DEPARTMENT OF THE ARMY
SAVANNAH DISTRICT, CORPS OF ENGINEERS
100 W. OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3640

REPLY TO
ATTENTION OF

SEPTEMBER 0 9 2013

Regulatory Division
SAS-2010-00177

JOINT PUBLIC NOTICE
Savannah District/State of Georgia

The Savannah District has received an application for a Department of the Army Permit, pursuant to Section l0 of the Rivers and Harbors Act of l899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. l344), as follows:

Application Number: SAS-2010-00177

Applicant: Captain Harvey L. Guffey, Commanding Officer
United States Navy
Naval Submarine Base Kings Bay
1063 USS Tennessee Avenue
Building 1068, Floor 2
King's Bay, Georgia 31547

Agent: Mr. Tom Pride
URS Group
7650 West Courtney Campbell Causeway
Tampa, Florida 33607

Location of Proposed Work: The project is located in King's Bay which drains directly to the Cumberland River, and encompasses the Waterfront Restricted Area at the Naval Submarine Base Kings Bay, Georgia (Latitude 30.8144, Longitude -81.5284).

Description of Work Subject to the Jurisdiction of the U.S. Army Corps of Engineers: The applicant proposes the construction of an Enclave Fencing System around the waterfront restricted area at Naval Submarine Base Kings Bay. Specifically, the proposed action is to construct an earthen embankment (causeway) and expand an existing causeway to cross the intertidal zone which would eventually connect the land/water interfaces to the port security barriers. The purpose of the proposed action is to construct a continuous physical security barrier around the waterfront restricted area to strengthen the existing physical security at Naval Submarine Base Kings Bay. The applicant indicates that the proposed action is needed to comply with Navy and Department of Defense security regulations.

The applicant states that there are wetlands, salt marsh, and open water within the proposed project boundaries. The wetland boundaries shown on the project drawings

have not been verified by the Corps. If the Corps determines that the boundaries of the wetland/waters are substantially inaccurate, a new Public Notice may be published. The applicant proposes to permanently impact 8.0 acres of salt marsh and 1.2 acres of open water. Additionally, the applicant proposes 0.6 acre of temporary salt marsh impacts. As mitigation for the impacts, the applicant proposes to create a 17.6-acre salt marsh mitigation area.

For additional information, see the attached project description supplied by the applicant.

BACKGROUND

This Joint Public Notice announces a request for authorizations from both the U.S. Army Corps of Engineers and the State of Georgia. The applicant's proposed work may also require local governmental approval.

STATE OF GEORGIA

Water Quality Certification: The Georgia Department of Natural Resources, Environmental Protection Division, intends to certify this project at the end of 30 days in accordance with the provisions of Section 401 of the Clean Water Act, which is required for a Federal Permit to conduct activity in, on, or adjacent to the waters of the State of Georgia. Copies of the application and supporting documents relative to a specific application will be available for review and copying at the office of the Georgia Department of Natural Resources, Environmental Protection Division, Water Protection Branch, 4220 International Parkway, Suite 101, Atlanta, Georgia 30354, during regular office hours. A copier machine is available for public use at a charge of 25 cents per page. Any person who desires to comment, object, or request a public hearing relative to State Water Quality Certification must do so within 30 days of the State's receipt of application in writing and state the reasons or basis of objections or request for a hearing. The application can be reviewed in the Savannah District, U.S. Army Corps of Engineers, Regulatory Division, 100 W. Oglethorpe Avenue Savannah, Georgia 31401-3640.

State-owned Property and Resources: The applicant may also require assent from the State of Georgia, which may be in the form of a license, easement, lease, permit or other appropriate instrument.

Marshland Protection: This notice also serves as notification of a request to alter coastal marshlands (under the provision of the Coastal Marshlands Protection Act, Georgia Laws, 1970, p. 939 and as amended), if required. Comments concerning this action should be submitted to the Ecological Services Section, Coastal Resources Division, Georgia Department of Natural Resources, 1 Conservation Way, Brunswick, Georgia 31523-8600 (Telephone 912-264-7218).

Georgia Coastal Management Program: Prior to the Savannah District Corps of Engineers making a final permit decision on this application, the project must be certified by the Georgia Department of Natural Resources, Coastal Resources Division, to be consistent with applicable provisions of the State of Georgia Coastal Management Program (15 CFR 930). Anyone wishing to comment on Coastal Management Program certification of this project should submit comments in writing within 30 days of the date of this notice to the Federal Consistency Coordinator, Ecological Services Section, Coastal Resources Division, Georgia Department of Natural Resources, One Conservation Way, Brunswick, Georgia 31523-8600 (Telephone 912-264-7218).

U.S. ARMY CORPS OF ENGINEERS

The Savannah District must consider the purpose and the impacts of the applicant's proposed work, prior to a decision on issuance of a Department of the Army Permit.

Cultural Resources Assessment: Review of the latest published version of the National Register of Historic Places indicates that no registered properties or properties listed as eligible for inclusion are located at the site or in the area affected by the proposed work. Presently unknown archaeological, scientific, prehistorical or historical data may be located at the site and could be affected by the proposed work.

Essential Fish Habitat (EFH): The applicant, as the lead Federal Agency, provided National Marine Fisheries (NMFS) an EFH assessment for the proposed project. By letter dated November 14, 2012, The NMFS indicated that "the Navy has a plan…that adequately avoids and minimizes impacts to estuarine habitat" and concurred with the applicants mitigation plan and indicated that "This initial consultation is complete". Therefore, the Corps is satisfied that the consultation procedures outlined in 50 CFR Section 600.920 of the regulation to implement the EFH provisions of the Magnuson-Stevens Act have been met.

Endangered Species: By letter dated February 6, 2012, the applicant, as lead Federal Agency, initiated consultation pursuant to Section 7(c) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). By letter dated February 15, 2012, The USFWS indicated that if the design allowed for the fencing to move with the tide and current while allowing for unimpeded movement of manatees and there aquatic species, and manatee conservation measures outlined in the Standard Manatee Conservation Measures associated with the Clean Water Act were implemented, then the USFWS "concur[s] with the determination that the proposed project "is not likely to adversely affect" the manatee. The requirements of section 7 of the ESA have been satisfied and no further coordination is required." A no effect determination has been made for all other listed species and their habitats within the purview of the USFWS.

In addition, by letter dated October 3, 2012, NMFS Southwest Regional Office concurred with the Navy's determination of may affect, not likely to adversely affect for the shortnose and Atlantic sturgeon, and the green, hawksbill, Kemp's ridley, leatherback, and loggerhead sea turtles based on the Navy implementing several measures to reduce the probability of interactions with protected species. NMFS also recommended the Navy contact the Marine Mammal Permits and Authorizations Office for guidance on protecting marine mammals during pile driving activities. Finally, NMFS indicated that "This concludes your consultation responsibilities under the ESA for species under NMFS' purview."

Public Interest Review: 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 benefit, 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 the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain 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.

Consideration of Public Comments: The U.S. Army Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Native American 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 U.S. Army Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Application of Section 404(b)(1) Guidelines: The proposed activity involves the discharge of dredged or fill material into the waters of the United States. The Savannah District's evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under the authority of Section 404(b) of the Clean Water Act.

Public Hearing: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application for a Department of the Army Permit. Requests for public hearings shall state, with

particularity, the reasons for requesting a public hearing. The decision whether to hold a public hearing is at the discretion of the District Engineer, or his designated appointee, based on the need for additional substantial information necessary in evaluating the proposed project.

Comment Period: Anyone wishing to comment on this application for a Department of the Army Permit should submit comments in writing to the Commander, U.S. Army Corps of Engineers, Savannah District, Attention: Ms. Sherelle Reinhardt, 100 W. Oglethorpe Avenue Savannah, Georgia 31401-3640, no later than 30 days from the date of this notice. Please refer to the applicant's name and the application number in your comments.

If you have any further questions concerning this matter, please contact Ms. Sherelle Reinhardt, Regulatory Specialist, Permits Section, Coastal Branch at 912-652-5964.

4 Encls
1. Applicants Supplemental Documentation (Introduction, 5 pages)
2. Wetlands Impact Exhibit (Sheets WI-900-WI-902, 3 pages)
3. Construction Drawings, WRA Land/Water Interface P636 (G-001, C-150, 2 pages)
4. Wetland Mitigation Monitoring Plan - Draft (6 pages)

1.0 INTRODUCTION

Naval Submarine Base (NSB) Kings Bay is the U.S. Atlantic Fleet's home port for the U.S. Navy Fleet nuclear-powered, ballistic nuclear missile-carrying submarines. NSB Kings Bay is located in Camden County, Georgia, approximately four miles inland from the Atlantic Ocean, and approximately two miles north of St. Marys, Georgia, along the western shore of Cumberland Sound (Figure 1). The Base covers approximately 16,000 acres, including approximately 4,000 acres of wetlands.

Due to the presence of these submarines and attendant facilities, the waterfront area at NSB Kings Bay is restricted and physical security is paramount. This permit application seeks authorization for activities in wetlands resulting from the Department of the Navy's (Navy) proposed action to construct a physical barrier structure around portions of the Waterfront Restricted Area (WRA) at the Base. The current fence system is outdated and is not continuous; therefore it does not comply with the most recent security regulations. The proposed project would strengthen the existing physical security protecting sensitive U.S. military assets at the waterfront area of the Base and enhance the safety and security of mission-critical Navy assets located at the Base by complying with new Department of Defense (DoD) mandatory security requirements and guidelines.

1.1 PURPOSE AND NEED

The policies and requirements regarding the safeguard of nuclear weapons within the DoD are established by DoD S5210.41M (signed in November 2004). Additional security requirements for facilities such as NSB Kings Bay are included in the Secretary of the Navy Instruction (SECNAVINST) S8126, *Naval Nuclear Weapons Security Policy* and from the Office of the Chief of Naval Operations Instruction (OPNAVINST) 5530.14, *Navy Physical Security and Law Enforcement Program.* The primary objective of the Navy Security Program is to safeguard personnel, property, facilities, and material and to enforce laws, rules, and regulations at Navy installations, activities, and operational commands. Physical security is concerned with physical measures designed to safeguard personnel; prevent unauthorized access to installations, equipment, material, and documents; and to safeguard against espionage, sabotage, damage, and theft.

Figure 1 – Naval Submarine Base Kings Bay Location

A major revision to these DoD security regulations, which were developed in response to the terrorist attacks of September 11, 2001, has significantly increased security requirements at the Navy's strategic weapons processing and storage facilities and restricted waterfront areas, including installations such as NSB Kings Bay. To comply with these new security directives, the Navy is programming significant increases in security structures. The proposed project presented in this permit application fall under the directive of these new security requirements.

The purpose of the proposed action is to construct a continuous physical barrier around the WRA to strengthen the existing physical security at the waterfront area of NSB Kings Bay. This increased level of security is needed to comply with the new mandatory Navy and DoD security regulations. Specifically, SECNAVINST S8126 requires the WRA at NSB Kings Bay be a Level 3 restricted area. OPNAVINST 5530.14 requires Level 3 restricted areas to have a complete and continuous perimeter boundary. The proposed action is needed to provide a single continuous physical barrier around the nuclear submarines and waterfront support facilities at the Base in accordance with OPNAVINST 5530.14.

1.2 DESCRIPTION OF THE PROPOSED ACTION

Eventually, the proposed integrated enclave security system will consist of three main components: floating port security barriers (PSBs), enclave fencing system (EFS), and land/water interfaces (LWIs). The PSBs are floating barriers designed to prevent unlawful entry of water-borne vessels into the WRA. The EFS is a network of security fences and patrol roads constructed in uplands and containing sensors, cameras, and lights to prevent potential intruders from entering the WRA and to identify their attempts to assault the WRA. The LWIs are the critical link between the PSBs and EFS and consists of four fill causeways (LWI 1-4) constructed in marshes with a bulkhead structure at the terminal end of the causeway to attach the PSBs to the LWI. The LWIs, like the EFS, will have a series of cameras, sensors, and lights, and will include a surface area capable of supporting rapid response by military personnel.

When complete, the enclave security system will consist of five separate projects (P594, P601, P611, P636, and PSBs) whose joint mission is to create a complete, secured WRA perimeter; however, only one of these (P636) is covered by this permit application. P594 was constructed in 2008 and extended from the north side of Entry Control Facility (ECF) 6 to approximately 200 feet south of ECF 8 at its south end. P601 extends the landside security enclave facilities to the northernmost and southernmost locations of the land-based WRA. Both P594 and P601 exist entirely in uplands and do not affect any Georgia DNR or USACE jurisdictional waters or wetlands; therefore, they are not part of this permit application. The floating PSBs and P611 are to be permitted and constructed at a later date and therefore are not part of this permit

application. P636 is located within Georgia DNR and USACE jurisdictional waters and therefore require authorization from these agencies for project-related wetland impacts. Additional details of the P636 project are provided below. The location of P636 is shown on Figure 2.

Project P636

Proposed project P636 extends from the north and south ends of P601 across lowland and marsh areas to a point with sufficient water depth to interface with the future PSBs. This will be accomplished by constructing embankment causeways through the marsh areas. The elements being constructed under P636 include:

- Extension of the existing Perimeter Intrusion Detection and Assessment System (PIDAS) approximately 1,750 feet at the north end (LWI 1) and 800 feet at the south end (LWI 4). Elements of the PIDAS include clear zones, an isolation zone, outer and inner fences, sensor platform infrastructure, gates, lighting, camera support structures, and communication and power distribution and infrastructure to support follow-on PIDAS Electronic Security System hardware installation by others.

- Provision of barrier systems (modified Normandy barriers and rated bollards) meeting up with the Inner Clear Zone (ICZ) barrier systems being installed under P601. These barriers will extend the ICZ barriers for the full length of the P636 LWIs.

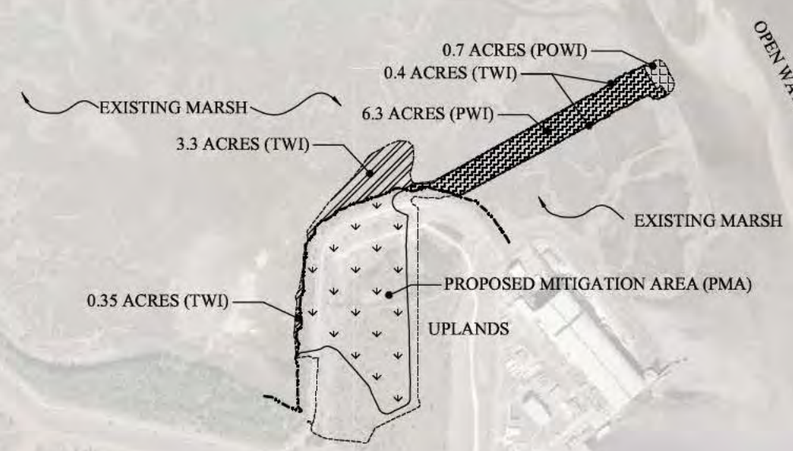
- A limited access Patrol Road of minimum 15-foot width provided on the secure side of the PIDAS with a turnaround at the waterfront ends.

- A walled abutment provided at each waterfront limit with a vertical face and adjacent pile-supported concrete dolphin structures planned for attachment of the PSB systems.

The total project area of P636 is approximately 22 acres. An additional 17.6-acre proposed wetland mitigation area for P636 is located adjacent to the northern segment of P636.

Selected construction plan sheets for P636 are provided in Attachment 1.

Figure 2 – P636 Project Location



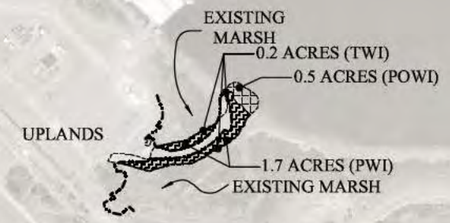
OPEN WATER (KINGS BAY)

CRAB ISLAND

CUMBERLAND SOUND

KINGS BAY

NAVAL
SUBMARINE BASE
KINGS BAY



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LEGEND

- WETLAND BOUNDARY
- LIMITS OF DISTURBANCE
- PERMANENT WETLAND IMPACT (PWI)
- PERMANENT OPEN WATER IMPACT (POWI)
- TEMPORARY WETLAND IMPACT (TWI)
- PROPOSED MITIGATION AREA (PMA)

GRAPHIC SCALE

1000' 0 1000'

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Campbell Causeway
Tampa, FL. 33607
Tel: 813.286.1711
FDBPR LICENSE NO. 7285

NAVFAC

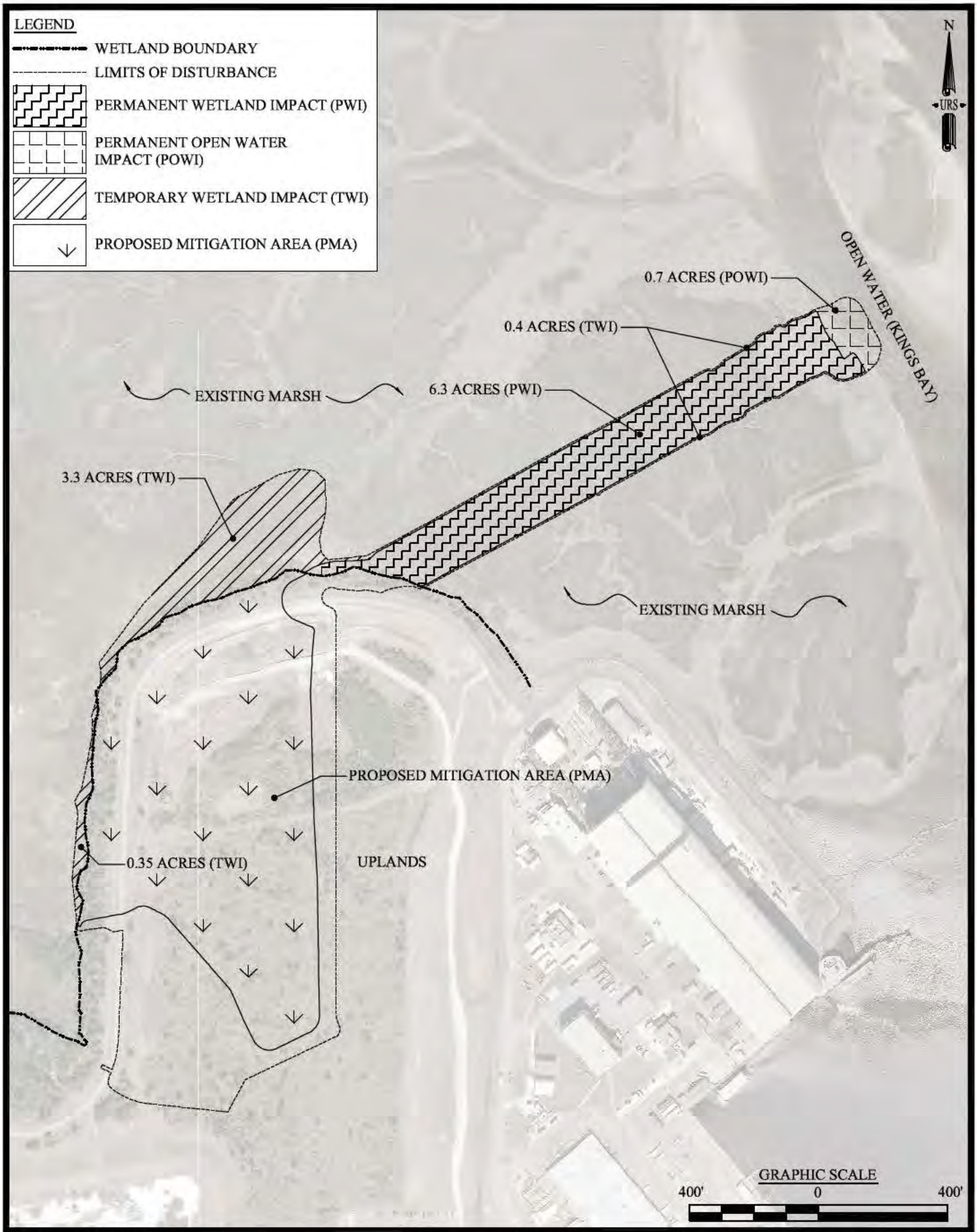
NAVAL SUBMARINE BASE
KINGS BAY, GA

P636 - WETLAND & OPEN WATER
IMPACT AREAS EXHIBIT

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND

SCALE: 1"=1000'

SHEET: WI-900



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FDBPR LICENSE NO. 7285

NAVFAC

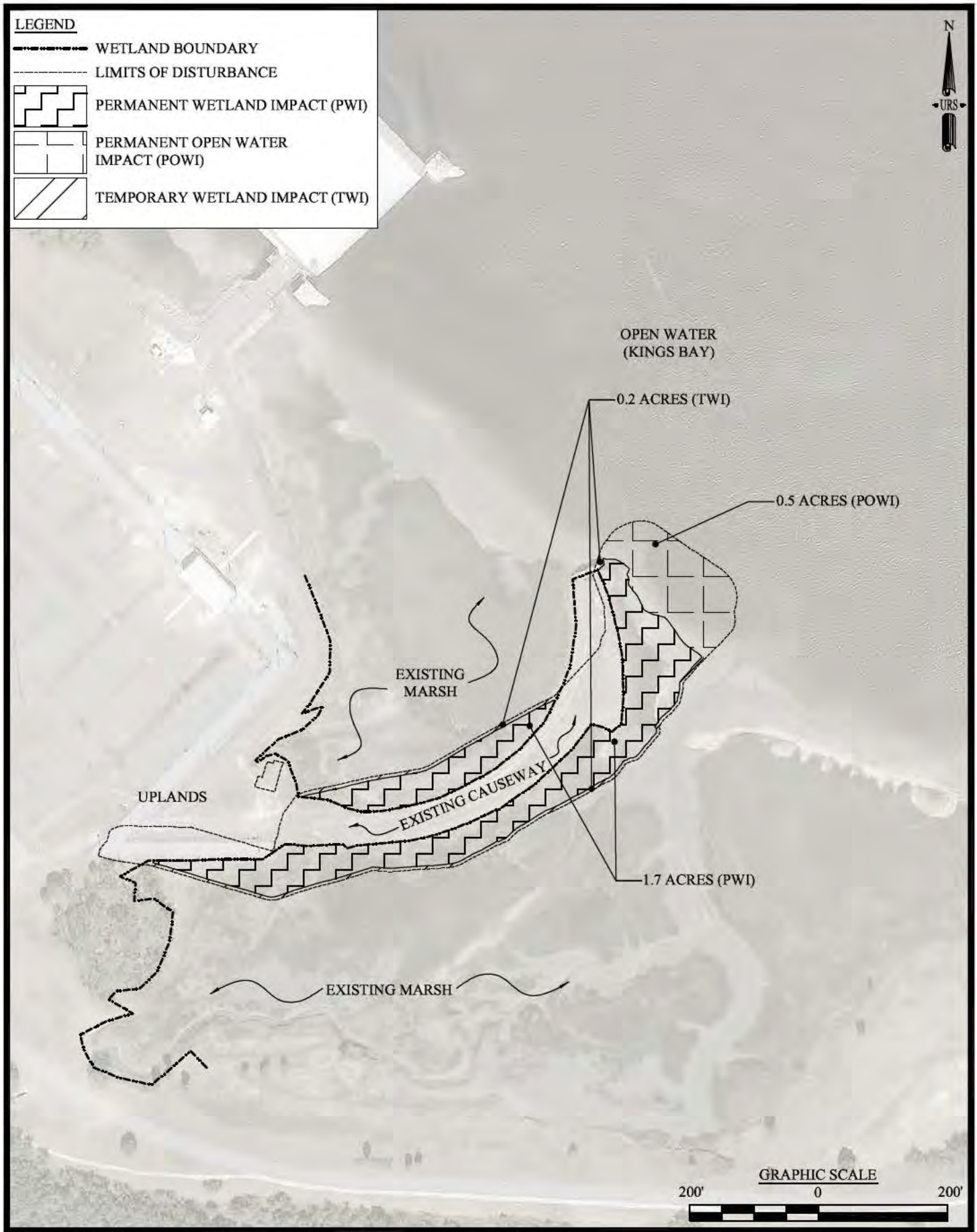
NAVAL SUBMARINE BASE KINGS BAY, GA

P636 (LWI 1/MITIGATION SITE)-WETLAND & OPEN WATER IMPACT AREAS EXHIBIT

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND

SCALE: 1"=400'

SHEET: WI-901



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NAVFAC

NAVAL SUBMARINE BASE KINGS BAY, GA

P636 (LWI 4) - WETLAND & OPEN WATER IMPACT AREAS EXHIBIT

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND

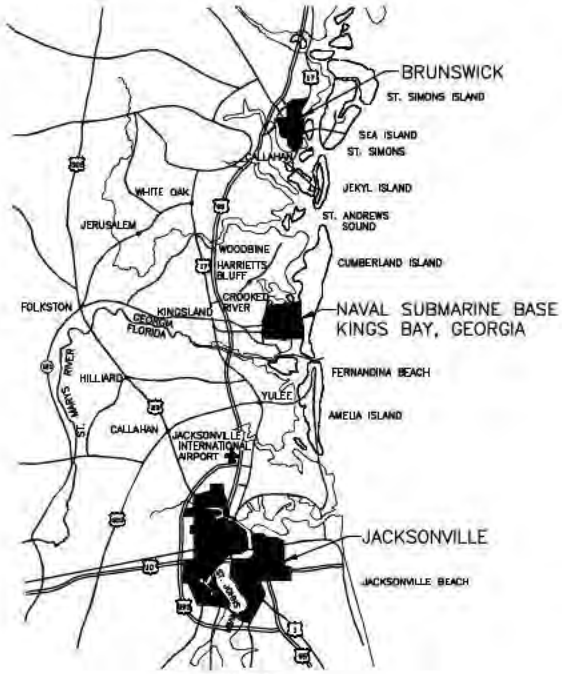
SCALE: 1"=200'

SHEET: WI-902

WRA LAND/WATER INTERFACE
P636

NAVAL SUBMARINE BASE
KINGS BAY, GEORGIA

WORK ORDER NUMBER 862389



VICINITY MAP
NOT TO SCALE

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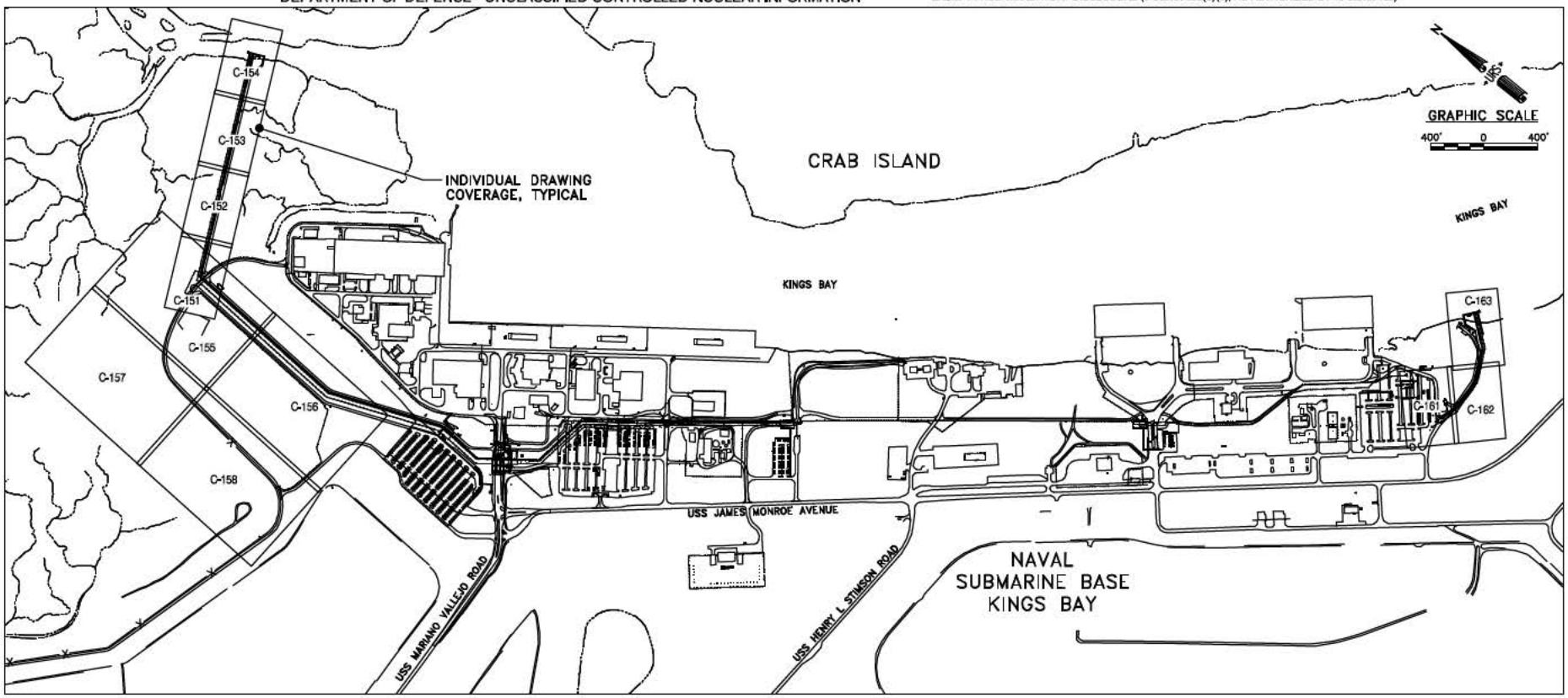
FDBPR LICENSE NO. 7263

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
FT. SOUTH, FLORIDA
NAVAL SUBMARINE BASE
KINGS BAY, GA
WRA LAND / WATER INTERFACE
P636
COVER SHEET

BUILD AS SHOWN
CONTRACT NO. 862389
CONTR. DRWG. NO.
NAVFAC DRAWING NO. 15069346
SHEET 1 OF 229
G-001

REDUCED DRAWING
VERIFY SCALE REPRESENTATIONS



NOTES:

1. FOR GENERAL NOTES SEE SHEET G-003.
2. FOR CIVIL LEGEND AND SYMBOLS SEE SHEET C-001.
3. THERE ARE EXISTING DRAINAGE DISTRIBUTIONS THAT PASS THROUGH THE PROJECT SITE. THE CONTRACTOR SHALL DEVELOP A SEQUENCE OF CONSTRUCTING TEMPORARY AND PERMANENT NEW DISTRIBUTIONS, ALONG WITH DEMOLITION AND/OR FILLING OF EXISTING DISTRIBUTIONS, THAT ALLOWS FOR MAINTAINING THE CAPABILITIES TO CONVEY RUNOFF THROUGH THE SITE. THIS SEQUENCE PLAN, WHICH SHALL BE INCLUDED WITH THE REQUIRED PHASING PLAN, SHALL ALSO ADDRESS NEW TEMPORARY AND PERMANENT COLLECTION AND DISTRIBUTION SYSTEMS TO ACCOMMODATE RUNOFF FROM WITHIN THE PROJECT SITE.
4. SEE GRAVEL SURFACE WITHIN ISOLATION ZONE NOTES ON SHEET C-301. NOTE THAT THE GRADES INDICATED ON THESE DRAWINGS ARE THOSE TO BE ACHIEVED BEFORE GRAVEL PLACEMENT. THE DESIGN INTENT IS FOR THE ISOLATION ZONE TO HAVE POSITIVE SURFACE DRAINAGE BASED ON GRADES AT BASE OF GRAVEL. (CORRESPONDING TO GRADES INDICATED ON DRAWINGS). SURFACE GRADES BEFORE GRAVEL PLACEMENT HAVE BEEN DESIGNED TO PREVENT ANY RUNOFF, FROM ADJACENT AREAS, FROM ENTERING THE ISOLATION ZONE.
5. FOR AREAS WHERE STONE RIPRAP IS INDICATED TO BE PROVIDED (SHEETS C-151 THROUGH C-154, C-162, AND C-163) THE NEW ELEVATION CONTOURS INDICATED ARE FOR FINISHED GRADE AT TOP OF BEDDING STONE (BOTTOM OF RIPRAP) UNLESS NOTED OTHERWISE.
6. IN ADDITION TO THE ONE PIPE OUTFALL ON SHEET C-163 WHERE DRAINAGE OUTFALL PROTECTION IS INDICATED, THE CONTRACTOR SHALL PROVIDE APPROXIMATELY 200 SY TOTAL OF PERMANENT RIPRAP AND FILTER FABRIC CONFORMING TO DETAIL 5 ON SHEET C-502 AT MISCELLANEOUS LOCATIONS INDICATED BY THE CONTRACTING OFFICER AFTER GRADING AND SURFACE STABILIZATION IS COMPLETE.

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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
FT. SOUTH, ATLANTIC
NAVAL SUBMARINE BASE KINGS BAY, GA
WRA LAND / WATER INTERFACE
P636
GRADING AND DRAINAGE - SHEET LAYOUT PLAN

SCALE AS SHOWN
CONTRACT NO. 862389
CONTR. DWG. NO.
NAVFAC DRAWING NO. 15069386
SHEET 41 OF 229
C-150

REDUCED DRAWING
VERIFY SCALE REPRESENTATIONS

Enclave Fencing System
P636
Naval Submarine Base
Kings Bay, Georgia

Wetland Mitigation Monitoring Plan - DRAFT

May 2013

1.0 Introduction

Georgia Department of Natural Resources Permit No. ____ and Department of the Army Permit No. ___ have authorized activities in wetlands resulting from the Department of the Navy's (Navy) proposed action to construct a continuous, uninterrupted physical barrier structure around the Waterfront Restricted Area (WRA) at Naval Submarine Base Kings Bay. These permits further authorize the construction of a wetland mitigation site at the Base to compensate for the unavoidable wetland impacts resulting from the WRA project. This Wetland Mitigation Monitoring Plan describes the procedures to be used to assess the success of the Wetland Mitigation Site in accordance with state and federal permit criteria. Figure 1 shows the location of the Wetland Mitigation Site.

2.0 Construction Information

The Wetland Mitigation Site is approximately 17.6 acres in size and is to be created by lowering grades within an abandoned spoil disposal site on the Base to elevations suitable for the establishment of a *Spartina* marsh, similar in form and function to habitats impacted by the proposed project and to regional coastal marshlands. An additional 3.7 acres of existing saltmarsh will be temporarily impacted by lowering grades to create proper elevations for tidal flows to the mitigation area. Three vegetative zones have been established within the Site. Zone 1 consists of 19.2 acres of inter-tidal habitat that will be allowed to naturally recruit with *Spartina alterniflora* (this area includes the 3.7 acres of temporarily impacted area). Zones 2 and 3 cover 2.1 acres along the edge of the mitigation site and will be planted as shown in Table 1 below.

Table 1
Wetland Mitigation Site Planting Specifications

Zone	Scientific Name	Common Name	Planting Elevation	Plant Size	Spacing	Quantity
1	N/A	N/A	<8.5 ft.	No Planting	N/A	N/A
2	*Distichlis spicata*	Saltgrass	2 rows between elevation 8.5 ft. - 9.5 ft.	2-in. pots	2 ft. O.C.	2,760
	Borrichia frutescens	Seaside oxeye	1 row at elevation 8.5 ft.	4-in. pots	3 ft. O.C.	920
3	*Distichlis spicata*	Saltgrass	Elevation 8.5 ft. – 9.5 ft.	2-in. pots	2 ft. O.C.	10,550
	Borrichia frutescens	Seaside oxeye	1 row at elevation 8.5 ft.	4-in. pots	3 ft. O.C.	320

Additional specifications regarding the construction and planting of the Wetland Mitigation Site are contained in the project construction plan set.

3.0 Success Criteria

The Wetland Mitigation Site shall be considered successful and released from monitoring when the following conditions, as outlined in the permits, have been met:

- The Wetland Mitigation Site has developed into a functional coastal estuarine wetland with characteristic topography and tidal fluctuation.

- Within three (3) years of completion of construction of the Wetland Mitigation Site, the average percent cover of desirable herbaceous species within each planting zone shall exceed 80 percent; be rooted for at least 12 months; and be reproducing naturally.

- Nuisance and exotic vegetation shall be limited to 5 percent or less of the total cover within the Wetland Mitigation Site.

In the event these success criteria have not been met within three (3) years of completion of construction of the Wetland Mitigation Site, within 30 days of submittal of the Third Annual Monitoring Report (described below) the Navy will coordinate with the Georgia Department of Natural Resources, the U.S. Army Corps of Engineers, and the National Marine Fisheries Service to assess the status and condition of the Wetland Mitigation Site, including identification of potential contributors for the lack of success of the Site. The Navy will develop a Wetland Mitigation Corrective Action Plan to address the deficiencies of the Site and a schedule for implementation of the Wetland Mitigation Corrective Action Plan. The Corrective Action Plan is to be submitted to the Georgia Department of Natural Resources, U.S. Army Corps of Engineers, and National Marine Fisheries Service within 90 days of submittal of the Third

Annual Monitoring Report to the resource and permitting agencies for their review and approval. The Navy shall then implement the approved Wetland Mitigation Corrective Action Plan in accordance with agency requirements and permit criteria.

4.0 Monitoring and Reporting Methodology

4.1 Baseline Monitoring Report

Within thirty (30) days following completion of construction of the Wetland Mitigation Site a Baseline Monitoring Report will be prepared and submitted to the Georgia Department of Natural Resources, U.S. Army Corps of Engineers, and National Marine Fisheries Service. The Baseline Monitoring Report will describe the constructed Wetland Mitigation Site and established vegetation zones. Permanent photo stations at selected locations throughout the Site are to be established and representative photographs of the Site taken from the photo stations are to be included in the Baseline Monitoring Report and subsequent Annual Monitoring Reports. The Baseline Monitoring Report shall also include a post-construction elevation survey signed and sealed by the professional engineer or registered land surveyor conducting the survey.

4.2 Annual Survey

Vegetative sampling will be conducted along the four (4) permanent transects established in the Wetland Mitigation Site, as shown in Figure 2. The beginning points, intermediate points, and end points will be marked with three-meter PVC poles. [These points will also serve as the permanent photo stations.] Within Zones 1 and 3, vegetative cover will be sampled using square-meter quadrats spaced every 20 meters along each transect, including both ends of the transect. The aerial percent cover of each species in each quadrat will be visually estimated and recorded. Only those individual plants that are rooted within the quadrat will be counted. The only exception to this will be for creeping and matting vegetation, which will be included in the count if the shoots are rooted. Water depths will also be recorded for each quadrat and averaged. Additionally, measures of shoot counts and shoot length of each vegetative shoot within the quadrat will be made within a minimum of ten (10) of the square-meter quadrats (at least two quadrats along each transect).

The length of each transect and the number of square-meter quadrats monitored along each transect are as follows:

Transect ID	Transect Length (meters)	Number of Sampling Quadrats
1	148	10
2	228	14
3	284	49
4	311	18

Within Zone 2 a single transect will be established along the full length of the planting zone (764 meters). Vegetative cover will be sampled using square-meter quadrats spaced every 20 meters along the transect, resulting in a total of 41 quadrats in the zone.

Data for all quadrats within each vegetative zone will be combined to determine the dominant and subdominant species for the community. The average percent vegetative cover of each species will be determined using the following formula:

$$\textit{Average \% Cover Species A} = \frac{\textit{(Q1 \% Cover Species A + Q2 \% Cover Species A +Q3...)}}{\textit{Total Number of Quadrats in Zone}}$$

Where Q1, Q2, etc. = individual square-meter quadrat.

Additional data collected during the monitoring events will include wildlife observations and observance of overall wetland health.

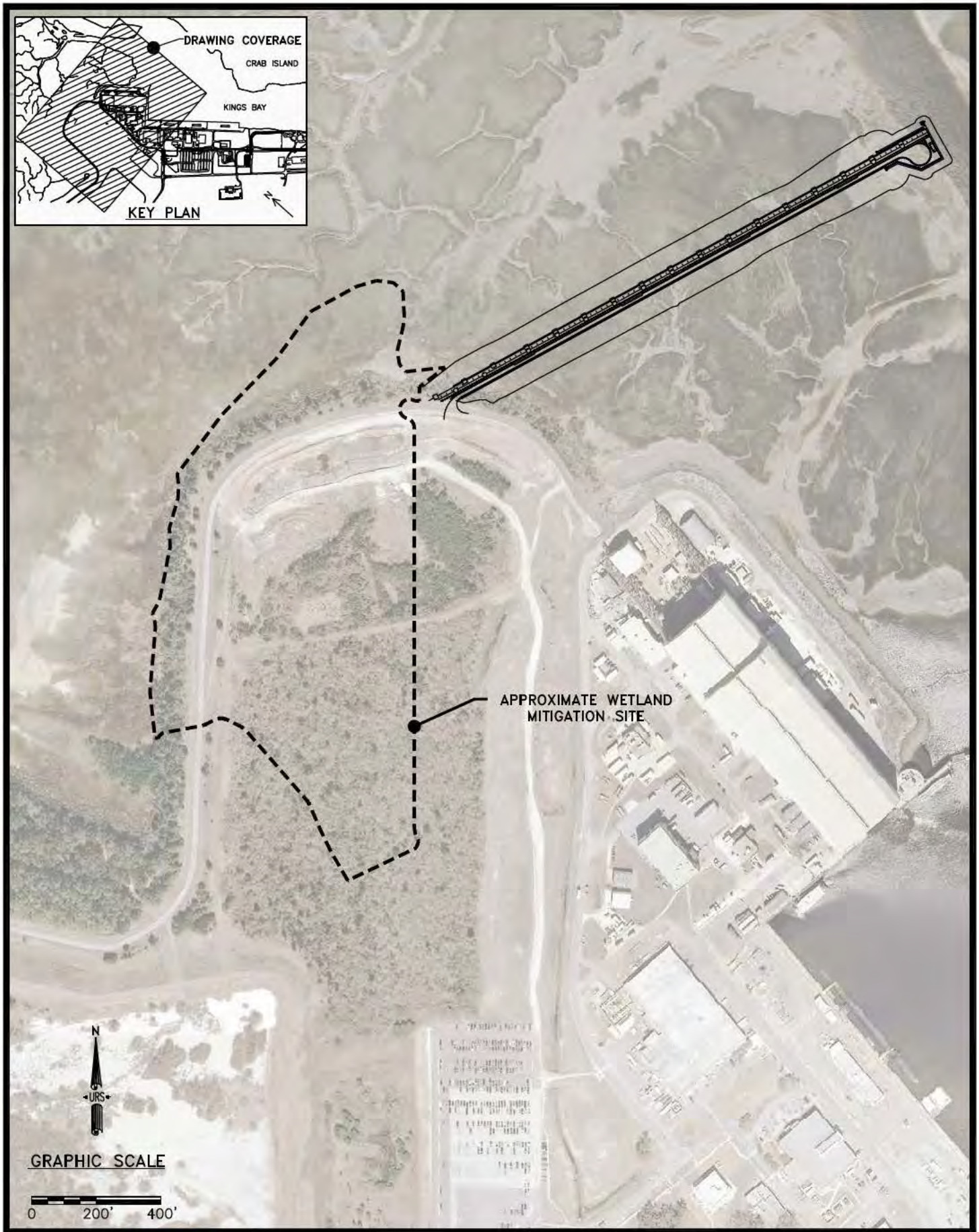
Monitoring events will be conducted on an annual basis for a minimum of three (3) consecutive years following the baseline monitoring event. Each monitoring event is to be conducted during the summer growing season.

Each Annual Monitoring Report will include a discussion of monitoring results and site conditions relative to the permit success criteria. Dates for monitoring and report submittals are as follows:

- Completion of Construction: To be Determined
- Baseline Monitoring Event and Report Submittal: Within 30 days of Completion of Construction
- 1st Annual Monitoring Event and Report Submittal:
- 2nd Annual Monitoring Event and Report Submittal:
- 3rd Annual Monitoring Event and Report Submittal:

5.0 Maintenance

Maintenance of the mitigation area will be conducted in accordance with permit conditions. Semi-annual maintenance events will be conducted by the Navy to eliminate nuisance and exotic species and any other perceived nuisance (i.e., trash and debris) from the Wetland Mitigation Site. Semi-annual maintenance events will be conducted until mitigation success has been achieved and the Site has been released from permit required monitoring.



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FDBPR LICENSE NO. 7285

NAVFAC

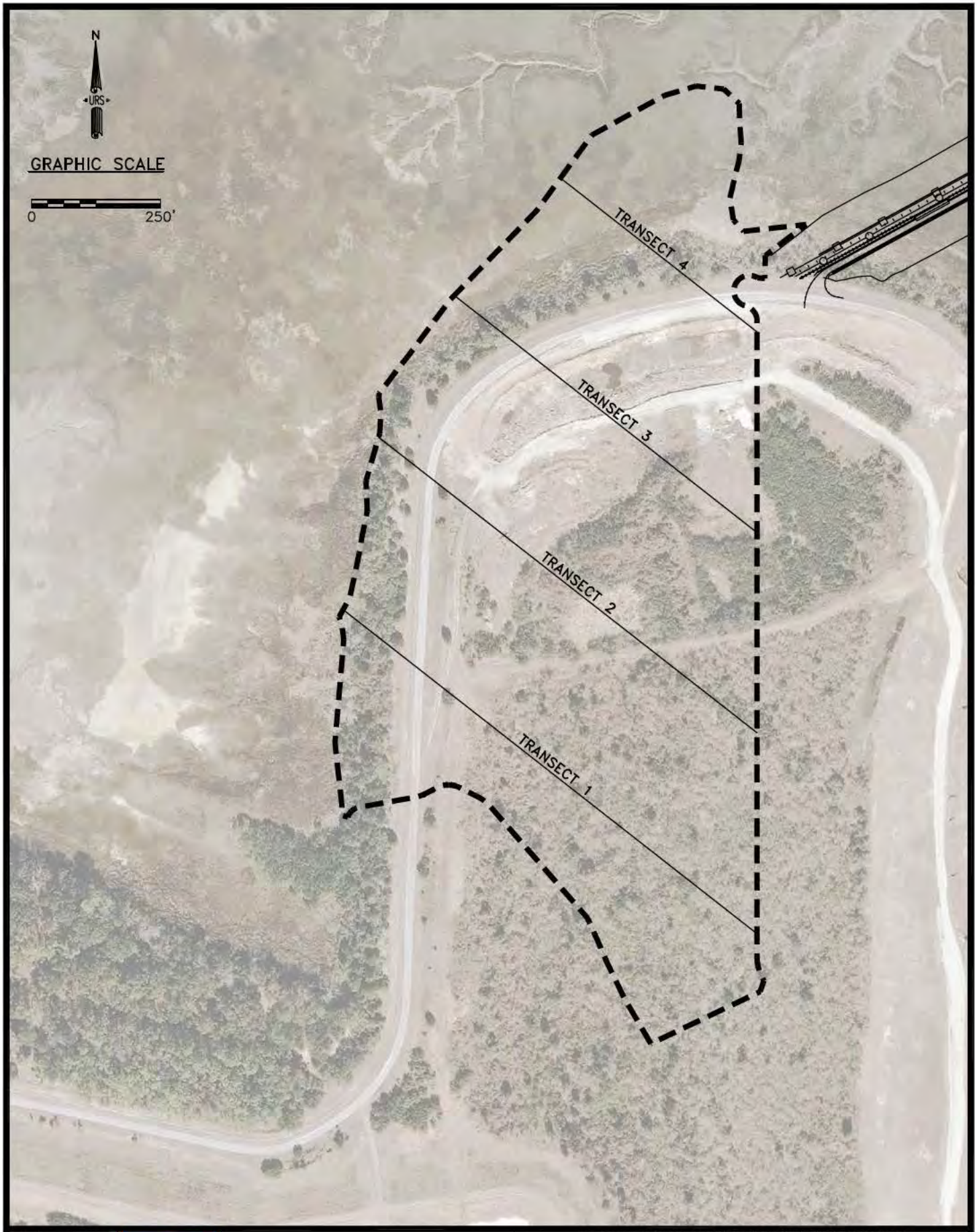
NAVAL SUBMARINE BASE
KINGS BAY, GA

ENCLAVE SECURITY FENCING
WETLAND MITIGATION AREA
- SITE LOCATION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND

SCALE: 1"=400'

FIGURE: 1



URS Group, Inc. 7650 West Courtney Campbell Causeway Tampa, FL 33607 Tel: 813.286.1711 FDBPR LICENSE NO. 7285	NAVFAC	NAVAL SUBMARINE BASE KINGS BAY, GA	ENCLAVE SECURITY FENCING WETLAND MITIGATION AREA - TRANSECT LOCATIONS
		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND	SCALE: 1"=250' / FIGURE: 2