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GUAM COASTAL MANAGEMENT PROGRAM ASSESSMENT

DATE OF APPLICATION: 21 July 2023

NAME OF APPLICANT: U.S. Army Corps of Engineers (USACE), Honolulu District

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TITLE OF PROPOSED PROJECT: East Hagatna Emergency Shoreline Protection

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. _____
2. _____
3. _____
4. _____
5. _____
6. _____

DATE REVIEW COMPLETED: _____

FEDERAL CONSISTENCY SUPPLEMENTAL INFORMATION FORM

Date: 13 July 2023

Project/Activity Title or Description: East Hagatna Emergency Shoreline Protection

The Recommended Plan is the replacement of 2,100 feet of seawall from (east end) 13.480339N, 144.768446E to (west end) 13.478478N, 144.762843E with a Rock Revetment (Figures 1 and 2) which would extend 17 feet toward the ocean from the crest of the existing seawall. The toe of the revetment would be anchored in the limestone. The revetment installation would begin with construction at the toe (-2.5 ft. MSL) and up to the crest elevation (+9ft. MSL), just 1 foot above the current highest point of 8 feet (Figure 2). The present assumption is the revetment could be constructed from the land during low tide without operating from the beach or marine waters. To seat the toe a small trench will need to be dug into the underlying limestone. The footprint provided for the revetment in Figure 1 shows the maximum extent that could be needed for construction. The footprint of the finished revetment is estimated to be 0.82 acres (ac). The direct in-water footprint will vary along the project length with the existing shoreline. Excavation, grading, structure demolition, tree and foliage removal, staging, and upland buffer areas are expected to increase the total project footprint to 1.45 ac.



Figure 1: Proposed Project Area: The proposed active construction and staging area (COSA) along South Marine Corps Drive are indicated in black. Redline indicates mean lower low water (MLLW), green line indicates mean sea level (MSL), blue line indicates mean higher high water (MHHW). USACE, 2022.

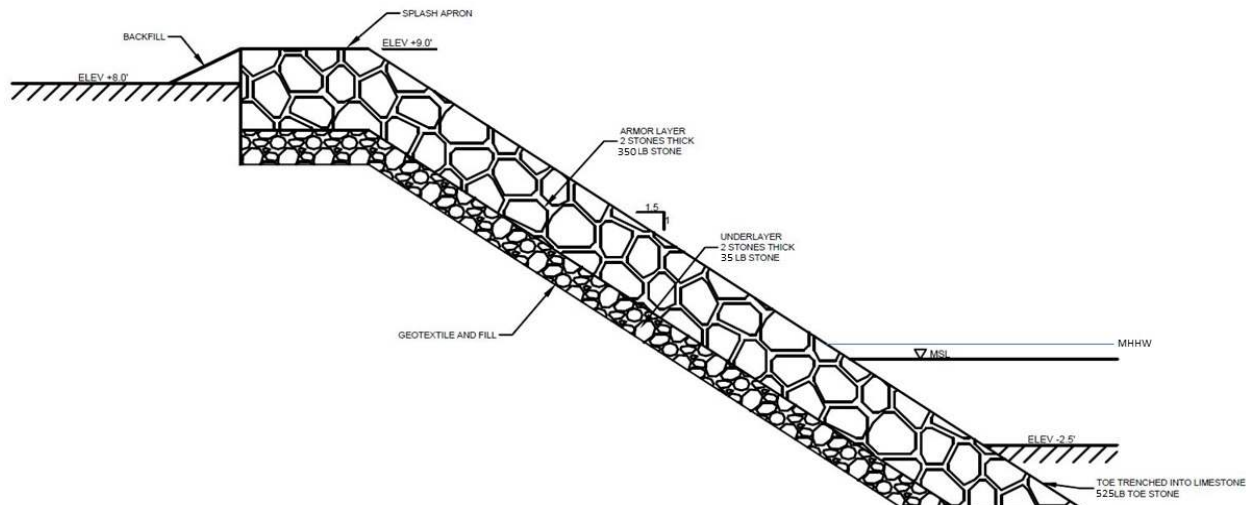


Figure 2: Rock revetment cross section, showing where MSL and MHHW will potentially intersect with the structure. USACE, 2022.

The revetment is comprised of compacted fill as the foundation and base grade, a geotextile filter fabric, a double layer of underlayer stone, a double layer of armor stone, and anchoring by an oversized toe stone. Depending on the cost and local availability of material, this revetment could be capped with either a two-stone armor layer or pre-cast concrete armor units. This design will meet USACE coastal engineering criteria for expected design life and adaptability to RSLC. The expected design life of this system (assuming proper installation and routine maintenance) is on the order of 50 years.

Trinchera Beach extends along approximately 3,400 feet of the East Hagatna shoreline (USACE 1993). The beach material is fine calcareous sand with extensive coral rubble, gravel, and marine debris which varies in width from 15 feet toward the eastern end of the project extent, to no beach at all along Veteran's Sunset Beach Park (PDT 2022). The project will replace approximately 0.82 acres of this shoreline habitat with a rock revetment. The direct in-water footprint will vary along the project length.

Note: The Corps is releasing an Integrated Feasibility Report and Environmental Assessment (IFR/EA) for public and agency comment on July 25, 2023. Content in that document is referenced in this assessment. Your agency will be notified by email of the availability of the IFR/EA for review and will be accessible online.

Location: 2100 linear feet of existing sea wall from (east end) 13.480339N, 144.768446E to (west end) 13.478478N, 144.762843E along South Marine Corps Drive

Other applicable area(s) affected, if appropriate:

Up to 17 feet seaward of the wall and 30 feet upland of the wall for the 2100 foot length, see Figure 1

Est. Start Date: 2026 Est. Duration: 12 months

APPLICANT

Name & Title Marian Dean, Environmental Planner

Agency/Organization: U. S. Army Corps of Engineers, Honolulu District

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AGENT

Name & Title _____

Agency/Organization Address _____ Zip Code _____

Telephone No. during business hours:

A/C () _____

A/C () _____

Fax () _____

E-mail Address: _____

CATEGORY OF APPLICATION (check one only)

☒ I - Federal Agency Activity

☐ II - Federal Permit or License

☐ III - Federal Grants & Assistance

TYPE OF STATEMENT (check one only)

☒ 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 The 1946 Flood Control Act, as amended (33 USC 701r) for Emergency Shoreline Protection under the Continuing Authorities Program

Section Section 14

OTHER GUAM APPROVALS REQUIRED:

Date of	Agency	Type of Approval	Application Status
2025	Guam EPA	Clean Water Act Section 401 Water Quality Certification	To be submitted during Preconstruction Engineering & Design in 2024 and before start of construction in 2026

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: Consistent. The proposed project is located within the Seashore Reserve and is necessary to reduce beach erosion and coastal storm risk along the East Hagatna shoreline. An existing seawall, protecting South Marine Corps Drive and associated landside infrastructure, is in need of repair. The Recommended Plan proposes to replace the damaged seawall to restore protection to the existing development ensures the environmental and aesthetic compatibility of shore area land uses. The Recommended Plan must occur within the Seashore Reserve because that is the location of the current seawall and relocating South Marine Corps Drive is not possible within funding and authorization constraints. The Recommended Plan replaces all or part of the existing seawall and therefore ensures environmental and aesthetic compatibility of the existing shore area land uses.

See Section 2 of the East Hagatna Emergency Shoreline Protection IFR/EA for more information about the existing shoreline and Section 4 for more information on the potential project effects on the shoreline.

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: Consistent. The project occurs in the already developed urban area of Tamuning, just east of Hagatna. A seawall already exists in the Shore Area as protection for the beach parks, South Marine Corps Drive, and associated infrastructure. This project is a replacement of the existing damaged seawall to provide increased protection to the existing development.

See section 2.3.1 of the East Hagatna Emergency Shoreline Protection IFR/EA for more information about the existing land use and section 4.3.1 for more information on the potential project effects on land use.

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 sewerage is provided.

Discussion: Not Applicable. The project occurs in the already developed urban area of East Hagatna. The project area does not have rural land use designation.

See section 2.3.1 of the East Hagatna Emergency Shoreline Protection IFR/EA for more information about the existing land use and section 4.3.1 for more information on the potential project effects on land use.

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: Not Applicable. The project is a seawall replacement and does not meet the definition of a major facility.

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: Consistent. The project area is identified as a coastal high hazard flood zone (Zone VE - 1% Annual Chance Flood Hazard) in the FEMA Flood Insurance Rate Maps. The proposed project is water dependent and in order to reduce beach erosion and coastal storm risk, the locale in direct proximity to the waterline is necessary. Project activities within the flood zone would comply with all applicable laws and regulations. The project is not located in geologically unstable zones, such as cliff lines or severe slopes. The construction of the proposed project would reduce the risk to human life and safety and facilitate floodplain management.

See section 2.1 of the East Hagatna Emergency Shoreline Protection IFR/EA for more information about the existing physical environment and section 4.1 for more information on the potential project effects on the physical environment.

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: Not Applicable. The project is a seawall replacement and does not include housing.

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: Consistent. The project protects potentially impacted transportation resources. The project is the replacement of an existing seawall providing protection to South Marine Corps Drive and other existing infrastructure. While construction of the rock revetment will have temporary effects on the nearshore marine environment during construction, best management practices will be used to minimize temporary effects to the maximum extent practicable and to ensure no lasting effects to coastal resources of Hagatna Bay. The protection of South Marine Corps Drive will also avoid the need to build additional transportation corridors to replace it.

See section 2 of the East Hagatna Emergency Shoreline Protection IFR/EA for more information about the existing coastal resources and section 4 for more information on the potential project effects on the coastal environment.

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: Consistent. The proposed project is water dependent and in order to reduce beach erosion and coastal storm risk, the locale in direct proximity to the waterline is necessary. The project is replacement of an existing seawall providing protection to South Marine Corps Drive and other existing infrastructure. While construction of the rock revetment will have temporary minimal effects on the nearshore marine environment during construction, best management practices will be used to minimize temporary effects such as elevated turbidity to the maximum extent practicable and to ensure no lasting effects to Hagatna Bay.

See section 2.1 of the East Hagatna Emergency Shoreline Protection IFR/EA for more information about the existing physical environment, section 4.1 for more information on the potential project effects on the physical habitat, and Attachment 6 of Appendix 3 for best management practices to be used to minimize effects.

RESOURCES POLICIES (RP):

RP 1. Air Quality

Intent: To control activities to ensure 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: Consistent. The proposed project would comply with all air and water quality laws, including the implementation of BMPs. Construction vehicles would be operated in accordance with the provisions of the Clean Air Act. The proposed action would not include the

disposal of any hazardous substances into the air or other media.

See section 4.1.2 of the East Hagatna Emergency Shoreline Protection IFR/EA for more information on the potential project effects on air quality, section 4.1.5 for potential effects on water quality, Attachment 6 of Appendix 3 for best management practices to be used to minimize effects and Section 3 of Appendix 3 for discussion of project compliance with the Clean Water Act and Clean Air Act.

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: The proposed project is water dependent and in order to reduce beach erosion and coastal storm risk, the locale in direct proximity to the waterline is necessary. Construction would strictly comply with erosion, sedimentation, and related land and water use districting guidelines, as well other related land and water use policies. USACE would operate in accordance with the provisions of the Clean Water Act and all other local and Federal policies governing water pollution. The proposed action would not include the disposal of any hazardous substances into the water or other media. BMPs would be in place to minimize the accidental release of materials into the waterways. A Clean Water Act (CWA) 404(b)(1) analysis can be found in Appendix 3 of the IFR/EA. The Rock Revetment would temporarily impact approximately 1 acre below the MHHW line, which represents the jurisdictional boundary of the CWA. Avoidance, minimization, and conservation measures established by the Permit and IFR/EA would be implemented to reduce effects to water quality (see Attachment 6 of Appendix 3 for detailed mitigation strategies). Since the total disturbance would be greater than one acre, the contractor would be required to obtain a Construction General Permit (Section 402 of the CWA, 33 U.S.C. § 1342; 40 C.F.R. § 122.26), implement stormwater controls, and prepare a Stormwater Pollution Prevention Plan (SWPPP) to minimize the amount of sediment and other pollutants associated with construction sites from being discharged in stormwater runoff. Temporary erosion control BMPs would be used, such as straw wattles, silt curtains, or erosion matting to prevent sediment runoff into the bay. The proposed project would comply with all air and water quality laws, including the implementation of BMPs. Construction vehicles would be operated in accordance with the provisions of the Clean Air Act. The proposed action would not include the disposal of any hazardous substances into the air or other media. The project would comply with all appropriate Federal and local policies to ensure that subsurface work would have no impact on groundwater. The proposed project does not include the drilling or operation of wells.

See section 2.1.5 of the East Hagatna Emergency Shoreline Protection IFR/EA for more information about the existing water quality, section 4.1.5 for more information on potential project impacts on water quality; sections 2.1.3 and 2.1.4 for hydrology, hydraulics, and geomorphology of the area; section 2.1.2 for air quality; Attachment 6 of Appendix 3 for avoidance and minimization mitigation implementation, and Section 3 of Appendix 3 for discussion of project compliance with the Clean Water Act and Clean Air Act.

RP 3. Fragile Area

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: Consistent. The proposed project does not occur in an MPA, pristine marine and terrestrial communities, limestone forests, mangrove stands, other wetlands or coral reefs.

No known historic properties have formally been reported within the Area of Potential Effect (APE) at this time; however, consultation has identified at least one burial within the APE and there is a likelihood that subsurface cultural resources and/or other burials exist that could be impacted by construction along the shoreline. Consultation with the Guam State Archaeologist identified additional cultural resources and burial locations that have not yet been formally reported (J. M. Joseph, pers. comm. 2022). USACE has therefore proposed to conduct a phased identification and evaluation effort pursuant to 36 CFR § 800.4(b)(2) and to develop a Memorandum of Agreement (MOA) in accordance with 36 CFR § 800.6 that will identify actions to minimize or mitigate significant impacts as required. The project will be developed in compliance with Section 106, NHPA. See section 4.5 of the East Hagatna Emergency Shoreline Protection IFR/EA for more information on potential project impacts to cultural, historic, and archeological resources.

The project is water dependent and in order to reduce beach erosion and coastal storm risk, the locale in direct proximity to the waterline is necessary. Since the coral reef lies approximately 100 yards offshore, the proposed activities would not take place within or near reefs. There would be no direct negative effect on living marine resources. There would be no change to water flow, nutrient levels, or other natural processes that would in turn impact the reefs. Standard best management practices (BMPs) would be used during construction to prevent siltation in the lagoon. Standard BMPs would be used as necessary during construction to minimize effects.

The project area is on public land with no residential dwellings. The proposed project would be built on a sandy shoreline next to a pre-existing structure (a pedestrian walkway). Standard avoidance, minimization, and conservation measures such as a pre-construction surveys would be used to avoid any significant impact to wildlife. This proposed project is designed to prevent shoreline erosion.

See section 4 of the East Hagatna Emergency Shoreline Protection IFR/EA for more information on potential project impacts affecting the hydrology, hydraulics, and geomorphology of the area, including potential effects to the island shoreline. For more information on potential effects to coral reefs, refer to section 4.2 in the East Hagatna Emergency Shoreline Protection IFR/EA.

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: Consistent. The proposed project would take place in accordance with the requirements of the Endangered Species Act, the Fish and Wildlife Coordination Act, Clean Water Act, National Environmental Policy Act and the Essential Fish Habitat Provisions of the Magnuson Stevens Act. The proposed project would not result in the degradation of wildlife habitat or harm the function or integrity of the reefs or seagrass beds in Hagatna Bay. The East Hagatna Emergency Shoreline Protection IFR/EA further discusses potential effects to federally protected natural resources, as well as avoidance and minimization measures to reduce these effects. No part of the project would involve the take or collection of fish, marine mammals, or Guam listed species for any purpose. No part of the proposed project would be perceptible to fish, marine mammals, or species on the Guam endangered species list, or otherwise significantly affect their behavior or the quality of their habitat.

See section 4.2 of the East Hagatna Emergency Shoreline Protection IFR/EA for more information on potential project impacts to marine habitat and species, and special-status species. See Attachment 6 of Appendix 3 for discussion of mitigation measures that would minimize many adverse environmental impacts.

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: Consistent. The proposed project would preserve the scenic resources of the Commonwealth, and would be in compliance with sign, litter, zoning, building codes, and related land use laws. The proposed seawall would raise the height of the existing seawall by 1 foot to ensure adequate structural integrity and in consideration of climate change. The minor change in elevation would not obstruct or degrade scenic views.

See section 4.5.3 of the East Hagatna Emergency Shoreline Protection IFR/EA for more information on potential project effects to aesthetics and 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: Consistent. The proposed activities would allow recreational and subsistence usage and includes the incorporation of maintaining existing access to the beach. The rock revetment would reduce the risk of shoreline erosion from harming the Bay and reefs. There

would be no significant effects to the Bay or reefs from either alternative. The sea grass beds off the shore would be preserved and the quality and value of the beds would not be degraded. Standard best management practices (BMPs) would be used during construction to prevent siltation in the bay. There would be no effect on areas of historical and cultural significance.

The proposed project would not preclude or inhibit the development or enhancement of recreational facilities compatible with the surrounding environment. The project would protect the recreational infrastructure along South Marine Corps Drive.

See section 4.2 of the East Hagatna Emergency Shoreline Protection IFR/EA for more information on effects to marine resources.

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: Consistent. Means of Public Access to the shoreline are part of the Project Design and neither proposed alternative would disrupt existing public access. Public Access may be temporarily impacted during construction but would not be permanently interrupted or otherwise affected by the proposed federal action. The proposed wall is designed at a slope to allow walking along its surface.

See section 4.3 of the East Hagatna Emergency Shoreline Protection IFR/EA for more information on potential project impacts on public access.

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: Not applicable. The proposed action would not take place on or near commercial or private agricultural lands, including grazing lands. The project area is urban and has no neighboring agricultural activities or landuse designations.

Conclusion

Based upon the above information, data and assessment USACE finds that the proposed federal action is consistent to the maximum extent practicable with the enforceable policies of the Guam Coastal Zone Management Program. The Corps requests concurrence from the Guam Coastal Management Program on this determination.

We request that the Guam Coastal Management Program response, or any questions or concerns regarding the proposed activities, be sent to Marian Dean at marian.dean@usace.army.mil.

References

- Bureau of Statistics and Plans – Guam Coastal Management Program (BSP-GCMP). 2020. 2021-2025 Section 309 Assessment and Strategy Report. https://bsp.guam.gov/wp-bsp-content/uploads/2021/05/GCMP_Section309_2020_FINAL_er-2.12.2021.pdf
- BSP-GCMP. 2011. Procedures Guide for Achieving Federal Consistency with the Guam Coastal Management Program.
- Burdick, D.R. 2005. Guam Coastal Atlas. 149 pages. https://www.uog.edu/resources/files/ml/technical_reports/114Burdick_2005_UOGMLTechReport114.pdf.
- Project Development Team (PDT). 2022. Trip Report.
- USACE. 1993. Draft East Agana, Territory of Guam, Detailed Project Report and Environmental Assessment, U.S. Army Corps of Engineers, Honolulu Engineer District, July 1993 (terminated at Sponsor's request).
- USACE. 2023. East Hagatna Emergency Shoreline Protection Draft Integrated Feasibility Report and Environmental Assessment.