GUAM COASTAL MANAGEMENT PROGRAM
ASSESSMENT FORMAT

DATE OF APPLICATION: 22 January 2021
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TITLE OF PROPOSED PROJECT: Terminal High Altitude Area Defense (THAAD) Additional Facilities and Infrastructure

COMPLETE FOLLOWING PAGES

FOR BUREAU OF STATISTICS AND PLANS ONLY:

DATE APPLICATION RECEIVED:
OCRM NOTIFIED: LIC. AGENCY NOTIFIED:
APPLICANT NOTIFIED: PUBLIC NOTICE GIVEN:
OTHER AGENCY REVIEW

REQUESTED:

DETERMINATION:
( ) CONSISTENT ( ) NON-CONSISTENT ( ) FURTHER INFORMATION REQUESTED

OCRM NOTIFIED: LIC. AGENCY NOTIFIED:
APPLICANT NOTIFIED:
ACTION LOG:
1.
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DATE REVIEW COMPLETED:

DEVELOPMENT POLICIES (DP):

DP 1. Shore Area Development

Intent: To ensure environmental and aesthetic compatibility of shore area land uses.

Policy: Only those uses shall be located within the Seashore Reserve which:
- enhance, are compatible with or do not generally detract from the surrounding coastal area's aesthetic and environmental quality and beach accessibility; or
- can demonstrate dependence on such a location and the lack of feasible alternative sites.

Discussion:

The project is not located within Guam's Seashore Reserve and does not involve use of shore areas.

DP 2. Urban Development

Intent: To cluster high impact uses such that coherent community design, function, infrastructure support and environmental compatibility are assured.

Policy: Commercial, multi-family, industrial and resort-hotel zone uses and uses requiring high levels of support facilities shall be concentrated within appropriate zone as outlined on the Guam Zoning Code.

Discussion:

The project does not involve uses such as commercial, multi-family, or resort-hotel uses. It will provide facilities and infrastructure to support an existing military use primarily on federally-owned land. There will be some new wastewater and electrical transmission infrastructure installed below grade in previously disturbed areas within non-Department of Defense (DoD) controlled roadway rights-of-way (ROW) in Routes 3 and 3A.

DP 3. Rural Development

Intent: To provide a development pattern compatible with environmental and infrastructure support suitability and which can permit traditional lifestyle patterns to continue to the extent practicable.

Policy: Rural districts shall be designated in which only low density residential and agricultural uses will be acceptable. Minimum lot size for these uses should be one-half acre until adequate infrastructure including functional sewering is provided.

Discussion:

The project does not involve new development in a rural district. Project components are located on a U.S. military installation, with some supporting infrastructure to be installed off-base in public ROWs.

DP 4. Major Facility Siting

Intent: To include the national interest in analyzing the siting proposals for major utilities, fuel and transport facilities.

Policy: In evaluating the consistency of proposed major facilities with the goals, policies, and standards of the Comprehensive Development and Coastal Management Plans, Guam shall recognize the national interest in the siting of such facilities, including those associated with electric power production and transmission, petroleum refining and transmission, port and air installations, solid waste disposal, sewage treatment, and major reservoir sites.

Discussion:

The project supports the national interest by improving the defense of the U.S. homeland through providing facilities and infrastructure needed to achieve 100 percent permanent system capabilities of the existing Terminal High Altitude Area Defense (THAAD) battery.

DP 5. Hazardous Areas

Intent: Development in hazardous areas will be governed by the degree of hazard and the land use regulations.

Policy: Identified hazardous lands, including flood plains, erosion-prone areas, air installations' crash and sound zones and major fault lines shall be developed only to the extent that such development does not pose unreasonable risks to the health, safety or welfare of the people of Guam, and complies with the land use regulations.

Discussion:

The project will continue an existing use and not involve new development in hazardous areas. According to Flood Insurance Rate Maps for the area, the project would be located within Zone X (Areas determined to be outside the 0.2 percent annual chance floodplain) (Flood Insurance Rate Map No. 6600010025D, Revised September 28, 2007).

The proposed THAAD improvements are not located in air installation crash or noise zones and would not pose unreasonable risks to the health, safety, or welfare of the people of Guam. Any permits or approvals required for the proposed off-base utilities infrastructure would be obtained, as needed.

DP 6. Housing

Intent: To promote efficient community design placed where the resources can support it.

Policy: The government shall encourage efficient design of residential areas, restrict such development in areas highly susceptible to natural and manmade hazards, and recognize the limitations of the island's resources to support historical patterns of residential development.

Discussion:

The project does not involve housing development.

DP 7. Transportation

Intent: To provide transportation systems while protecting potentially impacted resources.

Policy: Guam shall develop an efficient and safe transportation system, while limiting adverse environmental impacts on primary aquifers, beaches, estuaries, coral reefs and other coastal resources.

Discussion:

The project does not involve the construction of new public roadways. It would include construction of two access roadways within Andersen Air Force Base (AAFB) to connect the Maintenance Site with the Tactical Site and magazine area. There are no surface waters located near the areas proposed for alteration. A Program Stormwater Pollution Prevention Plan (SWPPP), site-specific SWPPP, and Environmental Protection Plan (EPP) will be prepared to comply with the project's Clean Water Act requirements. These plans require the use of potential construction best management practices (BMPs) to avoid or minimize off-site transport of sediment or other pollutants to receiving waters during project construction. Examples of typical BMPs include diversion dikes and swales, gravel/sandbag berms, and fiber rolls to control erosion and reduce runoff. No construction-associated runoff is expected to reach cliff edges or flow offshore.

The proposed detention basin will be designed based on principles of low impact design (LID) and would not increase stormwater runoff from the project site.

DP 8. Erosion and Siltation

Intent: To control development where erosion and siltation damage is likely to occur.

Policy: Development shall be limited in areas of 15% or greater slope by requiring strict compliance with erosion, sedimentation, and land use regulations, as well as other related land use guidelines for such areas.

Discussion:

The project's construction and operational activities would not be located in areas of 15 percent or greater slope. Construction activities would result in soil disturbance and the removal of vegetation, which could increase potential for short-term increases in stormwater runoff and erosion. As noted in DP.7 Transportation, the project would employ a SWPPP and EPP to avoid or minimize erosion and sedimentation resulting from construction activities and comply with the project's Clean Water Act requirements. The project will be implemented in compliance with all applicable erosion, sedimentation, and land use regulations. The permanent storm drainage system would be designed in accordance with the Commonwealth of the Northern Mariana Islands and Guam Stormwater Management Manual and LID features would be provided on-site to filter runoff water.

RESOURCES POLICIES (RP):

RP 1. Air Quality

Intent: To control activities to insure good air quality.

Policy: All activities and uses shall comply with all local air pollution regulations and all appropriate Federal air quality standards in order to ensure the maintenance of Guam's relatively high air quality.

Discussion:

Short-term, direct and indirect, adverse effects on air quality would occur from the site preparation and construction activities associated with the project. Site preparation and construction activities would generate air pollutant emissions from site-disturbing and the operation of construction equipment. Fugitive dust emissions would result from ground-disturbing activities and from the combustion of fuels in construction equipment. Site improvement activities would incorporate BMPs to minimize fugitive particulate matter emissions. Additionally, work vehicles are assumed to be well-maintained and might use diesel particulate filters to reduce particulate matter emissions. Construction workers commuting daily to and from the job site in their personal vehicles would also generate regulated pollutant air emissions.

The region of Guam where the Proposed Action would occur is designated attainment/unclassifiable for all criteria pollutants. Because the General Conformity Rule applies only to significant Federal actions in non-attainment or maintenance areas, it is not applicable to the Proposed Action. Therefore, neither an applicability analysis nor a general conformity determination is required. Emissions would fall under the existing AAFB Title V permit.

In summary, the project would comply with applicable Federal and Guam air emission regulatory requirements, including Guam's State Implementation Plan, and would not result in significant impacts to air quality.

RP 2. Water Quality

Intent: To control activities that may degrade Guam's drinking, recreational, and ecologically sensitive waters.

Policy: Safe drinking water shall be assured and aquatic recreation sites shall be protected through the regulation of uses and discharges that pose a pollution threat to Guam's waters, particularly in estuaries, reef and aquifer areas.

Discussion:

Drinking Water. The project area overlies the Northern Guam Lens Aquifer (NGLA). The NGLA has been designated by the U.S. Environmental Protection Agency as a Sole Source Aquifer under the Safe Drinking Water Act. It supplies drinking water to at least 50 percent of the area residents. Groundwater

is encountered at around sea level, which averages about 500 feet below the ground surface under the limestone plateau upon which most of AAFB sits. Overall, the groundwater quality within the NGLA is considered good, but it is vulnerable to contamination from chlorides due to over pumping the aquifer at production wells. To prevent potential pollution and contamination of the groundwater from stormwater, AAFB has implemented a SWPPP. The proposed THAAD water production well will be carefully managed to avoid chloride intrusion and its operation will comply with well drilling and operating permits to be obtained from the Guam Environmental Protection Agency (Guam EPA). The location of the proposed stormwater detention basin is over 1,000 feet from the proposed potable water well and would comply with wellhead protection guidelines for the well.

Because stormwater percolates rapidly in the AAFB limestone karst bedrock, potential fuel or hazardous materials leaks from construction vehicles and equipment could have adverse effects on groundwater due to rapid infiltration. The construction contractor would be required to ensure their vehicles and equipment are in good operating condition and comply with BMPs to prevent or minimize accidental releases. Typical BMPs include equipping all vehicles with on-board spill containment kits, parking on paved surfaces where possible, and placing drip pans beneath parked vehicles. Should a spill occur, the contractor would follow the AAFB Oil and Hazardous Substance Contingency Plan, and implement the Guam EPA Spill Prevention Control Countermeasure Program. The project would be implemented in compliance with the SWPPPs and EPP to address site- and activity-specific water resource protection requirements. Therefore, there would be a reduction in stormwater pollutant loading potential and a corresponding reduction in pollution loading potential to the groundwater basin underlying AAFB's Northwest Field.

Following construction, operations would consist of vehicles moving on paved surfaces within the site, storing and fueling the generators, vehicle washing and maintenance, storage and use of small quantities of hazardous materials, and storage and use of coolant, petroleum, oil, and lubricants. Hazardous materials include flammable and combustible liquids that would be stored in the Hazardous Materials Storage Buildings in accordance with National Fire Protection Association (NFPA) 30 and NFPA 400 with containment systems. The quantities of hazardous materials used would not change from what was analyzed in the 2017 THAAD Environmental Assessment/Finding of No significant Impact, and included in the 2015 THAAD Coastal Zone Management Consistency Determination, but the new hazardous storage buildings would provide additional protection from leaks and spills.

The fueling system for the on-site backup power plant includes an aboveground, double wall storage tank located outside connected to a double wall day tank located within the generator building. The outdoor fuel tank would include a double wall steel tank with a reinforced concrete-encasement to minimize the clearance requirements between the tank and a building. Underground fuel supply and return piping would be double-wall type with leak detection system. Fuel piping would connect the main fuel tank with a day tank for the generator. Leak detection system with fuel level alarms would be provided for the fuel tank, day tank and fuel piping.

The maintenance building and wash rack would have oil-water separators installed and would discharge to the sewage system, thus preventing discharges to stormwater.

The paved surfaces and stormwater detention basin would avoid mobilization of soil in runoff into surface and groundwater. THAAD personnel operating the vehicles would comply with the AAFB Spill Prevention, Control, and Countermeasure Plan to avoid and minimize the impacts of accidental releases of fuel from the transport vehicles.

Recreational and Ecologically Sensitive Waters. There are no surface waters (including recreational or ecologically sensitive waters) located within or near the project construction area. Construction activities associated with the project would involve vegetation removal and soil disturbance. Through implementation of the BMPs required in the SWPPP and EPP (e.g., diversion dikes and swales, gravel/sandbag berms, and fiber rolls to control erosion and reduce runoff), off-site transport of stormwater runoff, sediment, or other pollutants would be unlikely. Construction-associated runoff is not expected to reach cliff edges or flow offshore.

Given the use of stormwater protection measures and BMPs to minimize soil transport and accidental release of hazardous materials during construction, the incorporation of stormwater management in project design and construction, and compliance with the AAFB Spill Prevention, Control, and Countermeasure Plan during operations, the project would not result in significant impacts to water resources.

RP 3. Fragile Areas

Intent: To protect significant cultural areas, and natural marine and terrestrial wildlife and plant habitats.

Policy: Development in the following types of fragile areas including Guam's Marine Protected Areas (MPA) shall be regulated to protect their unique character.

- historical and archeological sites
- wildlife habitats
- pristine marine and terrestrial communities
- limestone forests
- mangrove stands and other wetlands
- coral reefs

Discussion:

Historical and Archaeological Sites.
In October 2016, the U.S. Army and the Guam State Historic Preservation Officer (SHPO) signed a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) regarding the THAAD Permanent Stationing at NWF, AAFB. In accordance with the MOA, an archaeological survey was conducted of the proposed THAAD project area, and the report detailing this work was submitted to the SHPO on October 30, 2020. On November 13, 2020, the SHPO responded with a letter requesting revisions to the archaeological survey report. The Navy is currently completing the requested revisions and will resubmit the report to the SHPO.

The THAAD permanency project would impact an archaeological site (Site TR-2, a buried archaeological deposit with a low density of Latte Period ceramic sherds) and small portions of Sites 66-08-2733 and -2735 (continuous surface scatter sites with Latte Period ceramic sherds and post-1944 artifacts), which are considered eligible for National Register of Historic Places (NRHP) listing. Adverse effects could be mitigated by pre-construction data recovery and archaeological monitoring during construction at Site TR-2 and through monitoring at Sites 66-08-2733 and 66-08-2735. Per Stipulation 2.b.iii. of the MOA these recommendations will be negotiated with SHPO during the development of the Treatment Plan.

Wetlands and Marine Resources. The project does not include development in wetlands, mangrove stands, coral reefs, or pristine marine communities. Impacts of the construction and operation of the proposed THAAD permanency facilities (e.g., off-site sedimentation or water quality impacts) have very low potential to reach the nearest wetland, mangrove stand, coral reef, or coastline due to the implementation of the SWPPP and EPP.

Vegetation and Wildlife Habitats. The proposed THAAD permanency infrastructure would impact about 11.5 acres of existing vegetation, or approximately 1/10 of one percent of the vegetated area within AAFB. Except for about 0.5 acres of Limestone Native Forest, the remaining 11 acres to be cleared are either degraded native forest (7.3 acres of limestone degraded and 0.1 acres of Casuarina forest) or non-native forest/other (2.5 acres of Vitex forest and 1.1 acres of other shrub/grassland). None of these communities are uncommon on AAFB with the exception of the Casuarina forest, which is mainly found in stands growing in previously cleared areas around the Northwest Field runway and is considered a degraded forest since it does not support much understory growth or diversity. Short-term adverse effects to vegetation (during construction) and long-term adverse effects (those lasting into post construction phase) would be expected in the cleared areas.

Proposed construction activities would remove wildlife habitat, as described above. Existing wildlife habitat is fragmented due to previous activities and consists mostly of degraded or non-native communities. Construction would result in minor long-term impacts to terrestrial wildlife as a result of the loss of native limestone forest habitat and degraded forest habitats. Short-term minor adverse effects to wildlife would be expected as a result of construction activity and noise. Ground disturbance and noise from vehicle use or construction is likely to temporarily cause foraging or resting Migratory Bird Treaty Act (MBTA)-protected birds and fruit bats to avoid the area. Nest surveys for MBTA-protected birds would be conducted prior to construction. Active nests would be left undisturbed until chicks have fledged.

One threatened species currently occurs within the study area of the Preferred Alternative, the documented Cycas micronesica. The threatened Mariana fruit bat (*Pteropus mariannus mariannus*) is transient and may also occasionally occur within the study area. In accordance with Section 7 of the Endangered Species Act (ESA) the Navy consulted with the U. S. Fish and Wildlife Service (USFWS) on a determination that the Preferred Alternative may affect, and is likely to adversely affect cycads (*Cycas micronesica*) and that the Preferred Alternative may affect, but is not likely to adversely affect the Marianas Fruit Bat with the implementation of a range of best management practices and conservation measures. On December 18, 2020, the USFWS issued a Biological Opinion reflecting these findings.

Cycas micronesica

The Proposed Action would include direct effects to nine cycads located within the construction footprint. To mitigate direct impacts to the nine individuals identified, conservation measures will be implemented including salvaging, propagating, and transplanting healthy pups and out-planting seeds. An additional 26 cycads are located within a 33-foot (10-meter) survey buffer from the construction footprint. BMPs will be implemented to avoid and minimize potential effects to these individuals including, contractor education about the cycads, clearly marking the construction boundaries, flagging the cycads within 10 feet (3m) of the construction perimeter, and installation of erosion control devices and dust screens.

Mariana fruit bat (*Pteropus mariannus mariannus*)
The Proposed Action may include direct consequences on Mariana fruit bats due to potential audible noise from construction activities (e.g. heavy equipment operation and use). Solitary bats are known to occur in the areas surrounding the action area; therefore, daily surveys will be completed prior to the start of construction activities to confirm no bats are in the action area. A qualified biologist will provide Mariana fruit bat identification training to contracted individuals. During construction activities, if a fruit bat is observed within 492 feet (150 meters) of the project site, all work will be postponed or halted and will only begin/resume after the bat(s) have voluntarily departed the area.

RP 4. Living Marine Resources

Intent: To protect marine resources in Guam's waters.

Policy: All living resources within the waters of Guam, particularly fish, shall be protected from over harvesting and, in the case of corals, sea turtles and marine mammals, from any taking whatsoever.

Discussion:

The project does not involve harvesting any living marine resources in Guam's waters, and would not directly impact living marine resources such as fish, corals, sea turtles, and marine mammals. Along with the distance from the project area to any coastline or surface water resources, employment of BMPs, and compliance with the SWPPP and EPP would avoid or minimize the potential for pollutants or sediments generated by the construction or operation of the project to reach marine waters surrounding AAFB.

RP 5. Visual Quality

Intent: To protect the quality of Guam's natural scenic beauty

Policy: Preservation and enhancement of, and respect for the island's scenic resources shall be encouraged through increased enforcement of and compliance with sign, litter, zoning, subdivision, building and related land-use laws. Visually objectionable uses shall be located to the maximum extent practicable so as not to degrade significant views from scenic overlooks, highways and trails.

Discussion:

With the exception of a proposed underground trunk sewer line and electrical lines, the areas affected by the project are not visible from any public roadway and none of the above-ground improvements would impact Guam's scenic resources. Proposed off-base utilities infrastructure would be located below grade and would not impact any significant viewplanes or visual resources.

RP6. Recreation Areas

Intent: To encourage environmentally compatible recreational development.

Policy: The Government of Guam shall encourage development of varied types of recreational facilities located and maintained so as to be compatible with the surrounding environment and land uses, adequately serve community centers and urban areas and protect beaches and such passive recreational areas as wildlife, marine conservation and marine protected areas, scenic overlooks, parks, and historical sites.

Developments, activities and uses shall comply with the Guam Recreational Water Use Management Plan (RWUMP).

Discussion:

The project does not involve development of recreational facilities. It would not impede or otherwise affect Guam's existing recreational areas or facilities.

RP 7. Public Access

Intent: To ensure the right of public access.

Policy: The public's right of unrestricted access shall be ensured to all non-federally owned beach areas and all Guam recreation areas, parks, scenic overlooks, designated conservation areas and their public lands. Agreements shall be encouraged with the owners of private and federal property for the provision of releasable access to and use of resources of public nature located on such land.

Discussion:

With the exception of proposed off-base wastewater and electrical transmission infrastructure, the project area is located in a secured area within an operational military installation. Implementation of the project would not affect public access to public beaches or other recreation areas.

RP 8. Agricultural Lands

Intent: To stop urban types of development on agricultural land.

Policy: Critical agricultural land shall be preserved and maintained for agricultural use.

Discussion:

The project is not located on agricultural lands.

FEDERAL CONSISTENCY
SUPPLEMENTAL INFORMATION FORM

Date: 22 January 2021

Project/Activity Title or Description: Terminal High Altitude Area Defense (THAAD) Additional Facilities and Infrastructure

Location: Northwest Field, Andersen Air Force Base, Guam

Other applicable area(s) affected, if appropriate: _____

Est. Start Date: April 2023 Est. Duration: Two years for construction

APPLICANT

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CATEGORY OF APPLICATION (check one only)

(x) I - Federal Agency Activity
( ) II - Federal Permit or License
( ) III - Federal Grants & Assistance

TYPE OF STATEMENT (check one only) (x)

(x) Consistency
( ) General Consistency (Category I only)
( ) Negative Determination (Category I only) ( )
Non-Consistency (Category I only)

APPROVING FEDERAL AGENCY (Categories II & III only)

Agency _____

Contact Person _____

Telephone No. during business hours:

Area Code ( )_____
Area Code ( )_____

FEDERAL AUTHORITY FOR ACTIVITY

Title of Law_____
Section _____

OTHER GUAM APPROVALS REQUIRED:

Agency	Type of Approval	Date of Application	Status
U.S. Fish and Wildlife Service (USFWS)	Completion of Endangered Species Act (ESA) Section 7 Consultation	14 Aug 2020	Final Biological Opinion from USFWS Issued on 18 Dec 2020
U.S. Environmental Protection Agency (USEPA)	Air permits for generators	Pending	Pending submittal of applications
Guam Historic Preservation Office (GHPO)	Completion of National Historic Preservation Act (NHPA) Section 106 Consultation	30 Oct 2020	Consultation with GHPO is ongoing.
Guam Environmental Protection Agency (GEPA)	Air permits for generators	Pending	Pending submittal of applications
	Stormwater management permitting/plan approval	Pending	Pending submittal of applications