

UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration PROGRAM PLANNING AND INTEGRATION Silver Spring, Maryland 20910

APR 1 5 2014

To All Interested Government Agencies and Public Groups:

Under the National Environmental Policy Act, an environmental review has been performed on the following action.

TITLE: Environmental Assessment for the Proposed Construction of an American Disabilities Act Compliant Fishing Platform at Paseo De Susana Park

LOCATION: Pacific Islands Regional Office

SUMMARY: This EA identifies the purpose and need for the construction of a fishing platform accessible to people with disabilities along the Agana Boat Channel at the Paseo de Susana Park in Hagatna, Guam. The importance of fishing on Guam dates back thousands of years to its first inhabitants. Due to this area being a highly used shoreline fishing location, which is uneven, rocky and does not provide an easy access to people with disabilities, there is a need for improving the accessibility and safety of recreational fishing activities in this area. Therefore, the purpose of the proposed action is to provide federal funding for the construction of a fishing platform at the Paseo de Susana Park to provide members of the local fishing community, including those with physical disabilities, with a safe area to conduct these activities.

RESPONSIBLE		
OFFICIAL:	Michael D. Tosatto	
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	National marine Fisheries Service, NOAA	
	1845 Wasp Boulevard, Building 176	
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The environmental review process led us to conclude that the proposed action will not have a significant impact on the environment. Therefore, an environmental impact statement was not prepared. A copy of the finding of no significant impact (FONSI), including the environmental assessment, is enclosed for your information.

Although NOAA is not soliciting comments on the completed EA/FONSI, we will consider any comments submitted that would assist us in preparing future NEPA documents. Please submit any written comments to the Responsible Official named above.

Sincerely,

Patricia A. Montanio NOAA NEPA Coordinator



Enclosure



ENVIRONMENTAL ASSESSMENT

PROPOSED CONSTRUCTION OF AN AMERICAN DISABILITITIES ACT COMPLIANT FISHING PLATFORM AT PASEO DE SUSANA PARK

HAGATNA, GUAM



April 2014

Responsible agency:

National Oceanic and Atmospheric Administration National Marine Fisheries Service Pacific Islands Regional Office

Environmental Assessment on the Proposed Construction of an American Disabilities Act Compliant Fishing Platform at Paseo De Susana Park

Responsible Agency

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CHAPTER ONE PURPOSE AND NEED FOR ACTION

1.1 INTRODUCTION

This Environmental Assessment (EA) was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), as amended, 42 United States Code [USC] §4321 et seq.; the regulations of the Council on Environmental Quality (CEQ) (40 Code of Federal regulations [CFR] Parts 1500-1508) implementing NEPA.

This EA identifies the purpose and need for the construction of a fishing platform accessible to people with disabilities along the Agana Boat Channel at the Paseo de Susana Park in Hagatna, Guam. It also evaluates the environmental consequences of three alternatives; including the No Action Alternative.

1.2 PURPOSE AND NEED, DESCRIPTION OF PROJECT AREA

The proposed project site is located within the Paseo de Susana Park complex in Hagatna, Guam (Figures 1, 2, and 3). The specific location is along the shoreline adjacent to the entrance channel leading to the Agana Boat Basin (aka Gregorio D. Perez Marina). The Paseo de Susana is a popular public park complex used for sporting events, picnicking, fishing, tourism center (i.e., Chamorro Village), and various other recreational uses. In 2003, a multi-agency task force developed a master plan for the Paseo de Susana Park (Appendix A). Although the fishing platform proposal post-dates the master plan, it does not interfere with any of the activities currently found or planned for the park complex and enhances an existing activity and makes it safer (i.e., fishing). Furthermore, the proposed fishing platform is supported by Governor Calvo and the local government administration as well as the local fishing community.

The area of the park complex bordering the entrance channel is a popular recreational fishing area for the local fishing community as it allows shoreline access to deeper waters. The shoreline consists of a section of eroding shoreline and a wave absorber (PhotoPlates 1 and 2). The wave absorber is a rock rip-rap structure that protects the shoreline from erosional forces and is considered a navigation structure that is owned and maintained by the U.S. Army Corps of Engineers (USACE).

The importance of fishing on Guam dates back thousands of years to its first inhabitants. Fishing on Guam is commonly practiced as it has cultural, recreational, subsistence, and commercial importance. Fishers of all ages utilize the wave absorber at Paseo de Susana Park as a fishing platform. However, this structure is not a fishing-friendly venue, with uneven surfaces, gaps between rocks. There are several anecdotal accounts of people that have been hurt in the past from scrambling over the rip-rap to cast their lines. There is no wheelchair access or smooth pathway to the water's edge.

Due to this area being a highly used shoreline fishing location, which is uneven, rocky and does not provide an easy access to people with disabilities, there is a need for improving the accessibility and safety of recreational fishing activities in this area.

Therefore, the purpose of the proposed action is to provide federal funding for the construction of a fishing platform at the Paseo de Susana Park to provide members of the local fishing community, including those with physical disabilities, with a safe area to conduct these activities.

1.3 OBJECTIVES

The following objectives were developed as the basis of design for the fishing platform and are consistent with the purpose of the proposed action:

- The fishing platform would be accessible to people with disabilities and be located adjacent to an improved parking area with marked handicapped parking;
- The fishing platform would be sited in an area that fishing presently is conducted and in a public recreational park area;
- The fishing platform structure would be designed in a manner to not inhibit USACE inspections and maintenance to the federally owned/managed wave absorber. To meet this objective, the following design goals were adopted:
 - Design plans will allow the USACE to conduct unencumbered visual inspections that are typically conducted on an annual basis;
 - Design plans will not diminish the integrity or function of the wave absorber structure;
 - Design plans will allow the fishing platform to be completely disassembled whenever maintenance work is required for the wave absorber;
 - To facilitate maintenance work on the wave absorber, the applicant (Guam Department of Agriculture DoA) will develop a platform removal plan that would be implemented once the USACE requires access. The removal plan would be jointly approved by both the USACE and DoA.

1.4 INTER-AGENCY COORDINATION

The following Federal and Government of Guam agencies were consulted during the development of this EA:

- United States Army Corps of Engineers (USACE);
- Guam Department of Agriculture (DoA);
- Guam Department of Parks and Recreation (DPR);
- Port Authority of Guam (PAG);

- Division of Aquatic and Wildlife Resources (DAWR);
- Guam Bureau of Statistics and Plans (BOSP), Coastal Zone Management Program (CZM);
- Guam Department of Parks and Recreation, Historic Resources Division (HRD); and
- Guam Department of Land Management (DLM),

During agency coordination, a number of important issues were identified: platform design needs to accommodate the physically challenged members of the Guam fishing community, design plans will not compromise the integrity of the USACE wave absorber; design plans will allow easy viewing of the wave absorber during annual inspections by the USACE; and design plans will allow for easy removal of the fishing platform to allow USACE access for maintenance purposes.

1.5 PERMITS, APPROVALS, AND CONSULTATIONS

Table 1-1 identifies the major permits and approvals that will be required to implement the preferred alternative.

TABLE 1-1PERMITS AND APPROVALS

Permit, Approval or Concurrence	Authority	
Department of the Army Section 10 of the River and Harbors Act 1899	USACE	
National Pollutant Discharge Elimination System Permit,	USEPA	
Clean Water Act		
Section 401 of the CWA, Water Quality Certification	GEPA	
Consistency determination under the Coastal Zone Management Act	POSP	
(CZMA) Program - Federal Consistency	DOSP	
Seashore Clearance Permit, Seashore Protection	DLM-GSPC	
National Historic Preservation Act (NHPA) Section 106 Review	DPR-GHPO, ACHP	
Endangered Species Act Section 7 Consultation	NMFS, USFWS	
MSA Essential Fish Habitat Consultation	NMFS	
Building Permit and Grading Permit, Building Code compliance	DPW	

CHAPTER TWO ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 INTRODUCTION

This chapter summarizes the development of alternatives to meet the objectives listed in Section 1.3. Three alternatives including the No Action alternative are analyzed in detail. These alternatives are discussed, compared and evaluated for their ability to meet the stated objectives while documenting potential environmental consequences. Other alternatives considered but not analyzed in detail are also describe below.

2.2 ALTERNATIVES CONSIDERED

The alternatives included in this EA were developed to ensure that the basic objectives outlined in Section 1.3 can be achieved.

2.2.1 Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot Cantilevered Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line

This alternative would support the construction of a 500-foot elevated aluminum fishing platform that would be cantilevered over a section of the USACE navigation structure (i.e., wave absorber) and along the shore adjacent to the entrance channel to the Agana Boat Basin. Engineering design plans are included in Appendix E along with the USACE Civil Works Review Comment Table. The structural calculations are found in Appendix F. The fishing platform would be located at the southwest corner of Lot No. A-4, Paseo de Susana Park.

The proposed fishing platform is being funded from several different federal sources. Those federal funds that have previously been allocated and await expenditure include:

a. NOAA grant No. NA10NMF4520366 in the amount of \$158,000;

b. USFWS – Department of Agriculture through the USFWS Sport Fish Restoration Grant Program in the amount of \$191,000; and

c. Western Pacific Regional Fishery Management Council grant No. NA11NMF4410270 - Guam Marine Conservation Plan in the amount of \$300,000

With guidance from the USACE, the fishing platform was designed so as to not affect the integrity of the 250-foot long wave absorber. Therefore, design plans have the fishing platform structurally "floating" (i.e., cantilevered) over the wave absorber with no direct

connections to, or support structures penetrating the federal navigation structure (Appendix E). In addition, there are no support structures placed below the mean high water line. Figure 3 shows the spatial relationship between the fishing platform and location of the wave absorber.

A specialty product would be used for the platform walkway. As claimed in the product information sheet (Appendix G):

"GLOBALGRID Mini-mesh grating is designed specially for application in the commercial and private marina industry for ADA compliance and light transmission. With the ADA compliant 1/2" open area for both the cross bar and bearing bar, GLOBALGRID mini-mesh grating allows light to pass down (with sufficient natural light for fishery and vegetation below the Dock). The mesh structure is also ideal for managing ocean waves or hurricane winds (to pass up and through). It minimizes vibration from rolling cart or wheelchair traffic, and prevents small tools and other objects (e.g., key chains) from falling through the grating."

In order to address earlier concerns raised by the USACE, the fishing platform is designed to be removable in sections to allow access for inspections and maintenance repairs. As required by the USACE, the Platform Removal Plan is included in Appendix H.

2.2.2 Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park

This alternative keeps the same cantilevered engineering design as Alternative No. 1 (Preferred), but would completely avoid the wave absorber. The platform would be limited to that part of the shoreline between the southern end of the wave absorber to just before the canoe house. This alternative significantly decreases the overall length of the fishing platform project by approximately 40%.

The fishing platform would be situated south of the parking lot and would increase the distance one would have to walk for those community members who are physically challenged. The shorter platform will decrease the number of users that can use the fishing platform at any given time. Due to the potential for gear conflicts among fishers with a shorter platform, it is expected that the wave absorber structure would still be used as a fishing base. Therefore, safety and accessibility by people with disabilities will not be fully addressed in this alternative.

2.2.3 Alternative No. 3: No Action

The No Action alternative would maintain the status quo. Under this alternative the Paseo de Susana Park would continue to be a community meeting place for fishers and their families. The wave absorber would continue to be utilized by the members of the fishing community as a venue for fishing activities. Members of the fishing community with physical disabilities would still not have safe access to the area to fish and community members would continue to jeopardize their safety while using the wave absorber as a fishing platform.

2.3 Alternatives Considered But Not Analyzed in Detail

2.3.1 Construction of a 500-Foot Piling Supported Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line

Because the proposed action could potentially affect a USACE navigation project (i.e., wave absorber), we refer to the USACE assessment report¹ from the last field inspection conducted on 11 August 2011. The USACE inspector noted the structure had "*minor deficiencies*"; several flipped armor stones and some vegetation that is in need of removal. These deficiencies were fully documented in the inspection report and are easily addressed prior to construction of the fishing platform. In fact, construction of the fishing platform would require removal of some of the vegetation that was identified by the USOCE as impacting the wave absorber. Based on the USACE report, and the relative protected location of this structure with respect to other wave absorbers along the Agana entrance channel, maintenance doesn't appear to be a major issue.

This alternative differs from Alternative No. 1 (Preferred) as it has a series of solid pilings that penetrated the wave absorber to act as support for the elevated fishing platform. This design approach was the basis for the first engineering design plans. The piling supports make the fishing structure a solid and permanent non-removable structure built into the wave absorber; a USCOE navigation structure (Appendix D). These design plans would have severely hindered access by the USACE to conduct visual inspections and future maintenance work.

An early review of these design plans by the USACE Civil and Public Works Branch (Honolulu, Hawaii office) identified several fatal design flaws related to the potential of compromising the integrity of the wave absorber. The USACE inferred that the engineering plans would likely not receive the required approval under 33 U.S.C. 408.

¹ O & M INSPECTION REPORT FOR NAVIGATION PROJECTS; AGANA SMALL BOAT HARBOR. Honolulu Engineer District, CEPOH-EC-T, file *Aganal 1rpt-sbh.doc* dated August 2011.

Five pertinent concerns were highlighted early on in this process by the USACE Project Manager/Environmental Coordinator USACE Civil and Public Works Branch (e-mail dated 20 December 2012). These concerns are restated below in italics followed by an explanation.

"1) We will need a clear analysis of alternatives for sitting of the structure and specifically why the fishing platform needs to be sited over the USACE infrastructure under both NEPA and in the application. Our initial correspondence clearly indicated that our preference was to site the proposed fishing pier in a manner that it did not impact our infrastructure nor impede our ability to do routine inspections, and maintenance (as needed) on our federally owned project. You will need to fully justify why the placement of the structure in another location was not considered."

The alternatives analysis will be addressed in the Environmental Assessment and section 408 application package. USACE comments on the original design plans were incorporated into the current set of design plans where a cantilevered platform concept was adopted that did not impact the integrity of the wave absorber nor impede the USACE's ability to conduct routine inspections. Additionally, design plans allow for the disassembly of the structure for the USACE to conduct necessary maintenance work. To facilitate the maintenance work, a removal plan has been developed whenever the fishing platform needs to be temporarily removed.

"2) Our protocol is to do routine inspections (typically on an annual basis) of our structures. We will need to have full access to do this inspection. This means that the structure needs to be designed in such a manner that we can visually inspect. The proposed fishing pier needs to be designed in a manner that allows access to see under the pier to inspect our structure, or we will require the pier to be removed for these routine inspections."

The ability to visually examine the wave absorber was fully addressed in Alternative No. 1 (Preferred). USACE inspectors will be able to inspect the wave absorber by looking under the cantilevered platform that extends over the structure or walk along the platform and look down through the open grating.

"3) If any maintenance is required, the Government of Guam will be formally notified of this requirement. At this point, the 24 week removal process as proposed as a part of the removal plan is adequate for our needs. While we cannot require that funding be set aside for this purpose, we encourage you to consider this option."

The removal plan will be included in the EA and Section 408 application package and will have as its basis a 24-week notice of intent to inspect that would be provided in writing to the Director, Guam Department of Agriculture.

"4) As indicated previously, the application needs to be filed by a Government of Guam agency. The removal plan and agreements also need to be through the applicant as a Guam government agency."

The applicant for all permit applications will be through the Director, Guam Department of Agriculture.

"5) Our Non-Federal sponsor for the Agana Small Boat Harbor (which includes the wave absorber) is the Port Authority of Guam. It is our understanding that the property was recently transferred to the Department of Parks and Recreation via an Executive Order from the Governor. However, our local cooperation agreement with the Port Authority does not change, regardless of the current Guam governmental authorities. We will need either a letter of concurrence from the Port Authority that they are in support of this project, or to have the application filed through them on behalf of the Guam agency that is taking the lead."

A memo dated 3 January 2013 was sent from Director Mariquita F. Taitague of the Guam Department of Agriculture to the General Manager of the Port Authority of Guam requesting their concurrence and support for the proposed fishing platform at the Paseo De Susana Park.

The Port Authority of Guam General Manager Joanne M.S. Brown responded via letter dated 22 January 2013 to Mr. Ryan Winn of the USACE Guam Field Office offering their full support of the proposed fishing platform (Appendix B).

2.3.2 Alternative Sites within Paseo de Susana Park

This alternative examined other potential fishing platform sites within the boundaries of the Paseo De Susana Park (Figure 2).

The entire eastern boundary of the park borders a reef flat (Figure 2) that is not suitable for fishing as the waters are too shallow. Planning for a fishing platform in this area would involve construction of a pier that extends across the reef flat to the edge of the reef margin in order to access deeper waters. Costs would be prohibitive and the structure would require extensive permitting/regulatory oversight and associated infrastructure (i.e., new parking lot with handicapped parking spaces).

The western boundary of Paseo de Susana Park (Figure 2) is bordered by the entrance channel that connects the Agana Boat Basin to the ocean. Both sides of the entrance channel were analyzed for potential fishing platform sites.

The western edge of the entrance channel (Figure 2) is not easily accessible and a substantial amount of new infrastructure (i.e., access road, paving, piers, and fishing platforms) would be required in order to create a safe fishing area that meets the objectives of the project. As an example, piers and/or platform structures would need to be constructed over reef flats and/or USACE-owned navigation structures. The biggest drawback to using this area is that it is physically isolated from the main park and all its amenities thus making it much less attractive for park users.

The eastern edge of the entrance channel (Figures 2 and 3) is the optimal place to site a fishing platform as it is accessible to deeper waters, is adjacent to many of the park facilities, has existing road/parking infrastructure, and is presently a popular fishing area. Alternative No. 1 (Preferred) has the fishing platform being located along the mid-section of the shoreline. The preferred site location is constrained to the south by the proposed expansion of the Guam Fisherman's Cooperative and existing canoe house and storage area (Figure 3). To the north of the proposed site, the entrance channel widens and shallower water borders the shoreline. In addition, the entire shoreline northward is protected by rock rip-rap.

The primary purpose of the proposed fishing platform is to provide safe access for both handicapped and other members of the fishing community to deep-water (relatively speaking) fishing areas. Other alternative sites within Paseo de Susana Park do not provide these services.

CHAPTER THREE AFFECTED ENVIRONMENT

3.1 INTRODUCTION

This chapter describes the resources in the potentially affected environment at Paseo de Susana Park in Hatagna. The chapter is divided into three (3) primary areas; the physical environment, the natural or biological environment and the human environment.

3.2 PHYSICAL ENVIRONMENT

This section describes important aspects of the physical environment found at the project site including; climate and air quality, geology and soils, topography, groundwater, marine and surface water, floodplains, and noise and aesthetics.

The island of Guam is approximately 32 miles long and varies in width averaging 5 miles wide. The island comprises an area of approximately 212 square miles. The Pacific Ocean and Philippine Sea border the island to the east and west respectively. The proposed site for the fishing platform is located near Agana Boat Basin in the central business district of Hagatna (Figures 1, 2 and 3).

3.2.1 Climate and Air Quality

Guam's climate varies little throughout the year. Temperatures range between 75 and 90 degrees. Humidity is highest during the rainy or monsoon season months from May to October. Annual rainfall averages about 100 inches per year. Typhoons usually occur during the summer and fall months. Approximately 30 tropical disturbances are generated in the area every year. Many of these storm systems track near the island.

The USEPA has established National Ambient Air Quality Standards (NAAQS). These standards are used to evaluate air quality of different jurisdictions. Criteria pollutants include carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, ozone, and lead. Generally, Guam's air quality is generally considered good with only two power plant locations being classified as non-attainment areas. The city of Hagatna is located well outside these non-attainment buffer zones.

3.2.2 Geology and Soils

According to the Soil Survey of the Territory of Guam, the soil classification in the vicinity of the proposed fishing platform site is Urban land-Ustorthents complex, nearly

level. This map unit is on coastal fill in and around Hagatna and Apra Harbors and consists of crushed coral gravel and cobbles and a pockets of very gravelly clay and clay loam. Permeability of <u>U</u>stothorents soil is moderately rapid.

According to personnel at the HRD-DPR, the peninsula where the Paseo de Susanna Park is sited was created by pushing the remnants of the pre-WW II city of Agana (= Hagatna) onto the adjacent inner reef flat. This action converted approximately 26 acres of shallow water lagoon habitat into upland.

3.2.3 Topography

The central region of Guam is generally comprised of rolling limestone hills and plateaus. The city of Hagatna is situated in the center of the island and is bordered to the south by a combination of limestone cliffs and Agana Swamp. Elevations along the bluffs above Hagatna range from 100 to 8 feet above mean sea level (MSL) along the developed coastline. The project area and much of the Paseo de Susana Park is flat land lying between 3 and 7 feet above MSL. Sections of the Agana Harbor entrance channel that lie parallel to the proposed fishing platform average 9 feet in depth.

3.2.4 Groundwater

Guam's sole source aquifer is located in the predominantly limestone region of northern Guam. The Northern Guam Aquifer is the primary source of drinking water for the civilian population of the island. The Paseo de Susana Park is located in what was once the inner lagoon of Agana Bay. Groundwater in the project area is heavily influenced by adjacent marine waters and is not considered a source of drinking water.

3.2.5 Freshwater Surface Waters

The Guam Water Quality Standards (GWQS) provide for management of Guam's surface, ground and marine waters and provides for a classification system based upon desirable chemical, physical and biological characteristics. The Agana River and Agana Swamp are major freshwater surface water features in Central Guam. Prior to heavy urban development of surrounding uplands, the spring feeding this river was once a source of drinking water. While there are no freshwater surface waters present on site, the Agana River, approximately 1,000 feet east, empties into Agana Bay at the opposite side of the Paseo de Susana Park.

The GWQS indicate that the Agana River is classified as S-2 or Medium. Surface water in this category is used for recreational purposes and can be treated to provide a potable water source. Whole body contact recreation, aesthetic enjoyment and aquatic wildlife preservation are appropriate in waters within this classification.

3.2.6 Marine Waters

Guam experiences semi-diurnal tides with pronounced diurnal inequalities. Mean tidal range is 1.2 feet while the range for spring tides are 2.1 feet. Details of tide gauge data collected over a 19-year period (1949-1967) at Apra Harbor by the National Ocean Survey (National Oceanic and Atmospheric Administration) are shown in Table 3-2 (USACE 1996).

TIDE DATA VARIABLE (Apra Harbor, Guam)	Mean Sea Level Datum (in feet)	Mean Lower Low Water Datum (in feet)	
Highest Tide Observed	1.90	3.31	
Mean Higher High Water	0.99	2.40	
Mean High Water	0.89	2.30	
Mean Tide Level	0.04	1.45	
Mean Sea Level	0.00	1.41	
Mean Low Water	-0.81	0.60	
Mean Lower Low Water	-1.41	0.00	
Lowest Tide Observed	-3.30	-1.89	

TABLE 3-1NOAA/NOS TIDAL DATA FOR APRA HARBOR, GUAM

(data obtained directly from Table 1; USACE 1996)

Marine water within the neighboring marina and entrance channel is designated M-3 or Fair. The GWQS report states that surface water in this category is intended for general commercial and industrial use. This category allows for aesthetic enjoyment, limited body contact recreation and maintenance of aquatic life. Water quality in the general vicinity of the marina and entrance channel is significantly impacted by storm water disposal, marine vessel operations, and the adjacent sewer treatment plant and outfall operations.

3.2.7 Floodplains and Coastal Zone

The island of Guam is a participant in the National Flood Insurance Program; however it is currently on probation status.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map covering the Paseo de Susana coastal area of Guam (FEMA Map No. 6600010083D; dated 28 September 2007) indicates that the proposed fishing platform would be located in Zone VE with an associated coastal base flood elevation of 9.0 feet. Figure 4 shows the location of the fishing platform on the FEMA floodplain map.

The proposed fishing platform does not function as a permanent or temporary housing facility and has no solid walls; the sole purpose is a temporary venue for recreational fishing activities in a public park.

Engineering design plans (Appendix E) show the flooring of the fishing platform being approximately 11 feet above the Mean High Water Line. The platform is an elevated allmetal (e.g., aluminum) walkway with grated flooring that is cantilevered over the wave absorber. Flooding events, should they even reach the elevation of the fishing platform, would likely pose minimal structural damage and not pose a threat to human life. Additionally, the platform will not affect the structural or engineering integrity of the wave absorber.

On July 1, 2013, Guam's Bureau of Statistics and Plans issued a federal consistency determination that the proposed action is consistent with the goals and objectives of the Guam's coastal zone management program.

3.2.8 Wetlands

The Agana Swamp is the single largest wetland feature on island. It fulfills a number of important habitat, flood control, and filtration functions. Paseo de Susana Park is comprised of fill material and therefore lacks the critical properties (wetland vegetation, hydrology and hydric soils) necessary to support wetlands as defined by the Clean Water Act. Agana Swamp is approximately 2,000 ft southeast of the proposed fishing platform site and therefore, is sited completely outside the area of effect.

3.2.9 Noise and Aesthetics

Much of the City of Hagatna is a developed urban community. Commercial, institutional and government operations are centralized within its limits. Vehicular traffic associated with Route 1 Marine Corps Drive, Route 4 and airline traffic associated with the A.B. Won Pat Guam International Airport and vessel operations at the marina result in significant daytime noise levels.

The coastal location of the project site is visually appealing. Some of the attributes that add to the aesthetic quality of this coastal area include: Paseo de Susana Park, Skinner's Plaza, Chamorro Village, and Plaza de Espana. Vessel and harbor activities associated with the Agana Marina facilities and Guam Fisherman's Cooperative Association is also considered visually appealing by many.

3.3 BIOLOGICAL ENVIRONMENT

The natural environment is particularly susceptible to many of man's activities. If not implemented correctly, new construction, infrastructure, storm water disposal and land use activities can translate into significant and compounding impacts upon the natural environment. The quality of the natural environment is steadily increasing in importance to island communities and visitors.

3.3.1 Wildlife Habitat Resources

From a terrestrial perspective, the project site area is cleared of undergrowth and replaced with grass that is regularly maintained. Trees are limited and planted as primarily as a landscaping feature and to act as shade for park visitors. Paved roads, parking areas, and a baseball field are also a central feature of the Paseo de Susana Park.

The adjacent marine environment consists of an artificially created (e.g. dredged) entrance channel through a large fill event associated with World War II that leads to the Agana Boat Basin.

3.3.1.1 Terrestrial Habitats

The property where the proposed fishing platform would be sited is an area of the park where community members typically meet for family picnics, hold BBQ's, and fish. As a public recreational area, the grass is regularly maintained as a lawn by Parks Department staff (Photo 3A).

Trees typically growing along the shoreline include pago (<u>Hibiscus tiliaceus</u>) and banalo (<u>Thespesia populnea</u>). Also found along certain sections of the shoreline bank is the morning glory vine (<u>Ipomoea sp.</u>).

Many of the trees located inland from the shoreline are primarily used for landscaping purposes; Coconut (<u>Cocos nucifera</u>), Pacific almond (<u>Terminalia catappa</u>), ironwood (<u>Casuarina equisetifolia</u>), and tangantangan (<u>Leucaena leucocephala</u>).

Various weed species observed included: coat buttons (<u>Tridax procumbens</u>), dropseed (<u>Sporobolus</u> sp.), sandbur (<u>Cenchrus echinatus</u>), beggar's tick (<u>Bidens alba</u>), and sensitive plant (<u>Mimosa</u> sp.).

3.3.1.2 Marine Habitats

Marine habitats found adjacent to the project site include: intertidal zone, sand/silt substrate and an artificial rock/rubble bottom (e.g., wave absorber). These habitat areas are located along the Agana Harbor entrance channel.

It should be noted that the proposed fishing platform has no structural components located below the MHWL.

3.3.2 Wildlife Resources

3.3.2.1 Terrestrial Wildlife Species

Project site surveys only identified two wildlife species and they were introduced: the Eurasian tree-sparrow (<u>Passer montanus</u>), and rat (<u>Rattus</u> sp.). Though only one rat was found dead on the beach, it is expected that they are common. Both of these species are exotic, considered invasive, and have fully adapted to urban environments and their presence at the site was expected.

3.3.2.2 Marine Wildlife Species

The following description of marine resources was obtained by the preparer during marine surveys conducted for the Guam Fisherman's Cooperative Association development project (separate project than proposed action); an area located adjacent to the proposed fishing platform site.

Fish species observed included both adult and juvenile humbug dascyllus (<u>Dascyllus aruanus</u>) and blue-green chromis (<u>Chromis viridis</u>) that was usually associated with the <u>Pocillopora damicornis</u> corals. Juvenile individuals of Moorish idol (<u>Zanclus cornutus</u>), convict surgeonfish (<u>Acanthurus triostegus</u>), pennant bannerfish (<u>Heniochus chrysostomus</u>), yellow boxfish (<u>Ostracion cubicus</u>) and the raccoon butterflyfish (<u>Chaetodon lunula</u>). Other more benthic species, such as pipefish (Syngnathidae) and several species of unknown Gobiidae were observed in/on the sand/silt substrates.

The macro-invertebrate fauna included four species of sea cucumbers (<u>Bohadschia argus</u>, <u>Stichopus chloronotus</u>, <u>Holothuria atra</u>, and <u>Synapta</u> cf. <u>maculata</u>) with <u>Stichopus</u> and <u>Bohadschia</u> being more common. Several individuals of one species of pencil sea urchin Echinoidea was observed. Feather duster polychaetes (<u>Sabellastarte</u> sp.) were fairly common along the rubble field. Two banded coral shrimp (<u>Stenopus</u> cf. <u>hispidus</u>) were observed in a discarded hollow block.

Though corals were found in the vicinity, they appeared to be locally abundant in areas where the rubble field was located. Corals noted included <u>Pocillopora damicornis</u> and what is believed to be <u>Leptastrea</u> sp. The constant vessel traffic in the near by Agana boat

basin entrance channel likely maintains elevated turbidity levels. Some corals were observed secreting mucus (a natural response to sedimentation) and showing signs of accumulated sedimentation.

Numerous small chitons (Polyplacophora) were observed in the inter-tidal zone among the rock rubble along the shoreline along with limpets (Prosobranchia; Nacellidae) and Oysters (Ostreidae).

3.3.3 Endangered/Threatened Species

A number of species that are protected under the Endangered Species Act (ESA) occur on the island of Guam and therefore, may occur in the vicinity of the project site.

Populations of those wildlife species requiring Federal protection are classified as endangered or threatened under the ESA. Endangered is defined in Section 3(6) of the Act as:

"...any species [including subspecies or qualifying distinct population segment] which is in danger of extinction throughout all or a significant portion of its range."

A threatened species is defined in section 3(19) of the Act and is defined as:

"... any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."

Those Federal Agencies responsible for determining which species are to be listed and enforcement of existing Endangered Species laws are the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). The USFWS manages land and freshwater species while NMFS manages marine and anadromous species.

These federally protected species that may occur on Guam or in the surrounding waters are shown in Table 3-2.

TABLE 3-2

FEDERALLY PROTECTED SPECIES UNDER THE ENDANGERED SPECIES ACT (ESA) THAT MAY OCCUR ON GUAM OR THE WATERS SURROUNDING GUAM. STATUS OBTAINED FROM THE NMFS AND USFWS WEBSITE. T = THREATENED, E = ENDANGERED, NR = NOT RECOGNIZED, N/A = NOT APPLICABLE.

ENDANGERED SPECIES ACT FEDERALLY PROTECTED SPECIES	DOI USFWS	NOAA NMFS
MAMMALS		
Mariana Fruit Bat (<u>Pteropus m</u> . <u>mariannus</u>)	Т	N/A
Little Mariana Fruit Bat (<u>Pteropus tokudae</u>)	Е	N/A
Blue Whale (<u>Balaenoptera</u> <u>musculus</u>)	N/R	Е
Fin Whale (<u>Balaenoptera physalus</u>)	N/R	Е
Humpback Whale (<u>Megaptera</u> <u>novaeangliae</u>)	N/R	Е
Sei Whale (<u>Balaenopter</u> a <u>borealis</u>)	N/R	Е
Sperm Whale (Physeter macrocephalus)	N/R	Е
Dugong (Dugong dugon)	N/R	Е
AVIFAUNA		
Mariana Crow (<u>Corvus kubaryi</u>)	Е	N/A
Guam rail (<u>Gallirallus</u> <u>owstoni</u>)	Е	N/A
Guam Micronesian Kingfisher (<u>Todiramphus c</u> . <u>cinnamominus</u>)	E	N/A
Mariana Swiftlet (<u>Aerodramus bartschi</u>)	Е	N/A
Mariana Common Moorhen (<u>Gallinula</u> <u>chloropus</u> <u>guami</u>)	Е	N/A
REPTILES		
Green Sea Turtle (<u>Chelonia mydas</u>)	Т	Т
Hawksbill Sea Turtle (Eretmochelys imbricata)	Е	Е
Leatherback Sea Turtle (Dermochelys coriacea)	Е	Е
North Pacific Loggerhead Turtle (Caretta caretta)	Т	Е
Olive Ridley Turtle (Lepidochelys olivacea)	NR	Т
PLANTS		
Fire Tree (<u>Serianthes</u> <u>nelsonii</u>)	Е	N/A

In additional to the ESA, the Marine Mammal Protection Act (MMPA) affords federal protection for all marine mammals. The list of protected marine mammals that may be found in the waters surrounding the southern Marianas is found in Table 3-3 (Source: MITT Draft EIS/OEIS 2013).

TABLE 3-3

MARINE MAMMAL SPECIES THAT ARE FEDERALLY PROTECTED UNDER THE MARINE MAMMAL PROTECTION ACT (MMPA) THAT MAY OCCUR IN THE WATERS OF THE SOUTHERN MARIANA ISLANDS.

MARINE MAMMAL PROTECTION ACT FEDERALLY PROTECTED SPECIES

Suborder Mysti-Eti (baleen whales) Humpback whale (Megaptera novaeangliae) Bryde's whale (Balaenoptera brydei/edeni) Blue whale (Balaenoptera musculus) Minke whale (Balaenoptera acutorostrata) Fin whale (Balaenoptera physalus) Omura's whale (Balaenoptera omurai) Sei whale (Balaenoptera borealis) Suborder Odont-Eti (toothed whales)

Sperm Whale (Physeter macrocephalus)	Striped dolphin (Stenella coeruleoalba)
Pygmy sperm whale (Kogia breviceps)	Spinner dolphin (Stenella longirostris)
Dwarf sperm whale (Kogia sima)	Rough-toothed dolphin (Steno bredanensis)
Killer whale (Orcinus orca)	Fraser's dolphin (Lagenodelphis hosei)
False killer whale (Pseudorca crassidens	Risso's dolphin (Grampus griseus)
Pygmy killer whale (Feresa attenuata)	Cuvier's beaked whale (Ziphius cavirostris)
Pantropical spotted dolphin (Stenella attenuate)	Blainvilles's beaked whale (Mesoplodon densirostris)
Melon-headed whale (Peponocephala electra)	Longman's beaked whale (Indopacetus pacificus)
Common bottlenose dolphin (Tursiops truncates)	Ginko-toothed beaked whale (Mesoplodon ginkgodens)

Short-finned pilot whale (Globicephala macrorhynchus)

<u>Note</u>: Species list obtained from Marianas Islands Training and Testing Study Area EIS/OEIS (September 2013).

3.3.3.1 Herpetological Fauna

In a response to an informal ESA Section 7 consultation memorandum dated 16 November 2012, from Mr. Scott Bloom [Cooperative Programs Specialist, NMFS Pacific Islands Regional Office (PIRO)], the PIRO Regional Director, Mike Tosatto, determined that the proposed fishing platform "*may effect, but is not likely to adversely affect*" green and hawksbill sea turtles. NMFS concluded that the preferred alternative would have insignificant impacts on green and hawksbill sea turtles (Consultation PIR-2012-9137 (Appendix I).

The USFWS (FA Grants Manager/FA Section 7 Coordinator) concurred with the ESA Section 7 "*no effect determination*" made by the DoA Director in August 2011 (Appendix I).

Species accounts for these two species follow:

a. Green Sea Turtle (<u>Chelonia mydas</u>)

In response to a decline in population levels, the green turtle was listed as threatened under the Endangered Species Act, except for the Florida and Pacific coast of Mexico breeding populations, which are listed as endangered, on 28 July 1978 (43 FR 32800). Critical habitat was identified by the NMFS on 2 September 1998 (Volume 63, Number 170) as occurring in waters extending seaward 3 nm from the Mean High Water Line of Isla de Culebra (Culebra Island), Puerto Rico.

After leaving the nesting beach, young sea turtles are believed to occupy open ocean pelagic habitat, perhaps associated with sargassum rafts. It is generally assumed that at this life stage they are omnivorous with a strong tendency toward carnivory. An ontogenetic shift from a pelagic life form to benthic foraging occurs after reaching a carapace size of 20-25 cm in the Western Atlantic or 35 cm carapace length in Hawaii and Australia. A change to a herbivorous diet also occurs during this time, primarily seagrasses and algae, although they also consume jellyfish, salps and sponges (Lutz and Musick 1997).

In contrast to their protected status, it appears that green sea turtle colonies are increasing and are nesting on beaches that had no recent nesting activities, such as Rancho Nuevo (Tamaulipas, Mexico) and along the mid-Atlantic coast of Florida. Patrolling nesting beaches in other areas of the world has also had a positive effect on nesting populations. It is believed by some that the green sea turtle is not faced with imminent extinction (Lutz and Musick 1997).

b. Hawksbill Sea Turtle (Eretmochelys imbricata)

Population declines resulted in the hawksbill turtle being listed as endangered on 2 June 1970 (35 FR 8495). Critical habitat was identified by the NMFS on 2 September 1998 (Volume 63, Number 170) as occurring in waters extending seaward 3 nm from the

Mean High Water Line of Isla de Mona (Mona Island), and Isla Monito (Monito Island), Puerto Rico.

Although certain authors (Carr 1952) separate the species into two sub specific populations (Indo-Pacific and Atlantic subspecies), the USFWS is treating the recovery of this species as a single taxonomic entity.

Hawksbill turtles have a circum-tropical distribution, occurring from 30⁰N to 30⁰S latitude within the Atlantic, Pacific, and Indian oceans. Along the eastern Pacific Rim, hawksbills were apparently common to abundant as recently as 50 years ago in near shore waters from Mexico to Ecuador, particular the east coast of Baja California Sur in the vicinity of Concepcion Bay and Paz Bay, Mexico. Presently, the hawksbill is considered rare in most localities as there are no known nesting beaches remaining on the Pacific coast of Mexico (Cliffton, et al 1982, as cited in USFWS 1998).

What appears to be a better situation occurs in the Central Pacific; nesting is widely distributed and in very low numbers. Foraging hawksbills are observed from virtually all the island groups in Oceania, from the Galapagos Islands in the eastern Pacific to the Republic of Palau in the Western Pacific. Hawksbills nest on the islands and mainland of southeast Asia, from China and Japan, throughout the Philippines, Malaysia, and Indonesia, to Papau New Guinea, the Solomon Islands and Australia (USFWS 1998).

As with other sea turtle species, after leaving the nest the turtle is pelagic. The ontogenetic change to benthic foraging occurs in the Caribbean at a carapace length between 20 to 25 cm (straight) and in Australia at a carapace length of 35 cm (curved). Data indicates that Hawksbills forage most often over coral reef areas and rock outcroppings although they also feed in seagrass meadows in mangrove-fringed bays. Although generally accepted that hawksbill sea turtles are primarily spongivores, other items consumed include: seagrasses, tunicates, bryozoans, coelenterates, molluscs and soft corals. Hawksbills are believed to undergo a period of omnivorous feeding in benthic habitats prior to adopting the specialized spongivory known from larger juveniles and adults (Lutz and Musick 1997).

The proposed fishing platform is located entirely above the MHWL and the shoreline is not optimal nesting habitat for either sea turtle species.

3.3.3.2 Critical Habitat

Critical Habitat is defined as habitat that meets the following requirements:

- 1) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of Section 4 of the Act, on which are found those physical or biological features (constituent elements):
 - (a) essential to the conservation of the species, and
 - (b) which may require special management considerations or protection;

2) specific areas outside the geographical area occupied by the species at the time It is listed in accordance with the provisions of Section 4 of the Act, upon a determination by the Secretary that such areas are essential for the conservation of the species. [ESA §3 (5)(A)] (USFWS/NMFS 1998).

Although critical habitat has been designated on Guam by the USFWS for several species (e.g., Mariana fruit bat, Guam Micronesian kingfisher, and Mariana crow), the project site (Paseo de Susana Park) is not included within any designated or proposed critical habitat areas.

3.3.4 Magnuson-Stevens Act: Project Impacts to Essential Fish Habitat

On October 11, 1996, the Sustainable Fisheries Act (Public Law 104-297) became law. This action amended the habitat provisions of the Magnuson Act. The re-named Magnuson-Stevens Act (MSA) calls for the development of a federal inter-agency consultation process to minimize adverse effects to Essential Fish Habitat (EFH).

Adverse effect is defined as any impact which reduces the quality and/or quantity of essential fish habitat. Adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey, or reduction in species' fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810).

The marine environment that lies adjacent to the proposed fishing platform is a manmade entrance channel that connects Agana Boat Basin to the ocean. Bottom substrate along the entrance channel consists of primarily sand and rubble and will be maintenance dredged if water depths become too shallow and start restricting vessel traffic.

Keeping in mind that the proposed fishing platform is sited entirely above the MHWL and no part of the fishing platform is located in the marine environment (i.e., below the MHWL), no direct impacts to EFH are expected to result from construction of the fishing platform. However, secondary impacts may include surface water runoff and an increase in marine debris.

EFH consultation was conducted with the NMFS PIRO Habitat Conservation Division and finalized in an e-mail dated 23 November 2012 (Appendix J). The NMFS determined that "while likely minimal, EFH may be adversely affected by the action from discharge of pollutants associated with construction also post-construction via increased storm water run-off, and from increased fishing pressure and marine debris (fishing line and trash) build up in water from use." The recommended impact avoidance and minimization measures are included in the mitigation section of this EA.

3.4 HUMAN ENVIRONMENT

3.4.1 Historical Resources

The village of Agana is listed on the National Historic Register. Historically the ancient Chamorro village of Agana was the absolute center of island residential, commercial and institutional activity. The DPR has noted that a pre-war brass foundry and public market were once located in the vicinity of the proposed fishing platform. The agency also stated that much of the Paseo de Susana Park was created from the destruction of Agana during World War II. Because of these issues, the Guam Historic Preservation Office (HPO) of the DPR requires that close consultation be conducted with their office prior to construction that may have the potential to disturb cultural resources.

A World War II Japanese Pillbox is located along the entrance channel south of the existing wave absorber near the Guam Fisherman's Cooperative Association building. The Pillbox fortification is listed in the Guam Historic Properties Inventory and is also listed in the Guam and National Register of Historic Places (Site Number 66-01-1211).

The Department of Agriculture (DoA) requested a NHPA Section 106 review in a letter dated 3 October 2011. In their letter, they recommended a determination of "*no historic properties affected*." The Guam State Historic Preservation Officer responded by letter dated 4 November 2011 and concurred with the DoA determination (Appendix C).

On February 21, 2013, NOAA made a "no historic properties affected" determination pursuant to 36 CFR 800.4(d). The Guam State Historic Preservation Officer concurred in NOAA's finding on May 17, 2013.

3.4.2 Socioeconomics

The 2000 census for Guam reported a total of 1,100 residents living in the district of Hagatna or approximately 0.7 percent of the total population. This represents a 3.4% decline from the 1990 total of 1,139. While Hagatna has a small residential population, it remains a vital center of commercial, institutional and cultural activity. As such, it is one of the islands primary employment centers.

3.4.3 Land Use

The administrative, legislative and judicial functions of the government are located in Hagatna. The Agana Basilica is an important focal point in the city. Numerous historic and cultural features are present including the Plaza de Espana and the Angel Santos Latte Stone Park at the base of San Ramon Hill. The Paseo de Susana Park is home to

the Chamorro Village, Paseo Stadium, the Sagan Dinana (an open air meeting facility), Guam Fisherman's Cooperative Association, Agana Marina, and a number of picnic shelters and meeting places for the island's surfing and canoeing enthusiasts.

Every day Hagatna hosts residents from across the island who travel into the city to work, attend school, shop, worship and recreate. Still commercial and government activities began to leave Hagatna in recent years to take advantage of available space at Tiyan and in the expanding commercial areas of Tamuning. As a result, the Hagatna Restoration and Redevelopment Authority (HRRA) was formed. Together with Hagatna Foundation (HF), the HRRA primary mission is to pursue the revitalization of the Capital City of Hagatna.

3.4.4 Parks and Recreation

Hagatna is home to numerous parks and recreational facilities. The Agana tennis courts and the Agana Pool are busy facilities in considerable demand throughout the week. The Paseo Stadium and Jose Guerrero Softball field at Paseo de Susana are the largest ball fields on island. Again, boaters, surfers, paddlers and fisherman use facilities, both natural and manmade, extensively on weekends.

The entire Paseo de Susan Park is considered an important focal point located at the end of a "public corridor" extending from Government House and Fort Apugan atop San Ramon Hill, through the Angel Santos Latte Stone Park, the Plaza de Espana and Skinners Plaza. The park was deeded to the government of Guam solely for civic, park and recreational purposes. Commercial activities are permitted within the park as long as they serve a public function and do not interfere with the ability of residents to enjoy the existing public facilities.

According to the Paseo de Susana Planed Development District Master Plan, a Heritage Walking Tour has been proposed as part of the Agana Parks Revitalization Project. This tour would link seventeen (17) historic sites in Agana and feature many of the remaining Spanish era ruins and other structures that are still present. The pan includes repairs and enhancements to existing structures as well as paths and other new park features.

3.4.5 Infrastructure

Guam's main highway, Route 1 Marine Corps Drive, runs through Hagatna and ties the northern and southern villages into the capital city. Route 4 intersects Route 1 at the Paseo de Susana providing an important transportation link to the city from villages along the island's southeastern coastline.

According to the Paseo de Susana Planned Development District Master Plan (PSPDDMP), basic water, sewer and power services are present throughout the project

area. Waterlines measuring 6, 12 and 18 inches in diameter are located within the park or on adjacent roadways. Telephone service is available throughout the park.

Storm water within the park is collected and transmitted via a curb and gutter system to the municipal system along Marine Corps Drive. Evidently this system discharges into the marina a short distance away via two 24-inch storm drain pipes. Other storm water sheet flows into nearby shoreline areas.

Parking facilities are present throughout the Paseo de Susana Park. According to the PSPDDMP, there are a total of 680 paved parking spaces within the Agana marina complex, Guam Fisherman's Cooperative Association, Paseo de Susana, and Chamorro Village. There is sufficient parking capacity on a daily basis, however not during peak demand activities. This has led to occasional use of parking spaces on the other side of Marine Corps Drive at Skinner's Plaza. The risks associated with crossing the island's busiest roadway and the need to accommodate future growth has resulted in the consideration of a permanent parking structure.

CHAPTER FOUR ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

This chapter on environmental consequences is arranged by resource/issue. The anticipated consequences associated with each viable alternative will be outlined. Potential mitigation measures will be discussed if relevant.

4.2 PHYSICAL ENVIRONMENT

This section outlines the anticipated consequences of each of the alternatives upon elements of the physical environment including: climate and air quality, geology and soils, topography, groundwater, freshwater surface waters, marine waters, floodplains, wetlands, and noise and aesthetics.

4.2.1 Air Quality

Construction activities will include heavy equipment such as dump trucks, back hoe, and cranes and other smaller machinery that will generate fuel combustion emissions and dust. Depending upon the magnitude of the generated emissions, air quality may become degraded and become a nuisance to nearby park users, especially if the prevailing winds are on-shore.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line Construction activities involving heavy equipment are minimal and will cease once construction is completed; significant impacts to ambient air quality are not expected and will likely be unmeasurable.

Suggested Mitigation:

Ensure that exhaust mufflers are in good working order for all construction machinery.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park

Construction activities involving heavy equipment are minimal and will cease once construction is completed; significant impacts to ambient air quality are not expected and will likely be unmeasurable.

Suggested Mitigation:

Ensure that exhaust mufflers are in good working order for all construction machinery.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.2.2 Geology and Soils

In general, earthwork is limited to the excavation of a long rectangular area approximately 14'3" in width with the length dependent upon the Alternative. The excavation will likely be excavated by back-hoe and filled with rebar/concrete to act as a support-base for the aluminum cantilevered fishing platform. This excavation is located entirely above the MHWL. Other soils are not expected to be disturbed by construction activities.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line

As the site is a man-made fill, there are no unique geologic features or highly erodible soils present. The footprint for the concrete base, approximately 500' by 14'3", would be sited above the MHWL on a narrow strip of land between the walking path and wave absorber or shoreline. No platform support structures or excavation activities would be placed or occur below MHWL.

Although the project site will require no grading, all earth work proposed for coastal areas will require erosion and sedimentation control measures that would be included in the earthmoving permit that would be required for this project.

No significant impacts to geology or soils would occur from construction of the proposed action.

Suggested Mitigation:

Erosion Control and Sedimentation Control Plans (ECP) will be developed in coordination with the earthmoving permit. The permit will also require the contractor to adhere to certain best management practices (BMP) to minimize the potential for erosion and subsequent sedimentation into nearby marine waters. The BMP's will be included in the yet to be issued permit.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park

As the site is a man-made fill, there are no unique geologic features or highly erodible soils present. The footprint for the concrete base, approximately 300' by 14'3", would be sited above the MHWL on a narrow strip of land between the walking path and wave absorber or shoreline. No platform support structures or excavation activities would be placed or occur below MHWL.

Although the project site will require no grading, all earth work proposed for coastal areas will require erosion and sedimentation control measures that would be included in the earthmoving permit that would be required for this project.

No significant impacts to geology or soils would occur from construction of the proposed action.

Suggested Mitigation:

Erosion Control and Sedimentation Control Plans (ECP) will have to be developed in coordination with the earthmoving permit. The permit will also require the contractor to adhere to certain best management practices (BMP) to minimize the potential for erosion and subsequent sedimentation into nearby marine waters. The BMP's will be included in the yet to be issued permit.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.2.3 Topography

The topography at the project site is level and other than the actual fishing platform structure, topography will not be significantly altered.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line The shoreline is a relatively level area and construction of the proposed fishing platform will not significantly modify existing topography.

Suggested Mitigation:

None suggested.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park

The shoreline is a relatively level area and construction of the proposed fishing platform will not significantly modify existing topography.

Suggested Mitigation: None suggested.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.2.4 Groundwater

The island of Guam depends heavily upon ground water from the Northern Aquifer as a primary drinking water source. Ground water resources at the Paseo de Susana park area are not considered a source of drinking water.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line No affect.

Suggested Mitigation: None needed.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park No affect.

Suggested Mitigation: None needed.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.2.5 Freshwater Surface Waters

There are no fresh surface water bodies within the project area or the immediate vicinity.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line No affect.

Suggested Mitigation: None needed.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park No affect.

Suggested Mitigation: None needed.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.2.6 Marine Waters

Preventing the degradation of water quality (freshwater surface or marine) on Guam is an important issue facing the community.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line

No parts of the fishing platform extends below the MHWL, however earthmoving activities do occur adjacent to the shoreline. Therefore, all construction work will require erosion and sedimentation control measures as conditioned in the local permit.

No significant impacts to adjacent marine waters are expected to occur from construction of the proposed action.

Suggested Mitigation:

Erosion Control and Sedimentation Control Plans (ECP) will be developed in coordination with the earthmoving permit. The permit will also require the contractor to adhere to certain best management practices (BMP) to minimize the potential for erosion and subsequent sedimentation into nearby marine waters. The BMP's will be included in the yet to be issued permit.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park

No part of the fishing platform extends below the MHWL, however earthmoving activities do occur adjacent to the shoreline. Therefore, all construction work will require erosion and sedimentation control measures as conditioned in the local permit.

Suggested Mitigation:

Erosion Control and Sedimentation Control Plans (ECP) will have to be developed in coordination with the earthmoving permit. The permit will also require the contractor to adhere to certain best management practices (BMP) to minimize the potential for erosion and subsequent sedimentation into nearby marine waters. The BMP's will be included in the yet to be issued permit.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.2.7 Floodplains

The project site lies within Zone VE that has a flood elevation of +10 feet (Figure 4). The fishing platform is simply a temporary venue for fishing activities and does not act as any type of residential structure.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line The engineering design of the fishing platform will have no effect on flood events or affect the integrity of the wave absorber. The structure also acts as a temporary venue for fishing activities only.

Suggested Mitigation: None needed.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park

The engineering design of the fishing platform will have no effect on flood events and acts only as a temporary venue for fishing activities. Unlike Alternative No. 1, the fishing platform would not overhang the wave absorber.

Suggested Mitigation: None needed.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.2.8 Wetlands

There are no wetlands present in the general area of the project site

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line No affect.

Suggested Mitigation: None.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park No affect.

Suggested Mitigation: None.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.2.9 Noise and Aesthetics

The construction footprint is relatively small. Noise will be associated with the use of dump trucks and back hoes and possible cranes; no pile driving activities will occur. Construction related noise is expected to be elevated above ambient within the immediate area during the time when excavation is ongoing. Ambient noises include vehicular cars/trucks and occasionally sports games being played in the adjacent arena.

Aesthetically, earthmoving activities will temporarily degrade the immediate area of where the fishing platform would be constructed. Once constructed the fishing platform will have a low profile and follow the shoreline.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line Noise levels will increase temporarily during construction of the fishing platform, however after it becomes operational, no noise will be generated from the structure and it will be compatible with other park activities.

Suggested Mitigation: None.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park

Noise levels will increase temporarily during construction of the fishing platform, however after it becomes operational, no noise will be generated from the structure and it will be compatible with other park activities.

Suggested Mitigation: None.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.3 BIOLOGICAL ENVIRONMENT

4.3.1 Wildlife Habitat Resources

4.3.1.1 Terrestrial Habitat

Construction activities (e.g., excavation of the support base) will remove the vegetation that is found within its footprint and will affect several coconut, pago, and banalo trees, as well as tangantangan saplings and various species of grasses. Vegetation growth within the impact area is included as a part of the normal maintenance of park landscaping. The vegetation that would be removed is urban landscaping; not wildlife habitat.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line No affect.

Suggested Mitigation: None. Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park No affect.

Suggested Mitigation: None.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.3.1.2 Marine Habitat

No components of the fishing platform are located below the MHWL. Potential impacts from surface water runoff from the construction site may occur, however specific mitigation measures addressing erosion issues will be included in the earthmoving permit that will be required for this project. In addition, any earth moving will be of short duration and is anticipated to displace only small amounts of soil and rubble. As much as practicable, the soil and rubble will be returned to its location and used to support the platform as appropriate.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line Minimal amounts of runoff and silt from construction and earthmoving activities of a short duration.

Suggested Mitigation:

Use of best management practices including erosion prevention curtains and suspended earthmoving during heavy periods of rain.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park No affect.

Suggested Mitigation:

Use of best management practices including erosion prevention curtains and suspended earthmoving during heavy periods of rain.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of

Guam fishing community members, including those with physical disabilities, to experience an improved and safe fishing venue.

4.3.2 Wildlife Resources

4.3.2.1 Terrestrial Wildlife Species

The urban landscaping that would be affected by construction activities do not support any native wildlife species. Removal of terrestrial wildlife species is not expected to occur as the platform will go over the wave-absorber area.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line No affect.

Suggested Mitigation:

A vermin control program should be implemented to identify the magnitude of any rodent problems.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park No affect.

Suggested Mitigation:

A vermin control program should be implemented to identify the magnitude of any rodent problems.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.3.2.2 Marine Wildlife Species

No components of the proposed fishing platform would be sited below the MHWL; therefore no direct physical impacts to marine resources are expected. Although there is a slight chance of surface water runoff affecting adjacent marine waters, mitigation measures that will be required by the local earthmoving permit will adequately address this issue. Construction related noise issues are likely to be insignificant as there are no

pile driving activities being proposed and the entrance channel is currently a noisy area with all the vessel traffic leaving and returning to Agana Boat Basin.

Excavation activities are relatively minor and would likely be conducted by a back hoe. Impacts from construction noise and vibration are not expected to be an issue. Pile driving will not be used as a construction method.

Erosion Control and Sedimentation Control Plans (ECP) will be developed in coordination with the earthmoving permit. The permit will also require the contractor to adhere to certain best management practices (BMP) to minimize the potential for erosion and subsequent sedimentation into nearby marine waters. The BMP's will be included in the yet to be issued permit.

Indirect effects from fishing activities from the platform are also not expected to adversely impact target and non-target stock populations. Primary fishing methods will be hook and line gear for coral reef ecosystem Management Unit Species considered to be in healthy stock conditions (M. Sabeter, WPFMC Coral Reef Ecosystem Scientist, pers. comm., March 2014).

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line Minimal impact due to construction noise and erosion or sedimentation.

Suggested Mitigation:

Erosion control curtains and suspension of earthmoving during periods of heavy rains.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park

Minimal impact due to construction noise and erosion or sedimentation.

Suggested Mitigation:

Minimal impact due to construction noise and erosion or sedimentation.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.3.3 Endangered/Threatened Species Occurring on Guam

There were no federally protected terrestrial or marine species recorded from the project site nor was quality habitat observed that would support any of these species. In addition, no designated or proposed critical habitat for these species overlays the project site area. Therefore the proposed action would not directly affect any federally listed wildlife or plant species.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line No affect.

Suggested Mitigation: None.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park No affect.

Suggested Mitigation: None.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.4 HUMAN ENVIRONMENT

4.4.1 Historical and Cultural Resources

Federal and local laws require that impacts to historical and culturally valuable resources be carefully considered prior to construction and that when appropriate, mitigation plans are adopted to properly safeguard these resources from unavoidable degradation and loss.

Even though the project site area (e.g., Paseo de Susana Park) was created by bulldozing the ruins of Agana Village into lagoon waters during World War I, there is still the chance that cultural or historical resources could be encountered during construction activities.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line No known impacts to cultural or historical resources would result from excavation of the base footing for the fishing platform.

Suggested Mitigation:

Develop monitoring and mitigation plans in close coordination with the Historic Resources Division of the Department of Parks and Recreation to ensure protection of historic and cultural resources.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park

No known impacts to cultural or historical resources resulting from the excavation of the base footing of the fishing platform.

Suggested Mitigation:

Develop monitoring and mitigation plans in close coordination with the Historic Resources Division of the Department of Parks and Recreation to ensure protection of historic and cultural resources.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.4.2 Socio-economics

Locating the fishing platform in the same area along the entrance channel that already is a well-known fishing area will minimize any social and economic unintended consequences. The vicinity of the fishing platform is also used for walking, family picnics and relaxing and thus, is compatible with recreational fishing activities. The proposed action will have a positive effect on the fishing communities as it will provide a safer venue for this popular past time. The fishing platform is not expected to negatively affect the local economy or the social interactions presently being practiced in the area.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line

Construction of the fishing platform is likely to have a positive effect on members of the fishing community as it will provide a safer venue for the fishers and their family.

Suggested Mitigation: None.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park

Construction of the fishing platform is likely to have a positive effect on members of the fishing community as it will provide a safer venue for the fishers and their family.

Suggested Mitigation: None.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.4.3 Land Use, Parks and Recreation

The proposed action is evaluated with respect to being compatible with existing land uses surrounding the project site. The Paseo de Susana Park is a community park that provides a venue for sports and family oriented events, such as baseball, canoeing, boating, fishing, picnicking, card/checkers games, jogging, and just relaxing. In addition, there are facilities that cater to the tourist industry (Chamorro Village) and businesses that provide island residents with fresh local seafood products (Guam Fisherman's Cooperative Association).

The proposed fishing platform is sited in an area that is actively used by the local fishing community. Unfortunately, the venue (e.g., wave absorber) is not a safe place to fish and is totally inaccessible for handicapped fishers. Therefore, the proposed action is not only is compatible with all other existing land uses found in Paseo de Susana Park, it will enhance the fishing experience by providing a safer environment to conduct such activities.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line The fishing platform is likely to provide a positive attribute to the current recreational activities being conducted at Paseo de Susana Park.

Suggested Mitigation: None.

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park

The fishing platform is likely to provide a positive attribute to the current recreational activities being conducted at Paseo de Susana Park. However, this shortened version of the preferred alternative is not expected to accommodate the number of fishers wanting to use the facility and use of the unsafe wave absorber as a fishing platform will likely be continued.

Suggested Mitigation:

None.

Alternative No. 3: No Action

The No Action Alternative would not affect the existing environmental conditions of the proposed project site. Additionally, this alternative will not meet the recreational needs of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.4.4 Infrastructure

The proposed fishing platform is evaluated with respect to the added burden the proposed action would have on Guam's infrastructure. The proposed fishing platform will not be connected to the island's power, potable water, or wastewater disposal. Therefore, no negative impacts to existing utility service levels are anticipated from this project.

Alternative No. 1 (Preferred Alternative): Construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line No affect.

Suggested Mitigation: None

Alternative No. 2: Construction of an approximate 300-Foot Fishing Platform over a Section of the Shore Line at Paseo de Susana Park No affect.

Suggested Mitigation: None

Alternative No. 3: No Action

The No Action Alternative would no significant effect on the existing government supplied infrastructure currently being provided to Paseo de Susana. Unfortunately, this alternative will not meet the recreational goals of Guam fishing community members, including those who are handicapped, to experience an improved and safe fishing venue.

4.5 CUMULATIVE IMPACTS

"Cumulative impact is 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 non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." (40 CFR 1508.7)

The Preferred Alternative would site a fishing platform at an existing popular fishing site in Paseo de Susana Park. Presently, many fishers use this section of the shoreline that includes the wave absorber, for fishing activities while picnicking with family or friends. There have been reports of people being hurt while walking on the boulder rip-rap. Despite the danger, the wave absorber structure continues to be used for fishing and occasionally as a playground for children. The existing fishing area, especially along the wave absorber, is not easily accessible to those who may be physically challenged, even with an adjacent parking lot.

The proposed action is not creating a new recreational sport where none existed before. It is transforming an existing unsafe fishing venue into a safer fishing area that will also be accessible by physically challenged island residents. The proposed action is likely to increase fishing activities at the site as access to deeper channel waters is more available.

No reasonable foreseeable future actions were identified that would lead to any additional increase of fishing access along the entrance channel.

The fishing platform will not substantially contribute to climate change as it does not involve changes to carbon emissions due to construction activities or from use by Guam residents. Impacts from climate change such as sea level rise could be mitigated from the construction of the platform as it will be located several feet above the wave absorber, thus providing a safe access area to Guam fishermen well above potential increased sea level heights. The proposed action will also not result in a change to Guam's inshore fishery that would affect climate change by substantially changing the consumption of energy or release of greenhouse gases by the fishery participants.

4.6 UNAVOIDABLE ADVERSE EFFECTS

Careful consideration was given to several important issues raised early by the USACE. Design plans were developed that addressed the need for the USACE to conduct annual inspections and future maintenance work on the wave absorber. In addition, the Preferred Alternative avoids any structures that may compromise the integrity of the wave absorber. And finally, all construction work was limited to upland areas above the MHWL to avoid impacting the marine environment. To the greatest possible extent, unavoidable adverse effects were minimized through modifications in the design plans and limiting construction activities above the MHWL.

4.7 IRRETRIEVABLE, IRREVERSIBLE COMMITMENT OF RESOURCES

Short term resource commitments would be required to construct the fishing platform. These resources would be in the areas of labor, materials and equipment. These construction related inputs would not threaten the long term viability or availability of important natural, institutional or other resources found at the project site.

4.8 RELATIONSHIP OF SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

The short-term commitment of resources associated with constructing the fishing platform would be considered beneficial when compared against the long term benefits of a safe venue for members of the fishing communities.

4.9 LIST OF APPLICABLE REGULATIONS

Construction of the proposed fishing platform adjacent to tidal waters would likely require compliance (or coordination) with the following regulations.

Federal Regulations

- Rivers and Harbors Act of 1899, Section 10 (33 US Code 403)
- Coastal Zone Management Act (CZMA) of 1972 (16 US Code 145 et seq.)
- National Historic Preservation Act of 1966 (US Code 470 et seq.)
- Endangered Species Act of 1973 (16 US Code 1531 et seq.)
- Fish and Wildlife Coordination Act (FWCA) (16 USCA §§ 661-668ee)
- Magnuson-Stevens Act; Essential Fish Habitat consultation

Government of Guam Regulations

- Guam Soil Erosion and Sediment Control Regulations
- Guam Seashore Protection Act
- Coastal Zone Management Act

4.10 PREFERRED ALTERNATIVE

The preferred alternative is the Proposed Action: construction of a 500-Foot <u>Cantilevered</u> Fishing Platform over a Portion of the Wave Absorber and Adjoining Shore Line. The features of this alternative meet or exceed the purpose and objectives identified for the proposed action when compared to either the No Action or other alternatives.

4.11 MITIGATION

The following environmental protection and mitigation measures are recommended to address potential impacts associated with the preferred alternative.

1. Erosion Control and Sedimentation Control Plans should be developed to minimize the potential for terrestrial runoff during the construction phase.

- 3. Implement dust suppression measures during construction, such as through water sprinkling.
- 4. An Archeological Monitoring and Discovery Plan should be developed in consultation with the DPR-HPO to address monitoring and reporting requirements during periods when significant earthwork will be conducted.

EFH consultation was finalized in an e-mail message dated 23 November 2012 from the Habitat Conservation Division (PIRO) to the Operations, Management and Information section (PIRO) (Appendix J). Mitigation recommendations based on the EFH consultation follow:

- 5. The Applicant/contractor ensure that site specific Best Management Practices (BMP's for controlling pollutant discharge into the marine environment are successfully implemented prior to the and during construction, and monitored regularly throughout the construction period. If BMP's are found to be ineffective and water quality limits are exceeded, construction should be halted and re-initiated only when water quality limits are reached, and BMP's adjusted to control the problem.
- 6. The Applicant/contractor research and incorporate the latest available postconstruction BMP's to trap pollutants and minimize and slow runoff/discharge into the marine environment in the long term. These measures might include: use of sediment traps and bio-swales; minimal use of non-permeable surfaces; and/or ensuring that rainfall on non-permeable surfaces drain to grassy areas to filter through the soil.
- 7. The Applicant considers posting signs on the platform that clarify the fishing regulations.
- 8. The Applicant make available trash cans and post signs on and near the platform to encourage platform users to discard of trash in the designated trash cans and not in the ocean.

CHAPTER FIVE LIST OF PREPARERS

In accordance with Section 1502.6 of the Council on Environmental Quality (CEQ) regulations, this EA was prepared by interdisciplinary professionals. Areas of expertise included environmental sciences, land use planning, and biology.

The principal preparer:

John Gourley, Principal Micronesian Environmental Services

Contributing preparer:

Eric Kingma NEPA Coordinator Western Pacific Regional Fishery Management Council

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CHAPTER SEVEN FIGURES AND PHOTOPLATES



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FINDING OF NO SIGNIFICANT IMPACT

Proposed Construction of an American Disabilities Act Compliant Fishing Platform at Paseo De Susana Park

Sustainable Fisheries Fund II Western Pacific Regional Fishery Management Council

April 9, 2014

Introduction

This Finding of No Significant Impact (FONSI) was prepared according to the guidelines established in National Marine Fisheries Service (NMFS) Instruction 30-124-1 (July 22, 2005) and the requirements set forth in National Oceanic and Atmospheric Administration (NOAA) Administrative Order 216-6 (NAO 216-6, May 20, 1999), concerning compliance with the National Environmental Policy Act (NEPA). This FONSI is supported by the environmental impact analysis prepared in accordance with the requirements of NEPA and documented in the attached environmental assessment (EA).

Background

The importance of fishing on Guam dates back thousands of years to its first inhabitants. Fishing on Guam is commonly practiced as it has cultural, recreational, subsistence, and commercial importance. The proposed project site is located within the Paseo de Susana Park complex in Hagatna, Guam. The specific location is along the shoreline adjacent to the entrance channel leading to the Agana Boat Basin (aka Gregorio D. Perez Marina). The Paseo de Susana is a popular public park complex used for sporting events, picnicking, fishing, tourism center (i.e., Chamorro Village), and various other recreational uses.

The area of the park complex bordering the entrance channel is a popular recreational fishing area for the local fishing community as it allows shoreline access to deeper waters. The shoreline consists of a section of eroding shoreline and a wave absorber. The wave absorber is a rock rip-rap structure that protects the shoreline from erosional forces and is considered a navigation structure that is owned and maintained by the U.S. Army Corps of Engineers (USACE). Fishers of all ages utilize the wave absorber at Paseo de Susana Park as a fishing platform. However, this structure is not a fishing-friendly venue, with uneven surfaces, gaps between rocks. There are several anecdotal accounts of people that have been hurt in the past from scrambling over the rip-rap to cast their lines. There is no wheelchair access or smooth pathway to the water's edge.



Due to this area being a highly used shoreline fishing location, which is uneven, rocky and does not provide an easy access to people with disabilities, there is a need for improving the accessibility and safety of recreational fishing activities in this area. Therefore, the purpose of the proposed action is to provide federal funding for the construction of a fishing platform at the Paseo de Susana Park to provide members of the local fishing community, including those with physical disabilities, with a safe area to conduct these activities. The proposed fishing platform is supported by Governor Calvo and the local government administration as well as the local fishing community.

Agencies Consulted, Approvals and Authorizations

The following Federal and Government of Guam agencies were consulted during the development of this EA:

- United States Army Corps of Engineers (USACE);
- Guam Department of Agriculture (DoA);
- Guam Department of Parks and Recreation (DPR);
- Port Authority of Guam (PAG);
- Division of Aquatic and Wildlife Resources (DAWR);
- Guam Bureau of Statistics and Plans (BOSP), Coastal Zone Management Program (CZM);
- Guam Department of Parks and Recreation, Historic Resources Division (HRD); and
- Guam Department of Land Management (DLM),

During agency coordination, a number of important issues were identified: platform design needs to accommodate the physically challenged members of the Guam fishing community, design plans will not compromise the integrity of the USACE wave absorber; design plans will allow easy viewing of the wave absorber during annual inspections by the USACE; and design plans will allow for easy removal of the fishing platform to allow USACE access for maintenance purposes.

Significance Analysis

NAO 216-6 contains criteria for determining the significance of the environmental impacts of a proposed action. In addition, the Council on Environmental Quality's (CEQ) regulations at 40 CFR 1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion listed below is relevant in making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria for the selected alternative.

1-2) Can the proposed action reasonably be expected to jeopardize the sustainability of any target and non-target species that may be affected by the action?

No. No adverse impacts to target and non-target species are expected to occur. Direct impacts from construction of the platform are not expected to occur. Best management practices during

construction will include erosion control measures. No part of the platform will be situated in the water. Indirect effects from fishing activities from the platform are also not expected to adversely impact target and non-target stock populations. Primary fishing methods will be hook and line gear for coral reef ecosystem Management Unit Species considered to be in healthy stock conditions.

3) Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in Fishery Management Plans?

No. This project does not involve any physical alteration to any ocean or coastal habitat, and minimal potential damage to EFH during construction activities. EFH consultation by NMFS PIRO was completed in November 2012, with accompanying mitigation recommendations.

4) Can the proposed action reasonably be expected to have a substantial adverse impact on public health or safety?

No. This project will enhance public health and safety by building a platform accessible to people including those with disabilities. Without the platform, fishermen fish from uneven rocky areas, with historical anecdotal accounts of injuries from scrambling over the existing rocky terrain. The proposed project will construct a platform that is cantilevered over the rocky terrain, minimizing potential injuries.

5) Can the proposed action reasonably be expected to adversely affect endangered or threatened species, marine mammals, or critical habitat of these species?

No. This project does not involve an alternation to critical habitat for any ESA-listed species nor will impact any ESA-listed species or other marine mammal species. NMFS PIRO has determined that the proposed fishing platform "may effect, but is not likely to adversely affect" green and hawksbill sea turtles. NMFS concluded that the preferred alternative would have insignificant impacts on green and hawksbill sea turtles (Consultation PIR-2012-9137).

6) Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

No. No parts of the fishing platform extend below the mean high water level, however small scale earthmoving activities will occur adjacent to the shoreline. Erosion Control and Sedimentation Control Plans (ECP) will be developed in coordination with the earthmoving permit. The permit will also require the contractor to adhere to certain best management practices (BMP) to minimize the potential for erosion and subsequent sedimentation into nearby marine waters.

7) Are significant social or economic impacts interrelated with natural or physical environmental effects?

No. There are no large or major social or economic impacts interrelated with any natural or physical environmental effects. The proposed fishing platform will provide increased safety and access for activities currently conducted.

8) Are the effects on the quality of the human environment likely to be highly controversial?

No. This project will have minor environmental impacts, of which none are believed to be controversial. In addition, this project is envisioned to have wide community support due to the traditional and socio-cultural importance of fishing on Guam.

9) Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?

No. The project will not result in impacts to unique or ecologically critical areas or any cultural or historic resources. The platform will be built over an existing wave absorber structure in an already developed recreational area.

10) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

No. The fishing gear (hand-thrown cast net) to be used in this project well known in the Western Pacific Region as this technique is a traditional indigenous fishing gear. In addition, the project involves University of Guam's aquaculture facility which has experience in rearing rabbitfish and other finfish. Rabbitfish aquaculture operations and best practices are well known.

11) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

No. The effects of the implementation of the proposed action, coupled with other past and present actions, and all reasonably foreseeable future actions, would likely be beneficial but would not significantly impact the environment. The proposed project does not result in cumulative adverse impacts when added to existing conditions facing target stocks, protected species, and fishery participants on Guam.

12) Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources?

No. The platform will be built over an existing wave absorber structure in an already developed recreational area, and will not cause loss or destruction of scientific, cultural, or historical resources. The proposed action is not the type of undertaking that would cause effect to historic properties, and we are unaware of any such properties in the action area. On February 21, 2013,

NOAA made a "no historic properties affected" determination pursuant to 36 CFR 800.4(d). The Guam State Historic Preservation Officer concurred in NOAA's finding on May 17, 2013.

13) Can the proposed action reasonably be expected to result in the introduction or spread of a nonindigenous species?

No. The proposed action does not involve the handling or introduction of any terrestrial or marine species. The platform will be constructed entirely above the mean high water mark.

14) Is the proposed action likely to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration?

No. The proposed action is limited to the project area and will not establish a precedent for future actions. Any new construction for additional platforms or additions to the planned 500 ft platform length will require additional environmental review.

15) Can the proposed action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

No. The proposed action complies with requirements of Federal and local Guam law.

16) Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

No. No cumulative adverse impacts to target and non-target species are expected to occur. Direct impacts from construction of the platform are not expected to occur. Best management practices during construction will include erosion control measures. No part of the platform will be situated in the water. Indirect effects from fishing activities from the platform are also not expected to adversely impact target and non-target stock populations. Primary fishing methods will be hook and line gear for coral reef ecosystem Management Unit Species considered to be in healthy stock conditions.

Other Findings

NMFS also considered the effects of the project on climate change and climate change impacts on the feasibility of the project. The proposed action is not believed to exacerbate any on-going or future climate change impacts or result in a change to Guam's inshore fishery that would affect climate change by substantially changing the consumption of energy or release of greenhouse gases by the fishery participants.

Determination

In view of the information presented in this document and the analysis contained in the supporting Environmental Assessment, I have determined that the proposed action will not significantly impact the quality of the human environment as described above and in the supporting EA. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an Environmental Impact Statement for this action is not necessary.

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Michael D. Tosatto Regional Administrator

<u>4/11/14</u> Date