DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
4400 PGA BOULEVARD, SUITE 500
PALM BEACH GARDENS, FL 33410

REPLY TO
ATTENTION OF

May 6, 2019

Regulatory Division
South Branch
Palm Beach Gardens Permits Section

PUBLIC NOTICE

Permit Application No. SAJ-2017-00718(SP-LCK)

TO WHOM IT MAY CONCERN: The Jacksonville District of the U.S. Army Corps of Engineers (Corps) has received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. §1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. §403) as described below:

APPLICANT:
Oneka Technologies
c/o Dragan Tutic, CEO
423 NW Riverside Dr.
St. Lucie, FL 34983

WATERWAY AND LOCATION: The project would affect waters of the United States associated with the installation of structures and discharge of fill material within Waters of the U.S. The project is located in the Atlantic Ocean, approximately 2 miles south of the Ft. Pierce Inlet, and approximately 1.4 miles offshore of Ocean Village at 2400 S. Ocean Drive, Ft. Pierce (Section 01 and 36, Township 35 and 34 South, Range 40 East), in St. Lucie County, Florida.

Directions to the site are as follows: From I-95 in Ft. Pierce, take exit 131 and merge onto FL-68 East (Orange Ave.), continue on Orange Ave, and take a left onto US HWY 1, then turn right onto Seaway Drive (bridge). Turn right onto South Ocean Drive and continue for several miles. The project is located offshore of Ocean Village.

APPROXIMATE COORDINATES:

	Latitude	Longitude	Water depth (feet)
Northwest corner buoy array	27.448107°	-80.258700°	±38
Northeast corner buoy array	27.448107°	-80.257957°	±38
Southwest corner buoy array	27.446331°	-80.258700°	±38
Southeast corner buoy array	27.446331°	-80.257957°	±38
Shore landing	27.442384°	-80.280111°	0

PROJECT PURPOSE:

Basic: The basic project purpose is to utilize a reverse osmosis device that produces drinkable seawater.

Overall: The overall project purpose is to utilize a reverse osmosis device that produces drinkable seawater for the community of Ocean Village located in Ft. Pierce Florida.

EXISTING CONDITIONS:

Project History: The Corps issued a nationwide permit on 25 April 2017, that authorized the installation of one temporary desalination test system, anchor and buoy that will be installed in an area void of aquatic resources and that will be removed upon completion of testing, which was estimated to be approximately 4 months. The device was authorized to be secured with a concrete block and a secondary anchor and possess reflective bands for visibility. The Corps re-verified the nationwide permit on 14 November 2018 to allow for installation of another testing device.

PROPOSED WORK: The applicant proposes to install a total of 30 desalination units within a 230-foot by 650-foot area. Each unit consists of a buoy attached to a chain and anchored into the sand substrate. Each buoy will have a radar reflector and night light. A water output pipe offshoots each unit and will connect to a main 3-inch diameter flexible High Density Polyethylene (HDPE) pipe that will connect to the Ocean Village property (7,392 linear feet). Once the pipe reaches the shore it will be buried in the sand to a depth of 5-feet until it reaches the dune pathway in which it will be buried to a depth of 2-feet and then fixed onto the underneath side of a wooden walkway structure.

AVOIDANCE AND MINIMIZATION INFORMATION – The applicant has provided the following information in support of efforts to avoid and/or minimize impacts to the aquatic environment: No submerged aquatic vegetation will be impacted by the project. The buoys will be located and anchored in sandy substrate. The HDPE pipe located in tidal water is anticipated to remain in place on the substrate. The pipe contains ballast weights which will provide negative buoyancy to sink and anchor it into position on the bottom. Each ballast will be spaced every 10 feet and is approximately 12 pounds. Prior to pipe installation, a team of divers will survey the entire length of the pipe corridor to ensure it installed over sandy substrate only. Divers will verify the pipes location post installation. Once the pipe is located on the shore, it will be dug under the sand using a small 4-ton excavator and shovels and take approximately 3-days. All work on the beach will avoid any existing turtle nest by a minimum of 20 feet.

COMPENSATORY MITIGATION –The applicant has provided the following explanation why compensatory mitigation should not be required: The applicant has stated that compensatory mitigation is not required because no impacts to submerged aquatic vegetation and/or other aquatic resources (i.e. corals) are proposed or anticipated.

CULTURAL RESOURCES: The Corps is not aware of any known historic properties within the permit area. By copy of this public notice, the Corps is providing information for review. Our final determination relative to historic resource impacts is subject to review by and coordination with the State Historic Preservation Officer and those federally recognized tribes with concerns in Florida and the Permit Area.

ENDANGERED SPECIES: Since the proposal by the applicant is for in-water construction, potential impacts to the threatened West Indian manatee (*Trichechus manatus*) were evaluated using The Corps of Engineers, Jacksonville District, and the State of Florida Effect Determination Key for the Manatee in Florida, and received programmatic concurrence for the may affect not likely to adversely affect determination. The Corps has also determined that the installation of the proposed pipe on the beach may affect the nesting threatened/endangered nesting sea turtles (*Chelonia mydas, Eretmochelys inbricata, Lepidochelys kempii, Derochelys coriacea, Caretta caretta*) and the Loggerhead nearshore reproductive critical habitat (LOGG-N-18). The Corps will request formal consultation with U.S. Fish and Wildlife Service (FWS) pursuant to Section 7 of the Endangered Species Act by separate letter.

The Corps has determined the proposed project may affect, but is not likely to adversely affect the endangered smalltooth sawfish (*Pristis pectinata*), swimming sea turtles: the endangered green sea turtle (*Chelonia mydas*), the endangered hawksbill sea turtle (*Eretmochelys imbricata*), the endangered leatherback sea turtle (*Dermochelys coriacea*), the endangered Kemp's ridley sea turtle (*Lepidochelys kempii*), and the threatened loggerhead sea turtle (*Caretta caretta*). The Corps will request concurrence with theses determinations from the National Marine Fisheries Service (NMFS), Protected Resources Division pursuant to Section 7 of the Endangered Species Act by separate letter.

ESSENTIAL FISH HABITAT (EFH): This notice initiates consultation with the National Marine Fisheries Service on EFH as required by the Magnuson-Stevens Fishery Conservation and Management Act 1996. Approximately 150,000 square foot area of unvegetated, sand habitat will be impacted via the installation of buoys and pipe. The benthic habitat is utilized by various life stages of penaeid shrimp complex, reef fish, stone crab, spiny lobster, migratory/pelagic fish, and snapper/grouper complex. The project as proposed will not have a substantial adverse impact on EFH or federally managed fisheries based on the applicant's implemented avoidance and minimization measures. Our final determination relative to project impacts and the need for mitigation measures is subject to review by, and coordination with, the National Marine Fisheries Service.

NOTE: This public notice is being issued based on information furnished by the applicant. This information has not been verified or evaluated to ensure compliance with laws and regulation governing the regulatory program. The jurisdictional line has been verified by Corps personnel.

AUTHORIZATION FROM OTHER AGENCIES: Water Quality Certification may be required from the Florida Department of Environmental Protection and/or one of the state Water Management Districts.

COMMENTS regarding the potential authorization of the work proposed should be submitted in writing to the attention of the District Engineer through the Ms. Linda C. Knoeck Permits Section, 4400 PGA Boulevard, Palm Beach Gardens, FL 33410, within 21 days from the date of this notice.

The decision whether to issue or deny this permit application will be based on the information received from this public notice and the evaluation of the probable impact to the associated wetlands. This is based on an analysis of the applicant's avoidance and minimization efforts for the project, as well as the compensatory mitigation proposed.

QUESTIONS concerning this application should be directed to the project manager, Ms. Linda C. Knoeck, in writing at the Palm Beach Gardens Permits Section, 4400 PGA Boulevard, Palm Beach Gardens, FL 33410; by electronic mail at Linda.C.Knoeck@usace.army.mil; or by telephone at (561)472-3531.

IMPACT ON NATURAL RESOURCES: Coordination with U.S. Fish and Wildlife Service, Environmental Protection Agency (EPA), the National Marine Fisheries Services, and other Federal, State, and local agencies, environmental groups, and concerned citizens generally yields pertinent environmental information that is instrumental in determining the impact the proposed action will have on the natural resources of the area.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including cumulative impacts thereof; among these are conservation, economics, esthetics, general environmental concerns, wetlands, historical properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food, and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people. Evaluation of the impact of the activity on the public interest will also include application of the guidelines promulgated by the Administrator, EPA, under authority of Section 404(b) of the Clean Water Act or the criteria established under authority of Section 102(a) of the Marine Protection Research and Sanctuaries Act of 1972. A permit will be granted unless its issuance is found to be contrary to the public interest.

The US Army Corps of Engineers (Corps) is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other Interested parties in order to consider and evaluate the impacts of this proposed activity. Any

comments received will be considered by the Corps to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this determination, comments are used to assess impacts to endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

COASTAL ZONE MANAGEMENT CONSISTENCY: In Florida, the State approval constitutes compliance with the approved Coastal Zone Management Plan. In Puerto Rico, a Coastal Zone Management Consistency Concurrence is required from the Puerto Rico Planning Board. In the Virgin Islands, the Department of Planning and Natural Resources permit constitutes compliance with the Coastal Zone Management Plan.

REQUEST FOR PUBLIC HEARING: Any person may request a public hearing. The request must be submitted in writing to the District Engineer within the designated comment period of the notice and must state the specific reasons for requesting the public hearing.

Figure 8 – Chart of the entire project plan view : Oneka desalination buoys array & pipe

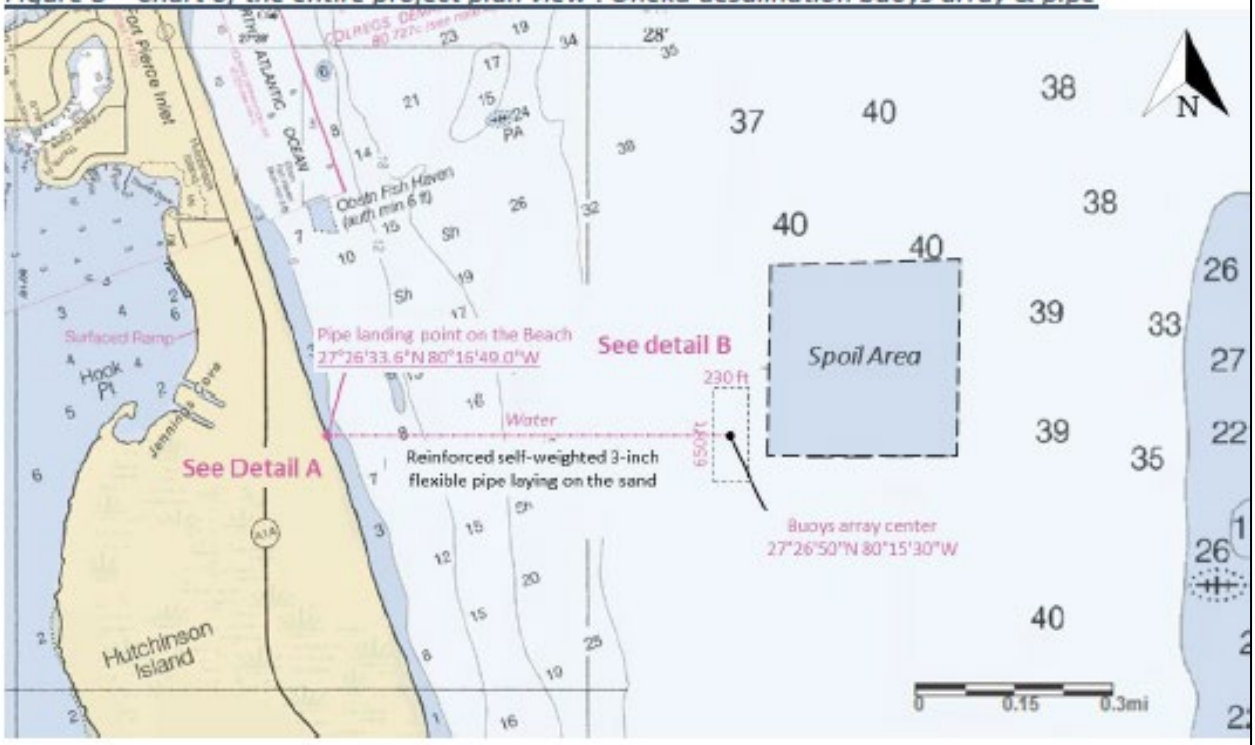
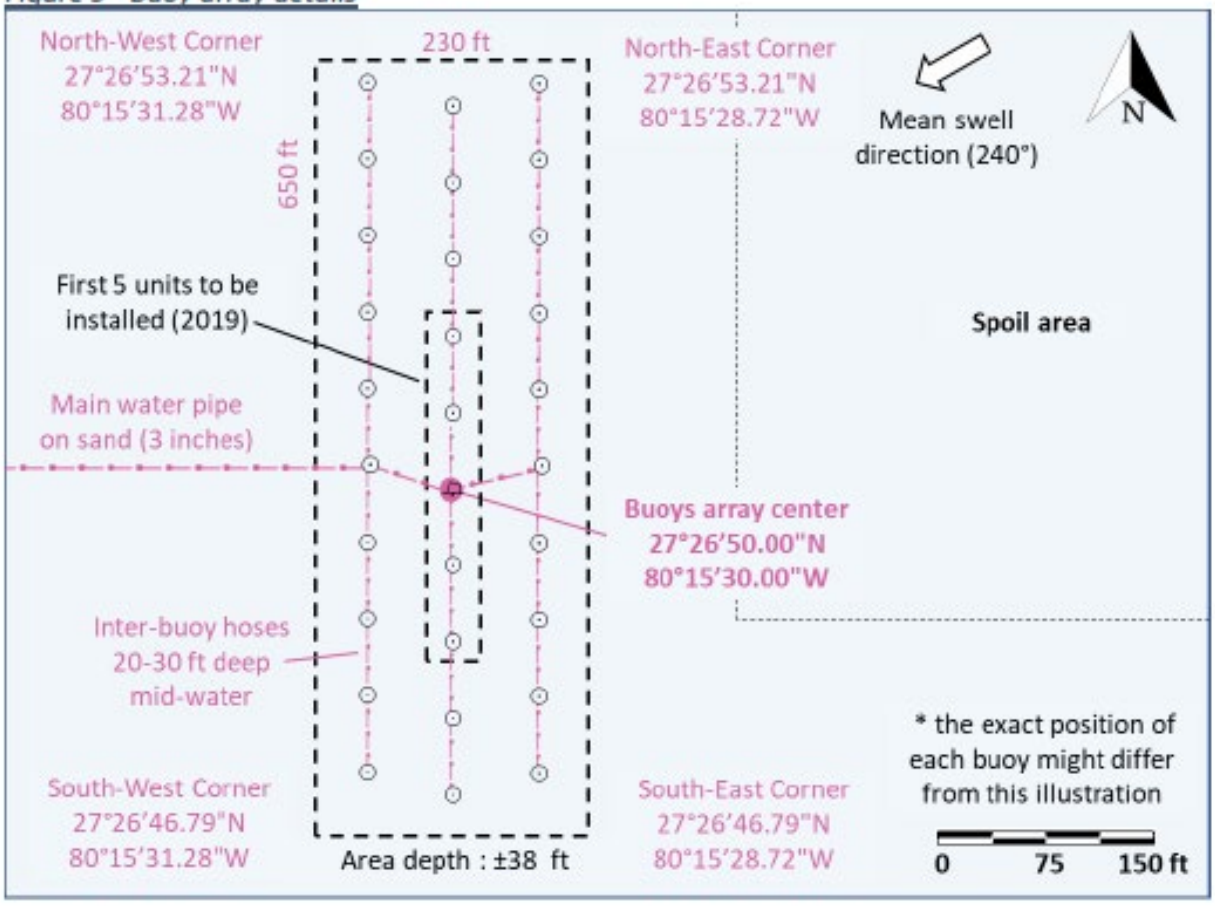
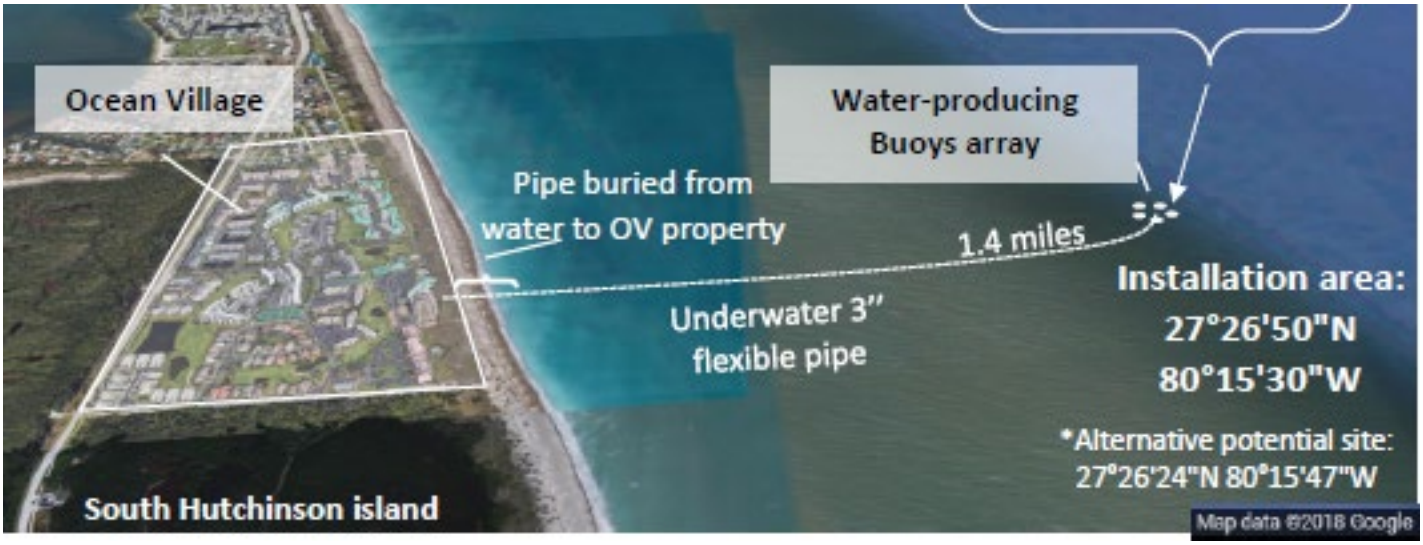
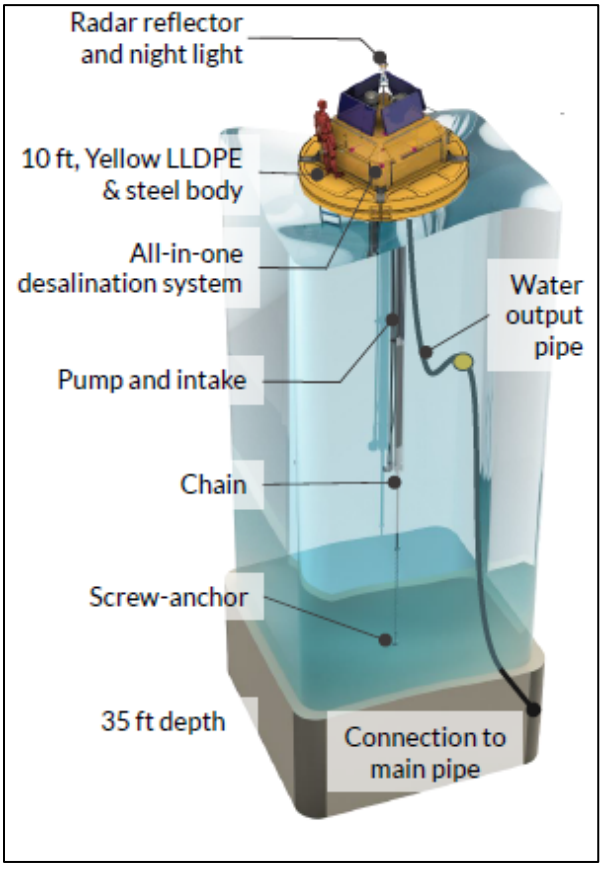


Figure 9 - Buoy array details




Ocean Village
Water-producing
Buoys array
Pipe buried from
water to OV property
1.4 miles
Underwater 3''
flexible pipe
Installation area:
27°26'50"N
80°15'30"W
*Alternative potential site:
27°26'24"N 80°15'47"W
South Hutchinson island
Map data ©2018 Google


Radar reflector
and night light
10 ft, Yellow LLDPE
& steel body
All-in-one
desalination system
Water
output
pipe
Pump and intake
Chain
Screw-anchor
35 ft depth
Connection to
main pipe

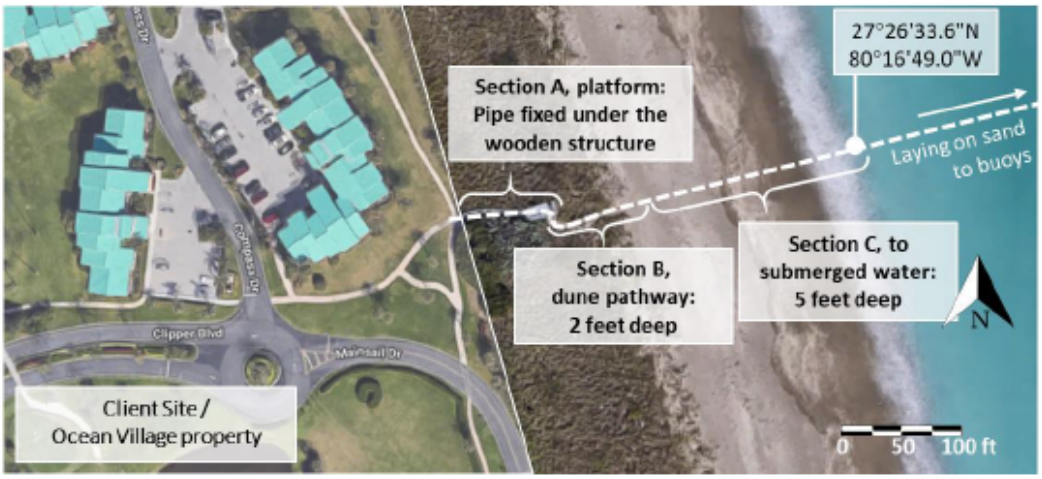


Figure 7: Cross section view of the pipe at the beach's section