



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
P. O. BOX 4970
JACKSONVILLE, FLORIDA 32232-0019

MAY 15 2008

Regulatory Division
SAJ-1994-1327 (IP-TKW)

Ms. Carol A. Wehle
Executive Director
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

Dear Ms. Wehle:

The U.S. Army Corps of Engineers (Corps) is pleased to enclose the Department of the Army permit, which should be available at the construction site. Work may begin immediately but the Corps must be notified of:

- a. The date of commencement of the work,
- b. The dates of work suspensions and resummptions of work, if suspended over a week, and
- c. The date of final completion.

This information should be mailed to the U.S. Army Corps of Engineers, Regulatory Division, Enforcement Section, Post Office Box 4970, Jacksonville, Florida 32232-0019. The Enforcement Section is also responsible for inspections to determine whether Permittees have strictly adhered to permit conditions.

IT IS NOT LAWFUL TO DEVIATE FROM
THE APPROVED PLANS ENCLOSED.

Sincerely,

Paul L. Grosskruger
Colonel, U.S. Army
District Commander

Enclosures

Copies Furnished:

U.S. Fish and Wildlife Service, South Florida Ecological
Services Office, 1339 20th Street, Vero Beach, Florida 32960
South Florida Office, U.S. Environmental Protection Agency, 400
North Congress Avenue, Suite 120, West Palm Beach, Florida
33401

**JACKSONVILLE DISTRICT
STAFF SUMMARY**

NAME: Tori White	DATE: 05/05/2008	SUSPENSE:
OFFICE SYMBOL: RD-SP		
TELEPHONE:		

	Concur (initials)		Concur (initials)
<input checked="" type="checkbox"/> DE COMMANDER	S 5-8	<input type="checkbox"/> EN ENGINEERING	_____
<input checked="" type="checkbox"/> DD DEPUTY COMMANDER	RD 5-8	<input type="checkbox"/> IM INFORMATION MGMT	_____
<input type="checkbox"/> DA DEP CDR, SOUTH FL	_____	<input type="checkbox"/> IR INTERNAL REVIEW	_____
<input type="checkbox"/> DS DEP CDR, ANTILLES	_____	<input type="checkbox"/> LM LOGISTICS	_____
<input type="checkbox"/> DP DEP DIST ENGR (PM)	_____	<input type="checkbox"/> OC OFFICE OF COUNSEL	_____
<input type="checkbox"/> DR RESTORATION PROGRAM	_____	<input type="checkbox"/> PD PLANNING	_____
<input checked="" type="checkbox"/> DX EXECUTIVE ASSISTANT	G/M 5/7/08	<input type="checkbox"/> PM SECURITY	_____
<input type="checkbox"/> DB SMALL BUSINESS	_____	<input type="checkbox"/> RE REAL ESTATE	_____
<input type="checkbox"/> CC CORPORATE COMM	_____	<input checked="" type="checkbox"/> RD REGULATORY	SRS
<input type="checkbox"/> CO CON-OPS	_____	<input type="checkbox"/> RM RESOURCE MGMT	_____
<input type="checkbox"/> CP CIVILIAN PERSONNEL	_____	<input type="checkbox"/> SO SAFETY OFFICE	_____
<input type="checkbox"/> CT CONTRACTING	_____	<input type="checkbox"/> SP STRATEGIC PLANNING	_____
<input type="checkbox"/> EE EQUAL EMPLOYMENT OFC	_____		

Purpose:

DA permit number SAJ-1994-1327(IP-TKW). The project involves discharge of dredged and/or fill material associated with installation of 4 culverts in the L-31E Levee and Canal in Miami-Dade, Florida. This letter and the two permit instruments require the Col's signature.

Background:

The project is a component of the Biscayne Bay Coastal Wetlands CERP project and is a state of Florida Accelerated Everglades Restoration Project (Acceler8). RD completed an evaluation of the project in November 2007. The first time out letter transmitting the initial proffered permits was signed by Col Grosskruger and subsequently transmitted to the SFWMD for signature on 13 November 2007.

Discussion:

The SFWMD has signed the permit instruments and acknowledged their acceptance of the permit and specific conditions. By counter signing the permits, the SFWMD will be able to commence work.

<input type="checkbox"/> Action	<input type="checkbox"/> Approval	<input type="checkbox"/> As Requested	<input type="checkbox"/> Comment
<input type="checkbox"/> FYI	<input type="checkbox"/> Note and Return	<input type="checkbox"/> Per Conversation	<input type="checkbox"/> Signature

DEPARTMENT OF THE ARMY PERMIT

Permitted: SOUTH FLORIDA WATER MANAGEMENT DISTRICT
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33406

Permit No: SAJ-1994-1327 (IP-TKW)

RECEIVED
MAY 02 2008
JACKSONVILLE DISTRICT
USACE

Issuing Office: U.S. Army Engineer District, Jacksonville

NOTE: The term "you" and its derivatives, as used in this permit, means the Permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: The project includes installation of flap-gated culverts at four locations along the L-31E Canal, connecting the canal with coastal wetlands along Biscayne Bay. Each culvert consists of 36" bituminous coated corrugated metal pipe with flashboard risers at the culvert intake and aluminum flap gates fixed to concrete end walls. Discharge culverts include a 10-foot wide, 4-foot deep canal excavated from the L-31E Canal to the end wall for each culvert and from the downstream end wall to the property limit. Following excavation, riprap will be placed throughout the excavated area in the canal bottoms. As a result of the project 0.33 acre of jurisdictional Waters of the United States will be impacted through excavation and subsequent fill. The work described above is to be completed in accordance with the following: (1) project plans and specifications (Attachment 1), (2) State Water Quality Certification (Attachment 2), and (3) seven additional attachments affixed at the end of this permit instrument.

Project Location: The proposed project is located along the L-31E Canal, east of the L-31E Levee, within coastal wetlands of Biscayne Bay, in Sections 28 and 33, Township 56 south, Range 40 east, and in Sections 4, 9, and 16, Township 57 south, Range 40 east, Miami-Dade County, Florida. The project site is bordered by Biscayne Bay to the east, the L-31E Levee and Canal to the west, C-102 Canal to the north, and the C-103 Canal to the south. The project is located within the U.S. Geological Survey's 8-

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digit Hydrologic Unit Code (HUC) 03090202, South East Florida Coast.

Culvert 1 (S-23B) Latitude 25° 30' 40" Longitude 80° 20' 50"
Culvert 2 (S-23A) Latitude 25° 30' 59" Longitude 80° 20' 49"
Culvert 3 (S-23D) Latitude 25° 28' 37" Longitude 80° 20' 48"
Culvert 5 (S-23C) Latitude 25° 28' 51" Longitude 80° 20' 49"

Permit Conditions

General Conditions:

1. The time limit for completing the work authorized ends on **November 13, 2012**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature and the mailing address of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions

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specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions: The terms used in these permits will have the same definition as those terms in 33 CFR Part 385.3, unless otherwise defined.

1. All submittals and reports required under this permit and all subsequent modifications must be provided to the following addresses in hard copy format:

U.S. Army Corps of Engineers (USACE)
South Florida Restoration Program Office
1400 Centrepark, Suite 750
West Palm Beach, Florida 33401
Re: Project No: SAJ-1994-1327(IP-TKW)

U.S. Army Corps of Engineers
Enforcement Section (CESAJ-RD-PE)
P.O. Box 4970
Jacksonville, Florida 32232-0019
Re: Project No: SAJ-1994-1327(IP-TKW)

These submittals may be provided in the single Consolidated Annual Report, i.e., the South Florida Environmental Report on March 1 of each year.

2. The Permittee shall conduct a pre-construction meeting a minimum of 5 days prior to commencement of construction in order to notify contractors of the requirements of the permit. The Permittee shall provide a minimum of 48 hours advance notification of the pre-construction meeting to the USACE, South Florida Restoration Program Office.

3. The Permittee shall notify the USACE, South Florida Restoration Program Office, in writing at least 48 hours prior to commencement of the work authorized by this permit.

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4. The Permittee must provide to the USACE as-built drawings of the authorized work and an As-Built Certification Form (Attachment 3). The drawings and Certification Form must be submitted to the USACE within 60 days of completion of the authorized work, or at the expiration of the construction window of this permit, whichever occurs first. The drawings must be signed and sealed by a registered professional engineer and include the following:

a. A plan view drawing of the location of the authorized work footprint (as shown on the permit drawings) with an overlay of the work as constructed in the same scale as the attached permit drawings (8½-inch by 11-inch). The drawing should show all "earth disturbance," including wetland impacts, water management structures, and any on-site mitigation areas.

b. List any deviations between the work authorized by this permit and the work as constructed. In the event that the completed work deviates, in any manner, from the authorized work, the Permittee shall describe, on the As-Built Certification Form, the deviations between the work authorized by this permit and the work as constructed. Clearly indicate on the as-built drawings any deviations that have been listed. *Please note that the depiction and/or description of any deviations on the drawings and/or As-Built Certification Form does not constitute approval of any deviations by the U.S. Army Corps of Engineers.*

c. The Department of the Army Permit number.

d. Include pre- and post-construction aerial photographs of the project site, if available.

5. Conditions for projects the Permittee plans to construct in furtherance of the Comprehensive Everglades Restoration Plan (CERP), but which are being constructed in advance of final authorization/approval of the associated CERP Project Implementation Report (PIR) and/or execution of a Project Cooperation Agreement (PCA):

a. The USACE' analysis of this permit application pursuant to applicable regulations and the National Environmental Policy

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Act (NEPA) may need to be supplemented as new information becomes available and/or to meet requirements for modifications of the permit.

b. The USACE' decision that this project has independent utility is made solely for the purpose of permitting and does not mean that it is or is not a separable project under CERP.

c. Issuing this permit does not constitute approval of any engineering or design for any future consideration of the project under CERP.

d. Future action on related portions of this project or other projects being implemented under CERP may require additional NEPA compliance analysis and documentation or other related analyses under the USACE' Civil Works Planning Process.

e. The issuance of this permit does not constitute a recommendation by the Chief of Engineers for congressional authorization of this project for construction or implementation as a feature or component of an authorized CERP project.

f. The issuance of this permit does not constitute approval of this project as being necessary, integral, and cost effective for consideration of cost sharing for the planning, design, engineering, construction or implementation of a feature of CERP.

g. Any work under an authorized federal project cannot be considered for any mitigation that may be required by issuance of this permit

h. The Permittee is required to design, construct, and operate the project consistent with the Central and Southern Florida Project as modified.

i. The permit specific conditions will be reevaluated if a PCA is executed on an authorized CERP project, which includes the Acceler8 project feature, in order to relieve the Permittee of specific conditions that are no longer applicable.

6. Environmental Commitments:

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a. The Permittee shall employ best management practices with regard to erosion and turbidity control and shall monitor water quality in accordance with the requirements of the Florida Department of Environmental Protection Permit No. 0271729-001-GL dated September 10, 2007 (Attachment 2). The Permittee shall ensure the project remains in compliance with State Water Quality Certification for the life of the project.

b. The contract specifications will prohibit the contractor from dumping oil, fuel, or hazardous wastes in the work area and will require that the contractor adopt safe and sanitary measures for the disposal of solid wastes in accordance with federal, state, and local requirements. The Permittee shall develop an environmental protection plan to address concerns regarding monitoring of equipment, maintenance and security of fuels, lubricants, and spill prevention.

c. Demolition debris will be disposed of in accordance with federal, state, and local requirements.

7. Wildlife/Listed Species Conditions:

a. Prior to construction, the Permittee shall inform contractor personnel of the potential presence of threatened and endangered species in the project area, the need for precautionary measures, and the ESA prohibition on taking listed species. All Construction contractors will be trained and briefed on how to identify and avoid harm and harassment to federally listed wildlife species as well as conditions under which the U.S. Fish and Wildlife Service (USFWS) should be notified. The USFWS shall be notified upon observation of nesting activity of any listed federal species. Both the Florida Fish and Wildlife Conservation Commission (FFWCC) and the USFWS will be consulted in the event that colonial or solitary wading bird nests are observed within the construction footprint. The USFWS will be notified upon locating a dead, injured, or sick wood stork or bald eagle before, during, and after construction of the project.

b. The following conservation measures will be incorporated into the project to minimize effects to any federally protected species that may be present:

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(1) *Standard Protection Measures for the Eastern Indigo Snake* (Attachment 4),

(2) *Clearance to Proceed with Construction Activities Adjacent to Bald Eagle Nests* available on the internet at <http://www.fws.gov/verobeach/Programs/Permits/Section7.html> and incorporated into the permit by reference,

(3) *Habitat Guidelines for the Wood Stork in the Southeast Region* available on the internet at <http://www.fws.gov/verobeach/Programs/Permits/Section7.html> and incorporated into the permit by reference,

(4) *Standard Manatee Conditions for In-Water Work, 2005* (Attachment 5),

(5) *USFWS Guidelines for Culverts Located in Manatee-Accessible CERP Projects* (Attachment 6),

(6) *Sea Turtle and Smalltooth Sawfish Construction Conditions* (Attachment 7)

(7) Protection measures for the American crocodile (Attachment 8)

8. Historic Properties:

a. No work is authorized by this permit on properties listed or eligible for listing in the National Register of Historic Places.

b. If prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, the permitted project should cease all activities involving the subsurface disturbance in the immediate vicinity of such discoveries. The Permittee, or other designee, should contact the Florida Department of State, Division of Historical Resources, Review and Compliance Section at 850-245-6333 or 800-847-7278. Project activities should not resume without verbal and/or written authorization from the permitting agency.

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c. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance within Section 872.05, Florida Statutes.

9. Compensatory Mitigation:

a. The decision on this permit included consideration of environmental benefits expected to result from the construction of the work authorized herein. These environmental benefits are projected to offset the adverse effects of such works, as identified in the Unified Mitigation Assessment Methodology score sheet attached to this permit (Attachment 9). Specifically, wetland impacts as a result of the project are anticipated to be offset by project benefits which include enhancement to salinity concentrations, water stages, wetland vegetation, and algal composition within the wetland areas affected by culvert water deliveries. This area is estimated to be about one acre for each culvert and is hereby referred to as the "mitigation enhancement area".

b. The benefits provided by this Acceler8 project in and of itself have not currently been identified by the REstoration COordination and VERification (RECOVER) Assessment Team in the Monitoring and Assessment Plan (MAP). For this reason, project level ecological monitoring is required by the Permittee. If the Permittee is granted Department of the Army authorization to implement other components of the CERP BBCW Project that are not part of this permit action or if the project monitoring and assessment plans are updated, modified, or incorporated into other programs such as RECOVER's MAP, the permit conditions will be re-evaluated to incorporate additional monitoring requirements, and/or to relieve the Permittee of specific conditions that are no longer applicable, or to modify the specific conditions to avoid any duplicative monitoring.

10. Performance Standards: The Permittee shall submit an ecological and water quality monitoring plan to the USACE for approval prior to completion of construction. The monitoring plan shall include at least two of the culvert locations including the mitigation enhancement areas. The monitoring plan will define the performance measures, targets, and success

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criteria for the four mitigation enhancement areas. Based on the objectives of the project, the performance standards to be described in the monitoring plan are generally described below:

a. Improvement to the aquatic food web, including establishment of appropriate wetland periphyton communities that reflect an increasing salinity gradient from the culverts eastward to the shoreline. No increase in pollution tolerant plant species or elimination/reduction of existing desirable species.

b. Less than 5 percent cover of Category I and II invasive exotic plant species, pursuant to the most current list established by the Florida Exotic Pest Plant Council at <http://www.fleppc.org> particularly Brazilian pepper (*Schinus terebinthifolius*) and Australian pine (*Casuarina* spp.) and including but not limited to the following nuisance species: primrose willow (*Ludwigia peruviana*), dogfennel (*Eupatorium capillifolium*), Bermudagrass (*Cynodon* spp.), Bahiagrass (*Paspalum notatum*), and cattail (*Typha* spp.) within the mitigation enhancement areas.

c. Hydrologic enhancement by redirecting flow from coastal canals to the coastal wetlands at the culvert delivery points. This permit acknowledges the project is anticipated to capture approximately 4% of the available water from the major conveyance canals (C-102 and C-103) and redistribute the water at the culvert locations thereby recreating/restoring remnant tidal creeks or portions thereof or associated wetland areas.

d. Salinity concentrations in coastal wetlands become more suitable and hypersaline zones are reduced. The direction and movement of the salinity gradient of restored tidal creeks in interior wetlands will be measured to ensure parameters more characteristic of an estuarine system.

The Permittee must achieve the above performance standards by the end of the 3rd year of monitoring within the mitigation enhancement areas, with no maintenance during the 3rd year of monitoring. In the event that the above performance standards have not been achieved the Permittee must undertake a remediation program approved by the USACE in accordance with Special Condition 13 of this permit.

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11. Monitoring and Reporting Timeframes: To show compliance with the performance standards the Permittee must complete the following:

a. Perform a time-zero monitoring event of two of the four culvert locations including the area anticipated to be enhanced by water deliveries within 60 days of completion of culvert installation.

b. Submit the time-zero report to the USACE within 60 days of completion of the monitoring event. The report will include a paragraph depicting baseline conditions of the site including information on wetland stage, vegetation, and algae.

c. Perform annual monitoring of at least two of the four culvert locations including areas affected by water deliveries for a period of no less than 3 years subsequent to completion of the project.

d. Submit annual monitoring reports to the USACE within 60 days of completion of the monitoring event.

e. Monitor at least two of the four culvert locations including areas affected by water deliveries and submit annual monitoring reports to the USACE until released in accordance with Special Condition 14 of this permit.

12. Reporting Format: Annual monitoring reports must follow a 10-page maximum report format for assessing mitigation sites. The Permittee must submit all documentation to the USACE on 8½-inch by 11-inch paper, and include the following:

a. Project Overview (1 Page):

(1) USACE Permit Number.

(2) Name and contact information of Permittee and consultant.

(3) Name of party responsible for conducting the monitoring and the date(s) the inspection was conducted.

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(4) A summary paragraph defining the purpose for the approved project, acreage and type of aquatic resources impacted, and acreage and type of aquatic resources authorized to compensate for the aquatic impacts. This includes an estimate of the wetland and/or remnant creek acres influenced as a result of each the culvert installations.

(5) Written description on the location and any identifiable information to locate the site perimeter(s).

(6) Directions to the project site (from a major highway).

(7) Dates project commenced and/or was completed.

(8) Short statement on whether the performance standards are being met.

(9) Dates of any recent corrective or maintenance activities conducted since the previous report submission.

(10) Specific recommendations for any additional corrective or remedial actions.

b. Requirements (1 page): List the monitoring requirements and performance standards, as specified in the ecological monitoring plan and special conditions of this permit, and evaluate whether the project site is successfully achieving the approved performance standards or trending towards success. Monitoring requirements include but are not limited to salinity, water quality, water stage, wetland vegetation, and algal composition.

c. Summary Data (maximum of 4 pages): Data must be provided to substantiate the success and/or potential challenges associated with the project. Any photo documentation must be dated and clearly labeled with the direction from which the photo was taken, and be identified on the appropriate maps.

d. Maps (maximum of 3 pages): Maps must be provided to show the location of the culverts and areas affected by water deliveries relative to other landscape features, habitat types,

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locations of photographic reference points, transects, sampling data points, and/or other features pertinent to the project.

e. Conclusions (1 page): A general statement must be included describing the conditions of the project and whether the net positive environmental benefits are being achieved. If performance standards are not being met, a brief explanation of the difficulties and potential remedial actions proposed by the Permittee, including a timetable, must be provided.

13. Remediation: If the project fails to meet the performance standards at the end of 3 years after completion of culvert installation, the project will be deemed unsuccessful. Within 60 days of notification by the USACE that the project is unsuccessful, the Permittee must submit to the USACE an alternate compensatory mitigation proposal to fully offset the functional loss that occurred as a result of the project. The alternate mitigation proposal may be required to include additional mitigation to compensate for the temporal loss of wetland function associated with the unsuccessful compensatory mitigation activities. The USACE reserves the right to fully evaluate, amend, and approve or reject the alternate compensatory mitigation proposal. Within 120 days of USACE approval, the Permittee will complete the alternate compensatory mitigation proposal.

14. Mitigation Release: Your responsibility to complete the required compensatory mitigation, as set forth in Special Condition of this permit will not be considered fulfilled until you have demonstrated mitigation success and have received written verification from the USACE or until a PCA for a CERP project that includes the project is executed and the USACE determines that these mitigation and monitoring conditions are superseded by PCA execution, in whole or in part. A mitigation area which has been released will require no further monitoring or reporting by the Permittee; however the Permittee, Successors and subsequent Transferees remain perpetually responsible to ensure that the mitigation area(s) remain in a condition appropriate to offset the authorized impacts in accordance with General Condition 2 of this permit.

15. None of the authorizations or conditions in this permit are intended to diminish or alter the governmental authority and

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powers of the Miccosukee Tribe of Indians and the Seminole Tribe of Florida (Tribes), or diminish or alter the rights of those tribes, including rights under any tribal agreement with the permittee or any agency of the U.S. Government. The permittee shall advise this office and the Tribes when the permittee becomes aware of issues implicating the powers or rights of the Tribes or other issues that may make necessary a modification to the permit.

16. The Permittee shall submit to this office any revisions and/or modifications to the underlying design documents and drawings for the enclosed project plans. The Permittee is advised that failure to provide complete requests for permit modifications or complete monitoring reports as required by any of the conditions above, may prevent this office from issuing future modifications to this permit and authorizations for further construction, even if the particular incomplete submittal is for a different portion of the project.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899
(33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

() Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

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d. This permit does not authorize interference with any existing or proposed Federal projects.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).

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c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions: General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the USACE will normally give favorable consideration to a request for an extension of this time limit.

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Your signature below, as Permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.



(EXECUTIVE DIRECTOR)
Carol A. Wehle
South Florida Water Management District



(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.



(DISTRICT ENGINEER)
Paul L. Grosskruger
Colonel, U.S. Army
District Commander



(DATE)

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When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEEE-SIGNATURE)

(DATE)

(NAME-PRINTED)

(ADDRESS)

(CITY, STATE, AND ZIP CODE)

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***Attachments to Department of the Army
Permit Number SAJ-1994-1327(IP-TKW)***

1. L-31E CULVERTS BISCAYNE BAY COASTAL WETLANDS-PHASE 1 MIAMI-DADE COUNTY, FLORIDA PROJECT PLANS AND SPECIFICATIONS: 16 sheets dated September 7, 2007
2. WATER QUALITY CERTIFICATION: Specific Conditions of the water quality permit/certification in accordance with General Condition number 5 on page 2 of this DA permit; 14 pages dated September 10, 2007 (without attachments).
3. AS-BUILT CERTIFICATION FORM: 1 page
4. STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE: 1 page.
5. STANDARD MANATEE CONSTRUCTION CONDITIONS: 2 pages dated June 2001
6. U.S. FISH AND WILDLIFE SERVICE GUIDELINES FOR CULVERTS LOCATED IN MANATEE-ACCESSIBLE CERP PROJECT: 1 page
7. SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS: 1 page dated March 23, 2006
8. PROTECTION MEASURES FOR THE AMERICAN CROCODILE: 1 page dated June 12, 2007
9. L-31E CUVLERTS UNIFIED MITIGATION ASSESSMENT METHODOLOGY SCORE SHEET: 1 page, dated November 5, 2007

Attachment 1
Project Plans and Specifications

BISCAYNE BAY COASTAL WETLANDS
PHASE 1 L-38E OULETS
MIAMI-DADE COUNTY, FLORIDA
SITE PREPARATION PLAN - OULET 5-23B



SOUTH FLORIDA WATER MANAGEMENT DISTRICT
 EVERGLADES RESTORATION
 PIONEER 561-688-8500
 3001 N.W. 10TH AVENUE
 WEST PALM BEACH, FLORIDA 33409

NO.	DATE	DESCRIPTION
1	03/2007	FINAL DESIGN
2	02/2007	PRELIMINARY DESIGN
3	01/2007	CONCEPTUAL DESIGN
4	12/2006	PRELIMINARY DESIGN
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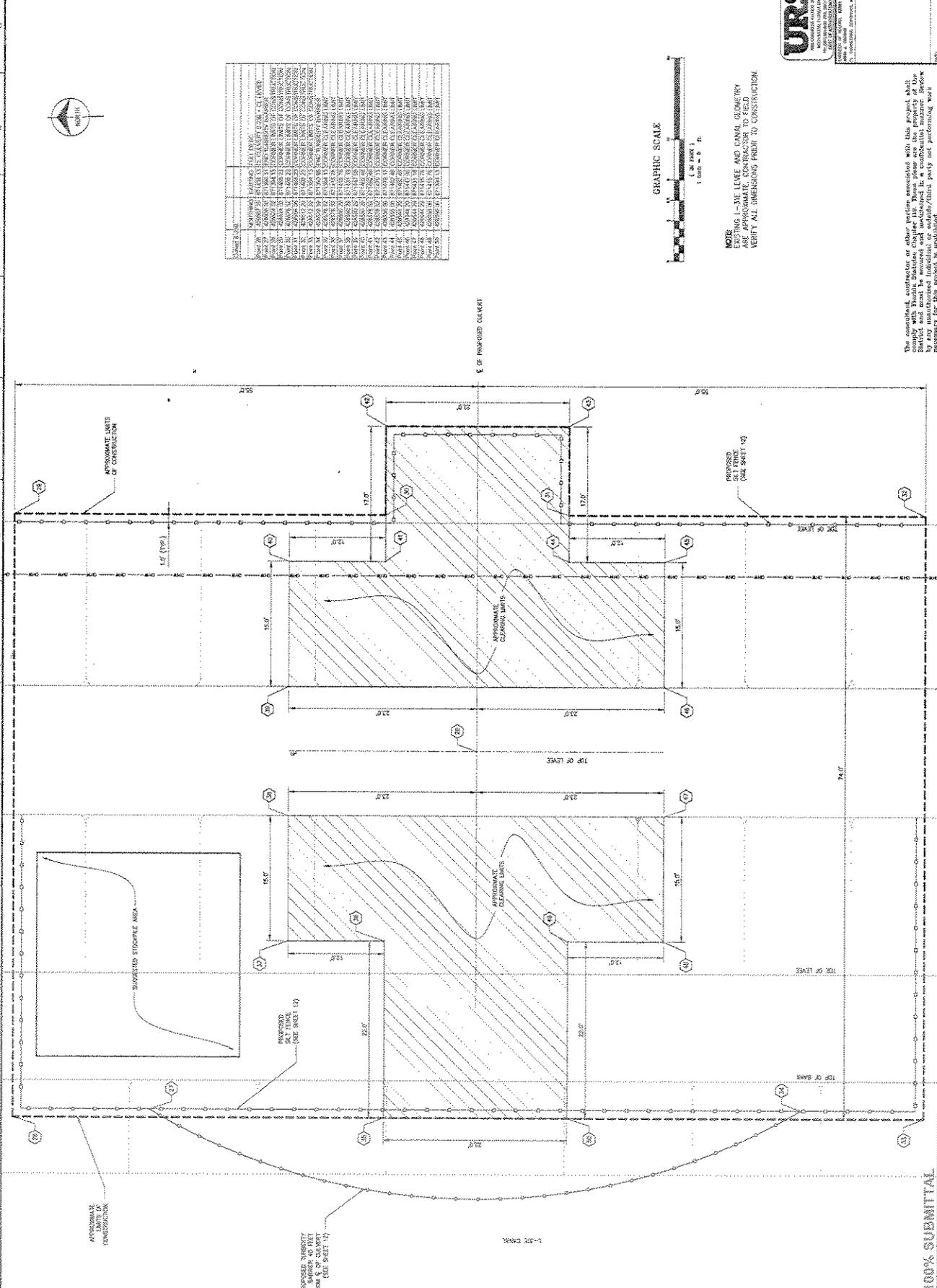
URS CORPORATION
 200 WEST WASHINGTON AVENUE
 SUITE 2000
 MIAMI, FLORIDA 33139
 TEL: 305.375.4000
 FAX: 305.375.4001
 WWW.URS-CORP.COM

The completed construction of this project is subject to the project being approved by the Florida Department of Environmental Protection (FDEP) and the U.S. Army Corps of Engineers (USACE). These plans are intended to be used in conjunction with the final design and construction documents. The contractor shall be responsible for obtaining all necessary permits and approvals from the appropriate agencies. The contractor shall be responsible for obtaining all necessary permits and approvals from the appropriate agencies. The contractor shall be responsible for obtaining all necessary permits and approvals from the appropriate agencies.

NOTE:
 EXISTING L-38E LEVEL AND CANAL GEOMETRY
 TO BE MAINTAINED AND NOT TO BE
 MODIFIED. VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.



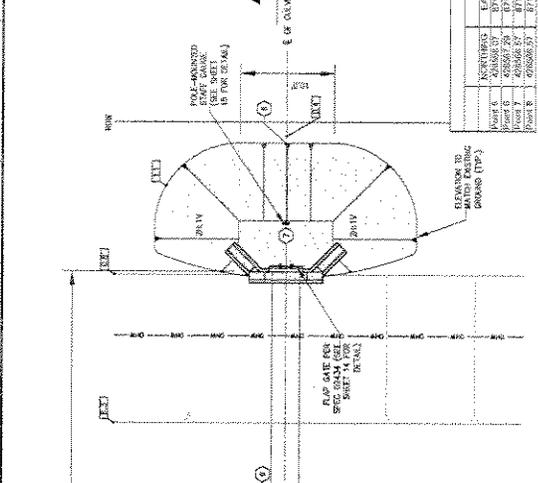
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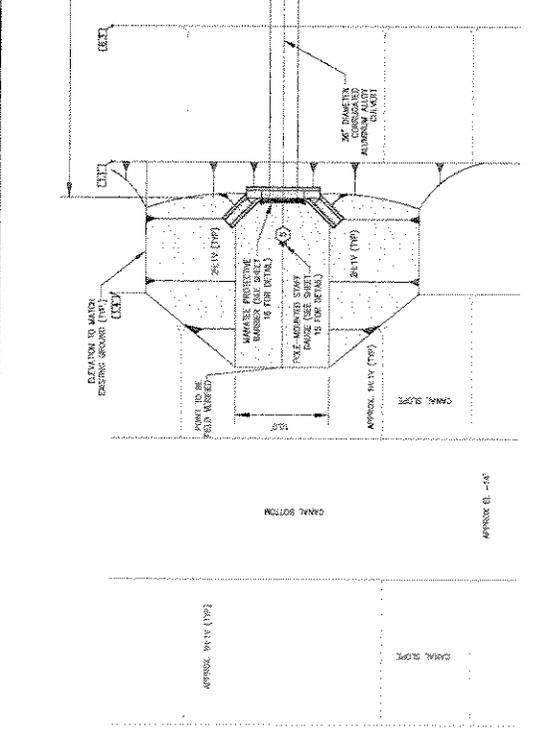
100% SUBMITTAL

Culvert 8-238	
Sheet 1	GENERAL NOTES
Sheet 2	PLAN AND PROFILE
Sheet 3	SECTIONAL ELEVATION
Sheet 4	SECTIONAL ELEVATION
Sheet 5	SECTIONAL ELEVATION
Sheet 6	SECTIONAL ELEVATION
Sheet 7	SECTIONAL ELEVATION
Sheet 8	SECTIONAL ELEVATION
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Sheet 20	SECTIONAL ELEVATION

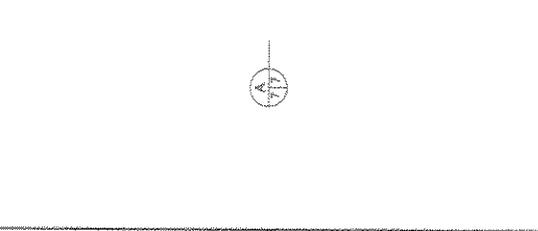
NOTE:
 MATERIAL EXCAVATED FROM ROADBASE SHOULD BE REUSED WHERE POSSIBLE.



PLAN - CULVERT 8-238



PROFILE - CULVERT 8-238



The construction of this project is subject to the availability of funds. The project is subject to the availability of funds. The project is subject to the availability of funds.



DATE	BY	DESCRIPTION
12/15/15	W. J.
12/15/15	W. J.
12/15/15	W. J.



The consultant, contractor or other provider associated with this project shall comply with Florida Statutes chapter 118. These plans are the property of the District and shall remain confidential. No part of these plans may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written permission of the District. Any unauthorized use of these plans is prohibited.

ELEVATION SCHEDULE:

MARK	ELEVATION (FT, NAD)			DESCRIPTION	REMARKS
	S-23A	S-23A	S-23A		
A	44.0	44.0	44.0	TOP OF GAUGE STUB	DOWNSTREAM
B	45.0	45.0	45.0	TOP OF GAUGE BOUNDS	DOWNSTREAM
C	44.0	44.0	44.0	TOP OF GAUGE STUB	UPSTREAM
D	45.0	45.0	45.0	TOP OF GAUGE BOUNDS	UPSTREAM
E	-3.4	-3.4	-3.4	COUNDED BOTTOM	UPSTREAM
F	-3.4	-3.4	-3.4	CHANNEL BOTTOM	UPSTREAM

DIMENSION SCHEDULE:

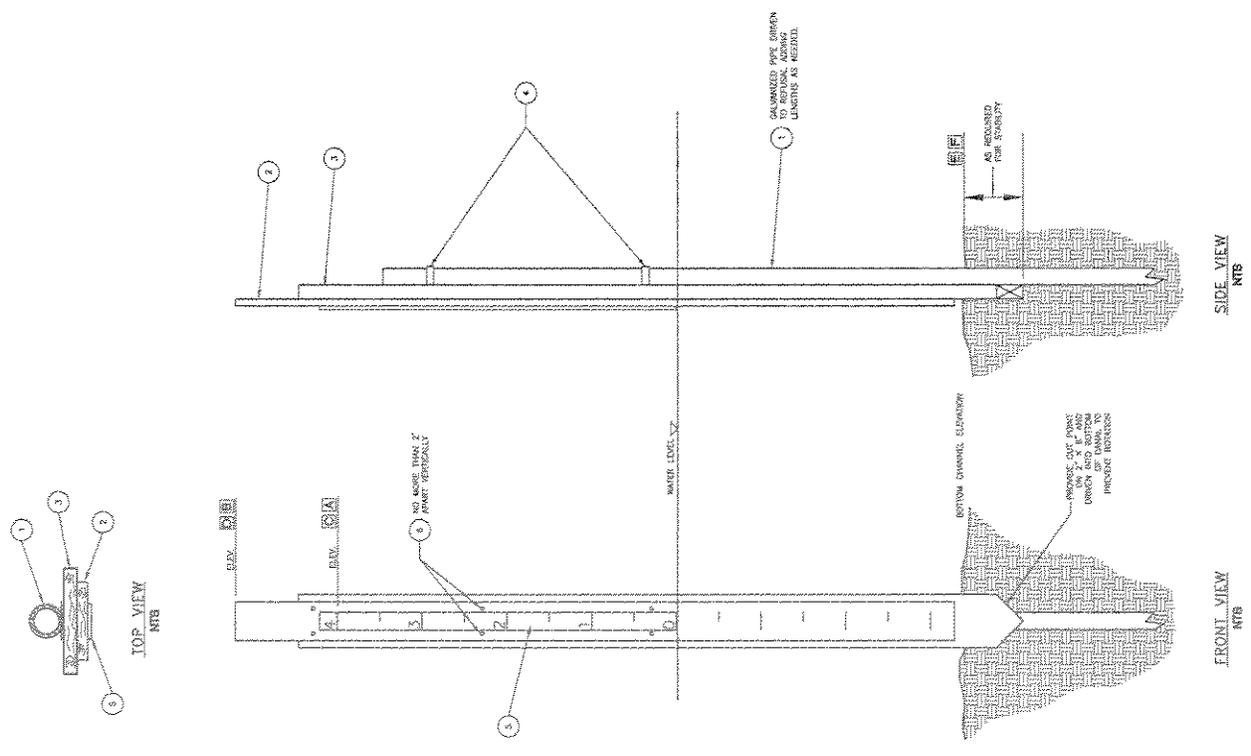
MARK	DIMENSION (FT)			DESCRIPTION	REMARKS
	S-23A	S-23A	S-23A		
(1)	8.4	8.4	8.5	LENGTH OF GAUGE BOUND	UPSTREAM
(2)	8.4	8.4	8.5	LENGTH OF GAUGE BOUND	DOWNSTREAM

GENERAL NOTES:

- UNLESS OTHERWISE NOTED, ALL DIMENSIONS SHALL BE TO CENTERLINE UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS SHALL BE TREATED TO REMAIN UNLESS OTHERWISE NOTED.
- INSTALLATION SHALL BE COMPLETED UNDER THE SUPERVISION OF A FLORIDA REGISTERED PROFESSIONAL ENGINEER.
- STAFF GAUGES SHALL BE INSTALLED IN TO 4'-0" DEPT. OF WATER.
- STAFF GAUGES SHALL BE INSTALLED IN TOUGH MATERIAL.
- THE TOP OF THE GAUGE SHALL BE AT LEAST 18" ABOVE THE HIGHEST FLOODING ANTICIPATED AT THE LOCATION AND SHALL BE AT LEAST 18" ABOVE THE HIGHEST FLOODING ANTICIPATED AT THE LOCATION AND SHALL BE AT LEAST 18" ABOVE THE HIGHEST FLOODING ANTICIPATED AT THE LOCATION.
- A COPY OF THE FIELD NOTES WILL BE SUPPLIED TO THE DISTRICT.
- HEIGHT DETERMINED BY FLOOD STAGE OR SURVEY DATA REQUIRED TO BE PROVIDED TO THE DISTRICT.
- GAUGE SECTIONS SHALL BE AS LOW OR LOWER THAN MEAN LOW WATER IF POSSIBLE.
- THE 2" GALVANIZED PIPE POST CAN BE LOWER EITHER MANUALLY OR HYDRAULICALLY TO RETRIEVE. ADDING COVERS AND LINTHIS AS REQUIRED IN ROCK AREAS OR OTHER OBSTRUCTIONS. THE POST SHALL BE INSTALLED WITH PIPE OR 2" X 6" WOOD MUST BE REQUIRED TO OBTAIN SUFFICIENT STABILITY.
- NO BRACKING OR CONNECTIONS WILL BE MADE TO MAINWAYS OR STRUCTURES UNLESS APPROVED BY DISTRICT.
- ALL HARDWARE TO BE STAINLESS STEEL UNLESS NOTED OTHERWISE.
- PLASTIC PIPE MAY BE SUBSTITUTED WITH PIPER APPROVAL.

KEY NOTES:

MARK	DESCRIPTION
(1)	2" DIAMETER SCHEDULE 40 GALVANIZED PIPE & 2' LONG
(2)	1" X 6" PRESURIZED TREATED BOARD
(3)	2" X 6" PRESURIZED TREATED BOARD
(4)	2" GALVANIZED 2-HOLE PIPE ELANIS
(5)	STAFF GAUGE OPERATOR HANDBOOK 3.15 SECTION (REQUIRED IN 20' WINDMENTS, AS REQUIRED)
(6)	#10 STAINLESS STEEL PHOSPHOR PAIN HEAD WOOD SCREWS



Attachment 2
State Water Quality Certification



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

COMPREHENSIVE EVERGLADES RESTORATION PLAN REGULATION ACT (CERPRA) PERMIT -CONSTRUCTION AND OPERATION AUTHORIZATION

PERMITTEE:

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

ATTENTION:

Ms. Carol Ann Wehle
Executive Director

Permit Number: 0271729-001

Date of Issue: 09/10/2007

Project: Biscayne Bay Coastal Wetland Project:
Phase I L-31E Culverts

Expiration Date: 09/10/2012

County: Dade

This permit is issued under the authority of the Comprehensive Everglades Restoration Plan Regulation Act (CERPRA), Chapter 373.1502, Florida Statutes (F.S.); Title 62, Florida Administrative Code (F.A.C.); and pursuant to the Department of Environmental Protection (Department) authority under Chapter 373 and 403, F.S. The activity is not exempt from the requirement to obtain a CERPRA Permit.

The above named permittee is hereby authorized to initiate the activities described on the application, associated drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof. The activities authorized by this permit must be conducted in conformance with all the provisions of this permit. Failure to comply with all permit conditions and documents referenced herein shall constitute grounds for revocation of the permit and appropriate enforcement action.

This permit constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Management Act, 14 U.S.C. § 1456, and constitutes certification of compliance with water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. § 1341. Activities described in the related documents are not authorized until the project is determined to be in conformance with all applicable rules and with the general and specific conditions of this permit/certification/authorization, as specifically described below.

PROJECT DESCRIPTION:

The Biscayne Bay Coastal Wetland Project, is a "project component" as defined in Section 373.1501(1), F.S., of the Comprehensive Everglades Restoration Plan (CERP). In addition, the Biscayne Bay Coastal Wetlands Project was identified as an Acceler8 project which the State of Florida is accelerating the funding, design, and construction of in order to realize immediate environmental benefits. The Biscayne Bay Coastal Wetlands Project will aid in establishing a productive nursery habitat along the shoreline through redistribution of freshwater flow and the minimization of point source discharges. The overall project will enhance and improve quantity, quality, timing and distribution of freshwater to the Bay, including Biscayne National Park, and aid in the preservation, restoration, and spatial extent of natural coastal habitat.

The L-31 E Culverts project, the first phase of the Biscayne Bay Coastal Wetlands Project, includes the installation of four flap-gated culverts, each consisting of 36" metal pipe, aluminum flap-gate, and concrete endwalls at each end of the pipe (See Figure 1). In addition, installation of each culvert will also include the construction of a 10 foot

Permittee: South Florida Water Management District
Project: Biscayne Bay Coastal Wetland Project-L-31E Culverts
Permit No.: 0271729-001
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wide canal excavated from the endwall at the upstream side of the culvert to the L-31E Canal and a 10-foot wide canal excavated from the endwall at the downstream side of the culvert to the eastern right-of-way of the L-31E Canal. This project is intended to restore a more natural flow of water by transporting freshwater through the culvert system to the coastal wetlands to the east, creating a more natural sheetflow and eliminating sudden releases of water through existing coastal structures. There are no State jurisdictional wetlands within the L-31E Culverts project area. Surface waters to be directly impacted by construction of this project component are Class III Waters, and Biscayne Bay National Park which is listed as an Outstanding Florida Water.

The South Florida Water Management District (District) is responsible for maintenance, repair, replacement, and rehabilitation of this project component. All conditions found herein apply to the District.

PROJECT LOCATION:

The L-31E Culverts Project is located in Miami-Dade County between the Goulds and C-103 Canal, Sections 4, 9, 28, 33 and Township 56 S Range 40 East and 57S Range 40 East. S-23B will be located north of SW 280 Street and south of the C-102/Princeton Canal on L-31E Canal. S-23A south of the C-102/Princeton Canal and north of S-23B on L-31E Canal. S-23D will be located between the C-103/Mowry Canal and Military Canal. S-23C will be located just north of the C-103/Mowry Canal.

DECLARATION OF REASONABLE ASSURANCES:

In issuing this permit, the Department finds that the District has given reasonable assurances sufficient to satisfy the requirements of the Comprehensive Everglades Restoration Plan Regulation Act, Section 373.1502, F.S. The Department bases this finding on the following documents, listed by Department document number:

- 1) South Florida Water Management District, L-31 E Culverts Permit Application and associated materials (December 2006);
- 2) South Florida Water Management District, Response to Request for Additional Information (March 12, 2007); and,
- 3) South Florida Water Management District, 90% Design Drawings (June 20, 2007)

Specifically, there are reasonable assurances, pursuant to Section 373.1502, F.S., that:

- “The project component will achieve the design objectives set forth in the detailed design documents submitted as part of the application.” This finding is based on document 1 in its entirety, document 2, and document 3 in its entirety.
- “State water quality standards, including water quality criteria and moderating provisions, will be met. Under no circumstances shall the project component cause or contribute to violation of state water quality standards.” This finding is based on document 2 with emphasis on responses 8 and 9 and the Pilot Study Report.
- “Discharges from the project component will not pose a serious danger to public health, safety or welfare.” This finding is based on document 1 in its entirety and document 2 with emphasis on the Pilot Study;
- “Any impacts to wetlands or threatened or endangered species resulting from implementation of the project component will be avoided, minimized, and mitigated as appropriate.” This finding is based on document 1 and document 2 with an emphasis on the Biological Assessment (BA) for the Biscayne Bay Coastal Wetlands project, and the 90% Design drawing.

The District agrees to construct the project in accordance with the provisions of this permit, permit application, and the associated documentation on file with the Department.

Permittee: South Florida Water Management District
Project: Biscayne Bay Coastal Wetland Project-L-31E Culverts
Permit No.: 0271729-001
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GENERAL CONDITIONS:

In accordance with Subsection 373.1502(3)(e)(2) of the CERPRA, this permit may include any standard conditions provided by Department rule, which are appropriate and consistent with the CERPRA.

1. **Enforcement.** The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Chapters 373.129, 403.141, 403.727, 403.859 through 403.861 F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. **Scope of permit.** This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. **Limitation of rights.** The issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit. However, this permit is in lieu of other permits under Chapter 373 or Chapter 403, F.S., except for permits issued under s. 403.0885, if applicable.
4. **Limitations upon title.** This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. **Liability.** This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall hold and save the Department harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.
6. **Operation and maintenance responsibilities.** The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. **Access Rights.** The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - A. Have access to and copy any records that must be kept under conditions of the permit;
 - B. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - C. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Permittee: South Florida Water Management District
Project: Biscayne Bay Coastal Wetland Project-L-31E Culverts
Permit No.: 0271729-001
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Reasonable time may depend on the nature of the concern being investigated.

8. **Noncompliance.** If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - A. A description of and cause of noncompliance; and
 - B. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
9. **Records as evidence.** In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111, F.S. and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. **Changes in Law.** The permittee agrees to comply with changes in applicable Department rules and applicable Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida law.
11. **Transferability.** This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-343.130, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. **Permit at work site.** This permit or a copy thereof shall be kept at the work site of the permitted activity. For the purposes of this permit the work site shall be defined as the South Florida Water Management District Headquarters located at 3301 Gun Club Road in West Palm Beach, Florida.
13. **Records retention.** The permittee shall comply with the following:
 - A. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department;
 - B. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, and application unless otherwise specified by Department rule; and
 - C. Records of monitoring information shall include:
 1. the date, exact place, and time of sampling or measurements;
 2. the person responsible for performing the sampling or measurements;
 3. the dates analyses were performed or the appropriate code as required by Chapter 62-160, F.A.C.;

4. the person responsible for performing the analyses;
 5. the analytical techniques or methods used, including but not limited to MDL; and
 6. the results of such analyses, including identification of potential outlier values.
14. **Requests for information.** When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.
15. **External Agency Requirements.** Should any other regulatory agency require changes to the permitted system, the permittee shall notify the Department in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.
16. **Sovereign Lands.** The permittee is hereby advised that Florida law states: No person shall commence any excavation, construction, or other activity involving the use of sovereign or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental Protection under Chapter 253, until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.
17. **Artifacts.** 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 permittee shall immediately stop all activities which disturb the soil and notify the Department and the State Historic Preservation Officer.

SPECIFIC CONDITIONS:

1. **Instructions to Contractors.** The District shall ensure that the conditions contained within this permit are explained to all construction personnel working on the project and shall provide a copy of this permit to each contractor and subcontractor before the authorized work begins. Prior to construction, the District shall schedule a pre-construction meeting for attendance by the contractor(s), and representatives from the District, the Department, and other environmental regulatory agencies. The Department shall receive at least two weeks notice of the meeting. Within 30 days from the Notice-to-Proceed to the Contractor or upon District approval of a proposed construction schedule, whichever occurs first, the District shall provide the proposed construction schedule to the Department at the address identified in Specific Condition 2.
2. **Addresses.** Reports, schedules, and notices submitted to the Department in accordance with this permit shall be submitted to the Department's Division of Water Resource Management, Water Quality Standards and Special Projects Program, 2600 Blair Stone Road, MS 3560, Tallahassee, Florida, 32399-2400, telephone no. (850) 245-8416.
3. **Endangered Species.** The District shall avoid any actions that are likely to result in a take of any species listed by Fish and Wildlife Conservation Commission (FWC) in Chapter 68A-27, F.A.C or U.S. Fish and Wildlife Service, Department of the Interior (USFWS) in 50 CFR 17.11 or 50 CFR 17.12. In the event that either the Department or the District determine that the proposed activities will result in a take of a listed species, the District shall cease operations affecting the populations and closely coordinate with the FWC and the USFWS to obtain any necessary incidental take permits; Operations may continue if take authorization was granted for the affected species and all conditions accompanying that take are satisfied. If the District makes the above

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determination, it shall notify the Department at the address and telephone number in Specific Condition 2 within 24 hours of the date of such determination.

Construction

4. **Authorized Construction.** The District shall construct the L-31E Phase of the Biscayne Bay Coastal Wetlands Project in accordance with the plans and documentation submitted by the District as part of the permit application and any subsequent submittals that have been approved and are on file with the Department. Any substantial modifications to the construction plan, such as, but not limited to, hydrologic modifications or the addition/removal/modification of water control structures or changes to their location must be submitted for review and approval by the Department prior to construction and operation of such modifications. Substantial modifications shall be determined on a case-by-case basis by the Department in consultation with the District.
5. **Future Phases.** This permit does not authorize any construction or operation activities associated with future portions of the Biscayne Bay Coastal Wetlands Project. Future phases will require separate review and approval by the Department.
6. **Construction Best Management Practices (BMPs).** At all times during the construction, the District shall use best management techniques for erosion and sedimentation control. All graded areas shall be stabilized and vegetated immediately after construction to prevent erosion. Prior to commencement of construction activities, the District shall submit a BMP plan which details the use of sediment controls to minimize the suspension and transport of soils, levee materials, and roadway materials into waters adjacent to or downstream of the construction site to the Department for review and approval. Once installation of the erosion controls identified through the BMP plan have been completed, the District shall contact the Department at the address listed in Specific Condition No. 2 to determine whether inspections of the installed controls are necessary
7. **Adjacent Wetlands.** Wetlands adjacent to the construction activities shall be staked and fenced off with construction fencing or other effective physical barriers to prevent encroachment into wetlands prior to the commencement of construction. All areas of exposed soils shall be isolated from wetlands and surface waters to prevent erosion and deposition of sediments into these wetlands during permitted construction activities. All excavated or dredged material shall be placed strategically to prevent the transport of any material into wetlands and surface waters both during and after completion of the construction. Upon completion of the barrier installation, the District shall contact the Department at the address listed in Specific Condition No. 2 to determine whether inspections of the installed controls are necessary. The barriers shall remain in place until all adjacent construction activities are complete.
8. **Water Quantity and Flooding Impacts.** The District shall be responsible for ensuring that the project is constructed and operated so as to not adversely affect adjacent lands with regards to water quantity, water quality, and/or flooding. The District shall hold and save the Department harmless from any and all damages, claims or liabilities, which may arise from water quantity, water quality, and/or flooding impacts resulting from construction and operation of this project.
9. **NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities.** The issuance of this permit does not constitute coverage under the National Pollutant Discharge Elimination System (NPDES) Generic Permit for Stormwater Discharges from Large and Small Construction Activities (CGP) pursuant to Rule 62-621.300(4)(a), F.A.C. Prior to the commencement of any construction, the District 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 from the Department's website at <http://www.dep.state.fl.us/water/stormwater/npdes/construction3.htm#permit>

10. **Dewatering.** For any proposed discharge to occur as a result of construction dewatering activities, the District shall submit site-specific dewatering information to the Department for review and approval at least 30 days prior to commencement of dewatering activities. The plan shall include at a minimum: a site plan of the project component with the location of the proposed discharge point(s) and their associated water quality monitoring locations; the location and type of turbidity control devices and methods necessary to ensure state water quality standards will be met; calculations estimating the area of influence of dewatering, pumpage rates, duration and volumes; and any proposed methods of construction.

If it is anticipated that dewatering will not be retained onsite, the District must also include documentation that the dewatering activities will meet the criteria contained in the "Basis of Review for Water Use Permit Applications within the South Florida Water Management District-April 23, 2007" with emphasis on Section 2.5.2(4).

11. **NPDES Generic Permit for the Discharge of Produced Groundwater from any Non-Contaminated Site Activity.** The issuance of this permit does not constitute coverage under the NPDES Generic Permit for the Discharge of Produced Groundwater 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 District is advised to review Rule 62-621.300(2), F.A.C. Before discharge of produced groundwater 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 Department at the address identified in Specific Condition No. 2 within one week after discharge begins, and the District may proceed with the project component while abiding by all conditions of the Generic Permit.
12. **As-Built Certification and Record Drawings.** Within 90 days after the completion of construction for the L-31E Culverts, the District shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law. The statement of completion and certification shall be based on on-site observation of construction or review of as-built drawings for the purpose of determining whether or not the work was completed in compliance with permitted plans and specifications. Additionally, if deviation from the approved drawings is discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. Plans submitted to the Department must be clearly labeled as "as-built" or "record" drawings with electronic copies provided in pdf format. A registered surveyor shall certify all surveyed dimensions and elevations.
13. **Manatee Protection During Construction:** The District shall comply with the following conditions intended to protect manatees from direct project effects:
- A. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The District shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
 - B. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
 - C. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.

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- D. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
- E. Any collision with or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-561-562-3909) for south Florida.
- F. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the District upon completion of the project. Awareness signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used. One sign measuring at least 3 ft. by 4 ft. which reads *Caution: Manatee Area* must be posted. A second sign measuring at least 8 1/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities.

Operations and Maintenance

- 14. **Operation of Passive Structures.** The L-31 Culverts Project shall be operated as a passive structure. Any alteration of operations, including, but not limited to the installation of flashboard risers or increasing flow from source canals, must be submitted to the Department for review and approval. The District shall submit an operational plan at least 90 days prior to commencing modified operation of the culverts for Department review and approval.
- 15. **Culvert Testing and Maintenance.** In order to ensure operational readiness, testing and maintenance operations may be required by the construction contractor and/or District for the culverts authorized by this permit. The District shall submit a maintenance plan for the culverts for Department review and approval at least 30 days prior to initiation of operations.
- 16. **Public Health Safety and Welfare.** Pursuant to Subsection (3)(b)(3) of the CERPRA, discharges from the Biscayne Bay Coastal Wetlands Project shall not pose a serious danger to the public health, safety, or welfare.

Monitoring Requirements

- 17. **Water Quality Monitoring Program.** No later than 90 days prior to commencing flow through the culverts, the District shall submit a final water quality monitoring plan to the Department for review and approval. Any modifications to the District's water quality monitoring plan shall be submitted to the Department for review and approval. The District shall conduct a water quality monitoring program in accordance with Table 1 and the approved water quality monitoring plan to characterize water quality spatially and seasonally, and to detect long term trends. Water quality monitoring shall commence upon the initiation of operations.
 - A. **Quality Assurance and Quality Control.** Sampling and monitoring data shall be collected, analyzed, reported and retained in accordance with Chapter 62-160, F.A.C. Any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300, F.A.C. The laboratory must be certified for all specific method/analyte combinations that are used to comply with this permit. The analytical method used shall be appropriate so as to determine if the sample complies with Class I and Class III surface water quality standards as specified in Chapter 62-302, F.A.C., and groundwater standards as specified in Chapter 62-520, F.A.C., whichever is more stringent. All field

activities including on-site tests and sample collection, whether performed by a laboratory or another organization, must follow all applicable procedures described in DEP-SOP-001/01 (February 1, 2004). Alternate field procedures and laboratory methods may be used if they have been approved according to the requirements of Rules 62-160.220, and 62-160.330, F.A.C.

- B. **Method Detection Limits (MDLs).** The sample collection, analytical test methods and method detection limits (MDLs) applicable to this permit shall be performed and reported in accordance with Rule 62-4.246, F.A.C. a list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantification limits), which is titled "Florida Department of Environmental Protection Table as Required By Rule 62-4.246(4) Testing Methods for Discharges to Surface Water" dated April 25, 2006, is available from the Department on request. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. More stringent MDLs and PQLs may be necessary for specific parameters. If required, these will be identified in the permit monitoring table.

18. **Turbidity Monitoring.** Effective means of turbidity control, such as, but not limited to, turbidity curtains, shall be employed during all construction and maintenance activities that may create turbidity so that it shall not exceed 0 NTU's above background in the OFW and 29 NTU's above background in the Class III receiving waters. Turbidity curtains or other controls shall be placed and maintained around the work area to confine turbidity generated by construction within the work area. All screens, sheet pile, and other turbidity control devices shall remain in place until all turbidity has subsided and the turbidity level in the work cell meets state standards.

Turbidity monitoring equipment and personnel trained to use it shall be available on site at all times during construction activities that could result in project-generated turbidity levels beyond the work area. For monitoring purposes, the work area is that area defined by the turbidity curtailed "cell(s)." The District shall monitor turbidity levels at least once every four hours during all activities that may create turbidity (unless monitoring data shows this to be excessive) during construction as follows.

- A. Monitoring samples shall be taken at the surface at the following locations:
1. Background Sample(s): One background sample station, at least 250 feet upstream of the work area, outside any visible plume generated by the construction; and
 2. Compliance Sample(s): Monitoring station located immediately downstream of the work area within the densest portion of any visible plume.
- B. Turbidity monitoring results shall be compiled daily and summarized quarterly (every three calendar months) by project component. Beginning with the first calendar month that construction occurs that could generate turbidity in waters adjacent to the construction sites and continue until all construction is completed. Monitoring data with supporting documents shall be submitted to the Department quarterly during the period of actual construction. The reports shall clearly identify 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 component 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 include the following information for each sample that is taken:

1. Water depth
2. Depth of sample
3. Weather conditions
4. Water level stage and direction of flow.

19. **Mercury and Other Toxicants.** The District shall submit a proposed Mercury and Other Toxicants Monitoring Plan as a part of the Water Quality Monitoring Plan requirement in Specific Condition 17 for Department review and approval.
20. **Removal of Parameters.** Upon demonstration that a specific parameter(s) is not present or is found consistently in compliance with water quality standards, the District may request a modification to the monitoring program as appropriate. A minimum of one year's worth of data, for those parameters being sampled quarterly or more frequently, will be required prior to the Department approving any modification to the monitoring program. Parameters sampled semi-annually or annually will be examined on a case-by-case basis. The Department may approve a reduction of the monitoring frequency or waive the monitoring requirement for parameters that consistently are reported as in compliance with state water quality standards.
21. **Addition of Parameters.** If the Department has reason to believe that additional parameters exist that may cause or contribute to water quality violations in the project area, those parameters shall be added to the monitoring section of this permit as a permit modification.

Reporting

22. **Construction Status Reports.** Construction Status Reports or Construction Meeting Minutes for the project shall be available to the Department throughout the duration of construction activities and shall continue to be submitted until all disturbed areas are successfully stabilized. These Reports may be requested through the Project Manager, Construction Manager, or obtained at the construction meetings.
23. **Annual Reports.** The District shall submit an "Annual Report" to the Department detailing the progress of the Biscayne Bay Coastal Wetland Project. In addition to the permit number and name of the permit administrator, the Annual Reports shall contain, at a minimum, the following information; the project name, permit number, discussion of project status, and conclusions regarding project success, problems encountered during the period covered, and actions taken to address problems encountered. The annual reporting requirements under this permit shall be incorporated into the South Florida Environmental Report (SFER) and/or as part of other reporting mechanisms which have been deemed acceptable by the Department. These reports shall be submitted to the Department no later than March 1st of each year. If additional reporting modifications are required, the District may request a modification of the Annual Report submission date, and upon approval by the Department, the District may modify the Annual Report submission date to coincide with other reporting requirements and time periods needed for data acquisition and analysis.

A. **Water Quality Data.** Records of monitoring information shall include:

1. Date, location, and time of sampling or measurements;
2. Person responsible for performing the sampling or measurements;
3. Dates analyses were performed or the appropriate code as required by Chapter 62-160, F.A.C.;
4. Person responsible for performing the analyses;

5. Analytical techniques or methods used, including MDL;
6. Results of such analyses, including appropriate data qualifiers;
7. Depth of samples;
8. Flow conditions and weather conditions at time of sampling; and,
9. Monthly flow volumes.

B. Performance Evaluation.

1. The operations status of the Project;
2. A comparison of quarterly water quality data using the student's t-test with a 95% confidence interval;
3. During operations, a statistical evaluation of whether the project is performing in a manner consistent with its design objectives/water quality performance estimates. In the event that the project is not performing in this manner, the Department may impose additional evaluation and reporting requirements;
4. Beginning with the second Annual Report, a comparison of performance of current reporting year with performance in previous years.
5. An evaluation of project performance based on ecological/biological monitoring efforts.

C. Herbicide and Pesticide Tracking. The District shall provide in each annual report information regarding the application of herbicides and pesticides used to exclude/eliminate undesirable vegetation and pests in the wetted area of the Project. Such reporting shall include the names, concentrations, locations, and quantities of all herbicides and pesticides used.

D. Implementation Schedules. When appropriate, the District shall include information on:

1. Comprehensive Everglades Restoration Plan Project implementation;
2. Project optimization;
3. Project design modifications; and,
4. Implementation of remedial measures in the event of noncompliance with permit conditions.

Renewals and Modifications

24. **Permit Modifications.** The District shall submit proposed modifications to the Biscayne Bay Coastal Wetlands Project to the Department, prior to implementation of the modification, for review and approval.
25. **Permit Renewal.** At least 60 days prior to the expiration date of this permit, the District shall apply for renewal of this permit. Renewal may be for a period of up to 5 years in accordance with Subsection (3)(g) of the CERPRA.
26. **Department Review and Approval.** Where conditions in this permit require Department review of remedial actions or plan modifications to be implemented pursuant to this permit, the Department will consult with the District to ascertain whether a mutual agreement can be reached. If mutual agreement on the remedial actions or plan modifications cannot be reached, the action of the Department will be deemed final agency action and will be subject to judicial or administrative review, as appropriate.

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Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

 9/10/07
Jenny Brooks Date
Deputy Director
Division of Water Resource Management

JB/em/bb

FILING AND ACKNOWLEDGMENT

FILED, on this date, with the designated Department Clerk, receipt of which is hereby acknowledged.

 9/10/07
Clerk Date

ELECTRONIC COPIES FURNISHED TO:

Frank Nearhoof, FDEP
Shelley Yaun, FDEP
Kenny Hayman, FDEP
Tracy Robb, FDEP
Inger Hansen, FDEP
John Mitnik, SFWMD
Nimmy Jeyakumar, SFWMD
Maryann Poole, FWC
Johnna Mattson, Dept. of Community Affairs
Laura Kammerer, Dept. of State, Div. of Historical Resources
Linda McCarthy, Dept. of Agriculture and Consumer Services
Pam Repp, U.S. Fish and Wildlife Service
Joe Martinez, Board of County Commissioners, Miami-Dade County

TABLE 1: MONITORING REGIME FOR CANAL STATIONS

PARAMETER	UNITS	SAMPLE TYPE	SAMPLING FREQUENCY	SAMPLING LOCATION
Ammonia	mg/l	G	M	MI01, MW01, PR01, BB53
Salinity	mg/l (ppt)	G	M	MI01, MW01, PR01, BB53
TSS	mg/l	G	M	MI01, MW01, PR01, BB53
Color	PCU	G	M	MI01, MW01, PR01, BB53
Dissolved Oxygen	mg/l	G	M	MI01, MW01, PR01, BB53
pH	SU	G	M	MI01, MW01, PR01, BB53
Specific Conductance	uS/cm	G	M	MI01, MW01, PR01, BB53
Temperature	Deg C	G	M	MI01, MW01, PR01, BB53
Total Phosphorus	mg/l	G	M	MI01, MW01, PR01, BB53
Turbidity	NTU	G	M	MI01, MW01, PR01, BB53
NOX	mg/l	G	M	MI01, MW01, PR01, BB53
Flow	CFS	CAL	M	S23A, S23B, S23C, S23D
Stage	NGVD	CAL	M	S21A, S20G, S20F
Mercury	(See Specific Condition 19)			
Pesticides	(See Specific Condition 19)			

Table 1: Key

G – Grab sampling
 M – Monthly
 CAL - Calculated parameter

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Figure 1: L-31E Culverts Project Area



Attachment 3
AS-BUILT CERTIFICATION BY PROFESSIONAL ENGINEER

Submit this form and one set of as-built engineering drawings to the U.S. Army Corps of Engineers, Enforcement Section, Post Office Box 4970, Jacksonville, Florida 32232-0019. If you have questions regarding this requirement, please contact the Enforcement Section at 904-232-2907.

1. Department of the Army Permit Number: _____

2. Permittee Information:

Name _____

Address _____

3. Project Site Identification:

Physical location/address _____

4. As-Built Certification:

I hereby certify that the authorized work, including any mitigation required by Special Conditions to the permit, has been accomplished in accordance with the Department of the Army permit with any deviations noted below. This determination is based upon on-site observation, scheduled and conducted by me or by a project representative under my direct supervision. I have enclosed one set of as-built engineering drawings.

Signature of Engineer

Name (Please type)

(FL, PR or VI) Reg. Number

Company Name

Address

City

State

ZIP

(Affix Seal)

Date

Telephone Number

Attach additional pages as necessary to identify deviations from the approved permit drawings and special conditions.

Attachment 4

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE

- (1) An eastern indigo snake protection/education plan will be developed by the applicant for all construction personnel to follow. The plan will be provided to the Service for review and approval at least 30 days prior to any clearing activities. The education materials for the plan may consist of a combination of posters, videos, pamphlets, and lectures (*e.g.*, an observer trained to identify eastern indigo snakes could use the protection/education plan to instruct construction personnel before and clearing activities occur). Informational signs should be posted throughout the construction site and contain the following:
 - a. a description of the eastern indigo snake, its habits, and protection under Federal law;
 - b. instructions not to injure, harm, harass or kill this species;
 - c. directions to cease clearing activities and allow the eastern indigo snake sufficient time to move away from the site on its own before resuming activities; and
 - d. telephone numbers of pertinent agencies to be contacted if a dead eastern indigo snake is found. The dead specimen should be thoroughly soaked in water, then frozen.
- (2) Only an individual who has been authorized either by a section 10(a)(1)(A) permit issued by the Service, or authorized by the FWC for such activities, is permitted to come into contact with or relocate an eastern indigo snake;
- (3) If necessary, eastern indigo snakes will be held in captivity only long enough to transport them to the release site; at no time will 2 snakes be kept in the same container during transportation; and
- (4) An eastern indigo snake monitoring report must be submitted to the Service's South Florida Ecological Services Office, Vero Beach, Florida, within 60 days of clearing completion. The report should be submitted when any eastern indigo snakes are observed or relocated. The report should contain the following information:
 - a. results of the tortoise burrow and field surveys;
 - b. any sightings of eastern indigo snakes;
 - c. summaries of any relocation activities for the Project (*e.g.*, locations of where and when they were found and relocated); and
 - d. other obligations required by the FWC, as stipulated in their permit.

Attachment 5
STANDARD MANATEE CONSTRUCTION CONDITIONS
June 2001

The permittee shall comply with the following manatee protection construction conditions:

- a. The permittee shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence of manatee(s).
- b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, The Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act.
- c. Siltation barriers shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exist from essential habitat.
- d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- e. If manatee(s) are seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area of its own volition.
- f. Any collision with and/or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-561-562-3909) in south Florida.
- g. Temporary signs concerning manatees shall be posted prior to and during all construction/dredging activities. All signs are to be removed by the permittee upon completion of the project. A sign measuring at least 3 ft. by 4 ft. which reads *Caution: Manatee Area* will be posted in a location prominently visible to water related construction crews. A second sign should be posted if vessels are associated with the construction, and should be placed visible to the vessel operator. The second sign should be at least 8 1/2" by 11" which reads *Caution: Manatee Habitat. Idle speed is required if operating a vessel in the construction area. All equipment must be shutdown if a manatee comes within 50 feet of operation. Any collision with and/or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. The U.S. Fish and Wildlife Service should also be contacted in Jacksonville (1-904-232-2580) for north Florida or in Vero Beach (1-561-562-3909) for south Florida.*

CAUTION

MANATEE HABITAT

IDLE SPEED is required if operating a vessel

in the construction area.

All Equipment must be SHUT DOWN if a manatee comes within 50 feet of operation.

Any collision with and/or injury to a manatee shall be reported immediately

to the **FWC** at:

1-888-404-FWCC

(1-888-404-3922)

Attachment 6

GUIDELINES FOR CULVERTS LOCATED IN MANATEE-ACCESSIBLE CERP PROJECTS

The following guidelines are developed to prevent manatee entrapment within culverts and to exclude manatees from unsuitable habitat. The guidance below applies only to free-flowing culverts. Structures with water control features (e.g., gates, flaps, etc.) and culverts that exceed the specifications below will require FWC and FWS review.

NEW AND EXISTING CULVERTS

1. Size requirements: All culverts 8 inches to 8 feet in diameter must be grated to prevent manatee entrapment. Grates must be spaced a maximum of 8 inches apart to effectively prevent manatee access. Diagonal, horizontal or vertical grates may be installed. Grates must be a permanent fixture and not part of a water control structure.

Culverts less than 8 inches in diameter are exempt from this requirement, whereas, culverts greater than 8 inches may be subject to a case-by-case review, if necessary.

2. Length requirements: Based on documented manatee movement by FWC, the maximum recommended culvert length is 200 feet. Proposed culverts greater than 200 feet in length require consultation with the FWS and the FWC.
3. Case-by-Case Review: In consultation with FWS and FWC, all culverts may be reviewed. The decision to exclude manatees will be based on culvert length, water level, available habitat and other risk factors. If a decision is made to exclude manatees from access to culverts, the culvert should be grated, as described above.

The benefit of access to important habitat (forage resources, calving sites, freshwater, travel corridors, warm-water refugia, refuge from watercraft or other forms of harassment) will be weighed against the potential risk of injury or death to manatees if the culvert were to remain accessible.

4. Additional Guidance:
 - Box culverts are preferred by FWS and FWC over round culverts. Bridges are the most preferred by FWS and FWC.

Manatees can become stranded in culverts during periods of low tide. Therefore, when planning for new culverts in tidal waters, a minimum 3-foot depth of water in the culvert at low tide stage is recommended.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

Attachment 7

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

- a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.
- b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.
- c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.
- d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.
- e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.
- f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.
- g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006

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Attachment 8

Biscayne Bay Coastal Wetlands Acceler8 Project Protection Measures for the American Crocodile

June 12, 2007

1. Prior to construction, an American crocodile survey will be conducted by a person with experience in performing American crocodile surveys. The survey should be adequate to ensure a high likelihood of detecting American crocodiles that maybe be using the project area for shelter, feeding and sunning. If construction is planned during the nesting season (March through September), the project area should also be surveyed for nesting and breeding activities. If American crocodiles or nests are detected, a protection plan will be developed in coordination with the Service and implemented prior to the initiation of construction.
2. The American crocodile survey report must be submitted to the Service prior to construction (using standard survey report format). The survey report shall be submitted whether or not a crocodile has been observed and contain information on any sightings of crocodiles or nests.

Attachment 9
L-31E Culverts
Unified Mitigation Assessment Methodology Score Sheet

L-31E Culverts UMAM
November 2007

Habitat Type	Landscape Support		Water Environment		Community Structure		Overall UMAM Score		Delta	Total Site			Functional Gain	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post		Acreage	Subtotal	Time Lag		Risk
Mangrove (Wetland 22)	8	8	5	6	7	8	0.67	0.73	0.07	2	0.13	0.967	1	0.12571
Mangrove (Wetland 24)	8	8	6	8	7	8	0.70	0.80	0.10	2	0.2	0.967	1	0.1934
										4			Sum	0.31911

Habitat Type	Landscape Support		Water Environment		Community Structure		Overall UMAM Score		Delta	Total Site			Functional Gain	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post		Loss	Acreage	Subtotal		Time Lag
Mangrove (Wetland 22)	8	0	5	0	8	0	0.70	0.00	-0.70	0.15	-0.11	1	1	-0.11
Mangrove (Wetland 24)	8	0	6	0	7	0	0.70	0.00	-0.70	0.15	-0.11	1	1	-0.11
										0.3			Sum	-0.22