

**GUAM COASTAL MANAGEMENT PROGRAM
FEDERAL CONSISTENCY FORM APPLICATION:
AUSTRALIA-JAPAN CABLE SEGMENT 6 SHALLOW WATER REPAIR
TANGUISSON, GUAM**

Prepared for
Australia-Japan Cable (Guam) Limited
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Prepared by

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JUNE 2016



2 August, 2016



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Mr. William Castro
Director
Bureau of Statistics & Plans

P.O. Box 2950
Hagatna, Guam 96932

Subject: Australia-Japan Cable Segment 6 Shallow Water Repair, Tanguisson, Guam

Dear Mr. Castro:

Australia-Japan Cable (Guam) Limited (AJCGL) proposes to perform repairs to their damaged Australia-Japan Cable (AJC) in Tanguisson, Guam. The fault was identified on March 20, 2016, and has resulted in a loss of connectivity on the Segment 6 AJC cable in Tanguisson. The AJC cable is part of a submarine cable system providing direct connectivity and bandwidth between Australia and Japan via Guam, and was constructed in 2001 by NEC as the main supplier. The cable system is located within a 20-foot wide corridor; the ductile iron pipe surrounding the cable is 15.2 cm (6 inches) in diameter. AJCGL maintain a Landing Party Agreement with AT&T and a Marine Maintenance Service from Alcatel-Lucent Submarine Networks (ASN). A recent assessment of the AJC cable revealed a fault in the vicinity of the seaward end of the conduit pipe between the beach and the edge of the intertidal reef that will require refurbishment (Alcatel-Lucent Submarine Networks 2016). ASN and their subcontractor Cable & Engineering Ltd. (CEL) will perform the proposed cable repair. This repair is the subject of this permit application.

AJCGL is seeking a Department of the Army permit for ASN to work in waters of the United States, and is providing its consistency certification for this project to the Bureau of Statistics and Plans, Guam Coastal Management Program, in accordance with the Coastal Zone Management Act section 307(c)(3) and 15 CFR part 930, subpart D. This repair is located in waters of the United States. The proposed action would cut the existing cable at the identified fault location, splice in a new length of cable, and reinstate connectivity by installing a marine joint within the corridor. The damaged sections of ductile iron pipe would be replaced with two new 5.5-m (18-ft)-long sections of pipe to protect the cable.

All in-water work would be within an approximately 78-m-long section from the seaward end of the damaged ductile iron pipe to the barge. As part of the Marine Maintenance Service Agreement ASN subcontracted CEL to assess the damage and develop a Method of Procedure (MOP); information from their report is incorporated into this permit application. The repair methodology is based on submarine cable standard practices and aimed at carrying out work in a safe, controlled manner with minimal environmental impact.

The work flow would proceed as follows: The contractor would identify and demarcate the repair site, then divers would prepare the damaged cable segment prior to barge mobilization, splicing and jointing operation. Simultaneously, a land crew would expose the buried cable Segment 6 at the splice pit with excavators in order to disconnect the beach joint and allow the damaged portion of the cable to be pulled out of the conduit. Prior to inserting the new cable, the damaged sections of ductile iron pipe would be replaced with two 18-ft sections

or alternatively, an equivalent length of articulated (split) pipe would be installed along the same footprint as the ductile iron pipe. Then the existing cable would be cut at the identified fault.

A shallow draft barge or similar vessel would be mobilized and positioned in the near shore area adjacent to the repair site. Instead of being anchored the live coral reef area, the barge will be held in position by floating mooring ropes attached to excavators or concrete blocks located above the mean high water mark on land. A small tug or support boat will be used to hold the barge in place for the duration of splicing and jointing (approximately 2 – 3 days, depending on weather conditions and/or operational delays). There will be one week of preparatory in-water work and one week of work after the marine joint operation. A longer length of new cable would be pulled from workers on the beach into and through the conduit from the barge on to the beach, hereby replacing the damaged segment of the cable and providing additional length to facilitate the marine jointing operation on board the barge. This is expected to take between 24 - 36 hours.

After completion of the marine joint, jointing engineers on land would perform test protocols on the end of the cable to verify whether the marine joint has been completed properly. After confirmation of successful testing, the marine joint would be deployed on to the seabed. The shallow draft barge would be released from its mooring and demobilized from the site. The beach and dive teams would coordinate and pull any excess slack through the conduit to the beach, where the excess cable would be cut and re-connected with the beach joint. Simultaneously, divers would install new articulated pipe on the cable to restore cable protection in the near shore area. The old damaged articulated pipes will be recovered and stored at the AT&T station building. After testing has been completed at the Tanguisson land station, the beach team would backfill the splice pit excavation, restore the beach to its original condition, and demobilize from the site. There would be no permanent loss of wetlands from this project.

The repairs will be scheduled during a timeframe that avoids coral spawning (July 19-August 10, 2016). The Environmental Protection Plan (EPP) developed for the project describes the EPP measures that would be implemented to control discharges and manage spills from heavy equipment operating at the site. Containment booms and absorbent pads would be readily available on-site for cleaning up lubricant or petroleum spills. As part of the EPP, the contractor would implement an erosion control plan to control erosion and sedimentation effects during construction. Environmental protection measures will be installed prior to construction activities. These include monitoring for marine and migratory species and employing and maintaining silt fences on land to contain sediments to the work zone. Construction would be performed in accordance with specified best management practices to control erosion and minimize sedimentation.

The proposed action to repair the damaged AJC Segment 6 is consistent with the policies of the Guam Coastal Management Program (GCMP), in accordance with the Guam Coastal Management Act of 1972 (P.L. 92-583). The proposed activity complies with the enforceable policies of Guam's approved management program and will be conducted in a manner consistent with such program. A consistency assessment package is enclosed that discusses each of the 16 enforceable policies with findings that the proposed action and its effects are consistent with these policies. Please contact Claudine Camacho of Duenas, Camacho & Associates, Inc. at 477-7991 if you need additional information.

Sincerely,



David Crofts
Chief Executive Officer
Australia-Japan Cable (Guam) Limited
Enclosure: GCMP Federal Consistency Assessment package.

**Bureau of Statistics and Plans
Guam Coastal Management Program
Federal Consistency Certification Guidance**

A federal consistency certification is simply a statement certifying that the federally permitted or federally funded project has been designed to meet all State and local laws and that all necessary State permits have been obtained. This is usually just a paragraph in an application form that you are required to sign.

Pursuant to 15 C.F.R. §930.57, all applicants for required federal licenses or permits subject to State agency review shall provide in the application to the Federal licensing or permitting agency a certification that the proposed activity complies with and will be conducted in a manner consistent with the management program. The applicant shall furnish to the State agency a copy of the certification and necessary data and information.

Pursuant to 15 C.F.R. §930.57(b), applicant's consistency certification shall be in the following form:

CERTIFICATION

"I certify that the proposed activity complies with the enforceable policies of Guam's approved management program and will be conducted in a manner consistent with such program."

DAVID CROFTS
Print Name


Signature

CEO
Title

and August 2016
Date

The above certification statement must be submitted with the federal consistency certification application packet along with the necessary data and information (i.e., GCMP Assessment Format).

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LIST OF EXHIBITS

Exhibit A. Department of Land Management Letter

Exhibit B. Department of the Army Permit Application for Australia-Japan Cable
Segment 6 Shallow Water Repair, Tanguisson, Guam

Exhibit C. 401 Water Quality Certification Application for Australia-Japan Cable
Segment 6 Shallow Water Repair, Tanguisson, Guam

**GUAM COASTAL MANAGEMENT PROGRAM
ASSESSMENT FORMAT**

DATE OF APPLICATION: August 2016
NAME OF APPLICANT: Australia-Japan Cable (Guam) Limited
CONTACT PERSON: David Crofts, Chief Executive Officer
ADDRESS: 790 S. Marine Corps Drive, Suite 204, Tamuning, GU 95913
TELEPHONE NUMBER: +1 441 292-1355 **CELL NO:**
E-MAIL ADDRESS: david.crofts@ajcable.bm
FAX NUMBER: +1 441 296 3519
TITLE OF PROPOSED PROJECT:
Australia-Japan Cable Segment 6 Shallow Water Repair, Tanguisson, Guam

COMPLETE THE FOLLOWING PAGES

FOR BUREAU OF STATISTICS & PLANS ONLY

DATE APPLICATION RECEIVED: _____
ORCM NOTIFIED: _____ **LIC. AGENCY NOTIFIED:** _____
APPLICANT NOTIFIED: _____ **PUBLIC NOTICE GIVEN:** _____
PROJECT LOCATION: _____
OTHER AGENCY REVIEW REQUESTED: _____

DETERMINATION:

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

ORCM NOTIFIED: _____ **LIC. AGENCY NOTIFIED:** _____

APPLICANT NOTIFIED: _____

- ACTION LOG:**
1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____

DATE REVIEW COMPLETED: _____

**FEDERAL CONSISTENCY
SUPPLEMENTAL INFORMATION FORM**

DATE: August 2016

PROJECT TITLE/DESCRIPTION: Australia-Japan Cable Segment 6 Shallow Water
Repair, Tanguisson, Guam

LOCATION: Within existing 20-foot wide AT&T cable easement in Tanguisson, Guam

OTHER APPLICABLE AREA(S) AFFECTED, IF APPROPRIATE: _____
Philippine Sea (Pacific Ocean) off Tanguisson Beach in Dededo, Guam

EST. START DATE: 2016 **EST. DURATION:** 14 days

TELEPHONE NUMBER: +1 441 292 1355 **CONTACT:** David Crofts

APPLICANT

NAME & TITLE David Crofts, CEO

AGENCY/ORGANIZATION Australia-Japan Cable (Guam) Limited

ADDRESS 790 S. Marine Corps Drive, Suite 204, Tamuning, Guam
ZIP 96913

TELEPHONE DURING BUSINESS HOURS

A/C () +1 441 292 1355

A/C () _____

AGENT

NAME & TITLE Claudine Camacho, Environmental Services Division

AGENCY/ORGANIZATION Duenas, Camacho & Associates, Inc.

ADDRESS 238 East Marine Corps Drive, Suite 201
Hagatna, Guam **ZIP** 96910

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E-MAIL ADDRESS cmcamacho@dcaguam.com

CATEGORY OF APPLICATION (check one only):

- I. Federal Activity
- II. Permit or License
- III. 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 and III only):

AGENCY U.S. Army Corps of Engineers
CONTACT PERSON Ms. Katy Damico
TELEPHONE DURING BUSINESS HOURS
A/C () 671-339-2108
A/C () _____

FEDERAL AUTHORITY FOR ACTIVITY

TITLE OF LAW Clean Water Act , Rivers and Harbors Act of 1889
SECTION Section 404 of CWA, Section 10 of Rivers and Harbors Act

OTHER TERRITORIAL APPROVALS REQUIRED

Agency	Type Of Approval	Date Of Application	Status
Guam Environmental Protection Agency	401 Water Quality Certification	August 2016	Pending
U.S. Army Corps of Engineers	Section 10/404 Permit	August 2016	Pending

PROJECT DESCRIPTION

Australia-Japan Cable (Guam) Limited proposes to perform repairs to their damaged Australia-Japan Cable (AJC) in Tanguisson, Guam. The fault was identified on March 20, 2016, and has resulted in a loss of connectivity on the Segment 6 of the cable in Tanguisson. The AJC is part of a submarine cable system providing direct connectivity and bandwidth between Australia and Japan via Guam, and was constructed in 2001 by AT&T.

Background/History

A recent assessment of the AJC revealed a fault in the vicinity of the seaward end of the conduit pipe between the beach and the edge of the intertidal reef that will require refurbishment (Alcatel-Lucent Submarine Networks 2016). This repair is located in waters of the United States within AT&T's 20-foot wide cable easement.

Proposed Action

The proposed action would cut the existing cable at the identified fault location, splice in a new length of cable, and reinstate connectivity by installing a marine joint within the corridor. The damaged sections of ductile iron pipe would be replaced with two new 5.5-m (18-ft)-long sections of pipe or equivalent length in articulated pipe to protect the cable. If additional corroded sections of the pipe are discovered during preparatory work, these will also need to be replaced; however, all repair and replacement will take place within the 78-m work zone between the barge and shore.

Work in Marine Waters of the U.S.

All in-water work would be within an approximately 78-m-long section from the seaward end of the damaged ductile iron pipe to the barge. Alcatel-Lucent Submarine Networks (ASN) and Cable & Engineering Limited (CEL) were contracted to assess the damage and develop a Method of Procedure (MOP); information from their report is incorporated into this permit application and attached in Exhibit B. The repair methodology is based on submarine cable standard practices and aimed at carrying out work in a safe, controlled manner with minimal environmental impact. The work on site will be overseen by Cable & Engineering 2008 Limited (CEL); the local contractors Pro- Marine Tech will perform the dive work and CALPAC will carry out the work on land. The work flow would proceed as follows:

Shallow Water Repair.

- 1) CEL would identify and demarcate the repair site.
- 2) Divers would prepare the damaged cable segment prior to the barge mobilization, splicing and jointing operation. Simultaneously, a land crew would expose the buried cable Segment 6 at the splice pit with excavators above the mean high water (MHW) mark in order to disconnect the beach joint and allow the damaged portion of the cable to be pulled out of the conduit. Prior to inserting the new cable, the damaged sections of ductile iron pipe would be replaced with 2 x 18 ft sections or alternatively, an equivalent length of articulated (split) pipe would be installed along the same footprint as the ductile iron pipe.
- 3) The existing cable would be cut with a hydraulic cutter or bolt cutter at the identified fault.
- 4) A shallow draft barge or similar vessel would be mobilized and positioned in the near shore area adjacent to the repair site. Instead of being anchored in the live coral reef area, the barge will be held in position by floating mooring ropes attached to excavators or concrete blocks on land above the MHW mark. A small tug or support boat will be used to hold the barge in place for the duration of splicing and jointing (approximately 2 – 3 days, depending on weather conditions and/or operational delays).
- 5) A longer length of new cable would be pulled from workers on the beach into and through the conduit from the barge on to the beach, hereby replacing the damaged segment of the cable and providing additional length to facilitate the marine jointing operation on board the barge. The jointing activity is expected to take between 24 - 36 hours.
- 6) After completion of the marine jointing, jointing engineers on land would perform test protocols on the end of the cable to verify whether the marine joint has been completed properly. After confirmation of successful testing, the marine joint would be deployed on to the seabed.
- 7) The shallow draft barge would be released from its mooring and demobilized from the site.
- 8) The beach and dive teams would coordinate and pull any excess slack through the conduit to the beach, where the excess cable would be cut and re-connected with the beach joint. Simultaneously, divers would install new articulated pipe on the cable to restore cable protection in the near shore area. The old damaged articulated pipes will be recovered and stored at the AT&T station building.
- 9) After testing has been completed at the Tanguisson land station, the beach team would backfill the splice pit excavation, restore the beach to its original condition, and demobilize from the site.

10) After the dive team has completed the installation of armored (split pipe) cable protection in the near shore area, a video survey of the Segment 6 AJC cable in the reef and area of repair would be performed.

The in-water work (including 2 – 3 days of barge activity) would take approximately two weeks, excluding any operational delays, and would avoid coral spawning periods, which last from July 19 - August 10, 2016 for hard coral. Beach work (above MHW mark) can be completed within the same period.

GUAM COASTAL MANAGEMENT PROGRAM ASSESSMENT FORMAT

DEVELOPMENT POLICIES

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 in-water work would be within an approximately 78-m-long repair area from the seaward end of the damaged ductile iron pipe to the barge, which would be located within the Seashore Reserve. Since the AJC has been installed and in use since 2001 there will be no new development or construction of permanent structures in navigable waters; only the repair of the cable and replacement of ductile iron pipe and articulated pipe. The project area will be restored after the repair is completed. Since the cable is an existing use, the proposed action would not require a Seashore Clearance Permit, per the enclosed letter from Guam Department of Land Management (Exhibit A).

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 urban

districts as outlined on the Land Use Districting Map.

Discussion: Not applicable.

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 sewer lines are provided.

Discussion: Not applicable.

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, the Territory 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 AJC is part of an existing cable network that has been in place since 2001. The proposed action is not a new major facility siting but only involves a maintenance repair to an existing system.

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 floodplains, 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 cable repair site is not considered as hazardous lands in terms of air installations, crash and sound zones, and major fault lines.

Floodplains

Executive Order 11988 (Floodplain Management) requires all federal agencies to evaluate the likely effects of their actions located in floodplains. Federal agencies shall reduce the risk of flood loss, minimize the impact of floods on human safety, health and welfare, and restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities, including providing federally undertaken, financed, or assisted construction and improvements.

The Federal Emergency Management Agency (FEMA) Flood Rate Insurance Maps designates the project site off of Tanguisson Beach as Flood Zone A (Figure 2). Zone A encompasses those areas for which no base flood elevation has been determined. The sites lie in areas susceptible to the 1% annual flood, meaning that for any given year, there is a 1 in 100 chance for the area to experience the effects of a 100-year flood (FEMA, 2007). The outlying areas fall within Flood Zone X, which are areas outside the 0.2% chance floodplain.

The floodway is the area that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights. The coastal area off Tanguisson Beach encompassing the in-water repair site is located within Zone A, which designates areas with a 1% chance of flooding. Pursuant to 23 CFR Section 650.111(e), the project was evaluated relative to the risks associated with implementation, impacts on natural and beneficial floodplain values, support of probable incompatible floodplain development, measures to minimize floodplain impacts associated with the action, and measures to restore and preserve the natural and beneficial floodplain values impacted by the action.

Since this is a repair of an existing submarine fiber-optic cable, it will not have an adverse impact on the floodway or floodplain. The proposed action, therefore, would not result in a significant encroachment.

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 man-made hazards, and recognize the limitations of the island's resources to support historical patterns of residential development.

Discussion: Not applicable.

7. Transportation

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

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

Discussion: Not applicable.

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 districting guidelines, as well as other related land use standards for such areas.

Discussion: Consistent. Erosion and siltation are potential concerns during most construction activities on Guam. For the two work locations on shore above the mean high water (MHW) mark (cable splice pit and equipment holding area), these concerns will be addressed by the deployment and maintenance of sediment control structures such as silt fences and plastic sheeting for the stockpiles.

The careful placement and monitoring of these silt control devices for breaches is an effective means of minimizing erosion and controlling sedimentation during construction. The contractor would be required to implement best management practices (BMPs) during construction to control erosion and sedimentation.

In-water construction work would be restricted to periods when corals are not spawning; spawning lasts from July 19 to August 10, 2016 for hard coral.

RESOURCE POLICIES

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 Segment 6 cable fault location is situated off of Tanguisson Beach in Dededo within a 3 1/2 km radius of the Tanguisson Power Plant, which was previously a non-attainment area for sulfur dioxide under the National Ambient Air Quality Standards (NAAQS). The power plant was mothballed in 2015. However, the Tanguisson Power Plant was deactivated in 2015, so there are currently no emissions resulting from the plant. None of the proposed cable repair construction activities are expected contribute any significant levels of sulfur dioxide to the environment.

The contractor will be required to operate and maintain construction vehicles per the applicable regulations governing air pollutant emissions. All vehicles used in construction shall have properly functioning and maintained air emission controls.

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 estuarine, reef and aquifer areas.

Discussion: Consistent. The AJC fault is not located over an aquifer recharge area, nor is it considered a surface water supply source. The in-water construction work would have little to no effect on water quality. The contractor for the in-water construction activity has stated that no forms of increased turbidity or suspended solids are expected in connection with the repair operation. An increase in water turbidity is not anticipated in connection with the use of a hydraulic cutter to cut

the cable, as this type of equipment consists of a sealed unit where the hydraulic oil is contained within a closed circuit which does not allow oil to vent to the water (Pers. comm. with Mr. Curtis Caba). Thus, the hydraulic cutter shears the cable with no debris. Because the cable is badly damaged at the duct entry point it may even be possible to cut the cable with a pair of hand held bolt cutters, which are entirely mechanical and effectively shear the cable with no debris.

If water jetting is needed to clear the conduit of debris, the contractor would install a mesh filter or a strainer sock to catch debris towards the seaward end of the conduit, thereby minimizing impacts to the water quality. All construction related equipment and vehicles to be used during construction will be inspected before the beginning of each day's activities to ensure that all vehicles are fully functional and have no oil leakage. All vehicles will be equipped with absorbent pads in case a spill response is needed.

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 shall be regulated to protect their unique character.

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

Discussion: Consistent.

Historic and archaeological sites. There would be no adverse effect on historic or archaeological sites, since the construction and repair work will be limited to AT&T's existing cable easement (existing trench and beach splice pit). Since the AJC has been installed in 2001 and other cable landings have occurred in the past, it is unlikely that historic or cultural resources will be affected. A concurrence of "No Property" was issued by the State Historic Preservation Officer (SHPO) on December 4, 2007.

Wildlife habitat. The AJC repair area supports habitat for terrestrial and avian fauna, however, there is no designated or proposed critical habitat in the vicinity of the project site. A general pedestrian survey was conducted in November 2007

by DBA biologists to assess the presence of terrestrial and avian fauna occurring within the beach work site (splice pit). At the time, no terrestrial or avian fauna were observed within the maintained open lawn and strand (DBA 2008). Similar observations were recorded during a site visit by DCA biologists on April 28, 2016. There were incidental sightings of two Philippine turtle doves (*Streptopelia bitorquata*), one drongo (*Dicrurus macrocercus*) and several Eurasian tree sparrows (*Passer montanus*) along the access road leading to the splice pit on June 24, 2016.

During a recent site visits in April and June 2016, federally endangered Guam tree snails (*Partula radiolata*) were observed by DCA biologists incidentally on a lantern tree (*Hernandia nymphaeifolia*) approximately 150 m (492 ft) south of the cable corridor in the Tanguisson Beach Park. This area will not be disturbed during repairs. The vegetation surrounding the areas proposed for the placement of concrete mooring blocks was inspected on June 24, 2016 for further tree snail colonies, but none were found. Because federally endangered Guam tree snails (*Partula radiolata*) occur in the project vicinity, there should be no clearing of vegetation beyond the limits of the cable splice pit area. If further vegetation clearing is needed beyond the cable easement, biological monitoring would be recommended.

4. Living Marine Resources

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

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

Discussion: Consistent. Work in shallow marine waters is planned for the AJC cable repair. As of August 2014, NOAA has listed 22 coral species as threatened under the Endangered Species Act (ESA) of 1973, of which three species occur in Guam waters. These species are *Acropora globiceps*, *Acropora retusa* and *Seriatopora aculeata*. Burdick (2016) surveyed the Area of Potential Effect (APE) of the general fault location in June 2016 and found two colonies of *Acropora globiceps*, a threatened ESA-species during his study. The two colonies are not expected to be impacted by the repair (See Marine Survey by Burdick 2016, attached in Exhibit B).

The hawksbill sea turtle (*Eretmochelys imbricata*) and green sea turtle (*Chelonia mydas*) are found in Guam's waters and are federally listed as endangered. The

latter species has recently been declared endangered from its former threatened status (U.S. Fish and Wildlife Service Federal Register, Vol. 81 No. 66). Based on past consultations and recent coordination with the Guam Division of Aquatic & Wildlife Resources (DAWR) at Department of Agriculture, sea turtles do not nest nor have ever been reported to nest near the AT&T easement at Tanguisson (Personal communication with Mr. Brent Tibbatts, Fisheries Biologist, DAWR, April 28, 2016).

Biological monitoring would be conducted during in-water work to detect the presence of sea turtles. DAWR biologists would be contacted and work would cease until any observed animals voluntarily leave the area. Best management practices, such as using floating mooring ropes to hold the barge in place to avoid anchoring in a high coral area, would be implemented throughout the course of in-water construction to minimize impacts to the environment. The implementation of these and other best management practices would minimize impacts to the existing marine life in Guam's coastal waters. The Contractor will also refer to the 2013 NMFS Protected Resources Division's BMPs, which are recommended for general in- and near-water work including boat and diver operations to reduce potential adverse effects on protected marine species.

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 project would not permanently obstruct or degrade natural scenic views. The cable repair site itself does not provide a significant view corridor or vista, although Two Lover's Point is located to the south of the site. Following the necessary removal of damaged cable and sections of corroded ductile iron pipe, the in-water and beach foreshore sites will be reverted to their submerged pre-construction status once the cable repair has been completed.

6. Recreational Areas

Intent: To encourage environmentally compatible 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 and marine conservation areas, scenic overlooks, parks and historical sites.

Discussion: Consistent. The proposed cable refurbishment would not permanently change or restrict public access to potential nearby recreational areas in the Tanguisson Beach Park or elsewhere.

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 territorial recreation areas, parks, scenic overlooks, designated conservation areas and their public lands; and 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. The proposed cable repair would only slightly change or restrict public access to the nearby coastal areas of Tanguisson Beach by having safety fences and warning signs established around the cable easement. Public access to the beach and park area may be temporarily inconvenienced by preparatory and demobilization in-water work, which will be carried out approximately one week in advance of the cable splicing operation and one week after the completion of work. The total construction time is estimated to last two weeks, weather permitting and in absence of operational delays.

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.

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- Federal Emergency Management Agency (FEMA). 2007. Flood Insurance Rate Maps. Panel 0181D (Map Revised September 28, 2007).
- Guam Environmental Protection Agency (GEPA). 2002. Guam Water Quality Standards, 2001 Revision. 60 pp. + Appendix A-H.
- National Oceanic and Atmospheric Administration. 2013. Best Management Practices (BMPs) for General In- and Near-Water Work Including Boat and Diver Operations: 1-2.
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Internet links

http://www.nmfs.noaa.gov/stories/2014/08/corals_listing.html
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http://www.nmfs.noaa.gov/stories/2014/08/corals_listing.html
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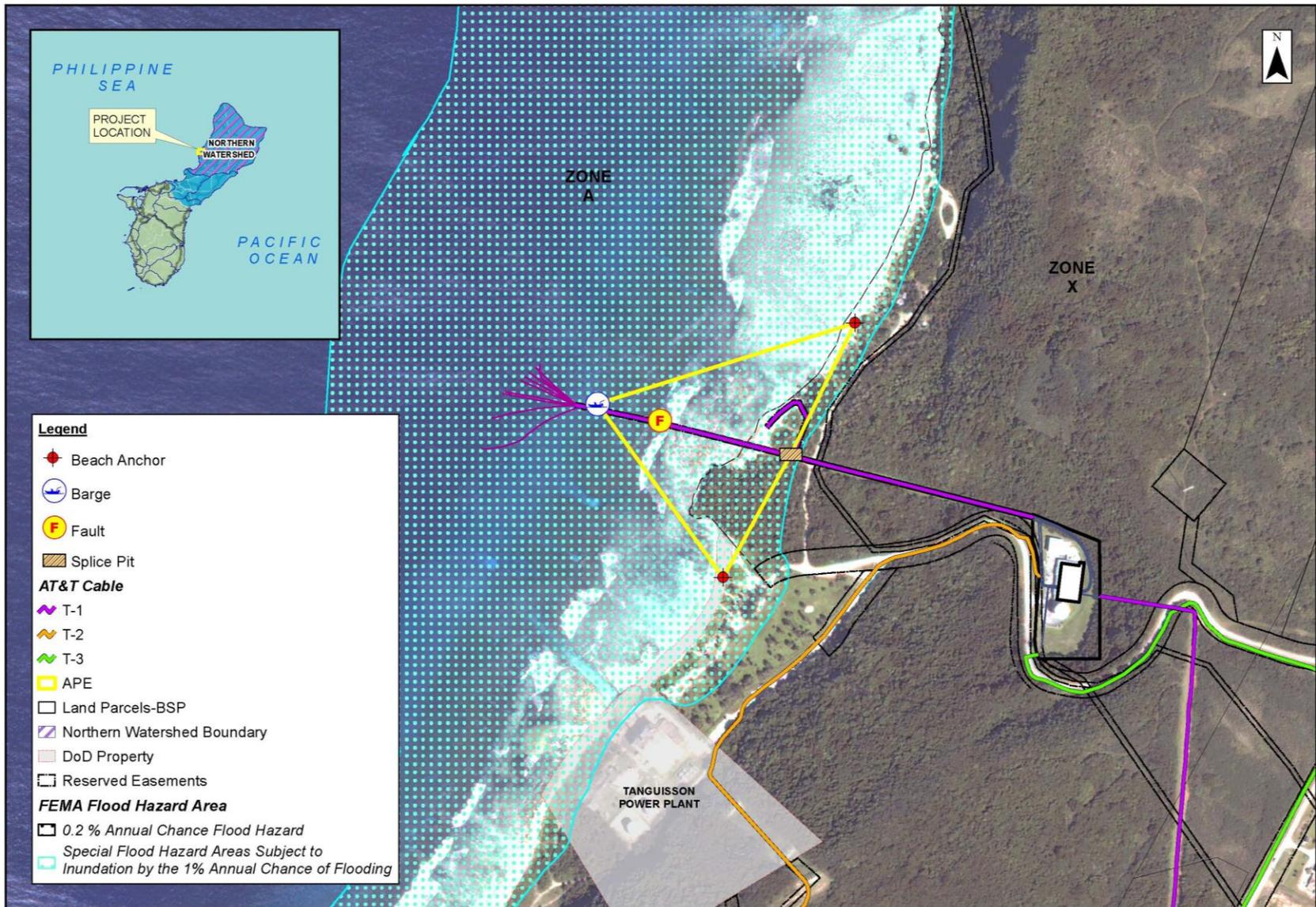


Figure 2. Flood Hazard Areas in the Vicinity of the AJC Project Site at Tanguisson, Guam (Taken from FEMA, 2007).

EXHIBIT A

Department of Land Management Letter



DEPARTMENT OF LAND MANAGEMENT
(DIPATTAMENTON TANO')

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Deputy Director

January 3, 2000

Roy T. Tsuda, Chief
Environmental Services
Duenas & Associates, Inc.
415 Chalan San Antonio, Suite 310
Tamuning, Guam 96911

Re: Landing of One of Two Repeater Branch Cables from the Australia-Japan Cable within the Existing 20-Foot Wide AT&T Cable Easement, Tanguisson, Guam

Hafa Adai Mr. Tsuda:

In response to your request for exemption from the Guam Seashore Protection Commission (GSPC) process for the above-referenced project, we have concluded our review of the proposed project and submit the following position:

Based on our review, we find that the proposed project qualifies, under Section 13417, Subsection (5) of the Seashore Protection Act, to be exempted from the Guam Seashore Protection Commission's application process. Please note that this exemption is only applicable to activities within the existing AT&T right-of-way and that any activities beyond the right-of-way will require a GSPC Seashore Clearance.

Thank you for your patience and understanding.

Senseramente,

Carl J.C. Agnon
Director, Department of Land Management

FPT/rld/rpc



Commonwealth Now!