Memorandum

MIAMI-DADE COUNTY

Agenda Item No. 5(J)

Date: September 16, 2014

To: Honorable Chairwoman Rebeca Sosa
and Members, Board of County Commissioners

From: Carlos A. Gimenez
Mayor

Subject: Class I Permit Application by Florida Power and Light Company for Temporary Impacts to 0.24 Acres of Halophytic Wetlands at SW 344 Street and Theoretical SW 356 Street, and the L-31E Canal in the Vicinity of the Turkey Point Power Plant, at the Properties Identified by Folio Numbers 30-7029-001-0011, 30-7290-000-0010, and 30-7029-001-0012 in Miami-Dade County, Florida

Resolution No. R-792-14

Attached, please find for your consideration an application by Florida Power and Light Company for a Class I permit. Also attached is the recommendation of the Department of Regulatory and Economic Resources, Division of Environmental Resources Management (RER-DERM) and a proposed resolution approving the issuance of the Class I permit.

Jack Osterholt, Deputy Mayor

Memorandum

MIAMI-DADE COUNTY

Date: September 5, 2014

To: Carlos A. Gimenez
Mayor

From: Jack Osterholt, Deputy Mayor / Director
Department of Regulatory and Economic Resources

Subject: Class I Permit Application by Florida Power and Light Company for Temporary Impacts to 0.24 Acres of Halophytic Wetlands at SW 344 Street and Theoretical SW 356 Street, and the L-31E Canal in the Vicinity of the Turkey Point Power Plant in Miami-Dade County, Florida

---

Recommendation

I have reviewed the attached application for a Class I permit by Florida Power and Light Company (FPL). Based upon the applicable evaluation factors set forth in Section 24-48.3 of the Code of Miami-Dade County (Code), I recommend that the Miami-Dade County Board of County Commissioners (Board) approve the issuance of a Class I permit for the reasons set forth below.

Due to the limited timeframe in which to conduct the proposed work as described by the applicant in Attachment D, the applicant has requested a waiver of the Mayor's 10-day veto period to allow this resolution to become effective immediately upon the earlier of 1) ten (10) days after the date of its adoption unless vetoed by the County Mayor, and if vetoed, shall become effective only upon an override by this Board, or 2) approval by the County Mayor of this Resolution and the filing of this approval with the Clerk of the Board.

Scope

The proposed work will occur at SW 344 Street and theoretical SW 356 Street in the vicinity of the Turkey Point Power Plant at properties identified by folio numbers 30-7029-001-0011, 30-7290-000-0010, and 30-7029-001-0012 in Commission District 9 (Commissioner Dennis C. Moss).

Fiscal Impact/Funding Source

This resolution is a regulatory approval and does not have a fiscal impact as contemplated by Resolution No. R-530-10.

Track Record/Monitor

The Natural Resources Division Chief, Lisa Spadafina, within the Department of Regulatory and Economic Resources, Division of Environmental Resources Management (RER-DERM), will be responsible for monitoring the proposed permit.

Background

This Class I permit application requests authorization for temporary impacts to 0.24 acres of halophytic (salt-tolerant) wetlands through the installation of temporary pipelines and associated equipment to provide for the short-term transfer of water from the L-31E Canal to the FPL Turkey Point Power Plant Cooling Canal System. Although the proposed work could have been processed administratively as a short form permit application, the project may only be approved by the Board after public hearing because RER-DERM has received a request pursuant to Section 24-48.2(I)(B)(1) of the Code of Miami-Dade County that the project be processed as a standard form application, including a public hearing.

FPL owns and operates a cooling canal system consisting of an approximately 5,900 acre network of unlined canals at Turkey Point. The cooling canal system was constructed in the early 1970s to serve as a heat exchange for four of the five power plant units at Turkey Point. Long-term monitoring data from FPL indicates that water quality within the cooling canal system has deteriorated over time, with cooling canal salinities measured at more than twice the values typically found in Biscayne Bay. In addition, monitoring data indicate that a hyper-saline plume of cooling canal water is migrating outside the boundaries of the cooling canal system through the groundwater pathway.

In October 2008, FPL received approval from the state to modify the existing nuclear power plant units to increase their power generating capacity (referred to as an "uprate"). As a condition of that approval, FPL implemented an enhanced monitoring plan to further evaluate water quality associated with the cooling canal system. After construction began on the power plant uprate work at Turkey Point in early 2012, testing conducted by FPL indicated that water quality in the cooling canal system further deteriorated. The water quality has also been more recently affected by an algal bloom. FPL reports that the cooling canal system is currently experiencing higher salinities and higher temperatures, and as a result of these conditions, the system is not functioning as it was intended. To address the issue, FPL proposes to reduce the temperature and salinity levels in the cooling canal system by adding cooler and less saline water to the system, which will allow them to further implement additional measures to correct the functionality of the system. FPL recently started pumping additional water from the Floridan Aquifer well into the cooling canal system to improve water quality. However, FPL has indicated that more water is needed and has proposed to install a series of temporary pipes and pumps to convey cooler fresh water from the L-31E Canal into the cooling canal system on a temporary basis. This Class I permit would authorize FPL to impact wetlands, in order to install these proposed temporary pipes and pumps.

Section 24-48.3 of the Code requires that the RER-DERM evaluate environmental and related impacts including but not limited to hydrology, water quality, and any other environmental values affecting the public interest, when deciding whether to recommend approval or denial of a proposed project. RER-DERM staff has reviewed FPL's proposal and has also coordinated with staff at the South Florida Water Management District (SFWMD). The SFWMD has issued an Emergency Order authorizing the temporary installation of pipes and pumps for water withdrawal from the L-31E Canal (Attachment E). Pursuant to the SFWMD Emergency Order, the withdrawal of water from the L-31E Canal is only authorized on a temporary basis through October 14, 2014, and will only be authorized when the amount of water available exceeds the water reservation required for Nearshore Central Biscayne Bay as determined daily by the SFWMD. The SFWMD will evaluate real-time data to confirm the previous day's discharge along with projected conditions for the following 24 hour period and will calculate the volume of water that can be pumped. Those directions will be conveyed to FPL each day. If during the course of the day it appears the total discharge may not support the day's allocation based on real-time flow monitoring, FPL will be directed by the SFWMD to modify and/or cease all withdrawals for the remainder of the day to ensure the reservation allocation for Biscayne Bay is met. All pumps are required to be manned by pump operators on site 24 hours per day and each pump must be equipped with an operable remote control device capable of starting or stopping the pump. FPL's operational plan will also require that they synchronize the volumes and rates of pumping to avoid dewatering of the adjacent wetlands. To further address potential hydrologic and water quality impacts, the applicant will implement a monitoring program as required through the SFWMD Emergency Order and through conditions of the Class I permit.

The direct physical impacts from the construction of the proposed project will result in temporary impacts to approximately 0.24 acres of halophytic wetlands. However, these impacts will be minimized to the extent practicable. All pipes and associated equipment will be required to be removed from the wetlands upon completion of the pumping operations. In addition, the applicant will restore the impacted area by re-grading, if necessary, and planting native species. Mitigation for the temporary impacts to halophytic wetlands will be satisfied through the purchase of 0.084 mitigation credits from the Florida Power and Light Company Everglades Mitigation Bank.

The proposed project site is not located within an area designated as essential manatee habitat by the Miami-Dade County Manatee Protection Plan. However, the Class I permit will require that all standard construction permit conditions regarding manatees be followed during in-water operations.

FPL's present request to use surface water from the L-31E Canal involves a limited opportunity temporary measure to reduce temperature and salinity in the cooling canals to restore the short term operability of the system. The attached resolution recommends approval of the Class I permit as a short-term response. A long-term solution that appropriately addresses water quality and hydrologic impacts associated with the cooling canal system is needed. County staff has been working through the state on issues related to the impacts of the cooling canal system and will be working with FPL through the County's regulatory framework for a long-term and sustainable resolution.

The proposed project has been designed in accordance with all relevant Miami-Dade County coastal construction criteria and is consistent with all Miami-Dade County coastal protection provisions. The attached Project Report sets forth the reasons the proposed project is recommended for approval pursuant to the applicable evaluation factors set forth in Section 24-48.3 of the Code. The conditions, limitations, and restrictions set forth in the Project Report attached hereto are incorporated herein by references hereto.

Attachments

Attachment A: Class I Permit Application
Attachment B: Owner/Agent Letter, Engineer Certification Letter, and Project Sketches
Attachment C: Zoning Memorandum
Attachment D: Request by Florida Power and Light Company to the South Florida Water Management District for Emergency Authorization of Temporary Water Withdrawal from Excess Stormwater from L-31E Canal
Attachment E: Emergency Final Order Issued to Florida Power and Light Company by the South Florida Water Management District (SFWMD No. 2014-078-DAO-WU/ ROW/ERP)
Attachment F: RER-DERM Project Report

MEMORANDUM

(Revised)

TO: Honorable Chairwoman Rebeca Sosa
and Members, Board of County Commissioners

DATE: September 16, 2014

FROM: R. A. Cuevas, Jr.
County Attorney

SUBJECT: Agenda Item No. 5(J)

Please note any items checked.

_____ **"3-Day Rule" for committees applicable if raised**

_____ **6 weeks required between first reading and public hearing**

_____ **4 weeks notification to municipal officials required prior to public hearing**

_____ **Decreases revenues or increases expenditures without balancing budget**

_____ **Budget required**

_____ **Statement of fiscal impact required**

_____ **Ordinance creating a new board requires detailed County Mayor's report for public hearing**

✓ **No committee review**

_____ **Applicable legislation requires more than a majority vote (i.e., 2/3's ____, 3/5's ____, unanimous _____) to approve**

_____ **Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required**

Approved _____ Mayor

Veto _____

Override _____

Agenda Item No. 5(J)
9-16-14

RESOLUTION NO. R-792-14

RESOLUTION APPROVING A CLASS I PERMIT APPLICATION BY FLORIDA POWER AND LIGHT COMPANY FOR TEMPORARY IMPACTS TO 0.24 ACRES OF HALOPHYTIC WETLANDS AT SW 344 STREET AND THEORETICAL SW 356 STREET, AND THE L-31E CANAL IN THE VICINITY OF THE TURKEY POINT POWER PLANT, AT THE PROPERTIES IDENTIFIED BY FOLIO NUMBERS 30-7029-001-0011, 30-7290-000-0010, AND 30-7029-001-0012, MIAMI-DADE COUNTY, FLORIDA

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board having considered all the applicable factors contained within Section 24-48.3 of the Code of Miami-Dade County, hereby approves the Class I permit application by Florida Power and Light Company for temporary impacts to 0.24 acres of halophytic wetlands at SW 344 Street and theoretical SW 356 Street, and the L-31E Canal in the vicinity of the Turkey Point Power Plant, at the properties identified by folio numbers 30-7029-001-0011, 30-7290-000-0010, and 30-7029-001-0012, Miami-Dade County, Florida, subject to the conditions set forth in the memorandum from the Miami-Dade County Department of Regulatory and Economic Resources, a copy of which is attached hereto and made a part hereof. The issuance of this approval does not relieve the applicant from obtaining all applicable Federal, State, and local permits.

The foregoing resolution was offered by Commissioner **Dennis C. Moss**, who moved its adoption. The motion was seconded by Commissioner **José "Pepe" Diaz** and upon being put to a vote, the vote was as follows:

Rebeca Sosa, Chairwoman			**aye**
Lynda Bell, Vice Chair			**absent**
Bruno A. Barreiro	**aye**	Esteban L. Bovo, Jr.	**aye**
Jose "Pepe" Diaz	**aye**	Audrey M. Edmonson	**aye**
Sally A. Heyman	**aye**	Barbara J. Jordan	**aye**
Jean Monestime	**aye**	Dennis C. Moss	**aye**
Sen. Javier D. Souto	**aye**	Xavier L. Suarez	**absent**
Juan C. Zapata	**aye**		

The Chairperson thereupon declared the resolution duly passed and adopted this 16th day of September, 2014. This resolution shall become effective upon the earlier of (1) ten (10) days after the date of its adoption unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board, or (2) approval by the County Mayor of this Resolution and the filing of this approval with the Clerk of the Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

By: *Christopher Agrippa*
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.

Abbie Schwaderer-Raurell

Attachment A

Class I Permit Application

MIAMI-DADE COUNTY

Class I Permit Application

FOR DEPARTMENTAL USE ONLY

Date Received:	Application Number:
	Application Fee:

Application must be filled out in its entirety. Please indicate N/A for non-applicable fields.

1. Applicant Information:

Name: Matthew Raffenberg, FPL

Address: 700 Universe Boulevard, Juno Beach, FL

Zip Code: 33408

Phone #: 561-691-2808 Fax#:

Email: Matthew.Raffenberg@fpl.com

* This should be the applicant's information for contact purposes.

2. Applicant's Authorized Permit Agent:

Agent is allowed to process the application, furnish supplemental information relative to the application and bind the applicant to all requirements of the application.

Name:

Address:

Zip Code:

Phone #: Fax #:

Email:

3. Location where proposed activity exists or will occur (latitude and longitude are only necessary for properties without address or folio #):

Folio #(s): Latitude: Longitude:

Street Address: Section: Township. Range:

In City or Town: Near City or Town: Florida City

Name of waterway at location of the activity: L-31E Canal

4. Describe the proposed activity (check all that apply):

- ☐ Seawall
  - ☐ New/Replacement Seawall
  - ☐ Seawall Cap
  - ☐ Batter Piles
  - ☐ King Piles
  - ☐ Footer/Toe Wall
  - ☐ Riprap
- ☐ Dock(s)
- ☐ Pier(s)
- ☐ Viewing Platform
- ☐ Boatlift
- ☐ Mooring Piles
- ☐ Fender Piles
- ☐ Davits
- ☐ Dredging
  - ☐ Maintenance
  - ☐ New
- ☐ Filling
- ☐ Mangrove Trimming
- ☐ Mangrove Removal

☑ Other: Temporary water pipelines required to deliver water from L-31E Canal to augment Turkey Point cooling canals.

Estimated project cost – $ 845,000

Are you seeking an after-the-fact approval (ATF)? ☐ Yes ☑ No If "Yes", describe the ATF work:

5. Proposed Use (check all that apply):

- ☐ Single Family
- ☐ Multi-Family
- ☐ Private
- ☐ Public
- ☐ Commercial
- ☐ Industrial
- ☑ Utility

6. If the proposed work relates to the mooring of vessels provide the following information (Please also indicate if the applicant does not have a vessel):

Proposed Vessel Type (s):

Vessel Make/Model (If known):

Draft (s)(range in inches.): Length (s)(range in feet.):

Total Number of Slips:

7. List all permits or certifications that have been applied for or obtained for the above referenced work:

Issuing Agency	Type of Approval	Identification Number	Application Date	Approval Date
USACE	NWP		8/18/14	pending

B. Contractor Information (If known):

Name: _____ License # (County/State): _____

Address: _____ Zip Code: _____

Phone #: _____ Fax #: _____ E-mail: _____

9. **IMPORTANT NOTICE TO APPLICANTS:** The written consent of the property owner is required for all applications to be considered complete. Your application WILL NOT BE PROCESSED unless the Applicant and Owner Consent portion of the application is completed below. You have the obligation to apprise the Department of any changes to information provided in this application.

Application is hereby made for a Miami-Dade County Class I permit to authorize the activities described herein. I agree to or affirm the following:

- I possess the authority to authorize the proposed activities at the subject property, and
- I am familiar with the information, data and plans contained in this application, and
- To the best of my knowledge and belief, the information, data and plans submitted are true, complete and accurate, and
- I will provide any additional information, evidence or data necessary to provide reasonable assurance that the proposed project will comply with the applicable State and County water quality standards both during construction and after the project is completed, and
- I am authorizing the permit agent listed in Section 2 of this application to process the application, furnish supplemental information relating to this application and bind the applicant to all requirements of this application, and
- I agree to provide access and allow entry to the project site to Inspectors and authorized representatives of Miami-Dade County for the purpose of making the preliminary analyses of the site and to monitor permitted activities and adherence to all permit conditions.

A. **IF APPLICANT IS AN INDIVIDUAL**

_____ _____ _____

Signature of Applicant | Print Applicant's Name | Date

B. **IF APPLICANT IS OTHER THAN AN INDIVIDUAL OR NATURAL PERSON**
(Examples: Corporation, Partnership, Trust, LLC, LLP, etc.)

Florida Power and Light Company

Print Name of Applicant (Enter the complete name as registered) | Type (Corp, LLC, LLP, etc.) | State of Registration/Incorporation

Under the penalty of perjury, I certify that I have the authority to sign this application on behalf of the Applicant, to bind the Applicant, and if so required to authorize the issuance of a bond on behalf of the Applicant. (If asked, you must provide proof of such authority to the Department). ***Please Note: If additional signatures are required, pursuant to your governing documents, operating agreements, or other applicable agreements or laws, you must attach additional signature pages. ****

Matthew R. Raffenberg | Matthew Raffenberg | Director | 8/25/14

Signature of Authorized Representative | Print Authorized Representative's Name | Title | Date

C. **IF APPLICANT IS A JOINT VENTURE** Each party must sign below (If more than two members, list on attached page)

Print Name of Applicant (Enter the complete name as registered) | Type (Corp, LLC, LLP, etc.) | State of Registration/Incorporation

Print Name of Applicant (Enter the complete name as registered) | Type (Corp, LLC, LLP, etc.) | State of Registration/Incorporation

Under the penalty of perjury, I certify that I have the authority to sign this application on behalf of the Applicant, to bind the Applicant, and if so required to authorize the issuance of a bond on behalf of the Applicant. (If asked, you must provide proof of such authority to the Department). ***Please Note: If additional signatures are required, pursuant to your governing documents, operating agreements, or other applicable agreements or laws, you must attach additional signature pages. ****

Signature of Authorized Representative | Print Authorized Representative's Name | Title | Date

Signature of Authorized Representative | Print Authorized Representative's Name | Title | Date

10. WRITTEN CONSENT OF THE PROPERTY OWNER OF THE AREA OF THE PROPOSED WORK

I/We are the fee simple owner(s) of the real property located at Turkey Point Power Plant Miami-Dade County, Florida, otherwise identified in the public records of Miami-Dade County as Folio Nos. 30-7029-001-0011, and 30-7029-001-0012, I am aware and familiar with the contents of this application for a Miami-Dade County Class I Permit to perform the work on or adjacent to the subject property, as described in Section 4 of this application. I possess the riparian rights to the area of the proposed work (if applicable) and hereby consent to the work identified in this Class I Permit application.

A. IF THE OWNER(S) IS AN INDIVIDUAL

Signature of Owner	Print Owner's Name	Date
Signature of Owner	Print Owner's Name	Date

B. IF THE OWNER IS OTHER THAN AN INDIVIDUAL OR NATURAL PERSON
(Examples: Corporation, Partnership, Joint Venture, Trust, LLC, LLP, etc.)

Florida Power and Light Company	Corporation	Florida
Print Name of Owner (Enter the complete name as registered)	Type (Corp, LLC, LLP, etc.)	State of Registration/Incorporation

700 Universe Boulevard, Juno Beach, Florida 33408
Address of Owner

Under the penalty of perjury, I certify that I have the authority to sign this application on behalf of the Owner, to bind the Owner, and if so required to authorize the issuance of a bond on behalf of the Owner. (If asked, you must provide proof of such authority to the Department). ***Please Note: If additional signatures are required, pursuant to your governing documents, operating agreements, or other applicable agreements or laws, you must attach additional signature pages. ***

Signature of Authorized Representative	Matthew Raffenberg	Director of Environmental Licensing and Permitting	9/4/14
	Print Authorized Representative's Name	Title	Date
Signature of Authorized Representative	Print Authorized Representative's Name	Title	Date

Please Review Above

Appropriate signature(s) must be included in:

Box 9: either A, B or C

AND

Box 10: either A or B

Attachment B

Owner/Agent Letter, Engineer Certification Letter, and Project Sketches

PERMIT APPLICANT / AUTHORIZED AGENT STATEMENT

DATE Sept. 3, 2014

Miami Dade County Department of Regulatory and Economic Resources
Class I Permitting Program
701 NW 1st Court
Miami, FL 33136

Re: Class I Standard Form Permit Application Number: CLI-2014-0312

By the attached Class I Standard Form permit application with supporting documents, I, Matthew Raffenberg, Director, Environmental Licensing and Permitting, am the permit applicant, and hereby request permission to perform the work associated with Class I Permit Application CLI-2014-0312. I understand that a Miami-Dade County Class I Standard Form Permit is required to perform this work.

If approval is granted for the proposed work by the Board of County Commissioners, complete and detailed plans and calculations of the proposed work shall be prepared by an engineer licensed in the State of Florida in accordance with the minimum requirements of Chapter 24 of the Code of Miami-Dade County, Florida. Said plans and calculations shall be subject to the review and approval of the Department. The permit applicant will secure the services of an engineer licensed in the State of Florida to conduct inspections throughout the construction period, and said engineer shall prepare all required drawings of record. In the event that the proposed work which is the subject of this Class I Permit application involves the cutting or trimming of a mangrove tree(s), a detailed plan of the proposed cutting or trimming shall be prepared by a licensed landscape architect and submitted to the Department for review and approval, and the permit applicant will secure the services of a licensed landscape architect to supervise the trimming or cutting.

Respectfully submitted,

Matthew Raffenberg,
Director, Environmental Licensing and Permitting,
Florida Power and Light Company

ENGINEER LETTER OF CERTIFICATION

September 3, 2014

Miami-Dade County Department of Regulatory and Economic Resources
Class I Permitting Program
701 NW 1st Court
Miami, Florida 33136

RE: Class I Permit Application Number CLI-2014-0312

Ladies and Gentlemen:

This letter will certify that I am an engineer licensed in the State of Florida, qualified by education and experience in the area of engineering design and inspection, and that to the best of my knowledge and belief, the proposed work does not violate any laws, rules, or regulations of the State of Florida or any provisions of the Code of Miami-Dade County which may be applicable; that diligence and recognized standard practices of the engineering profession have been exercised in the engineer's design of the proposed work; and in my opinion based upon my knowledge and belief, the following will not occur:

a. Harmful obstruction or undesirable alteration of the natural flow of the water within the area of the proposed work.

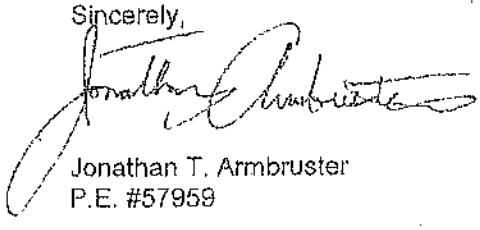
b. Harmful or increased erosion, shoaling of channels or stagnant areas of water. (Not applicable to class IV permits)

c. Material injury to adjacent property.

d. Adverse environmental impacts from changes in water quality or quantity. (Applicable to class IV permits only)

Further, I have been retained by the applicant to provide inspections throughout the construction period and to prepare a set of reproducible record prints of drawings showing changes made during the construction process based upon the marked-up prints, certified surveys, drawings, and other data furnished by the contractor to me.

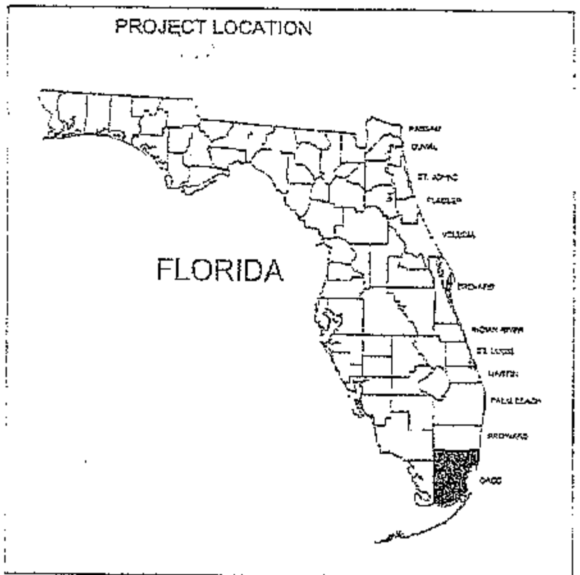
Sincerely,



Jonathan T. Armbruster
P.E. #57959

FPL TURKEY POINT COOLING CANAL FRESHWATER RECHARGE

MIAMI-DADE COUNTY, FLORIDA



LOCATION MAP

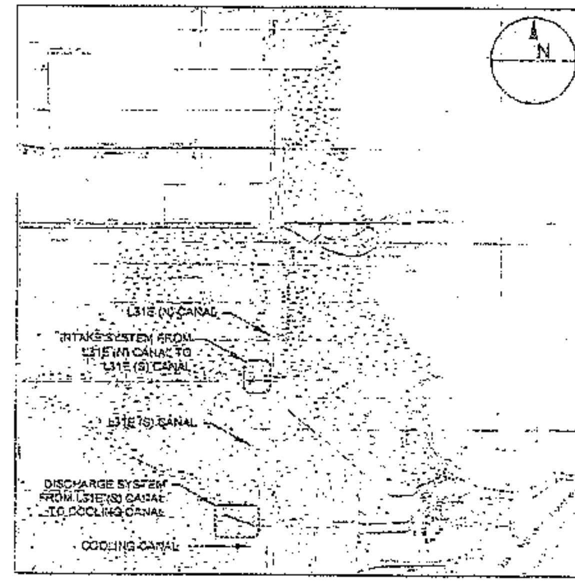
N.T.S.

DRAWING INDEX

C-1 COVER SHEET
C-2 CONSTRUCTION NOTES
C-3 PROJECT OVERVIEW
C-4 INTAKE SYSTEM SITE PLAN
C-5 INTAKE SYSTEM PUMP AND UNDER ROAD CROSSING
C-6 DISCHARGE SYSTEM SITE PLAN
C-7 DISCHARGE SYSTEM PUMP AND LEVEE CROSSING
C-8 DISCHARGE SYSTEM PROFILES
C-9 DISCHARGE SYSTEM PIPE CROSSING OVER INTERCEPTOR CANAL
C-10 PIPE BRIDGE PLAN AND ELEVATION
C-11 DETAILS
C-12 EROSION CONTROL DETAILS

TEMPORARY WETLAND IMPACTS

V-1 PROJECT OVERVIEW MAP TEMPORARY WETLAND IMPACTS
V-2 INTAKE SYSTEM TEMPORARY WETLAND IMPACTS
V-3 DISCHARGE SYSTEMTEMPORARY WETLAND IMPACTS
V-4 DISCHARGE SYSTEM TEMPORARY WETLAND IMPACTS
V-5 DISCHARGE SYSTEM TEMPORARY WETLAND IMPACTS
V-6 AMERICAN CROCODILE CRITICAL HABITAT



VICINITY MAP

1"= 2000' (22x34)
1"= 4000' (11x17)

Sunshine811.com

TAYLOR ENGINEERING INC.

FPL TURKEY POINT COOLING CANAL FRESHWATER RECHARGE

MIAMI-DADE COUNTY FLORIDA

PUMPING DESCRIPTION, MONITORING, AND CONTROL PLAN

1. SW 88 CT PUMP DISCHARGE WITH CONCRETE BOX DELIVERY DESIGN AND SEAL RAMPS. NO MODIFICATION TO THE CANAL IS REQUIRED.
2. A PRELIMINARY MEETING IN ADVANCE OF THE RAIN EVENT WILL BE PERFORMED BEFORE PHOSE INSTALLATION AND ONLY WHEN STILL BE REQUIRED TO AS DEEP AS OF SIXTEEN DEPARTMENT THAT THE DISTRICT IS REQUIRED.
3. WHEN 10 DAY FORECAST OF CONSTRUCTION WITHIN ANY WEEK IS CLOSE AHEAD WARNING FROM DISTRICT OF THE DISTRICT RIGHT OF WAY REVIEW, FPL SHALL CONTACT THE DISTRICT'S FIELD REPRESENTATIVE AT THE HOMESTEAD YARD STATION TO CONDUCT A PRE-CONSTRUCTION MEETING AND FINAL INSPECTION.
4. FPL SHALL COMPLY WITH THE FOLLOWING PERMIT CONDITIONS:
   A. ALL EXCEPTIONS SHALL BE LIMITED TO USE ABOVE OPERATING AND BE CLOSED BY BEING RELIEF OR FROM THE DISTRICT'S PERMITTING IN HOURS OF THE DISTRICT'S PROJECT TO DO SO.
   B. THE HOMESTEAD SUPPLY WATER SHALL BE PUMPED AT THE NORTH END, BUT LEFT IN PLACE, TO THE EVENT OF DISTRICT NOTIFICATION TO REMOVE EQUIPMENT.
   C. THE HOMESTEAD BETWEEN THE LATE CANAL AND THE SOUTH PUMPING STATION SHALL BE DRAINED BY THE CANAL BUT LEFT IN PLACE, IN THE EVENT OF DISTRICT NOTIFICATION TO REMOVE EQUIPMENT BY NOTICE FROM THE DISTRICT'S PROJECT TO DO SO.
   D. ALL STORAGE BERMS SHALL REMAIN IN A CONDITION TO ALLOW ACCESS FOR DISTRICT'S PERSONNEL AND EQUIPMENT USE AT ALL TIMES.
5. THE OPERATIONS AND CONTROL PLAN FOR PUMPING STATIONS SHALL COMPLY WITH THE FOLLOWING CONSTRAINTS:
   A. THE PUMPS AND PROTECTION AT THE LATE WITH CANAL LOCATION NORTH OF SW 344 STREET (THE NORTH STATION) SHALL BE MANNED CONTINUOUSLY DURING PUMPING OPERATIONS.
   B. THE PUMPS AT THE SOUTHERN (NORTHERN) LOCATION APPROXIMATELY ONE MILE SOUTH OF SW 344 ST SHALL BE MANNED CONTINUOUSLY.
   C. AN INDEPENDENT BOTH PHONE LOCATION, WE PROVIDED CONTACT INFORMATION, NAME OF DESIGNATION, AND SIGNAGE TO BE USE THE CHECKED BY RESPONSIBLE TEAM AT THE SUNSHINE POINT FACILITY.
   D. THE NORTHEAST TIME SOUTHERN PHENOMENAL LOCATION SHALL BE INSTALLED, ENGINEERED AND OPERATED BY TRAINED PERSONNEL FROM THE PUMP STATION.
   E. EACH DAY PRIOR TO 11AM, THE FPL OPERATIONS SHALL CONTACT THE DISTRICT'S OPERATION CONTROL CENTER, VIA EMAIL, TO DETERMINE THE RATE AND VOLUME OF FPL WITHDRAWALS FROM THE CANAL DURING THE PERIOD FROM NOON TO 3:00 PM THE FOLLOWING CALENDAR DAY.
   F. FPL SHALL MONITOR PUMP STATUS AND PUMP STATUS AT BOTH PUMPING LOCATIONS ONCE IN STATE-WIDE EARTH STATIONS, UTILIZING A LEVEL SENSOR AND DATA LOG FLOW RATES OF THE LONG WATER PUMPED AT BOTH LOCATIONS.
   G. FPL SHALL OPERATE A WEEKLY REPORT, DELIVERED VIA EMAIL BY NOON TUESDAY, WHICH REPORTS THE FOLLOWING TO THE DISTRICT FOR THE PRECEDING WEEK:
      a. TOTAL OF HOURS THAT EACH
      b. DAY AND DAY THOSE HOURS OCCUR
      c. DAILY SETTING PER PUMP, IF VARIABLE
      d. CALCULATED VOLUME OF WATER PER PUMP
      e. LOGGED FLOW AT EACH PUMP STATION, FROM TELEMETRY FROM FLOW METERS
      f. THE OFFICIAL TUESDAY REPORTS SHALL BE SENT PRIOR TO THE WEEK HOMESTEAD, 2001 SW 344 ST TO THE INTAKE AND SW 344 ST AND TO "DATA@SFWMD.GOV" FOR THEIR COLLECTION.
   H. FPL SHALL BE CAPABLE OF SUPPLYING ANY 100 CFS DAY UNDER REQUEST AT ANY TIME BETWEEN TUESDAY REPORTS, WITHIN HOURS OF THE DISTRICT'S REQUEST.
   I. FPL SHALL BE CAPABLE OF TRANSMITTING ALL PUMPING AT ANY TIME, WITHIN 2 HOURS OF SKILLED REQUEST FROM EITHER DISTRICT PARTY IDENTIFIED IN 5.6.F.
   J. EACH PUMP SHALL BE OPERATED BY THE INDEPENDENT OPERATED WHEN WILL BE ON SITE IN HOURS PER DAY DURING OPERATION. THE PUMP OPERATORS WILL HAVE WIRELESS COMMUNICATION TO PROVIDE PUMP DATA AS REQUIRED AND HAS SHALL BE VERIFIED AS OPERABLE PRIOR TO WORKING.
   K. FPL SHALL PERFORM PERIODIC EXERCISING OF THE PUMPING AT BOTH STATIONS TO ENSURE THAT:
      a. AND IN A NORMAL SCHEDULE, THE NORTH STATION PUMPS SHALL BE STARTED FIRST.
      b. PRIOR TO EACH CONDITION, THE SOUTH STATION PUMPS SHALL BE STARTED FIRST.
   L. SOUTH STATION PUMPS SHALL BE STARTED AFTER 5 MINUTES OR MORE OF NORTH STATION PUMPS STARTED WITH ADVANCE FLOW MAINTENANCE AT EACH STATION DURING OPERATION.
   M. NORTH STATION PUMPS SHALL BE STOPPED AFTER 5 MINUTES OR MORE FOLLOWING SOUTH STATION PUMPS STOPS.
   N. FPL SHALL PROVIDE THE PUMP CURVES USED TO DETERMINE DISCHARGE RATES TO THE DISTRICT, FOR EACH PUMP, PRIOR TO THEIR OPERATION.
   O. FPL SHALL CONFIRM THE CANAL WATER LEVEL GAGES AND STAFF GAUGES TO ASSURE THAT UNDER NORMAL OPERATIONS, THE WATER LEVEL IN THE SOUTH END OF THE L-31E CANAL IS LOWER THAN THE POINT AT WHICH THE PUMPS ARE FIRST STARTED. OPERATION OF THE PUMP SHALL BE SUSPENDED IMMEDIATELY IF THE WATER LEVEL DROPS BELOW THIS LEVEL AND SHALL NOT RESUME UNTIL THE CANAL WATER LEVELS ARE RESTORED.
6. FPL SHALL ENSURE THAT THE TOTALIZING METER FLOW METERS ARE IN EACH MEANS STATIONARY AVAILABLE FOR PERIODIC DIFFERENT VERIFICATION AND VERIFICATION.

7. SEAL PROVISION:
   A. ALL EQUIPMENT WILL BE DESIGNED IN ACCORDANCE WITH FPL STANDARD SPECIFICATIONS FOR SEAL PROTECTION AND CONTROL.
   B. ALL EQUIPMENT, MODEL, AND TANKS SHALL BE DESIGNED FOR USE ON GENERATOR, EXCEPTION OF ONE OF ALL TANKS CONTAINING DIESEL SHALL BE TWO DIESEL GENERATORS AS A PART OF THE 24 HOUR PUMP OPERATE.
   C. APPROPRIATE WATER USED ON THE PUMPS BOTTOM OF SUCTION SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. THE BOOSTER SHALL UTILIZE THE DISCHARGE PATH OUT OF THE WATER THAT IS AVAILABLE TO ASSURE CORRECT VELOCITY FOR MONITORING. THE WATER SHALL BE ESCAPED BY LINE TO PREVENT SCOUR TO BE RECEIVING AND ALLOW FOR CONTROLLED MOVEMENT ON.
   D. THE HOMESTEAD PUMPS NORTH OF SOUTH AND WILL CONTAIN ONLY DISCHARGE OF THE WATER FOR DISCHARGED FOR USE OVER WATCH.
   E. ALL FUEL TANKS USED FOR THE SOUTHERN PUMPING ARE BUILT IN SECONDARY CONTAINMENT. ALL FUEL LINES WILL BE PROVIDED WITH SECONDARY CONTAINMENT.
   F. THE PUMPS NORTH OF SOUTH AVE WILL BE PROVIDED THREE PER DAY OR AS NEEDED TO ADDITIONAL RISK AT GRADE WELLS IN THE LOWER POINT OF DAY.
   G. THE PUMPS SOUTH OF SAMOAN CANAL OF FLORIDA THROUGH NORTH TAKING ON SHORE AND BASE. THE TRANSFER LINES BETWEEN THE PUMP AND THE NORTH TRANSFER LINES ARE TO BE CHARGED WHICH NOT IN USE.
   H. FLOATING BOOMS WILL BE DEPLOYED AT THE FOR MITIGATION DEVELOPMENT AT INTAKES ENCLOSED BOOM TO CROSS THE CANAL AT MINIMUM OF TWO TIMES WILL BE PROVIDED. PUMP OPERATIONS WILL BE MONITORED EMERGENCY HEARINGS BY HOMESTEAD'S STATION IN CLEARED AND BOOM ARE IN PLACE THE "HOMESTEAD".

   A PHOTO OF BOOM WILL BE INSTALLED BOTH NORTH AND SOUTH OF THE FLOATING BARRIER IN THE CONSTRUCTION REPORT.
   I. ON ASSESSMENT RESULTS AND MADE ACCORDED TO CLEAN UP BOTTLES FUEL SPILLS OR WASTE WILL BE LOCATED ON SITE. FROM OPERATIONS WILL BE TRANSFERRED INTO OR THEIR MATERIALS.
   J. A CORRECTED LEAK OF ANY PETROLEUM PRODUCTS FUEL OR WASTE AND OR OTHER RESULT IN THE IMMEDIATE SHUTDOWN OF THE PUMPS AT BOTH ENDS OF WHICH THE MOTOR INSTALLATION SHALL NOT BE HAVE BEEN RECEIVED AND THE EQUIPMENT CLEANED TO ALLOW FOR CONTINUOUS OPERATIONS.

TECHNICAL SPECIFICATIONS

MATERIALS

1. OWNER: FLORIDA POWER AND LIGHT (FPL)
2. ENGINEER: GENERAL RESPONSIBLE TO REPRESENTATIVE FOR CONSTRUCTION SUPERVISION AND OVERSIGHT.
3. CONTRACTOR: A QUALIFIED, EXPERIENCED FIRM OR INDIVIDUAL AS AWARDED TO THE DRAWINGS AND SPECIFICATIONS.
4. CONTRACTOR: ITS SUBCONTRACTOR CONTRACTOR OR VENDOR OR OTHER, WHERE APPLICABLE, AS STAFF.
5. "UNITED STATES VOTED OTHERWISE."

GENERAL NOTES

- THE CONTRACTOR SHALL INVESTIGATE THE PROJECT SITE PRIOR TO STARTING ANY CONSTRUCTION.
1. THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL STRUCTURES AND EXISTING UTILITIES, WHETHER SHOWN OR NOT ON THE DRAWINGS.
2. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION TOGETHER WITH THE FPL PROJECT MANAGER TO ENSURE PUBLIC AND PRIVATE SAFETY IN AND BEYOND THE CONSTRUCTION SITE.
3. EXCAVATION DEEMED SHALL BE DISPOSED OF OFFSITE AS A LICENSED LANDFILL IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS.
4. THE CONTRACTOR SHALL LOCATE ALL ABOVE GROUND AND BELOW GROUND UTILITIES BEFORE BEGINNING WORK.
5. ENGINEERING OF SIGN AND PERMITS AS PER ENGINEERING SPECIFIED OF SYSTEM DIRECT COMPLETED BY AMERICAN SOCIETY OF CIVIL ENGR. CONTRACTOR SHALL REFERENCE THESE DRAWINGS AND PERMIT FOR ADDITIONAL FENCE CROSSING DETAILS.

INDUSTRIAL AND SECURITY REQUIREMENTS

1. ALL TESTING, OTHER FIELD OBSERVATION OR CONSTRUCTION AS REQUIRED HEREIN OR BY THE CONTRACT DOCUMENTS, SHALL BE PERFORMED BY A REPRESENTATIVE QUALIFIED TESTING COMPANY. THE COSTS OF ALL SUCH TESTING SHALL BE LOADED BY THE CONTRACTOR AND SHALL BE INCLUDED IN THE BID PRICE.
2. THE CONTRACTOR IS TESTING AGENCY SHALL BE APPROVED AND FROM STATE AGENCIES, MUST DETERMINE AND ENSURE SUCH STANDARDS AS APPROVED BY THE OWNER. ALL TESTING WORK SHALL BE BASIC WORK, THE SUPERVISION OF APPROPRIATE ENGINEER AND SUPERVISED IN FLORIDA AND SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER REGISTERED IN FLORIDA IF REQUESTED.
3. THE CONTRACTOR OR APPROPRIATE VENDOR SHALL SUBMIT REQUIRED SHOP DRAWINGS, ALL ESSENTIALS INCLUDING APPROVAL OF THE ENGINEER OF RECORD.

PUMPING SPECIFICATIONS

1. BEFORE CONSTRUCTION WORK, THE CONTRACTOR SHALL REVIEW THE GEOMETRIC REFERENCES AND PROVIDE A GEOMETRIC LOG.
2. ENGINEER'S REVIEW OF CONTRACTUAL TO NOT RELEASE CONTRACTOR FROM CONSIDERATION AND RESPONSIBILITY FOR PERFORMANCE OF REQUIREMENTS OF CONTRACT DOCUMENTS, NEITHER SHALL ENGINEER'S REVIEW RELEASE AND CONTRACTOR FROM PERFORMING PURPOSE OF INSTALLATION WITH FINAL CONFIRMATORY EXAMINATION BY CONTRACTOR.
3. ENGINEER'S REVIEW OF SHOP DRAWINGS, SAMPLES, OR TEST INFORMATION WILL BE ONLY FOR CONFORMANCE WITH DESIGN CONCEPT AND FOR GENERAL ARRANGEMENT WITH INFORMATION GIVEN IN CONTRACT DOCUMENTS.
4. SHOP MEET REVIEW DATES IS TO
   a. ADEQUACY OF 3 REFERENCES, QUANTITIES, OF PERFORMANCE OF EQUIPMENT AND OTHER REQUIREMENTS OF CONSTRUCTION
   b. CONTRACTOR'S ADVICE, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OF CONSTRUCTION OR SAFETY PRECAUTIONS AND PROGRAMS AND ALL AFFECTED TO SAFETY WHICH SHALL INCLUDE THE SOLE AND EXCLUSIVE OF THE CONTRACTOR
   c. SAFETY PRECAUTIONS OR PROGRAMS INCIDENT TO SAFETY WHICH SHALL INCLUDE THE SOLE AND EXCLUSIVE OF THE CONTRACTOR
5. ENGINEER WILL BE ENTITLED TO MEET DISPUTE ADJUDICATION OF CONSTRUCTION OF DRAWING CALCULATIONS, OR DETERMINATIONS OR UNDERSTANDING OF THE SCHEDULE ACCEPTABILITY OF A PARTICULAR EQUIPMENT WHETHER OR NOT A STRUCTURE SHALL BE REQUIRED BY CONTRACT DOCUMENTS OR LAWS AND REGULATIONS.

SUBMITTAL REQUIREMENTS

1. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A LIST OF PROPOSED MATERIAL AND EQUIPMENT AND SHALL NOT TYPE OF CONSTRUCTION REQUIRED IN ACCORDANCE FOR A FULL CLASSIFICATION OF SUPPLIER.
2. ANY SHALL BE REQUIRED ON 24 HOUR NOTIFICATION SUBMITTED ON THE DRAWINGS AND HAVING A WORKING PROTOTYPE PARTS OF TO FIT AND THE PUT CONSECUTIVELY AND SHALL HAVE A DESCRIPTION TOWER WITH A SEARCHING M OF 3 CFS OR LESS.
3. SUPPLIER SHALL BE OF THE SAME TYPE, GRADE, MATERIAL AND MINIMUM WALL THICKNESS AS THE PIPE.
4. METERS SHALL BE INSTALLED IN A WORKING PRESSURE RATING EQUAL TO OR GREATER THAN THAT OF THE WHICH THEY JOIN TO.
5. METERS SHALL DISCHARGE WITH ALARM DATA, FIELD, OR SIGNALS AS APPLICABLE.
6. EACH OF WHICH SHALL BE SELECTED ITEM, COPIES SHALL BE ASSIGNED, CHECK A FULL WRITTEN IN ACCORDANCE WITH MOTH ALSO.
7. FITTINGS, FLANGES, GASKETS AND OTHER APPURTENANCES SHALL BE USED FOR THE MANNER INDICATED FOR WORKING PRESSURE AND ANY ANTICIPATED SURGE PRESSURES BUT NOT LESS THAN LOADING IN PSI.
8. WELDING PROCEDURES AND PROCEDURES TO THE MANUFACTURER'S RECOMMENDATIONS FOR ARGON SHIELDING INSTALLATIONS.
9. ALL TESTS SHALL BE WITNESSED AND PERFORMED IN ACCORDANCE WITH ASTM STANDARDS. TESTS SHALL BE DEPTH FROM WELDED, REPLACED BY A JOINT THAT IS HYDROSTATIC WITH THE PIPE AND AS STRONG AS THE PIPE "FULL" WHERE BUTT FUSION WELDING IS NOT POSSIBLE, PIPE SHALL BE JOINTED USING EXTENSION WELDING.
10. USE APPLICABLE TO THE GRADED (SYSTEM) AND ASSESSMENT INSPECTION INDICATED IN THE WELDED DRAWINGS.

WORK AND AREA STRUCTURE IN SITE

1. WORK SITE AND ESTABLISHMENT OF INFORMATION. DURING CONSTRUCTION OF ESTABLISHING THAT THE WORK IS AND ASSOCIATED FITTINGS MEET THE SPECIFICATIONS.

WATER AND VALVES

1. WATER SHALL BE SUPPLIED BY THE CONTRACTOR. THE PUMP AND PIPING SYSTEM SHALL BE SUPPLIED OF SUFFICIENT TO TO NO LESS THAN GALLONS OF WATER IN AN HOUR PERIOD AND CAPABLE OF OPERATING CONTINUOUSLY WHERE SHALL BE THE PIPE SYSTEM ON THE DRAWINGS AND PLASTIC AT THE LOCATION SHOWN ON THE DRAWINGS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. PUMPS SHALL BE MECHANICALLY AND OPERATED BY ANY AUTOMATIC CONTROL SYSTEM.
3. UNLESS OTHERWISE REQUIRED BY THE ENGINEER, PUMPS SHALL BE SUPPLIED WITH CONTROLS WITH SPEED ADJUSTABLE MODEL ON-LINE FLOW MEASURE ADJUSTABLE (RANGE OR APPROPRIATE) TO CONTROL FLOW RATE AND ALLOW FOR ORIFICE PLATE OR ORIFICE SHUTDOWN.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE PUMPS AGAINST DAMAGE DURING OPERATIONS. THE CONTRACTOR SHALL PROVIDE CAUSED PRESSURE RELIEF VALVES, CHECK VALVES, AIR RELEASE VALVES, AND OTHER EQUIPMENT NECESSARY TO PROTECT THE PUMPS AND PIPING SYSTEMS AGAINST DAMAGE DUE TO SURGE, CAVITATION, INCREASE SURGE, OVERPRESSURE, VACUUM PRESSURE, LEAKS, AND OTHER CONDITIONS THAT COULD CAUSE DAMAGE TO THE PUMPS OR THE PIPING SYSTEM.
5. VALVES SHALL BE CAPABLE OF WITHSTANDING THE MAXIMUM ANTICIPATED WORKING PRESSURE AND SURGE PRESSURE. VALVES SHALL COMPLY WITH APPLICABLE AWWA, ANSI, OR ASME STANDARDS.
6. THE CONTRACTOR SHALL PROVIDE TURBIDITY CURTAINS AND BOOMING AS NECESSARY TO CONTROL DEBRIS AND RECREATION AND PREVENT FOREIGN MATERIAL FROM ENTERING THE RAIN STRUCTURES.

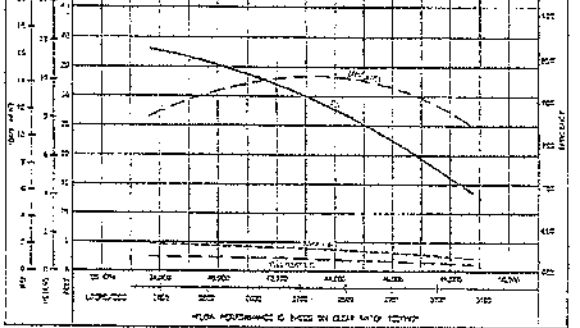
PUMP SUBMITTALS

1. CONCRETE PUMP RAILS, INCLUDING PUMP SERVICE INSTALLATION DRAWINGS, OPERATIONS MANUALS, BROCHURES AND MANUALS OF HEATING CRITICAL TYPE TO THE ENGINEER FOR APPROVAL.
2. SUBMIT SHOP DATE AND LOCATION PLAN TO THE ENGINEER FOR APPROVAL.
3. PROVIDE THE CONTRACTOR UPDATED WITH ALL VALVE LOCATIONS AND ELEVATIONS REQUIRED FROM HEAD AND MAXIMUM SUCTION PRESSURE FOR PIPES.
4. FLOW STARTUP AND SHUTDOWN PLAN. SUBMIT A WRITTEN PLAN DESCRIBING THE PROCEDURES THE OPERATION FOR THE PUMP SYSTEM STARTUP, INITIAL OPERATION, SHUTDOWN, AND PRACTICAL THE ENGINEER CONTINUED TO PREVENT SURGE, HAZARD PRESSURE, AND DAMAGE IN LINE.

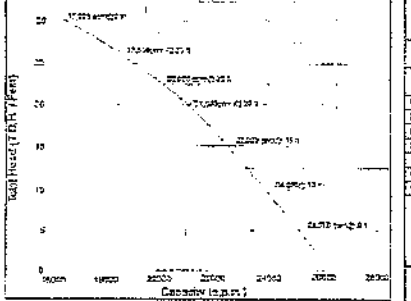
OPERATIONS

1. FPL OR NPL CAN FUNCTIONS SHALL PROVIDE NOTIFICATIONS AND TRAINING OPERATORS 24 HOURS PER DAY TO OPERATION THE PUMPS. PUMP CONTROL AND CONVENIENCE THROUGH THE EMAIL, NOTIFICATIONS AND OPERATIONS SHALL MONITOR THE PRESENCE PUMPS EMAIL, AND PROXIMITY OF DISTRICT STAFF TO ENSURE PUMP OPERATIONS. PUMPING CONTRACTOR OR SUCH DAMAGE TO THE ENVIRONMENT OR HUMAN EVENTS THAT PRESENT EXISTING ACTION INCLUDE, NOT ALL, NOT LIMITED TO: UNANTICIPATED PUMP SHUTDOWNS, FUEL LEAKS, PIPE LEAKS AND RUPTURES, CHEMICAL CHANGES, EXCESSIVE, EXCESSIVE PIPE MOVEMENT, INTAKE DEBRIS FOULING, ETC.
2. CONTRACTOR SHALL MONITOR THE PUMPING STATIONS, PUMPS AND THE LEVEL OF CANAL SHUTDOWN TO ENSURE PUMPING ACTIVITY TO OVERFLOW AND UNUSUAL OR SELF-DRAINAGE CONDITIONS ARE NOT EXISTING.
3. INSPECTIONS AND OPERATIONS SHALL BE COUNTED WITH NADCP WHICH IS DOCUMENTATION. THE CONTRACTOR SHALL SYSTEM AT LEAST ONE RADIO WITH CLOSE EQUIPMENT OPERATOR AT EACH SET OF PUMPS 24 HOURS PER DAY WHEN THAT SAME OPERATING TO OVERSEE AN EMERGENCY PUMP SHUT DOWN IF REQUIRED.
4. PUMPS SHALL BE STARTED, SHUT DOWN, AND OPERATION IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND FPL APPROVED OPERATION PLANS AND DAILY INSTRUCTION.
5. THE CONTRACTOR SHALL INSTALL AND MONITOR STAFF GAUGES AT ALL THREE CANAL LOCATIONS AS SPECIFIED BY THE ENGINEER.
6. CONTRACTOR SHALL CONDUCT PERIODIC MAINTENANCE CHECKS AND SERVICE TO ALL EQUIPMENT AS NECESSARY TO MAINTAIN OPERATIONS

DISCHARGE SYSTEM PUMP
RAIN FOR RENT - FP900



INTAKE SYSTEM PUMP
GOODWIN - HAF 30AX



TAYLOR ENGINEERING INC.
10161 CENTURION PARKWAY N
SUITE 100 JACKSONVILLE, FLORIDA 32256
904.363.0338
1675 PALM BEACH LAKES, SUITE 215
WEST PALM BEACH, FLORIDA 33401
561.640.7818

JONATHAN T. ARMBRUSTER
LICENSE
No. 67959
STATE OF FLORIDA

CONSTRUCTION PLANS FOR
SOUTH DADE
CONSTRUCTED
FRESHWATER RECHARGE
MIAMI-DADE COUNTY, FLORIDA

Sunshine811.com

PRELIMINARY DRAWINGS THESE DRAWINGS ARE NOT TO BE FINAL, FORMAL SET AND BEING TRANSMITTED FOR REVIEW ONLY

PROJECT NO	0001-000
DATE	01-20-2011
DESIGNED	JTA
DRAWN	DAS
CHECKED	JTA
REVISIONS	FLA
PEOPLE	FOR PERMIT

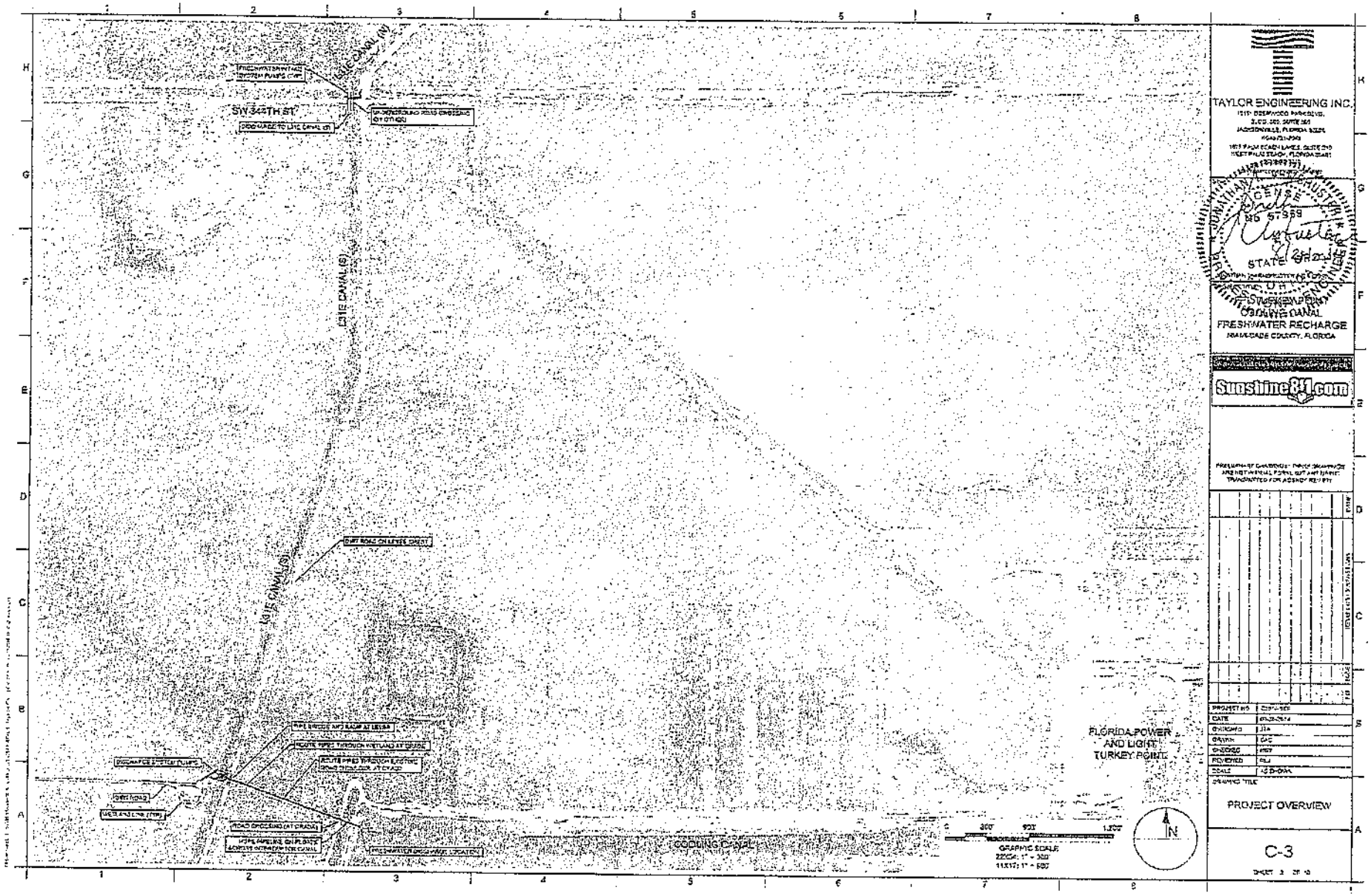
DRAWING TITLE

CONSTRUCTION NOTES

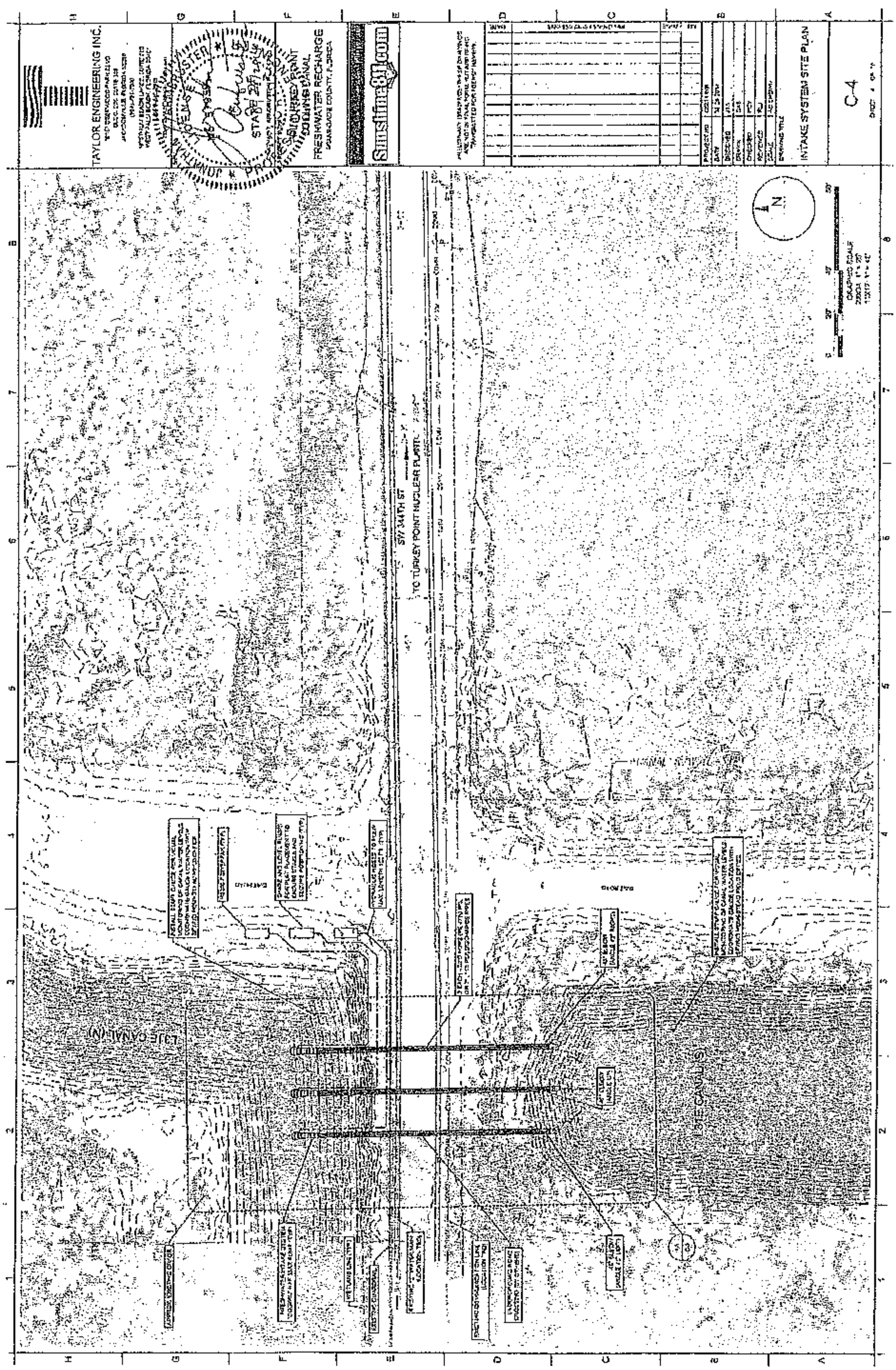
C-2

SHEET 5 OF 14

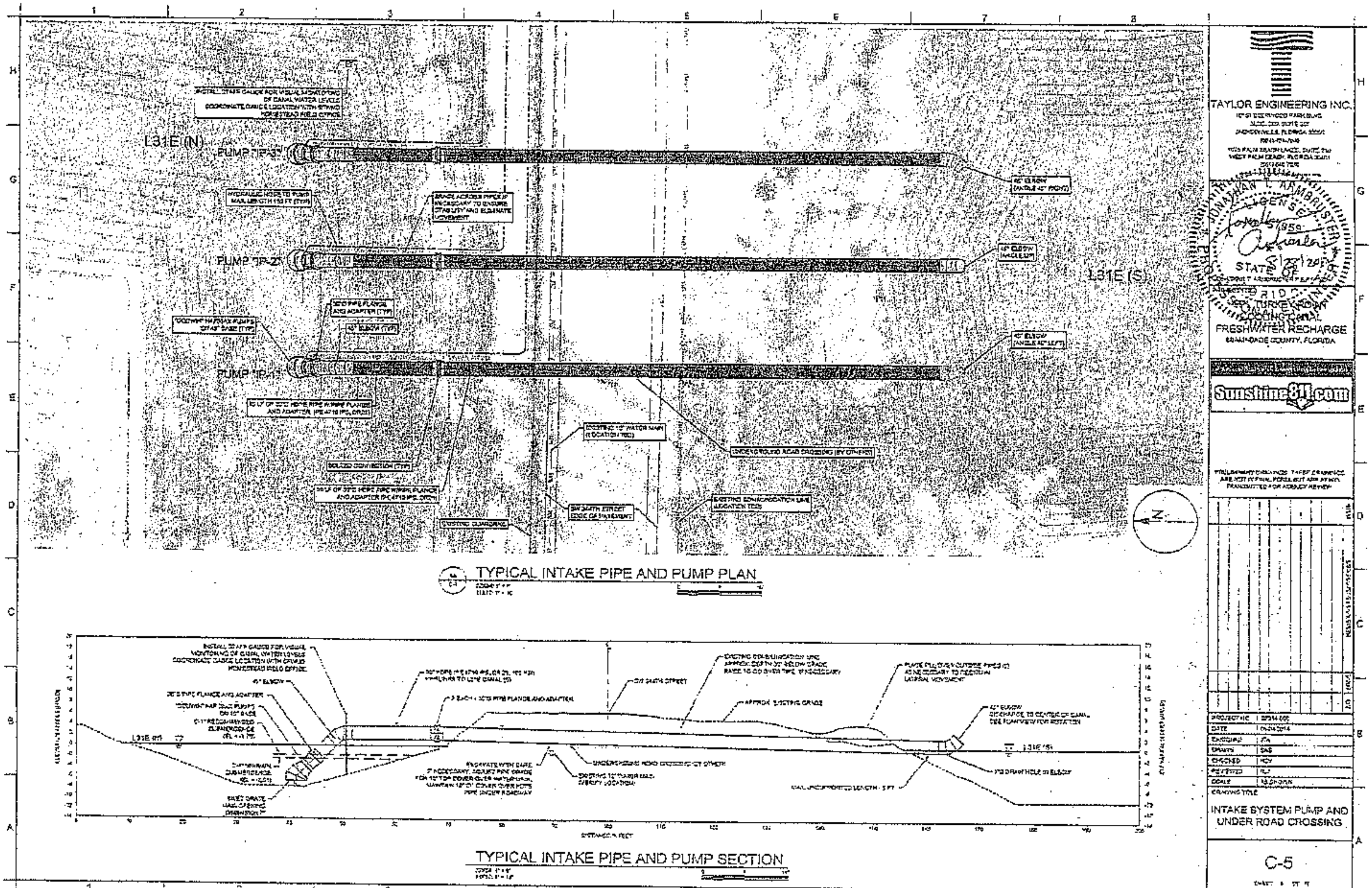
16

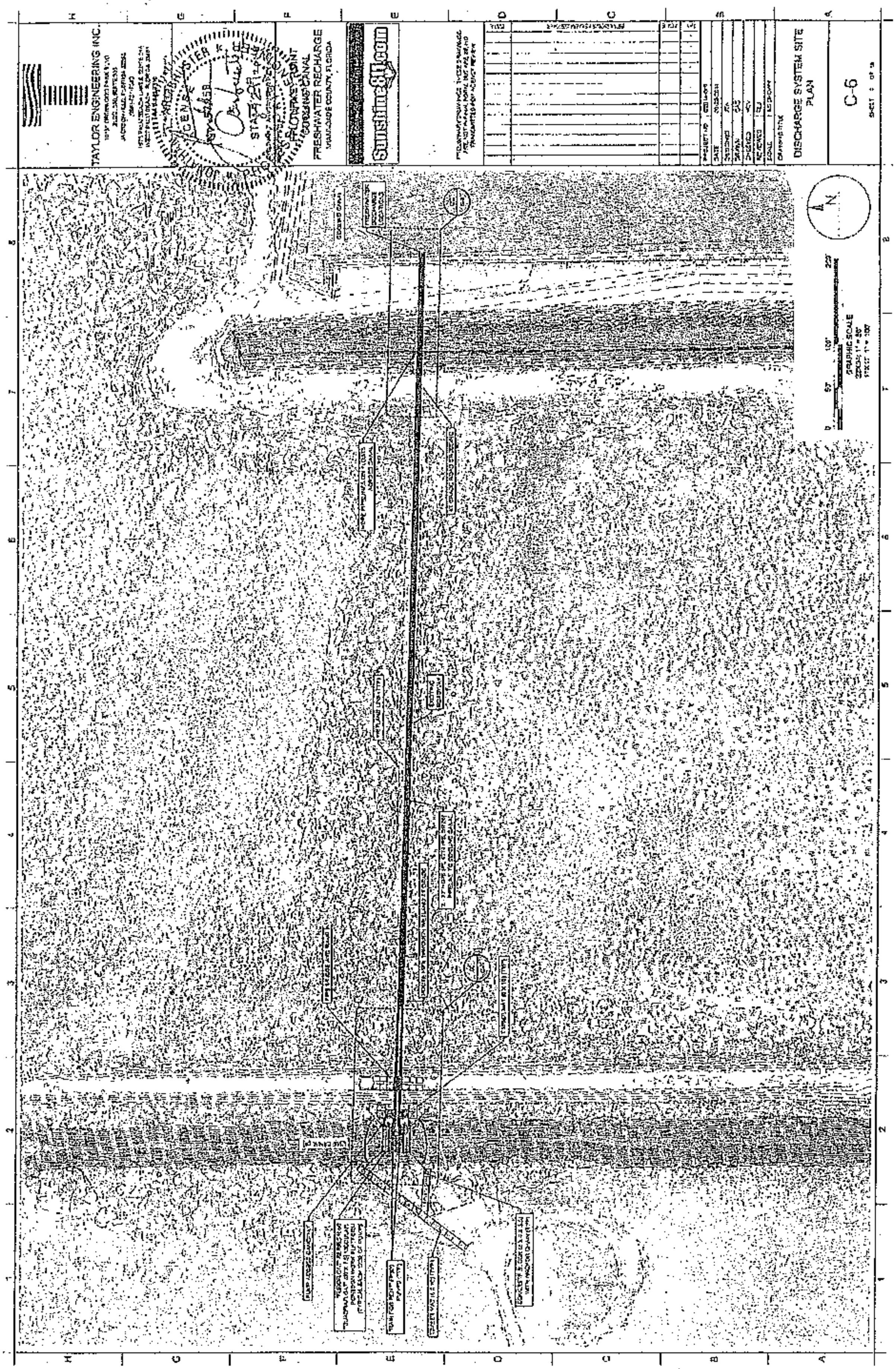

SW 344TH ST
L31E CANAL (N)
L31E CANAL (S)
L31E CANAL (S)
DISCHARGE TO L31E CANAL (S)
DIRT ROAD ON LEVEE CREST
PIPE BRIDGE AND CULVERT AT LEVEE
ROUTE PIPE THROUGH WETLAND AT GRADE
ROUTE PIPE THROUGH EXISTING DRAINAGE CULVERT AT ROAD
DIRT ROAD
WETLAND LINE (TYP)
ROAD CROSSING AT CANAL
PIPELINE CROSSING UNDER CANAL
GODING CANAL
FLORIDA POWER AND LIGHT TURKEY POINT
GRAPHIC SCALE
22X34: 1" = 300'
11X17: 1" = 600'
N
TAYLOR ENGINEERING INC.
JONATHAN C. AUSTIN
PE 57988
STATE OF FLORIDA
L31E CANAL
FRESHWATER RECHARGE
MIAMI-DADE COUNTY, FLORIDA
Sunshine811.com
PROJECT MGR
DATE
CHECKED
DRAWN
CHECKED
REVIEWED
SCALE
PROJECT OVERVIEW
C-3

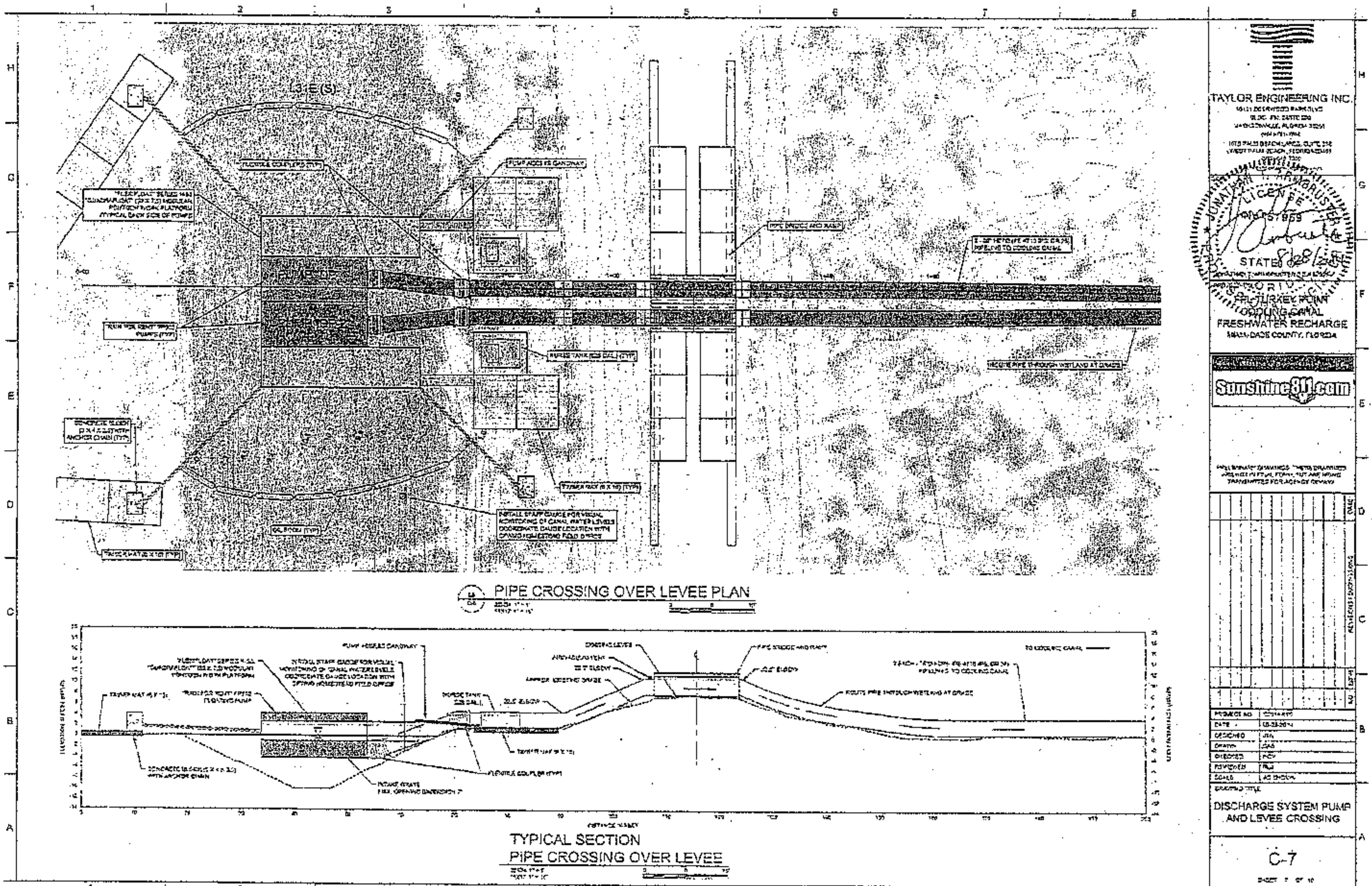
17

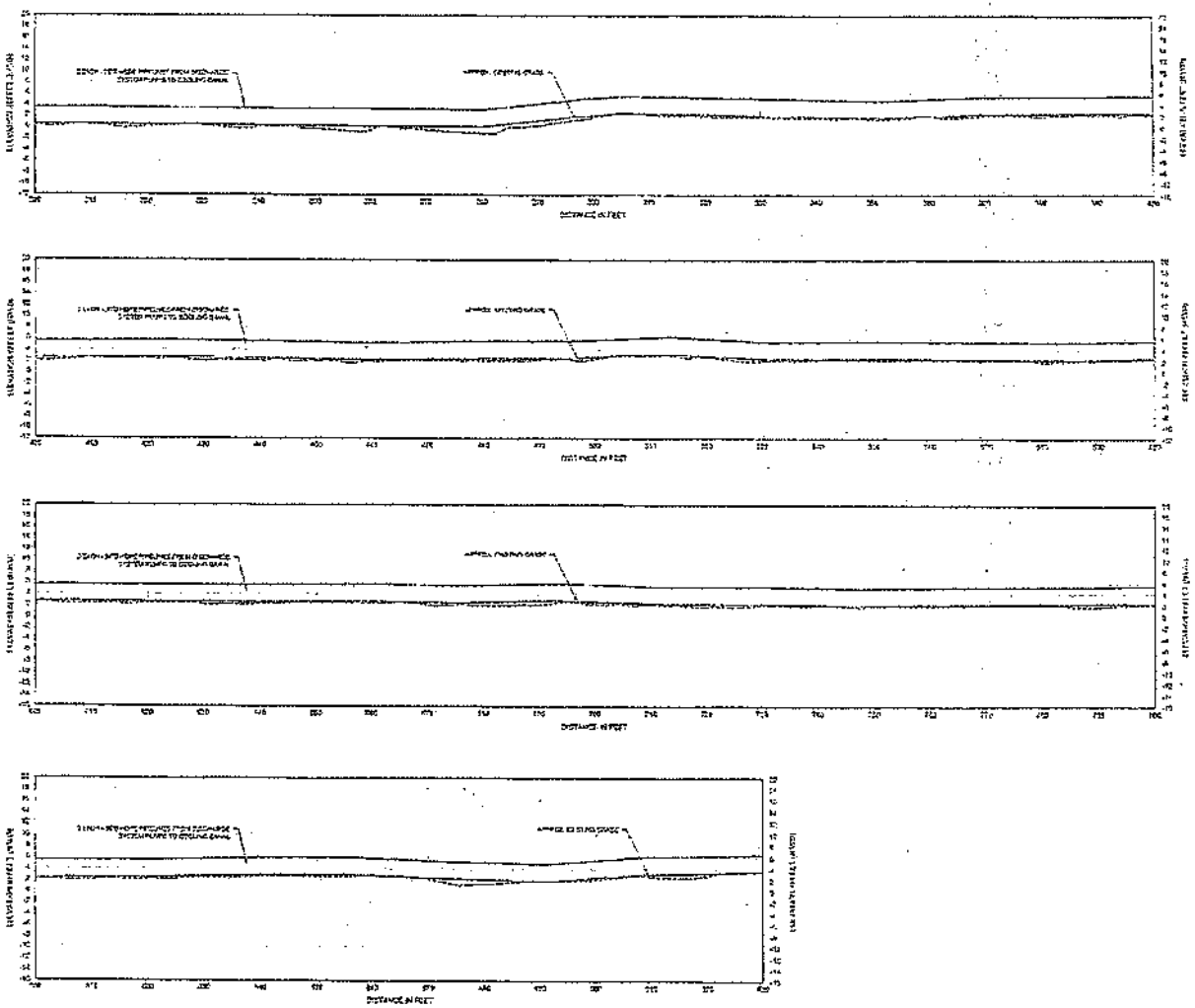


TAYLOR ENGINEERING INC.
FRESHWATER RECHARGE
MIAMI-DADE COUNTY, FLORIDA
Sunshine811.com
INTAKE SYSTEM SITE PLAN
C-4
SW 344TH ST
TO TURKEY POINT NUCLEAR PLANT
L31E CANAL (N)
L31E CANAL (S)
GRAPHIC SCALE
N


TAYLOR ENGINEERING INC.
L31E (N)
L31E (S)
TYPICAL INTAKE PIPE AND PUMP PLAN
TYPICAL INTAKE PIPE AND PUMP SECTION
FRESHWATER RECHARGE
MIAMI-DADE COUNTY, FLORIDA
Sunshine811.com
INTAKE SYSTEM PUMP AND UNDER ROAD CROSSING
C-5


TAYLOR ENGINEERING INC.
FRESHWATER RECHARGE
DISCHARGE SYSTEM SITE PLAN
C-6
GRAPHIC SCALE


L31-E (S)
PIPE CROSSING OVER LEVEE PLAN
TYPICAL SECTION
PIPE CROSSING OVER LEVEE
TAYLOR ENGINEERING INC.
FPL TURKEY POINT
COOLING CANAL
FRESHWATER RECHARGE
MIAMI-DADE COUNTY, FLORIDA
Sunshine811.com
DISCHARGE SYSTEM PUMP
AND LEVEE CROSSING
C-7



PIPELINE PROFILES
DISCHARGE A - STA. 2+00 THRU 9+30

TAYLOR ENGINEERING INC.

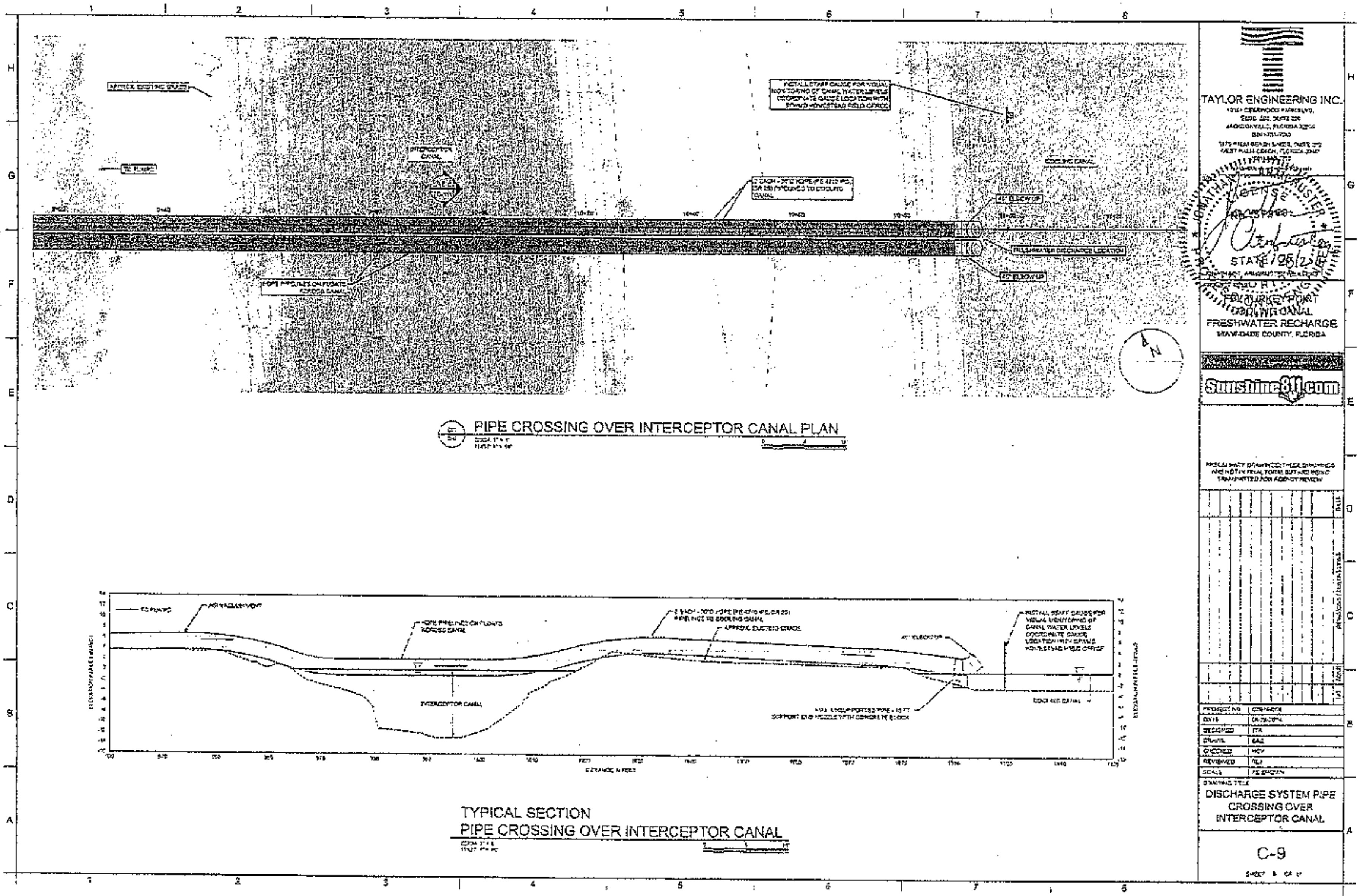
FLORIDA POWER & LIGHT COMPANY
TURKEY POINT
COOLING CANAL
FRESHWATER RECHARGE
MIAMI-DADE COUNTY, FLORIDA

Sunshine811.com

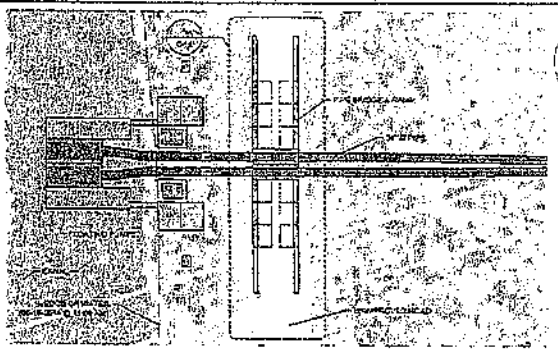
DISCHARGE SYSTEM PROFILES

C-8

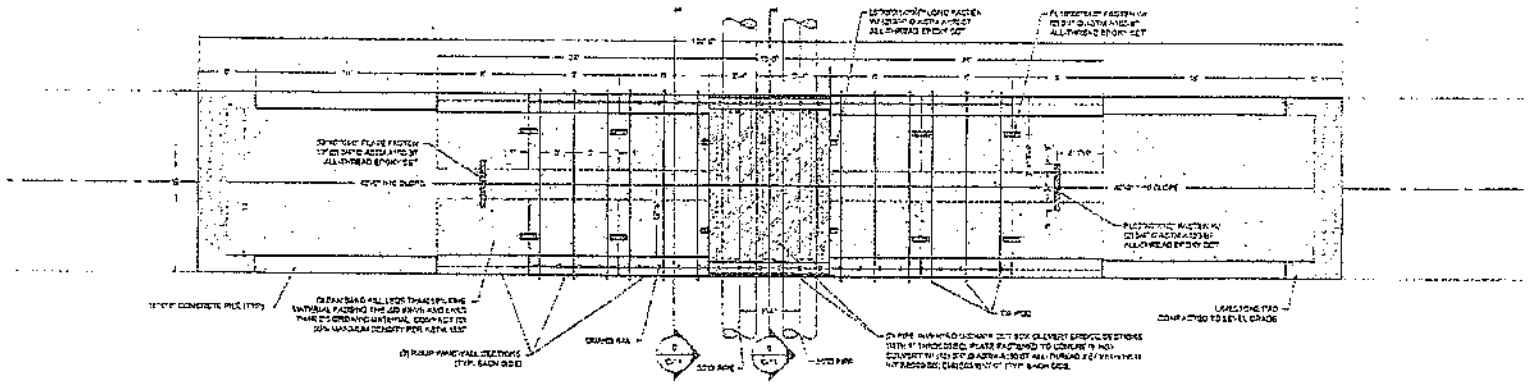
22



PIPE CROSSING OVER INTERCEPTOR CANAL PLAN
TYPICAL SECTION
PIPE CROSSING OVER INTERCEPTOR CANAL
INTERCEPTOR CANAL
TAYLOR ENGINEERING INC.
FPL TURKEY POINT
COOLING CANAL
FRESHWATER RECHARGE
MIAMI-DADE COUNTY, FLORIDA
Sunshine811.com
DISCHARGE SYSTEM PIPE
CROSSING OVER
INTERCEPTOR CANAL
C-9

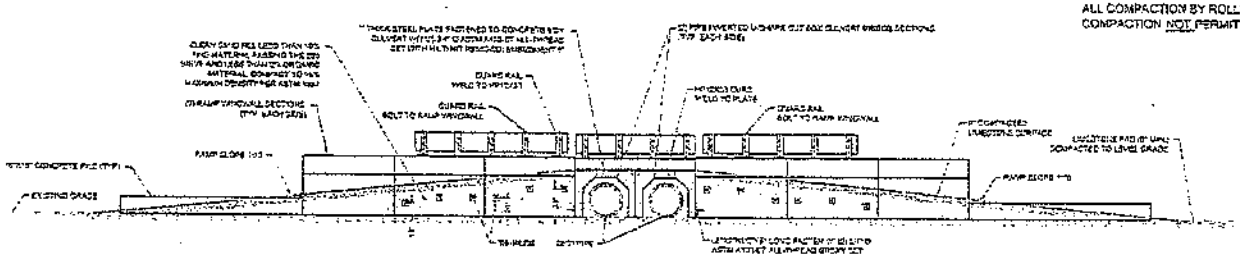


PIPE BRIDGE & RAMP PLAN VIEW



PIPE BRIDGE & RAMP DETAIL PLAN VIEW

NOTE:
ALL COMPACTION BY ROLLER VIBRATORY
COMPACTION NOT PERMITTED ON LEVEE CREST.



PIPE BRIDGE & RAMP DETAIL ELEVATION VIEW

TAYLOR ENGINEERING INC.

FRESHWATER RECHARGE
MIAMI-DADE COUNTY, FLORIDA

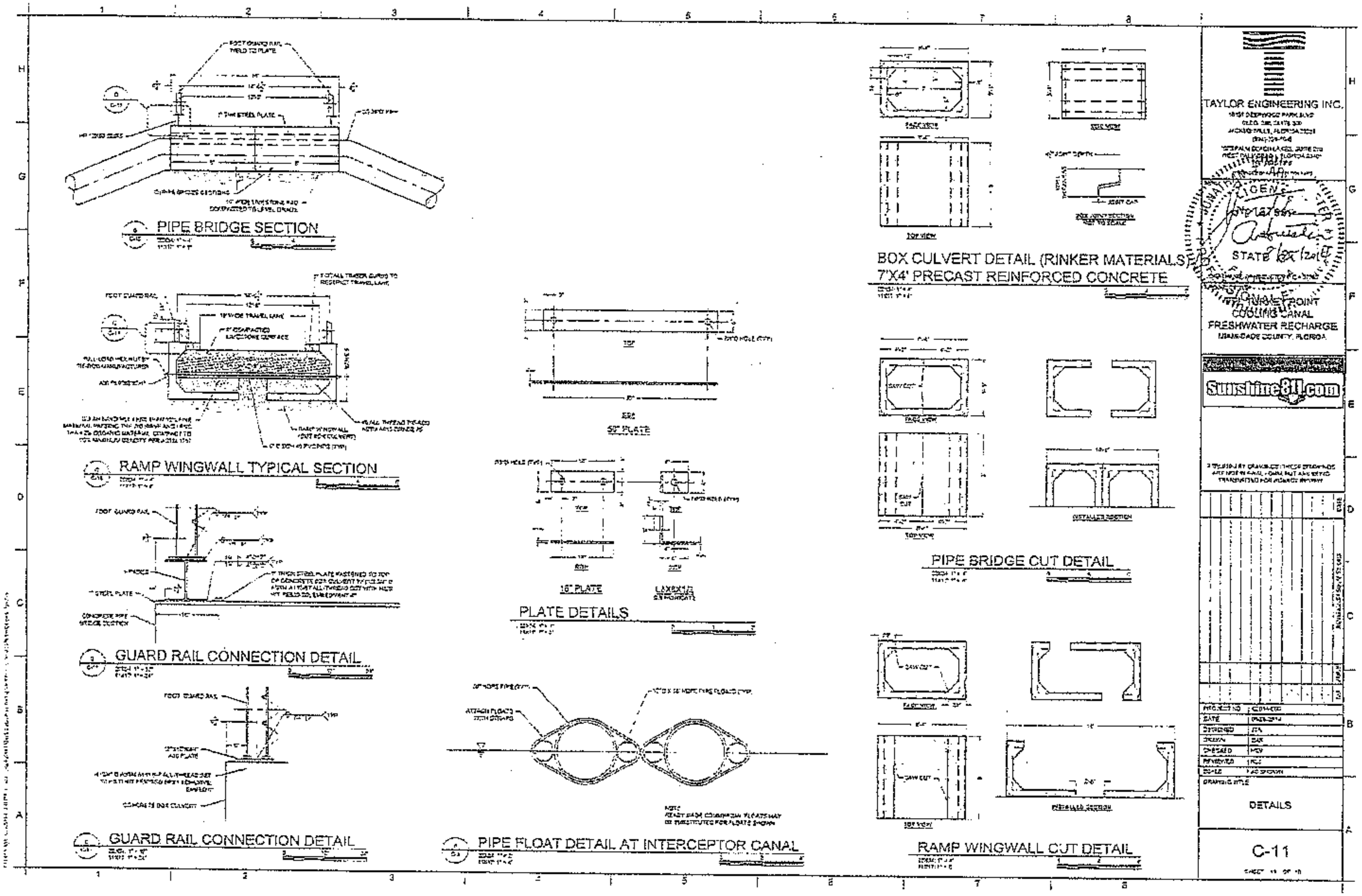
Sunshine811.com

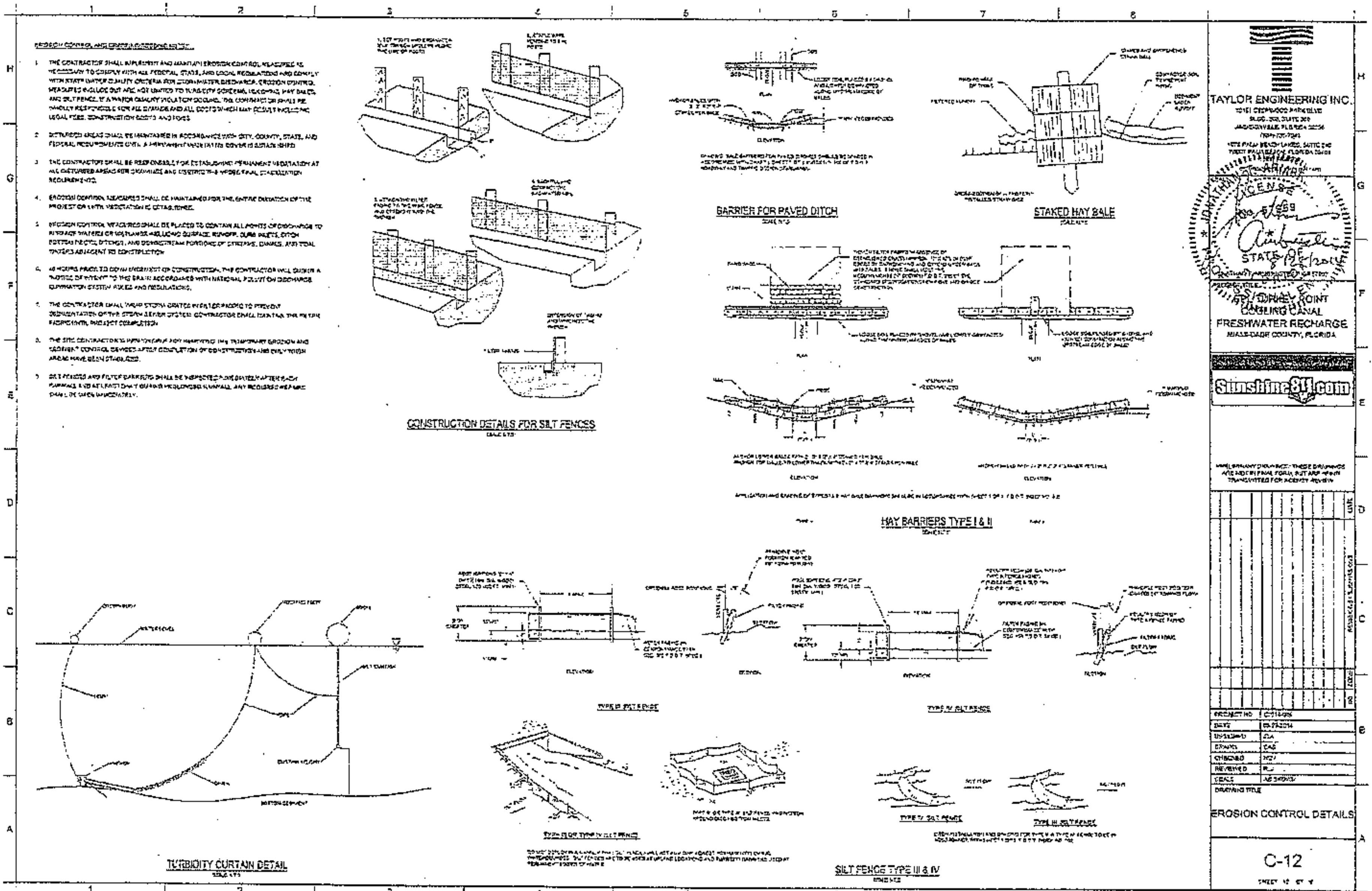
PROJECT NO.	
DATE	
DESIGNED	
DRAWN	
CHECKED	
REVIEWED	
SCALE	

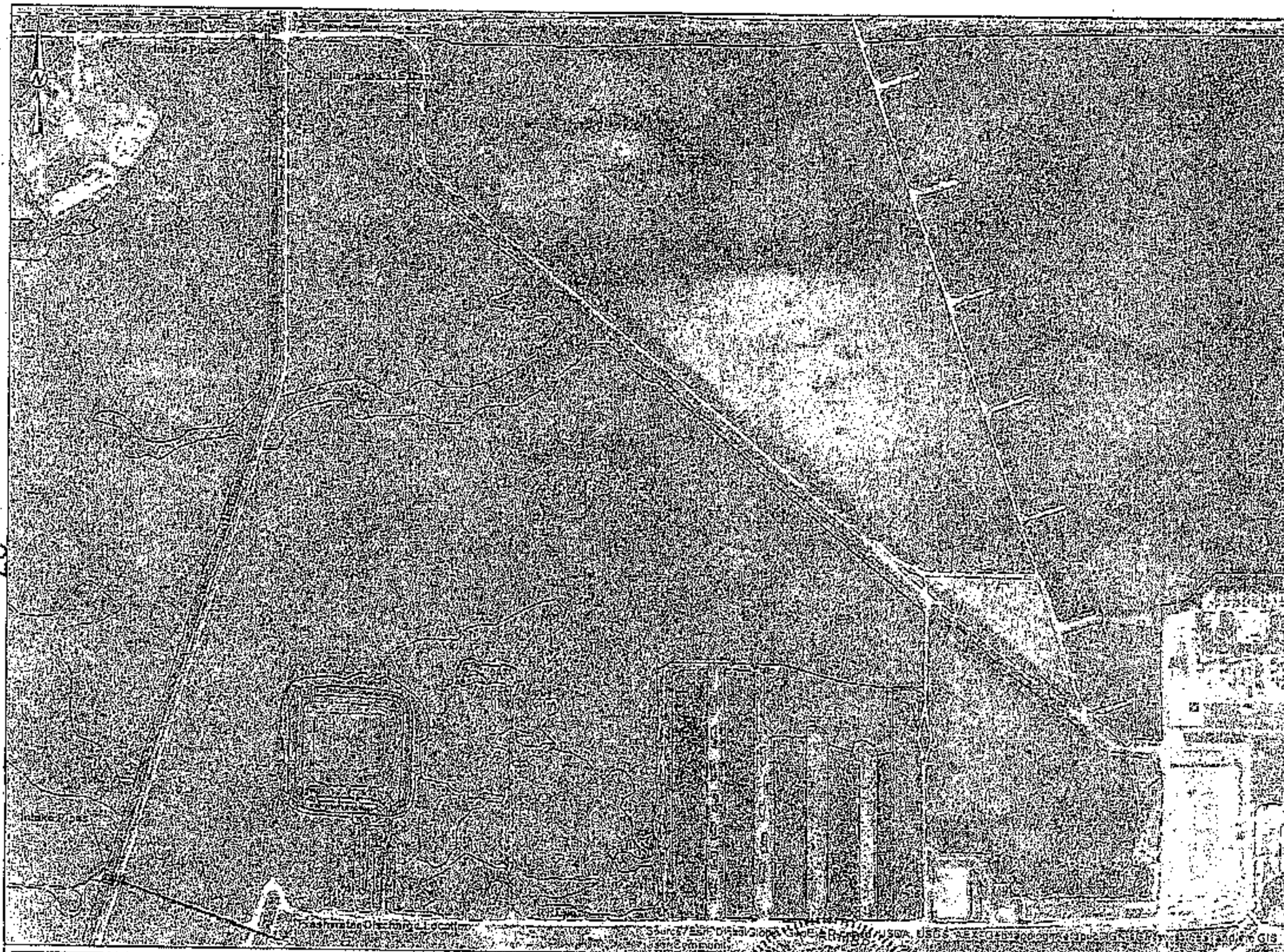
PIPE BRIDGE PLAN AND ELEVATION

C-10

24


PIPE BRIDGE SECTION
RAMP WINGWALL TYPICAL SECTION
GUARD RAIL CONNECTION DETAIL
GUARD RAIL CONNECTION DETAIL
50" PLATE
16" PLATE
PLATE DETAILS
PIPE FLOAT DETAIL AT INTERCEPTOR CANAL
BOX CULVERT DETAIL (RINKER MATERIALS)
7'X4' PRECAST REINFORCED CONCRETE
PIPE BRIDGE CUT DETAIL
RAMP WINGWALL CUT DETAIL
TAYLOR ENGINEERING INC.
TURKEY POINT
COOLING CANAL
FRESHWATER RECHARGE
MIAMI-DADE COUNTY, FLORIDA
Sunshine811.com
DETAILS
C-11


CONSTRUCTION DETAILS FOR SILT FENCES
BARRIER FOR PAVED DITCH
STAKED HAY BALE
HAY BARRIERS TYPE I & II
TURBIDITY CURTAIN DETAIL
SILT FENCE TYPE III & IV
TAYLOR ENGINEERING INC.
TURKEY POINT
COOLING CANAL
FRESHWATER RECHARGE
MIAMI-DADE COUNTY, FLORIDA
Sunshine811.com
EROSION CONTROL DETAILS
C-12



LEGEND

Temporary Cooling Canal Augmentation Pipeline & Equipment

Wetland Line

Area of Temporary Wetland Impact

TABLE 1 - TEMPORARY WETLAND IMPACT ACREAGE[1]

Wetland ID	Habitat Type	Acreage
B	6411 - Sawgrass Marshes	0.04
HW	510 - Canal	0.04
O	510 - Canal	0.02
P	612 - Mangrove Swamps	0.11
R	510 - Canal	0.04
	612 - Mangrove Swamps	0.05
	Grand Total	0.30

NOTES

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW

[1]SEE ATTACHED SHEETS FOR DETAIL

REFERENCE

PIPELINE ROUTE, TAYLOR ENGINEERING INC., 2014
TEMPORARY WETLAND IMPACTS, GOLDER ASSOCIATES INC., 2014

600 300 0 600 FEET
1:7,200

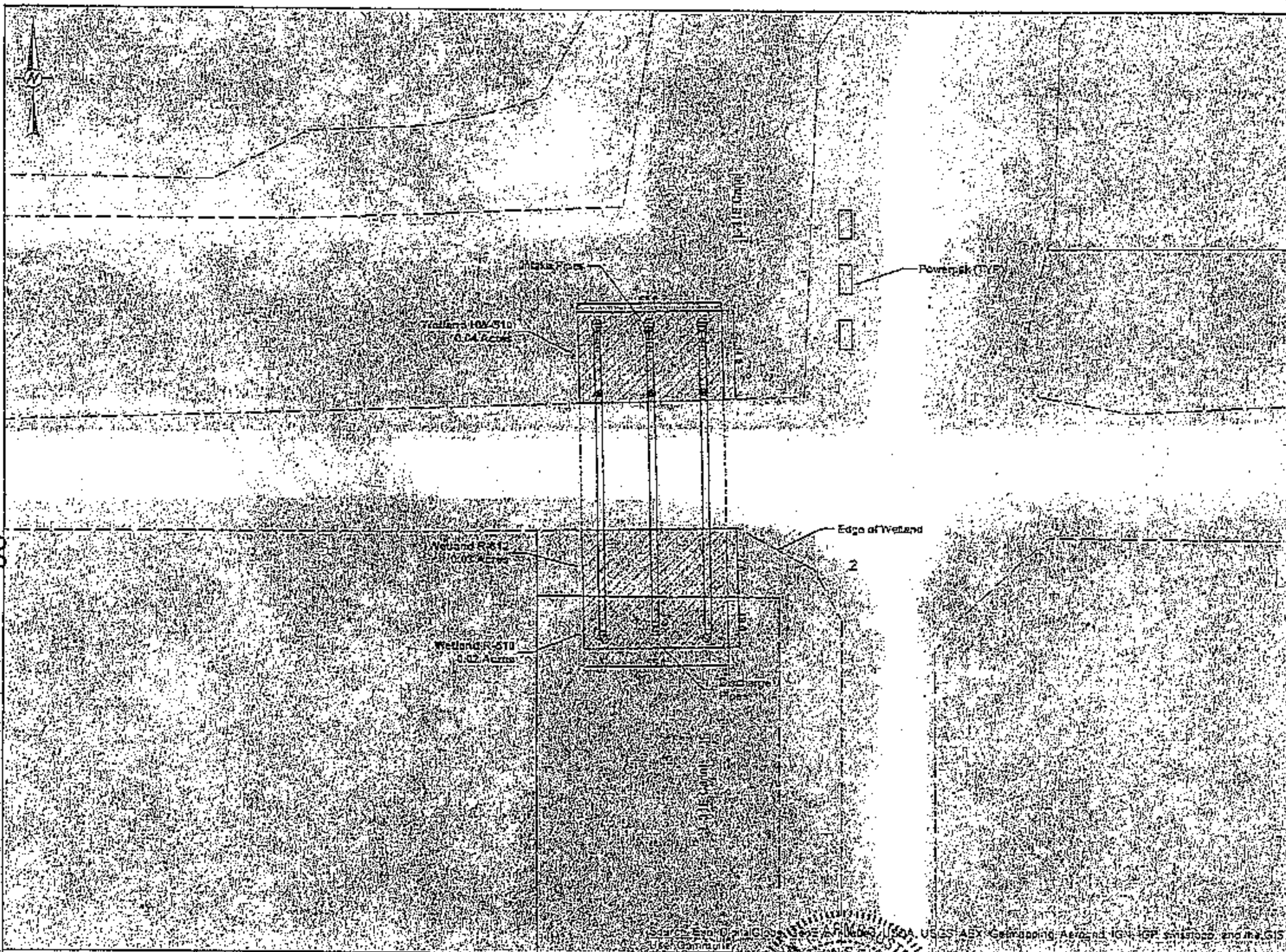
PROJECT
FPL TURKEY POINT
COOLING CANAL
FRESHWATER RECHARGE

TITLE
PROJECT OVERVIEW MAP

Golder Associates

PROJECT No.	CONTROL	REV.	FIGURE
09387652	C140	0	V-1

No. 57959 STATE OF FLORIDA PROFESSIONAL ENGINEER



LEGEND

Temporary Cooling Canal Augmentation Pipeline & Equipment
Wetland Line
Area of Temporary
Limits of Temporary Construction
Area of Temporary Wetland

TABLE 1 - TEMPORARY WETLAND IMPACT ACREAGE

Wetland ID	Habitat Type	Acreage
B	6411 - Sawgrass Marshes	0.04
HW	510 - Canal	0.04
O	510 - Canal	0.02
P	612 - Mangrove Swamps	0.11
R	510 - Canal	0.04
	612 - Mangrove Swamps	0.05
	Grand Total	0.30

NOTES

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW

REFERENCE

PIPELINE ROUTE, TAYLOR ENGINEERING INC., 2014
TEMPORARY WETLAND IMPACTS, GOLDER ASSOCIATES INC., 2014

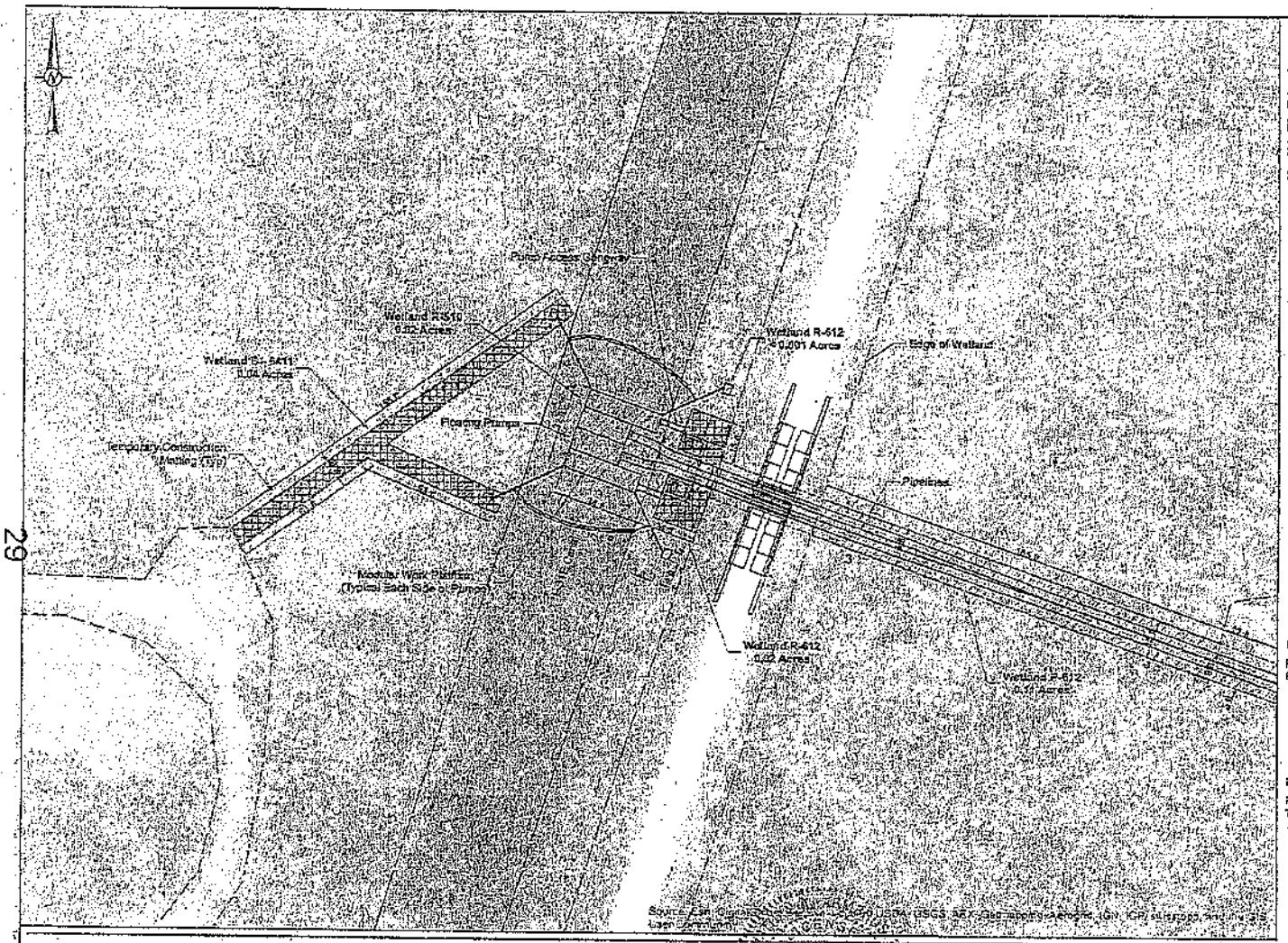
40 20 0 40
1:480 FEET

FPL TURKEY POINT
COOLING CANAL
FRESHWATER RECHARGE

INTAKE SYSTEM
TEMPORARY WETLAND IMPACTS

Golder Associates

09387652 C142 0 V-2



LEGEND

- Temporary Cooling Canal Augmentation Pipeline & Equipment
- Wetland Line
- Area of Temporary
- Limits of Temporary Construction
- Area of Temporary Wetland

TABLE 1 - TEMPORARY WETLAND IMPACT ACREAGE

Wetland ID	Habitat Type	Acreage
S	641.1 - Sawgrass Marshes	0.04
HW	510 - Canal	0.04
O	510 - Canal	0.02
P	612 - Mangrove Swamps	0.11
	510 - Canal	0.04
R	612 - Mangrove Swamps	0.05
	Grand Total	0.30

NOTES

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW

REFERENCE

PIPELINE ROUTE: TAYLOR ENGINEERING INC., 2014
TEMPORARY WETLAND IMPACTS: GOLDER ASSOCIATES INC., 2014

40 20 0 40

1"=40' FEET

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

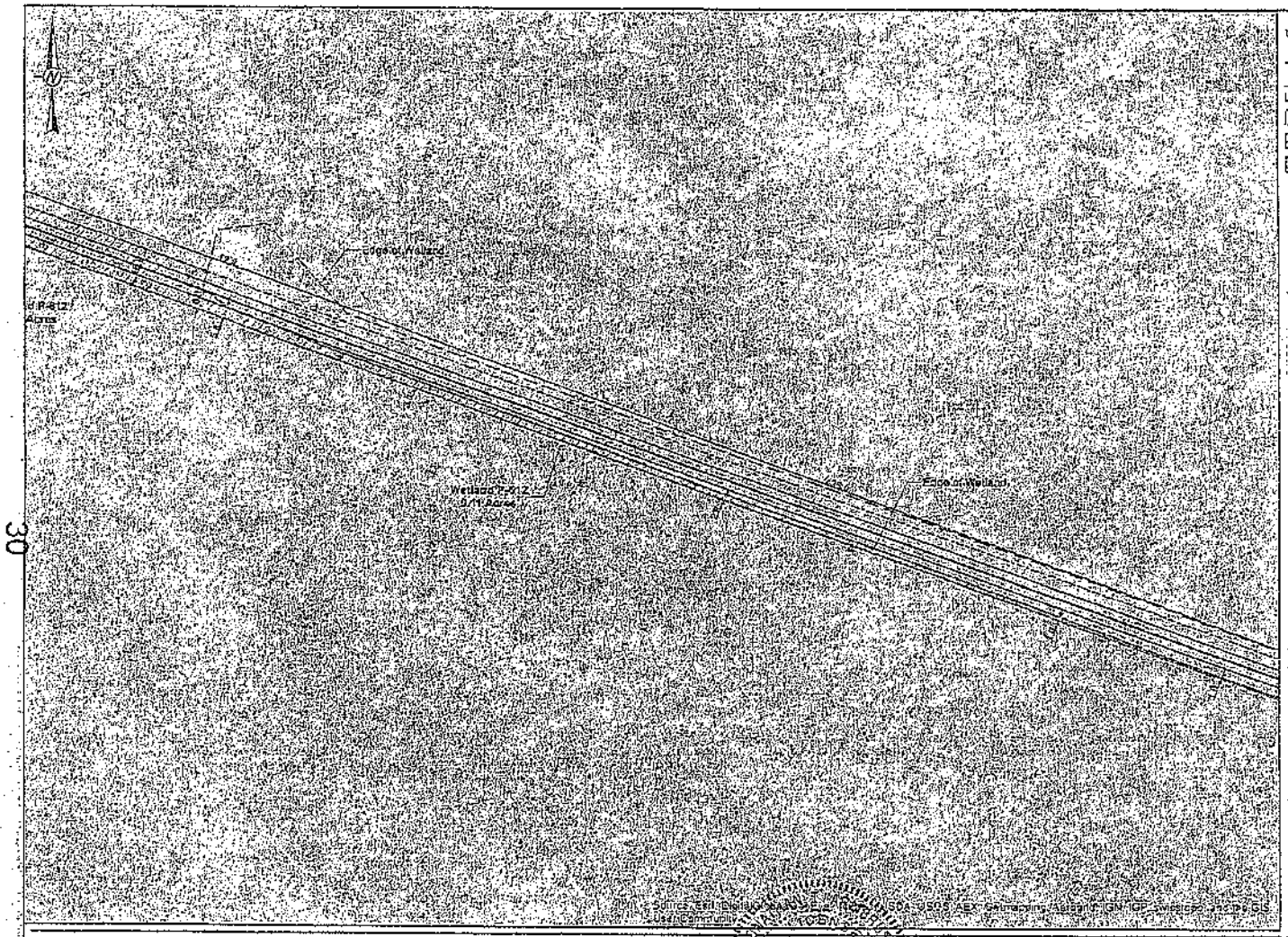
No. 67958 STATE OF FLORIDA PROFESSIONAL ENGINEER

Golder Associates

PPL TURKEY POINT
COOLING CANAL
FRESHWATER RECHARGE

DISCHARGE SYSTEM
TEMPORARY WETLAND IMPACTS

09357552	C142	3	V-3



LEGEND

- Temporary Cooling Canal Augmentation Pipeline & Equipment
- Wetland Line
- Area of Temporary
- Limits of Temporary Construction
- Area of Temporary Wetland

TABLE 1 - TEMPORARY WETLAND IMPACT ACREAGE

Wetland ID	Habitat Type	Acreage
B	6411 - Sawgrass Marshes	0.04
HW	510 - Canal	0.04
O	510 - Canal	0.02
P	612 - Mangrove Swamps	0.11
R	510 - Canal	0.04
	612 - Mangrove Swamps	0.05
	Grand Total	0.30

NOTES

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW

REFERENCE

PIPELINE ROUTE, TAYLOR ENGINEERING INC., 2014
TEMPORARY WETLAND IMPACTS, GOLDER ASSOCIATES INC., 2014

40 20 0 40

1:480 FEET

PROJECT
FPL TURKEY POINT
COOLING CANAL
FRESHWATER RECHARGE

TITLE
DISCHARGE SYSTEM
TEMPORARY WETLAND IMPACTS

PROJECT No.	CONTROL	No.	REV	FIGURE
09387552	C142	0		V-4

Golder Associates

30

LEGEND

- Temporary Cooling Canal Augmentation Pipeline & Equipment
- Wetland Line
- Area of Temporary
- Limits of Temporary Construction
- Area of Temporary Wetland

TABLE 1 - TEMPORARY WETLAND IMPACT ACREAGE

Wetland ID	Habitat Type	Acreage
S	6411 - Sawgrass Marshes	0.04
HW	510 - Canal	0.04
O	510 - Canal	0.02
P	612 - Mangrove Swamps	0.11
R	510 - Canal	0.04
	612 - Mangrove Swamps	0.05
	Grand Total	0.30

NOTES

PRELIMINARY DRAWINGS; THESE DRAWINGS ARE NOT FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW

REFERENCE

PIPELINE ROUTE, TAYLOR ENGINEERING INC., 2014
TEMPORARY WETLAND IMPACTS, GOLDER ASSOCIATES INC., 2014

40 20 0 40
1:480 FEET

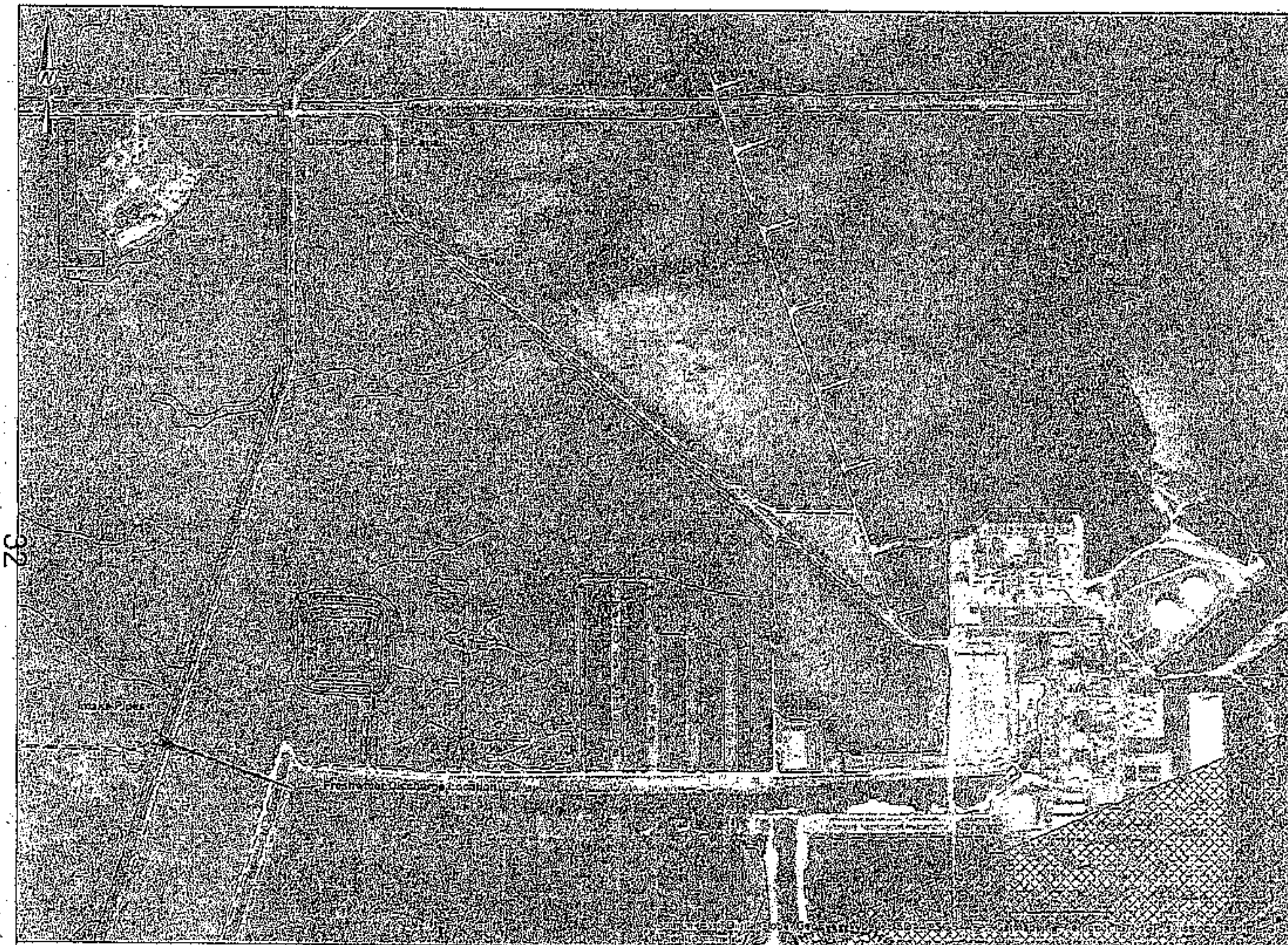
PROJECT
FPL TURKEY POINT
COOLING CANAL
FRESHWATER RECHARGE

TITLE
DISCHARGE SYSTEM
TEMPORARY WETLAND IMPACTS

PROJECT No.	CONTROL	REV.	FIGURE
08387652	C142	0	V-5

Golder Associates

No. 57959
STATE OF FLORIDA
PROFESSIONAL ENGINEER



LEGEND

Temporary Cooling Canal Augmentation Pipeline & Equipment

Wetland Line

Area of Temporary Wetland Impact

American Crocodile Critical Habitat (USFWS)

NOTES

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW

REFERENCE

PIPELINE ROUTE, TAYLOR ENGINEERING INC., 2014
TEMPORARY WETLAND IMPACTS, GOLDER ASSOCIATES INC., 2014

300 400 0 600

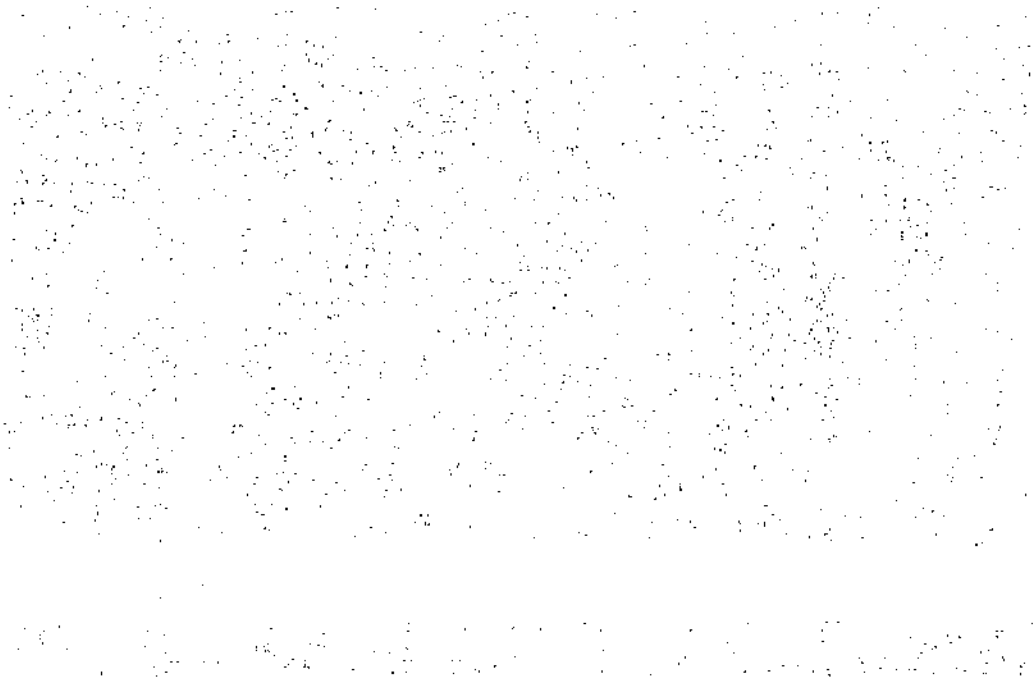
1:9,600 FEET

FPL TURKEY POINT
COOLING CANAL
FRESHWATER RECHARGE

PROPOSED PIPELINE ROUTE AND
AMERICAN CROCODILE CRITICAL HABITAT

Golder Associates

09387652 C141 0 V-8



Attachment C

Zoning Memorandum

Memorandum

Date: September 3, 2014

To: Lisa Spadafina, Chief
Natural Resources Division
Department of Regulatory and Economic Resources

From: Christine Hopps, ERPS
Coastal and Wetlands Resources Section
Department of Regulatory and Economic Resources

Subject: Class I Permit Application by Florida Power and Light Company for Temporary Impacts to 0.24 Acres of Halophytic Wetlands at the Properties Identified by Folio Numbers 30-7029-001-0011, 30-7290-000-0010, and 30-7029-001-0012 in Miami-Dade County

---

Pursuant to Section 24-48.2(II)(B)(7), of the Code of Miami-Dade County, Florida, a substantiating letter was submitted stating that the proposed project does not violate any zoning laws. Said letter was submitted prior to approval by the Miami-Dade County Board of County Commissioners and prior to issuance of the Class I permit.

Attachment D

Request by Florida Power and Light Company to the South Florida Water Management District for Emergency Authorization of Temporary Water Withdrawal from Excess Stormwater from L-31E Canal

FPL

August 27, 2014

Mr. Blake Guillory, P.E.
Executive Director
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33416-4680

Re: Request for Emergency Authorization
Of Temporary Water Withdrawal from Excess Stormwater from L-31E Canal
Florida Power & Light Company
Turkey Point Plant

Dear Mr. Guillory:

Florida Power & Light Company (FPL) is requesting emergency temporary authorization from the South Florida Water Management District (SFWMD) to access the District's right of way, connect to the L-31E, canal, and withdraw excess stormwater (above the 254 cubic feet per second (cfs), required for the CERP Biscayne Bay Coastal Wetlands restoration project) from the L-31E canal north of the Turkey Point Plant to aid in reducing temperature and salinity in the Cooling Canal System (CCS). This CCS is integral to power generation at Turkey Point. The CCS works as a heat exchange for Turkey Point Power Plant Units 1, 3 & 4 cooling the units during the power generation process. As described below this excess stormwater is important for the continued reliable operation of Turkey Point Power Plant. FPL has more than 2 million customer accounts in Miami-Dade and Broward Counties and Turkey Point provides electricity supporting the region. The temporary water withdrawal is not expected to have adverse effects to vegetation, wildlife within the canal system, adjacent lands, L-31E canal, Biscayne Bay or the model lands. The following provides background information supporting this request.

Turkey Point Power Plant Units 3 & 4 operate under a license from the Nuclear Regulatory Commission (NRC). The original operating license included a requirement that the maximum allowed CCS water temperature on the intake or inlet side of Units 3 & 4 cannot exceed 100°F. As described below, during July 2014, numerous factors contributed to higher-than-usual inlet temperatures in the CCS that approached 100°F. Also, during July-August intake temperatures approached 102°F (Attachment A). As a result of engineering analysis demonstrating that the plant could safely operate with the water temperature exceeding 100°F, FPL requested and received temporary approval from the NRC to temporarily deviate from the water temperature requirement as it pursued a permanent change to the plant's operating license. In parallel, FPL submitted and received (August 8, 2014) approval for a License Amendment Request (LAR) that permanently increases the CCS intake water temperature limit from 100°F to 104°F. Should the 104°F temperature limit be exceeded and certain conditions met, the plant's current license requires Turkey Point Units 3 & 4 to commence shut down within 12 hrs, which could impact grid reliability. Although FPL received a License Amendment from the NRC to increase the intake temperature limit in the CCS, the inlet temperature still continues to be high (>100°F during afternoon peaks). The persisting factors that are resulting in the high water temperatures are described below. Our analysis supports that the addition of excess stormwater from the L-31E canal will add much needed water to the CCS, reducing the salinity, increasing the thermal efficiency of the CCS and ultimately reducing temperature. As a result of the temperature increases in the CCS, the Units, at times, have had to operate at capacities lower than 100%.

The continued temperature increase can be attributed to the lack of rain and cloud cover over the past several weeks, as well as the on-going algae, salinity conditions, and multiple days of record breaking electricity demand. During spring and summer 2014, low rainfall and high evaporation are important factors that have increased temperature and salinity in the canals. For example, annual rainfall at Turkey Point is typically between 50-75 inches. In 2013, rainfall accumulation was less than 20 inches at the cooling canals, and, as of the end of May 2014 there had been less than 3 inches at the rain station within the canals. Although we have seen more rain in June and July, overall rainfall has remained low (less than 26 inches compared 40 inches at the Miami Airport during the same timeframe) at Turkey Point. This rainfall shortage and the high evaporation (average 34 MGD) and losses to groundwater (average 12 MGD) have resulted in more water leaving from the system than is being provided from the aquifer or rainfall and ultimately concentrating the salinity in the water.

These conditions have also allowed an algal bloom to persist and it is further affecting operations. Our analysis has shown that the higher than normal salinity is a driving factor affecting the canal conditions and our ability to manage the canals we did historically. Currently, the salinity in the CCS is approximately 90 ppt, compared to historic levels of approximately 60 ppt. Effective treatment of the algae will require the salinity to be reduced to bring the dead algae out of suspension, which is also necessary to reduce CCS temperature and, thereby, restore the heat exchange capacity of the canals. For these reasons, there is an immediate temporary need for additional water for the cooling canals. Excess stormwater in the L-31E canal is the best temporary opportunity to reduce the temperature and salinity in the cooling canals and help to offset the high evaporation rate. In addition to the temporary request for excess stormwater from the L-31E canal, FPL requests right of way access to allow for the placement of pipes and pumps to withdrawal and distribute water from the L-31E canal into the CCS and temporary impacts to wetlands.

The project will require 0.33 acres of temporary wetland and surface water impacts - no permanent wetland fill is proposed with this project. Within wetland areas, the pipes are proposed to be installed upon the surface of the substrate without trenching. An excavator will be used to pull pipe segments into place; the excavator will be located upon existing upland access roadways or upon temporary construction matting to minimize wetland impacts (0.05 acres). Please refer to Attachment B for wetland impact drawings. Temporary wetland and surface water impacts will be restored upon completion of the project. In addition to in-situ restoration of temporary impacts, FPL will also purchase 0.18 mangrove mitigation credits from the Everglades Mitigation Bank, equivalent to the amount of functional loss required if the proposed impacts were permanent.

Attached are plans that depict the proposed layout of the system to withdrawal excess stormwater from the L-31E canal (Attachment C). The maximum amount we anticipate temporarily withdrawing is 100MGD, if available. We request authorization to pump 24 hours a day, if the water is available, and at variable rates determined by the SFWMD as based on flow rates at S-20F. We will coordinate with the SFWMD Homestead Field Station and SFWMD's Operations Control Room on a continual basis throughout this temporary operation. Please see Attachment D for the pumping description and expected District requirements. Finally, FPL will receive all appropriate authorizations from Army Corps of Engineers, Florida Department of Environmental Protection (FDEP) and Miami-Dade County.

If you have any questions, please contact me at 561-691-2808 or Stacy Foster at 561-691-7065.

Sincerely,
Florida Power & Light Company

Matthew J. Raffenberg
Director, Environmental Licensing and Permitting

Cc: Lennart Lindahl, SFWMD
Terrie Bates, SFWMD

Attachment E

Emergency Final Order Issued to Florida Power and Light Company by the South Florida Water Management District (SFWMD No. 2014-078-DAO-WU/ROW/ERP)

BEFORE THE GOVERNING BOARD OF THE
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

SFWMD No. 2014-078-DAO-WU/ROW/ERP

IN RE:

EMERGENCY FINAL ORDER ISSUED TO FLORIDA POWER AND LIGHT FOR THE PURPOSE OF AUTHORIZING TEMPORARY PUMP INSTALLATION AND WATER WITHDRAWAL ALONG AND FROM THE L-31E CANAL SYSTEM; MIAMI-DADE COUNTY, FLORIDA

/

EMERGENCY FINAL ORDER

The Executive Director of the South Florida Water Management District (District), pursuant to Sections 120.569 and 373.119(2), Florida Statutes (Fla. Stat.), after considering the recommendations of District staff and being otherwise fully appraised of the matter, issues the following Emergency Order (Order) containing Findings of Fact, Ultimate Facts and Conclusions of Law:

FINDINGS OF FACT

1. The District is a public corporation of the State of Florida, existing pursuant to Chapter 25270, Laws of Florida, 1949, and operating pursuant to Chapter 373, Fla. Stat., and Title 40E, Florida Administrative Code (Fla. Admin. Code), as a multi-purpose water management district with its principal office at 3301 Gun Club Road, West Palm Beach, Florida. The District has the power and duty to protect Florida's water resources and to administer and enforce the provisions of Chapter 373,

Fla. Stat., and the rules promulgated there under, Title 40E, Fla. Admin. Code. The District has jurisdiction over the matters addressed in this Order.

2. Florida Power and Light (FPL) is a subsidiary of NextEra Energy, Inc. As a regulated utility, FPL is granted an exclusive franchise by the Public Service Commission to provide reliable and cost-effective electric service to customers, including critical infrastructure, within its service territory in Florida. FPL's service territory covers all or parts of 35 Florida counties and serves approximately nine million customers.

3. The customers particularly at issue in this matter are those residing in Miami-Dade and Broward counties. In these counties, FPL provides electrical service to two million customer accounts, including critical infrastructure.

4. FPL owns and operates the electric power generating facility known as the Turkey Point Power Plant (Turkey Point) that is the subject of this emergency authorization request.

5. Turkey Point is located in unincorporated southeast Miami-Dade County, east of Florida City and the City of Homestead. The Turkey Point site covers approximately 11,000 acres. Turkey Point is located approximately 25 miles south of Miami and about nine miles east of Florida City. Properties adjacent to Facility are almost exclusively undeveloped land. Turkey Point is bordered to the east by Biscayne Bay and Card Sound. A Turkey Point location map is attached and incorporated as Exhibit A.

6. Turkey Point consists of five steam electric generating units: three fossil fuel-fired units (Units 1, 2, and 5) and two nuclear units (Units 3 and 4). Units 1 and 2

constructed in the late 1960s each have a continuous generating capacity of approximately 404 megawatts (MW). Operations of units 1 and 2 are on a standby basis and not routinely in service. Unit 5 has a continuous generating capacity of approximately 1150 MW. Units 3 and 4 each have continuous generating capacity of approximately 820 MW.

7. Units 3, 4, and 5 are certified under Florida's Power Plant Siting Act (PPSA). Units 1 and 2 pre-date the PPSA and are not certified.

8. FPL owns and operates a cooling canal system ("CCS"), an approximately 5,900-acre network of unlined canals at Turkey Point, to provide cooling water. Construction of the CCS was completed in 1973, and the CCS was closed from the surface waters of both Biscayne Bay and Card Sound. The CCS facilities pre-date the PPSA and are not certified. Under routine operations, there are no active surface water inflows utilized to maintain CCS water levels, temperature, or salinity.

9. The L-31E Canal system is of particular import to FPL's emergency authorization request. The L-31E Canal system is part of the Central and Southern Florida Flood Control Project (C & SF Project) for which the District is the designated local sponsor pursuant to Section 373.1501, Fla. Stat. As local sponsor, the District operates C&SF Project components, including the L-31E Canal system and the surface water flow to tide from the associated basins consistent with the guidance provided in the United States Army Corps of Engineers Master Water Control Manual, East Coast Canals, Volume 5.

10. The L-31E Canal system is a borrow canal and levee system that stretches north – south both intercepting water as it flows eastward to tide in southeast

Dade County and providing storm surge protection. A map depicting the L-31E Canal system is attached and incorporated as Exhibit B. The L-31E Canal runs parallel to the South Central Biscayne Bay and across several drainage basins, six of which are named for the associated major east-west canals: Canal 100 (C-100), C-1, C-102, C-103, North Canal and Florida City Canal. This canal network and coastal levee system is operated for several C & SF Project purposes, including reducing the potential for flood and storm surge damage as well as limiting saline water intrusion. Water from the L-31E is discharged to Biscayne Bay at several coastal structures, as depicted on Exhibit B.

11. Operation of the C & SF Project coastal structure gates in this canal network controls the quantity and timing of water discharged into this portion of Biscayne Bay. Overall, these surface water inflows comprise the largest input of fresh water to Biscayne Bay in this area.

12. In the 1990's the U.S. Army Corps of Engineers and the District developed the Comprehensive Everglades Restoration Program (CERP) which was approved by Congress in the Water Resources Development Act of 2000 (WRDA 2000). A component of CERP includes the Biscayne Bay Coastal Wetlands Phase 1 Project. This project component aims to restore the overland sheetflow in an area of up to 11,000 acres, and to improve the ecology of Biscayne Bay, including its freshwater and saltwater wetlands, nearshore bay habitat, marine nursery habitat, and the oyster reef community.

13. Implementation of the Biscayne Bay Coastal Wetlands Phase 1 Project will impound and redistribute freshwater runoff from the existing canal discharges into

the coastal wetlands adjoining Biscayne Bay to provide a more natural and historical overland flow pattern through existing coastal wetlands and tidal creeks. This redistribution of freshwater runoff will improve the temporal and spatial distribution of inflows to Biscayne Bay.

14. The WRDA 2000 requires that water be reserved from allocation as an assurance that each CERP project component will meet its goals and objectives. Water is to be reserved consistent with the objectives and information contained within the *Central and Southern Florida Project Comprehensive Everglades Restoration Plan Biscayne Bay Coastal Wetlands Project Phase I Final Integrated Project Implementation Report and Environmental Impact Statement* (PIR) and other sources of information.

15. To this end, the District conducted technical studies identifying water to be reserved for the protection of fish and wildlife within the western near-shore portion of Central Biscayne Bay, engaged in rule development, and adopted the Nearshore Central Biscayne Bay reservation rule and associated implementation rules. (Exhibit C) The location of the Nearshore Central Biscayne Bay as well as the associated, Project canal system is depicted in Figure 3-1 of the attached and incorporated Exhibit C.

16. The determination of the amount of water needed for protection of fish and wildlife in the Nearshore Central Biscayne Bay reservation rule is based on meeting a year-round salinity target for the nearshore area of central Biscayne Bay of 20 (practical salinity scale) given in the PIR. More detailed analyses were performed to determine the locations and quantities of surface water for the reservation rules. This information is contained in the District's Technical Document to Support a Water Reservation Rule

for the Comprehensive Everglades Restoration Plan Biscayne Bay Coastal Wetlands Project (July 2013).

17. Rule 40E-10.061, Florida Administrative Code, is the water reservation rule for the Nearshore Central Biscayne Bay. Pursuant to this rule, surface water flowing into the Nearshore Central Biscayne Bay, as derived from various and listed contributing canal reaches, is reserved from allocation. Figure 3-4A depicts surface water flow from the C-102 + Military + C-103 Canal through S-21A + S-20G + S-20F into Biscayne Bay during the Wet Season and is the relevant reservation for this Order; the reserved Target Flow to the Bay is 504 acre-ft / day or 254 cubic feet per second (cfs).

18. On August 27, 2014, FPL requested the District issue an Emergency Order for temporary authorization to utilize the District's right of way and to divert and use water, above that reserved in Rule 40E-10.061, F.A.C., from the L-31E Canal System to help moderate unusually high temperatures and salinity that are occurring in the CCS. A copy of FPL's request and related correspondence between FPL and the Nuclear Regulatory Commission is attached and incorporated as Composite Exhibit D. In summary, FPL seeks to divert water that is available, above the water reserved by Rule 40E-10.061, F.A.C., which would otherwise be discharged to tide via the S-20F,S-20G and S-21A coastal structures. District staff reviewed and considered FPL's request, the District's right of way, the infrastructure proposal, historic data, District statutory authorizations and rules, and the potential water availability and provided input to the District's Executive Director.

19. In support of their emergency authorization request, FPL provided the following information which is contained in Composite Exhibit D and summarized below:

a. United States Nuclear Regulatory Commission (NRC) Operating Licenses for Turkey Point and CCS Temperature Requirements: Turkey Point Power Plant Units 3 & 4 operate under a license from the Nuclear Regulatory Commission. The original operating license included a requirement that the maximum allowed CCS water temperature on the intake or inlet side of Units 3 & 4 cannot exceed 100°F. During July 2014, numerous factors contributed to higher than usual inlet temperatures in the CCS that approached 100°F. Also, during July – August, intake temperatures approached 102°F. After analysis, FPL requested and received temporary approval from the NRC to temporarily deviate from the water temperature requirement as is pursued a permanent change to the plant's operating license. In parallel, FPL submitted and received (August 8, 2014) approval for a License Amendment Request (LAR) that permanently increases the CCS intake water temperature limit from 100°F to 104°F. (Composite Exhibit D). This LAR is conditioned such that if the NRC license limit is exceeded and certain conditions met, both Turkey Point Units 3 and 4 will be required to commence shut down within 12 hours which could impact grid reliability. If Units 3 and 4 were required to shut down, an important piece of FPL's power generation portfolio will not be available to meet the current and anticipated high electricity demand, potentially impacting electrical service to more than 2 million customer accounts in Miami-Dade and Broward Counties, including critical infrastructure.

b. CCS Temperatures and Record-Breaking Power Demand: Peak demand for electric generation in south Florida is directly related to high temperatures and humidity which generally occur in the summer and early fall. Beginning in July 2014, Turkey Point's CCS experienced higher than usual temperatures as well as record breaking electricity demand. By the end of July, CCS Plant intake temperatures exceeded 100°F and have continued to exceed 100°F during afternoon peaks, recently reaching a high of 102°F, as depicted in Composite Exhibit D.

c. Factors Contributing to CCS Temperatures: A number of factors are contributing to higher than usual temperatures in the CCS. These factors include: high summer temperatures; significantly less rainfall in the vicinity of Turkey Point, including rainfall at the CCS; elevated salinity; and an algae bloom.

i. Temperature Data: For the Miami-Dade and Broward areas, the average high in September is 89°F and in October it is 86°F. CCS temperatures exceeded 100°F during July and August, 2014.

ii. Rainfall, Evaporation, Salinity, and Seepage Data: FPL reports typical annual rainfall at Turkey Point totals range between 50 inches to 75 inches. Normally, summer rainfall is effective in moderating the CCS water temperature and salinity. In 2013, the annual rainfall accumulation at Turkey Point measured at the CCS was less than 20 inches. As of the end of May, 2014, there had been less than 3 inches of rain at the rain station within the CCS. Although additional rainfall has occurred in June and July, the

overall rainfall remains less than 26 inches at the CCS, compared to 40 inches at the Miami Airport during the same timeframe. Moreover, FPL data indicates that the high evaporation, averaging 34 MGD, and losses to groundwater, averaging 12 MGD, have resulted in more water leaving the CCS than is being provided from the aquifer or rainfall and ultimately concentrating salinity in the CCS. FPL reports the CCS salinity has reached levels near 90 ppt, compared to historic levels of approximately 60 ppt.

iii. Algae Bloom: FPL indicates the above described conditions have allowed an algal bloom in the CCS to persist and affect Plant operations. The algae concentration, prior to treatments beginning mid-summer, was as high as 1.8 million cells per milliliter, far exceeding the historic average values of 50,000 cells per milliliter. Recent FPL treatments have reduced the algae concentrations. However, the turbidity associated with the algae bloom has caused unusual amounts of solar energy to be absorbed in the CCS, thereby increasing CCS temperatures. FPL reports effective treatment of the algae will require the salinity to be reduced to bring the dead algae out of suspension, which is necessary to reduce CCS temperatures and, thereby, restore the heat exchange capacity of the CCS. Detailed information concerning the CCS algae bloom are contained in Composite Exhibit D, particularly the correspondence between FPL and the NRC.

d. FPL's Request for Temporary, Emergency Water Supply: In summary, FPL requests an immediate, temporary emergency authorization from the District to allow FPL to access the District's right of way, connect to the L-31E canal, and conditionally withdraw stormwater from the L-31E Canal, and convey this water to the CCS with above-ground piping. Composite Exhibit D contains the design details for FPL's request. FPL's proposed operational plan synchronizes the volumes and rates of its northern and southern pumping operations so as to avert dewatering of wetlands adjacent to the L-31E canal. A portion of the proposed infrastructure involves temporary installation of pipes across wetlands.

20. Temporary installation of the pipes within wetlands, as shown in Exhibit D, will have only minimal or insignificant individual or cumulative adverse impacts on the water resources of the District. Based on the design proposed in Exhibit D, FPL's proposed, temporary installation qualifies for an exemption from the requirement to obtain an environmental resource permit pursuant to subsection 373.406(6), Florida Statutes.

21. Water levels in the L-31E Canal system, the proposed water supply source, are influenced by the operation of coastal canal structures. Operation of the S-20F, S-20G and S-21A are performed consistent with guidance from the United States Army Corps of Engineers regulation schedule and Master Water Control Manual, East Coast Canals, Volume 5. Under normal operating conditions for April 30 – October 15 the S-20F, S-20G, and S-21A structures are operated in the "high range" meaning discharges to tide are conditionally made when stages upstream of the structure

including stages within the L-31E Canal are 2.2 ft. NGVD or higher and the gates are closed when headwater stages drop to 1.8 ft NGVD.

22. Operational records of the District show combined average daily flow from the C-102, Military, C-103 canals through Structures S-21A, S-20G, and S-20F, respectively, into this portion of Biscayne Bay are 481 cfs during the month of August (1993 – 2013) and 620 cfs for the month of September (1993 - 2013), with daily combined flows ranging from 0 to more than 3,000 cfs during these months.

23. The combined reserved target flow for structures S-21A, S-20G, and S-20F is 254 cfs suggesting that there is a reasonable expectation that daily flows exceeding the reservation target flows will occur during the months of August and September.

24. Based on FPL's request and the above-described facts, the Executive Director of the District has considered this matter and finds that an emergency exists and the emergency measures proposed herein are necessary to protect the public health, safety or welfare.

ULTIMATE FACTS AND CONCLUSIONS OF LAW

25. Section 373.119(2), Fla. Stat., and Rule 28-106.501, Fla. Admin. Code, authorize the Executive Director of the District, in the event of an emergency requiring immediate action to protect the public health, safety or welfare, with the concurrence of the Governing Board, and without prior notice, to issue an order reciting the existence of such an emergency and requiring that such action be taken as deemed necessary. Section 120.569, Florida Statutes, also authorizes issuance of emergency authorizations. Moreover, the District is authorized, in summary, to regulate

connections and use of the District's rights of way, use of water, construction of new diversion facilities, initiation of new water uses, diversion and withdrawal facilities pursuant to a variety of statutes. (*e.g.*: §§373.083, 373.085, 373.086, 373.1501, 373.171, 373.219, Florida Statutes) The proposed activities are exempt from the requirement to obtain an environmental resource permit pursuant to subsection 373.406(6), Florida Statutes.

26. As to right of way matters, Rules 40E-6.451 and 40E-6.481, Fla. Admin. Code, further provide an emergency exists when immediate action is necessary to protect lives or property.

27. Pursuant to statutory authorizations, FPL's request and supporting documents, and the facts described herein, the Executive Director finds that an emergency exists requiring immediate action necessary to protect the public health, safety, or welfare. The Executive Director also finds the wetland impacts identified in Exhibit D and authorized by this Order qualify for a Section 373.406(6), Fla. Stat., exemption.

28. The action authorized by this Emergency Order is appropriate to address this emergency situation.

29. The L-31E Canal system is part of the C&SF Project for which the District is the designated local sponsor pursuant to Section 373.1501, Fla. Stat. Pursuant to Sections 373.085 and 373.086, Fla. Stat., the District is authorized to operate the C&SF Project, including the S-20 Structure and the L-31E Canal system.

ORDER

Based upon the Findings of Fact, Ultimate Facts and Conclusions of Law, the Executive Director orders FPL is authorized to undertake the following, temporary actions in accordance with the conditions stated herein:

30. Temporary Utilization of District Right of Way:

a. Authorized Facilities and Installation: FPL is authorized to install the infrastructure depicted in Exhibit D on the District's L-31E Canal right of way. The design details, including facility description and location, authorized by this Order are contained in the attached and incorporated Exhibit D. To the extent the information contained in Exhibit D conflicts with the terms and conditions of this Emergency Order, this Emergency Order shall control. FPL shall install, operate, and maintain the temporary withdrawal facilities and associated equipment in accordance with this Order. Any deviations from the design schematics identified in Exhibit D shall be presented to the District for approval prior to installation of the modified design. These facilities are temporarily authorized for the purpose of diverting and use water from the L-31E Canal system to help meet its cooling water needs pursuant to the following conditions.

b. Right of Way Installation Conditions:

i. Installation Coordination: Prior to commencement of construction or utilization of the District's right of way and, again, upon completion of the installation of the authorized facilities, FPL is required to contact the District's Field Representative, Mike Worley of the District's Homestead Field Station, (954)410-7383, and schedule a pre-construction

meeting and final inspection. The District's Homestead Field Station Superintendent is authorized to make field changes to installations or operations described herein to better achieve the District's objectives; such changes shall be subsequently documented in writing and communicated by the District to FPL.

ii. Site Security: The pumps at both the north and south pumping sites shall be manned continuously throughout the entire time the pumps are deployed pursuant to this Order. The south pumping site shall be manned by a pump operator provided by the pump manufacturer.

iii. Right of Way Conditions: FPL is required to comply with all Right of Way conditions contained in the body of this Order and attached and incorporated Exhibit E.

31. Temporary Water Withdrawal Authorization:

a. Authorization to Withdraw and Use Water, if available, from the L-31E Canal System:

i. Water Availability Restriction: FPL is prohibited from withdrawing and using water from the L-31E Canal system that is reserved for fish and wildlife by Rule 40E-10.061, F.A.C., for the Nearshore Central Biscayne Bay. The only water available for the purpose of this Order is that water which would otherwise be discharged to tide from either the S-20F, S-20G, and S-21A structures and is in excess of the flows reserved for protection of fish and wildlife in Rule 40E-10.061, F.A.C. This available surface water may, temporarily, be withdrawn and used within FPL's

cooling canal system in accordance with the conditions as set forth herein. There are no assurances provided by this Order that water will be available for FPL's withdrawal and use on any given day.

ii. District's Daily Determination of Water Availability and FPL Pump Operation: On a daily basis, the District will determine the amount and timing that FPL may operate the pumps and facilities authorized herein to withdraw water from the L-31E Canal system. Only when the combined flows to tide through coastal structures S-20F, S-20G, and S-21A exceed 254 cfs will the District determine the amount and timing water available for a FPL pump operation. The rate and volume of a potential FPL withdrawal, if any, shall be determined by the District, no later than 10:00 a.m., each day and for the duration of this Order. The District's daily determination of water availability shall cover a 24 hour period and last until no later than 9:59 a.m. the next day. In the event the District does not provide any written direction to FPL in accordance with this paragraph, then FPL shall cease all pumping until further notice.

iii. Communication of Water Availability Determination: The District's Operation Control Center will communicate its daily water availability determination to FPL by e-mail, to the FPL's designated contact(s): Matthew Raffenberg, or his designee, at Matthew.Raffenberg@fpl.com. The District's Operation Control Center may be contacted 24 hours a day, 7 days a week at: 561-682-6116 and

occ@sfwmd.gov. FPL may not commence any daily withdrawal operations prior to this District communication confirming water availability.

iv. Monitoring and Reporting: FPL shall monitor and report the amount of water diverted from the L-31E Canal system to its cooling canal system. When FPL withdraws water, then FPL must generate a daily report including the following detailed information: (1) the water availability determination for each day as provided by the District's Operational Control Center, (2) identification of which pump(s) were used over the course of the day; (3) time on and time off, per pump; (4) RPM setting, per pump, if variable; (5) calculated volume of water pumped, per pump; and (6) cumulative log flows at each pump station. In addition, the report shall include hourly stage data for the L-31E Canal measured at TPSW-1 and TPSW-2 for the weekly reporting period, whether or not the pumps operated. Water quality grab samples consisting of conductivity, turbidity, total kjedahl nitrogen, nitrate nitrite as N, phosphorus, ortho phosphorus, ammonia, and TRPH (total recoverable peteroleum hydrocarbons, also known as Florida Petroleum Residual Organic or "FL-PRO") shall be collected prior to initiation of pumping pursuant to this Order and once a week thereafter for the duration of this Order. These samples shall be collected at TPSW-1 and TPSW-2. FPL shall make the sampling logs and lab reports available upon request. The report shall reference this Order and be submitted by noon, Tuesday of each week for all withdrawals occurring during the preceding week. (The preceding week

reporting period is considered Monday at 1:00 a.m. through Sunday midnight.) The report shall be e-mailed to both the District's Assistant Executive Director, Len Lindahl at llindahl@sfwmd.gov and Terrie Bates, Division Director – Water Resources, at tbates@sfwmd.gov. Upon Executive review of the weekly report, conference calls may be required. Additionally, the District may request available monitoring data at any time and FPL shall provide the same within two hours of the District's request.

v. Special Pump Station Criteria:

(a) The District may require FPL to terminate pumping at any time. Upon receipt of any oral or written request from the District to terminate pumping, FPL must cease pumping within two (2) hours.

(b) FPL shall wirelessly coordinate the pumping at both stations to assure that, from a non-flow condition, the north station pumps shall be started first. The south station pumps shall be started within 5 minutes of the north station pumps start, with an equivalent flow. Similarly, when pump operation ceases, the south station pumps shall cease first and the north station pumps shall cease within 5 minutes.

vi. Pump Requirements:

(a) Pump On / Off Switches: Each pump authorized pursuant to this Order shall be equipped with an operable,

remote pump operational device prior to initiating pump operations.

(b) Pump discharge curves: Pump discharge curves used in determining rates of discharge while pumps are operating, as deployed in the field, shall be provided to the District prior to pump operation for the purpose of calculating flow rates and volumes.

(c) Totalizing Hour Meters: FPL shall install totalizing hour meters at each pump authorized by this Order and such meters shall be available for periodic District inspection and verification.

32. Section 373.406(6), F.S., Exemption Conditions:

a. No permanent fill shall be placed in the wetland area described in Exhibit D.

b. All activities which qualify for the subject exemption shall be conducted and operated using appropriate best management practices and in a manner which does not cause a violation of water quality standards, pursuant to Chapter 62-302, Florida Administrative Code.

c. The District's determination that the proposed temporary placement of pipes, pumps, and associated infrastructure qualifies as an exempt activity may be revoked if the installation is substantially modified from that described in Exhibit D, if the basis for the exemption is determined to be materially incorrect, or if the installation results in violation of state water quality standards. Any

changes made in the construction plans or location of the project may necessitate a permit from the District. Therefore, FPL is advised to contact the District before beginning any work in wetlands or surface waters which is not specifically described in Exhibit D.

d. Upon termination of this Order, all pipes, mats, other materials and equipment shall immediately be removed from the wetland to allow the wetland vegetation to recover.

33. Immediate Facility Removal and Reinstallation:

a. Prior to a Storm Event: FPL shall remove the temporary withdrawal facilities authorized by this Order located within the District's right of way within 24 hours of receipt of notice from the District. The temporary withdrawal facilities should be maintained and secured so as to not impede the District's ability to make flood control releases in advance of a storm event.

b. After a Severe Storm Event: FPL shall notify the District of its intent to reinstall the temporary withdrawal facilities in the District's right-of-way at least three (3) business days before such reinstallation is scheduled to occur.

34. All documents, plans, and reports required by this Order shall be submitted to Len Lindahl via email at llindahl@sfwmd.gov and Terrie Bates via email at tbates@sfwmd.gov.

35. Miscellaneous Conditions:

a. This Order authorizes FPL to take actions under Chapter 373, Fla. Stat., as provided herein. This Order does not relieve FPL from the requirements to obtain any other federal, state, or local authorizations.

b. This Order does not constitute a water use or right-of-way permit or grant any legal right to water as set forth in Chapter 373 Fla. Stat., and associated District rules and regulations over the water intercepted and stored under this Order.

c. This Order does not convey any property right to FPL, nor any rights and privileges other than those specified in this Order. This Order shall not be construed as an abandonment or any other such impairment or disposition of the District's property rights.

d. This Order shall not be construed as a substitute for, or waiver of, any right-of-way, surface water management, water use, or other permits required of FPL under the District's rules and regulations.

e. FPL shall insure that harmful impacts to the water resources, off-site land uses, or existing legal uses of water do not occur as a result of this Order. In the event such harmful impacts result from actions authorized by this Order, FPL shall implement all actions, as directed by the District, to cease such harmful impacts and, if necessary, to mitigate such impacts. Failure to comply with this requirement shall be considered a violation of this Order.

f. Failure to comply with the terms of this Order shall constitute a violation of a District Order under Chapter 373, Fla. Stat.; and enforcement proceedings may be brought in any appropriate administrative or judicial forum.

g. The District reserves the right to initiate appropriate legal action, to impose civil penalties, and collect attorney's fees and costs to enforce the terms of this Order.

h. This Order may be modified or amended at any time, as appropriate for the protection of the public health, safety, and welfare and the water resources of south Florida by the Governing Board, Executive Director, or Executive Director's designee.

i. The Executive Director or Executive Director's designee may require FPL to remove all or part of the authorized facilities and cease withdrawal and / or use activities under this Order at any time.

j. The District's immunity from liability under Section 373.443, Florida Statutes, for any damages that might result from the activities authorized under this Order, shall not be diminished by the terms of this Order, or any activities taken pursuant to this Order.

k. Failure to comply with the conditions contained within this Order shall constitute a violation of a District Order under Chapter 373, Florida Statutes, and enforcement proceedings may be brought in any appropriate administrative or judicial forum.

l. If the District petitions or sues for enforcement of the terms of this Order, the District reserves the right to initiate appropriate legal action, to impose civil penalties and collect attorney's fees and costs.

36. Termination: This Order shall terminate on the earliest of: (1) failure to receive Governing Board concurrence at their next regularly scheduled meeting, (2) October 15, 2014, or (3) at any time upon written notice from the District's Executive Director or the Executive Director's designee.

37. Required Facility Removal: Within 30 days of termination of this Order, FPL shall remove all temporary withdrawal facilities and associated infrastructure authorized by this Order, including the pipes buried under 344th Avenue. Moreover, FPL shall properly restore the right-of-way to the District's satisfaction. In the event of failure to so comply within the specified time, the District may remove the temporary withdrawal facilities and associated infrastructure authorized by this Order and associated equipment and FPL shall be responsible for all removal and restoration costs.

38. A Notice of Rights attached hereto as Exhibit F.

39. This Order shall take effect upon execution by the Executive Director of the District and shall expire as provided herein. This Order is subject to the Governing Board's concurrence at its next regularly scheduled Governing Board meeting.

DONE AND SO ORDERED in West Palm Beach, Florida, on this 28th day of August, 2014.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
By its Executive Director

Blake C. Guillory, P.E.
Executive Director

Attested:

District Clerk/Assistant Secretary
August 28, 2014

Legal Form Approved:

8/28/14
Elizabeth D. Ross, Esq.

Attachment F

RER-DERM Project Report

PROJECT REPORT
CLASS I PERMIT APPLICATION NO. CLI-2014-0312

Class I Permit Application by for Temporary Impacts to 0.24 Acres of Halophytic Wetlands at the Properties Identified by Folio Numbers 30-7029-001-0011, 30-7290-000-0010, and 30-7029-001-0012, Miami-Dade County, Florida

DATE: September 3, 2014

Staff's recommendation of approval for the above-referenced permit application is based on the applicable evaluation factors under Section 24-48.3 of the Code of Miami-Dade County, Florida. The following is a summary of the proposed project with respect to each applicable evaluation factor:

1. Potential Adverse Environmental Impact – The withdrawal of water from the L-31E Canal is a temporary event that may only occur through October 14, 2014, and will only be authorized when the amount of water available exceeds the water reservation required for Nearshore Central Biscayne Bay, as determined daily by the SFWMD. The SFWMD will evaluate real time data to confirm the previous day's discharge along with projected conditions for the next 24 hour period and calculate the volume of water that can be pumped. Those directions will be conveyed to FPL each day. If during the course of the day it appears the total discharge may not support the day's allocation based on real time flow monitoring, FPL will be directed to modify and/or cease all withdrawals for the remainder of the day to ensure the reservation allocation for Biscayne Bay is met. All pumps are required to be manned by pump operators on site 24 hours per day and each pump is equipped with an operable, remote pump operational device capable of starting or stopping the pump. FPL's operational plan will also require that they synchronize the volumes and rates of pumping to avoid dewatering of the adjacent wetlands. To further address potential hydrologic and water quality impacts, the applicant will implement a monitoring program as required through the Class I permit conditions.

   The direct physical impacts associated with the construction of the proposed project will result in temporary impacts to approximately 0.24 acres of halophytic wetlands. However, these impacts have been minimized to the maximum extent practicable. All pipes and associated equipment will be required to be removed from the wetlands by November 14, 2014. In addition, the applicant will restore the impacted area by re-grading if necessary and planting of native species. Mitigation for the temporary impacts to halophytic wetlands will be satisfied through the purchase of 0.084 mitigation credits from the Florida Power and Light Company Everglades Mitigation Bank (EMB). The wetland restoration and enhancement projects conducted within the EMB have enhanced the properties in the South Dade Wetland Basin by removing exotic vegetation, replanting with native species, restoring filled areas to natural wetland grade and implementing a fire management program. Federal, State and local regulatory permits issued for the EMB require monitoring and maintenance of the EMB in perpetuity.

   The proposed project site is not located within an area designated as essential manatee habitat for the *Trichechus manatus* (West Indian Manatee) by the Miami-Dade County Manatee Protection Plan (MPP). However, the Class I permit will require that all standard construction permit conditions regarding manatees be followed during all in-water operations.

2. Potential Cumulative Adverse Environmental Impact – The proposed project is for the temporary withdrawal of water that will be conditionally authorized based on real time flow monitoring, and therefore is not reasonably expected to result in cumulative adverse environmental impact.

3. Hydrology - The proposed project is for the temporary withdrawal of water that will be conditionally authorized based on real time flow monitoring, and therefore is not reasonably expected to adversely affect surface water drainage or retention of stormwater, as set forth in Number 1 above.

4. Water Quality – The proposed project is not reasonably expected to adversely affect water quality, and the Class I permit will require that water quality monitoring be implemented and reported weekly. All pumps are required to be manned by pump operators on site 24 hours per day and each pump is equipped with an operable, remote pump operational device capable of starting or stopping the pump. Proper turbidity controls will be required to be implemented to ensure turbidity levels do not exceed State and County water quality standards.

5. Wellfields – The proposed project is for the temporary withdrawal of water that will be conditionally authorized based on real time flow monitoring, and therefore is not reasonably expected to adversely affect wellfields, as set forth in Number 1 above.

6. Water Supply – The proposed project is for the temporary withdrawal of water that will be conditionally authorized based on real time flow monitoring, and therefore is not reasonably expected to adversely affect water supply, as set forth in Number 1 above.

7. Aquifer Recharge – The proposed project is for the temporary withdrawal of water that will be conditionally authorized based on real time flow monitoring, and therefore is not reasonably expected to adversely affect aquifer recharge, as set forth in Number 1 above.

8. Aesthetics – The proposed project is not reasonably expected to adversely affect aesthetics.

9. Navigation – The proposed project is not reasonably expected to adversely affect navigation.

10. Public Health - The proposed project is not reasonably expected to adversely affect public health.

11. Historic Values - The proposed project is not reasonably expected to adversely affect historic values.

12. Archaeological Values - The proposed project is not reasonably expected to adversely affect archaeological values.

13. Air Quality – The proposed project is not reasonably expected to adversely affect air quality.

14. Marine and Wildlife Habitats – The proposed project not reasonably expected to adversely affect marine and wildlife habitats, unavoidable impacts have been minimized and will be mitigated as set forth in Number 1 above.

15. Wetland Soils Suitable for Habitat – The proposed project not reasonably expected to adversely affect wetland soils suitable for habitat, and does not include excavation or filling of wetlands; unavoidable impacts have been minimized and will be mitigated as set forth in Number 1 above.

16. Floral Values – The proposed project will result in temporary impacts to 0.24 acres of halophytic wetlands; however, impacts to floral values have been minimized and will be mitigated as set forth in Number 1 above.

17. Fauna Values – The proposed project is not reasonably expected to impact fauna values.

18. Rare, Threatened and Endangered Species – The proposed project site has the potential to be utilized by the *Crocodylus acutus* (American Crocodile) and the West Indian Manatee. However, the proposed project is not reasonably expected to adversely affect these species, and the Class I permit will require that standard construction conditions for manatees be implemented during all in-water work. The project is not located within critical habitat for *Halophila johnsonii* (Johnson's seagrass), a Federally Listed Threatened Species, and Johnson's seagrass was not documented within the proposed project area.

19. Natural Flood Damage Protection - The proposed project is not reasonably expected to adversely affect surface water drainage or retention of stormwater.

20. Wetland Values – The proposed project will result in temporary impacts to 0.24 acres of halophytic wetlands; however, impacts have been minimized and will be mitigated as set forth in Number 1 above.

21. Land Use Classification – Pursuant to Section 24-48.2(II)(B)(7), of the Code of Miami-Dade County, Florida, a substantiating letter was submitted stating that the proposed project does not violate any zoning laws.

22. Recreation - The proposed project does not conflict with the recreation element of the Miami-Dade County Comprehensive Development Master Plan.

23. Other Environmental Values Affecting the Public Interest – The proposed project is not reasonably expected to adversely affect other environmental values affecting the public interest, as set forth in Number 1 above. The proposed project and associated mitigation will occur on lands owned by Florida Power and Light Company, Miami-Dade County, and the State of Florida. Both Miami-Dade County and the State of Florida have provided authorization for the use of their lands for the proposed project.

24. Conformance with Standard Construction Procedures and Practices and Design and Performance Standards – The proposed project complies with the standard construction procedures and practices and design and performance standards of the applicable portions of the following:
    a) Chapter 24 of the Code of Miami-Dade County
    b) Chapter 33B of the Code of Miami-Dade County

25. Comprehensive Environmental Impact Statement (CEIS) - In the opinion of the Director, the proposed project is not reasonably expected to result in significant adverse environmental impacts or cumulative adverse environmental impacts as set forth in Numbers 1 and 2 above. Therefore, a CEIS was not required by RER-DERM to evaluate the project.

26. Conformance with All Applicable Federal, State and Local Laws and Regulations - The proposed project is in conformance with applicable State, Federal and local laws and regulations:
    a) United States Clean Water Act (US Army Corps of Engineers authorization is required)
    b) South Florida Water Management District (authorization is required)

27. Conformance with the Miami-Dade County Comprehensive Development Master Plan (CDMP) - In the opinion of the Director, the proposed project is in conformance with the CDMP. The following is a summary of the proposed project as it relates to the CDMP:

LAND USE ELEMENT I:

Objective 3/Policies 3A, 3B, 3C - Protection of natural resources and systems. – The proposed project is for the temporary withdrawal of water that will be conditionally authorized based on real time flow monitoring, and therefore is consistent with the Conservation and Coastal Management Elements of the CDMP. The proposed project is compatible with surrounding land uses in Biscayne Bay and does not involve development in the Big Cypress area of Critical State concern or the East Everglades.

TRANSPORTATION ELEMENT II

Aviation Subelement/Objective AV-5A - Aviation System Expansion - There is no aviation element to the proposed project.

Port of Miami River Subelement/Objective 3 - Minimization of impacts to estuarine water quality and marine resources. The proposed project is not located within the Miami River.

CONSERVATION, AQUIFER RECHARGES AND DRAINAGE ELEMENT IV:

Objective 3/Policies 3A, 3B, 3D - Wellfield protection area protection. - The proposed project is not reasonably expected to compromise wellfield protection, as set forth in Numbers 1 and 2 above.

Objective 3/Policy 3E - Limestone mining within the area bounded by the Florida Turnpike, the Miami-Dade/ Broward Levee, NW 12 Street and Okeechobee Road. - The proposed project is not located within this area.

Objective 4/Policies 4A, 4B, 4C - Water storage, aquifer recharge potential and maintenance of natural surface water drainage. - The proposed project is not reasonably expected to adversely affect water storage, aquifer recharge potential or natural surface water drainage, as set forth in Numbers 1 and 2 above.

Objective 5/Policies 5A, 5B, 5F - Flood protection and cut and fill criteria – The proposed project is not reasonably expected to compromise flood protection.

Objective 6/Policy 6A - Areas of highest suitability for mineral extraction. - The proposed project is not located in an area proposed or suitable for mineral extraction.

Objective 6/Policy 6B - Guidelines for rock quarries for the re-establishment of native flora and fauna. - The proposed project is not located in a rock quarry.

Objective 7/Policies 7A, 7C, 7D, 7J – Wetland protection and restoration. – The proposed project is not reasonably expected to compromise wetland protection or restoration, as set forth in Numbers 1 and 2 above.

Objective 9/Policies 9A, 9B, 9C - Protection of habitat critical to Federal or State-designated threatened or endangered species. – The proposed project is not reasonably expected to adversely affect habitat critical to Federal or State-designated threatened or endangered species, as set forth in Number 18 above.

COASTAL MANAGEMENT ELEMENT VII:

Objective 1/Policy 1A - Tidally connected mangroves in mangrove protection areas – The proposed project is located within a designated "Mangrove Protection Area," and is consistent with the criteria for work within a "Mangrove Protection Area."

Objective 1/ Policy 1B - Natural surface flow into and through coastal wetlands. – The proposed project is not reasonably expected to compromise natural surface flow into and through coastal wetlands, as set forth in Numbers 1 and 2 above.

Objective 1/ Policy 1C - Elevated boardwalk access through mangroves. – The proposed project does not involve a boardwalk through mangroves.

Objective 1/Policy 1D - Protection and maintenance of mangrove forests and related natural vegetational communities. - The proposed project will result in temporary impacts to 0.24 acres of wetlands; however, the impacts have been minimized and will be mitigated as set forth in Number 1 above.

Objective 1/Policy 1E - Mitigation for the degradation and destruction of coastal wetlands. Monitoring and maintenance of mitigation areas. – The applicant will restore the impacted area by re-grading if necessary, planting of native species and monitoring. Mitigation for the temporary impacts to halophytic wetlands will be satisfied through the purchase of 0.084 mitigation credits from the EMB. The wetland restoration and enhancement projects conducted within the EMB have enhanced the properties in the South Dade Wetland Basin by removing exotic vegetation, replanting with native species, restoring filled areas to natural wetland grade and implementing a fire management program. Federal, State and local regulatory permits issued for the EMB require monitoring and maintenance of the EMB in perpetuity.

Objective 1/Policy 1G - Prohibition on dredging or filling of grass/algal flats, hard bottom or other viable benthic communities, except as provided for in Chapter 24 of the Code of Miami-Dade County, Florida. – The proposed project does not involve dredging or filling of grass/algal flats, hard bottom, or other viable benthic communities.

Objective 2/Policies 2A, 2B - Beach restoration and renourishment objectives. - The proposed project does not involve beach restoration or renourishment.

Objective 3/Policies 3E, 3F - Location of new cut and spoil areas for proper stabilization and minimization of damages. - The proposed project does not involve the development or identification of new cut or spoil areas.

Objective 4/Policy 4A, 4C, 4E, 4F – Protection of endangered or threatened animal species - The proposed project is not reasonably expected to affect endangered or threatened animal species, as set forth in Number 18 above.

Objective 5/Policy 5B - Existing and new areas for water-dependent uses. - The proposed project does not involve a new water-dependent use.

Objective 5/Policy 5D - Consistency with Chapter 33D, Miami-Dade County Code (shoreline access, environmental compatibility of shoreline development) – The proposed project is not located within the Shoreline Development Review Boundaries; therefore, the proposed project is not subject to shoreline development review.

Objective 5/Policy 5F - The siting of water dependent facilities. - The proposed project does not involve the creation of any new water dependent facilities.

28. Conformance with Chapter 33B, Code of Miami-Dade County (East Everglades Zoning Overlay Ordinance) – The proposed project is consistent with Chapter 33B, Code of Miami-Dade County.

29. Conformance with Miami-Dade County Ordinance 81-19 (Biscayne Bay Management Plan Sections 33D-1 through 33D-4 of the Code of Miami-Dade County) - The proposed project is consistent with the Biscayne Bay Management Plan as specified in Numbers 1 and 2 above.

30. Conformance with the Miami-Dade County Manatee Protection Plan - The proposed project was evaluated for consistency with the MPP, as set forth in Number 1 above.

31. Consistency with Miami-Dade County Criteria for Lake Excavation – The project does not involve lake excavation.

32. Municipality Recommendation – Pursuant to Section 24-48.2(II)(B)(7), Code of Miami-Dade County, a substantiating letter was submitted stating that the proposed project does not violate any zoning laws.

33. Coastal Resources Management Line - A coastal resources management line was not required for the proposed project, pursuant to Section 24-48.2(II)(B)(10)(b) of the Code of Miami-Dade County.

34. Maximum Protection of a Wetland's Hydrological and Biological Functions – The proposed project will result in temporary impacts to 0.24 acres of wetlands; however, the impacts have been minimized and will be mitigated, and potential impacts to adjacent wetlands have been evaluated as specified in Numbers 1 and 2 above.

35. Class I Permit Applications Proposing to Exceed the Boundaries Described in Section D-5.03(2)(a) of the Miami-Dade County Public Works Manual Class I Permit Applications Proposing to Exceed the Boundaries Described in Section D-5.03(2)(a) of the Miami-Dade County Public Works Manual – Not Applicable

The proposed project was also evaluated for compliance with the standards contained in Sections 24-48.3(2),(3), and (4) of the Code of Miami-Dade County, Florida. The following is a summary of how the standards relate to the proposed project:

24-48.3 (2) Dredging and Filling for Class I Permit – Not Applicable

24-48.3 (3) Minimum Water Depth Required for Boat Slips Created by the Construction or Placement of Fixed or Floating Docks and Piers, Piles and Other Structures Requiring a Permit Under Article IV, Division 1 of Chapter 24 of the Code of Miami-Dade County – Not Applicable

24-48.3 (4) Clean Fill in Wetlands – Not Applicable

BASED ON THE FOREGOING, IT IS RECOMMENDED THAT A CLASS I PERMIT BE APPROVED.

Lisa Spadafina, Chief, Natural Resources Division

Christine Hopps, ERPS, Coastal and Wetlands Resources Section