Memorandum

MIAMI-DADE COUNTY

Date: October 5, 2010

To: Honorable Chairman Dennis C. Moss
and Members, Board of County Commissioners

Agenda Item No. 5(D)

From: George M. Burgess
County Manager

Subject: Resolution Relating to an Application by Florida Gas Transmission Company, LLC for a Class I Permit to Authorize the Filling of Wetlands for the Construction of a Natural Gas Pipeline upon the Properties Owned by Florida Power and Light Company Identified by the Following Folio Numbers: 30-6029-000-0330, 30-6032-000-0090, 30-7005-000-0080, 30-7008-000-0060, and 30-7017-001-0010 in Miami-Dade County

---

Attached, please find for your consideration an application by Florida Gas Transmission Company, LLC for a Class I permit. Also attached is the recommendation of the Director of the Department of Environmental Resources Management and a proposed resolution approving the issuance of the Class I permit.

Assistant County Manager

Memorandum

MIAMI-DADE COUNTY

Date: September 22, 2010

To: George M. Burgess
County Manager

From: Carlos Espinosa, P.E., Director
Environmental Resources Management

Subject: Class I Permit Application by Florida Gas Transmission Company, LLC to Authorize the Filling of Wetlands for the Construction of a Natural Gas Pipeline upon the Properties Owned by Florida Power and Light Company Identified by the Following Folio Numbers: 30-6029-000-0330, 30-6032-000-0090, 30-7005-000-0080, 30-7008-000-0060, and 30-7017-001-0010 in Miami-Dade County

---

Recommendation

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

Scope

The project site is located between the intersection of the Black Creek Canal and Old Cutler Road extending south to the C-103 Canal, Miami-Dade County, in Commission District 9. A Project Location Map is included in Attachment B.

Fiscal Impact/Funding Source

Not applicable.

Track Record/Monitor

Not applicable.

Background

Florida Gas Transmission Company, LLC (FGT) is proposing to expand its existing interstate natural gas pipeline which originates in Texas and traverses much of Florida. The proposed expansion involves construction of several hundred miles of pipeline and associated support facilities throughout the State of Florida.

The subject Class I permit application requests authorization to fill wetlands supporting halophytic vegetation (salt tolerant) for the construction of a gas pipeline ("Loop 11") from the intersection of Black Creek Canal and Old Cutler Road south to the C-103 Canal (SW 320 St) in Miami-Dade County. The Loop 11 pipeline will expand the existing pipeline system to increase the natural gas delivery capacity to the FP&L Turkey Point Power Plant. The proposed project is required to be reviewed and approved by the Board at a public hearing because the scope of work is not specifically referenced in Section 24-48.2 of the Code as work that can be processed administratively with a short form application. Therefore, a standard form application including a public hearing is required.

Section 24-48.2 of the Code of Miami-Dade County requires evidence of ownership or a lease of the wetlands upon which work is proposed as part of a Class I permit application. Therefore, this application only involves work upon properties which the applicant has provided the ownership documentation necessary for processing of the Class I application. If approved, the Class I permit will only authorize work in areas where the applicant has obtained the necessary authorization from the property owner. The applicant is currently negotiating with additional landowners to obtain permanent utility easements for construction and operation of remaining portions of the proposed pipeline. Upon receiving additional property owner authorization

for the remaining portions of the pipeline, the applicant intends to seek modification of the Class I permit to authorize the work in those areas pursuant to Section 24-48.13(2) of the Code, which reads as follows:

> *"Modification(s) to a permit issued for work hereunder must be approved by the Department. If, in the opinion of the Director, the proposed modification(s) will result in a substantial change to the project, said modification(s) shall be subject to a public hearing before the Board of County Commissioners."*

The proposed Loop 11 pipeline will consist of a 24-inch diameter pipe extending along 36,755 linear feet (approximately 7 miles) of upland and wetland areas. Wetland impacts associated with construction activities consist of clearing, grading, and open trenching for the installation of the pipe. The construction of the pipeline will temporarily impact approximately 27 acres of wetlands. In addition, minor secondary temporary impacts to 199 acres of wetlands are expected as a result of dewatering activities during the pipeline installation. In order to minimize adverse environmental impacts to natural resources, the applicant has reduced the width of the right-of-way needed to accommodate the equipment necessary for the pipe installation. Additionally, the applicant has incorporated Horizontal Directional Drilling in high quality wetland areas and canal crossings along 1.6 miles of the proposed pipeline. Following construction, the wetlands along the project pathway will be restored and the applicant will be required to monitor and maintain the wetland areas to ensure the wetlands are kept free of exotic plant species in perpetuity. Compensatory wetland mitigation for temporary and secondary impacts associated with the project will be satisfied through the purchase of 0.9 forested wetland mitigation credits and 4.1 saltwater mitigation credits from the Florida Power & Light Company's Everglades Mitigation Bank (EMB). The wetland restoration and enhancement projects conducted within the EMB have enhanced property 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.

The proposed project complies with Section 24-48.3(2) of the Code related to the criteria for the minimum dredging and spoiling for public necessity. The project has been designed in accordance with all relevant Miami-Dade County coastal and wetland construction criteria and is consistent with all other Miami-Dade County coastal and wetland protection provisions. Please find attached a DERM Project Report which sets forth the reasons the proposed project is recommended for approval by DERM 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: Names and Addresses of Owners of All Riparian or Wetland Property within Three Hundred (300) Feet of the Proposed Work
Attachment E: Construction Methodology, Turbidity Control Measures, Wetland Mitigation, Monitoring, and Maintenance Plan
Attachment F: HDD Contingency Plan
Attachment G: DERM Project Report

NOTICE OF PUBLIC HEARING ON AN APPLICATION BY FLORIDA GAS TRANSMISSION COMPANY, LLC FOR A CLASS I PERMIT TO AUTHORIZE THE FILLING OF WETLANDS FOR THE CONSTRUCTION OF A NATURAL GAS PIPELINE UPON THE PROPERTIES OWNED BY FLORIDA POWER AND LIGHT COMPANY IDENTIFIED BY THE FOLLOWING FOLIO NUMBERS: 30-6029-000-0330, 30-6032-000-0090, 30-7005-000-0080, 30-7008-000-0060, and 30-7017-001-0010 IN MIAMI-DADE COUNTY, FLORIDA

BOARD OF COUNTY COMMISSIONERS
MIAMI-DADE COUNTY, FLORIDA

NOTICE IS HEREBY GIVEN pursuant to Article IV, Division 1 of Chapter 24 of the Code of Miami-Dade County that the Board of County Commissioners of Miami-Dade County will hold and conduct a public hearing on a request by Florida Gas Transmission Company, LLC for a Class I permit to authorize the filling of wetlands for the construction of a natural gas pipeline to occur upon the properties owned by Florida Power and Light Company identified by the following folio numbers: 30-6029-000-0330, 30-6032-000-0090, 30-7005-000-0080, 30-7008-000-0060, and 30-7017-001-0010 in Miami-Dade County, Florida. Such public hearing will be held on the 5th day of October 2010 at 9:30 AM in the County Commission Chambers on the 2nd Floor of the Stephen P. Clark Center at 111 NW 1st Street in Miami, Florida.

Plans and details concerning the work requested in the application may be reviewed by interested persons at the office of the Miami-Dade County Department of Environmental Resources Management, 6th Floor, 701 NW 1st Court, Miami, Florida 33136.

Oral statements will be heard and appropriate records made. For accuracy of records, all important facts and arguments should be prepared in writing in triplicate, with two copies being submitted to the Deputy Clerk of the County Commission at the hearing or mailed to her beforehand (Diane Collins, Deputy Clerk), 111 NW 1st Street, Stephen P. Clark Center, Suite 17-202, Miami, Florida 33128; and with one copy being submitted beforehand to the Miami-Dade County Department of Environmental Resources Management, 701 NW 1st Court, Miami, Florida 33136.

A person who decides to appeal any decision made by any Board, Agency, or Commission with respect to any matter considered at its meeting or hearing, will need a record of proceedings. Such person may need to ensure that a verbatim record of the proceedings is made, including the testimony and evidence upon which the appeal is to be based.

BOARD OF COUNTY
COMMISSIONERS
MIAMI-DADE COUNTY, FLORIDA

HARVEY RUVIN, CLERK

BY: _____
Diane Collins, Deputy Clerk

MEMORANDUM

(Revised)

TO: Honorable Chairman Dennis C. Moss and Members, Board of County Commissioners

DATE: October 5, 2010

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

SUBJECT: Agenda Item No. 5(D)

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 Manager'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(D)
10-5-10

RESOLUTION NO. _____

RESOLUTION RELATING TO AN APPLICATION BY FLORIDA GAS TRANSMISSION COMPANY, LLC FOR A CLASS I PERMIT TO AUTHORIZE THE FILLING OF WETLANDS FOR THE CONSTRUCTION OF A NATURAL GAS PIPELINE UPON THE PROPERTIES OWNED BY FLORIDA POWER AND LIGHT COMPANY IDENTIFIED BY THE FOLLOWING FOLIO NUMBERS: 30-6029-000-0330, 30-6032-000-0090, 30-7005-000-0080, 30-7008-000-0060, and 30-7017-001-0010 IN 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 application by Florida Gas Transmission Company, LLC for a Class I permit to authorize the filling of wetlands for the construction of a natural gas pipeline upon the properties owned by Florida Power and Light Company identified by the following folio numbers: 30-6029-000-0330, 30-6032-000-0090, 30-7005-000-0080, 30-7008-000-0060, and 30-7017-001-0010 in Miami-Dade County, Florida, subject to the conditions set forth in the memorandum from the Director of the Miami-Dade County Department of Environmental Resources Management, 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 , who moved its adoption. The motion was seconded by Commissioner and upon being put to a vote, the vote was as follows:

Dennis C. Moss, Chairman
Jose "Pepe" Diaz, Vice-Chairman

Bruno A. Barreiro	Audrey M. Edmonson
Carlos A. Gimenez	Sally A. Heyman
Barbara J. Jordan	Joe A. Martinez
Dorrin D. Rolle	Natacha Seijas
Katy Sorenson	Rebeca Sosa
Sen. Javier D. Souto	

The Chairperson thereupon declared the resolution duly passed and adopted this 5th day of October 2010. This resolution shall become effective 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.

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

HARVEY RUVIN, CLERK

By: _____
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.

Peter S. Tell

Attachment A

Class I Permit Application

MIAMI-DADE COUNTY

Class I Permit Application

FOR DEPARTMENTAL USE ONLY

Date Received:	Application Number: 2010-CLI-PER-00044
	Application Fee: $28,750.00

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

1. Applicant Information:

Name: Florida Gas Transmission Company, LLC

Address: 5444 Westheimer Road

Huston, Texas Zip Code: 77056

Phone #: (713) 989-2630 Fax#: (713) 989-1130

Email: _____

* 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 relating 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): See Exhibit A Latitude: _____ Longitude: _____

Street Address: _____ Section: _____ Township: _____ Range: _____

In City or Town: _____ Near City or Town: _____

Name of waterway at location of the activity: Atlantic Ocean

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: Filling of wetlands supporting halophytic vegetation for the construction of a 24,450-foot long natural gas pipeline.

Estimated project cost = $ 1,000,000.00

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): N/A

Vessel Make/Model (If known): N/A

Draft (s)(range in inches.): N/A Length (s)(range in feet.): N/A

Total Number of Slips: N/A

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
FDEP	ERP	43-0293015-001	11/14/2008	02-12-2010

8. Contractor Information (If known):

Name: To Be Determined 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 Gas Transmission Company, LLC | LLC | Texas

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. ***

Robert O. Bond | Manager LLC | September 21, 2010

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) Registration/Incorporation | Type (Corp, LLC, LLP, etc.) | State of

_____ _____ _____

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

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 Exhibit A. Miami-Dade County, Florida, otherwise identified in the public records of Miami-Dade County as Folio No. _____. 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 & 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 Blvd. Juno Beach, FL. 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	Randall R. LaBauve	Vice President,	12/18/09
	Print Authorized Representative's Name	Title ENVIRONMENTAL SERVICES	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

RECEIVED
JAN 20 2010
DERM
Environmental Resources Regulation Division

Revised 11/16/09

11

"EXHIBIT A"

Folio No. 3060290000330

29 56 40 49.907 AC N1/4 OF S1/2 OF SW1/4 & S1/2 OF SE1/4 LESS BEG SW COR OF S1/2 OF SE1/4 N1036.06FT E2313.94FT S 706.64FT W305.17FT S330FT W2028.13FT TO POB

Folio No. 3060320000090

32 56 40 38.50 AC M/L W330FT OF E360FT OF SEC LESS C-102-1 CANAL R/W

Folio No. 3070050000080

5 57 40 39.43 AC W330FT OF E360FT OF SECTION LOT SIZE IRREGULAR

Folio No. 3070080000060

8 57 40 133.66 AC S1/4 LESS W1800FT OF E2310FT & W330FT OF E360FT OF N3/4

Folio No. 3070170010010

17 57 40 310.61 AC MIAMI LAND & DEV CO SUB PB 5-10 ALL OF N1/2 OF N1/2 OF SEC & LOTS 14 THRU 27 BLK 1 & LOTS 14 THRU 27 BLK 2 & LOTS 1 THRU 12 & LOT 28 BLK 3 & LOTS 1 THRU 20 & LOT

Attachment B

Owner/Agent Letter, Engineer Certification Letter and Project Sketches

PERMIT APPLICANT / AUTHORIZED AGENT STATEMENT

September 21, 2010

To:
Miami Dade County DERM
Class I Permitting Program
701 NW 1st Court
Miami FL, 33136

Re: Class I Standard Form Permit Application Number 2009-CLI-PER-00223

By the attached Class I Standard Form permit application with supporting documents, I, Mr. Robert O. Bond, Manager, Florida Gas Transmission Line, LLC, am the permit applicant and hereby request permission to perform the work associated with Class I permit application 2009-CLI-PER-00223. 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 registered/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 of Environmental Resources Management. The permit applicant will secure the services of an engineer registered/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,

Mr. Robert O. Bond
Manager
Florida Gas Transmission Line, LLC.
Applicant's Authorized Permit Agent

Sprinkle
CONSULTING

Planners+Engineers
Landscape Architects

LC26000281

ENGINEER LETTER OF CERTIFICATION

August 19, 2010

Miami-Dade County DERM
Class I Permitting Program
701 NW 1st Court
Miami, Florida 33136

Re: Class I Permit Application Number 2009-CLI-PER-00223

Ladies and Gentlemen:

This letter will certify that I am an engineer registered/licensed in the State of Florida, qualified by education and experience in the area of construction, and that to the best of my knowledge and belief, the proposed work does not violate any laws of the State of Florida or any provision 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 process for 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, drawings, and other data furnished by the contractor to me

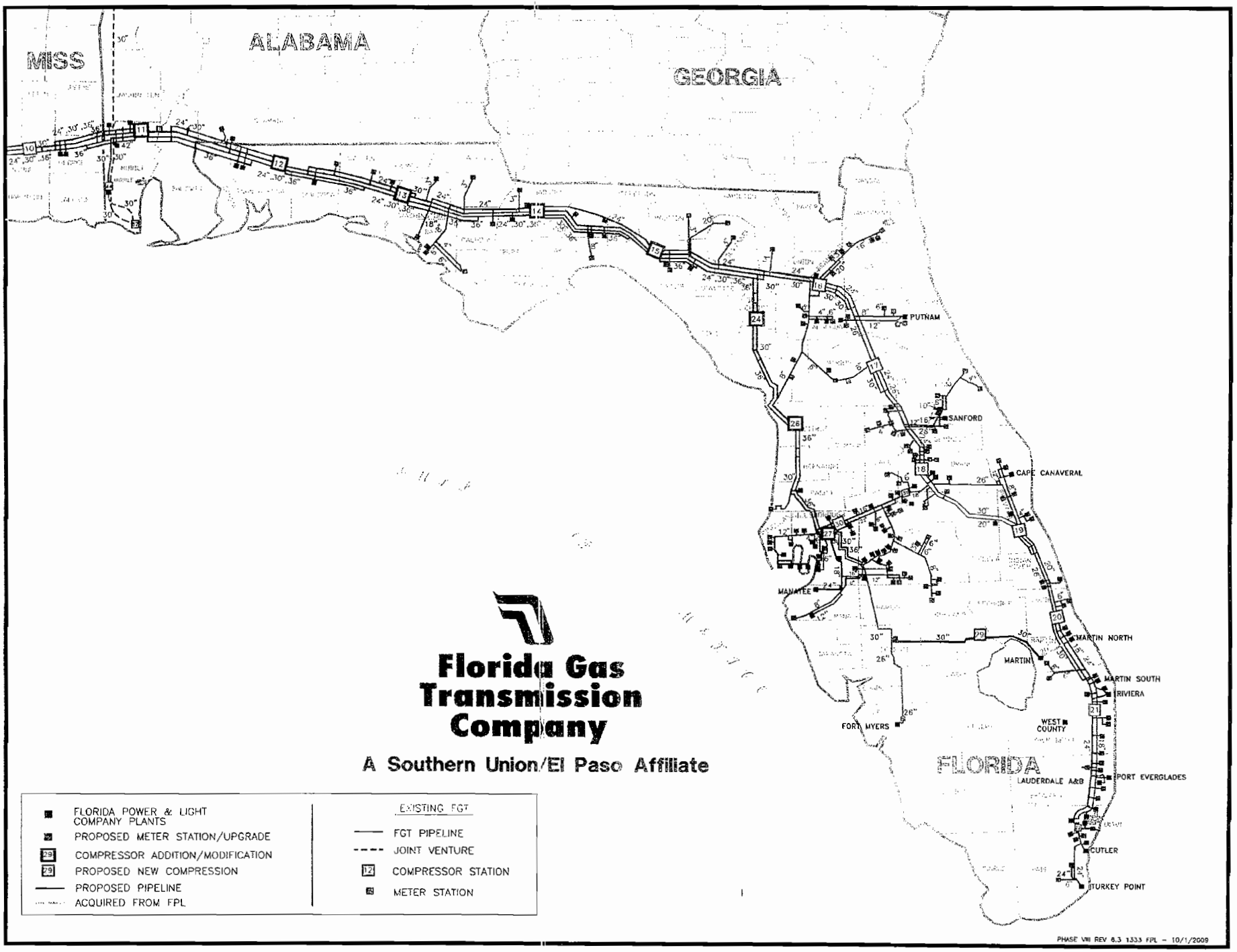
Sincerely,

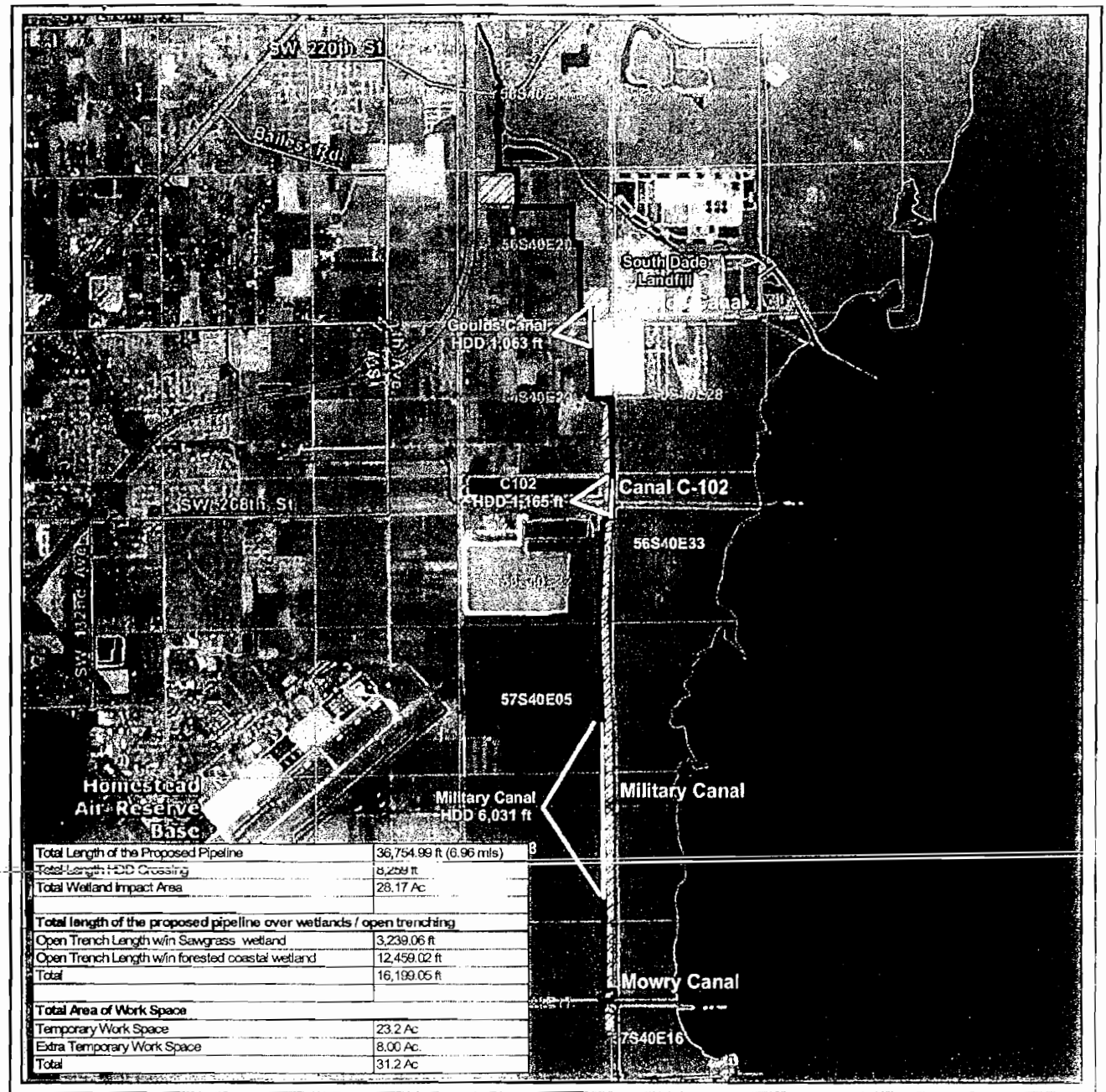
BRUCE H. MCARTHUR LICENSE No 41119 STATE OF FLORIDA PROFESSIONAL ENGINEER

Bruce H. McArthur, P.E.
P.E. # 41119

RECEIVED
AUG 20 2010
DERM Coastal Resources Section
Natural Resources Regulation & Restoration
Division (NRRRD)

Sprinkle Consulting, Inc., 18115 U.S. Highway 41 North, Suite 600, Lutz, Florida 33549
P (813) 949-7449 F (813) 948-1712 • www.sprinkleconsulting.com


MISS
ALABAMA
GEORGIA
FLORIDA
PUTNAM
SANFORD
CAPE CANAVERAL
MANATEE
FORT MYERS
MARTIN
MARTIN NORTH
MARTIN SOUTH
RIVIERA
WEST COUNTY
LAUDERDALE A&B
PORT EVERGLADES
CUTLER
TURKEY POINT
Florida Gas Transmission Company
A Southern Union/El Paso Affiliate
FLORIDA POWER & LIGHT COMPANY PLANTS
PROPOSED METER STATION/UPGRADE
COMPRESSOR ADDITION/MODIFICATION
PROPOSED NEW COMPRESSION
PROPOSED PIPELINE
ACQUIRED FROM FPL
EXISTING FGT
FGT PIPELINE
JOINT VENTURE
COMPRESSOR STATION
METER STATION
PHASE VIII REV 6.3 1333 FPL - 10/1/2009



Total Length of the Proposed Pipeline	36,754.99 ft (6.96 mls)
Total Length HDD Crossing	8,259 ft
Total Wetland Impact Area	28.17 Ac
Total length of the proposed pipeline over wetlands / open trenching	
Open Trench Length w/in Sawgrass wetland	3,239.06 ft
Open Trench Length w/in forested coastal wetland	12,459.02 ft
Total	16,199.05 ft
Total Area of Work Space	
Temporary Work Space	23.2 Ac
Extra Temporary Work Space	8.00 Ac.
Total	31.2 Ac

Project Location Map
Miami-Dade County

Loop 11
FGT Phase VII

Florida Gas Transmission Company

Wetland

Directional Drill

Contruction Footprint

Overall Map

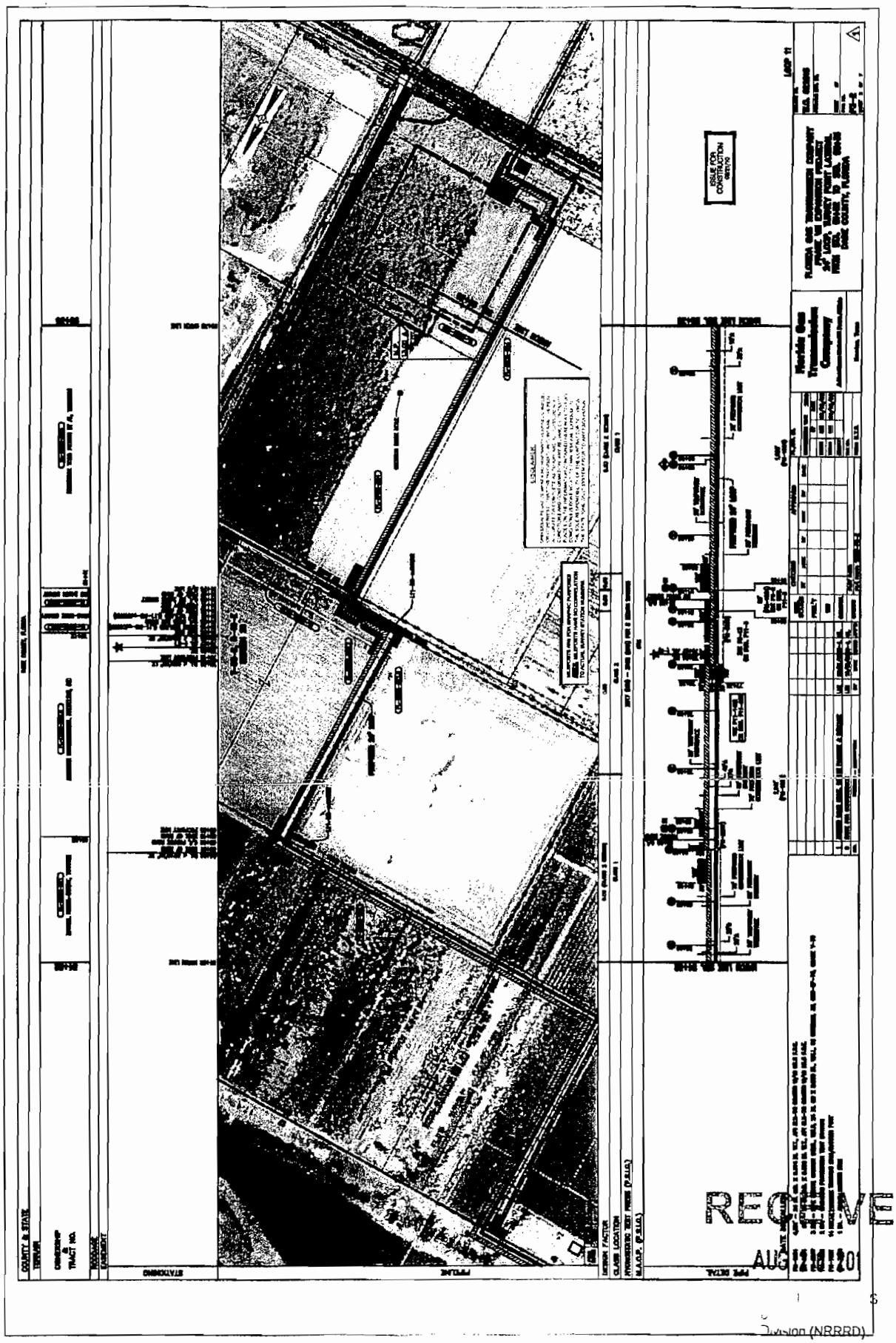
5,000 Feet

Exhibit Date: 08/16/2016

RECEIVED
AUG 29 2016

17

RECEIVED
AUG 13 2010
DCRM Coastal Resources Section
Natural Resources Regulation & Restoration
Division (NRRRD)



RECEIVE
AUG 2 2001
Division (NRRRD)

RECEIVED
AUG 20 2010
DEP/M Coastal Resources Section
Natural Resources Regulation & Restoration
Division (NR...

RECEIVED
AUG 20 2010
DERM Coastal Resources Sec

RECEIVED
AUG 20 2018

RECEIVED
AUG 20 2010
Coastal Resources Section
Resources Regulation & Restoration
Division (NRRRD)

RECEIVED

AUG 2 0 2010

DERM Coastal Resources Section
Natural Resources Regulation & Restoration

Attachment C

Zoning Memorandum

Memorandum

MIAMI-DADE COUNTY

Date: September 21, 2010

To: Lisa Spadafina, Manager
Coastal Resources Section
Environmental Resources Management

From: Nicole Fresard, Biologist II
Coastal Resources Section
Environmental Resources Management

Subject: Class I Permit Application by Florida Gas Transmission Company, LLC to Authorize the Filling of Wetlands for the Construction of a Natural Gas Pipeline Upon the Properties Owned by Florida Power and Light Company Identified by the Following Folio Numbers: 30-6029-000-0330, 30-6032-000-0090, 30-7005-000-0080, 30-7008-000-0060, and 30-7017-001-0010 in Miami-Dade County

---

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

Attachment D

Names and Addresses of Owners of All Riparian Property within Three Hundred (300) Feet of the Proposed Work

FLORIDA GAS TRANSMISSION
PHASE VIII EXPANSION PROJECT
Loop 11 - Online Tracts
(Revised for Direct Wetland Impacts)

Tract Number	Tax ID	Last Name	First Name	Address	Address Line 2	City	Zip Code	State
FL-DADE-000.5WS	30-6017-000-0011	South Florida Water Management District f/k/a Central & Southern Florida Flood Control District		P. O. Box 1671 Control District		West Palm Beach	21242	FL
FL-DADE-001	30-6017-000-0011	South Florida Water Management District f/k/a Central & Southern Florida Flood Control District.		P.O. Box 1671 Control District		West Palm Beach	21242	FL
FL-DADE-001R		Old Cutler Road		Old Culter Road				
FL-DADE-002	30-6017-023-0160	Florida Gas Transmission Company		5444 Westheimer Road		Houston	77056	TX
FL-DADE-002.5WS	30-6017-023-0150	Quail Hunter Trail, LLC		c/o Guillermo Carillo & Jose Milan-Agent	15100 NW 67 Avenue, Suite 210	Miami Lakes	33014	FL
FL-DADE-003R		VHF-Enclave, LLC		1450 Infinite Drive	Suite E2	Louisville	80027	CO
FL-DADE-004WS	30-6017-023-0220	Quail Hunter Trail LLC		c/o Guillermo Carillo & Jose Milan-Agent	15100 NW 67 Avenue, Suite 210	Miami Lakes	33014	FL
FL-DADE-005WS	30-6017-023-0230	Quail Hunter Trail LLC		c/o Guillermo Carillo & Jose Milan-Agent	15100 NW 67 Avenue, Suite 210	Miami Lakes	33014	FL
FL-DADE-006WS	30-6017-023-0760	Quail Hunter Trail LLC		c/o Guillermo Carillo & Jose Milan-Agent	15100 NW 67 Avenue, Suite 210	Miami Lakes	33014	FL
FL-DADE-007WS	30-6017-023-0770	Quail Hunter Trail LLC		c/o Guillermo Carillo & Jose Milan-Agent	15100 NW 67 Avenue, Suite 210	Miami Lakes	33014	FL
FL-DADE-008	30-6017-023-2430	Enclave at Blackpoint Marina Community Development District		c/o Paul Winkeljohn or Richard Hans	5701 N Pine Island Road # 370	Ft. Lauderdale	33321	FL
FL-DADE-012	30-6017-023-1020	Florida Gas Transmission Company		5444 Westheimer Road		Houston	77056	TX
FL-DADE-013	30-6017-023-1030	Florida Gas Transmission Company		5444 Westheimer Road		Houston	77056	TX
FL-DADE-014	30-6017-023-1040	Florida Gas Transmission Company		5444 Westheimer Road		Houston	77056	TX
FL-DADE-015	30-6017-023-1050	Florida Gas Transmission Company		5444 Westheimer Road		Houston	77056	TX
FL-DADE-016	30-6017-023-1060	Florida Gas Transmission Company		5444 Westheimer Road		Houston	77056	TX
FL-DADE-016.5R		SW 104th Avenue		SW 104th Avenue				
FL-DADE-017	30-6017-023-1070	Florida Gas Transmission Company		5444 Westheimer Road		Houston	77056	TX
FL-DADE-018	30-6017-023-1080	Florida Gas Transmission Company		5444 Westheimer Road		Houston	77056	TX
FL-DADE-018.4WS	30-6017-023-1190	VHF-Enclave, LLC		1450 Infinite Drive	Suite E2	Louisville	80027	CO
FL-DADE-018.5		State of Florida Department of Transportation		1000 NW 111th Avenue		Miami	33172	FL
FL-DADE-019	30-6017-000-0051	Jordash Investments and Realty, Inc., et al	H.R. Realty & Investments, Inc. f/k/a	c/o Allan M. Rubin	200 East Broward Boulevard, Suite 2100	Ft. Lauderdale	33301	FL
FL-DADE-019.5WS	30-6017-023-1400	VHF-Enclave, LLC		1450 Infinite Drive	Suite E2	Louisville	80027	CO
FL-DADE-020.500AR	30-6020-000-0030	Angulo Family Trust		c/o Jaime S. & Charlotte S. Angulo Trustees	10700 SW 88 Court	Miami	33176	FL
FL-DADE-020.5WS	30-6020-000-0030	Angulo Family Trust		c/o Jaime S. & Charlotte S. Angulo Trustees	10700 SW 88 Court	Miami	33176	FL
FL-DADE-020R		SW 232nd Street		SW 232nd Street				
FL-DADE-021	30-6020-000-0020	Dorta-Duque, et al	Manuel	4317 SW 60 Place		Miami	33155	FL
FL-DADE-021.001AR	30-6020-000-0012	Dorta-Duque, et al	Manuel	4317 SW 60 Place		Miami	33155	FL
FL-DADE-021.002AR	30-6020-000-0320	Dorta-Duque, et al	Manuel	4317 SW 60 Place		Miami	33155	FL
FL-DADE-021.003AR	30-6020-000-0130	Vick Enterprises		P.O. Box 100455		Goulds	33170	FL
FL-DADE-021.004AR	30-6020-000-0150	Casariego Corporation		550 Avenue A.		Key Largo	33037	FL
FL-DADE-021.005AR	30-6020-000-0090	Vick Enterprises		P.O. Box 700455		Goulds	33170	FL
FL-DADE-021.006AR	30-6020-000-0250	Dorta-Duque, et al	Manuel	4317 SW 60 Place		Miami	33155	FL
FL-DADE-021.007AR	30-6020-000-0260	Dorta-Duque, et al	Manuel	4317 SW 60 Place		Miami	33155	FL
FL-DADE-021.008AR	30-6020-000-0290	Dorta-Duque, et al	Manuel	4317 SW 60 Place		Miami	33155	FL

28

FLORIDA GAS TRANSMISSION
PHASE VIII EXPANSION PROJECT
Loop 11 - Online Tracts
(Revised for Direct Wetland Impacts)

Tract Number	Tax ID	Last Name	First Name	Address	Address Line 2	City	Zip Code	State
FL-DADE-021.009AR	30-6020-000-0120	Vick Enterprises		P.O. Box 700455		Goulds	33170	FL
FL-DADE-021.500AR	30-6020-000-0021	Ardid	Trustee Jose	11999 S.W. 248 Street		Miami	33032	FL
FL-DADE-021.5W	30-6020-000-0021	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-021.5WS	30-6020-000-0300	Ardid, Trustee, et al	Jose	11999 S.W. 248 Street		Miami	33032	FL
FL-DADE-021.6WS	30-6020-000-0040	INCA Investments Inc., et al		4317 SW 60 Place		Miami	33155	FL
FL-DADE-022.7	30-6020-000-0015	Miami Dade County Water and Sewer		c/o James Ferguson	23200 SW 97th Avenue, Suite 1	Miami	33190	FL
FL-DADE-022.8	30-6020-000-0013	American Environmental Recycling		c/o McCormick & McCormick P.A.	14241 SW 143 Court	Miami	33186-5695	FL
FL-DADE-023R		SW 240th Street		SW 240th Street				
FL-DADE-024	30-6020-000-0240	Peters, Trustee of Frederick C. Peters Testamentary Trust, et al	Ferguson Edgar	c/o Paul A. Turk, Jr.	777 South Flagler Drive, Suite 500 East	West Palm Beach	33401	FL
FL-DADE-025	30-6020-000-0245	Florida Inland Navigation District		c/o David Roach	1314 Marcinski Road	Jupiter	33477	FL
FL-DADE-026	30-6020-000-0235	Florida Inland Navigation District		c/o David Roach	1314 Marcinski Road	Jupiter	33477	FL
FL-DADE-026.7	30-6020-000-0230	Vick Enterprises		P. O. Box 700455		Goulds	33170-0455	FL
FL-DADE-026.700AR	30-6020-000-0230	Vick Enterprises		P.O. Box 700455		Goulds	33170-0455	FL
FL-DADE-027R		SW 248th Street		SW 248th Street				
FL-DADE-028W		Goulds Canal						
FL-DADE-029.000AR	30-6029-000-0050	County of Dade		c/o Mr. De La Torre, County's General Services Admin Real Estate Office	2525 NW 62 Street	Miami	33147	FL
FL-DADE-029.001	30-6028-000-0230	South Florida Water Management District		3301 Gun Club Road	P. O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-029.001AR	30-6028-000-0230	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-029.600AR	30-6029-000-0050	County of Dade		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-029.9	30-6029-000-0080	Diaz, et al	Manuel C.	c/o W. Tucker Gibbs	2980 McFarlane Road, Suite 205	Coconut Grove	33133-6030	FL
FL-DADE-030.000AR	30-6029-000-0040	County of Dade		c/o Asok Ganguli	111 NW 1 Street, Suite 1610	Miami	33128	FL
FL-DADE-031.000AR	30-6029-000-0040	County of Dade		c/o Asok Ganguli	111 NW 1 Street, Suite 1610	Miami	33128	FL
FL-DADE-032.000AR	30-6029-000-0050	County of Dade		c/o Mr. De La Torre, County's General Services Admin Real Estate Office	2525 NW 62 Street	Miami	33147	FL
FL-DADE-033R		SW 256th Street		SW 256th Street				
FL-DADE-034	30-6029-000-0310	Certosa Holdings Inc.		c/o Alberto Erviti	2005 SW 7th Avenue	Miami	33129	FL
FL-DADE-035	30-6029-000-0330	Florida Power & Light Company		P. O. Box 14000		Juno Beach	33408	FL
FL-DADE-036R		SW 264th Street		SW 264th Street				
FL-DADE-037	30-6032-000-0100	Brant, Trustee of Homestead 107 Land Trust dated November 7, 2003, et al	Barry M.	c/o Barry M. Brant	200 S Biscayne Blvd, 6th Floor	Miami	33131	FL
FL-DADE-037.001	30-6033-000-0040	South Florida Water Management District		3301 Gun Club Road	P. O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-037.001AR	30-6033-000-0040	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-038	30-6032-000-0090	Florida Power & Light Company		P.O. Box 14000		Juno Beach	33408	FL
FL-DADE-039	30-6032-000-0070	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-040.001AR	30-6033-000-0020	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-040W		C-102-1 Canal						
FL-DADE-041R		SW 268th Street		SW 268th Street				
FL-DADE-042	30-6032-000-0110	Singletary Concrete Products, Inc, et al		c/o Mike F. Egan	1510 Belvedere Road	West Palm Beach	33406	FL
FL-DADE-042.000AR	30-6032-000-0110	Singletary Concrete Products, Inc, et al		c/o Mike F. Egan	1510 Belvedere Road	West Palm Beach	33406	FL
FL-DADE-042.001AR	30-6033-000-0050	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL

29

FLORIDA GAS TRANSMISSION
PHASE VIII EXPANSION PROJECT
Loop 11 - Online Tracts
(Revised for Direct Wetland Impacts)

Tract Number	Tax ID	Last Name	First Name	Address	Address Line 2	City	Zip Code	State
FL-DADE-042.001WS	30-6033-000-0050	South Florida Water Management District		3301 Gun Club Road	P. O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-043	30-6032-000-0090	Florida Power & Light Company		P.O. Box 14000		Juno Beach	33408	FL
N/A	30-6032-0000-120	RMC Florida Group LTD		P.O. Box 1500		Houston	77024	TX
FL-DADE-044R		SW 280th Street		SW 280th Street				
N/A	30-7005-000-0024	RMC Florida Group LTD		c/o Mike F. Egan	1510 Belvedere Road	West Palm Beach	33406	FL
FL-DADE-045.001AR	30-7004-000-0012	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-045.002AR	30-7004-000-0032	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-046	30-7005-000-0080	Florida Power & Light Company		P.O. Box 14000		Juno Beach	33408	FL
FL-DADE-046.6WS	30-7005-000-0011	Miami Dade County Derm-EEL		33 SW 2nd Avenue		Miami	33130-1501	FL
FL-DADE-047.001AR	30-7004-000-0022	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-048R		SW 296th Street		SW 296th Street				
FL-DADE-049.001AR	30-7009-000-0032	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-049.002AR	30-7009-000-0011	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-046	30-7008-000-0060	Florida Power & Light Company		P.O. Box 14000		Juno Beach	33408	FL
FL-DADE-050WS	30-7017-001-0020	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-051R		SW 300th Street		SW 300th Street				
[redacted]								
[redacted]		Canal		c/o Michael Andrejko				
FL-DADE-054R		SW 312th Street		SW 312th Street				
FL-DADE-055	30-7017-001-0010	Florida Power & Light Company		P.O. Box 14000		Juno Beach	33408	FL
FL-DADE-055.000AR	30-7017-001-0010	Florida Power & Light Company		P.O. Box 14000		Juno Beach	33408	FL
FL-DADE-055.001AR	30-7016-000-0080	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-055.6	30-7016-000-0080	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-056R		SW 320th Street		SW 320th Street				
FL-DADE-057.000AR	30-7017-000-0010	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-057.001AR	30-7016-000-0060	South Florida Water Management District		3301 Gun Club Road	P.O. Box 24680	West Palm Beach	33416-4680	FL
FL-DADE-057W		C-103 Canal		C-103 Canal				

Notes:

[redacted] Direct impact
[redacted] Canal HDD/crossing

30

Attachment E

Construction Methodology, Turbidity Control Measures, Wetland Mitigation, Monitoring, and Maintenance Plan

FLORIDA GAS TRANSMISSION, LLC
PHASE VIII EXPANSION PROJECT

TYPICAL CONSTRUCTION METHODS IN UPLANDS, WETLANDS, TURBIDITY CONTROL MEASURES AND WETLAND MITIGATION, MONITORING AND MAINTENANCE PLAN

For

LOOP 11 24" PIPELINE

In

MIAMI-DADE COUNTY
FLORIDA

E. D. M. S.
THIS DOCUMENT HAS BEEN DIGITALLY IMAGED IF MODIFIED, PLEASE SUBMIT FOR SCANNING.
RE-SCANNED
RE-SCANNED
RE-SCANNED

August 20, 2010

RECEIVED
AUG 2 0 2010
DERM Coastal Resources Section
Natural Resources Regulation & Restoration Division (NRRRD)

E. V. M. J.

THIS DOCUMENT HAS BEEN DIGITALLY IMAGED. IF MODIFIED, PLEASE SUBMIT FOR SCANNING.

RE-SCANNED
RE-SCANNED
RE-SCANNED

PROPOSED ACTION

Florida Gas Transmission Company, LLC (FGT) intends to construct and operate an expansion to its existing natural gas pipeline system located in Alabama and Florida. The Federal Energy Regulatory Commission (FERC) prepared the final environmental impact statement (EIS) for the project that was approved September 18, 2009 (Project Docket No. CP09-17-000). The Project would consist of the construction of approximately 483.2 miles of multi-diameter pipeline and associated pipeline support facilities, and the acquisition of 23.1 miles of existing lateral pipeline. Of the 483.2 miles of the Project area, the portion designated as Loop 11 is located in Miami-Dade County, Florida (see **Attachment A** – Project Location Map). The proposed action of the Loop 11 segment would consist of the installation of 24-inch-diameter pipe approximately 6.96 miles long beginning at milepost (MP) 11.3 and ending at MP 17.9. Installation of the pipeline would involve construction by use of open trenching and Horizontal Directional Drilling (HDD) methods. Typically, the trench would be excavated to a depth sufficient to provide the minimum cover required by U.S. Department of Transportation (DOT) specifications, which is typically three feet. The trenches would be backfilled and returned to pre-construction grade. Vegetation would be allowed to return after construction is completed.

FGT is cognizant the Loop 11 segment will traverse environmentally sensitive areas and construction methods will require additional precautionary measures. To minimize construction impacts, FGT would implement its Upland Erosion Control, Revegetation, and Maintenance Plan (Plan) and Wetland and Waterbody Construction and Mitigation Procedures (Procedures). Even with efforts to avoid and minimize impacts to wetlands during construction, such as extending HDD sections, impacts will occur. FGT has gone through the process with the regulatory agencies of determining the amount of credits to purchase at an offsite wetland mitigation bank to offset the functional loss of those unavoidable impacts.

The following outlines typical construction procedures that will be utilized for the Loop 11 segment work in uplands, wetlands and other ecologically sensitive areas. Cross sections of the different procedures/methods are also provided. Also provided are a segment-specific wetland monitoring and maintenance plan and the mitigation alternative for unavoidable impacts.

CONSTRUCTION PROCEDURES

FGT facilities would be designed, constructed, tested, operated, and maintained in accordance with applicable requirements of the U.S DOT regulations in 49 CFR 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*; and other applicable federal and state regulations including the U.S. Department of Labor, Occupational Safety and Health Administration requirements. These regulations are intended to ensure adequate protection for the public and to prevent natural gas pipeline accidents and failures. Among other design standards, Part 192 specifies pipeline material selection; minimum design requirements; protection from internal, external, and atmospheric corrosion; and qualification procedures for welding and operations personnel.

UPLAND INSTALLATIONS

Proceeding north to south, from MP 11.3 to just south of the Old South Dade Landfill at approximately MP 13.74, the pipeline will be constructed in upland environments. Minimal wetland vegetation occurs on the banks of the canals and associated retention areas. FGT would utilize a combination of open trenching and HDD construction methods to install the proposed pipeline in upland areas. In particular, major canals would be crossed using HDD and all other segments would be installed by open trenching.

RECEIVED
AUG 2 0 2010
DERM Coastal Resources Section
Natural Resources Regulation & Restoration
...is on (NRRD)

The typical construction right-of-way required for open trenching would be 75 feet wide. One HDD crossing will occur at the Goulds Canal which will require additional temporary work spaces at the entry and exit points.

It is anticipated that groundwater will be encountered during the open trenching as the water table in this part of Miami-Dade County is shallow, anywhere from two to five feet below grade, dependent on the amount of existing fill material above natural grade. The contractor is proposing to dewater the trenches as little as possible but de-watering activities will have to occur at some specific points along the route, such as at tie-ins and HDD entry and exit points. Proposed dewatering locations are shown on **Attachment B**.

To reduce the need for trench dewatering, where possible, concrete coated pipe will be used and pipe welding will be conducted above the water table and the connected sections then placed into the trench. No more than 800-1000 linear feet of trench would be opened at any time ahead of the pipe laying activities and up to 1000 feet of trenching behind the lying activities will be partially filled. This will allow the contractor to "push" the water forward and backwards within the partially backfilled trench, minimizing the need to displace trench water (dewatering) outside of the construction right-of-way.

Federal Energy Regulatory Commission (FERC) guidelines stipulate that where possible all dewatering effluent should be discharged into upland environments. In situations where upland dewatering will be necessary along the Loop 11 segment it will be conducted in a manner that does not cause erosion and does not result in heavily silt-laden overland water flow. Discharges will be pumped or trucked into an energy dissipation/sediment filtration device, such as a geotextile filter bag or straw bale structure, to minimize the potential for erosion and sedimentation. Potential locations for dewatering and dewatering structures have been identified and are provided in **Attachment B**. Details on a typical dewatering structure are provided in **Attachment C**. FGT purchased adjoining lots in the residential development currently under construction at the northern portion of the route to utilize for dewatering activities. Written permission will be obtained from other adjacent land owners along the route before any dewatering activities will be conducted that would affect their properties.

WETLAND CROSSINGS

FGT would cross all wetlands in accordance with federal and state permits and following the measures in its Procedures. Pipeline construction across wetlands would be similar to typical conventional upland cross-country construction procedures, with several modifications and limitations to reduce the potential for pipeline construction to affect wetland hydrology and soil structure. Standard wetland construction mitigation measures would require that equipment working in wetlands be limited to that essential for clearing the right-of-way, excavating the trench, fabricating and installing the pipeline, backfilling the trench, and restoring the right-of-way. In areas where there is no reasonable access to the right-of-way except through wetlands, non-essential equipment would be allowed to travel through wetlands only if the ground is firm enough or has been stabilized to avoid rutting. Otherwise, non-essential equipment would be allowed to travel through wetlands only once. If the wetland cannot support equipment without rutting, equipment operating in the wetland would need to be stabilized with prefabricated equipment mats. Equipment mats will be utilized along the temporary workspaces and within extra temporary workspaces only, to support equipment and minimize disturbance. The mats will be placed directly on the ground with minimal clearing of vegetation, only large trees would need to be removed to provide a stable area for placement of mats. Once work is completed in an area the mats will be removed. This process results in minimal soil and vegetation disturbance.

E. D. M. S.

THIS DOCUMENT HAS BEEN DIGITALLY IMAGED. IF MODIFIED, PLEASE SUBMIT FOR SCANNING.

RE-SCANNED
RE-SCANNED
RE-SCANNED

RECEIVED
AUG 2 0 2010
Natural Resources Regulation & Restoration Section (NRRRD)

Clearing of vegetation in wetlands would be limited to trees and shrubs, which would be cut flush with the surface of the ground and removed from the wetland. To avoid excessive disruption of wetland soils and the native seed and rootstock within the wetland soils, stump removal, grading, topsoil segregation, and excavation would be limited to the area immediately over the trench line. A limited amount of stump removal and grading may be conducted in other areas if dictated by safety-related concerns. Topsoil segregation over the trench line would occur if the wetland soils were not saturated at the time of construction.

During clearing, sediment barriers (such as silt fence, turbidity curtains and staked straw bales) would be installed and maintained adjacent to wetlands and within extra workspaces, as necessary, to minimize the potential for sediment runoff. Sediment barriers would be installed across the full width of the construction right-of-way at the base of slopes adjacent to wetland boundaries. Silt fence or straw bales installed across the working side of the right-of-way would be removed during the day when vehicle traffic is present and would be replaced each night. Alternatively, drivable berms may be installed and maintained across the right-of-way in lieu of silt fence or straw bales. Sediment barriers would also be installed within wetlands along the edge of the right-of-way, where necessary, to minimize the potential for sediment to run off the construction right-of-way and into wetlands outside the work area.

The method of pipeline construction used in wetlands would depend largely on the stability of the soils at the time of construction. Where wetland soils are saturated and/or inundated at the time of construction, prefabricated equipment mats or terra mats will be used within the designated project right-of-way to bring equipment and materials into the work zones. No more than 800-1000 feet of trench would be opened at any time ahead of the pipe laying activities and up to 1000 feet of trench will remain open as the trench is backfilled after pipe is placed in the trench. Backfilling of the trench will be conducted in 1 to 2 ft lifts and at a rate slow enough to attempt to control the amount of water being displaced. This will allow the contractor to "push" the water forward and backwards within the trench and minimize dewatering outside of the construction right-of-way. The installation technique would involve stringing and welding the pipeline outside of the trench and excavating through the wetland using a backhoe supported by equipment mats then placing the post-welded lengths into the trench. The concrete-coated pipe will be negatively buoyant and would sink into place on the bottom of the trench. The concrete coating would keep the pipeline from floating to the ground surface within wetlands or areas that may be affected by Everglades Restoration Projects.

Trench dewatering will occur in unsaturated wetlands (as the groundwater table is likely to be encountered at three feet to one foot below natural grade) and in saturated wetland areas particularly in the south portion of the project. Silt-laden trench water would be discharged in accordance with FGT's Procedures, in a manner that would not cause erosion and would not result in heavily silt-laden water flowing into the wetland. The water would be discharged into an energy dissipation/sediment filtration device, such as a geotextile filter bag or straw bale structure, to minimize the potential for erosion and sedimentation. The dewatering structures would be sized to handle the volume of water in the trench. Proposedl locations for dewatering and dewatering structures have been identified and are provided in **Attachment B**. Details on a typical dewatering structure are provided in **Attachment C**. Written permission from other land owners along the route will be obtained before any dewatering activities will be conducted on their properties. The property owner has given preliminary approval for dewatering activities to be conducted on property it owners at the southern-most end of the route.

Dewatering activities may be necessary at pipe section tie-ins and HDD entry and exit points, some of which will be located in high quality wetland areas. No additional adverse impacts are expected in these areas from the dewatering activities. Water from those locations will be pumped to one of the

E. D. M. S.

RECEIVED

THIS DOCUMENT HAS BEEN DIGITALLY IMAGED. IF RESUBMITTED, PLEASE SUBMIT FOR SCANNING.

RE-SCANNED
RE-SCANNED
RE-SCANNED

AUG 20 2010

DERM Coastal Resources Section
Natural Resources Regulation & Restoration Division (NRRRD)

predetermined dewatering locations identified on the plans to control the effluent discharges (**Attachment B**).

FGT would not concrete-coat the pipeline within 100 feet of a waterbody or wetland to minimize the likelihood of contamination. Concrete coating of the pipe sections will be conducted at an offsite location (contractor staging area) as the process of mixing concrete, building and striping forms, etc., requires handling of fuel, lubricants, dry cement, additives, etc. which can cause impacts when inadvertently released. After the coated pipeline sinks into place, backhoes working on equipment mats would backfill the trench, using a controlled backfill procedure outlined above, and complete cleanup. Additional information is provided in **Attachment D** on typical methods, or combination of methods, for construction in wetlands that may be utilized for the Loop 11 pipeline installation.

Because little or no grading would occur in wetlands, restoration of contours would be accomplished during backfilling. Prior to backfilling, trench breakers (polyurethane foam or bags of sand) would be installed where necessary to prevent the subsurface drainage of water from wetlands. Where topsoil has been segregated from subsoil, the subsoil would be backfilled first followed by the topsoil. Topsoil would be replaced to the original ground level leaving no crown over the trench line. In some areas where wetlands overlie rocky soils, the pipe would be padded with rock-free soil or sand before backfilling with native bedrock and soil. Equipment mats would be removed from wetlands following backfilling. Following completion of backfilling and major grading work, any drivable berms would be removed and the ground surface returned to its original contours. If a sediment control device would still be needed at a location where a drivable berm was removed, a temporary sediment control device such as silt fencing would be installed.

WETLAND MAINTENANCE AND MONITORING

Though several avoidance and minimization techniques were used, including extending HDD drills particularly in high quality wetland areas, to reduce the amount of temporary and permanent impacts to wetlands, the selected alignment will ultimately impact approximately 28.17 acres of coastal and freshwater wetlands. Impacts to these wetlands will be minimized to the maximum extent practicable through the proper implementation of industry best management practices and following FGT's *Wetland and Waterbody Construction and Mitigation Procedures* (January 2003) and FGT's *Upland Erosion Control, Revegetaion, and Maintenance Plan* (January 2003).

Wetland impacts by construction activities consist of clearing, grading, trenching, and restoration of soil profiles. All impacted areas of herbaceous and shrub/scrub wetlands will be allowed to revert to preconstruction vegetative conditions and will be maintained in that state. Because of the unique and environmentally sensitive nature of areas of forested wetlands within the Loop 11 segment the permanent easement will be allowed to revert to preconstruction vegetative conditions, though herbaceous and shrub/scrub wetlands will emerge first in the natural succession process. This is a departure from standard FERC procedures which allows for trees within 15 feet of the pipeline centerline that are greater than 15 feet tall to be selectively cut and removed once every three years. For Loop 11 construction, FGT will adhere to a previous maintenance agreement made with the Miami-Dade Department of Environmental Resources Management (DERM) in 1998 which allowed for only a minimal amount of lateral branch trimming to achieve a maximum vertical clearance of up to five feet. A copy of the DERM letter dated April 16, 1998 is provided as **Attachment E**. Areas of forested wetlands temporarily impacted by construction but not within the permanent easement will also be allowed to revert to forested systems. Maintenance and monitoring events will be necessary to ensure that these wetland areas are restored and meet or exceed the criteria set forth by FERC, other agencies and FGT. Details of FGT's

E. D. M. S.

RECEIVED
AUG 2 0 2010
Water Resources Section
Water Resources Regulation & Restorat
Division (NRRRD)

THIS DOCUMENT WAS SCANNED DIGITALLY
IMAGED. IF MODIFIED, PLEASE SUBMIT
FOR SCANNING.

RE-SCANNED
RE-SCANNED

maintenance and monitoring methods are described in FGT's Plans and Procedures, which are discussed below.

MONITORING PLAN

Florida Gas Transmission Company will perform an initial baseline monitoring event (prior to construction), a time zero monitoring event after the completion of construction, and three annual monitoring events of the Loop 11 segment wetland areas to be impacted by the Project.

Baseline Monitoring Event

Prior to commencement of construction activities FGT will conduct baseline monitoring to document the existing conditions of each wetland area proposed to be impacted. The data collected during the baseline monitoring event will define the pre-construction conditions and the target for post construction restoration efforts. The baseline monitoring event consists of vegetation surveys including nuisance and exotic plants, and photographic documentation.

FGT will conduct a qualitative assessment of primary species composition and diversity, estimated vegetative cover, and specific coverage of exotic/invasive vegetation. Transects and sampling plots are not proposed because of the extensive amount of wetland areas within the proposed right of way. The data collected will include a list of the vegetative species present and their estimated percent coverage. A Data form is provided as **Appendix F**.

Photographic monitoring will be conducted to provide photo documentation of the preconstruction conditions for each wetland area. Photographs will be taken from established control points within each wetland. These control points will be located with a global positioning system (GPS) unit for each wetland to facilitate consistent photographic reference points for future monitoring events.

A baseline monitoring report will be generated from the data collected during preconstruction surveys and will include the following:

- A brief description on the wetland area located within the right of way;
- Location maps with each wetland area identified;
- A description of the methods used to collect the data;
- The results of the qualitative assessment including nuisance/exotic plants;
- Photographic documentation; and
- Field Data Forms

Time Zero Monitoring Event

Within 30-days following completion of construction, a time zero monitoring event will be performed. A qualitative assessment of species composition and diversity, estimated vegetative cover, and specific coverage of exotic/invasive vegetation will be documented. The data collected will include a list of the primary vegetative species present and their estimated percent coverage.

A topographical evaluation to ensure original contours are restored to natural gradients will be documented. Areas with unnatural settling, ponding or obstructions to flowways will be identified for corrective action and follow-up evaluation.

Photographs will be taken from the established control points to provide documentation of the immediate post-construction conditions for each wetland area.

E.D.M.S.

RECEIVED

AUG 20 2010

Coastal Resources Section
Habitat Conservation & Restoration
Division (NRRRD)

THIS DOCUMENT HAS BEEN DIGITALLY IMAGED. IF ILLEGIBLE, PLEASE SUBMIT FOR SCANNING.

RE SCANNED
RE-SCANNED
RE-SCANNED

The time zero monitoring report will contain the information and data provided in the baseline monitoring report along with the data obtained from the time zero monitoring events. The time zero monitoring report will be submitted to the regulatory agencies and will include the following:

- A brief description of the wetland area ;
- Location map with each wetland area identified;
- A description of the methods used to collect the data;
- The results of topographical restoration;
- The results of the qualitative assessment including stabilization practices;
- The results of the baseline monitoring event;
- Photographic documentation; and
- Field Data Forms.

Annual Monitoring Events

Following construction activities, FGT will conduct annual monitoring for three years to document the general condition and re-vegetation of each wetland area. Species composition and diversity, estimated vegetative cover, and specific coverage of exotic/invasive vegetation will be documented. The data collected will include a list of the primary vegetative species present and their estimated percent coverage. This data will be compared to the data obtained in the baseline monitoring event and the time zero monitoring event to determine whether the wetland area has met the success criteria.

Photographs will also be taken from the established control points to provide documentation of the conditions of the re-vegetation in each wetland area.

The annual monitoring reports will contain key information and data provided in the baseline monitoring report, time zero monitoring report, and each annual monitoring event. The annual monitoring reports will include the following:

- A brief description of the wetland area;
- Location map with each wetland area identified;
- A description of the methods used to collect the data;
- The results of the qualitative assessment including stabilization practices;
- Key information of the baseline monitoring event, time zero monitoring event, and any previous annual monitoring events;
- Identification of areas that require maintenance;
- Recommendations and detailed schedules for subsequent maintenance activities;
- If applicable, information on the maintenance activities conducted during the previous year;
- Photographic documentation; and
- Field Data Forms

MAINTENANCE PLAN

In order for the restoration of the wetland impact areas to be deemed successful and approved by the regulatory agencies, the vegetative cover must meet or exceed eighty percent of the pre-construction vegetative cover, and be similar to the species composition and species diversity that was present prior to construction and/or that in similar, adjacent, undisturbed areas. The total percent coverage of exotic/invasive species within the construction right-of-way must not exceed ten percent or the percent

E. D. M. S.

RECEIVED
AUG 2 0 2010
Florida Gas Transmission Company
Natural Resources Regulation & Restoration Division (NRRRD)

THIS DOCUMENT HAS BEEN DIGITALLY IMAGED. IF MODIFIED, PLEASE SUBMIT FOR SCANNING.

RE-SCANNED
RE-SCANNED

coverage that was present prior to construction and documented in the baseline monitoring report and/or percent coverage in adjacent undisturbed areas.

Exotic/invasive species assessed will include all Categories 1 and 2 species listed in the Florida Exotic Pest Plant Council's (FEPPC) 2007 "List of Invasive Species" and are referred to as target species. If necessary, maintenance will be conducted annually by implementing the recommendations defined in the previous annual monitoring report. Maintenance activities will focus on treating all target species. Targeted vegetation will be killed in place and work will be supervised by FGT representatives. A general timeline for maintenance and monitoring events to be included within each baseline report is provided below.

• **Activity**	**Date**
• Baseline Monitoring Event	Prior to Construction
• Baseline Monitoring Report	30-days After Monitoring Event
• Time Zero Monitoring Event	30-days Following Completion of Construction
• Time Zero Monitoring Report	30-days After Monitoring Event
• 1st Annual Monitoring Event	12-months Following Time-Zero Monitoring Event
• 1st Annual Monitoring Report	30-days After Monitoring Event
• 1st Annual Maintenance Event (if necessary)	
• 2nd Annual Monitoring Event	12-months following 1st Annual Monitoring Event
• 2nd Annual Monitoring Report	30-days After Monitoring Event
• 2nd Annual Maintenance Event (if necessary)	
• 3rd Annual Monitoring Event	12-months following 2nd Annual Monitoring Event
• 3rd Annual Monitoring Report	30-days After Monitoring Event
• 3rd Annual Maintenance Event (if necessary)	
• Meeting-Site Visit with Agency	60-Days following 3rd Annual Monitoring Event
• Remedial Work (if necessary)	

If after three years, the vegetation in the wetland impact area has not met the criteria described above including total vegetative cover, species diversity, species composition, and total exotic/invasive species coverage, FGT will take the following action:

E. D. M. S.

RECEIVED

AUG 2 0 2010

THIS DOCUMENT HAS BEEN DIGITALLY IMAGED. IF MODIFIED, PLEASE SUBMIT FOR SCANNING.

RE-SCANNED _____
RE-SCANNED _____

Dept. of Environmental Services Section
Natural Resources Regulation & Restoration
Division (NRRRD)

1. Initiate discussion with the Agency for remedial work and potential mitigation to address the need for supplemental plantings or other appropriate restoration or mitigation acceptable to the Agency.

2. Develop a plan and schedule for undertaking the remedial work, restoration , or mitigation, as accepted by the Agency

3. Implement the plan approved by the Agency.

WETLAND IMPACT MITIGATION

Impacts to wetlands as a result of the Project will be unavoidable though several avoidance and minimization techniques were implemented in the construction planning. Horizontal directional drilling sections were extended, particularly in high quality wetland areas, and workspace configurations were reduced to the minimum practicable dimensions to reduce the amount of temporary and permanent impacts to wetlands. Impacts during construction will be further reduced through the implementation of wetland and waterbody construction practices identified in FERC's Procedures including:

- Complying with all state and federal permit conditions
- Using sediment barriers to contain spoil piles adjacent to waterbodies
- Utilizing equipment mats in saturated wetlands where rutting may occur
- Utilizing compressed construction schedules through wetlands and waterbodies
- Minimizing the time that the pipeline excavation trench is open
- Initiating stabilization and restoration practices immediately after pipe installation.

Impacts to wetlands within the permanent easement and temporary workspaces in Loop 11 are defined as temporary as they are required for construction but will be allowed to re-vegetate in accordance with FERC's Procedures and agreements with DERM. The temporarily impacted wetland systems will be limited to recovery of pre-construction existing vegetation and will not be subject to nuisance and exotic species control beyond what the current condition of the system exhibits. As a result, while the impacts are temporary, it is anticipated that some slight reduction in function will result from the temporary disturbance and subsequent recruitment. This diminished function will be offset via the purchase of off-site mitigation credits at a permitted wetland mitigation bank which services the project area.

FGT has gone through the process with the regulatory agencies, including Florida Department of Environmental Protection (FDEP), National Marine Fisheries Service (NMFS), and DERM, to determine wetland jurisdiction and the amount of credits required to purchase at the wetland mitigation bank to offset the functional loss from the temporary impacts. A mitigation analysis was conducted and the Loop 11 wetlands scored using the Wetland Assessment Technique for Environmental Reviews (W.A.T.E.R.) methodology used exclusively by the Everglades Mitigation Bank (EMB) operated by Florida Power & Light. Elements of the Uniform Mitigation Assessment Method (UMAM) were also used as DERM determined this was appropriate for the conditions of this project. The W.A.T.E.R. scoring agreed to by DERM will be adhered to as the final values in determining the amount of mitigation credits to purchase as they were the most stringent of the regulatory agencies. Copies of the W.A.T.E.R. data and scoring sheets are provided in **Appendix G.**

Based on the W.A.T.E.R. scoring, 4.1 saltwater and 0.9 freshwater mitigation credits will be required to compensate for the functional loss of 26.77 acres of jurisdictional determined wetlands. The EMB has been contacted and credits have been placed in reserve for this project (see letter in **Appendix G**).

E. D. M. S.

RECEIVED
AUG 2 0 2010
DERM Coastal Resources Section
Environmental Resource Management & Restoration
Division (ERRRD)

THIS DOCUMENT HAS BEEN DIGITALLY IMAGED. IF MODIFIED, PLEASE SUBMIT FOR SCANNING.

RE-SCANNED
RE-SCANNED

References:

1) Environmental Resources Permit application November 2008, Petition for Water Quality Variance supplemental information July 28, 2009, on Florida Gas Transmission Company, LLC's Phase VIII Expansion Project.
2) Final Environmental Impact Statement on Florida Gas Transmission Company, LLC's Phase VIII Expansion Project (Docket No. CP09-17-000) Issued: September 18, 2009.
3) FGT Florida Wetland Monitoring and Maintenance Plan, October - 2009

E. D. M. S.

THIS DOCUMENT HAS BEEN DIGITALLY IMAGED. IF MODIFIED, PLEASE SUBMIT FOR SCANNING.

RE-SCANNED _____
RE-SCANNED _____
RE-SCANNED _____

RECEIVED

AUG 20 2010

DERM Coastal Resources Section
Natural Resources Regulation & Restoration
Division (NRRED)

FLORIDA GAS TRANSMISSION, LLC
PHASE VIII EXPANSION

TYPICAL METHODS FOR CONSTRUCTION IN WETLANDS
LOOP 11 IN MIAMI-DADE COUNTY

WETLAND METHOD 3 (TYPICAL DWG. #P11-1403R)
CONSTRUCTION IN WETLAND (FLOODED)
Construction method for non forested wetlands where pipe sections are fabricated outside wetland and carried or pushed into place. Cut vegetation off at ground level, leaving existing root system intact, and remove cut portions from the wetland for disposal. Construction equipment for operating in wetland areas shall be limited to that needed to dig trench, install pipe, backfill trench, and restore right-of-way. All other construction equipment shall use access roads located in upland areas to the maximum extent practicable. Where use of access roads in upland areas cannot provide appropriate access, all other construction equipment may pass through the wetland once, using the right-of-way. Do not use dirt, rockfill, tree stumps, or brush riprap to stabilize the right-of-way. If standing water or saturated soils are present, use low-ground-weight construction equipment, or operate normal equipment off of timber riprap or prefabricated equipment mats. Remove all timber riprap and prefabricated equipment mats upon the completion of construction. (During final clean-up and wetland restoration by contractor.)

WETLAND METHOD 4 (TYPICAL DWG. #P11-1404R)
CONSTRUCTION IN WETLAND (FLOODED)
Construction method for non forested wetland systems where the trench is flooded and soils are also saturated, pipe sections are to be fabricated outside the wetland and pulled into place. Cut vegetation off at ground level, leaving existing root system intact, and remove cut portions from the wetland for disposal. Construction equipment for operating in wetland areas shall be limited to that needed to dig trench, install pipe, backfill trench, and restore right-of-way. All other construction equipment shall use access roads located in upland areas to the maximum extent practicable. Where use of access roads in upland areas cannot provide appropriate access, all other construction equipment may pass through the wetland once, using the right-of-way. Do not use dirt, rockfill, tree stumps, or brush riprap to stabilize the right-of-way. If standing water or saturated soils are present, use low-ground-weight construction equipment, or operate normal equipment off of timber riprap or prefabricated equipment mats. Remove all timber riprap and prefabricated equipment mats upon the completion of construction. (During final clean-up and wetland restoration by contractor.)

WETLAND METHOD 7 (TYPICAL DWG. #P11-1407R)
CONSTRUCTION IN WETLAND (FORESTED, FLOODED)
Construction method for forested, flooded wetlands where the pipe sections are to be fabricated outside wetland and pulled or pushed in place. Cut vegetation off at ground level, leaving existing root system intact, and remove it from the wetland for disposal. Limit pulling of tree stumps and grading activities to directly over the trench line. Do not grade or remove stumps or root systems from the rest of the right-of-way in wetlands unless the Chief Inspector and Environmental Inspector determine that safety-related construction constraints require removal of tree stumps from under the work pad. Segregate the top 1 foot of topsoil from the area disturbed by trenching, except in areas where standing water or saturated soils are present, and then return to its original position over the backfill.

Construction equipment operating in wetland areas shall be limited to that needed to dig trench, Install pipe, backfill trench, and restore right-of-way. All other construction equipment shall use access roads located in upland areas to maximum extent practicable. Where use of access roads in upland areas cannot provide appropriate access, all other construction equipment may pass through the wetland once, using

E. D.
DOCUMENT HAS BEEN DIGITALLY
SCANNED. IF MODIFIED, PLEASE SUBMIT
SCANNING.
SCANNED
SCANNED
SCANNED

RECEIVED
AUG 20 2010
DERM Coastal Resources Section
Natural Resources Regulation & Restoration

the right-of-way. Do not use dirt, rockfill, tree stumps, or brush riprap to stabilize the right-of-way. Remove all timber riprap and prefabricated equipment mats upon the completion of construction. (During final clean-up and wetland restoration by contractor.)

E. D. M. S.

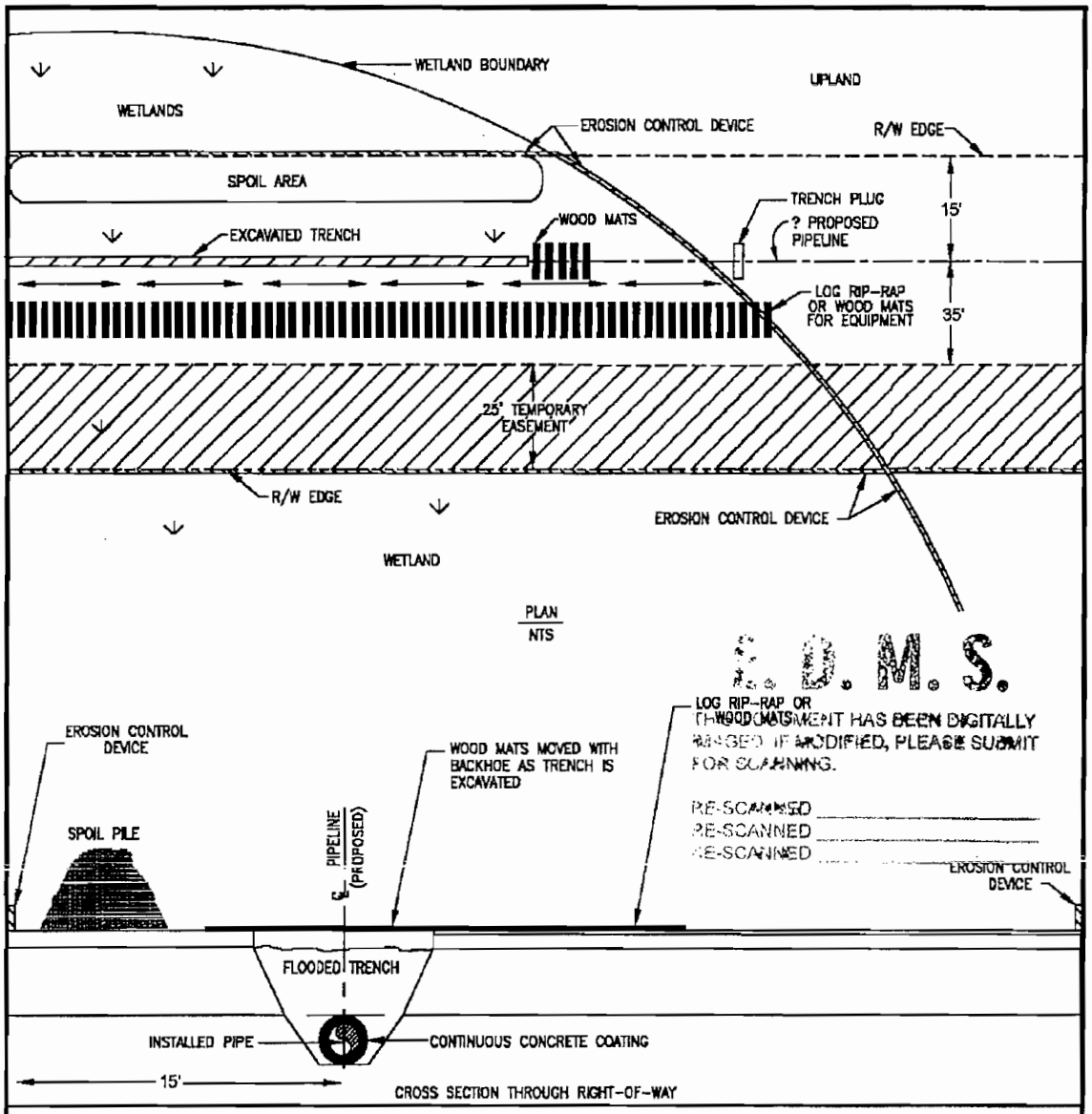
THIS DOCUMENT HAS BEEN DIGITALLY IMAGED. IF MODIFIED, PLEASE SUBMIT FOR SCANNING.

RE SCANNED _____
RE-SCANNED _____
RE-SCANNED _____

RECEIVED

AUG 20 2010

[illegible] Resources Section
[illegible] Resources Regulation & Restoration
[illegible] (RRRD)



I. D. M. S.
THIS DOCUMENT HAS BEEN DIGITALLY IMAGED. IF MODIFIED, PLEASE SUBMIT FOR SCANNING.
RE-SCANNED
RE-SCANNED
RE-SCANNED

NOTES

1. TRENCH TO BE EXCAVATED BY BACKHOE POSITIONED ON WOOD MATS.
2. PIPE SECTION TO BE FABRICATED OUTSIDE WETLAND AND CARRIED OR PUSHED INTO PLACE.
3. R/W 100' IN UPLAND, REDUCED TO 75' IN WETLANDS.
4. EROSION CONTROLS WILL CONSIST OF INSTALLATION OF BEST MANAGEMENT PRACTICES, IN MOST CASES USING BUT NOT LIMITED TO SILT FENCE, HAY BALES, OR SIMILIAR EROSION CONTROL DEVICES.
5. TYPICAL REFLECTS R.O.W. WIDTHS FOR WLX. OTHER SEGMENTS HAVE VARYING TOTAL R.O.W. WIDTHS THAT CORRESPOND DIRECTLY WITH WETLAND IMPACTS.

P.L. OR Sta. Account No.			W.O. S99315/S99327	2000 Construction
Microfilm File No.	Mfilm By	Date	Dr. By JML/vh	Date 6/99
			Scale N.T.S.	

Revision – Description	By	App.	Dwg. Stat.	Ckd. By	Date	App. By	Date	App. By	Date
GENERAL 6/10	MH		Prel'y.						
GENERAL 6/99	JML		Bid						
GENERAL 11/1/93	MMW		Const.						

FGT Technical Services
Maitland, Florida

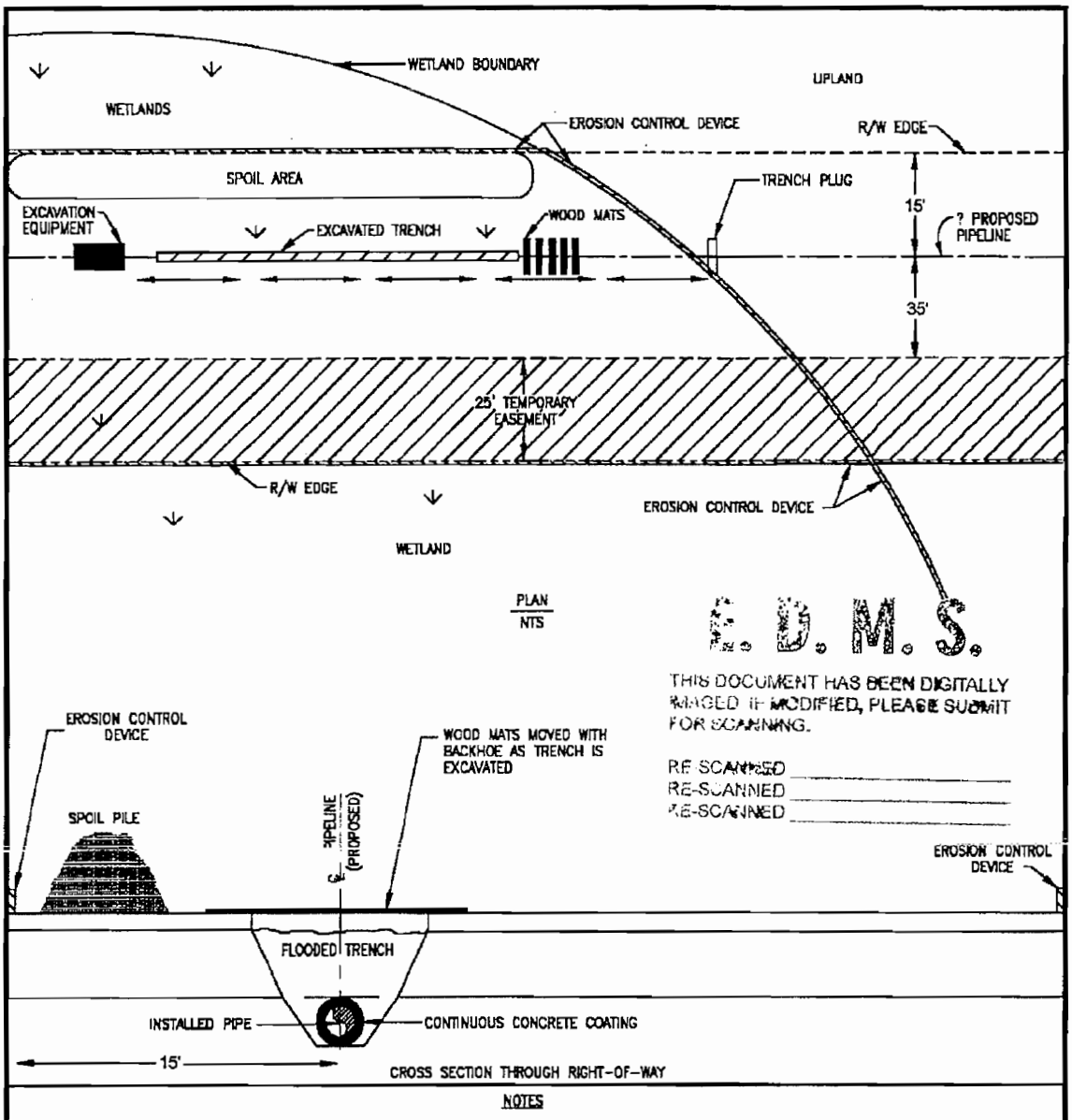
WETLAND CROSSING METHOD 3 (FLOODED WETLAND)

Florida Gas Transmission Company
An [redacted] Affiliate

DWG. NO. P11-1403R

CADDS NAME: S99315\P11-1403R

RECEIVED
AUG 2 0 2010
DERM Coastal Resources Section
Natural Resources Regulation & Restoration Division (NRRRD)



E. D. M. S.
THIS DOCUMENT HAS BEEN DIGITALLY IMAGED. IF MODIFIED, PLEASE SUBMIT FOR SCANNING.
RE-SCANNED
RE-SCANNED
RE-SCANNED

NOTES

1. PIPE SECTION TO BE FABRICATED OUTSIDE WETLAND AND PULLED OR PUSHED INTO PLACE.
2. R/W 100' IN UPLAND, REDUCED TO 75' IN WETLANDS.
3. EROSION CONTROLS WILL CONSIST OF INSTALLATION OF BEST MANAGEMENT PRACTICES, IN MOST CASES USING BUT NOT LIMITED TO SILT FENCE, HAY BALES, OR SIMILIAR EROSION CONTROL DEVICES.
4. TYPICAL REFLECTS R.O.W. WIDTHS FOR WLX. OTHER SEGMENTS HAVE VARYING TOTAL R.O.W. WIDTHS THAT CORRESPOND DIRECTLY WITH WETLAND IMPACTS.

P.L. OR Sta. Account No.			W.O. S99315/S99327	2000 Construction
Microfilm File No.	Mfilm By	Date	Dr. By JML/vh	Date 6/99
			Scale N.T.S.	

Revision – Description	By	App.	Dwg. Stat.	Ckd. By	Date	App. By	Date	App. By	Date
GENERAL 6/10	MH		Prel'y.						
GENERAL 6/99	JML		Bid						
GENERAL 11/1/93	MMW		Const.						

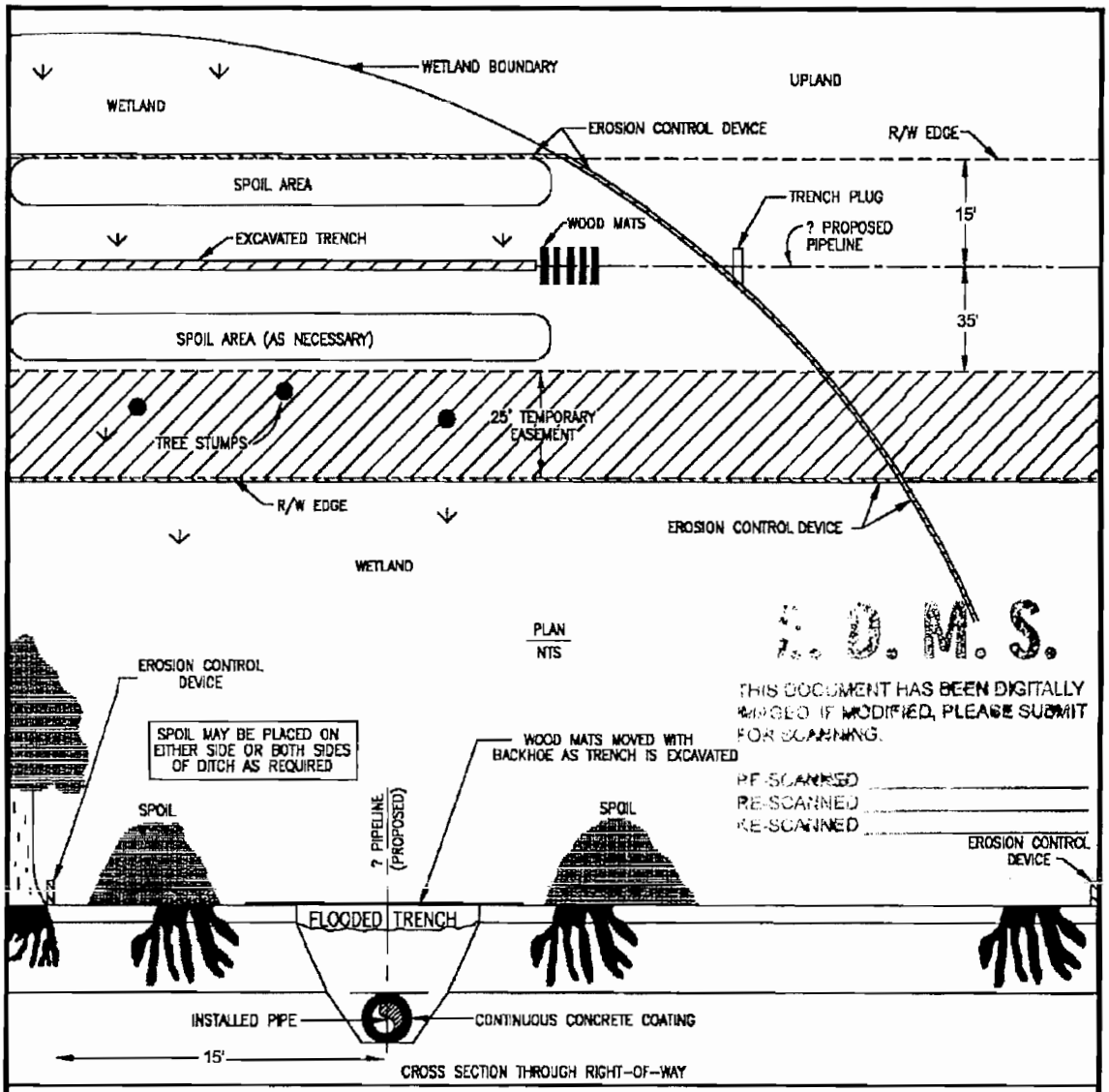
FGT Technical Services
Maitland, Florida

Florida Gas Transmission Company
An [redacted] Affiliate

WETLAND CROSSING
METHOD 4
(FLOODED WETLAND)

CADDS NAME: S99315\P11-1404R

RECEIVED
AUG 20 2010
DERM Coastal Resources Section
Natural Resources Regulation & Restoration
(NRRRD)



E. D. M. S.
THIS DOCUMENT HAS BEEN DIGITALLY IMAGED IF MODIFIED, PLEASE SUBMIT FOR SCANNING.
RE-SCANNED
RE-SCANNED
RE-SCANNED

NOTES

1. WORK PAD AND / OR EQUIPMENT MATS TO BE INSTALLED AS REQUIRED, AND REMOVED AFTER CONSTRUCTION.
2. STUMPS TO REMAIN IN PLACE EXCEPT IN VICINITY OF TRENCH.
3. PIPE SECTION TO BE FABRICATED OUTSIDE WETLAND AND PUSHED OR PULLED INTO PLACE.
4. R/W 100' IN UPLAND, REDUCED TO 75' IN WETLANDS.
5. EROSION CONTROLS WILL CONSIST OF INSTALLATION OF BEST MANAGEMENT PRACTICES, IN MOST CASES USING BUT NOT LIMITED TO SILT FENCE, HAY BALES, OR SIMILIAR EROSION CONTROL DEVICES.
6. TYPICAL REFLECTS R.O.W. WIDTHS FOR WLX. OTHER SEGMENTS HAVE VARYING TOTAL R.O.W. WIDTHS.

P.L. OR Sta. Account No.			W.O. S99315/S99327			2000 Construction				
Microfilm File No.	Mfilm By	Date	Dr. By JML/vh	Date 6/99		Scale N.T.S.				
Revision – Description	By	App.	Dwg. Stat.	Ckd. By	Date	App. By	Date	App. By	Date	
3 GENERAL 6/10	MH		Prel'y.							
2 GENERAL 6/99	JML		Bid							
1 GENERAL 11/1/93	MMW		Const.							

FGT Technical Services
Maitland, Florida

WETLAND CROSSING
METHOD 7
(FORESTED WETLAND)
(FLOODED)

Florida Gas Transmission Company

DWG. NO. P11-1407R

CADDS NAME: S99315\P11-1407R

RECEIVED
AUG 20 2010
DERM Coastal Resources Section
Natural Resources Regulation & Restoration
Division (NRRRD)

Attachment F

HDD Contingency Plan

Florida Gas Transmission Company, LLC

HDD CONTINGENCY PLAN

1.0 DESCRIPTION OF HDD PROCESS

The HDD crossing technique is a trenchless installation process by which pipeline is installed beneath obstacles and/or sensitive areas by utilizing remote guidance drilling technology derived from the oil and gas exploration drilling industry. An HDD involves a multi-stage process that consists of establishing a small diameter pilot hole along a crossing profile, followed by enlargement of the pilot hole (reaming) to accommodate pull back of the proposed pipeline. The pilot hole is drilled using rotation cutting and/or jetting with a jetting assembly attached to drill pipe. The cutting action of the drill head is remotely operated to control its orientation and direction. Enlarging the pilot hole is an incremental process accomplished with multiple reaming passes, depending on the pipeline diameter and subsurface geology, to increase the drill hole diameter. Upon successful completion of the reaming operation, the pre-assembled, hydrostatically tested section of pipeline is then pulled through the completed hole. Bentonite drilling fluid is used to lubricate the drill bit, help stabilize the drill hole and remove cutting spoil as the drilling fluid is returned to the entry point.

2.0 PURPOSE OF PLAN

All stages of HDD operations involve circulating drilling fluid. Among other purposes, the drilling fluid is used in the HDD process to transport soil and rock cuttings to the surface and to stabilize the hole. The fluid also reduces drilling friction, cools and cleans the drill cutters, transmits hydraulic power to the drill bit, and performs the hydraulic excavation of the cuttings.

The primary component of the drilling fluid used in HDDs for pipeline installation is water. To enhance the fluid performance, a viscosifier (typically a naturally occurring bentonite clay) is added to the water to improve its properties. Because the drilling mud consists mainly of a bentonite clay-water mixture, it is not considered to be hazardous or toxic.

The most likely occurrence of inadvertent mud releases developing during drilling operations is from "frac-outs." A frac-out is a condition in which the drilling mud is released through fractures in the soil and migrates toward the surface. Frac-outs usually occur when the down-hole pressures are too high and overcome the restraining forces of the surrounding formation. This most often occurs during the pilot hole drilling operations when the pressures are the highest. Escape of drilling mud from a frac-out is most common near the drill entry and exit locations, but can occur at any location along the drill path.

This plan identifies operational procedures and responsibilities for the prevention, containment, and clean-up for the unplanned release of drilling fluids (frac-outs) associated with HDD operations for the Florida Gas Transmission Company, LLC Phase VIII Expansion Project.

3.0 LAYOUT AND DESIGN FOR HDD CROSSINGS

The HDD entry and exit locations will be sited to provide a minimum of a 50-foot setback from sensitive resources whenever practicable, and a maximum design depth clearance to provide the greatest buffer between the sensitive resource and the drilling activity/installed pipe.

4.0 MONITORING OF HDD OPERATIONS

Construction Inspector(s) and/or Environmental Inspector(s) will continuously monitor operations during HDD activities. Monitoring activities during drilling operations will include:

- Visual inspection along the drill path, fluid return pit(s) and waterbody surface for evidence of a release;
- Observation and documentation of drilling fluid pressures using HDD instrumentation;
- Observation and documentation of drilling fluid recirculation volumes; and
- Documentation of all drilling fluid products used.

The Contractor will have readily available and strategically placed containment equipment to contain inadvertent releases of drilling fluid to waterbodies, including earth-moving equipment, portable pumps, containment booms, hand tools, hay bales, silt fence and sandbags. The Environmental Inspector(s) will ensure that adequate quantities of spill containment equipment and supplies are at the drilling location prior to allowing the contractor to begin drilling. Further, the Environmental Inspector(s) will ensure that each individual involved in drilling operations is familiar with the locations of all spill containment equipment and the specific procedures for handling potential drilling fluid releases.

5.0 POTENTIAL LOSS OF CIRCULATION

Typically, loss of circulation has the highest probability of occurring during drilling of the pilot hole, due to the smaller bore-hole annulus and the relatively large volume of solids being displaced and carried out in the drilling fluid. In the course of drilling the pilot hole, circulation will often be temporarily lost as the pilot bit is advanced through more permeable or less competent sections of the ground formation when fluid pressures are at a maximum. As the pilot bit advances beyond these sections of the bore-hole, fluid pressure will fall and circulation within the bore-hole will naturally be re-established. Much of the fluid lost to the formation under the greater pressures will return back to the bore-hole as the pressures fall, in which case the drilling fluid is not likely to migrate to the ground surface or the river.

Drill cuttings generated as a result of the drilling process often will naturally bridge and subsequently seal fractures or voids as drilling progresses, thus providing another means of re-establishing circulation. This is especially likely during the reaming process as higher volumes of larger cuttings are typically generated. Therefore it is usually beneficial to proceed with the pilot hole even if circulation has not been re-established, since it will likely be re-established at some point during the reaming process.

In the event a complete loss of circulation of drilling mud occurs during operation of a HDD, Florida Gas Transmission Company, LLC (FGT) will require the Contractor to cease pumping immediately, contain any drilling fluid which has surfaced, notify the Chief Inspector and Chief Environmental Inspector, and evaluate the data and circumstances leading to the loss of circulation to determine what method is to be utilized to seal the fracture. Most fractures can be sealed, if detected early, by pumping special materials to prevent loss of circulation down hole.

If a significant reduction of drilling fluid circulation is detected without total loss of circulation, the Contractor will reduce drilling fluid volumes and subsequent pressures and will increase the yield point of drilling fluid. Then, depending upon the progress of the drilling, the drill pipe may be "tripped out" until return flow is restored.

6.0 PROCEDURES FOR RELEASE OF DRILLING FLUID

Should an inadvertent release of drilling fluid (bentonite) occur in accessible areas, containment and subsequent clean-up will begin immediately upon detection. Field measures to contain inadvertent releases of drilling fluid will vary according to site-specific conditions (e.g. volume of fluid, topography, and environmental setting). The most commonly utilized system for containment of surface releases of bentonite would involve a perimeter earthen berm, hay bales, or silt fence. Where this system of containment cannot be employed, containment procedures will be directed by the Chief Inspector assisted by the Chief Environmental Inspector to minimize environmental impact.

After containment, clean-up and restoration will generally be accomplished utilizing one of the following:

- hand labor, hand tools and buckets;
- portable pumps and hand tools;
- rubber tired equipment and hand tools; and/or
- vacuum trucks and hand tools.

Isolation under certain field conditions is virtually impossible. In the unlikely event that a drilling fluid release occurs within an area that cannot be isolated or contained, such as along the bed of the waterbody or into the water, drilling operations will be stopped immediately. Upon evaluation by appropriate personnel, a decision will be made on how best to continue the crossing construction to minimize impacts. The procedures listed below will be followed.

- Ensure that all reasonable measures within the limitations of the technology have been taken to re-establish drilling fluid circulation;
- Continue drilling with the minimum amount of drilling fluid required to penetrate the formation and successfully install the pipeline.

In the event of an inadvertent release of drilling fluid within a waterway, FGT will immediately contact the appropriate federal and state agencies by telephone and/or facsimile detailing the location and nature of the release, the corrective actions being taken, and whether the release poses a threat to public health and safety.

7.0 ABANDONMENT OF HDD

If a directional drill must be abandoned, the drill hole will be filled with drilling fluid and grout sealed for a distance of not less than thirty feet at each end.

Attachment G

Project Report

Attachment G

Project Report

PROJECT REPORT
CLASS I PERMIT APPLICATION NO. 2009-CLI-PER-00223

Class I Permit Application by Florida Gas Transmission Company, LLC to Authorize the Filling of Wetlands for the Construction of a Natural Gas Pipeline upon the Properties Owned by Florida Power and Light Company Identified by the Following Folio Numbers: 30-6029-000-0330, 30-6032-000-0090, 30-7005-000-0080, 30-7008-000-0060, and 30-7017-001-0010 in Miami-Dade County

Date: September 21, 2010

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

1. **Potential Adverse Environmental Impact** – The construction of FGT Loop 11 will result in temporary impacts to 27 acres of wetlands supporting halophytic vegetation (salt tolerant). Temporary wetland impacts associated with construction activities consist of clearing, grading, and open trenching. The primary impact to vegetation will be the temporary alteration of vegetative cover along the 75-foot wide construction right-of-way (ROW) and construction areas. Vegetation will be cleared and then graded where necessary to create a level and safe working surface for construction equipment. The Department of Environmental Resources Management (DERM) has determined that the project has been designed to adequately avoid and minimize impacts to wetlands. The applicant has modified the project to reduce impacts associated with construction, including but not limited to, the reduction of the width of the construction ROW from 100 feet to 75 feet and the reduction of temporary workspaces along the construction ROW. In addition, the applicant has incorporated Horizontal Directional Drilling (HDD) in high quality wetland areas and canal crossings along 1.6 miles of the proposed pipeline to reduce potential adverse environmental impacts to natural resources.

   The proposed project will also result in minor secondary impacts to 199 acres of halophytic wetlands associated with trench dewatering. However, in order to minimize the potential for wetland impacts, no more than 800 to 1,000 feet of trench will be opened at anytime ahead of the pipe laying activities and up to 1,000 feet of trench will remain open as the trench is backfilled after the pipe is placed in the trench. In addition, backfilling of the trench will be conducted at a slow rate to attempt to control the amount of water being displaced. A 150 meter mixing zone along the west side of the construction ROW has been identified for dewatering purposes. Minor secondary impacts are not expected to cause long-term impacts to natural resources in the project area.

   A permanent 50-foot easement will be centered over the new pipeline. All impacted areas within the permanent easement will be allowed to revert to preconstruction vegetative conditions. The applicant will be required to remove exotic plant species, as well as to monitor and maintain the easement area in perpetuity. Wetlands will be monitored annually for the first three years, or until the vegetation returns to conditions similar to preconstruction. Additionally, the Class I permit shall contain conditions to ensure that the permittee and the contractor act in accordance with the Florida Gas Transmission Company, LLC Typical Construction Methods in Uplands, Wetlands, Turbidity Control Measures and Wetland Mitigation, Monitoring and Maintenance Plan (Attachment E).

   Compensatory wetland mitigation for temporary impacts and minor secondary impacts associated with the project will be satisfied through the purchase of 0.9 forested wetland mitigation credits and 4.1 saltwater mitigation credits from the Florida Power & Light Company's Everglades Mitigation Bank (EMB).

2. **Potential Cumulative Adverse Environmental Impact** – The proposed project will result in temporary impacts to 27 acres of wetlands supporting halophytic vegetation. However, DERM has determined that the project has been designed to adequately avoid and minimize impacts to wetlands. Impacts to wetland areas associated with the clearing of a 75-foot wide construction ROW and any workspace necessary for the construction of the pipeline have been minimized. In order to minimize the potential for wetland impacts outside the project area, the applicant has modified the project to reduce impacts associated with construction, including but not limited to, the reduction of the width of the construction ROW from 100 feet to 75 feet and the incorporation of HDD in high quality wetland areas and canal crossings along 1.6 miles of the proposed pipeline. A 150 meter mixing zone along the west side of the construction ROW has been identified for dewatering purposes. Minor secondary impacts are not expected to cause long-term impacts to natural resources in the project area.

3. **Hydrology** – The proposed project is not reasonably expected to adversely affect surface water drainage or retention of stormwater. Trench dewatering is expected as a result of the project. However, the project is designed in accordance with DERM and the South Florida Water Management District (SFWMD) criteria and design standards. In order to minimize the potential for impacts to wetlands, no more than 800 to 1,000 feet of trench will be opened at anytime ahead of the pipe laying activities and up to 1,000 feet of trench will remain open as the trench is backfilled after the pipe is placed in the trench. In addition, backfilling of the trench will be conducted at a slow rate to attempt to control the amount of water being displaced. A 150 meter mixing zone along the west side of the construction ROW has been identified for dewatering purposes. Minor secondary impacts are not expected to cause long-term impacts to natural resources in the project area.

   In addition, the project has been modified to include HDD along all canal crossings within the project site. Canal crossings include the C-102 Canal (SW 268 ST), Military Canal, and C-103 Canal (SW 320 ST). HDD generally avoids or minimizes impacts to hydrology resulting from erosion, sedimentation or excess turbidity produced by other methods (e.g. open trenching). All stages of HDD operations involve the circulation of drilling fluid for operational purposes. The drilling fluid consists mainly of a clay-water mixture that is not considered to be hazardous or toxic. During drilling work, divers shall monitor the surrounding area by conducting visual surveys of the bottom. Should a loss of drilling fluid occur, the permittee and the contractor shall act in accordance with the Florida Gas Transmission Company, LLC HDD Contingency Plan (Attachment F).

4. **Water Quality** – The proposed project is not reasonably expected to affect water quality. Trench dewatering is expected as a result of the project. However, in order to minimize the potential for impacts to wetlands, no more than 800 to 1,000 feet of trench will be opened at anytime ahead of the pipe laying activities and up to 1,000 feet of trench will remain open as the trench is backfilled after the pipe is placed in the trench. In addition, backfilling of the trench will be conducted at a slow rate to attempt to control the amount of water being displaced. A 150 meter mixing zone along the west side of the construction ROW has been identified for dewatering purposes. Minor secondary impacts are not expected to cause long-term impacts to natural resources in the project area.

   In addition, the project has been modified to include HDD along all canal crossings within the project site. Canal crossings include the C-102 Canal (SW 268 ST), Military Canal, and C-103 Canal (SW 320 ST). HDD generally avoids or minimizes surface water impacts resulting from erosion, sedimentation or excess turbidity produced by other methods (e.g. open trenching). All stages of HDD operations involve the circulation of drilling fluid for operational purposes. The drilling fluid consists mainly of a clay-water mixture that is not considered to be hazardous or toxic. During drilling work, divers shall monitor the surrounding area by conducting visual surveys of the bottom. Should a loss of drilling fluid occur, the permittee and the contractor shall act in accordance with the Florida Gas Transmission Company, LLC HDD Contingency Plan (Attachment F).

5. **Wellfields** – Not applicable.

6. **Water Supply** – Not applicable.

7. **Aquifer Recharge** – Not applicable.

8. **Aesthetics** – The proposed project is not reasonably expected to have negative aesthetic impacts. However, during the construction process, there may be temporary aesthetic impacts related to the presence of machinery and equipment associated with construction activities.

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 is not reasonably expected to adversely affect marine habitats. However, temporary impacts and minor secondary impacts may affect wildlife habitats. The area has the potential to be utilized by *Alligator mississippiensis* (American Alligator), *Crocodylus acutus* (American Crocodile) *and Mycteria americana* (Wood Stork). The proposed project will result in temporary impacts to 27 acres of wetlands supporting halophytic vegetation, and minor secondary impacts to 199 acres of halophytic wetlands. Impacts to wildlife habitats as a result of construction include the reduction of vegetative cover along the pipeline 75-foot wide construction ROW and construction areas. However, DERM has determined that the project has been designed to adequately avoid and minimize impacts to wildlife habitats. The applicant has modified the project to reduce impacts associated with construction, including but not limited to, the reduction of the width of the construction ROW from 100 feet to 75 feet and the reduction of temporary workspaces along the construction ROW. In addition, the applicant has incorporated HDD in high quality wetland areas and canal crossings along 1.6 miles of the proposed pipeline to reduce impacts to marine and wildlife habitats.

    The proposed project will also result in minor secondary impacts to 199 acres of halophytic wetlands. Trench dewatering is expected as a result of the project. However, in order to minimize impacts to marine and wildlife habitats, no more than 800 to 1,000 feet of trench will be opened at anytime ahead of the pipe laying activities and up to 1,000 feet of trench will remain open as the trench is backfilled after the pipe is placed in the trench. In addition, backfilling of the trench will be conducted at a slow rate to attempt to control the amount of water being displaced. A 150 meter mixing zone along the west side of the construction ROW has been identified for dewatering purposes. Minor secondary impacts are not expected to cause long-term impacts to natural resources in the project area.

    Compensatory wetland mitigation for minor temporary impacts and temporary impacts associated with the project will be satisfied through the purchase of 0.9 forested wetland mitigation credits and 4.1 saltwater mitigation credits from the Florida Power & Light Company's EMB.

15. **Wetland Soils Suitable for Habitat** – The proposed project will result in the temporary removal of natural wetland soils suitable for habitat during construction activities. Clearing of vegetation will be limited to trees and shrubs. To avoid excessive disruption of wetland soils, stump removal, grading, topsoil segregation, and excavation will be limited to the area immediately over the trench line. Any soils removed as a result of the trench excavation will be stored on-site, adjacent to the segment of pipeline being constructed. Once the pipe is placed within the trench, backfilling activities will be accomplished using the soil excavated from the area. Sediment barriers (such as silt fences, turbidity curtains and staked straw bales) will be installed and maintained adjacent to the wetland areas and within the workspace across the full length of the construction ROW to minimize the potential for sediment runoff.

16. **Floral Values** – The proposed project will result in temporary impacts to 27 acres of wetlands supporting halophytic vegetation. Temporary wetland impacts associated with construction activities consist of clearing, grading, and open trenching. The primary impact to vegetation will be the temporary alteration of vegetative cover along the 75-foot wide construction ROW and construction areas. Vegetation will be cleared and then graded where necessary to create a level and safe working surface for construction equipment. However, DERM has determined that the project has been designed to adequately avoid and minimize impacts to floral values. The applicant has modified the project to reduce impacts associated with construction, including but not limited to, the reduction of the width of the construction ROW from 100 feet to 75 feet and the reduction of temporary workspaces along the construction ROW. In addition, the applicant has incorporated HDD in high quality wetland areas and canal crossings along 1.6 miles of the proposed pipeline to reduce impacts to floral values.

The proposed project will also result in minor secondary impacts to 199 acres of halophytic wetlands. Trench dewatering is expected as a result of the project. However, in order to minimize impacts to floral values, no more than 800 to 1,000 feet of trench will be opened at anytime ahead of the pipe laying activities and up to 1,000 feet of trench will remain open as the trench is backfilled after the pipe is placed in the trench. In addition, backfilling of the trench will be conducted at a slow rate to attempt to control the amount of water being displaced. A 150 meter mixing zone along the west side of the construction ROW has been identified for dewatering purposes. Minor secondary impacts are not expected to cause long-term impacts to natural resources in the project area.

A permanent 50-foot easement will be centered over the new pipeline. All impacted areas within the permanent easement will be allowed to revert to preconstruction vegetative conditions. The applicant will be required to remove exotic plant species, as well as to monitor and maintain the easement area in perpetuity. Wetlands will be monitored annually for the first three years, or until the vegetation returns to conditions similar to preconstruction. Additionally, the Class I permit shall contain conditions to ensure that the permittee and the contractor act in accordance with the Florida Gas Transmission Company, LLC Typical Construction Methods in Uplands, Wetlands, Turbidity Control Measures and Wetland Mitigation, Monitoring and Maintenance Plan (Attachment E).

Compensatory wetland mitigation for temporary impacts and minor secondary impacts associated with the project will be satisfied through the purchase of 0.9 forested wetland mitigation credits and 4.1 saltwater mitigation credits from the Florida Power & Light Company's EMB.

17. **Fauna Values** – The proposed project may cause temporary disturbances to native fauna as a result of the project and related construction activities. The area has the potential to be utilized by *Alligator mississippiensis* (American Alligator), *Crocodylus acutus* (American Crocodile) *and Mycteria americana* (Wood Stork). The proposed project will result in temporary impacts to 27 acres of wetlands supporting halophytic vegetation, and minor secondary impacts to 199 acres of halophytic wetlands. Impacts to fauna values as a result of construction include the reduction of vegetative coverage along the pipeline 75-foot wide construction ROW and construction areas. However, DERM has determined that the project has been designed to adequately avoid and minimize impacts to fauna values. The applicant has modified the project to reduce impacts associated with construction, including but not limited to, the reduction of the width of the construction ROW from 100 feet to 75 feet and the reduction of temporary workspaces along the construction ROW. In addition, the applicant has incorporated HDD in high quality wetland areas and canal crossings along 1.6 miles of the proposed pipeline to reduce impacts to fauna values.

    Compensatory wetland mitigation for temporary impacts and minor secondary impacts associated with the project will be satisfied through the purchase of 0.9 forested wetland and 4.1 saltwater mitigation credits from the Florida Power & Light Company's EMB.

18. **Rare, Threatened and Endangered Species** – The proposed project is not reasonably expected to adversely affect rare, threatened and endangered species. The area has the potential to be utilized by *Crocodylus acutus* (American Crocodile) *and Mycteria americana* (Wood Stork). The proposed project will result in temporary impacts to 27 acres of wetlands supporting halophytic vegetation, and minor secondary impacts to 199 acres of halophytic wetlands. Impacts to rare, threatened and endangered species as a result of construction include the reduction of vegetative cover along the pipeline 75-foot wide construction ROW and construction areas. However, the majority of impacts are temporary in nature. Additionally, temporary impacts will be minimized by allowing the area to restore to preconstruction vegetative conditions. Furthermore, DERM has determined that the project has been designed to adequately avoid and minimize impacts to rare, threatened and endangered species. The applicant has modified the project to reduce impacts associated with construction, including but not limited to, the reduction of the width of the construction ROW from 100 feet to 75 feet and the reduction of temporary workspaces along the construction ROW. In addition, the applicant has incorporated HDD in high quality wetland areas and canal crossings along 1.6 miles of the proposed pipeline to reduce impacts to rare, threatened and endangered species.

Compensatory wetland mitigation for temporary impacts and minor secondary impacts associated with the project will be satisfied through the purchase of 0.9 forested wetland and 4.1 saltwater mitigation credits from the Florida Power & Light Company's EMB.

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 27 acres of wetlands supporting halophytic vegetation. Temporary wetland impacts associated with construction activities consist of clearing, grading, and open trenching. The primary impact on wetland values will be the temporary alteration of vegetative cover along the 75-foot wide construction ROW and construction areas. Vegetation will be cleared and then graded where necessary to create a level and safe working surface for construction equipment. However, DERM has determined that the project has been designed to adequately avoid and minimize impacts to wetland values. The applicant has modified the project to reduce impacts associated with construction, including but not limited to, the reduction of the width of the construction ROW from 100 feet to 75 feet and the reduction of temporary workspaces along the construction ROW. In addition, the applicant has incorporated HDD in high quality wetland areas and canal crossings along 1.6 miles of the proposed pipeline to reduce impacts to wetland values.

    The proposed project will also result in minor secondary impacts to 199 acres of halophytic wetlands. Trench dewatering is expected as a result of the project. However, in order to minimize impacts to wetland values, no more than 800 to 1,000 feet of trench will be opened at anytime ahead of the pipe laying activities and up to 1,000 feet of trench will remain open as the trench is backfilled after the pipe is placed in the trench. In addition, backfilling of the trench will be conducted at a slow rate to attempt to control the amount of water being displaced. A 150 meter mixing zone along the west side of the construction ROW has been identified for dewatering purposes. Minor secondary impacts are not expected to cause long-term impacts to natural resources in the project area.

    A permanent 50-foot easement will be centered over the new pipeline. All impacted areas within the permanent easement will be allowed to revert to preconstruction vegetative conditions. The applicant will be required to remove exotic plant species, as well as to monitor and maintain the easement area in perpetuity. Wetlands will be monitored annually for the first three years, or until the vegetation returns to conditions similar to preconstruction. Additionally, the Class I permit shall contain conditions to ensure that the permittee and the contractor act in accordance with the Florida Gas Transmission Company, LLC Typical Construction Methods in Uplands, Wetlands, Turbidity Control Measures and Wetland Mitigation, Monitoring and Maintenance Plan (Attachment E).

    Compensatory wetland mitigation for temporary impacts and minor secondary impacts associated with the project will be satisfied through the purchase of 0.9 forested wetland and 4.1 saltwater mitigation credits from the Florida Power & Light Company's EMB.

21. **Land Use Classification** – Pursuant to Section 24-48.2(II)(A)(7), of the Code of Miami-Dade County, Florida, a substantiating letter shall be submitted stating that the proposed project does not violate any zoning laws. Said letter will be submitted after the approval by the Board of County Commissioners and prior to the issuance of a Class I permit.

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 environmental values affecting the public interest.

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 following:
    a) Miami-Dade County Public Works Manual
    b) Chapter 33B of the Code of Miami-Dade County

25. **Comprehensive Environmental Impact Statement (CEIS)** – A CEIS was completed by the applicant and reviewed by DERM to evaluate the project. The CEIS indicates that the project will result in adverse environmental impacts. Alternative pipeline route options were evaluated and the proposed pipeline route was preferred and approved by the Federal Energy Regulatory Commission (FERC). However, the project is not reasonably expected to result in major cumulative adverse environmental impacts. In addition, the project has been designed to adequately avoid and minimize impacts to wetlands.

26. **Conformance with All Applicable Federal, State and Local Laws and Regulations** - The proposed project is in conformance with the following applicable State, Federal and local laws and regulations:
    a) Chapter 24 of the Code of Miami-Dade County
    b) United States Clean Water Act (US Army Corps of Engineers permit is required)
    c) South Florida Water Management District (permit is required)

27. **Conformance with the Miami-Dade County Comprehensive Development Master Plan (CDMP)** - In the opinion of DERM, 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 2/Policy 2A - Level of Service. The proposed project does not involve new or significant expansion of existing urban land uses.

Objective 3/Policies 3A, 3B, 3C - Protection of natural resources and systems. – The proposed project is consistent with the Conservation and Coastal Management Elements of the CDMP. The 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 9 - 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 will not take place within the tidal waters of 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 located within a wellfield protection area.

Objective 3/Policy 3E - Limestone mining within the area bounded by the Florida Turnpike, the Miami-Dade/Broward Levee, N.W. 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.

Objective 5/Policies 5A, 5B, 5F - Flood protection and cut and fill criteria. – The proposed project does not compromise flood protection, and is consistent with all relevant criteria related to cut and fill activities.

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 6/Policy 6D - Suitable fill material for the support of development. – The proposed project does not involve filling for the purposes of development.

Objective 7/Policy 7A - No net loss of high quality, relatively unstressed wetlands. – The proposed project will result in temporary impacts to 27 acres of wetlands supporting halophytic vegetation, and minor secondary impacts to 199 acres of halophytic wetlands. However, the proposed project is in the public interest, and no other reasonable alternative location exists to construct the subject pipeline. Impacts to relatively unstressed wetlands as a result of construction include the reduction of vegetative cover along the pipeline 75-foot wide construction ROW and construction areas. However, the majority of impacts are temporary in nature. Additionally, temporary impacts will be minimized by allowing the area to restore to preconstruction vegetative conditions. Furthermore, DERM has determined that the project has been designed to adequately avoid and minimize impacts to relatively unstressed wetlands. The applicant has modified the project to reduce impacts associated with construction, including but not limited to, the reduction of the width of the construction ROW from 100 feet to 75 feet and the reduction of temporary workspaces along the construction ROW. In addition, the applicant has incorporated HDD in relatively unstressed wetland areas and canal crossings along 1.6 miles of the proposed pipeline to reduce impacts to resources.

A permanent 50-foot easement will be centered over the new pipeline. The applicant will be required to remove exotic plant species, as well as to monitor and maintain the easement area in perpetuity. Wetlands will be monitored annually for the first three years, or until the vegetation returns to conditions similar to preconstruction. Additionally, the Class I permit shall contain conditions to ensure that the permittee and the contractor act in accordance with the Florida Gas Transmission Company, LLC Typical Construction Methods in Uplands, Wetlands, Turbidity Control Measures and Wetland Mitigation, Monitoring and Maintenance Plan (Attachment E).

Compensatory wetland mitigation for temporary impacts and minor secondary impacts associated with the project will be satisfied through the purchase of 0.9 forested wetland and 4.1 saltwater mitigation credits from the Florida Power & Light Company's EMB.

Objective 9/Policies 9A, 9B, 9C – The proposed project is not reasonably expected to adversely affect rare, threatened and endangered species. The area has the potential to be utilized by *Crocodylus acutus* (American Crocodile) *and Mycteria americana* (Wood Stork). The proposed project will result in temporary impacts to 27 acres of wetlands supporting halophytic vegetation. Impacts to rare, threatened and endangered species as a result of construction include the reduction of vegetative cover along the pipeline 75-foot wide construction ROW and construction areas. However, the majority of impacts are temporary in nature. Additionally, temporary impacts will be minimized by allowing the area to restore to preconstruction vegetative conditions. Furthermore, DERM has determined that the project has been designed to adequately avoid and minimize impacts to rare, threatened and endangered species. The applicant has modified the project to reduce impacts associated with construction, including but not limited to, the reduction of the width of the construction ROW from 100 feet to 75 feet and the reduction of temporary workspaces along the construction ROW. In addition, the applicant has incorporated HDD in high quality wetland areas and canal crossings along 1.6 miles of the proposed pipeline to reduce impacts to rare, threatened and endangered species.

Compensatory wetland mitigation for temporary impacts and minor secondary impacts associated with the project will be satisfied through the purchase of 0.9 forested wetland and 4.1 saltwater mitigation credits from the Florida Power & Light Company's EMB.

COASTAL MANAGEMENT ELEMENT VII:

Objective 1/Policy 1A - Tidally connected mangroves in mangrove protection areas. – The proposed project is not located within a designated "Mangrove Protection Area."

Objective 1/ Policy 1B - Natural surface flow into and through coastal wetlands. – Although the proposed project involves the temporary impacts to 27 acres of wetlands supporting halophytic vegetation, and minor secondary impacts to 199 acres of halophytic wetlands, the proposed project is not reasonably expected to permanently impact natural surface flow into and through wetlands

adjacent to the project site. The Florida Department of Environmental Protection (FDEP) granted a variance to allow elevated turbidity levels within the 150 meter mixing zone. Impacts associated with increased turbidity shall not occur for more than 12 consecutive hours after construction; therefore, minor secondary impacts are not expected to cause long-term impacts to resources in the project area.

Objective 1/ Policy 1C - Elevated boardwalk access through mangroves. – The proposed project does not involve the installation of an elevated boardwalk to provide access 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 199 acres of halophytic wetlands. Impacts to mangrove forests and related natural vegetational communities as a result of construction include the reduction of vegetative cover along the pipeline 75-foot wide construction ROW and construction areas. However, the majority of impacts are temporary in nature. Additionally, temporary impacts will be minimized by allowing the area to restore to preconstruction vegetative conditions. Furthermore, DERM has determined that the project has been designed to adequately avoid and minimize impacts to mangrove forests and related natural vegetational communities. The applicant has modified the project to reduce impacts associated with construction, including but not limited to, the reduction of the width of the construction ROW from 100 feet to 75 feet and the reduction of temporary workspaces along the construction ROW. In addition, the applicant has incorporated HDD in high quality wetland areas and canal crossings along 1.6 miles of the proposed pipeline to reduce impacts to mangrove forests and related natural vegetational communities

A permanent 50-foot easement will be centered over the new pipeline. The applicant will be required to remove exotic plant species, as well as to monitor and maintain the easement area in perpetuity. Wetlands will be monitored annually for the first three years, or until the vegetation returns to conditions similar to preconstruction. Additionally, the Class I permit shall contain conditions to ensure that the permittee and the contractor act in accordance with the Florida Gas Transmission Company, LLC Typical Construction Methods in Uplands, Wetlands, Turbidity Control Measures and Wetland Mitigation, Monitoring and Maintenance Plan (Attachment E).

Compensatory wetland mitigation for temporary impacts and minor secondary impacts associated with the project will be satisfied through the purchase of 0.9 forested wetland and 4.1 saltwater mitigation credits from the Florida Power & Light Company's EMB.

Objective 1/Policy 1E - Mitigation for the degradation and destruction of coastal wetlands. Monitoring and maintenance of mitigation areas. – The proposed project will result in temporary impacts to 27 acres of wetlands supporting halophytic vegetation, and minor secondary impacts to 199 acres of halophytic wetlands. Compensatory wetland mitigation for temporary impacts and minor secondary impacts associated with the project will be satisfied through the purchase of 0.9 forested wetland and 4.1 saltwater mitigation credits from the Florida Power & Light Company's EMB. The wetland restoration and enhancement projects conducted within the EMB have enhanced property in the South Dade Wetland Basin by removing exotic vegetation, replanting with native species, restoring filled areas to natural wetland grade, and the implementation of a fire management program.

A permanent 50-foot easement will be centered over the new pipeline. All impacted areas within the permanent easement will be allowed to revert to preconstruction vegetative conditions. The applicant will be required to remove exotic plant species, as well as to monitor and maintain the easement area in perpetuity. Wetlands will be monitored annually for the first three years, or until the vegetation returns to conditions similar to preconstruction. Additionally, the Class I permit shall contain conditions to ensure that the permittee and the contractor act in accordance with the Florida Gas Transmission Company, LLC Typical Construction Methods in Uplands, Wetlands, Turbidity Control Measures and Wetland Mitigation, Monitoring and Maintenance Plan (Attachment E).

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 project does not involve the 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/Policy 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 adversely affect rare, threatened and endangered species. The area has the potential to be utilized by *Crocodylus acutus* (American Crocodile) *and Mycteria americana* (Wood Stork). The proposed project will result in temporary impacts to 27 acres of wetlands supporting halophytic vegetation, and minor secondary impacts to 199 acres of halophytic wetlands. Impacts to endangered or threatened animal species as a result of construction include the reduction of vegetative cover along the pipeline 75-foot wide construction ROW and construction areas. However, the majority of impacts are temporary in nature. Additionally, temporary impacts will be minimized by allowing the area to restore to preconstruction vegetative conditions. Furthermore, DERM has determined that the project has been designed to adequately avoid and minimize impacts to endangered or threatened animal species. The applicant has modified the project to reduce impacts associated with construction, including but not limited to, the reduction of the width of the construction ROW from 100 feet to 75 feet and the reduction of temporary workspaces along the construction ROW. In addition, the applicant has incorporated HDD in high quality wetland areas and canal crossings along 1.6 miles of the proposed pipeline to reduce impacts to endangered or threatened animal species.

Compensatory wetland mitigation for temporary impacts and minor secondary impacts associated with the project will be satisfied through the purchase of 0.9 forested wetland and 4.1 saltwater mitigation credits from the Florida Power & Light Company's EMB.

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

Objective 5/Policy 5D - Consistency with Chapter 33D, Miami-Dade County Code (shoreline access, environmental compatibility of shoreline development) - The proposed project site is not located within the review boundaries of the Shoreline Development Review Committee. Therefore, the thresholds for review under the Shoreline Ordinance do not apply and 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 not located within the East Everglades Area.

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 not located within Biscayne Bay.

30. **Conformance with the Miami-Dade County Manatee Protection Plan** - Protection of endangered or threatened animal species. – The proposed project area is not located within essential habitat for the West Indian Manatee.

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

32. **Municipality Recommendation** – Pursuant to Section 24-48.2(II)(A)(7), Code of Miami-Dade County, Florida, a substantiating letter shall be submitted stating that the proposed project does not violate any zoning laws. Said letter will be submitted after the approval by the Board of County Commissioners and prior to the issuance of the Class I permit.

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

34. **Maximum Protection of a Wetland's Hydrological and Biological Functions** – The proposed project will result in temporary impacts to 27 acres of wetlands supporting halophytic vegetation and minor secondary impacts to 199 acres of halophytic wetlands. Compensatory wetland mitigation for temporary impacts and minor secondary impacts associated with the project will be satisfied through the purchase of 0.9 forested wetland and 4.1 saltwater mitigation credits from the Florida Power & Light Company's EMB.

    A permanent 50-foot easement will be centered over the new pipeline. All impacted areas within the permanent easement will be allowed to revert to preconstruction vegetative conditions. The applicant will be required to remove exotic plant species, as well as to monitor and maintain the easement area in perpetuity. Wetlands will be monitored annually for the first three years, or until the vegetation returns to conditions similar to preconstruction. Additionally, the Class I permit shall contain conditions to ensure that the permittee and the contractor act in accordance with the Florida Gas Transmission Company, LLC Typical Construction Methods in Uplands, Wetlands, Turbidity Control Measures and Wetland Mitigation, Monitoring and Maintenance Plan (Attachment E).

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** – DERM has considered the following factors:
    i. **Whether the proposed exceedance is the minimum necessary to avoid seagrasses or other valuable environmental resources** – Not applicable.
    ii. **Whether the proposed exceedance is the minimum necessary to achieve adequate water depth for mooring of a vessel** – Not applicable
    iii. **Whether the applicant has provided notarized letters of consent to DERM from adjoining riparian property owners** – Not applicable.
    iv. **Whether any letters of objection from adjoining riparian property owners were received by DERM** – Not applicable.

The proposed project was also evaluated for compliance with the standards contained in Section 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 - The proposed project complies with the following criteria:

(a) Minimum dredging and spoiling for public necessity.

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 – The proposed project does not involve the creation of a boat slip.

24-48.3 (4) Clean Fill in Wetlands – All of the fill proposed for this project will meet the definition of clean fill as described in Section 24-5 of the Code of Miami-Dade County.

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

Lisa Spadafina, Manager
Coastal Resources Section

Nicole Fresard, Biologist II
Coastal Resources Section