



Florida Department of Environmental Protection

Southeast District
400 N. Congress Avenue, Suite 200
West Palm Beach, Florida 33401

Charlie Crist
Governor

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Lt. Governor

Michael W. Sole
Secretary

ENVIRONMENTAL RESOURCE PERMIT

APPLICANT:
U.S. Army Corps of Engineers
c/o Ms. Marie Burns
Chief, Environmental Branch
Jacksonville District
701 San Marco Boulevard
Jacksonville, Florida 32207-8175

Permit No.: EI-0234604-003
Date of Issuance: March 8, 2007
Expiration Date: March 7, 2012
County: Martin and Palm Beach
Project: Herbert Hoover Dike Rehabilitation and Repair,
Emergency Repair of Priority Sites, Reaches 1, 2 and 3

This permit is issued under the authority of Part IV of Chapter 373, Florida Statutes (F.S.), and Title 62, Florida Administrative Code (F.A.C.). The activity is not exempt from the requirement to obtain an Environmental Resource Permit. Pursuant to Operating Agreements executed between the Florida Department of Environmental Protection (Department) and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing and taking final agency action on this activity.

ACTIVITY DESCRIPTION:

This project involves the necessary filling of portions of the Herbert Hoover Dike toe ditch along sections of the dike that have been identified as having an unacceptable risk of failure in the immediate term. Specifically, a total of approximately 20,000 feet of toe ditch will be backfilled for eight (8) priority sites within Reaches 1, 2 and 3. Backfilling will be accomplished by first removing the vegetation and muck from the existing toe ditch, placing approximately one foot of clean sand or gravel along the bottom and sideslopes of the toe ditch, capping this sand or gravel with a geotextile fabric, placing additional gravel to the target elevation, enveloping the gravel layer by covering it with additional geotextile fabric, and then placing approximately six inches of gravel on top of the geotextile fabric. Approximately 1 to 2 feet of freeboard (i.e., the vertical distance from the top of bank of toe ditch to the top of fill) will remain to provide a surface swale to capture and convey stormwater runoff from the dike to avoid offsite flooding. All hydraulic connections to existing culverts and lateral canals will remain open.

Work on several priority sites where the South Florida Water Management District's (District) right-of-way does not presently include the toe ditch will be delayed until additional right-of-way or right-of-access is acquired. The project is part of the U.S. Army Corps of Engineers' Herbert Hoover Dike Rehabilitation and Repair Project which is expected to enhance the stability of the dike's ~143 miles of levees.

ACTIVITY LOCATION:

The project is located on the landward toe ditch of the Herbert Hoover Dike, Class III Waters, within eight (8) priority sites (Sections 23, 13, 12, 1, Township 43 South, Range 36 East; Sections 23, 33, 34, 11, Township 43 South, Range 37 East; and Section 21, Township 43 South, Range 35 East) in Martin and Palm Beach Counties within Reaches 1, 2 and 3. See Figure 1 for a map showing the reach boundaries for the Herbert Hoover Dike Rehabilitation Project. See Figure 2 for locations of priority sites #0, #7, #5, #4, #6, #1, #8 and #3.

This permit also constitutes a finding of consistency with the Florida Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act.

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This permit also constitutes certification of compliance with water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. 1341.

The Department acts as staff to the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees) and issues certain authorizations for the use of sovereign submerged lands. The Department has the authority to review this project under Chapters 253 and 258, F.S., Chapters 18-20 and 18-21, F.A.C., and Section 62-343.075, F.A.C. The proprietary review has determined that portions of this project will occur on sovereign submerged land and will require authorization from the Board of Trustees to use public property. As staff to the Board of Trustees, we have reviewed the proposed project and have determined that, as long as it is located within the described boundaries and is consistent with the attached general consent conditions, the project qualifies for consent to use sovereign submerged lands. Therefore, pursuant to Chapter 253.77, Florida Statutes, this permit may be considered as authorization from the Board of Trustees to perform the project.

You are hereby advised that authorizations may also be required by other state, federal, and local entities. This authorization does not relieve you from the requirements to obtain all other required permits and authorizations.

The above named permittee is hereby authorized to construct the work shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof. This permit is subject to the limits, conditions, and locations of work shown in the attached drawings, and is also subject to the attached 12 General Conditions and 14 Specific Conditions, which are a binding part of this permit. You are advised to read and understand these drawings and conditions prior to commencing the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings. If you are utilizing a contractor, the contractor also shall read and understand these drawings and conditions prior to commencing the authorized activities. Failure to comply with all drawings and conditions shall constitute grounds for revocation of the permit and appropriate enforcement action.

The U.S. Army Corps of Engineers (Corps) agrees to construct the project in accordance with the provisions of the permit application and supporting documentation. To the extent sovereign immunity has been waived under 33 U.S.C. 1323 and 1344(t), the Corps' agreement to construct the project in accordance with the provisions of the permit application and supporting documentation is an enforceable condition of this permit.

GENERAL CONDITIONS:

1. This permit, including its general and specific conditions, must be construed in light of the February 2006 Interagency Cooperative Agreement for Civil Works Projects (ICA) between the Department and the Corps. As recognized in the ICA, the Department has the authority to include reasonable conditions in this permit. All of the conditions in this permit, both general and specific, are enforceable to the extent sovereign immunity has been waived under 33 U.S.C. §§ 1323 and 1344(t). The ICA is incorporated herein by reference.
2. All activities approved shall be implemented as set forth in the drawings incorporated by reference and in compliance with the conditions and requirements of this document. The Corps shall notify the Department in writing (email is adequate) of any anticipated changes in:
 - a) operational plans;
 - b) project dimensions, size or location;
 - c) ability to adhere to permit conditions;
 - d) project description included in the permit;
 - e) monitoring plans.

If the Department determines that a modification to the permit is required, then the Corps shall apply for and obtain the modification. Department approval of the modification shall be obtained prior to implementing the

change, unless the change is determined by the Department to reduce the scope of work from that authorized under the original permit, and will not affect compliance with permit conditions or monitoring requirements.

3. If, for any reason, the Corps does not comply with any condition or limitation specified herein, the Corps shall immediately provide the Department with a written report containing the following information:
 - a) a description of and cause of noncompliance;
 - b) the period of noncompliance, including dates and times;
 - c) impacts resulting or likely to result from the non-compliance;
 - d) steps being taken to correct the non-compliance; and
 - e) the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

Compliance with the provisions of this condition shall not preclude the Department from taking any enforcement action allowed under state law with respect to any non-compliance.

4. The Corps shall obtain any applicable licenses, permits, or other authorizations, which may be required by federal, state, local or special district laws and regulations. Nothing herein constitutes a waiver or approval of other Department permits or authorizations that may be required for other aspects of the total project.
5. Nothing herein conveys to the Corps or creates in the Corps any property right, any interest in real property, any title to land or water, constitutes State recognition or acknowledgment of title, or constitutes authority for the use of Florida's sovereign submerged lands seaward of the mean high-water line or an established erosion control line, unless herein provided, and the necessary title, lease, easement, or other form of consent authorizing the proposed use has been obtained from the State.
6. Any delineation of the extent of a wetland or other surface water submitted as part of the application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this authorization or a formal determination under section 373.421(2), F.S., provides otherwise.
7. Nothing herein authorizes any entrance upon or activities on property, which is not owned or controlled by the Corps or local sponsor, or convey any vested rights or any exclusive privileges.
8. This document or a copy thereof, complete with all conditions, attachments, modifications, and time extensions shall be kept at the work site of the authorized activity. The Corps shall require the contractor to review this document prior to commencement of the authorized activity.
9. The Corps specifically agrees to allow Department personnel with proper identification, at reasonable times and in compliance with Corps specified safety standards access to the premises where the authorized activity is located or conducted for the purpose of ascertaining compliance with the terms of this document and with the rules of the Department and to have access to and copy any records that must be kept; to inspect the facility, equipment, practices, or operations regulated or required; and to sample or monitor any substances or parameters at any location reasonably necessary to assure compliance. Reasonable time may depend on the nature of the concern being investigated.
10. At least forty-eight (48) hours prior to the commencement of authorized activity, the Corps shall submit to the Department a written notice (email is adequate) of commencement of activities indicating the anticipated start date and the anticipated completion date.
11. If historic or archaeological artifacts such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time on the project site, the Corps shall immediately stop all activities in the immediate area which disturb the soil and notify the Department and the State Historic Preservation Officer. In

the event that unmarked human remains are encountered during permitted activities, all work shall stop in the immediate area and the proper authorities notified in accordance with Section 872.05, Florida Statutes.

12. Within a reasonable time after completion of construction activities authorized by this permit, the Corps shall submit to the Department a written statement of completion. This statement shall notify the Department that the work has been completed as authorized and shall include a description of the actual work completed. The Department shall be provided, if requested, a copy of any as-built drawings required of the contractor or survey performed by the Corps.

SPECIFIC CONDITIONS:

1. **Authorized Construction:** This permit authorizes construction of the Herbert Hoover Dike Rehabilitation and Repair Project to perform emergency repairs of priority sites in Reaches 1, 2 and 3 in accordance with maps, drawings and other documents submitted on October 27, 2006, December 12, 2006, January 10, 2007, and January 16, 2007. Construction consists of demucking (i.e., muck sediment removal) a total of ~20,000 ft. of toe ditch in eight priority sites and then backfilling with sand or gravel, additional gravel that will be enveloped in a geotextile fabric, and a graded aggregate base course. Drainage from the toe ditch area will be maintained by keeping the top of fill at 1 ft. to 2 ft. below top of bank of toe ditch and keeping open all connections to existing lateral canals and culverts. A copy of this permit will be kept on site at all times until construction is complete.
2. **Instructions to Corps Construction Personnel and/or Contractors.** The permittee shall ensure that all construction personnel working on the project are briefed on the permit conditions and shall give a copy of this permit to each contractor and subcontractor before the authorized work begins. Prior to construction, the permittee shall schedule a pre-construction meeting and invite the contractor(s), and representatives from the U.S. Army Corps of Engineers, the Department, and other environmental regulatory agencies. The Department shall receive at least two weeks' prior notice of the meeting. The proposed construction schedule shall be provided by the permittee at the pre-construction meeting and submitted to the address below.
3. **Address.** Reports and notices submitted to the Department in accordance with this permit shall be submitted to the Department's Southeast District Office, Water Resource Management and Environmental Planning Section, Attn.: Stanley Ganthier, 400 North Congress Avenue, Suite 200, West Palm Beach, Florida, 33401, telephone number (561) 681-6759. Electronic submittals can be by e-mail addressed to Stanley.Ganthier@dep.state.fl.us.
4. **Construction Best Management Practices.** At all times during the construction, the permittee shall use best management techniques for erosion and sedimentation control. All graded areas shall be stabilized and vegetated immediately after construction to prevent erosion. The permittee shall take all reasonable precautions to minimize the suspension and transport of soils, levee materials, and roadway materials into waters adjacent to or downstream of the construction site. Turbidity barriers/curtains or other appropriate measures such as temporary earthen plugs shall be installed in the toe ditch upstream and downstream of the demucking/backfilling area within each priority site. These turbidity barriers/curtains or other appropriate measures shall be installed to prevent turbidity from escaping from the areas being demucked/backfilled or other work areas.
5. **Environmental Protection Plan.** Protection of environmental resources shall be in accordance with the United States Fish & Wildlife Service (Service) letter to the permittee dated November 24, 2006, that summarized the Service's view of the effects of the proposed project in accordance with section 7 of the Endangered Species Act of 1973, as amended (87 Stat. 884; 16 U.S.C. 1531 *et seq.*) and the provisions of the Fish and Wildlife Coordination Act of 1958, as amended (FWCA) (48 Stat. 401; 16 U.S.C. 661 *et seq.*). A copy of the permittee's and/or the contractor's Environmental Protection Plan shall be provided to the Department's representative at the preconstruction meeting and to the Department's office at the address listed in Specific Condition No. 3. This Environmental Protection Plan shall include, at a minimum, the permittee's proposed

measures to avoid adverse effects to the bald eagle and the eastern indigo snake. Prior to the initiation of construction, the permittee shall search the area for bald eagle nests to avoid construction activities that may disrupt nesting. Also, prior to construction, the permittee and/or the contractor shall instruct all personnel associated with the project that endangered species may be present in the area, and the need to avoid harming, harassing, or killing these species and the civil and criminal consequences. Other protected species that might be observed in the region include wood stork, snail kite, crested caracara, and the burrowing owl. Construction activities shall be kept under constant surveillance, management, and control to minimize any interference, disturbance, or impact to these and other protected species.

6. **Right-of-way Determination and Access Approval.** Prior to working within any particular priority site, the permittee shall ensure that the toe ditch is contained within South Florida Water Management District (District) right-of-way. Work on areas where the District right-of-way does not include the toe ditch will be delayed until additional right-of-way or other appropriate approval is acquired.

Per the permittee, priority sites #0, #5, #7, #4, and the southern 800 feet of #1 are contained within the District right-of-way for the Herbert Hoover Dike. Priority sites #6 and the northern portion of #1 are not fully contained within the District right-of-way. Priority site #8 has been preliminarily determined to be within the District right-of-way.

The toe ditch for priority site #3 is either in District right-of-way for the dike or in Florida Department of Transportation (FDOT) right-of-way for U.S. Hwy. 27. If the toe ditch for priority site #3 is within FDOT right-of-way, the permittee shall obtain right-of-access from the FDOT prior to commencing work in that area. Regardless of whether the toe ditch is owned by the District or the FDOT, the permittee shall satisfactorily demonstrate to the FDOT and the Department that the proposed backfilling will not cause a roadway drainage problem for U.S. Hwy. 27.

7. **Operation, Maintenance, Repair, Replacement and Rehabilitation.** The permittee shall maintain the backfilled toe ditch with swale such that the stability of the dike is enhanced, seepage and piping are reduced, and its capability to convey stormwater runoff from the dike is not adversely impacted. Routine inspections shall be performed by the permittee to confirm there is adequate gravel cover over the geotextile, the integrity of the geotextile is maintained, the vertical freeboard in the toe ditch swale is retained, and the hydraulic connections with culverts and lateral canals are fully functional.
8. **Wetland Protection and Restoration.** This project is expected to result in approximately 6.7 acres of wetland and/or surface water impact as a result of construction. Project construction in and near wetlands or surface waters shall at all times be implemented to minimize impacts on these natural resources.
9. **Wetland Mitigation.** Approximately 6.7 acres of functional wetlands within the priority sites will be filled by the proposed project. The total mitigation required to offset these impacts is estimated at four (4.0) mitigation credits. In anticipation of filling wetlands in the toe ditch, the Corps agreed with recommendations of the United States Fish and Wildlife Service (Service) and conducted mitigation at a 57-acre site adjacent to Reach 2 located near the Alvin Ward Boat Ramp. During 2000-2001, the Corps removed invasive non-native *Melaleuca* trees from this site and has since maintained the area. The Department confirmed the success and mitigation value of the *Melaleuca* tree removal and maintenance during a site visit on January 11, 2007, with representatives of the Corps and the Service. The Department accepts the Corps' proposal to use 13.3 acres from this site to offset the 4.0 mitigation credits required. See Figure 3 for a map showing the location of the mitigation site. The Corps shall continue to maintain the site free of exotic plant species until other requirements become effective when planting of native species is conducted on this property.
10. **Turbidity Monitoring.** Effective means of turbidity control, such as, but not limited to, turbidity curtains, hay bales, shall be employed during all operations that may create turbidity so that it shall not exceed 29 NTU's above background. Turbidity screens may be placed and maintained around the work area. All screens, sheetpile, and other turbidity control devices shall remain in place until turbidity has subsided to meet state standards.

Turbidity monitoring equipment and personnel trained to use it shall be available on site at all times during construction activities that could generate turbidity. For monitoring purposes, the active work zone is defined as the section of toe ditch isolated by temporary ditch dams placed at both ends of the demucking/backfill site. The permittee shall monitor for discharges from the active work zone at least once every four hours during all operations that may create turbidity (unless monitoring data shows this to be excessive). If discharge across a temporary ditch dam is observed or a visible turbidity plume is detected downstream of the work zone, the technician will monitor for turbidity as follows:

- A. Monitoring samples shall be taken at the following locations:
 1. Background Sample(s): One background sample station, at least 150 meters upcurrent of the work zone(s), collected outside of containment barriers, and outside any visible plume generated by the construction. If the discharge is occurring at a temporary ditch dam that is within 150 meters of the intersection of the toe ditch with a lateral water supply canal or if a visible turbidity plume is within 150 meters of a lateral canal, then the background sample will be taken in the lateral canal.
 2. Compliance Sample(s): In the toe ditch, at a point no greater than 150 meters downcurrent from each of the work zones, within the densest portion of any visible plume generated by construction. If the discharge is occurring at a temporary ditch dam that is within 150 meters of the intersection of the toe ditch with a lateral water supply canal, or if a visible turbidity plume is within 150 meters of a lateral canal, then the compliance sample will be taken in the lateral canal. If there are multiple work zones where the construction crew is creating a visible turbidity plume at more than one location, each work zone shall be monitored separately.
- B. Turbidity monitoring results shall be compiled daily and summarized quarterly (every three-calendar months) by project. Beginning with the first calendar month that construction occurs that could generate turbidity in waters adjacent to the construction sites, a report containing the summarized turbidity monitoring results for each project shall be submitted quarterly to the Department at the address listed in Specific Condition No. 3. If no construction occurs that could generate turbidity during the quarterly monitoring period, the report shall be so noted. The reports shall also contain the following information:
 1. Permit number;
 2. Dates and time of sampling and analysis;
 3. A statement describing the methods used in collection, handling, storage and analysis of the samples;
 4. A clear description of project activities taking place at the time of sampling;
 5. A map indicating the sampling locations; and
 6. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection and accuracy of the data.
- C. Monitoring reports shall also be consistent with the General Requirements of Section 01411, 3.2.2.3, Turbidity and Disposal Monitoring, and include the following information for each sample that is taken:
 1. Water depth;
 2. Depth of sample;
 3. Weather conditions; and
 4. Water level stage and direction of flow.

In the event that project-generated turbidity levels in a lateral canal exceed the standard (29 NTU's above background), project activities contributing to elevated turbidity levels shall immediately cease, and the Department shall be notified immediately via email and a telephone call (See Specific Condition No. 3). Work shall not resume until the work can be conducted in compliance with the aforementioned turbidity standard.

11. **Surface Waters.** All construction work in surface waters shall be conducted in a manner to comply with State Water Quality Standards.
12. **NPDES Stormwater Construction Generic Permit.** The issuance of this Permit does not constitute coverage under the National Pollutant Discharge Elimination System (NPDES) Generic Permit for Stormwater Discharges from Construction Activities (CGP) pursuant to Rule 62-621.300(4), F.A.C. Permittee is advised to contact the Department's NPDES Stormwater Program at (850) 245-7522 or toll free at (866) 336-6312 or to download application information at <http://www.dep.state.fl.us/water/stormwater/npdes/construction1.htm> prior to the commencement of any construction.
13. **NPDES General Permit for the Discharge of Produced Ground Water from any Non-Contaminated Site Activity.** The issuance of this Permit does not constitute coverage under the NPDES General Permit for the Discharge of Produced Ground Water from any Non-Contaminated Site Activity pursuant to 62-621.300(2), F.A.C. If any offsite discharges will occur due to construction dewatering activities, then coverage under the aforementioned General Permit may be required and the permittee is advised to review Rule 62-621.300(2), F.A.C. Before discharge of produced ground water can occur, analytical tests on samples of the proposed discharge water shall be performed to determine if contamination exists. If the analytical results comply with applicable criteria for use of the General Permit, then a short summary of the proposed activity and copy of the analytical tests shall be sent to the address in Specific Condition No. 3 within one week after discharge begins, and the permittee may proceed with the project while abiding by all conditions of the General Permit.
14. **Solid and Hazardous Waste.** The permittee's construction personnel and/or contractor shall properly handle, store, and dispose of any solid and hazardous waste encountered while completing this project as follows:
 - A. Unacceptable and prohibited materials encountered shall be temporarily stored in containers to prevent spillages and potential stormwater, ground, and/or groundwater contamination. Storage time shall be as follows: twenty-four (24) hours for Class I waste, forty-eight (48) hours for hazardous materials, and thirty (30) days for all others. Materials shall be disposed of at an approved and permitted site.
 - B. Construction and Demolition (C&D) debris and residuals commingled with Class I or Class III material shall be considered Class I or Class III material, respectively, pursuant to Rule 62-701.200(19), F.A.C. C&D debris and residuals commingled with both Classes I and III material shall be considered Class I material. Said materials classified as Class I or Class III material shall be disposed of at an approved and permitted facility within forty-eight (48) hours of encountering such materials.
 - C. A licensed hazardous waste handler shall be contacted to inspect segregated potential hazardous waste. If determined to be hazardous, arrangements shall be made to transport said waste via a licensed hazardous waste transporter to an approved hazardous waste disposal site. Temporary storage of such hazardous materials shall not exceed 48 hours. Any hazardous waste encountered shall be managed in accordance with the provisions of Chapter 62-730, F.A.C.
 - D. All processing of vegetative matter and clean, untreated wood that is made into wood chips, shall be processed and removed within sixty (60) days of encountering such materials. All woody vegetative matter and clean wood that will not be processed into wood chips or incinerated shall be removed within sixty (60) days of encountering these materials. Treated or painted wood shall not be chipped or incinerated and shall be containerized and disposed of at an approved and permitted facility within

Herber Hoover Dike Rehabilitation Project

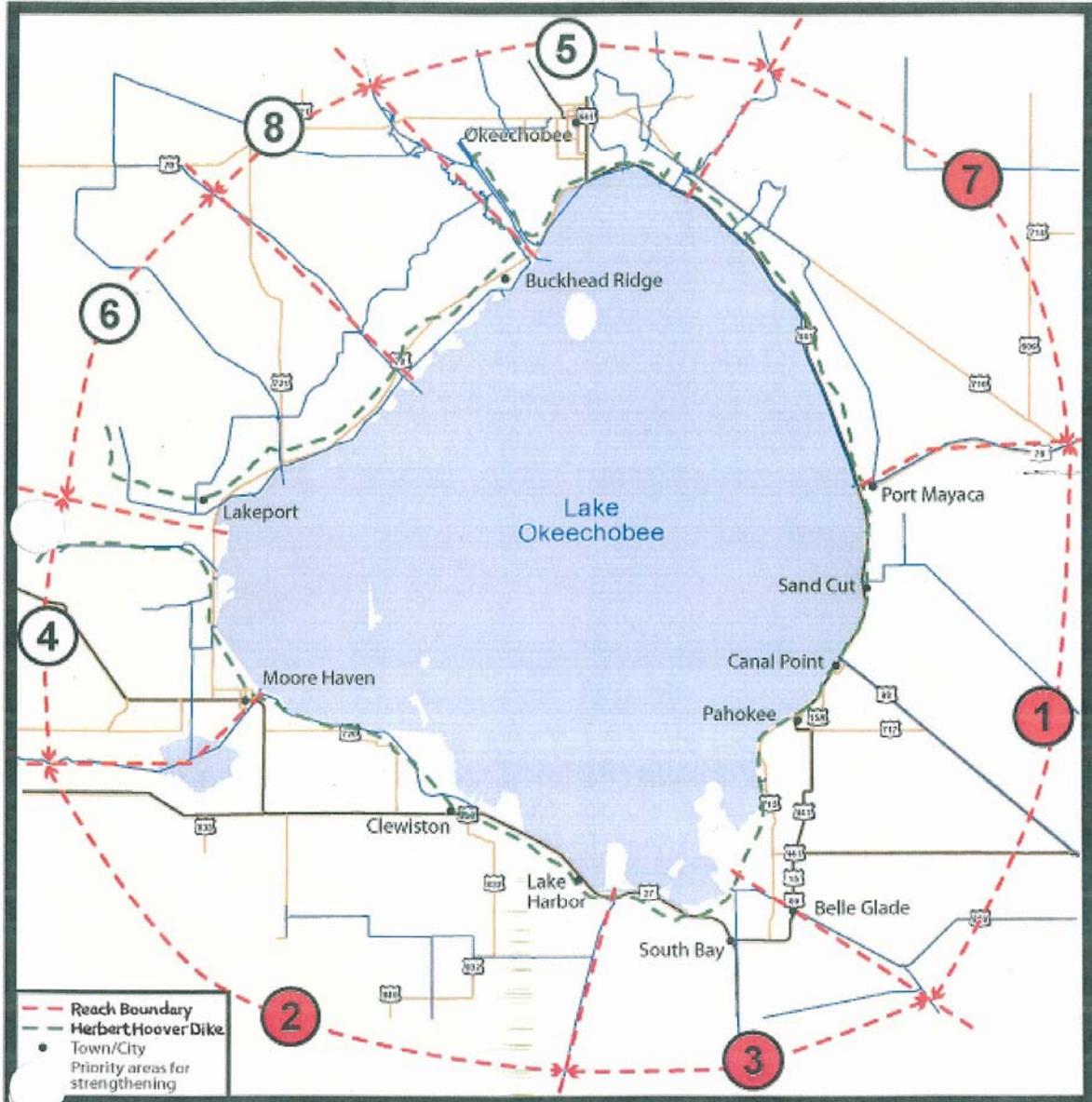


FIGURE 1



FIGURE 2

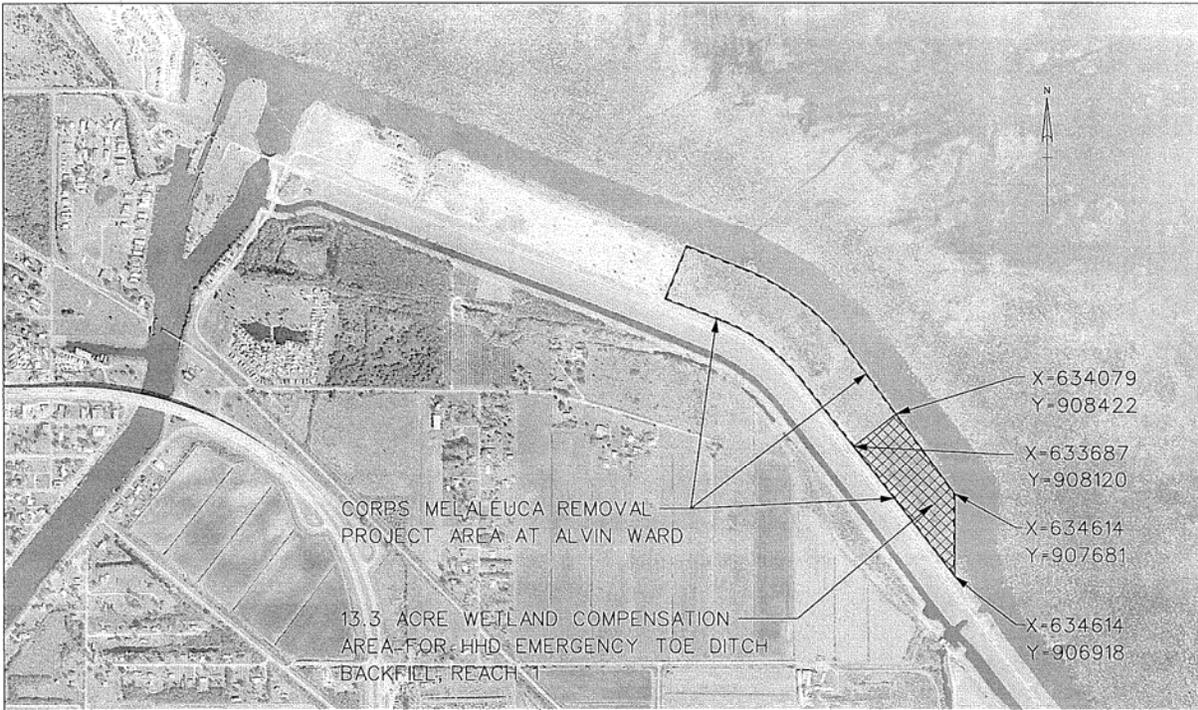


FIGURE 3

WETLAND COMPENSATION AREA FOR HERBERT HOOVER DIKE
EMERGENCY BACKFILL PROJECT, JANUARY 2007

N.T.S