



# Department of Environmental Protection

cc: C. S. C.V  
K. OLSEN  
M. MOORE  
File 1708.4425

Jeb Bush  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

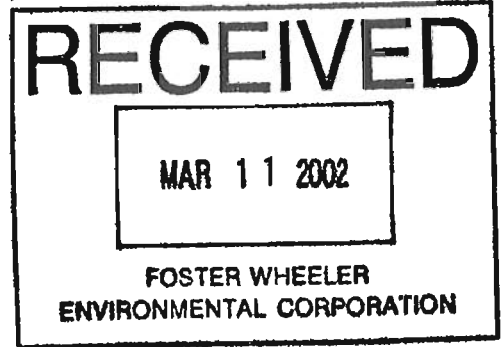
RECEIVED  
MAR 13 2002

David B. Struhs  
Secretary

## CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Save Our Rivers  
March 6, 2002 Initials: \_\_\_\_\_

Mr. Jonathan Weiss  
Foster Wheeler Environmental Corporation  
759 S. Federal Highway, Suite 100  
Stuart, Florida 34994



Dear Mr. Weiss:

Permit Number: 0140969-001, Palm Beach County  
Loxahatchee Mitigation Bank

Your request to modify this permit has been received and reviewed by Department staff. The request to replace the "soil cement" portions of the containment berm with an earthen composite design is a result of concerns about construction, access, and the integrity and longevity of the soil cement berm design. However, the footprint of the composite berm will be increased by approximately 5 feet. In addition, a 0.2 mile section of the berm will be moved northward about 21 feet to avoid an existing ditch. These changes are reflected in the attached revisions of Figure 6-Key Map and Sheets C-G. The proposed relocation and redesign will reduce the bank area by about 1.5 acres with a commensurate reduction of ~1.2 credits. The precise area and credit reduction will be based on final "as-built" drawings and deducted according to Specific Condition 16. Site conditions also require the relocation and reconfiguration of the permitted mudflat areas into one 5.2 acre area, as shown in the attached Figures 3, 7 and 8. Finally, there is a minor change in equipment from the HYDRO-AX mentioned in Specific Condition 12 to a Brontosaurus ®.

These changes require the following minor modifications in the language of Specific Conditions 10 a., 12 b. and the first paragraph of 21:

### 10. Construction.

- a. Hydrologic and water quality enhancements depend on the successful construction of a perimeter berm with water control structures to retain rainfall and a bypass ditch to re-route existing runoff and agricultural discharges around the site. Figure 4 provides an overview of the proposed hydrological enhancements. Figure 5 indicates the temporary and permanent construction activities planned to restore hydrology. Engineering details of these improvements are provided in Figures 6, Key and Sheets A-G.

"More Protection, Less Process"

Prior to release of final retained credits for construction and initial eradication activities under Specific Condition 18, the temporary construction features, which include a 20,000-square-foot storage pad, a 750 square foot office pad, and 3 stockpile/storage areas (50,000 ft<sup>2</sup>, 62,000 ft<sup>2</sup>, and 25,000 ft<sup>2</sup>), shall be removed and restored in accordance with the proposed mitigation plan in Figure 3. These areas are shown in Figure 5A. Permanent construction to implement the designed hydrologic improvements includes the following elements (beginning at the upper right corner of Figure 6-Key and moving clockwise):

- i. Construct one control structure and one emergency discharge structure on the western bank of the E-1 W-N. The control structure will regulate the project site water levels in the North parcel at an elevation of 15.5' NGVD. The emergency control structure, set at 17' NGVD, is designed to "fail" in the event of a 100-year or greater storm in order to protect the integrity of the rest of the berm (Details 3 and 4, Fig. 6-G).
- ii. Improve the western bank of the E-1 W-N (northeastern boundary of the bank) to a minimal elevation of 18' NGVD. Extend a soil-cement-composite berm, constructed to elevation 18' NGVD, westward from the northern boundary of this E-1 W-N bank improvement to intersect with Levee 40 (Figs. 6-E and 6-F; and cross sections D-1 and D-2, Fig. 6-GH).
- iii. Construct one control structure in the new berm in the northeast corner of the Southeast Parcel. This control structure will regulate the project site water levels in the South and Southeast Parcels at elevation 15.5' NGVD (Fig 6-D; Detail 2 on Fig. 6-G).
- iv. Construct a soil-cement-composite berm around the eastern and southern boundaries of the Southeast Parcel (Fig 6-C, cross sections C1 and C2, Fig 6-G).
- v. Construct a 36 ft. wide levee (berm) along the eastern and southern boundaries of the South Parcel (Figs. 6-A - 6-C, cross sections A1, A2, B1, B2 on Fig 6-F – 6-G).
- vi. Construct a bypass drainage ditch system to collect runoff and agricultural discharge of adjacent property owners and re-route it along the eastern and southern boundaries of the South Parcel (Figs. 6-A - 6-C, cross sections A1, A2, B1, B2 on Fig 6-F and 6-G). The northern portion of the constructed bypass ditch will connect to the Lake Worth Drainage District (LWDD) Lateral-40 and the southern portion of the constructed bypass ditch will connect the Lateral-40 to the E-1 W-S canal (see Details, Fig 6-G).
- vii. Install erosion protection where pumped agricultural discharge water will discharge into the LWDD Lateral-40 (Fig 6-A).
- viii. Construct one emergency discharge structure along the southern border of the South Parcel designed to "fail" in the event of a 100-year or greater storm in order to protect the integrity of the rest of the berm (Detail 1, Fig 6-F).

**Notice of Modification**  
**Loxahatchee Mitigation Bank**  
**Permit No. 0140969-001**  
**Page 3**

- ix. Improve the access road adjacent to E-1 W-S to a graded elevation of 19.5' NGVD sloping to 18' NGVD with an inboard swale, and improve the access road adjacent to L-36½ to an elevation of 18' NGVD (Figs. 6-A – 6-C, sections Fig 6-G).
- x. Construct a ~~soil-cement~~composite berm with a minimum elevation of 18' NGVD to provide a southern barrier to the North Parcel and to protect the LWDD's Horticultural Disposal Area (Fig. 6-D).
- xi. Remove the road and side ditches that traverse the South Parcel (Fig. 6-C).
- xii. Plant areas where necessary with appropriate vegetation in accordance with planting procedures defined in Attachment C and Figure 12.

12. b. Manual herbicide treatments (see Attachment A) and limited use of a ~~HYDRO-AX~~Brontosaurus\* when appropriate, are proposed for initial eradication of Brazilian pepper in the North Parcel and on high ground elsewhere within the site. Use of a Brontosaurus ~~HYDRO-AX~~\* will be carefully monitored to minimize disturbance of the substrate, which could hinder restoration of the site or foster growth of cattails. This technique will be largely restricted to edges along roadways and areas where earthwork activities are proposed. If a Brontosaurus~~HYDRO-AX~~\* is determined by the QMS to be appropriate in other areas, the substrate will be monitored for firmness and mats will be used when necessary to minimize disturbance of the soils.

\* ~~Brontosaurus~~HYDRO-AX is the trade-name of a class of forestry machinery, including a ~~machine~~D-5 trackhoe with a specialized cutting head that designed to quickly and efficiently cuts and shred-chips plant material.

21. Final Success. The bank shall be deemed successful when all of the following criteria have been met for a period of at least one full year without intervention in the form of artificial manipulation of water levels, eradication of undesirable vegetation or replanting of desirable vegetation. The bank shall enhance or restore the following five wetland polygon types: marsh, red maple, pond apple, willow and cypress. ~~Twelve~~Approximately 5.2 acres of "mudflat" habitat is proposed to be constructed within the marsh polygon.

By copy of this letter and the attached new drawings, we are notifying all necessary parties of the modification.

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000. Petitions filed by the permittee and the parties listed below must be filed within 21 days of receipt of this letter. Petitioner shall mail a copy of the petition to the permittee at the

**Notice of Modification**  
**Loxahatchee Mitigation Bank**  
**Permit No. 0140969-001**  
**Page 4**

address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the permittee's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action; or proposed action;
- (d) A statement of the material facts disputed by petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this letter. Persons whose substantial interests will be affected by any decision of the Department with regard to the permit have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 21 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

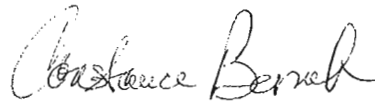
This Notice constitutes final agency action unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the

**Notice of Modification**  
**Loxahatchee Mitigation Bank**  
**Permit No. 0140969-001**  
**Page 5**

time specified for filing a petition. Upon timely filing of a petition or a request for an extension of time this Notice will not be effective until further Order of the Department.

Any party to this letter has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000; and by filing a copy with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Notice of Permit Modification is filed with the Clerk of the Department.

Sincerely,



Constance Bersok, Administrator  
Bureau of Beaches and Wetland Resources

Attachments

cc:

Marjorie Moore, SFWMD, West Palm Beach  
Tori Agramonte, US Army Corps of Engineers, Vero Beach  
File

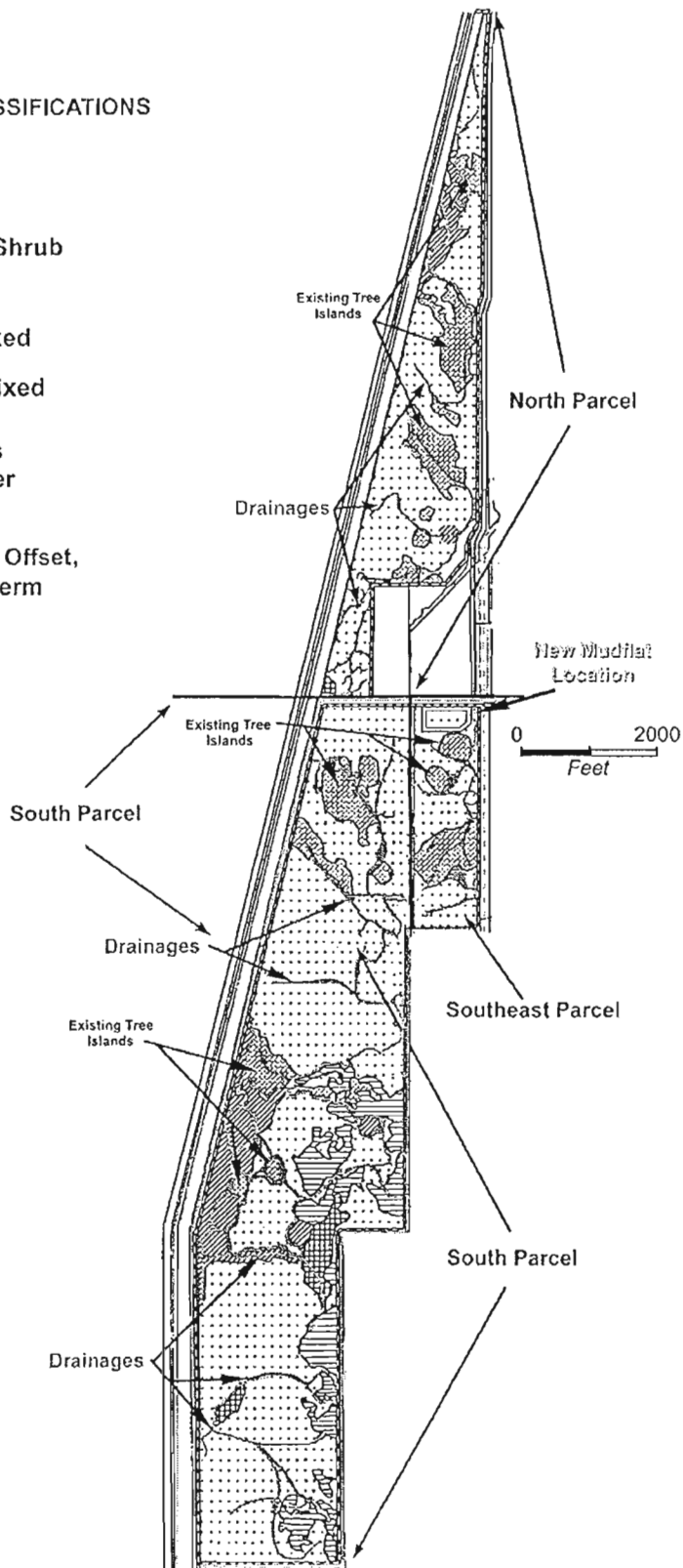
CERTIFIED MAIL NUMBER  
RETURN RECEIPT REQUESTED

**FILING AND ACKNOWLEDGMENT**

FILED, on this date, pursuant to 120.52(9),  
Florida Statutes, with the designated Department Clerk,  
receipt of which is hereby acknowledged.

LAND COVER CLASSIFICATIONS  
AND ACREAGES

-  Marsh
-  Willow - High Density Shrub
-  Cypress
-  Red Maple/Mixed
-  Pond Apple/Mixed
-  Canals/Ditches and Open Water
-  Access Roads, Offset, Containment Berm



Source: Foster Wheeler Environmental Corporation  
759 South Federal Highway Suite 100  
Stuart, FL 34994

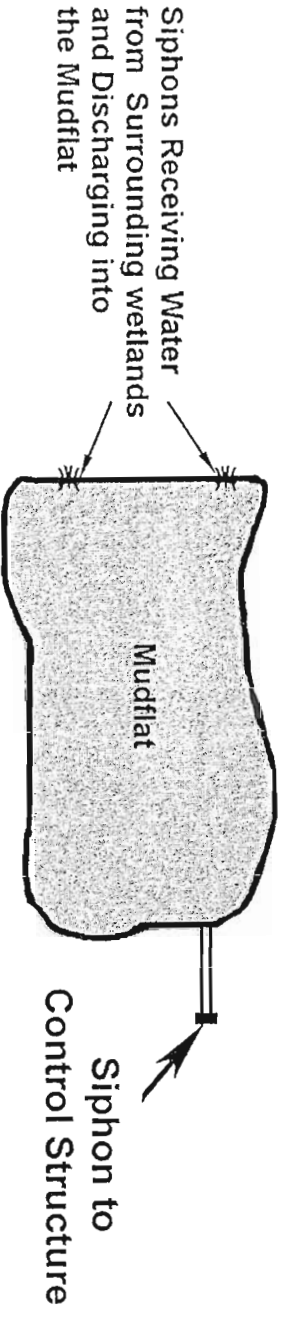
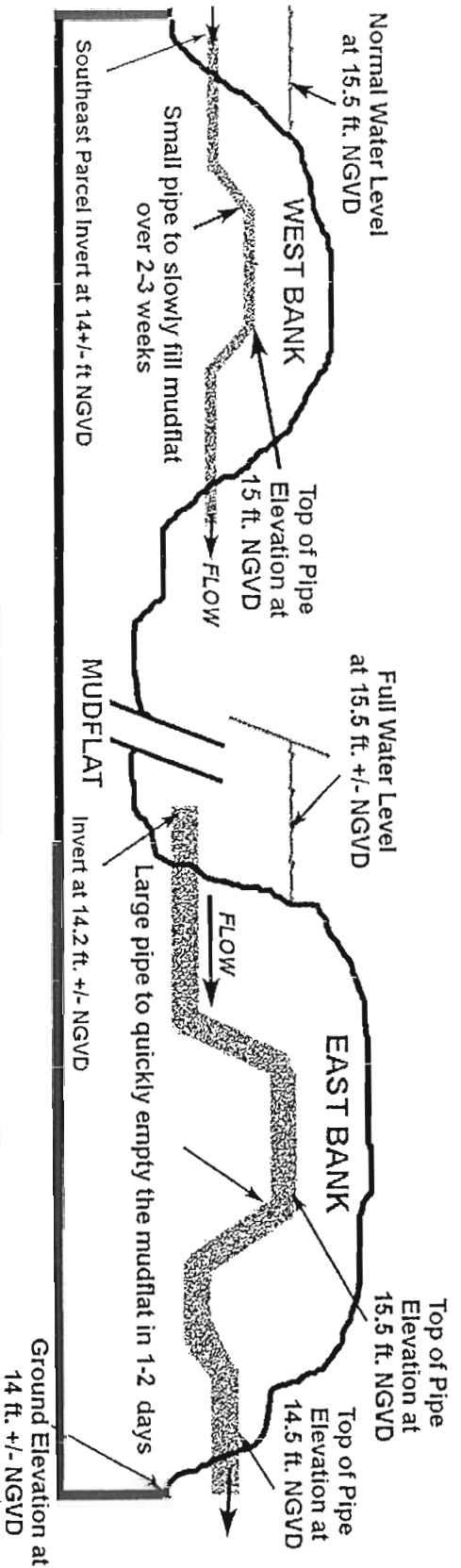
PERMIT NO. 140969

January 30, 2002  
Figure3.ppt

Loxahatchee Mitigation Bank  
PROPOSED MITIGATION PLAN  
HIGHLIGHTING DRAINAGES AND NEW MUDFLAT LOCATION

FIGURE 3

Engineering Certificate  
of Authorization No. 7130



Plan-view of Site Mudflat

Source: Foster Wheeler Environmental Corporation  
 Suite 100, 759 South Federal Highway  
 Stuart, FL 34994

*Mark A. Fiedorovich*  
 3/4/02

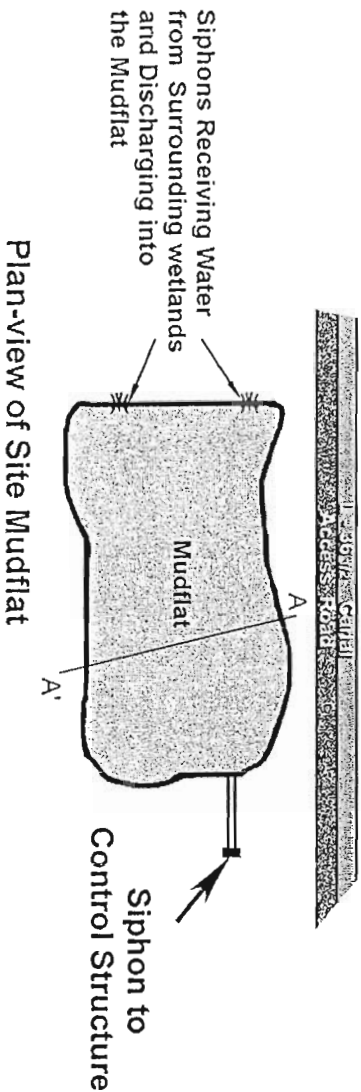
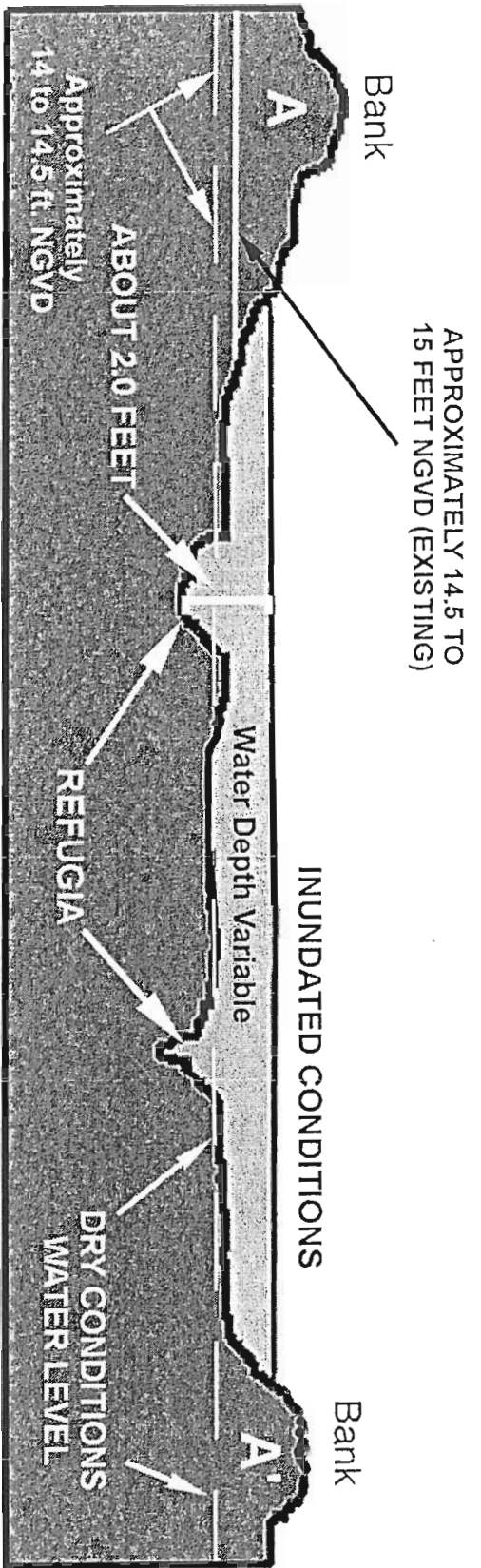
Loxahatchee Mitigation Bank  
 DESCRIPTION OF THE MINNESOTA SIPHON  
 TO BE USED IN THE MUDFLATS  
 POST PERMIT REVISION

FIGURE 8

Mudflat Permit Revision.lif  
 2/4/02

Engineering Certificate  
 of Authorization No. 7130

PERMIT NO. 2-30000



Source: Foster Wheeler Environmental Corp.  
 Suite 100  
 759 South Federal Highway  
 Stuart, FL 34994

*David A. Friedman*

3/4/02

Loxahatchee Mitigation Bank  
 TYPICAL CROSS-SECTION OF A CONSTRUCTED MUDDFLAT  
 POST-PERMIT REVISION

FIGURE 7

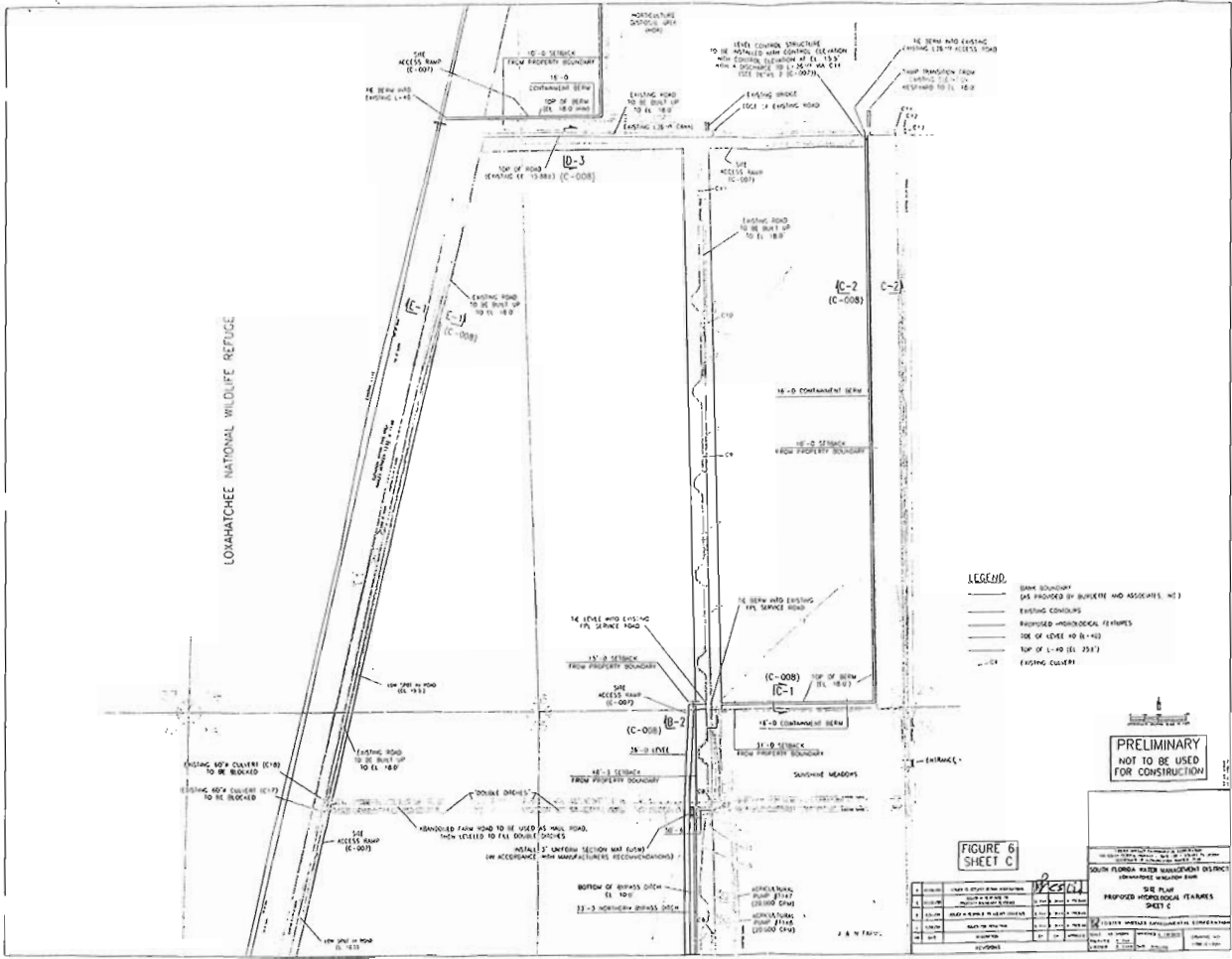
Engineering Certificate  
 of Authorization No. 7130

PERMIT NO. 140969





LOXAHATCHEE NATIONAL WILDLIFE REFUGE



**LEGEND**

- BANK BOUNDARY (AS PROVIDED BY BUREAU AND ASSOCIATES, INC.)
- EXISTING CONDITIONS
- PROPOSED HYDROLOGICAL FEATURES
- TOP OF CULVERT (EL. 18.0)
- TOP OF 12-0 (EL. 18.1)
- EXISTING CULVERT

**PRELIMINARY  
NOT TO BE USED  
FOR CONSTRUCTION**

**FIGURE 6  
SHEET C**

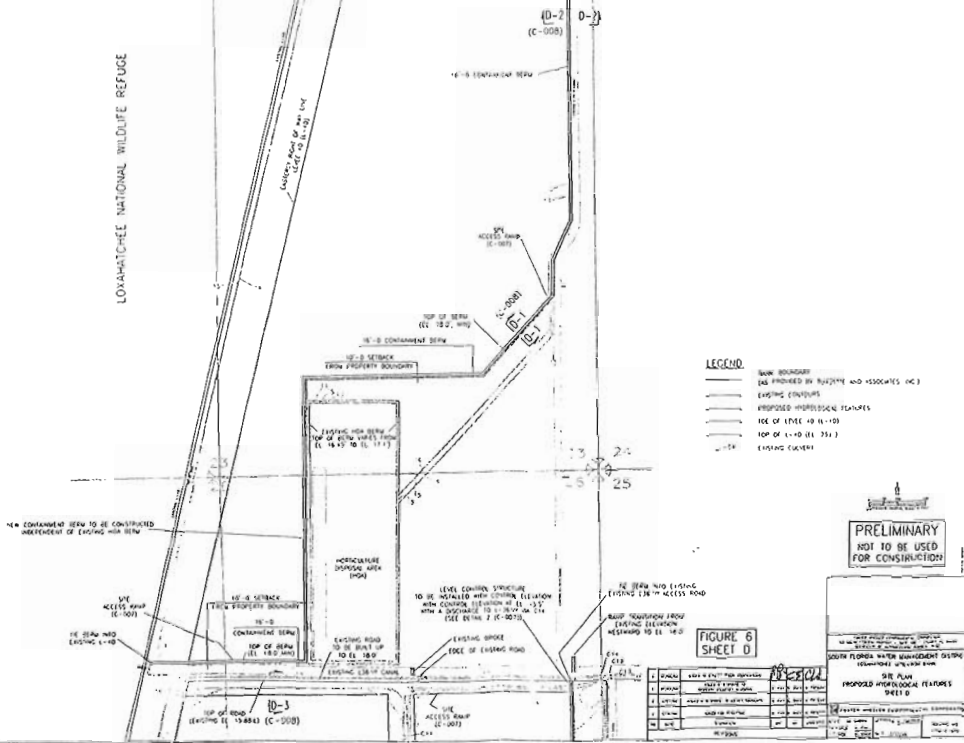
NO.	DESCRIPTION	DATE	BY	CHECKED
1	DESIGNED	11/20/01	J. B. N. FAY, P.E.	
2	REVISED	11/20/01	J. B. N. FAY, P.E.	
3	REVISED	11/20/01	J. B. N. FAY, P.E.	
4	REVISED	11/20/01	J. B. N. FAY, P.E.	
5	REVISED	11/20/01	J. B. N. FAY, P.E.	
6	REVISED	11/20/01	J. B. N. FAY, P.E.	
7	REVISED	11/20/01	J. B. N. FAY, P.E.	
8	REVISED	11/20/01	J. B. N. FAY, P.E.	
9	REVISED	11/20/01	J. B. N. FAY, P.E.	
10	REVISED	11/20/01	J. B. N. FAY, P.E.	

*Christopher S. Smith*  
2-9-02

CHRISTOPHER S. SMITH  
FOSTER WHEELER ENVIRONMENTAL CORPORATION  
259 SOUTH FEDERAL HIGHWAY, SUITE 1100  
MIAMI, FLORIDA 33130  
CERTIFICATE OF REGISTRATION NO. 7130

PERMIT NO. 140999

LOUWHATCHEE NATIONAL WILDLIFE REFUGE



**LEGEND**

- BOUNDARY (AS PROVIDED BY SURVEYOR AND ASSOCIATES, INC.)
- EXISTING CONDUIT
- PROPOSED IMPROVED FEATURES
- TOP OF 14'-0" DI. (14'-0")
- TOP OF 14'-0" DI. (14'-0")
- EXISTING ELEVATION

**PRELIMINARY  
NOT TO BE USED  
FOR CONSTRUCTION**

**FIGURE 6  
SHEET 0**

NO.	DESCRIPTION	DATE	BY	CHECKED BY
1	DESIGN	10/1/02	CS	CS
2	REVISED	10/1/02	CS	CS
3	REVISED	10/1/02	CS	CS
4	REVISED	10/1/02	CS	CS
5	REVISED	10/1/02	CS	CS
6	REVISED	10/1/02	CS	CS
7	REVISED	10/1/02	CS	CS
8	REVISED	10/1/02	CS	CS
9	REVISED	10/1/02	CS	CS
10	REVISED	10/1/02	CS	CS

*Christie S. Smith*

2-7-02

REGISTERED PROFESSIONAL ENGINEER  
STATE OF FLORIDA  
NO. 37265  
FOR THE WATER MANAGEMENT DISTRICT OF  
SOUTH FLORIDA WATER MANAGEMENT DISTRICT  
CENTRAL FLORIDA AUTHORITY NO. 7130

LOAHATCHEE NATIONAL WILDLIFE REFUGE

EMERGENCY DRAINAGE STRUCTURE  
TO BE INSTALLED  
WITH CONTROL ELEVATION  
P. 21.175  
ENC. 204, P. 18-1879

LEAK CONTROL STRUCTURE  
TO BE INSTALLED  
WITH CONTROL ELEVATION  
P. 21.175  
ENC. 204, P. 18-1879

**LEGEND**

- BONE DRAINAGE
- AND PROPOSED BY SLADEN AND ASSOCIATES, INC.
- EXISTING CONTOURS
- PROPOSED HYDROLOGICAL FEATURES
- 10' OF FLOOD (10' TO 10')
- 10' OF FLOOD (10' TO 10')
- EXISTING CONTOUR

**PRELIMINARY  
NOT TO BE USED  
FOR CONSTRUCTION**

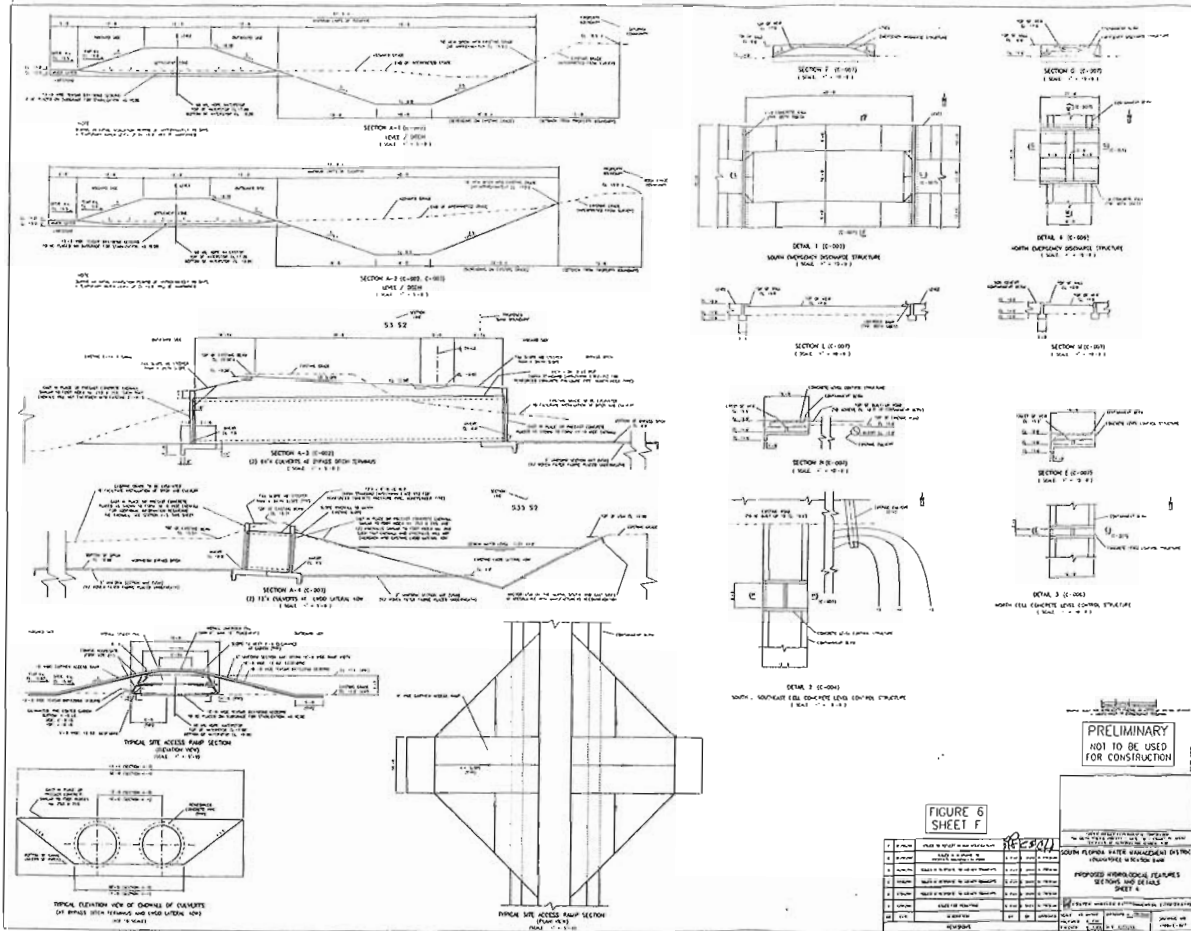
**FIGURE 6  
SHEET E**

NO.	DATE	DESCRIPTION	BY	CHKD.
1	11/15/00	PRELIMINARY DESIGN	SLADEN	SLADEN
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3	11/15/00	REVISION	SLADEN	SLADEN
4	11/15/00	REVISION	SLADEN	SLADEN
5	11/15/00	REVISION	SLADEN	SLADEN
6	11/15/00	REVISION	SLADEN	SLADEN
7	11/15/00	REVISION	SLADEN	SLADEN
8	11/15/00	REVISION	SLADEN	SLADEN
9	11/15/00	REVISION	SLADEN	SLADEN
10	11/15/00	REVISION	SLADEN	SLADEN

*Charles J. Smith*  
2-9-02  
CONSULTOR TO SLADEN AND ASSOCIATES, INC.  
FOSTER WHEELER ENVIRONMENTAL CORPORATION  
290 SOUTH FOSBERG HIGHWAY, SUITE 100  
COLUMBIA, MISSISSIPPI 39208  
CERTIFICATE OF AUTHORIZATION NO. 7130

**CLAYTON S. SMITH**  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF MISSISSIPPI  
NO. 67265

PERMIT NO. 140800



PRELIMINARY  
NOT TO BE USED  
FOR CONSTRUCTION

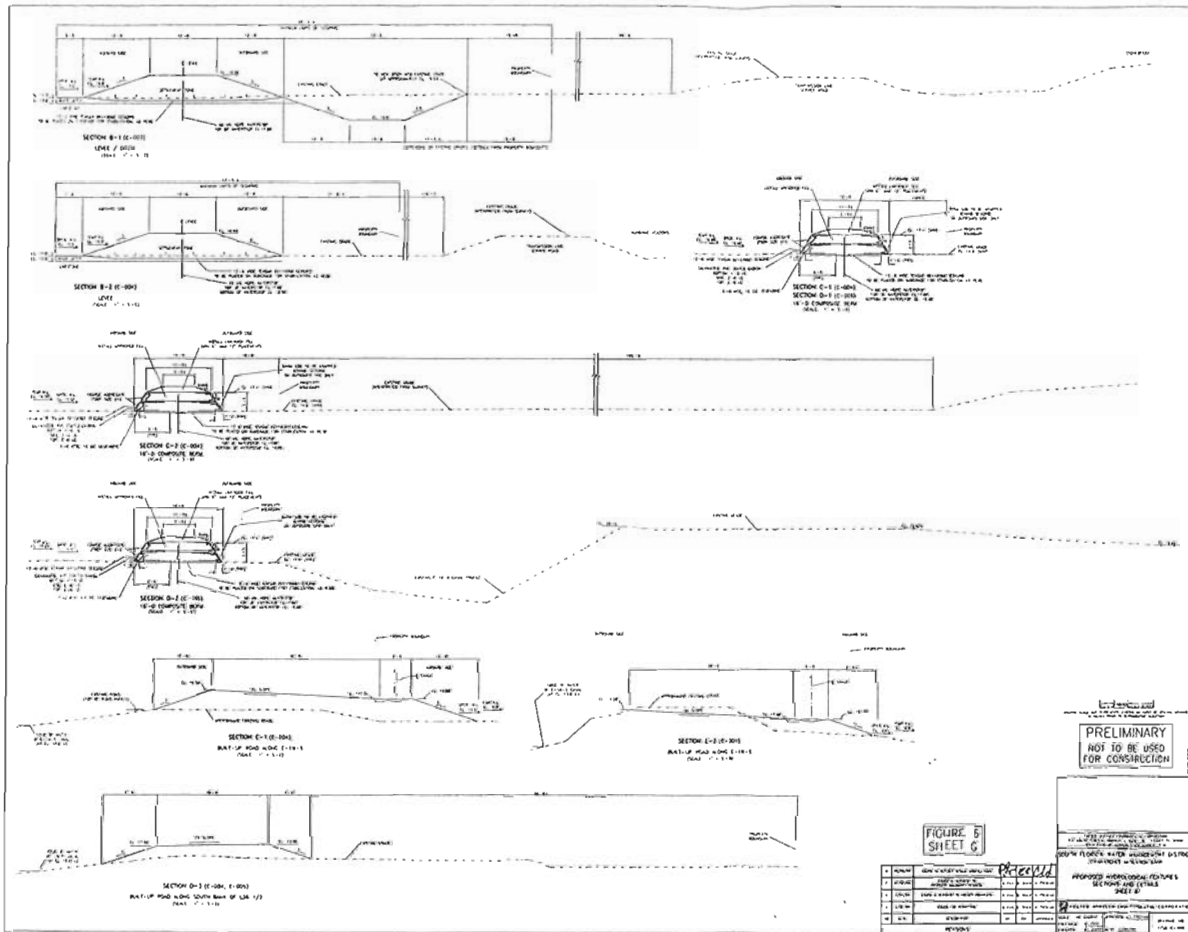
FIGURE 6  
SHEET F

NO.	DESCRIPTION	DATE	BY	CHECKED
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2	REVISED	11/21/57	J. S. SMITH	
3	REVISED	11/21/57	J. S. SMITH	
4	REVISED	11/21/57	J. S. SMITH	
5	REVISED	11/21/57	J. S. SMITH	
6	REVISED	11/21/57	J. S. SMITH	
7	REVISED	11/21/57	J. S. SMITH	
8	REVISED	11/21/57	J. S. SMITH	
9	REVISED	11/21/57	J. S. SMITH	
10	REVISED	11/21/57	J. S. SMITH	
11	REVISED	11/21/57	J. S. SMITH	
12	REVISED	11/21/57	J. S. SMITH	
13	REVISED	11/21/57	J. S. SMITH	
14	REVISED	11/21/57	J. S. SMITH	
15	REVISED	11/21/57	J. S. SMITH	
16	REVISED	11/21/57	J. S. SMITH	
17	REVISED	11/21/57	J. S. SMITH	
18	REVISED	11/21/57	J. S. SMITH	
19	REVISED	11/21/57	J. S. SMITH	
20	REVISED	11/21/57	J. S. SMITH	
21	REVISED	11/21/57	J. S. SMITH	
22	REVISED	11/21/57	J. S. SMITH	
23	REVISED	11/21/57	J. S. SMITH	
24	REVISED	11/21/57	J. S. SMITH	
25	REVISED	11/21/57	J. S. SMITH	
26	REVISED	11/21/57	J. S. SMITH	
27	REVISED	11/21/57	J. S. SMITH	
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33	REVISED	11/21/57	J. S. SMITH	
34	REVISED	11/21/57	J. S. SMITH	
35	REVISED	11/21/57	J. S. SMITH	
36	REVISED	11/21/57	J. S. SMITH	
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38	REVISED	11/21/57	J. S. SMITH	
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48	REVISED	11/21/57	J. S. SMITH	
49	REVISED	11/21/57	J. S. SMITH	
50	REVISED	11/21/57	J. S. SMITH	

*Christoph A. Smith*  
2-9-62

CHRISTOPHER A. SMITH  
FLORIDA NO. 57255  
FOSTER WHEELER ENVIRONMENTAL CORPORATION  
SEBASTIAN, FLORIDA 32954  
CERTIFICATE OF AUTHORIZATION NO. 7130

CHRISTOPHER A. SMITH  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF FLORIDA  
NO. 57255



*Christoph S. Smith*  
E-9-02

CHRISTOPHER S. SMITH  
REGISTERED PROFESSIONAL ENGINEER  
FOSTER WHEELER ENVIRONMENTAL CORPORATION  
759 SOUTH TERNAL HIGHWAY, SUITE 100  
CERRITOS, CALIFORNIA 94530  
CERTIFICATE OF REGISTRATION NO. 7130

PERMIT NO. 140969