UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
http://sero.nmfs.noaa.gov

February 17, 2015 F/SER4:JK/pw

(Sent via Electronic Mail)

Colonel Alan Dodd, Commander
U.S. Army Corps of Engineers, Jacksonville District
Palm Beach Gardens Regulatory Office
4400 PGA Boulevard, Suite 500
Palm Beach Gardens, Florida 33410

Attention: Linda Knoeck

Dear Colonel Dodd:

NOAA's National Marine Fisheries Service (NMFS) reviewed public notice SAJ-2014-03098 (LP-LCK) dated January 30, 2015. The U.S. Defense Information Systems Agency (DISA) requests authorization from the Department of the Army to install an individual cable in the Atlantic Ocean offshore from the Naval Surface Warfare Carderock Center Division, South Florida Ocean Measurement Facility (SFOMF), Dania Beach, Broward County. The proposed cable would extend waterward approximately 30.7 miles to the U.S. Exclusive Economic Zone. Drawings provided with the public notice show the cable would connect to Guantanamo Bay, Cuba. The Jacksonville District's preliminary determination is the 1.54-inch-diameter cable would not have a substantial adverse effect on approximately 162,114 linear feet (0.48 acres) of essential fish habitat (EFH), including shallow and deepwater coral reef and hardbottom designated Habitat Areas of Particular Concern (HAPC) by the South Atlantic Fishery Management Council (SAFMC). As the nation's federal trustee for the conservation and management of marine, estuarine, and anadromous fishery resources, the following comments and recommendations are provided pursuant to authorities of the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Essential Fish Habitat at the Proposed Project Site
While the public notice does not include results from a biological resource survey, DISA has provided NMFS with some characterization of EFH in the project area. The map provided on page 10 of the notice, shows the cable crossing the Shallow Restricted Operational Area (OPAREA) within State of Florida waters and the Deep OPAREA within in federal waters.

Shallow water (less than 30 meters): The report, *Shallow-water Benthic Habitat Characterization and Cable/Benthic Activity Impact Assessment for the SFOMF* (Gilliam and Walker (2012), describes seven coral reef habitats in waters less than 30 meters, including (from nearshore to offshore): colonized pavement-shallow, ridge-shallow, inner reef, middle reef, colonized pavement-deep, outer reef, and spur-and-groove. Twenty-five species of stony coral were identified within the seven reef habitats, including *Orbicella faveolata* and *O. franski*, both listed as threatened under the Endangered Species Act. For octocorals, the most taxa (20) were identified in the spur-and-groove habitat, farthest offshore in the study area, and the fewest (14) were identified in the nearshore ridge-shallow and the inner reef habitats. In all habitats, the 11 to 25 centimeter (octocoral height) size class was most abundant.

The Shallow and Restricted OPAREAs include coral, coral reef, hardbottom, and sand/shell bottom. SAFMC identifies corals, coral reef, and hardbottom habitat as EFH for several species, including adult

white grunt (*Haemulon plumieri*), juvenile and adult gray snapper (*Lutjanus griseus*), juvenile schoolmaster (*Lutjanus adipous*), and adult mutton snapper (*L. analis*). All demersal fish species under SAFMC management associated with coral habitats are contained within the fishery management plan for the snapper-grouper complex and include some of the more commercially and recreationally valuable fish of the region. All of these species show an association with coral or hardbottom habitat during their life history. In grouper, the demersal life history of almost all *Epinephelus* species, several *Mycteroperca* species, and all *Centropristis* species takes place in association with coral habitat. Coral, coral reef, and hardbottom habitats benefit fishery resources by providing food or shelter.

SAFMC also identifies corals, coral reef, and hardbottom as an HAPC for several species within the snapper/grouper complex. *Phragmatopoma* worm reef are an HAPC for coastal migratory pelagic species. HAPCs are subsets of EFH that are either rare, particularly susceptible to human-induced degradation, especially important ecologically, or located in an environmentally stressed area. SAFMC also designates live/hardbottom between Jupiter Inlet and Dry Tortugas as a HAPC for spiny lobster. In light of their designation as HAPCs and Executive Order 13089, NMFS closely examines projects affecting corals, coral reefs, and hardbottoms to ensure practicable measures to avoid and minimize adverse effects to these habitats are fully explored. SAFMC provides detailed information on federally managed fisheries and their EFH in amendments to the fishery management plans and in *Fishery Ecosystem Plan of the South Atlantic Regio*n (available at *www.safmc.net*).

Deepwater: A deepwater habitat characterization report, *Qualitative Assessment of the Gateway Cable Route* (Messing 2011), includes observations from one remotely operated vehicle (ROV) transect near a cable installation route referred to as the Gateway cable, in water depths between 30 and 160 meters. The activities described at SFOMF would occur in this depth zone and in deeper areas (up to 780 meters).

One notable area of interest in the report is the Port Everglades dredge material disposal area created in the 1920s. The dredge material area ranges from 51 to 23 meters water depth. In approximately 51 meters depth, the seafloor transitions from sand to 20 to 50 percent hardbottom with a diverse sponge, octocoral, and black coral community. The numbers of organisms increases with decreasing depth. At a depth of approximately 38 to 44 meters, the hard substrate covers 50 to 90 percent of the seafloor and stony corals occur in this area as well as the sponge, octocoral, and black corals. The ROV transect continues to the shore and overlaps the area Gilliam and Walker (2012) describe. Although not characterized in this report, the Miami Terrace and Escarpment occurs within the Deepwater OPAREA. Much of the deepwater coral habitat is part of this 65-kilometer-long carbonate platform between Boca Raton and South Miami in water depths of 200 to 600 meters (Reed et al. 2006). At the base of the escarpment, *Lophelia* mounds are present, and these deepwater corals are valuable fish habitat, susceptible to physical destruction (Fossa et al. 2002) and may be hundreds to thousands of years old (Neuman et al. 1977).

Deepwater coral, hardbottom, and soft bottom habitats within the Shallow and Deepwater OPAREAs are designated EFH for species managed under the snapper-grouper, golden crab, or shrimp fishery management plans. The deepwater *Lophelia* reefs are largely contained within the Stetson-Miami HAPC, which includes the Miami Terrace and Escarpment. The Stetson-Miami HAPC overlaps much of Deepwater OPAREAs and the Shallow OPAREA to a lesser extent. Species with affinity for deepwater hardbottom and soft bottom habitat types in or near the project area include blueline tilefish (*Caulolatilus microps*) and golden tilefish (*Lopholatilus chamaeleonticeps*). The water depths in the OPAREAs are: Restricted (0 to 180 meters), Shallow (0 to 320 meters), and Deepwater (380 to 780 meters). Golden tilefish are generally found in depths of 80 to 540 meters, but most commonly found in 200-meter depths. Golden tilefish have an affinity for habitats potentially present in the all OPAREAs, including irregular bottom comprised of troughs and terraces inter-mingled with sand, mud, or shell hash bottom; and mud-clay bottoms in depths of 150 to 300 meters. Blueline tilefish also have an affinity for habitat that may be

in the Restricted and Shallow OPAREAs. These habitats include the upper slope along the 100-fathom contour; hardbottom habitats characterized as rock overhangs, rock outcrops, manganese-phosphorite rock slab formations. Additionally, offshore, unconsolidated bottom, including ripple habitat, dunes, soft bioturbated habitat, in addition to low relief outcrops are EFH for golden crab.

Direct Impacts to Essential Fish Habitat

Shallow water (less than 30 meters): NMFS believes the impacts to shallow coral, coral reef, and hardbottom habitats resulting from cable and other infrastructure installation will be greater than listed if the cable is not adequately secured to the seafloor. Gilliam and Walker (2012) examined 35 cable sites within the Restricted OPAREA. Substrate scour or other evidence of cable movement occurred at 27 sites, and mortality to stony corals, gorgonians, or barrel sponges occurred in association with cable movement at 12 sites. These observations show cable movements create an impact area greater than the width of a cable. Cable movement appeared to be greater in the nearshore habitats, most likely due to the shallower water depths; however, cable movement in any of the habitats is of concern because it increases the impact area.

Similar to unconsolidated rubble substrate, cable movement can scour the bottom damaging habitat and inhibiting settlement and survivorship of reef biota (Gilliam and Moulding 2011). The potential for cable movement indicates impacts may occur to a larger area and over a longer time period than evaluated in the public notice (Moulding 2011, Gilliam and Walker 2012). Due to the type of injuries cables cause (e.g., tissue abrasion, dislodgement from the reef framework, severing of octocorals and sponges) only continuous monitoring or monitoring conducted soon after cable placement or cable movement would detect the scale and magnitude of the impact (Gilliam and Walker 2012), and that type of monitoring has not occurred within SFOMF.

Deepwater: NMFS also believes the impacts to deepwater coral, coral reef, and hardbottoms habitats resulting from cable and other infrastructure installation have been underestimated by the District, and the comments above on shallow water habitats apply here as well. Potential direct impacts identified by Messing (2011) from installing the cables include tearing, abrading, decapitating and dislodging of sponges, octocorals and antipatharians, and stony corals. The extent of possible direct impact cannot be quantified as it is not known how much the cable may move during or after deployment. While the extent of cable movement in deepwater is still not clear, impacts to deep coral, coral reef, and hardbottom habitat in deepwater could be minimized by developing procedures aimed at minimizing impacts that would occur as a result of the deepwater installation.

Minimization of Impacts

The notice states the proposed cable would be installed in the nearshore area within an existing cable corridor. The DISA would take the following measures during cable installation to minimize impacts to coral, coral reef, and hardbottom habitats, in addition to those in SFOMF's "Laying Seafloor Cable Using Best Management Practices (BMP)":

- Utilization of established cable routes and corridors to reduce the potential for unnecessary contact with previously undisturbed coral, coral reef, and other living hardbottom EFH and HAPC communities.
- Affixing the proposed cable to existing cable "bundles" in water depths less than 20 m (65 ft) to minimize impacts in areas of known protected resources. Beyond 20 m (65 ft) of water depth, place cables as close to existing cables as possible to reduce impacts to protected resources.
- Identification of locations of important biological and physical features and cultural resources, such as biogenic reef formations, artificial reefs, and shipwrecks, prior to selecting the preferred cable route.

- Utilization of existing permanent anchor locations in the vicinity of known coral reef and hard bottom habitats. Supplemental anchor points may be added along the existing route to improve the overall stabilization of the cable bundle.
- Relocation of any hard corals, octocorals, and sponges greater than 5 centimeters in diameter located directly within the proposed cable route footprint and within the safe diving depth zone [maximum water depth of 65 feet (20 meters)]. The relocated corals will be reattached to the surrounding reef a safe distance from the cable project.

EFH Conservation Recommendations

NMFS finds the proposed cable would adversely impact EFH if sufficient measures are not taken to install the cable and prevent its lateral movement. Section 305(b)(4)(A) of the Magnuson-Stevens Act requires NMFS to provide EFH conservation recommendations when an activity would adversely impact EFH. Based on this requirement, NMFS provides the following:

1. The permit shall require measures to prevent cable sweep in shallow water as well as deep water areas where divers cannot guide cable placement.
2. The permit shall prohibit construction work vessels from anchoring or spudding over coral, coral reef, and hardbottom habitat.
3. The permit shall require implementation of the impact minimization measures listed above.
4. The permit shall require a pre-installation survey. The survey plan should also describe coral, octocoral, and sponge relocation methods and characterize the recipient sites to show they are suitable. A copy of the plan should be provided to NMFS before the pre-installation survey is initiated.
5. The permit shall require a post-installation survey. The survey shall assess the status of coral, coral reef, and hardbottom, at the site and document impacts. The plan shall include monitoring of the relocated corals, octocorals, and sponges for a period of two years. The plan also shall include quantitative performance criteria and a requirement for remedial action should those criteria not be met. A copy of the plan should be provided to NMFS before the first post-installation survey is initiated.
6. In the case that unavoidable impacts are authorized by the permit, a compensatory mitigation shall be required to fully offset those impacts and the plan for mitigation shall be coordinated with NMFS.

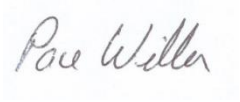
Section 305(b)(4)(B) of the Magnuson-Stevens Act and implementing regulation at 50 CFR Section 600.920(k) require the Jacksonville District to provide a written response to this letter within 30 days of its receipt. If it is not possible to provide a substantive response within 30 days, in accordance with the "findings" between NMFS and the Jacksonville District, an interim response should be provided to NMFS. A detailed response then must be provided prior to final approval of the action. The Jacksonville District's detailed response must include a description of measures proposed agency to avoid, mitigate, or offset the adverse impacts of the activity. If the Jacksonville District's response is inconsistent with the EFH conservation recommendation, the Jacksonville District must provide a substantive discussion justifying the reasons for not following the recommendation.

Please note, since corals protected under the endangered Species Act (i.e., *Orbicella faveolata* and *O. franksi*) have been documented within the vicinity of the project footprint, the Jacksonville District should contact the NMFS Southeast Region, Protected Resources Division. The NMFS Southeast Region, Protected Resources Division can be contacted at the letterhead address.

Thank you for the opportunity to provide comments. Related questions or comments should be directed to the attention of Ms. Jocelyn Karazsia at 400 North Congress Avenue, Suite 110, West Palm Beach,

Florida, 33401. She may be reached by telephone at 561-249-1925 or by e-mail at Jocelyn.Karazsia@noaa.gov.

Sincerely,



/ for

Virginia M. Fay
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Literature Cited:

Gilliam, D.S., and Walker, B.K. 2012. Shallow-water Benthic Habitat Characterization and Cable/Benthic Activity Impact Assessment for the SFOMF, 75pp. (Prepared for the Department of the Navy)

Gilliam, D.S., and Moulding, A.L. 2011. A Study to Evaluate Reef Recovery Following Injury and Mitigation Structures Offshore Southeast Florida: Phase I. Nova Southeastern University Oceanographic Center. Dania Beach, Florida. 49 pp. (Prepared for the Florida Department of Environmental Protection and the Southeast Florida Coral Reef Initiative)

Fossa J.H., Mortensen P.B., Furevik D.M. 2002. The deep-water coral *Lophelia pertusa* in Norwegian waters: distribution and fishery impacts. Hydrobiologia 471:1-12.

Messing, C.G. 2011. Qualitative Assessment of the Gateway Cable Route. Nova Southeastern University Oceanographic Center. Dania Beach, Florida. 7pp. (Prepared for the Department of the Navy)

Moulding, A.L. 2011. Evaluation of Past Coastal Construction Project Monitoring in Southeast Florida and Recommendations to Improve Future Monitoring. Nova Southeastern University Oceanographic Center. Dania Beach, Florida. 92pp. (Prepared for the Florida Department of Environmental Protection and the Southeast Florida Coral Reef Initiative)

Neumann A.C., Kofoed, J. W., and Keller G.H. 1977. Lithoherms in the Straits of Florida. Geology 5:4-10.

Reed J.K., Weaver D.C., Pomponi S.A. 2006. Habitat and fauna of deep-water *Lophelia pertusa* coral reefs off the southeastern U.S.: Blake Plateau, Straits of Florida, and Gulf of Mexico. Bulletin of Marine Science 78:343-375.