouraging use of the park. A new floating dock in the Smiley Cove boat channel may encourage more use of commercial services in Outer Cove Marina because overall use would be enhanced. The cumulative projects would have short-term and long-term, indirect, negligible to minor, adverse and beneficial impacts to socioeconomics. The no-action alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in indirect long-term, minor to moderate, and adverse cumulative impacts to socioeconomics.

Conclusion. Impacts to socioeconomics from the no-action alternative would be indirect, long-term, moderate, and adverse. The no-action alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in indirect long-term, minor to moderate, and adverse cumulative impacts to socioeconomics.

ENVIRONMENTAL CONSEQUENCES—ALTERNATIVE B: PREFERRED ALTERNATIVE**Soils**

No impacts to geology are expected as the underlying, hard coralline limestone bedrock occurs at a depth of approximately 70 feet, which is below the anticipated depth of sheet pilings (Winzler & Kelly 2008).

Short-term, minor, direct, adverse impacts on soils/introduced fill materials would be expected. Soil/fill material disturbance and compaction due to grading, contouring, and trenching associated with installation of the proposed seawall, riprap, infiltration chambers, and walkway would impact approximately 7,215 cubic yards of previously disturbed soils/fill material. Permanent soil/fill material disturbance due to grading, contouring, and trenching associated with installation of the seawall, riprap, infiltration chambers, and walkway would be expected to impact approximately 180 cubic yards of previously disturbed soils/fill material. Displaced soil/fill material would be properly stockpiled to prevent erosion and sedimentation, and excess soils would be disposed properly if not used during regrading and recontouring activities following installation of the seawall. Potential shoreline erosion impacts on disturbed soils/fill material in areas where vegetation has been removed would be minimized following construction activities by revegetating with rapidly growing vegetation including ironwood trees, grasses/ground cover, and shrubs to the maximum extent practicable to reestablish naturalized plant communities and help stabilize soils/fill material. Adverse effects associated with sediments that could potentially be transported from the construction site and deposited in Tanapag Harbor would be minimized as a result of placing a silt fence in the water surrounding the project area. Erosion and sediment control and stormwater best management practices during and after construction would be implemented, consistent with the CNMI DEQ Earthmoving and Erosion Control Permit, CNMI DEQ Section 401 Water Quality Certification, and USACE Nationwide Permit 3. Based on these requirements, short-term, adverse effects on soils/fill material would be reduced to negligible to minor. Long-term impacts would be negligible to minor and beneficial due to stabilization of the banks and reduction in erosional loss.

Cumulative Impacts. All of the past, present, and reasonably foreseeable future projects listed above have the potential to affect soils. All of the projects would involve ground-disturbing activities involving equipment excavating and compacting soils in the construction areas. These activities could cause soil compaction and erosion and could have short-term, minor, adverse impacts. Long-term impacts could be negligible with mitigation measures such as design and engineering measures that minimize geological impacts, stockpiling and replacement of soils, revegetation, and collection and reestablishment of fast land vegetation in disturbed areas. The preferred alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short-term, minor, and adverse and long-term, negligible to minor, adverse cumulative impacts to soils.

Conclusion. Impacts to soils from the proposed action would be short and long term, negligible to minor, and adverse. Long-term negligible to minor beneficial impacts would be expected to soils/fill material as installation of the seawall would minimize the erosional losses due to a more stable shoreline. The preferred alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short-term, minor, and adverse, and long-term, negligible to minor, adverse cumulative impacts to soils.

Impairment. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the park's establishing legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's GMP or other relevant NPS planning documents, there would be no impairment of park resources or values.

Water Quality

Erosion and sedimentation are the most important processes related to water quality impacts of this proposed seawall project. Erosion occurs when sediments, i.e., soil/fill particles, gravel, small rocks, etc., are suspended and carried by moving water during and immediately following precipitation events or wave action. Depending on the strength of the storm event or normal wave action, the sediments could eventually be deposited on the Tanapag Harbor bottom or they may be carried to the coral reef, eventually smothering and killing the coral polyps.

Short-term, negligible, direct and indirect, adverse effects on water quality would be expected as a result of implementing the preferred alternative. Grading and contouring would be expected to remove vegetation on approximately 0.45 acre of the shoreline, which could in turn increase erosion potential and increase runoff during heavy precipitation events. Installing a silt fence in the water surrounding the project area and using best management practices for controlling nonpoint source pollution during construction would control sedimentation and erosion during small storm events. Should a major precipitation event occur during construction, however, sediments could be carried into Tanapag Harbor and contribute to water turbidity (cloudiness) in the harbor. Turbidity, if severe, can reduce light penetration, visibility, and dissolved oxygen levels, affect aquatic organisms, and reduce the ability of predatory fish and birds to see prey. The waters would also be less appealing for recreation. Revegetation of the area with rapidly growing plant species to the extent practicable should follow construction activities. Depending on the extent to which storm events occur during construction of the seawall, riprap, infiltration chambers, and walkway, short-term, negligible to minor, adverse impacts on water quality from increased erosion, sedimentation, and turbidity would result. Erosion and sediment control and stormwater best management practices during and after construction would be implemented consistent with the CNMI DEQ Earthmoving and Erosion Control Permit, CNMI DEQ Section 401 Water Quality Certification, and USACE Nationwide Permit 3. Based on these requirements, short-term, adverse effects on water quality would be reduced to negligible to minor. After construction activities are completed, long-term, minor, beneficial impacts would be expected to water quality as installation of the seawall would minimize erosion and sedimentation into Tanapag Harbor due to a more stable shoreline.

Cumulative Impacts. All of the past, present, and reasonably foreseeable future projects listed above have the potential to affect water quality. All of the projects would involve ground disturbing activities that would leave soils/fill material susceptible to erosion of particulate matter that would impact water quality. Mitigation measures such as silt fences, best management practices, and revegetation using rapidly growing species would reduce the level of adverse impacts. The cumulative projects would have short-term, minor, adverse impacts on water quality. The preferred alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short- and long-term, minor to moderate and adverse cumulative impacts on water quality.

Conclusion. Impacts to water quality from the proposed action would be short term, negligible to minor, and adverse. Long-term, minor, beneficial impacts would be expected to water quality as installation of the seawall would minimize erosion and sedimentation into Tanapag Harbor due to a more stable shoreline. The preferred alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short- and long-term, minor to moderate, and adverse cumulative impacts on water quality.

Impairment. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the park's establishing legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's GMP or other relevant NPS planning documents, there would no impairment of park resources or values.

Biotic Communities

Aspects of this project with the potential to impact biotic communities include the installation of the proposed seawall, riprap, infiltration chambers, and walkway. Generally, the installation of the proposed seawall, riprap, infiltration chambers, and walkway would disturb areas with minimal vegetation and habitat value to wildlife. It is likely that this project would introduce or spread nonnative invasive plants.

Several measures would be taken to mitigate impacts, including positioning for equipment staging and material storage in previously disturbed areas, defining construction zones and construction perimeters, and saving and storing soils/fill material (and the soil seed bank) for restoration/revegetation of disturbed areas. (See "Mitigation Measures for the Preferred Alternative" section of the alternatives chapter). As a result of implementing this alternative and the mitigation measures discussed, short- and long-term, negligible to minor, adverse impacts on plant communities would be expected.

During construction, some wildlife would be temporarily displaced, although this area is sparsely populated by predominantly nonnative wildlife. Some individuals could be killed outright or would be dispersed outside the construction limits and be susceptible to predation or competitive stress. This displacement would result in a slight population depression adjacent to the project area, but following project completion and successful restoration, wildlife would again reoccupy restored portions of the project area. It is likely that certain mobile species, such as migratory shorebirds, would avoid the project area during construction. Implementing this alternative is expected to have short-term (duration of the

project and revegetation/habitat restoration), negligible to minor, adverse impacts on vegetation and wildlife.

Cumulative Impacts. All of the past, present, and reasonably foreseeable future projects listed above have the potential to affect biotic communities. All of the projects involve ground disturbing activities that would destroy individual plants, disturb wildlife habitat, and likely result in the death of individuals. Mitigation measures such as temporary fencing and covering open trenches to keep wildlife out of construction areas, stockpiling and replacement of soils/fill material, and collection and reestablishment of rapidly growing plant species in disturbed areas would reduce short- and long-term impacts. The cumulative projects would have short- and long-term, minor, adverse impacts to biotic communities. The preferred alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short-term, minor, adverse cumulative impacts and long-term, minor, beneficial cumulative impacts to biotic communities.

Conclusion. Impacts to biotic communities from the proposed action would be short-term term, negligible to minor, and adverse. Long-term, minor, beneficial impacts would be expected to biotic communities as installation of the seawall would provide more permanent habitat due to stabilization of the shoreline. The preferred alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short-term, minor, adverse cumulative impacts and long-term, minor, beneficial cumulative impacts to biotic communities.

Impairment. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the park's establishing legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's GMP or other relevant NPS planning documents, there would be no impairment of park resources or values.

Coastal and Marine Resources

Aspects of this project with the potential to impact coastal and marine resources include the installation of the proposed seawall and riprap. Generally, the installation of the proposed seawall and riprap would disturb nearshore substrate, dislodge and kill bottom vegetation and less mobile benthic wildlife, and temporarily increase turbidity in the waters surrounding the project area. Additionally, acoustic disturbance associated with installation of the seawall pilings could temporarily disturb marine wildlife and deter them from foraging in these areas on a temporary basis.

Marine vegetation and less mobile benthic wildlife occurring in the project area would be killed outright. During construction, some marine wildlife would be dispersed outside the construction limits and be susceptible to predation or competitive stress. This displacement would result in a slight population depression adjacent to the project area, but following project completion and successful restoration, marine vegetation and wildlife would again reoccupy the affected areas. Although unlikely to occur in channel waters surrounding the project area due to the high traffic volume; if present, mobile species such as foraging sea turtles and marine mammals would be expected to avoid the nearshore waters as a result of

construction activities (e.g., acoustic disturbance, turbidity of nearshore waters due to physical disturbance, etc.). Turbidity would be minimized by placing a silt fence in the waters surrounding the project area. Implementing this alternative is expected to have short-term (duration of the project), negligible to minor, adverse impacts on marine vegetation and wildlife.

After construction activities are completed, long-term, minor, beneficial impacts would be expected to marine vegetation and wildlife as installation of the seawall would minimize erosion and sedimentation into Tanapag Harbor due to a more stable shoreline.

Cumulative Impacts. All of the past, present, and reasonably foreseeable future projects listed above have the potential to affect coastal and marine resources. All of the projects involve activities that could destroy individual marine vegetation and less mobile benthic wildlife, disturb marine habitat, and likely result in the death of individuals. Mitigation measures such as temporary silt fencing in the waters surrounding the project area would reduce short- and long-term impacts. The cumulative projects would have short- and long-term, minor to moderate, adverse impacts to coastal and marine resources. The preferred alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short- term, negligible to minor, adverse, and long-term, negligible to minor, beneficial cumulative impacts to coastal and marine resources.

Conclusion. Impacts to coastal and marine resources from the proposed action would be short-term, negligible to minor, and adverse. Long-term negligible to minor, beneficial impacts would be expected to coastal and marine resources as installation of the seawall would provide more permanent habitat due to stabilization of the shoreline. The preferred alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short- term, negligible to minor, adverse, and long-term, negligible to minor, beneficial cumulative impacts to coastal and marine resources.

Impairment. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the park's establishing legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's GMP or other relevant NPS planning documents, there would no impairment of park resources or values.

Threatened and Endangered Species and Species of Special Concern

Threatened and endangered species are known to exist on Saipan; however, none of these species are known to inhabit the project area. The installation of the proposed seawall, riprap, infiltration chambers, and walkway would disturb areas with minimal vegetation and habitat value to protected species. Listed species, including the sea turtle, sheath-tail bat, and some bird species, could occur as transients through the project area. Installation of the seawall would employ the use of a pile driver during the construction phase of this project (up to six months). Construction would occur during daylight hours when the nearby beaches, channel, and marina are at their peak use by vessels and recreational users. The additional acoustic disturbance associated with installation of the seawall pilings could temporarily disturb species

in the project area, reduce transient activity, and deter foraging in these areas on a temporary basis.

The National Park Service is consulting with the USFWS; CNMI Department of Lands and Natural Resources; CNMI Coastal Resources Management Office; CNMI DEQ; USACE, Honolulu District; Pacific Island Fish and Wildlife Office; and Saipan and Northern Islands Municipal Council regarding this project. Letters were sent to all entities on February 27, 2008. The CNMI indicated that they did not foresee “any significant environmental impacts” (see appendix A).

The USACE and the USFWS provided best management practices to incorporate into the project (see appendix A). These management practices would be incorporated into the project and would become measures to be taken to mitigate for potential impacts. These measures include pre-construction habitat review for individuals of protected species, positioning for equipment staging, and material storage in previously disturbed areas, defining construction zones and construction perimeters, construction monitoring and reporting of protected species occurrences, and stop work orders if species enter the project area, and saving and storing soils/fill material (and the soil seed bank) for restoration/revegetation of disturbed areas. (See “Mitigation Measures for the Preferred Alternative” section of the alternatives chapter).

As a result of implementing this alternative and the mitigation measures discussed, short- and long-term, negligible to minor, adverse impacts on protected species and marginal coastal scrub and benthic habitats would be expected, and therefore, the determination of effect on the listed species is “*may affect, not likely to adversely affect.*”

Cumulative Impacts. All of the past, present, and reasonably foreseeable future projects listed above have the potential to affect protected species. All of the projects involve ground disturbing activities that could disturb wildlife habitat and kill or displace individuals. Mitigation measures including temporary fencing and covering open trenches to screen wildlife away from construction areas, stockpiling and replacement of soils/fill material, and collection and reestablishment of rapidly growing plant species in disturbed areas would reduce short- and long-term impacts. The cumulative projects would have short- and long-term, minor, adverse impacts to protected species. The preferred alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short-term, minor, adverse cumulative impacts and a long-term, minor, beneficial cumulative impact to protected species.

Conclusion. Impacts to protected species from the proposed action would be short and long term, negligible to minor, and adverse. Long-term, minor, beneficial impacts would be expected to protected species as installation of the seawall would provide more permanent coastal scrub and benthic habitats due to stabilization of the shoreline. The preferred alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in short-term, minor, adverse cumulative impacts and a long-term, minor, beneficial cumulative impact to protected species.

Impairment. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the park’s establishing

legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified as a goal in the park's GMP or other relevant NPS planning documents, there would no impairment of park resources or values.

Visitor Use and Experience

Alternative B would replace the sheet pile seawall and repair erosion damage to the causeway. Although it is not anticipated that the sheet pile seawall and causeway conditions would affect visitation numbers, the repair to the seawall and installation of a sidewalk and handrail would provide a safer visitor experience. The parking areas and vehicular use of the roadway and parking areas would be improved providing a convenient and safer passenger drop-off for commercial services offered at the marina.

Alternative B would also provide a long-term solution to prevent further erosion and lessen the likelihood of catastrophic breaching of the causeway, thereby allowing commercial boats mooring and tourist activities to continue from the Outer Cove Marina. These conditions would constitute direct and indirect, short- and long-term, minor to moderate, beneficial impacts to visitor use and experience.

Cumulative Impacts. All of the past, present, and reasonably foreseeable future projects listed above have the potential to affect visitor use and experience. Previous repairs to the eroded areas have improved visitor safety in the immediate area. Dredging the main boat channel to Tanapag Harbor is believed to have exacerbated beach erosion at Micro Beach. However, replacing the sidewalks and restroom at Micro Beach would be a beneficial effect to visitor use. A new floating dock in the Smiley Cove boat channel may inconvenience some boaters; however, it would create safer loading and unloading conditions for tourists. The cumulative projects would have short-term, negligible to minor, adverse and beneficial impacts, and long-term, minor to moderate, beneficial and adverse impacts to visitor use and experience. The preferred alternative, in combination with the effects from past, present, and reasonably foreseeable future projects would result in direct and indirect, short- and long-term, minor to moderate, beneficial cumulative impacts to visitor use and experience.

Conclusion. Impacts to visitor use and experience under alternative B would be direct and indirect, short- and long-term, minor to moderate, beneficial impacts to visitor use and experience. The no-action alternative, in combination with effects from past, present, and reasonably foreseeable future projects would result in direct and indirect, short- and long-term, minor to moderate, beneficial cumulative impacts to visitor use and experience.

Socioeconomics

Alternative B would replace the sheet pile seawall and repair erosion damage to the causeway. There would be direct, short-term, minor, beneficial affects to socioeconomics from implementing alternative B during the construction phase of the project by hiring local firms and labor. Alternative B would provide a long-term solution to prevent further erosion and lessen the likelihood of catastrophic breaching of the causeway, thereby allowing commercial boat mooring and tourist activities to continue from Outer Cove Marina. These conditions

would constitute direct and indirect, short- and long-term, minor to moderate, beneficial impacts to socioeconomics.

Cumulative Impacts. Some of the past, present, and reasonably foreseeable future projects listed above have the potential to indirectly affect socioeconomics. Dredging the main boat channel to Tanapag Harbor is believed to have exacerbated beach erosion at Micro Beach, which would indirectly affect use and therefore expenditures associated with this type of use of the park. However, replacing the sidewalks and restroom at Micro Beach would be a beneficial effect to socioeconomics by encouraging use of the park. A new floating dock in the Smiley Cove boat channel may encourage more use of commercial services in Outer Cove Marina because overall use would be enhanced. The cumulative projects would have short-term and long-term, indirect, negligible to minor, adverse and beneficial impacts to socioeconomics. The preferred alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in direct and indirect, long-term, minor to moderate, and beneficial cumulative impacts to socioeconomics.

Conclusion. Impacts to socioeconomics from the preferred alternative would be direct and indirect, short- and long-term, minor to moderate, and beneficial. The preferred alternative, in combination with the effects from past, present, and reasonably foreseeable future projects, would result in direct and indirect, long-term, minor to moderate and beneficial cumulative impacts to socioeconomics.

CONSULTATION AND COORDINATION

SCOPING

Scoping is the effort to involve agencies and citizens in determining the scope of issues to be addressed in an environmental document. Among other tasks, scoping determines important issues and eliminates issues not important; allocates assignments among the interdisciplinary team members and/or other participating agencies; identifies related projects and associated documents; identifies permits, surveys, consultations, etc., required by other agencies; and creates a schedule that allows adequate time to prepare and distribute the environmental document for public review and comment before a final decision is made. Scoping includes any interested agency, or any agency with jurisdiction by law or expertise (including the CNMI Division of Historic Preservation, USACE, USFWS, NOAA, and CNMI DEQ) to obtain early input.

A press release initiating scoping and describing the proposed action was issued on September 28, 2007 (see appendix B). Comments were solicited during a public scoping period that ended March 28, 2008. No comments were received from the public. The public and agencies will also have an opportunity to review and comment on this environmental assessment.

LIST OF PREPARERS

This environmental assessment was prepared by e²M under the direction of the National Park Service.

The preparers of this document are:

engineering-environmental Management, Inc.

Jayne Aaron – Environmental Planner
Christopher Roche – Biologist
Terry Goodrich – NEPA Planning Specialist
Wanda Gray Lafferty – Technical Publications Specialist
James Von Loh – Senior Biologist

Denver Service Center and War of the Pacific and American Memorial Park staff provided invaluable assistance in the development and technical review of this environmental assessment. NPS staff that provided information include:

War of the Pacific and American Memorial Park

Sarah Creachbaum – Superintendent, War of the Pacific
Mark Capone, Chief of Natural Resources, War of the Pacific
Tammy Duchesne, Chief of Cultural Resources, War of the Pacific

Nancy Kelchner, Park Ranger, American Memorial Park

National Park Service – Denver Service Center

Ron Shields, Project Manager, and Contracting Officer's Representative

Paul Wharry, Natural Resources Compliance Specialist

Jane Sikoryak, Cultural Resources Compliance Specialist

National Park Service – Pacific-West Region

Scott Hendrickson– Pacific Support Office, Honolulu, NPS Engineer

CNMI

Larry Denorio, Smiling Cove Marina

Manny Pangelinan, Marina Operations

Winzler & Kelly

Fred Smith, Project Manager

REFERENCES

Carruth, R.L.

- 2003 Ground-Water Resources of Saipan, Commonwealth of the Northern Mariana Islands: U.S. Geological Survey Water-Resources Investigations Report 03-4178, 3 Plates. Available online: <
<http://pubs.usgs.gov/wri/wri034178/htdocs/wrir03-4178.html>>. Accessed February 10, 2008.

Commonwealth of the Northern Mariana Islands (CNMI), Division of Fish and Wildlife

- 2007a Endangered, Threatened, and Scarce Species of CNMI. Available online at
<http://www.dfw.gov.mp/regulations/ESA-SSC.htm>.

- 2007b Marine Protected Areas of Saipan. Available online at
<http://www.dfw.gov.mp/protected/papfs.htm>.

DeVerse, K. and E. DiDonato

- 2006 Appendix I: Water Quality Report. In: L. HaySmith, F. L. Klasner, S. H. Stephens, and G. H. Dicus. Pacific Island Network Vital Signs Monitoring Plan: Phase III (draft) report. National Park Service, Pacific Island Network, Hawaii National Park, HI.

Mosher, S.M. and S.G. Fancy

- 2002 Description of Nests, Eggs, and Nestlings of the Endangered Nightingale Reed-Warbler on Saipan, Micronesia. The Wilson Bulletin; A Quarterly Journal of Ornithology. Vol. 114, N0. 1. pp. 1-152. Wilson Ornithological Society.

National Oceanic Atmospheric Administration (NOAA)

- 2008 Marine Mammals, Sea Turtles, and Seabirds. NOAA National Marine Fisheries Service – Pacific Islands Regional Office. Available online:
http://www.fpir.noaa.gov/DIR/dir_mammal_turtle_seabird.html>. Accessed February 25, 2008.

National Park Service (NPS)

- 1989 American Memorial Park General Management Plan, October 1989.
- 2005 American Memorial Park Enabling Legislation as of 12 April 2005.
- 2006 Sales, Statistics, and Events Report, American Memorial Park Visitor Center First Year Operations, July 21, 2006, Arizona Memorial Museum Association NPS Interpretative Report for park.
- 2007a American Memorial Park visitor brochure and map.
- 2007b Outer Cove slip rental information.

REFERENCES

2007c Visitor Center Visitation Counts for Fiscal Year 2007.

Natural Resources Conservation Service (NRCS)

- 2008 National Cooperative Soil Survey (NCSS) Web Soil Survey Version 1.1. U.S. Department of Agriculture, NRCS. Available online: <<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>>. Accessed February 11, 2008.

NatureServe

- 2007 NatureServe Explorer: An online encyclopedia of life [web application] Version 6.3. Arlington, Virginia, USA: Association for Biodiversity Information. Available online: <<http://www.natureserve.org/explorer/eodist.htm>>. Accessed February 13, 2008.

Perreault, J. A.

- 2007 Reconnaissance Study of American Memorial Park, Island of Saipan, Commonwealth of the Northern Mariana Islands: U.S. Geological Survey Scientific Investigations Report 2007-5041, 31 p.

Raulerson, L., and Rinehart, A.

- 1989 Vegetation of American Memorial Park Saipan, Mariana Islands. Technical Report 70. University of Hawaii at Manoa, National Park Service, pp. 1-42.

Snyder, A.

- 2006 Appendix A: American Memorial Park resource overview. In: HaySmith, L., F. L. Klasner, S. H. Stephens, and G. H. Dicus. Pacific Island Network vital signs monitoring plan. Natural Resource Report NPS/PACN/NRR—2006/003 National Park Service, Fort Collins, CO.

Starmer, John

- 2007 Reconnaissance Survey of Terrestrial Invertebrates in the American Memorial Park, Saipan, CNMI. Prepared for the National Park Service by the Pacific Marine Resources Institute.

U.S. Fish and Wildlife Service (USFWS)

- 1983 Draft Coordination Act Report, Garapan Flood Control Study, Saipan, Commonwealth of the Northern Mariana Islands. Prepared for the U.S. Army Corps of Engineers, Honolulu District.
- 2008 Pacific Islands – Endangered Species; Threatened and Endangered Animal and Plant Species Listing for Guam, Northern Mariana Islands, and American Samoa. Available online at: <http://www.dfw.gov.mp/regulations/ESA-SSC.htm>.

Williams, L., J. Starmer, D. Jarzen, and D. Dilcher

- 2007 Ecological Assessment of the Mangrove Habitat in the American Memorial Park, Saipan, Northern Mariana Islands. Pacific Marine Resources Institute, Inc. Under NPS Contract No. P9780040003. Saipan, MP.

Winzler & Kelly

2007a Damage to Outer Channel of Marina Repair Assessment. January 22, 2007.

2007b Seawall Replacement Plans. December 2007.

2008 Report of the Geotechnical Investigation for the Seawall Replacement at Smiling Cove Marina, American Memorial Park, Garapan, Saipan, Commonwealth of the Northern Mariana Islands. Prepared by GeoTesting, Inc., for Winzler & Kelly Consulting Engineers. February 20, 2008.

World Wildlife Fund (WWF)

2008 Oceania > Tropical and Subtropical Dry Broadleaf Forests > Marianas Tropical Dry Forests (OC0203). World Wildlife Fund Ecoregions. Available online: http://worldwildlife.org/wildworld/profiles/terrestrial/oc/oc0203_full.html. Accessed February 13, 2008.

REFERENCES

APPENDIX A: AGENCY CORRESPONDENCE



United States Department of the Interior

NATIONAL PARK SERVICE

AMERICAN MEMORIAL PARK

P.O. Box 5198 CHR8

Beach Rd., Garapan

Saipan, MP 96950

February 27, 2008

Fran Castro, Branch Manager,
Nonpoint Source Pollution
CNMI Div of Environmental Quality
PO Box 501304,
Saipan, MP 96950

SUBJECT Solicitation of input into the preparation of an Environmental Assessment of Storm Damage Repairs Following Tropical Storms -- Sea Wall Repairs

Dear Ms. Castro:

The National Park Service (NPS) proposes to replace the existing sheet pile wall along the west side of the man-made causeway separating the Smiling Cove Marina entrance channel and Outer Cove Marina at the American Memorial Park in Garapan, Saipan, MP. American Memorial Park consists of approximately 133 acres of landscaped areas containing memorials, wooden picnic areas, beach front, wetlands, and a causeway and breakwaters creating two boat harbors with marina facilities. The causeway and breakwaters were initially built by the military during World War II. Several recent tropical cyclones in August and October 2006 caused damage to park facilities. The causeway along the Smiling Cove Marina entrance channel sustained significant erosion and undermining along the peninsula.

The causeway is approximately 1,800 feet long and 80 feet wide dividing the Smiling Cove boat channel from Outer Cove Marina and Harbor to the west. The southwest embankment of the causeway is hardened with a meshed concrete mattress from the southern end approximately 1,200 feet to the north. At the end of the mattress, a steel interlocking sheet pile wall begins and runs for approximately 840 feet to the northern tip of the causeway. The sheet pile wall, constructed over 40 years ago, is badly corroded and failing, causing safety concerns. Under the preferred alternative, a new sheet pile wall would be constructed to replace the existing sheet pile wall. The project would also involve replacing approximately 70 linear feet of the concrete woven mattress just south of the end of the sheet wall with a riprap rock slope. This area has been undermined and the concrete mattress has failed.

The new sheet wall would begin at this rock slope. The wall would run north for approximately 800 feet to the end of the causeway. It would turn at a right angle into the causeway and rock slope at the south end to anchor the wall to the land. The wall would also turn at a right angle to the east at the north end of the peninsula for 54 feet and turn at a right angle again to the south on the east side of the peninsula for 82 feet and end in a riprap rock slope that ties into the existing rip rap slope. The wall would rise approximately 5 feet above mean sea level. The new wall would be constructed parallel to and within one foot of the west side of the existing sheet pile wall.

The NPS preferred alternative would include backfill and grading below the mean higher high water (MHHW) (approximately 2.0 feet above sea level). The ground surface would be graded to the top of the sheet pile wall and be capped with a 5-foot wide walkway abutting the sheet wall. A handrail would top the sheet pile wall. Infiltration chambers would be placed within the project area to capture storm water runoff from the land surface. Contractor staging areas would be limited to existing road and previously disturbed areas adjacent to the project area.

The NPS is preparing an environmental assessment to analyze the preferred alternative and other alternatives and their potential impacts on the environment. The environmental assessment will be prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and regulations of the Council on Environmental Quality (40 Code of Federal Regulations (CFR) 1508.9); National Park Service Director's Order – 12: Conservation Planning, Environmental Impact Analysis, and Decision-making; the National Historic Preservation Act of 1966 (as amended), the Endangered Species Act (1973), as amended, and the Federal Coastal Zone Management Act of 1972. We invite your participation in the NEPA process and solicit your comments concerning the proposal and any potential environmental issues of concern to you.

Please provide comments or information directly to Mr. Ron Shields, NPS, 303-969-2164 or Ron_Shields@nps.gov within 30 days from the date of this letter. Thank you for your time and attention.

Sincerely,



Sarah Creachbaum
Superintendent
American Memorial Park
War in the Pacific National Historical Park

cc: Ron Shields
Project Manager
Denver Service Center
National Park Service



United States Department of the Interior

NATIONAL PARK SERVICE

AMERICAN MEMORIAL PARK

P.O. Box 5198 CHR

Beach Rd, Garapan

Saipan, MP 96950

February 27, 2008

US Army Corps of Engineers, Honolulu District
Regulatory Branch
Building 230, Fort Shafter, HI 96858-5440
CEPOH-EC-R@usace.army.mil

SUBJECT Solicitation of input into the preparation of an Environmental Assessment of Storm Damage Repairs Following Tropical Storms – Sea Wall Repairs

Dear Sir or Madam:

The National Park Service (NPS) proposes to replace the existing sheet pile wall along the west side of the man-made causeway separating the Smiling Cove Marina entrance channel and Outer Cove Marina at the American Memorial Park in Garapan, Saipan, MP. American Memorial Park consists of approximately 133 acres of landscaped areas containing memorials, wooden picnic areas, beach front, mangrove swamp and wetlands, and a causeway and breakwaters creating two boat harbors with marina facilities. The causeway and breakwaters were initially built by the military during World War II. Several recent tropical storms in August and October 2006 caused damage to park facilities. The causeway along the Smiling Cove Marina entrance channel sustained significant erosion and undermining along the peninsula.

The causeway is approximately 1,800 feet long and 80 feet wide dividing the Smiling Cove boat channel from Outer Cove Marina and Harbor to the west. The southwest embankment of the causeway is hardened with a meshed concrete mattress from the southern end approximately 1,200 feet to the north. At the end of the mattress, a steel interlocking sheet pile wall begins and runs for approximately 840 feet to the northern tip of the causeway. The sheet pile wall, constructed over 40 years ago, is badly corroded and failing, causing safety concerns. Under the preferred alternative, a new sheet pile wall would be constructed to replace the existing sheet pile wall. The project would also involve replacing approximately 70 linear feet of the concrete woven mattress just south of the end of the sheet wall with a riprap rock slope. This area has been undermined and the concrete mattress has failed.

The new sheet wall would begin at this rock slope. The wall would run north for approximately 800 feet to the end of the causeway. It would turn at a right angle into the causeway and rock slope at the south end to anchor the wall to the land. The wall would also turn at a right angle to the east at the north end of the peninsula for 54 feet and turn at a right angle again to the south on the east side of the peninsula for 82 feet and end in a riprap rock slope that ties into the existing rip rap slope. The wall would rise approximately 5 feet above mean sea level. The new wall would be constructed parallel to and within one foot of the west side of the existing sheet pile wall.

The NPS preferred alternative would include backfill and grading below the mean higher high water (MHHW) (approximately 2.0 feet above sea level). The ground surface would be graded to the top of the sheet pile wall and be capped with a 5-foot wide walkway abutting the sheet wall. A handrail would top the sheet pile wall. Infiltration chambers would be placed within the project area to capture storm water runoff from the land surface. Contractor staging areas would be limited to existing road and previously disturbed areas adjacent to the project area.

The NPS is preparing an environmental assessment to analyze the preferred alternative and other alternatives and their potential impacts on the environment. The environmental assessment will be prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and regulations of the Council on Environmental Quality (40 Code of Federal Regulations (CFR) 1508.9); National Park Service Director's Order – 12: Conservation Planning, Environmental Impact Analysis, and Decision-making; the National Historic Preservation Act of 1966 (as amended), the Endangered Species Act (1973), as amended, and the Federal Coastal Zone Management Act of 1972. We invite your participation in the NEPA process and solicit your comments concerning the proposal and any potential environmental issues of concern to you.

Please provide comments or information directly to Mr. Ron Shields, NPS, 303-969-2164 or Ron_Shields@nps.gov within 30 days from the date of this letter. Thank you for your time and attention.

Sincerely,



Sarah Creachbaum
Superintendent
American Memorial Park
War in the Pacific National Historical Park

cc: Ron Shields
Project Manager
Denver Service Center
National Park Service



United States Department of the Interior

NATIONAL PARK SERVICE

AMERICAN MEMORIAL PARK

P.O. Box 5198 CHR

Beach Rd., Garapan

Saipan, MP 96950

February 27, 2008

E. Flinn Curren
U.S. Fish and Wildlife Service
Division of Federal Assistance
P.O. Box 50167
Honolulu, HI 96850

SUBJECT Solicitation of input into the preparation of an Environmental Assessment of Storm Damage Repairs Following Tropical Storms —Sea Wall Repairs

Dear Mr. Curren:

The National Park Service (NPS) proposes to replace the existing sheet pile wall along the west side of the man-made causeway separating the Smiling Cove Marina entrance channel and Outer Cove Marina at the American Memorial Park in Garapan, Saipan, MP. American Memorial Park consists of approximately 133 acres of landscaped areas containing memorials, wooded picnic areas, beach front, wetlands; and a causeway and breakwaters creating two boat harbors with marina facilities. The causeway and breakwaters were initially built by the military during World War II. Several recent tropical storms in August and October 2006 caused damage to park facilities. The causeway along the Smiling Cove Marina entrance channel sustained significant erosion and undermining along the peninsula.

The causeway is approximately 1,800 feet long and 80 feet wide dividing the Smiling Cove boat channel from Outer Cove Marina and harbor to the west. The southwest embankment of the causeway is hardened with a meshed concrete mattress from the southern end approximately 1,200 feet to the north. At the end of the mattress, a steel interlocking sheet pile wall begins and runs for approximately 840 feet to the northern tip of the causeway. The sheet pile wall, constructed over 40 years ago, is badly corroded and failing, causing safety concerns.

Under the preferred alternative, a new sheet pile wall would be constructed to replace the existing sheet pile wall. The project would also involve replacing approximately 70 linear feet of the concrete woven mattress just south of the end of the sheet wall with a riptap rock slope. This area has been undermined and the concrete mattress has failed.

The new sheet wall would begin at this rock slope. The wall would run north for approximately 800 feet to the end of the causeway. It would turn at a right angle into the causeway and rock slope at the south end to anchor the wall to the land. The wall would also turn at a right angle to the east at the north end of the peninsula for 54 feet and turn at a right angle again to the south on the east side of the peninsula for 82 feet and end in a riptap rock slope that ties into the existing

rip rap slope. The wall would rise approximately 5 feet above mean sea level. The new wall would be constructed parallel to and within one foot of the west side of the existing sheet pile wall.

The NPS preferred alternative would include backfill and grading below the mean higher high water (MHHW) (approximately 2.0 feet above sea level). The ground surface would be graded to the top of the sheet pile wall and be capped with a 5-foot wide walkway abutting the sheet wall. A handrail would top the sheet pile wall. Infiltration chambers would be placed within the project area to capture storm water runoff from the land surface. Contractor staging areas would be limited to existing road and previously disturbed areas adjacent to the project area.

The NPS is preparing an environmental assessment to analyze the preferred alternative and other alternatives and their potential impacts on the environment. The environmental assessment will be prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and regulations of the Council on Environmental Quality (40 Code of Federal Regulations (CFR) 1508.9); National Park Service Director's Order – 12: Conservation Planning, Environmental Impact Analysis, and Decision-making; the National Historic Preservation Act of 1966 (as amended), the Endangered Species Act (1973), as amended, and the Federal Coastal Zone Management Act of 1972. We invite your participation in the NEPA process and solicit your comments concerning the proposal and any potential environmental issues of concern to you.

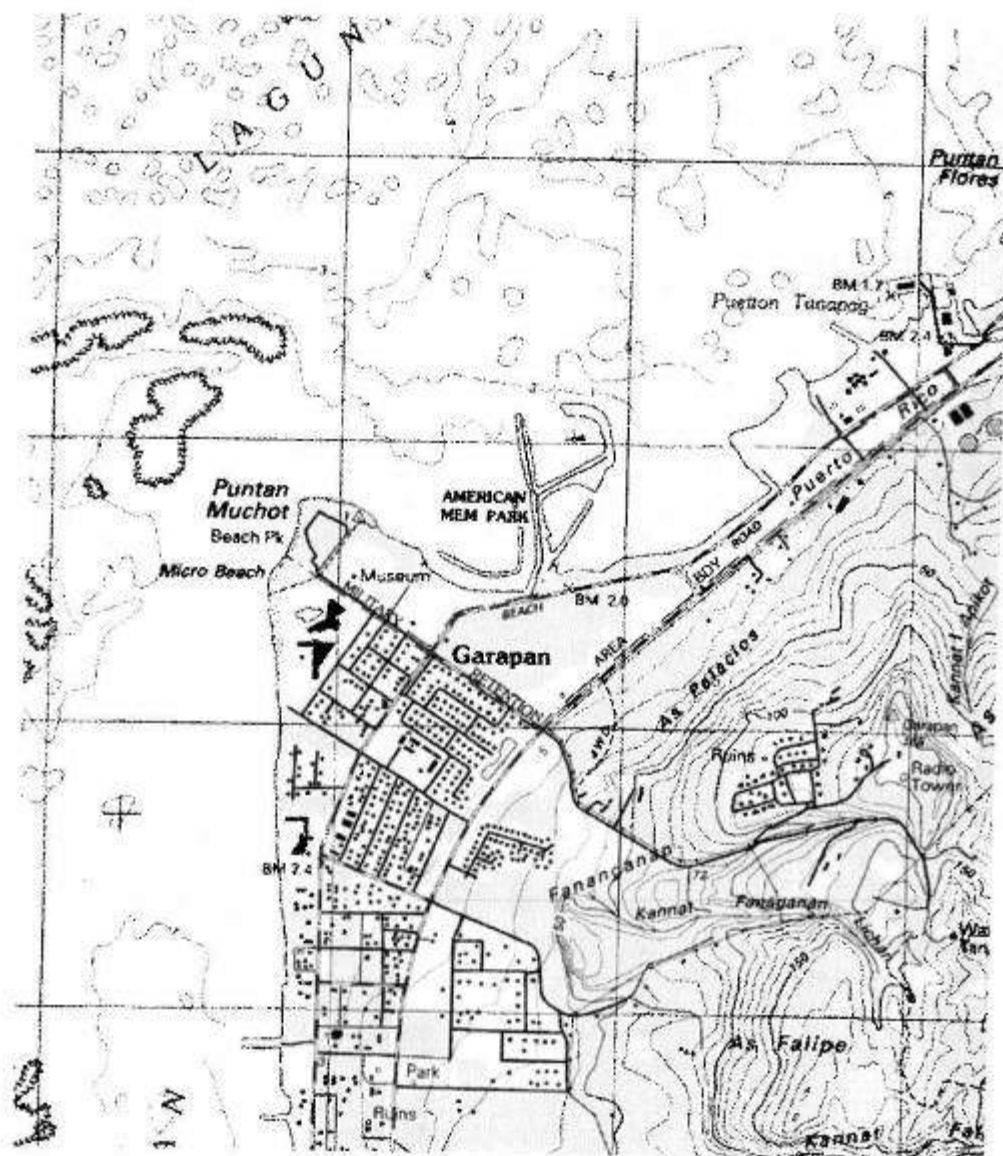
Please provide comments or information directly to Mr. Ron Shields, NPS, 303-969-2164 or Ron_Shields@nps.gov within 30 days from the date of this letter. Thank you for your time and attention.

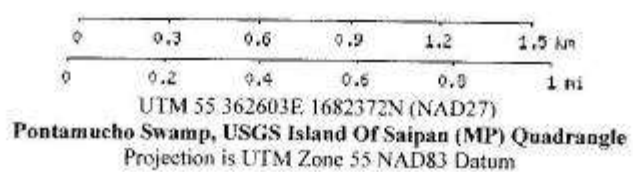
Sincerely,



Sarah Creachbaum
Superintendent
American Memorial Park
War in the Pacific NHP

cc: Ron Shields
Project Manager
Denver Service Center
National Park Service







United States Department of the Interior

NATIONAL PARK SERVICE

AMERICAN MEMORIAL PARK

P.O. Box 5198 CHRB

Beach Rd, Garapan

Saipan, MP 96950

February 27, 2008

Dr. Ignacio T. Dela Cruz
Secretary Department of Lands and Natural Resources
Commonwealth of the Northern Mariana Islands
Department of Land and Natural Resources
P.O. Box 100007, Lower Base
Saipan, MP 96950

SUBJECT Solicitation of input into the preparation of an Environmental Assessment of Storm Damage Repairs Following Tropical Storms --Sea Wall Repairs

Dear Dr. Dela Cruz:

The National Park Service (NPS) proposes to replace the existing sheet pile wall along the west side of the man-made causeway separating the Smiling Cove Marina entrance channel and Outer Cove Marina at the American Memorial Park in Garapan, Saipan, MP. American Memorial Park consists of approximately 133 acres of landscaped areas containing memorials, wooden picnic areas, beach front, wetlands, and a causeway and breakwaters creating two boat harbors with marina facilities. The causeway and breakwaters were initially built by the military during World War II. Several recent tropical storms in August and October 2006 caused damage to park facilities. The causeway along the Smiling Cove Marina entrance channel sustained significant erosion and undermining along the peninsula.

The causeway is approximately 1,800 feet long and 80 feet wide dividing the Smiling Cove boat channel from Outer Cove Marina and Harbor to the west. The southwest embankment of the causeway is hardened with a meshed concrete mattress from the southern end approximately 1,200 feet to the north. At the end of the mattress, a steel interlocking sheet pile wall begins and runs for approximately 840 feet to the northern tip of the causeway. The sheet pile wall, constructed over 40 years ago, is badly corroded and failing, causing safety concerns. Under the preferred alternative, a new sheet pile wall would be constructed to replace the existing sheet pile wall. The project would also involve replacing approximately 70 linear feet of the concrete woven mattress just south of the end of the sheet wall with a riprap rock slope. This area has been undermined and the concrete mattress has failed.

The new sheet wall would begin at this rock slope. The wall would run north for approximately 800 feet to the end of the causeway. It would turn at a right angle into the causeway and rock slope at the south end to anchor the wall to the land. The wall would also turn at a right angle to the east at the north end of the peninsula for 54 feet and turn at a right angle again to the south on

the east side of the peninsula for 82 feet and end in a riprap rock slope that ties into the existing rip rap slope. The wall would rise approximately 5 feet above mean sea level. The new wall would be constructed parallel to and within one foot of the west side of the existing sheet pile wall.

The NPS preferred alternative would include backfill and grading below the mean higher high water (MHHW) (approximately 2.0 feet above sea level). The ground surface would be graded to the top of the sheet pile wall and be capped with a 5-foot wide walkway abutting the sheet wall. A handrail would top the sheet pile wall. Infiltration chambers would be placed within the project area to capture storm water runoff from the land surface. Contractor staging areas would be limited to existing road and previously disturbed areas adjacent to the project area.

The NPS is preparing an environmental assessment to analyze the preferred alternative and other alternatives and their potential impacts on the environment. The environmental assessment will be prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and regulations of the Council on Environmental Quality (40 Code of Federal Regulations (CFR) 1508.9); National Park Service Director's Order - 12: Conservation Planning, Environmental Impact Analysis, and Decision-making; the National Historic Preservation Act of 1966 (as amended), the Endangered Species Act (1973), as amended, and the Federal Coastal Zone Management Act of 1972. We invite your participation in the NEPA process and solicit your comments concerning the proposal and any potential environmental issues of concern to you.

Please provide comments or information directly to Mr. Ron Shields, NPS, 303-969-2164 or Ron_Shields@nps.gov within 30 days from the date of this letter. Thank you for your time and attention.

Sincerely,



Sarah Creachbaum
Superintendent
American Memorial Park
War in the Pacific National Historical Park

cc: Ron Shields
Project Manager
Denver Service Center
National Park Service



United States Department of the Interior

NATIONAL PARK SERVICE

AMERICAN MEMORIAL PARK

P.O. Box 5198 CHRB

Beach Rd, Garapan

Saipan, MP 96950

February 27, 2008

John B. Joyner, Ph.D. - *Director*
Coastal Resources Management Office
P.O. Box 10007
Second Floor Morgen Building,
San Jose, Saipan, MP 96950

SUBJECT Solicitation of input into the preparation of an Environmental Assessment of Storm Damage Repairs Following Tropical Storms —Sea Wall Repairs

Dear Dr. Joyner:

The National Park Service (NPS) proposes to replace the existing sheet pile wall along the west side of the man-made causeway separating the Smiling Cove Marina entrance channel and Outer Cove Marina at the American Memorial Park in Garapan, Saipan, MP. American Memorial Park consists of approximately 133 acres of landscaped areas containing memorials, wooden picnic areas, beach front, wetlands, and a causeway and breakwaters creating two boat harbors with marina facilities. The causeway and breakwaters were initially built by the military during World War II. Several recent tropical storms in August and October 2006 caused damage to park facilities. The causeway along the Smiling Cove Marina entrance channel sustained significant erosion and undermining along the peninsula.

The causeway is approximately 1,800 feet long and 80 feet wide dividing the Smiling Cove boat channel from Outer Cove Marina and harbor to the west. The southwest embankment of the causeway is hardened with a meshed concrete mattress from the southern end approximately 1,200 feet to the north. At the end of the mattress, a steel interlocking sheet pile wall begins and runs for approximately 840 feet to the northern tip of the causeway. The sheet pile wall, constructed over 40 years ago, is badly corroded and failing, causing safety concerns.

Under the preferred alternative, a new sheet pile wall would be constructed to replace the existing sheet pile wall. The project would also involve replacing approximately 70 linear feet of the concrete woven mattress just south of the end of the sheet wall with a riprap rock slope. This area has been undermined and the concrete mattress has failed.

The new sheet wall would begin at this rock slope. The wall would run north for approximately 800 feet to the end of the causeway. It would turn at a right angle into the causeway and rock slope at the south end to anchor the wall to the land. The wall would also turn at a right angle to the east at the north end of the peninsula for 54 feet and turn at a right angle again to the south on the east side of the peninsula for 82 feet and end in a riprap rock slope that ties into the existing rip rap slope. The wall would rise approximately 5 feet above mean sea level. The new wall

would be constructed parallel to and within one foot of the west side of the existing sheet pile wall.

The NPS preferred alternative would include backfill and grading below the mean higher high water (MHHW) (approximately 2.0 feet above sea level). The ground surface would be graded to the top of the sheet pile wall and be capped with a 5-foot wide walkway abutting the sheet wall. A handrail would top the sheet pile wall. Infiltration chambers would be placed within the project area to capture storm water runoff from the land surface. Contractor staging areas would be limited to existing road and previously disturbed areas adjacent to the project area.

The NPS is preparing an environmental assessment to analyze the preferred alternative and other alternatives and their potential impacts on the environment. The environmental assessment will be prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and regulations of the Council on Environmental Quality (40 Code of Federal Regulations (CFR) 1508.9); National Park Service Director's Order -- 12: Conservation Planning, Environmental Impact Analysis, and Decision-making; the National Historic Preservation Act of 1966 (as amended), the Endangered Species Act (1973), as amended, and the Federal Coastal Zone Management Act of 1972. We invite your participation in the NEPA process and solicit your comments concerning the proposal and any potential environmental issues of concern to you.

Please provide comments or information directly to Mr. Ron Shields, NPS, 303-969-2164 or Ron_Shields@nps.gov within 30 days from the date of this letter. Thank you for your time and attention.

Sincerely,



Sarah Creachbaum
Superintendent
American Memorial Park
War in the Pacific NHP

cc: Ron Shields
Project Manager
Denver Service Center
National Park Service



United States Department of the Interior

NATIONAL PARK SERVICE

AMERICAN MEMORIAL PARK

P.O. Box 5198 CHRB

Beach Rd, Garapan

Saipan, MP 96950

February 27, 2008

David Rosario, Branch Manager
Wastewater and Erosion Control
CNMI Div of Environmental Quality
PO Box 501304,
Saipan, MP 96950

SUBJECT Solicitation of input into the preparation of an Environmental Assessment of
Storm Damage Repairs Following Tropical Storms –Sea Wall Repairs

Dear Mr. Rosario:

The National Park Service (NPS) proposes to replace the existing sheet pile wall along the west side of the man-made causeway separating the Smiling Cove Marina entrance channel and Outer Cove Marina at the American Memorial Park in Garapan, Saipan, MP. American Memorial Park consists of approximately 133 acres of landscaped areas containing memorials, wooden picnic areas, beach front, wetlands, and a causeway and breakwaters creating two boat harbors with marina facilities. The causeway and breakwaters were initially built by the military during World War II. Several recent tropical storms in August and October 2006 caused damage to park facilities. The causeway along the Smiling Cove Marina entrance channel sustained significant erosion and undermining along the peninsula.

The causeway is approximately 1,800 feet long and 80 feet wide dividing the Smiling Cove boat channel from Outer Cove Marina and Harbor to the west. The southwest embankment of the causeway is hardened with a meshed concrete mattress from the southern end approximately 1,200 feet to the north. At the end of the mattress, a steel interlocking sheet pile wall begins and runs for approximately 840 feet to the northern tip of the causeway. The sheet pile wall, constructed over 40 years ago, is badly corroded and failing, causing safety concerns.

Under the preferred alternative, a new sheet pile wall would be constructed to replace the existing sheet pile wall. The project would also involve replacing approximately 70 linear feet of the concrete woven mattress just south of the end of the sheet wall with a riprap rock slope. This area has been undermined and the concrete mattress has failed.

The new sheet wall would begin at this rock slope. The wall would run north for approximately 800 feet to the end of the causeway. It would turn at a right angle into the causeway and rock slope at the south end to anchor the wall to the land. The wall would also turn at a right angle to the east at the north end of the peninsula for 54 feet and turn at a right angle again to the south on the east side of the peninsula for 82 feet and end in a riprap rock slope that ties into the existing rip rap slope. The wall would rise approximately 5 feet above mean sea level. The new wall

would be constructed parallel to and within one foot of the west side of the existing sheet pile wall.

The NPS preferred alternative would include backfill and grading below the mean higher high water (MHHW) (approximately 2.0 feet above sea level). The ground surface would be graded to the top of the sheet pile wall and be capped with a 5-foot wide walkway abutting the sheet wall. A handrail would top the sheet pile wall. Infiltration chambers would be placed within the project area to capture storm water runoff from the land surface. Contractor staging areas would be limited to existing road and previously disturbed areas adjacent to the project area.

The NPS is preparing an environmental assessment to analyze the preferred alternative and other alternatives and their potential impacts on the environment. The environmental assessment will be prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and regulations of the Council on Environmental Quality (40 Code of Federal Regulations (CFR) 1508.9); National Park Service Director's Order ~ 12: Conservation Planning, Environmental Impact Analysis, and Decision-making; the National Historic Preservation Act of 1966 (as amended), the Endangered Species Act (1973), as amended, and the Federal Coastal Zone Management Act of 1972. We invite your participation in the NEPA process and solicit your comments concerning the proposal and any potential environmental issues of concern to you.

Please provide comments or information directly to Mr. Ron Shields, NPS, 303-969-2164 or Ron_Shields@nps.gov within 30 days from the date of this letter. Thank you for your time and attention.

Sincerely,



Sarah Creachbaum
Superintendent
American Memorial Park
War in the Pacific National Historical Park

cc: Ron Shields
Project Manager
Denver Service Center
National Park Service



United States Department of the Interior

NATIONAL PARK SERVICE

AMERICAN MEMORIAL PARK

P.O. Box 5198 CHRB

Beach Rd, Garapan

Saipan, MP 96950

February 27, 2008

Honorable Marian DLG Tudela
Saipan and Northern Islands Municipal Council
P.O. Box 309 CK
Saipan, MP 96950

SUBJECT Solicitation of input into the preparation of an Environmental Assessment of Storm Damage Repairs Following Tropical Storms —Sea Wall Repairs

Dear Chairperson Tudela:

The National Park Service (NPS) proposes to replace the existing sheet pile wall along the west side of the man-made causeway separating the Smiling Cove Marina entrance channel and Outer Cove Marina at the American Memorial Park in Garapan, Saipan, MP. American Memorial Park consists of approximately 133 acres of landscaped areas containing memorials, wooded picnic areas, beach front; wetlands; and a causeway and breakwaters creating two boat harbors with marina facilities. The causeway and breakwaters were initially built by the military during World War II. Several recent tropical storms in August and October 2006 caused damage to park facilities. The causeway along the Smiling Cove Marina entrance channel sustained significant erosion and undermining along the peninsula.

The causeway is approximately 1,800 feet long and 80 feet wide dividing the Smiling Cove boat channel from Outer Cove Marina and harbor to the west. The southwest embankment of the causeway is hardened with a meshed concrete mattress from the southern end approximately 1,200 feet to the north. At the end of the mattress, a steel interlocking sheet pile wall begins and runs for approximately 840 feet to the northern tip of the causeway. The sheet pile wall, constructed over 40 years ago, is badly corroded and failing, causing safety concerns.

Under the preferred alternative, a new sheet pile wall would be constructed to replace the existing sheet pile wall. The project would also involve replacing approximately 70 linear feet of the concrete woven mattress just south of the end of the sheet wall with a riprap rock slope. This area has been undermined and the concrete mattress has failed.

The new sheet wall would begin at this rock slope. The wall would run north for approximately 800 feet to the end of the causeway. It would turn at a right angle into the causeway and rock slope at the south end to anchor the wall to the land. The wall would also turn at a right angle to the east at the north end of the peninsula for 54 feet and turn at a right angle again to the south on the east side of the peninsula for 82 feet and end in a riprap rock slope that ties into the existing rip rap slope. The wall would rise approximately 5 feet above mean sea level. The new wall

would be constructed parallel to and within one foot of the west side of the existing sheet pile wall.

The NPS preferred alternative would include backfill and grading below the mean higher high water (MHHW) (approximately 2.0 feet above sea level). The ground surface would be graded to the top of the sheet pile wall and be capped with a 5-foot wide walkway abutting the sheet wall. A handrail would top the sheet pile wall. Infiltration chambers would be placed within the project area to capture storm water runoff from the land surface. Contractor staging areas would be limited to existing road and previously disturbed areas adjacent to the project area.

The NPS is preparing an environmental assessment to analyze the preferred alternative and other alternatives and their potential impacts on the environment. The environmental assessment will be prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and regulations of the Council on Environmental Quality (40 Code of Federal Regulations (CFR) 1508.9); National Park Service Director's Order – 12: Conservation Planning, Environmental Impact Analysis, and Decision-making; the National Historic Preservation Act of 1966 (as amended), the Endangered Species Act (1973), as amended, and the Federal Coastal Zone Management Act of 1972. We invite your participation in the NEPA process and solicit your comments concerning the proposal and any potential environmental issues of concern to you.

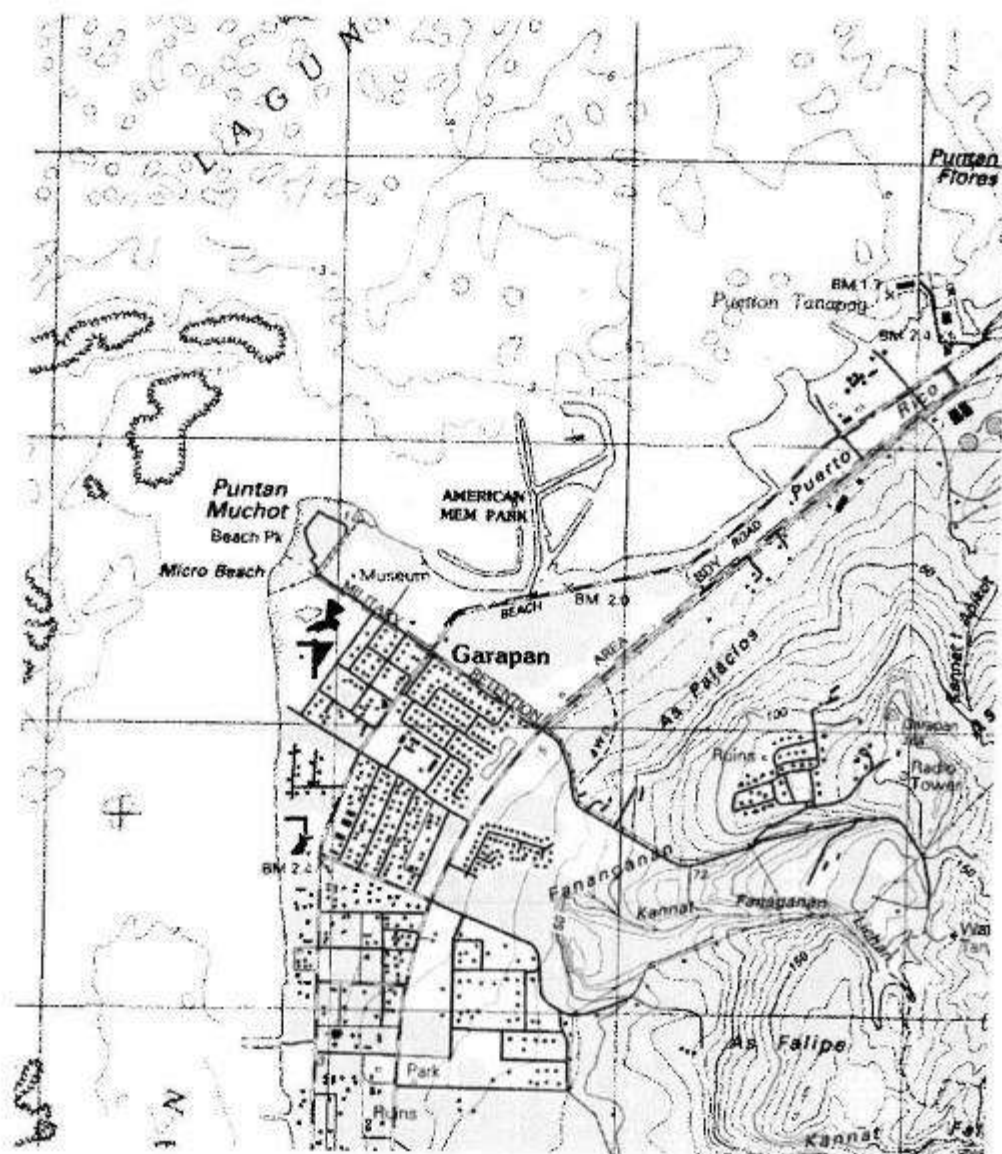
Please provide comments or information directly to Mr. Ron Shields, NPS, 303-969-2164 or Ron_Shields@nps.gov within 30 days from the date of this letter. Thank you for your time and attention.

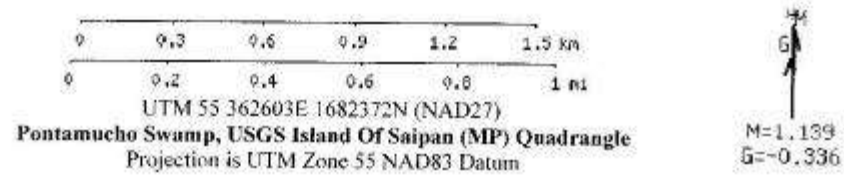
Sincerely,



Sarah Creachbaum
Superintendent
American Memorial Park
War in the Pacific NHP

cc: Ron Shields
Project Manager
Denver Service Center
National Park Service







United States Department of the Interior

NATIONAL PARK SERVICE

AMERICAN MEMORIAL PARK

P.O. Box 5198 CHRB

Beach Rd, Garapan

Saipan, MP 96950

February 27, 2008

USFWS

ATTN: Jeania Schultz

Pacific Island Fish and Wildlife Office

300 Ala Moana Blvd, Room3-122

Honolulu, HI 96813

808-9792-9400

SUBJECT Solicitation of input into the preparation of an Environmental Assessment of Storm Damage Repairs Following Tropical Storms --Sea Wall Repairs

Dear Ms. Schultz:

The National Park Service (NPS) proposes to replace the existing sheet pile wall along the west side of the man-made causeway separating the Smiling Cove Marina entrance channel and Outer Cove Marina at the American Memorial Park in Garapan, Saipan, MP. American Memorial Park consists of approximately 133 acres of landscaped areas containing memorials, wooden picnic areas, beach front, wetlands, and a causeway and breakwaters creating two boat harbors with marina facilities. The causeway and breakwaters were initially built by the military during World War II. Several recent tropical storms in August and October 2006 caused damage to park facilities. The causeway along the Smiling Cove Marina entrance channel sustained significant erosion and undermining along the peninsula.

The causeway is approximately 1,800 feet long and 80 feet wide dividing the Smiling Cove boat channel from Outer Cove Marina and harbor to the west. The southwest embankment of the causeway is hardened with a meshed concrete mattress from the southern end approximately 1,200 feet to the north. At the end of the mattress, a steel interlocking sheet pile wall begins and runs for approximately 840 feet to the northern tip of the causeway. The sheet pile wall, constructed over 40 years ago, is badly corroded and failing, causing safety concerns. Under the preferred alternative, a new sheet pile wall would be constructed to replace the existing sheet pile wall. The project would also involve replacing approximately 70 linear feet of the concrete woven mattress just south of the end of the sheet wall with a riprap rock slope. This area has been undermined and the concrete mattress has failed.

The new sheet wall would begin at this rock slope. The wall would run north for approximately 800 feet to the end of the causeway. It would turn at a right angle into the causeway and rock slope at the south end to anchor the wall to the land. The wall would also turn at a right angle to the east at the north end of the peninsula for 54 feet and turn at a right angle again to the south on the east side of the peninsula for 82 feet and end in a riprap rock slope that ties into the existing

rip rap slope. The wall would rise approximately 5 feet above mean sea level. The new wall would be constructed parallel to and within one foot of the west side of the existing sheet pile wall.

The NPS preferred alternative would include backfill and grading below the mean higher high water (MHHW) (approximately 2.0 feet above sea level). The ground surface would be graded to the top of the sheet pile wall and be capped with a 5-foot wide walkway abutting the sheet wall. A handrail would top the sheet pile wall. Infiltration chambers would be placed within the project area to capture storm water runoff from the land surface. Contractor staging areas would be limited to existing road and previously disturbed areas adjacent to the project area.

The NPS is preparing an environmental assessment to analyze the preferred alternative and other alternatives and their potential impacts on the environment. The environmental assessment will be prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and regulations of the Council on Environmental Quality (40 Code of Federal Regulations (CFR) 1508.9); National Park Service Director's Order - 12: Conservation Planning, Environmental Impact Analysis, and Decision-making; the National Historic Preservation Act of 1966 (as amended), the Endangered Species Act (1973), as amended, and the Federal Coastal Zone Management Act of 1972. We invite your participation in the NEPA process and solicit your comments concerning the proposal and any potential environmental issues of concern to you.

Please provide comments or information directly to Mr. Ron Shields, NPS, 303-969-2164 or Ron_Shields@nps.gov within 30 days from the date of this letter. Thank you for your time and attention.

Sincerely,



Sarah Creachbaum
Superintendent
American Memorial Park
War in the Pacific National Historical Park

cc: Ron Shields
Project Manager
Denver Service Center
National Park Service



United States Department of the Interior

NATIONAL PARK SERVICE

AMERICAN MEMORIAL PARK

P.O. Box 5198 CHR

Beach Rd. Garapan

Saipan, MP 96950

February 27, 2008

US Army Corps of Engineers, Honolulu District
Regulatory Branch (Guam and CNMI)
CEPOH-EC-R
PSC 455, Box 188
FPO AP 96540-1088
671-339-2108

SUBJECT Solicitation of input into the preparation of an Environmental Assessment of
Storm Damage Repairs Following Tropical Storms —Sea Wall Repairs

Dear Sir or Madam:

The National Park Service (NPS) proposes to replace the existing sheet pile wall along the west side of the man-made causeway separating the Smiling Cove Marina entrance channel and Outer Cove Marina at the American Memorial Park in Garapan, Saipan, MP. American Memorial Park consists of approximately 133 acres of landscaped areas containing memorials, wooden picnic areas, beach front, mangrove swamp and wetlands; and a causeway and breakwaters creating two boat harbors with marina facilities. The causeway and breakwaters were initially built by the military during World War II. Several recent tropical storms in August and October 2006 caused damage to park facilities. The causeway along the Smiling Cove Marina entrance channel sustained significant erosion and undermining along the peninsula.

The causeway is approximately 1,800 feet long and 80 feet wide dividing the Smiling Cove boat channel from Outer Cove Marina and Harbor to the west. The southwest embankment of the causeway is hardened with a meshed concrete mattress from the southern end approximately 1,200 feet to the north. At the end of the mattress, a steel interlocking sheet pile wall begins and runs for approximately 840 feet to the northern tip of the causeway. The sheet pile wall, constructed over 40 years ago, is badly corroded and failing, causing safety concerns. Under the preferred alternative, a new sheet pile wall would be constructed to replace the existing sheet pile wall. The project would also involve replacing approximately 70 linear feet of the concrete woven mattress just south of the end of the sheet wall with a riprap rock slope. This area has been undermined and the concrete mattress has failed.

The new sheet wall would begin at this rock slope. The wall would run north for approximately 800 feet to the end of the causeway. It would turn at a right angle into the causeway and rock slope at the south end to anchor the wall to the land. The wall would also turn at a right angle to the east at the north end of the peninsula for 54 feet and turn at a right angle again to the south on the east side of the peninsula for 82 feet and end in a riprap rock slope that ties into the existing rip rap slope. The wall would rise approximately 5 feet above mean sea level. The new wall

would be constructed parallel to and within one foot of the west side of the existing sheet pile wall.

The NPS preferred alternative would include backfill and grading below the mean higher high water (MHHW) (approximately 2.0 feet above sea level). The ground surface would be graded to the top of the sheet pile wall and be capped with a 5-foot wide walkway abutting the sheet wall. A handrail would top the sheet pile wall. Infiltration chambers would be placed within the project area to capture storm water runoff from the land surface. Contractor staging areas would be limited to existing road and previously disturbed areas adjacent to the project area.

The NPS is preparing an environmental assessment to analyze the preferred alternative and other alternatives and their potential impacts on the environment. The environmental assessment will be prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and regulations of the Council on Environmental Quality (40 Code of Federal Regulations (CFR) 1508.9); National Park Service Director's Order -- 12: Conservation Planning, Environmental Impact Analysis, and Decision-making; the National Historic Preservation Act of 1966 (as amended), the Endangered Species Act (1973), as amended, and the Federal Coastal Zone Management Act of 1972. We invite your participation in the NEPA process and solicit your comments concerning the proposal and any potential environmental issues of concern to you.

Please provide comments or information directly to Mr. Ron Shields, NPS, 303-969-2164 or Ron_Shields@nps.gov within 30 days from the date of this letter. Thank you for your time and attention.

Sincerely,



Sarah Creachbaum
Superintendent
American Memorial Park
War in Pacific National Historical Park

cc: Ron Shields
Project Manager
Denver Service Center
National Park Service



Commonwealth of the Northern Mariana Islands

OFFICE OF THE GOVERNOR
Division of Environmental Quality

P O Box 501304 Saipan, MP 96950-1304
670-664-8500/01 670-664-8540 (fax)
environment@deq.gov.mp www.deq.gov.mp



March 6, 2008

Ms. Sarah Creachbaum
Superintendent, American Memorial Park
US National Park Service
P.O. Box 5198 CHRB
Saipan, MP 96950

**RE: Solicitation of input into the preparation of an Environmental Assessment of
Storm Damage Repairs Following Tropical Storms – Sea Wall Repairs**

Dear Ms. Creachbaum:

Thank you for your February 27, 2008, letter inviting us to comment on the proposed work at American Memorial Park. I and other DEQ technical staff reviewed your brief project description and visited the proposed site near the end of the Smiling Cove/Outer Cove causeway. Based on the information available to us at this time, we do not foresee any significant environmental impacts that would occur as a result of this project. Following the permit process and implementing best management practices will be adequate, in our opinion, to address whatever minor temporary and permanent impacts may be caused by this project.

As far as permits go, we expect that the only permits you will need from our agency will be an inter-agency "One Start" non-commercial earthmoving & erosion control permit, and a Clean Water Act Section 401 Water Quality Certification. Please feel free to contact us if you require any information concerning permitting requirements, or if you have any other questions or comments.

Sincerely,

DAVID B. ROSARIO
Acting Director

cc: Wastewater, Earthmoving & Erosion Control Branch

Mr. Shields,

This is in response to the National Park Service letter, dated February 27, 2008, concerning the preparation of the Environmental Assessment for the proposed repairs to the existing steel sheet pile bulkhead along the west side of the man-made causeway between the Outer Cove Marina and the Smiling Cove Marina.

In as much as the project will require the construction of a new sheet pile bulkhead and the discharge of fill material seaward of the existing high tide line, a Department of the Army permit is required. That permit is required pursuant to federal regulations promulgated under Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.

The letter asks about potential environmental issues of concern to us. The following issues should be addressed in the environmental assessment:

1. Impact of the project during and after construction on species listed under the Endangered Species Act. Specifically the Green Sea turtle (*Chelonia mydas*) and the Hawksbill Sea turtle (*Eretmochelys imbricata*).
2. Impact of the project on live coral colonies in and adjacent to the project location. Discuss possible mitigation should corals have the possibility of being impacted.
3. Impact of the project on seagrass beds in and adjacent to the project location.
4. Impact of the project on site listed or eligible for listing on the National Register of Historic Places.
5. Control of sedimentation during construction.
6. Stoppage of work during the summer hard coral spawning periods.
7. Identify any wetlands in or near the project location and the impact the project would have on these wetlands. Wetland determination must be made using the procedures described in the Corps of Engineers Wetlands Delineation Manual, dated January 1987.
8. Impact of the project on base flood elevations.

The application for the Department of the Army permit will be submitted to this office at:

Department of the Army Regulatory Branch PSC 455, Box 188 FPO AP 96540-1088

I have attached a copy of our application form. Plans are also required, they will be on 8 1/2" by 11" paper and include a location map, a plan view of the project with overall dimensions and typical cross sections through the proposed bulkhead. The plan view and sections will show the distance the work extends out from the high tide line. The volume of fill is that fill to be placed/discharged below the horizontal plane of the high tide line. I also include a copy of our standard Best management Practices for your information. These are normally added as Special Conditions to any permit or authorization we issue.

I suggest that you contact the CNMI Coastal Resources Management Office as they will process the application for the Coastal Zone Management Consistency Statement, the CNMI Division of Environmental Quality as they will process your application for a Section 401 of the Clean Water Act Water Quality Certification and the CNMI Historic Preservation Office as they will review your Section 106 of the Historic Preservation Act determination.

Frank

SPECIAL CONDITIONS
Department of the Army Authorization POH-2008-
date

- a. Dredging/filling in streams/ rivers will be scheduled to occur during low flow periods. If in tidal waters, the work will not occur during the hard coral spawning periods, usually around the periods of the full moons in June, July and August. If work would occur during those months, contact the University of Guam Marine Laboratory for the exact spawning dates.
- b. No project-related materials (fill, revetment rock, pipe etc.) will be stockpiled in the water (intertidal zones, reef flats, stream channels etc.).
- c. All project-related materials and equipment (dredges, barges, backhoes etc) placed in the water will be free of pollutants.
- d. No contamination (trash or debris disposal, alien species introductions etc.) of adjacent aquatic (stream/river channels, wetlands, lakes etc.) or marine (reef flats, lagoons, open ocean etc) environments will result from project-related activities.
- e. Fueling of project-related vehicles and equipment will take place away from the water and a contingency plan to control petroleum products accidentally spilled during the project will be developed. Absorbent pads and containment booms will be stored on-site to facilitate the clean-up of petroleum spills.
- f. Turbidity and siltation from project-related work will be minimized and contained to within the vicinity of the site through the appropriate use of effective silt containment devices and the curtailment of work during adverse tidal and weather conditions.
- g. The permittee shall provide written notification to this office seven (7) days prior to start of work and again seven (7) days prior to project completion to allow for scheduling of the Corps' inspection of the project for compliance with the authorization.
- h. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must notify this office of what you have found no later than one working day after the discovery. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
- i. Your use of the permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.
- j. You must install and maintain, at your expense, any safety lights and signals prescribed by the United States Coast Guard (USCG), through regulations or otherwise, on your authorized facilities. The USCG may be reached at the following address and telephone number: Commander (OAN), 14th Coast Guard District, PJKK Federal Building, Room 9-236, 300 Ala Moana Boulevard, Honolulu, Hawaii 96850-4982, (808) 541-2318.
- k. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
- l. If any federally listed endangered or threatened species enter the project vicinity, all in water work will halt until the species depart the area of their own accord.

Mr. Shields,

This email is in response to your February 27, 2008, letter requesting input into the preparation of an Environmental Assessment of storm damage repairs to sea walls within American Memorial Park, Garapan, Saipan, MP. We received your letter on March 4, 2008. The proposed project preferred alternative is to repair or replace existing sheet pile wall along the west side of the man-made causeway and involves backfilling, grading, and installing walkway and hand rail adjacent to the wall.

Three species protected under the Endangered Species Act of 1973, as amended (ESA), are known to occupy habitats within and adjacent to American Memorial Park: green sea turtle (*Chelonia mydas*), nightingale reed-warbler (*Acrocephalus luscini*), and Mariana common moorhen (*Gallinula chloropus guami*). Sea turtles may be using beaches in the area for nesting or resting. The nightingale reed-warbler uses mangrove wetlands, reed wetlands, and upland tangantangan habitat for breeding, foraging, and sheltering. The Mariana common moorhen uses reed wetlands for breeding, foraging, and sheltering.

Under section 7 of the ESA it is the Federal agency's responsibility to make the determination of whether or not the proposed project "may affect" federally listed species. If the Federal agency determines that a "may affect" situation exists with respect to the proposed project, then the Federal agency must either initiate informal or formal consultation.

Thank you for the opportunity to provide comments regarding the proposed project. If you have questions regarding federally protected species, potential effects to these species, or this email, please contact me via phone or email.

Holly Herod
Senior Fish & Wildlife Biologist
US Fish and Wildlife Service
300 Ala Moana Boulevard, Box 5008
Honolulu, Hawaii 96850-5000
Ph: 808-792-9400
Fax: 808-792-9580

Sarah,

Based on the letter and the project, we have no comment (you won't even get a response :-() on the request for input into the EA. That's actually a compliment as we think you guys have it under control and will produce a good document. As long as the EA is competently completed, I don't suspect you will have many problems on our end. Just make sure you include relevant BMPs to mediate construction impacts such as sedimentation, spills, etc. (see our attached BMPs) and address and potential sea turtle issues and I think all will be fine. I probably need to attach a disclaimer here because this is my opinion and not my agency's, but I am the lead person on the project :-)

It looks like I will be paying a visit to Saipan at the end of June for a few weeks. Any chance our paths will cross?

Cheers,

dwayne

**US Fish and Wildlife Service
Recommended Standard Best Management Practices**

The Fish and Wildlife Service recommends that the following measures be incorporated into projects to minimize the degradation of water quality and impacts to fish and wildlife resources:

- a. Turbidity and siltation from project-related work shall be minimized and contained to within the vicinity of the site through the appropriate use of effective silt containment devices and the curtailment of work during adverse tidal and weather conditions;
- b. dredging/filling in the marine environment shall be scheduled to avoid coral spawning and recruitment periods;
- c. dredging and filling in the marine/aquatic environment shall be designed to avoid or minimize the loss special aquatic site habitat (coral reefs, wetlands etc.) and the unavoidable loss of such habitat shall be compensated for;
- d. all project-related materials and equipment (dredges, barges, backhoes etc) to be placed in the water shall be cleaned of pollutants prior to use;
- e. no project-related materials (fill, revetment rock, pipe etc.) should be stockpiled in the water (intertidal zones, reef flats, stream channels, wetlands etc.);
- f. all debris removed from the marine/aquatic environment shall be disposed of at an approved upland or ocean dumping site;
- g. no contamination (trash or debris disposal, alien species introductions etc.) of adjacent marine/aquatic environments (reef flats, channels, open ocean, stream channels, wetlands etc.) shall result from project-related activities;
- h. fueling of project-related vehicles and equipment should take place away from the water and a contingency plan to control petroleum products accidentally spilled during the project shall be developed. Absorbent pads and containment booms shall be stored on-site, if appropriate, to facilitate the clean-up of accidental petroleum releases;
- i. any under-layer fills used in the project shall be protected from erosion with stones (or core-loc units) as soon after placement as practicable; and
- j. any soil exposed near water as part of the project shall be protected from erosion (with plastic sheeting, filter fabric etc.) after exposure and stabilized as soon as practicable (with vegetation matting, hydroseeding etc.).

The Fish and Wildlife Service believes that incorporation of these measures into projects will greatly minimize the potential for project-related adverse impacts to fish and wildlife resources.

May-14-2008 09:01am From:RAR IN THE PACIFIC

+6713487259

T-007 P.002

F-645



Honorable Pedro T. Nakatsukasa Memorial Building

Tenth

SAIPAN AND NORTHERN ISLANDS MUNICIPAL COUNCIL

P.O. Box 500309 CK, Saipan, MP 96950-0309
Tel: (670) 664-2700 & 2701 • Fax: (670) 664-2701

Antonia M. Tudeña
CHAIRWOMAN

Ramon B. Camacho
VICE CHAIRMAN & SECRETARY

Felipe Q. Atalig
COUNCIL MEMBER

March 11, 2008

Ms. M. Sarah Creachbaum
Superintendent
American Memorial park
War in the Pacific NHP
PO Box 5198 CHRB
Beach Rd., Garapan
Saipan, MP 96950

RE. Environmental Assessment of Storm Damage Repairs of Seawall at Smiling Cove and Outer Cove Marina, Saipan and Follow Up on Micro Beach Erosion & Facility Improvement

Dear Ms. Creachbaum:

On behalf of the 9th and the 10th Saipan & Northern Islands Municipal Council, I wish to take this opportunity to thank you for your continuing interest in improving the natural and man-made infrastructures and the immensely invaluable amenities in and around the American Memorial Park. Since our public forum last year in October, we have observed noticeable improvements in the general cleanliness around the park, the embankment and beach areas, especially the manicure trimming of bushes around the bell tower, the Chamorro and Carolinian memorial station and along the pathway that stretches to the former Puerto Rico dump site. We also take notice of the enhanced protective buffer along the collapsed concrete pathway near the existing toilet facility. These are instances of your leadership and the commitment of staff in preserving, protecting, maintaining and improving over what is left of our precious fragile resources. Indeed, you and the staff are to be commended for such doing such fine job in park beautification and enhancement.

On the subject of erosion mitigation measures, the council supports your effort in erecting a more durable erosion management system using a combination of sheet pile wall and riprap rock slope, replacing the existing corroded steel interlocking sheet pile and the defective concrete woven mattress. We are pleased to see the welcome provision of a five-foot walkway along the sheet wall protected by handrail for enhanced safety. We suggest that extra safety measures be planned for, if not actually installed, in order to prevent children from tipping off the walkway into the water below.

Moreover, the planned installation of infiltration chambers to mitigate likely adverse impact of sediments on surrounding marine habitat is insightful. As you know marine life is quite healthy around the causeway and breakwaters, teeming with schools of juvenile skipjacks, among other varieties. In addition, we'd like to recommend for a family picnic facility equipped with barbecue pits and concrete tables to be added at the northern tip of the causeway overlooking Managaha Island, if it is within budget. If not, then please advise the council how we could be of assistance in making this added amenity possible.

On the northwestern part of the main causeway embankment facing the Charlie Dock Harbor, we notice a parcel of collapsed breakwater. Is this included in NPS's planned repair at this time? If not, what would it take to cause the repair now or in the near future? We appreciate an update on the subject.

At this point, the council would also like to recognize your collaborative effort with the Coastal Resource Management (CRM) in the development of a 3-5 year strategic plan to address the other erosion concerns at the park, most especially the precious Micro Beach area. It is our understanding from CRM's Kathy

May-14-2008 09:01am From:WAR IN THE PACIFIC

+6716407266

T-907 P.003/015 F-643

Yuknavage (e-mail update on February 4, 2008) a 3-5 year strategic plan is in the works, if it is not completed yet. Part of the plan calls for the submission of a grant proposal for the Coral Reef Research in the U.S. Pacific Waters. The proposed two-year study or planning grant would essentially fund the estimated \$180,000 cost (a combination of federal and leveraged funds) of the two-phased project: phase one is intended to develop a shoreline model based on data collected over the years (Micro Beach) and phase two to test various engineered erosion mitigation designs "to ensure a natural shoreline is maintained long term, at minimal maintenance costs".

It may be quite useful to incorporate into the plan the suggestions elucidated by the participants at the October 2006 public forum on this issue. For instance, placing an underwater buffer to reduce wave activity descending on the shoreline should be evaluated as well as the suggestion to engage in periodic sand nourishment of the beach as a containment measure against erosion. The planned action to replace the collapsing encasement at the outer cove could perhaps be considered in tandem with the erosion dynamics at Micro Beach.

We certainly hope that the single comment or challenge by one of the forum participant on the to stakeholders to decide and articulate precisely whether or not to do nothing about the erosion in order to have a beach or to install a protective buffer to prevent the sand from being deposited elsewhere away from Micro Beach be given due consideration and included in the evaluation process by the selected coastal geological team of experts just as well.

For the 10th council, we'd like to see Micro Beach be protected against the unceasing erosion, which incessantly chips and nibble over strategic parts of the pathway; rows of towering ironwood trees, even threatening the toilet facility and valuable cultural artifacts, and above all, the pristine white sandy beach.

Be assured that the council supports the twin actions taken this far by the park working in close collaboration with CRM, and we underscore our desire to partner with both agencies in restoring the aesthetic and pristine ambience that Micro Beach is known for, including the planned improvements at the outer cove, in order to enable the present generation to enjoy this piece of jewel with the future generation in mind just as well.

For that reason, we'd like to obtain a copy of your strategic plan, in draft form or preferably as a complete plan, in order for the council to have a better understanding of the issues, requirements, timelines, constraints and resource needed to effectuate the plan. The council takes notice of your commitment to enhancing not only the environment in and around the park, but also the facilities and amenities, making the American Memorial Park an inviting central meeting and assembly for rest and recreation, contemplative and memorial activities, and more.

To this end, I look forward to hearing from you soon.

Sincerely,



Antonia Manibusan Tudela

Chairwoman

10th Saipan and Northern Islands Municipal Council

cc. Vice Chairman & Secretary Ramon Camacho, Council Felipe Q. Atalig, Mayor Juan B. Tudela, Governor Benigno Fitial, CRM Director Dr. John Joyner, CRM Kathy Yuknavage, MVA Director Perry Tenorio, President, Saipan Chamber of Commerce, President, HANMI, Speaker Arnold Palacios, President Pete Reyes, SNILD Chairman Ramon Tebuteb, Special Assistant for Indigenous Affairs, Special Assistant for Carolinian Affairs, Speaker of Youth Congress, and The Taotao Tano Group.

May-14-2008 09:02am From:WAR IN THE PACIFIC

#8716467258

T-907 P.008/015 F-648



United States Department of the Interior

NATIONAL PARK SERVICE
WAR IN THE PACIFIC NATIONAL HISTORICAL PARK
Casa de España
135 Murray Boulevard, Suite 100
Hagåtña, Guam 96910

In Reply Refer to:

In Reply Refer to:

D2217 (AMME DSC 130448A Smiling Cove Marina Seawall)

DIVISION OF HISTORIC PRESERVATION	
Received by: <i>Diego</i>	Date: <i>5/12/08</i>

Ms. Mary Margaret Sablan, Acting HPO
Department of Community & Cultural Affairs
Division of Historic Preservation, Airport Road
Saipan, MP 96950

Subject: Repair Storm Damaged Seawall at Smiling Cove Marina
American Memorial Park, Saipan

Dear Ms. Sablan:

The purpose of this correspondence is to notify your office of the National Park Service (NPS) proposed undertaking to repair the damaged seawall protecting the causeway at Smiling Cove Marina entrance channel, American Memorial Park at Garapan, Saipan and to initiate consultation with your office. NPS is also seeking your concurrence with the Area of Potential Effect (APE) for this undertaking and your concurrence with the NPS finding of effect.

In 2006 tropical cyclones damaged the sheet pile seawall protecting the causeway at Smiling Cove Marina. The seawall shields and supports the southern face of a finger-shaped groin about 1800 feet long and approximately 80 feet wide that separates Smiling Cove entrance channel from Outer Cove Marina. A 20-foot wide asphalt/concrete road surface with an unpaved parking area occupies the top of the causeway. The parking lot is located between the road and the sheet pile seawall on the south side of the causeway. The northern tip of the causeway protected by a rock groin abuts Outer Cove Marina. The north face of the causeway has stone armor protection. The damaged seawall is constructed of interlocking steel sheet piles abutting a newer concrete "mattress" embankment.

The seawall, constructed about 40 to 50 years ago, has deteriorated over time with associated erosive loss of the causeway. Past repairs and patches to the causeway include rock backfill and gabions. The 2006 storms further corroded the rusting sheet piles separating the interlocking sheet pile members and twisting the seawall into misalignment. Deterioration of the sheet pile seawall has and continues to undermine and erode the causeway (Enclosure A: Photograph Showing Deteriorated Condition of Smiling Cove Marina Seawall).

Undertaking:

The proposed NPS undertaking would repair the entire existing sheet pile seawall (approx. 900 linear feet) at Smiling Cove Marina by replacing it with a cantilevered sheet pile seawall. The new seawall would be capped by a concrete sidewalk with a handrail. Following construction of the new sheet pile wall, the eroded areas on the land side of the wall would be backfilled with an appropriate material.

Area of Potential Effect (APE)

The APE for the Smiling Cove Marina sheet pile seawall repair project includes the 1800 foot long finger-shaped groin projecting northwest from the island on the eastern side of Smiling Cove Marina. The APE extends approximately 20 feet into the water from land on the south side of the causeway. Enclosure B is a map locating this proposed project on the Island of Saipan (Enclosure B: Location Map). Enclosure C is a detail taken from the Location Map showing the project vicinity within American Memorial Park (Enclosure C: Vicinity Map).

May-14-2008 09:02am From:WAR IN THE PACIFIC

+6716467239

T-667 P.010/015 F-043

Finding of Effect

An archeological survey of Micro Beach adjacent to Smiling Cove Marina was conducted for the NPS in 1979 (*Archaeological Reconnaissance of the American Memorial Park Saipan, Commonwealth of the Northern Mariana Islands*, Michael Thomas and Samuel T. Price, 1979). A copy of a map from this survey is enclosed for your review (Enclosure D: Map Archeology Survey Micro Beach 1979). As the map indicates, there are known archeological features near Smiling Cove Marina. These archeological features are, however, outside of the APE for the sheet pile seawall replacement project. The causeway protected by the steel sheet pile seawall is man-made and no pre-historic archeological resources are present here.

Although the sheet pile seawall protecting the rock groin causeway is 50 years of age and associated with World War II, both the seawall and the causeway it protects have been repaired innumerable times in the years following its construction. Numerous patches and the badly deteriorated condition of the sheet pile seawall have resulted in a loss of integrity. The seawall no longer retains the essential physical appearance that constituted its character at the conclusion of World War II nor do the physical features of the seawall convey the feeling or association of the seawall with military activities on Saipan (Enclosure A: Photograph Showing Deteriorated Condition of Smiling Cove Marina Seawall). The NPS finds that the steel sheet pile seawall and the 1800-foot groin causeway do not meet eligibility criteria for listing in the National Register of Historic Places. After applying the Advisory Council on Historic Preservation's regulations for the protection of historic properties 36 CFR 800 the NPS finds that no historic properties would be affected with the implementation of the undertaking to replace the steel sheet pile seawall at Smiling Marina Cove, American Memorial Park, Saipan. We hope that you can concur with the delineation of the APE and with the NPS finding of no historic properties affected, and for your convenience have provided concurrence lines below.

If you can concur, please sign signature lines below and return a signed copy of this letter to:

Sarah Creachbaum, Superintendent
American Memorial Park
P.O. Box 5198 CHRB
Garapan, Saipan, MP 96950

The National Park Service is aware that special affiliated traditional groups may have concerns related to the replacement of the Smiling Cove Marina seawall and will continue to consult with any groups that have expressed an interest in the park. This consultation is intended to ensure that mutually held goals for management of important natural and cultural resources are met.

If you have any comments, or if you would like to schedule a meeting to further discuss the proposed project at this time, please contact Sarah Creachbaum at the above address or by telephone at (671) 477-7278 x 1003. Your participation in the planning process for this project is important to us and I look forward to hearing from you.

Sincerely,



Sarah Creachbaum, Superintendent
War in the Pacific National Historical Park
American Memorial Park

May-14-2008 08:03am From:WAR IN THE PACIFIC

+0710467250

T-907 P.011/015 F-643

Enclosures:

- A. Photograph Storm Damaged and Deteriorated Condition Smiling Cove Marina Seawall, American Memorial Park - Saipan
- B. Location Map Seawall Repair, American Memorial Park - Saipan
- C. Vicinity Map Seawall Repair, American Memorial Park - Saipan
- D. Map Archeology Survey Micro Beach, 1979 Seawall Repair, American Memorial Park - Saipan

cc:

John Fowler, Executive Director
Advisory Council on Historic Preservation
Old Post Office Building
1100 Pennsylvania Avenue NW, Suite 809
Washington, DC 20034

APE

Coburn

Historic Preservation Officer, Commonwealth of the Northern Mariana Islands

Date

5/05/08

No Historic Properties Affected

Coburn

Historic Preservation Officer, Commonwealth of the Northern Mariana Islands

Date

5/05/08

May-14-2008 09:03am From:WAR IN THE PACIFIC

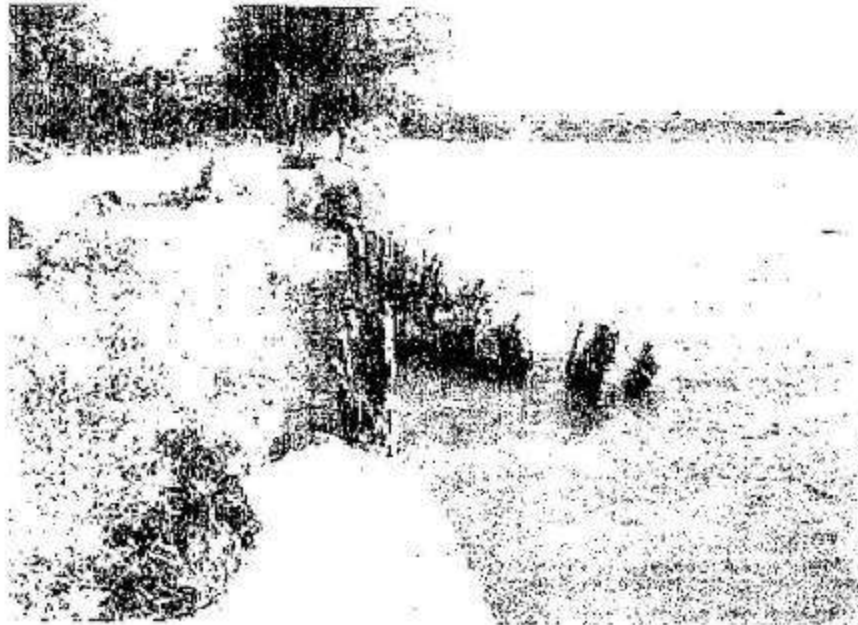
+6716467259

T-007 P.012/015 F-543

ENCLOSURE A

Seawall Repair American Memorial Park

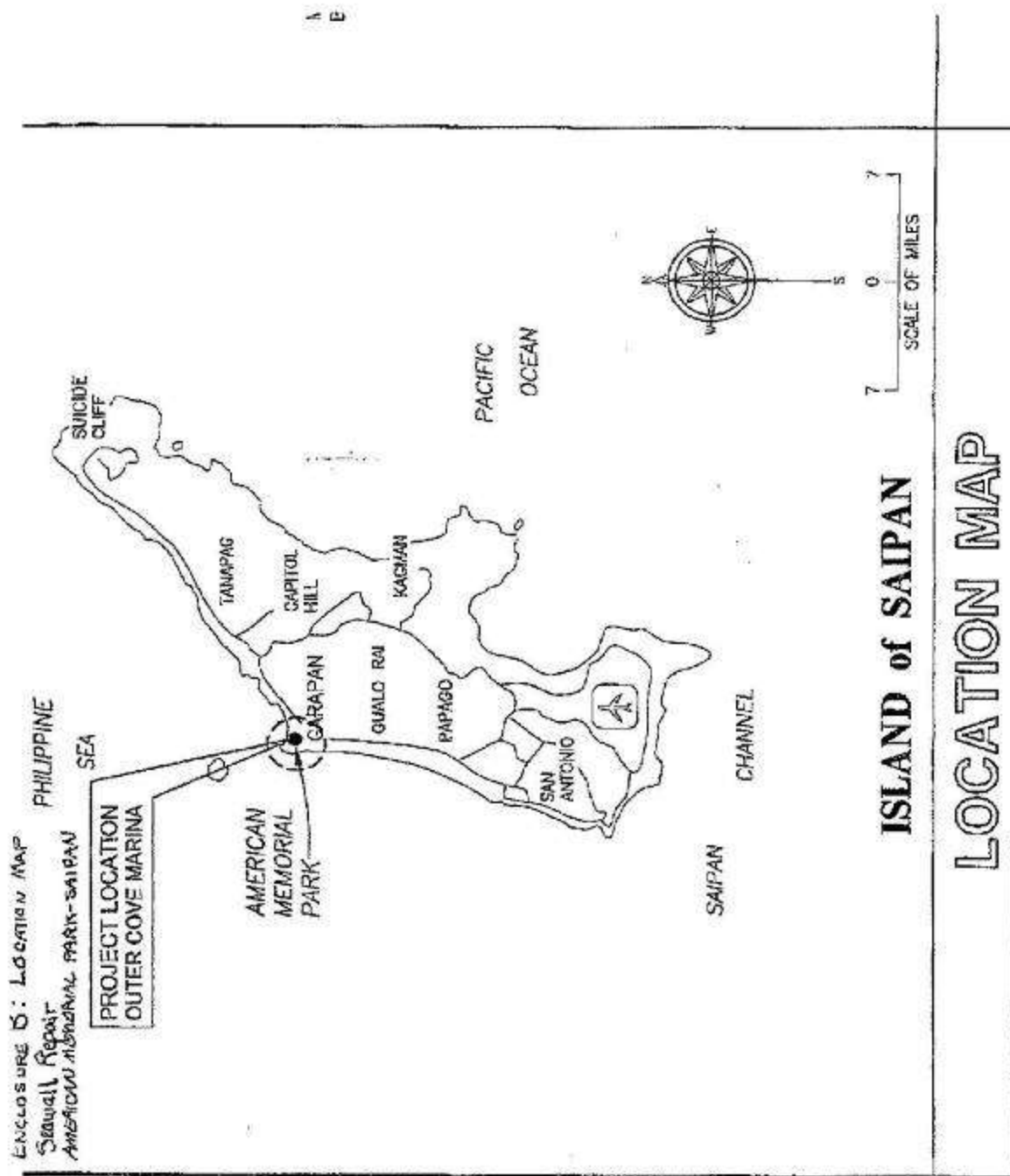
Storm Damaged and Deteriorated Condition Seawall Smiling Cove Marina

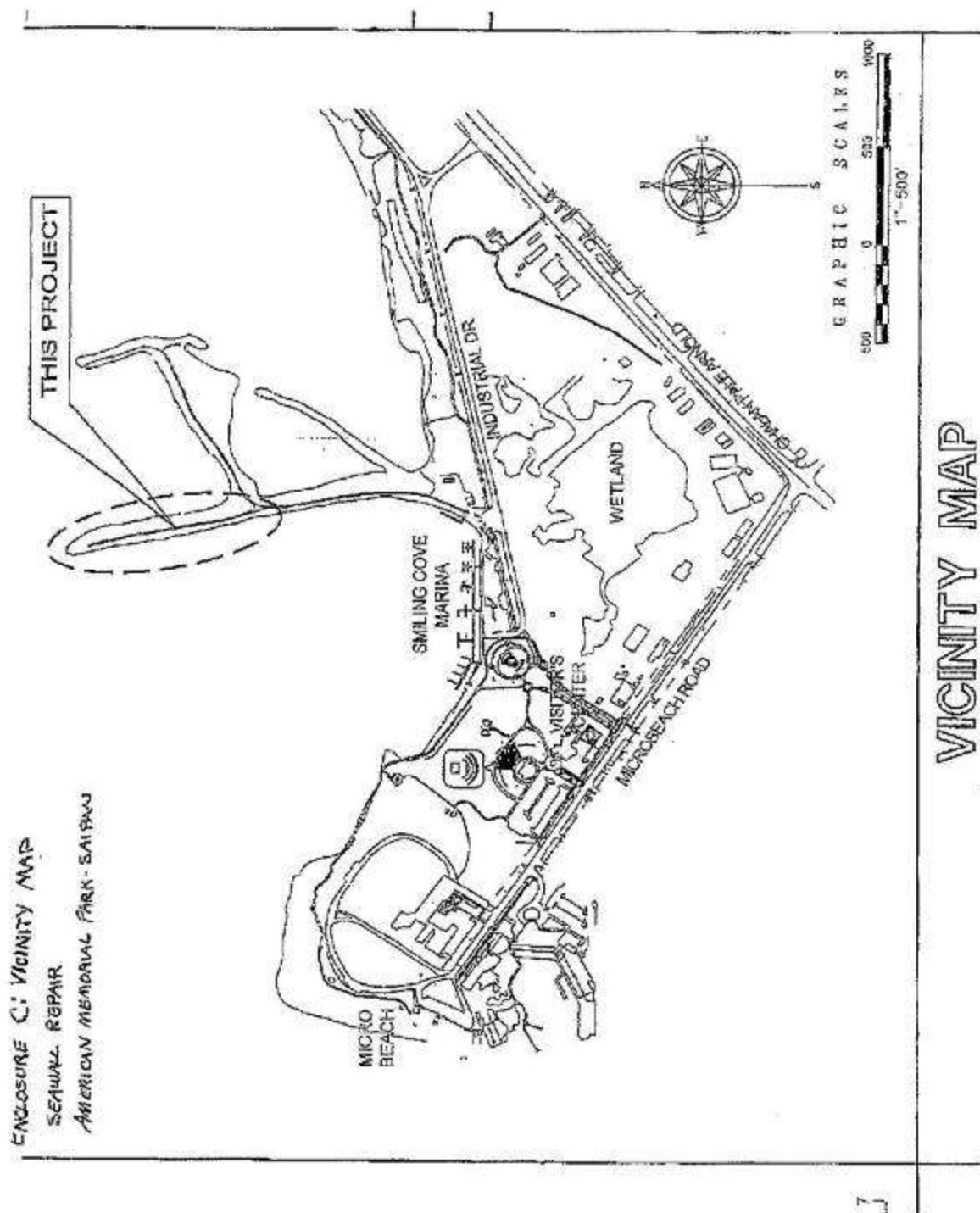


May-14-2008 09:03am From: WAR IN THE PACIFIC

+6716467259

T-807 P.613/015 F-643





May-14-2008 09:03am From: WAR IN THE PACIFIC

+6715437259

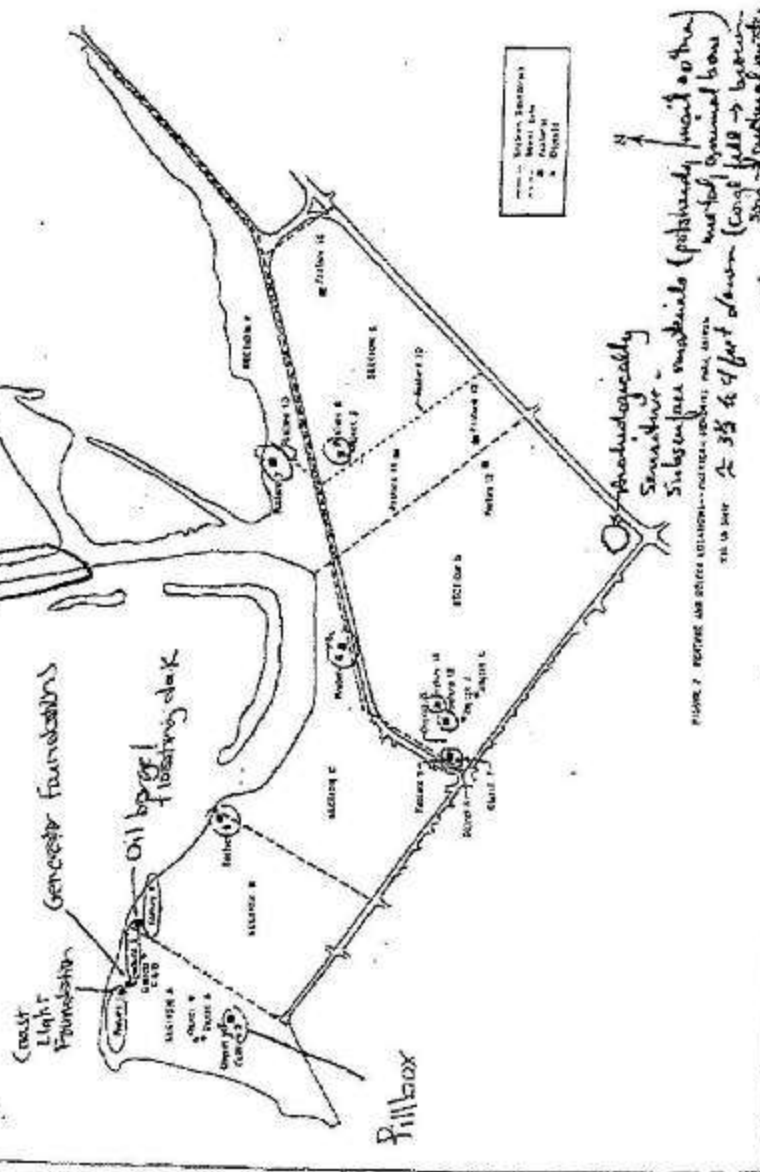
T-007 P.015/015 F-843

ENCLOSURE D: MAP ARCHEOLOGY SURVEY MICRO BEACH, 1979

SEAWALL REPAIR

AMERICAN MEMORIAL PARK

SAIPAN

PROJECT AREA
SEAWALL REPAIR

Stratigraphically Sensitive
Subsurface mounds (possibly from the World War II era)
Don't disturb mounds
Don't dig down (cost \$1000 to dig down)
Don't dig down (cost \$1000 to dig down)
Don't dig down (cost \$1000 to dig down)

3, 5, 6, 7, 8, 9, 17, 18

APPENDIX B: SCOPING AND PUBLIC REVIEW



National Park Service
U.S. Department of the Interior

American Memorial
Park

P.O. Box 5198 CHRB
Saipan, MP 96950

670-234-7207
671-234-6698 Fax

American Memorial Park News Release

Release Date: September 28, 2007
Contact: Superintendent M. Sarah Creachbaum
Phone: 670- 234- 7207

Public Information Meeting

The American Memorial Park and the CNMI Coastal Resources Management Office will host a public information meeting on Thursday evening, October 4, from 6:00 to 7:00 PM in the park's visitor center auditorium. The purpose of the meeting is to discuss recent research on the coastal erosion taking place at Micro Beach and to share American Memorial Parks plans to relocate damaged facilities near the beach. The public is invited.

For more information please contact Kathy Yuknavage at 670-664-8311, or Sarah Creachbaum at 671-477-7278.

EXPERIENCE YOUR AMERICASM

The National Park Service cares for special places saved by the American people so that all may experience our heritage.

LOCAL

Saturday, March 01, 2008

American Memorial Park seawall to be replaced

The National Park Service is planning to replace the existing sheet pile wall along the west side of the man-made causeway separating the Smiling Cove Marina entrance channel and Outer Cove Marina at the American Memorial Park in Garapan.

The causeway and breakwaters were initially built by the military during World War II. Several recent tropical storms in August and October 2006 caused damage to park facilities. The causeway along the Smiling Cove Marina entrance channel sustained significant erosion and undermining along the peninsula.

The causeway is approximately 1,800 feet long and 80 feet wide dividing the Smiling Cove boat channel from Outer Cove Marina and Harbor to the west. The southwest embankment of the causeway is hardened with a meshed concrete mattress from the southern end approximately 1,200 feet to the north. At the end of the mattress, a steel interlocking sheet pile wall begins and runs for approximately 840 feet to the northern tip of the causeway. The sheet pile wall, constructed over 40 years ago, is badly corroded and failing, causing safety concerns.

Under the proposed action, a new sheet pile wall would be constructed to replace the existing sheet pile wall. The project would also involve replacing approximately 70 linear feet of the concrete woven mattress just south of the end of the sheet wall with a riprap rock slope. This area has been undermined and the concrete mattress has failed.

The new sheet wall would begin at this rock slope. The wall would run north for approximately 800 feet to the end of the causeway. It would turn at a right angle into the causeway and rock slope at the south end to anchor the wall to the land. The wall would also turn at a right angle to the east at the north end of the peninsula for 54 feet and turn at a right angle again to the south on the east side of the peninsula for 82 feet and end in a riprap rock slope that ties into the existing rip rap slope. The wall would rise approximately 5 feet above mean sea level. The new wall would be constructed parallel to and within one foot of the west side of the existing sheet pile wall.

The NPS' preferred alternative would include backfill and grading below the mean higher high water (approximately 2.0 feet above sea level). The ground surface would be graded to the top of the sheet pile wall and be capped with a 5-foot wide walkway abutting the sheet wall. A handrail would top the sheet pile wall. Infiltration chambers would be placed within the project area to capture storm water runoff from the land surface. Contractor staging areas would be limited to existing road and previously disturbed areas adjacent to the project area.

The NPS is preparing an environmental assessment to analyze the proposed action and other alternatives and their potential impacts on the environment.

The environmental assessment will be prepared in accordance with the National Environmental Policy Act of 1969 and regulations of the Council on Environmental Quality (40 Code of Federal Regulations (CFR) 1508.9); National Park Service Director's Order - 12: Conservation Planning, Environmental Impact Analysis, and Decision-making; the National Historic Preservation Act of 1966 (as amended), the Endangered Species Act (1973), as amended, and the Federal Coastal Zone Management Act of 1972.

NPS is inviting the public's participation in the NEPA process and is soliciting comments about the proposal and any potential environmental issues that concern the community.

Provide comments or information directly to Ron Shields, NPS, 303-969-2164 or

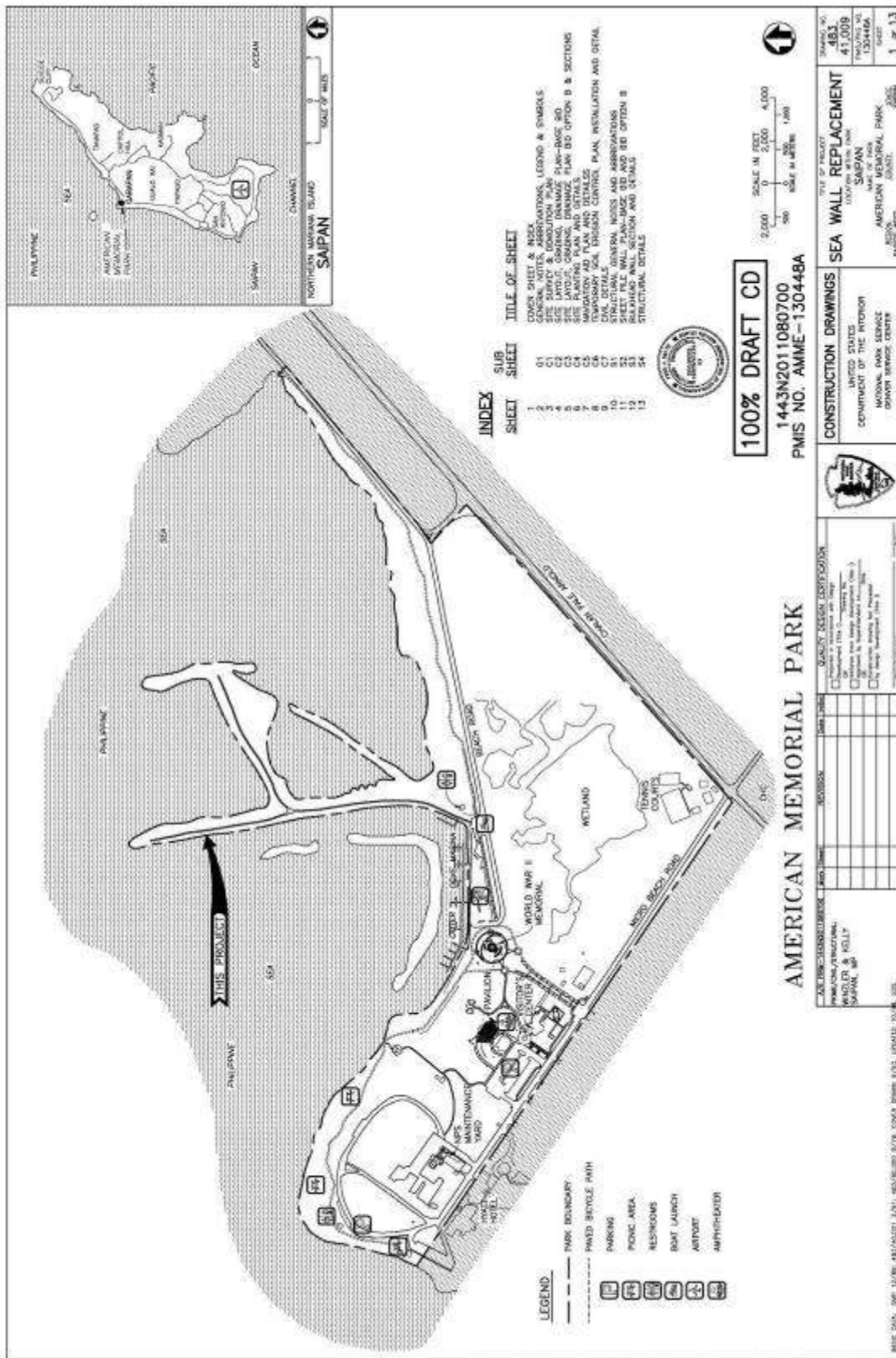
Ron_Shields@nps.gov within 30 days. Comment letters will also be accepted at the American Memorial Park Visitor Center or they may be mailed to: Superintendent, American Memorial Park, P.O. Box 5198 CHRB, Garapan, Saipan, MP 96950, Attn: Seawall Repair

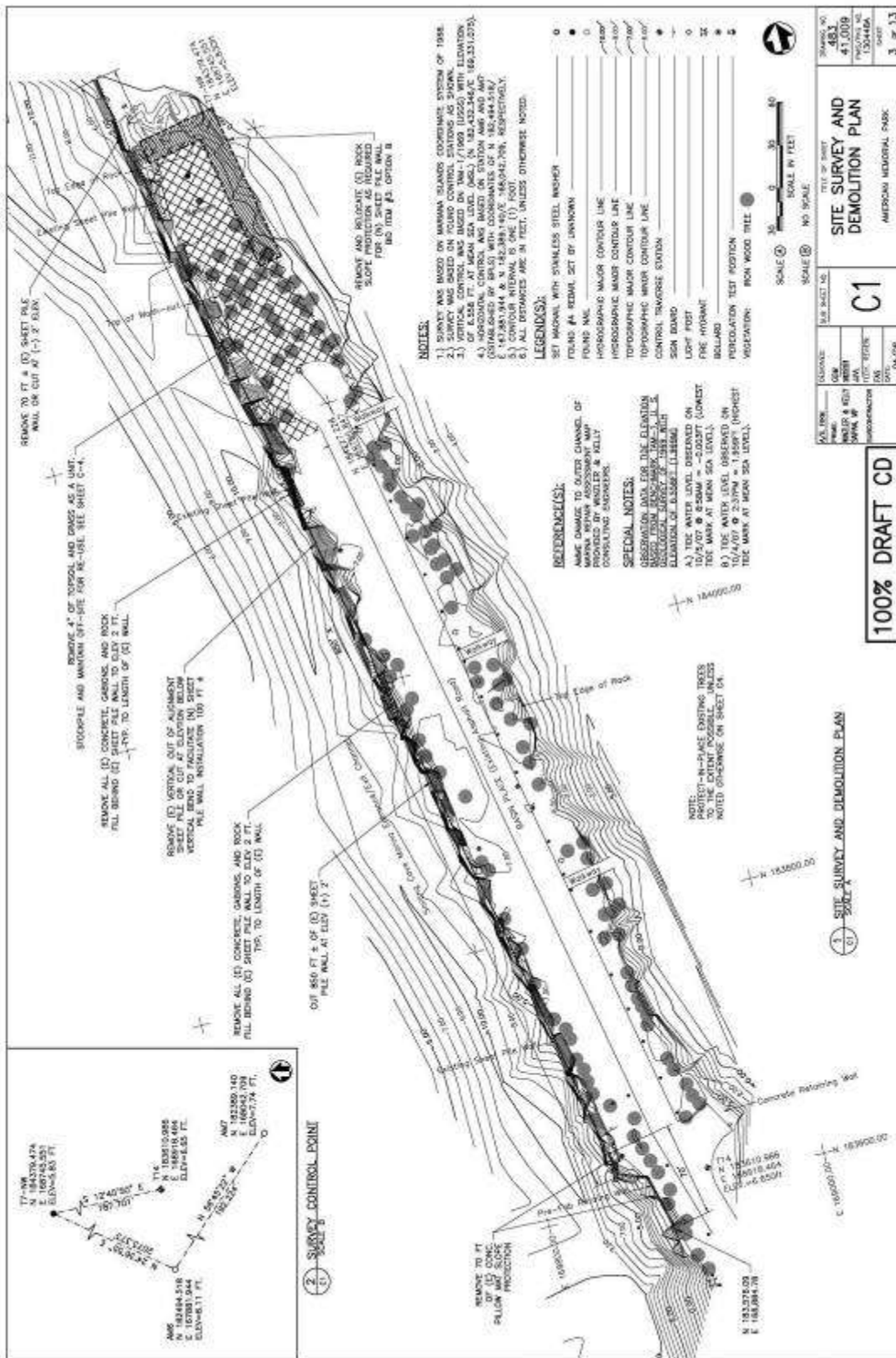
The American Memorial Park consists of approximately 133 acres of landscaped areas containing memorials, wooden picnic areas, beach front; mangrove swamp and wetlands; and a causeway and breakwaters creating two boat harbors with marina facilities. (NPS)

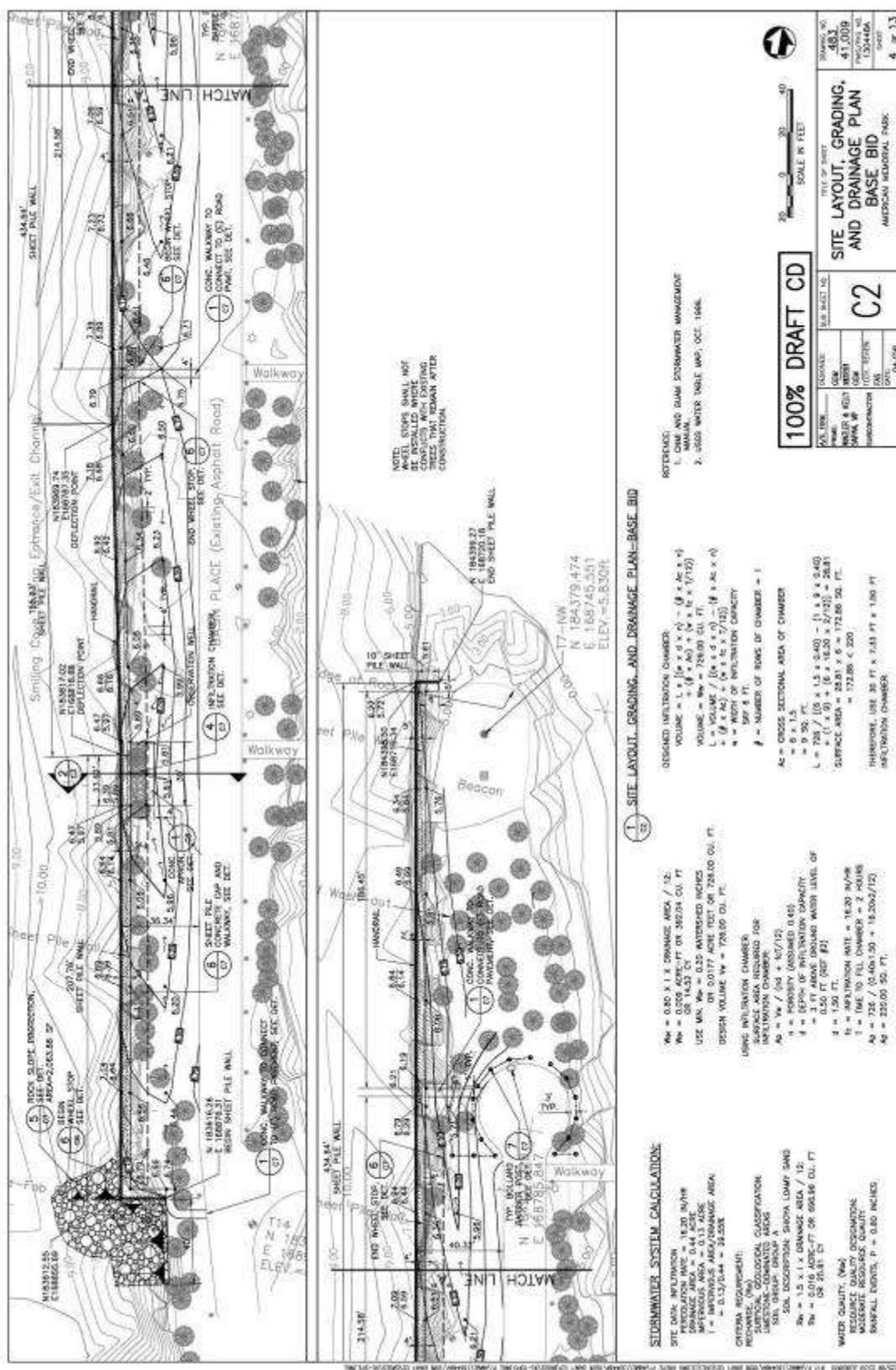
Back to top  

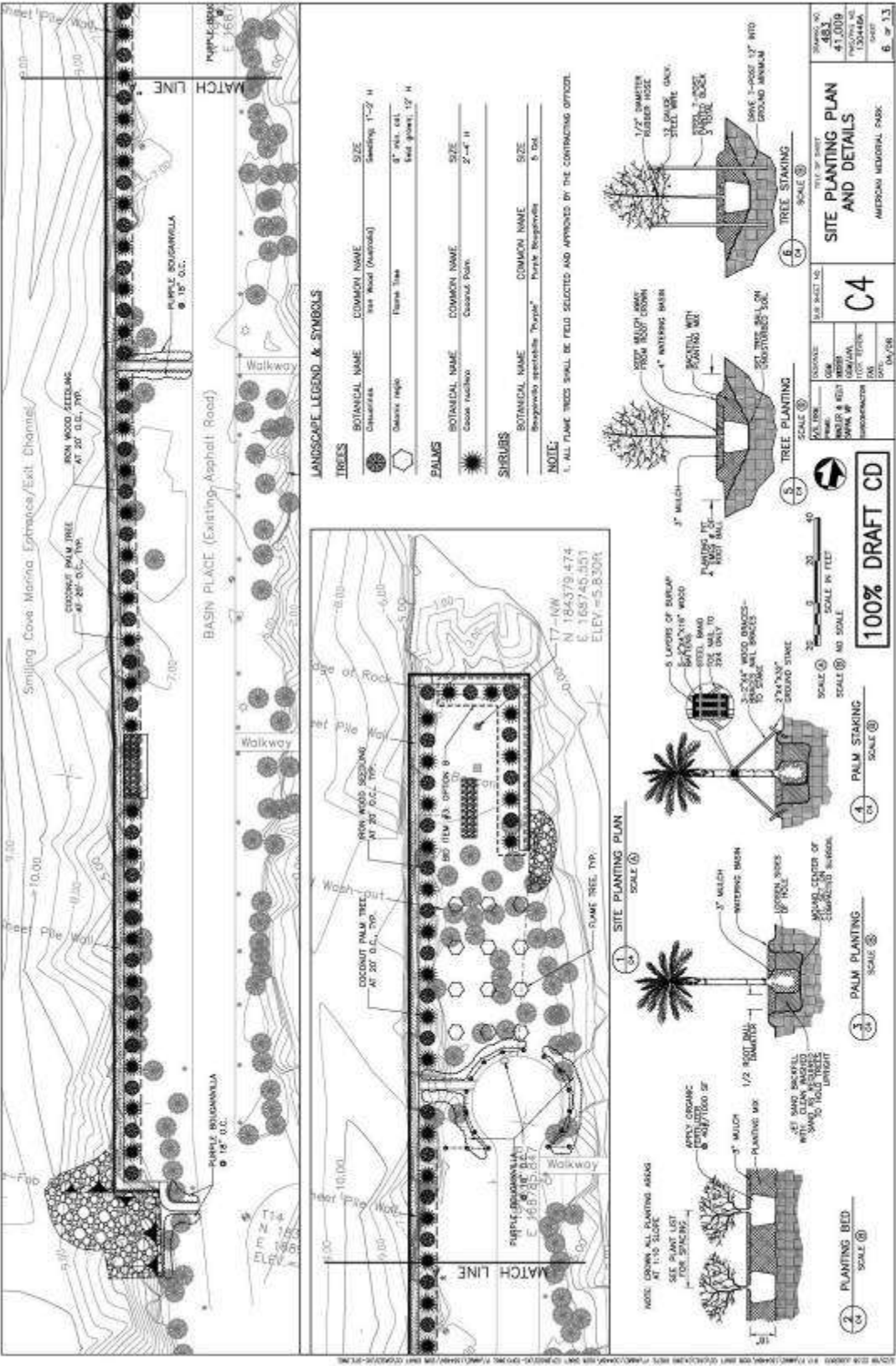
Boating & Marinas Sort local Boating & Marinas by Ratings or Distance in your city!	Marine Online slip & marina reservations Plus reviews, planning & discounts
---	---

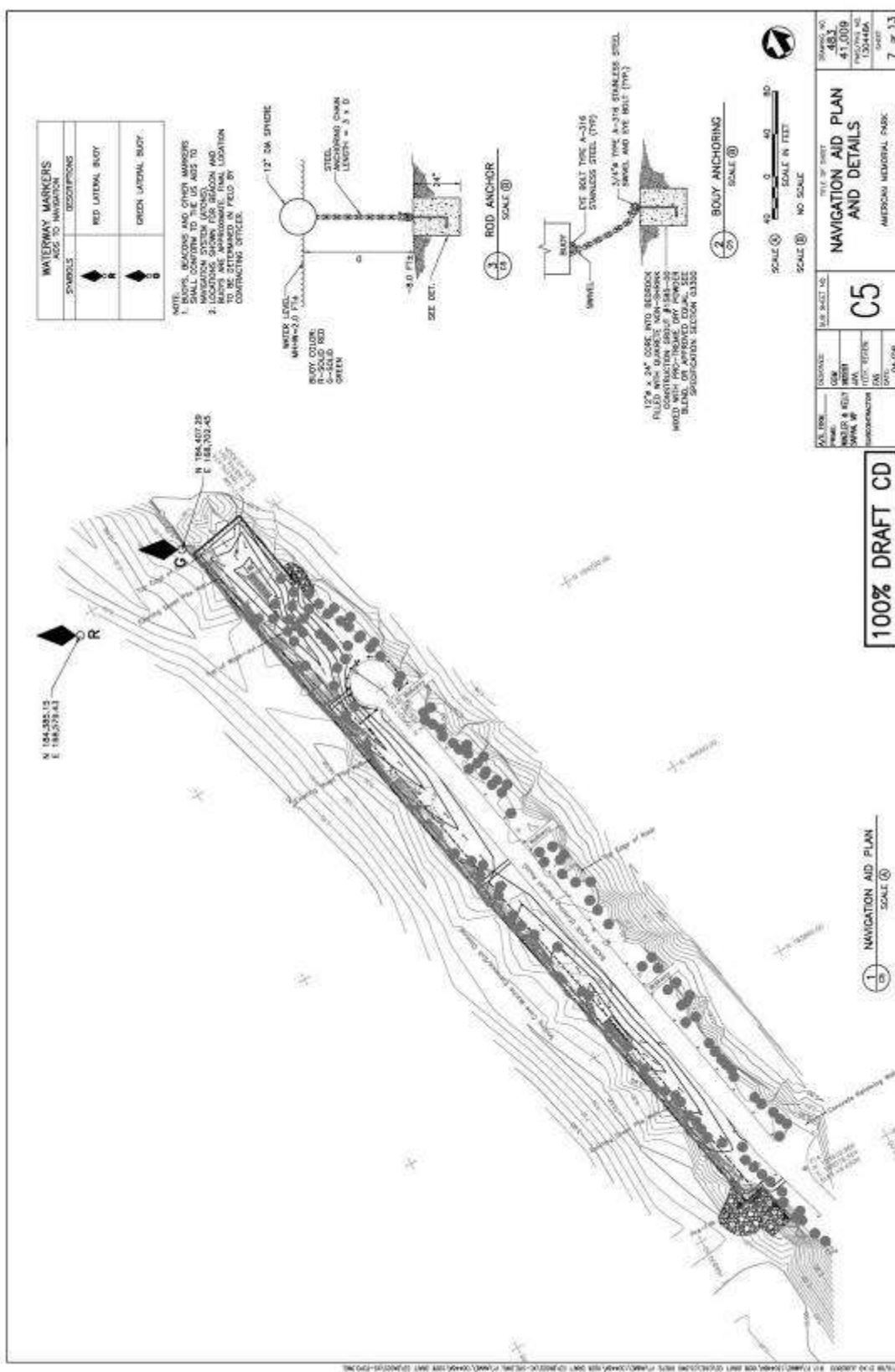
APPENDIX C: SHEET PILE WALL DESIGN



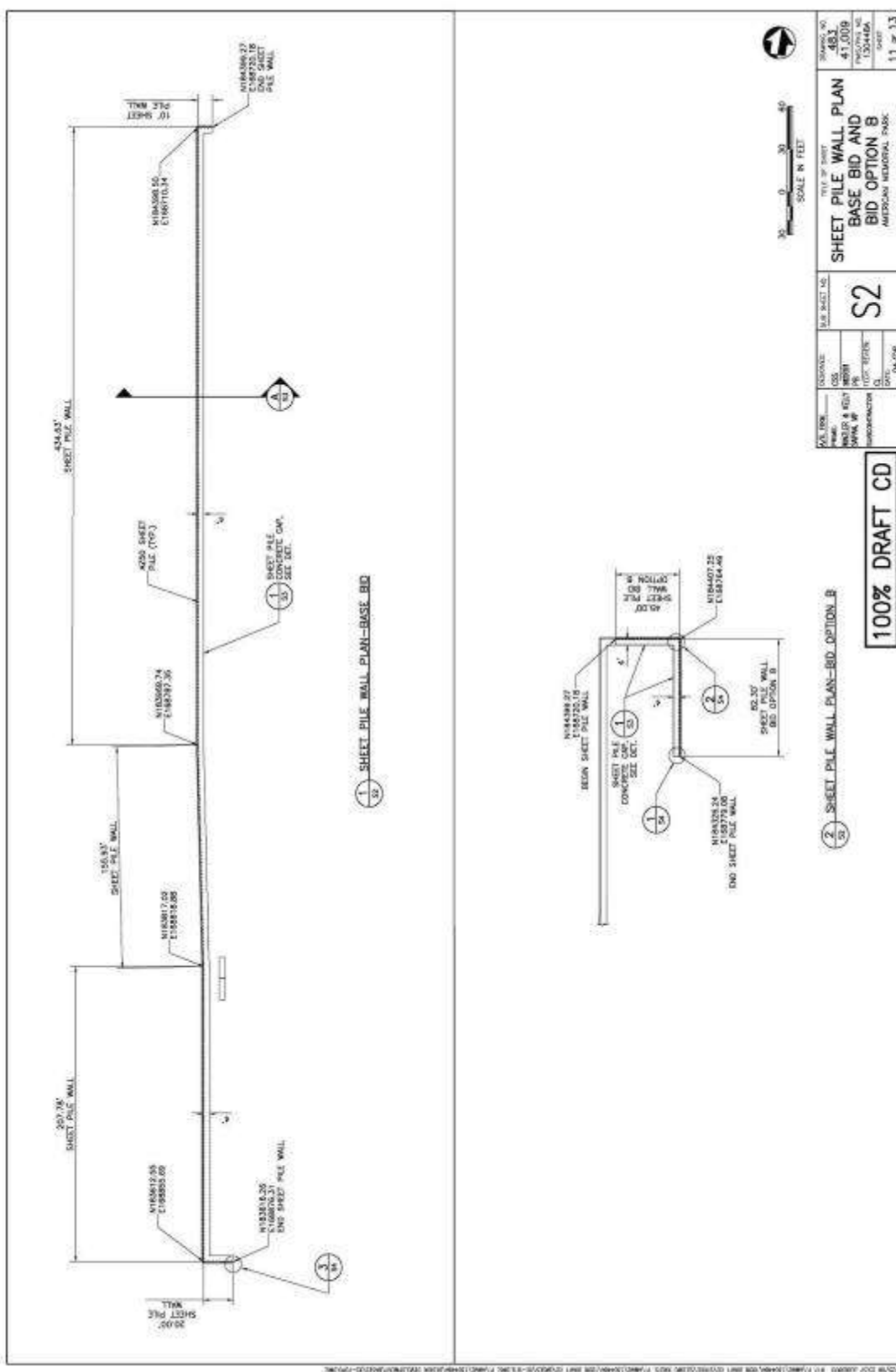


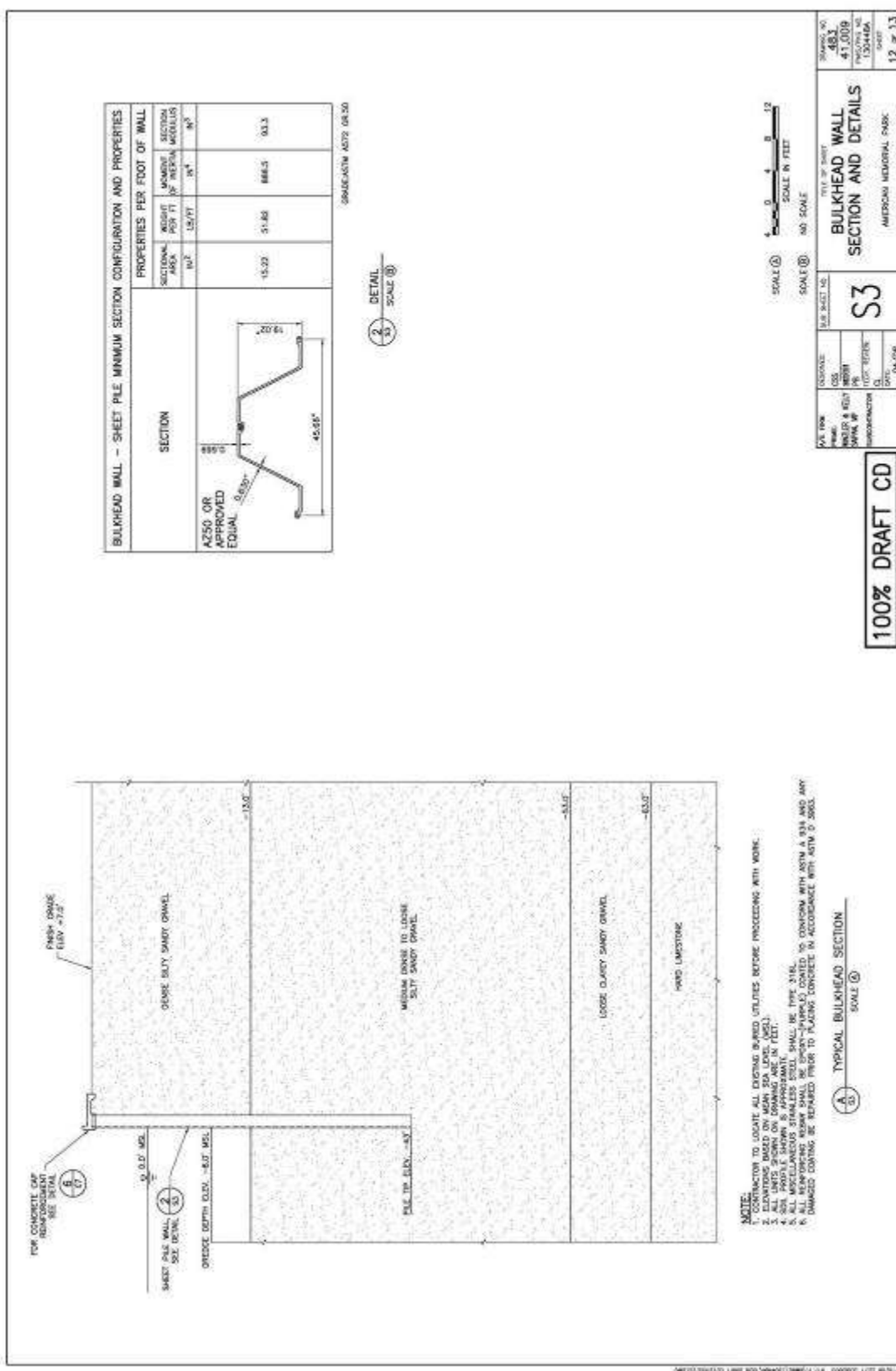


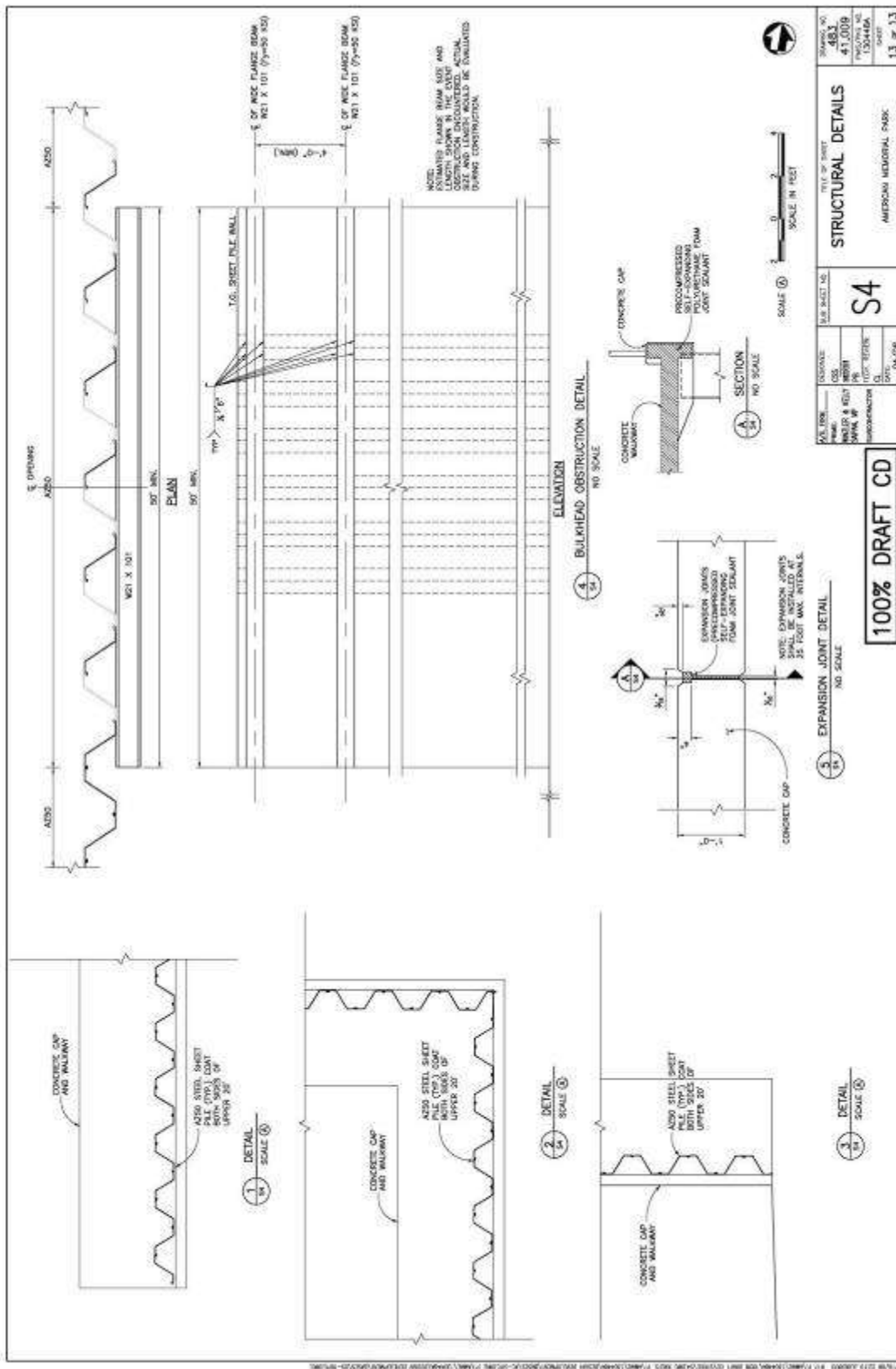




[illegible]







APPENDIX D:

**NATIONAL PARK SERVICE COASTAL ZONE MANAGEMENT ACT
CONSISTENCY DETERMINATION**

NATIONAL PARK SERVICE COASTAL ZONE MANAGEMENT ACT CONSISTENCY DETERMINATION

This document provides the Commonwealth of Northern Mariana Islands (CNMI), Office of the Governor, Coastal Resources Management Office with the National Park Service (NPS) Consistency Determination under Coastal Zone Management Act (CZMA) Section 307(c)(1) and 15 CFR Part 930, subpart C, for replacement of the existing sheet pile wall along the west side of the human-made causeway separating the Smiling Cove Marina entrance channel and Outer Cove Marina at American Memorial Park in Garapan, Saipan, CNMI.

Necessary Data and Information:

1. The National Park Service is preparing an environmental assessment to replace the existing sheet pile wall along the west side of the human-made causeway separating the Smiling Cove Marina entrance channel and Outer Cove Marina at the American Memorial Park in Garapan, Saipan, CNMI.

American Memorial Park consists of approximately 133 acres of landscaped areas containing memorials, wooden picnic areas, beach front; swamp and wetlands; and a causeway and breakwaters creating two boat harbors with marina facilities. The causeway and breakwaters were initially built by the military during World War II. Several recent tropical typhoons in August and October 2006 caused damage to park facilities. The causeway along the Smiling Cove Marina entrance channel sustained significant erosion and undermining along the causeway.

The causeway is approximately 1,800 feet long and 80 feet wide, dividing the Smiling Cove boat channel from Outer Cove Marina and Harbor to the west. The southwest embankment of the causeway is hardened with a meshed concrete mattress from the southern end approximately 1,200 feet to the north. At the end of the mattress, a steel interlocking sheet pile wall begins and runs for approximately 840 feet to the northern tip of the causeway. The sheet pile wall, constructed over 40 years ago, is badly corroded and failing, causing safety concerns.

Under the preferred alternative, a new sheet pile wall would be constructed to replace the existing sheet pile wall. The project would also involve replacing approximately 70 linear feet of the concrete woven mattress just south of the end of the sheet wall with a riprap rock slope. This area has been undermined and the concrete mattress has failed.

The new sheet wall would begin at this rock slope. The wall would run north for approximately 800 feet to the end of the causeway. It would right angle into the causeway and rock slope at the south end to anchor the wall to the land. The wall would right angle to the east at the north end of the causeway for 54 feet and right angle again to the south on the east side of the causeway for 82 feet and end in a riprap rock slope that ties into the existing riprap slope. The wall would rise approximately 5 feet above mean sea level. The new wall would be constructed parallel to and within one foot of the west side of the existing sheet pile wall.

This alternative would include backfill and grading below the mean higher high water (approximately 2.0 feet above sea level). The ground surface would be graded to the top of the sheet pile wall and be capped with a 5.0-foot-wide walkway abutting the sheet wall. A handrail would top the sheet pile wall. Infiltration chambers would be placed within the project area to capture stormwater runoff from the land surface. Contractor staging areas would be limited to existing road and previously disturbed areas adjacent to the project area.

2. Under Public Law 3-47, the Office of Coastal Resources Management is authorized to prepare an enforceable plan to promote the conservation and wise development of coastal resources of the CNMI. Under this authority, and pursuant to the Federal Coastal Zone Management Act (16 USC §1452), the Office of Coastal Resources Management is responsible for ensuring that federal activities in the coastal zone are consistent to the maximum extent possible with the enforceable policies of Title 15. The environmental assessment will evaluate impacts of the preferred alternative on coastal resources within the context of these policies.
3. The U.S. Coast Guard has initiated informal consultation with the USFWS and NOAA fisheries to explore potential impacts to species protected under the Endangered Species Act (16 USC §§1531-1544) and the Marine Mammal Protection Act (16 USC §§1361-1421). If necessary, all permits required would be obtained.

At this time, no significant impacts on CNMI coastal resources are anticipated. The proposed action would require replacing the existing sheet pile wall and would have no direct effects of areas of particular concern including shoreline, lagoon and reef, wetlands and mangrove, port and industrial areas, and coastal hazards areas. The proposed action is consistent with the goals of CNMI Public Law 3-47, the standards and policies in Title 15, Chapter 10, and federal air and water quality standards. Additionally, the proposed action, which provides enhanced port security, is a water-dependent use that “ensures adequate and continued public access” and “does not impair the public interest in the use of navigable waters.”

Based on the preceding information, data and analysis, the National Park Service finds that replacement of the existing sheet pile wall in CNMI coastal waters is consistent to the maximum extent practicable with the enforceable policies of the CNMI Coastal Resources Management program.

Pursuant to 15 CFR Section 930.41, the Office of Coastal Resources Management has 60 days from the receipt of this letter and accompanying information in which to concur with or object to this NPS consistency determination, or to request an extension 930.41(b).



As the nation's principal conservation agency, the Department of the Interior has the responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. Administration.



National Park Service
U.S. Department of the Interior

American Memorial Park



American Memorial Park
PO Box 5198 CHRB
Saipan, MP 96950