

One Energy Place
Pensacola, Florida 32520

850.444.6111

ORIGINAL



June 30, 2000

Ms. Blanca S. Bayo, Director
Division of Records and Reporting
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee FL 32399-0870

000808 - E1

Dear Ms. Bayo:

Enclosed are an original and fifteen copies of the Petition of Gulf Power Company for Approval of Cost Recovery for New Environmental Programs.

Also enclosed is a 3.5 inch double sided, high density diskette containing the Petition in WordPerfect for Windows 8.0 format as prepared on a Windows NT based computer.

Sincerely,

A handwritten signature in cursive script that reads "Susan D. Ritenour".

Susan D. Ritenour
Assistant Secretary and Assistant Treasurer

lw

cc: Beggs and Lane
Jeffrey A. Stone, Esquire

00 JUN -9 10 9 57

DOCUMENT NUMBER-DATE

08102 JUL-38

FPSC-RECORDS/REPORTING

ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: Petition of Gulf Power Company for)	
approval of new environmental programs for)	Docket No.: <u>000808-E1</u>
cost recovery through the Environmental Cost)	Filed: June 30, 2000
Recovery Clause.)	
_____)	

PETITION OF GULF POWER COMPANY FOR APPROVAL OF COST RECOVERY FOR NEW ENVIRONMENTAL PROGRAMS

GULF POWER COMPANY ("Gulf Power", "Gulf", or "the Company"), by and through its undersigned counsel, and pursuant to Florida Public Service Commission Order Nos. PSC-94-0044-FOF-EI and PSC-94-1207-FOF-EI, hereby petitions this Commission for approval of the Company's Consumptive Water Use Monitoring Activity and Smith Wetlands Mitigation Plan as new programs for cost recovery through the Environmental Cost Recovery Clause. As grounds for the relief requested by this petition, the Company would respectfully show:

(1) Gulf is a corporation with its headquarters located at 500 Bayfront Parkway, Pensacola, Florida 32501. The Company is an investor-owned electric utility operating under the jurisdiction of this Commission. Notices and communications with respect to this petition and docket should be addressed to:

Jeffrey A. Stone
Russell A. Badders
Beggs & Lane
P. O. Box 12950
Pensacola, FL 32576-2950

Susan D. Ritenour
Assistant Secretary and Assistant Treasurer
Gulf Power Company
One Energy Place
Pensacola, FL 32520-0780

(2) Gulf seeks approval of the Consumptive Water Use Monitoring Activity and the Smith Wetlands Mitigation Plan as environmental compliance programs/activities appropriate for recovery through the Environmental Cost Recovery Clause ("ECRC"). These new

DOCUMENT NUMBER-DATE

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FPSC-RECORDS/REPORTING

programs/activities are appropriate for ECRC recovery based on the provisions of Section 366.8255 of the Florida Statutes and the prior orders of the Commission implementing that statute.

(3) The first program for which Gulf is seeking approval is the Consumptive Water Use Monitoring Activity. Implementation of the Consumptive Use Monitoring Activity is necessary for Gulf to ensure compliance with a new environmental requirement that is being made a part of the Consumptive Use and Individual Water Use permits issued by the Northwest Florida Water Management District ("NFWWMD") for plants operated by Gulf. Copies of the relevant permits for Plant Crist and Plant Smith are attached hereto as Exhibit "A". The new requirement will be made a part of the permit for Plant Sholz when that permit is renewed. The NFWWMD is imposing this new environmental requirement pursuant to general authority granted to it in Sections 373.113, 373.044, 373.171 and 373.216, Florida Statutes. Rule 40A-2.381, Florida Administrative Code, provides the specific basis for the NFWWMD's authority to impose a condition on any permit issued by the NFWWMD. The new environmental requirement is the installation and monitoring of in-line totaling water flow meters on all existing and future water supply wells at Gulf's Crist and Smith electric generating plants. In addition, the NFWWMD is now requiring Gulf to periodically report the total water withdrawals at the sites subject to the new requirements. There are no in-line totaling water flow meters currently installed on any of Gulf's existing water supply wells.

(4) Gulf will incur costs related to the installation and operation of new in-line totaling water flow meters at both Plant Crist and Plant Smith in addition to administrative costs for the implementation of the Activity. The Consumptive Use Monitoring Activity is a capital

activity. The capital expenditures associated with the activity are projected to be approximately \$145,000 for calendar year 2000. Gulf does not expect to incur any maintenance expenses in the first five years after installation of the flow meters. After that period, the flow meters may require re-calibration and Gulf requests approval to recover these additional expenses. Costs related to the Plant Sholz flow meters will be determined at the time that the permit is renewed.

(5) The Smith Wetlands Mitigation Plan is the second activity for which Gulf seeks recovery through the ECRC by this petition. The construction of Smith Unit 3 in Bay County will result in the unavoidable loss of wetlands that are regulated by the Florida Department of Environmental Protection (FDEP) and Army Corps of Engineers (USACE). The FDEP and the USACE have required that the impacted wetlands be mitigated by enhancing the quality of certain existing wetlands near the site of Smith Unit 3. Gulf has submitted and received approval of its mitigation plan. The Smith Wetlands Mitigation Plan is a new environmental requirement. A copy of the Smith Wetlands mitigation plan is attached hereto as Exhibit "B".

(6) The Smith Wetlands Mitigation Plan requires Gulf to enhance 130 acres of wet pine plantation within a 232-acre parcel of land. The 130-acres will be preserved in perpetuity through a conservation easement or transfer to a resource agency. Various tree species will be planted and maintained for a five year period. Monitoring and reporting requirements are both a part of the Smith Wetlands Mitigation plan.

(7) Gulf will incur costs related to the purchase of land, planting the trees and general construction of the enhanced wetlands required by the Smith Wetlands Mitigation Plan in addition to administrative costs associated with its implementation. The Smith Wetlands Mitigation Plan is a capital activity. The capital expenditures associated with the program are

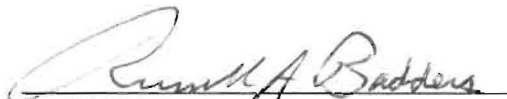
projected to be approximately \$1,270,000 for calendar year 2000.

(8) The expenses and/or expenditures associated with the activities discussed herein are not recovered through any other cost recovery mechanism or through base rates. These new activities are being initiated after the Company's last test year upon which its current base rates were established. As a result, the expenses and/or expenditures associated with these activities will be incurred after the Company's last test year upon which rates are based.

(9) Gulf is not requesting a change in the ECRC factors that have been approved for calendar year 2000. Moreover, the projected expenditures/expenses are not expected to result in the need for a mid-course correction of the ECRC factors during 2000. The actual expenditures/expenses will be addressed in an up-coming true-up cycle and will be subject to audit.

WHEREFORE, Gulf Power Company respectfully requests the Commission to approve the Consumptive Use Monitoring Activity and the Smith Wetlands Mitigation Activity and the costs associated therewith for recovery through the Environmental Cost Recovery Clause consistent with this petition.

Respectfully submitted the 30th day of June, 2000.



JEFFREY A. STONE

Florida Bar No. 325953

RUSSELL A. BADDERS

Florida Bar No. 7455

Beggs & Lane

P. O. Box 12950

Pensacola, Florida 32576-2950

(850) 432-2451

Attorneys for Gulf Power Company

EXHIBIT A

**NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
INDIVIDUAL WATER USE PERMIT**
(NWFWM Form No. A2-E)

Permit granted to:	Permit No.: <u>19850074 Modification/Renewal</u>
<u>Gulf Power Company</u>	Date Permit Granted: <u>November 30, 1999</u>
<u>Crist Electrical Generating Plant</u>	Permit Expires On: <u>December 1, 2004</u>
<u>One Energy Place</u>	<u>Sand-and-Gravel Aquifer,</u>
	<u>Governor's Bayou/Escambia</u>
<u>Pensacola, Florida 32520-0328</u>	Source Classification: <u>River, and Recycled Water</u>
(Legal Name and Address)	Use Classification: <u>Power Generation</u>
County: <u>Escambia</u> Area: <u>C</u>	Location: Section <u>25</u> 1/4 Section _____
Application No.: <u>I05752</u>	Township <u>1 North</u> Range <u>30 West</u>

Terms and standard conditions of this Permit are as follows:

1. That all statements in the application and in supporting data are true and accurate and based upon the best information available, and that all conditions set forth herein will be complied with. If any of the statements in the application and in the supporting data are found to be untrue and inaccurate, or if the Permittee fails to comply with all of the conditions set forth herein, then this Permit shall be revoked as provided by Chapter 373.243, Florida Statutes.
2. This Permit is predicated upon the assertion by the Permittee that the use of water applied for and granted is and continues to be a reasonable and beneficial use as defined in Section 373.019(4), Florida Statutes, is and continues to be consistent with the public interest, and will not interfere with any legal use of water existing on the date this Permit is granted.
3. This Permit is conditioned on the Permittee having obtained or obtaining all other necessary permit(s) to construct, operate and certify withdrawal facilities and the operation of water system.
4. This Permit is issued to the Permittee contingent upon continued ownership, lease or other present control of property rights in underlying, overlying, or adjacent lands. This Permit may be assigned to a subsequent owner as provided by Chapter 40A-2.351, Florida Administrative Code, and the acceptance by the transferee of all terms and conditions of the Permit.

5. This Permit authorizes the Permittee to make a combined average annual withdrawal of **252,500,000*** gallons of water per day, a maximum combined withdrawal of **305,420,000**** gallons during a single day, and a combined monthly withdrawal of **9,366,660,000***** gallons. Withdrawals for the individual facilities are authorized as shown in the table below in paragraph six. However, the total combined amount of water withdrawn by all facilities listed in paragraph six shall not exceed the amounts identified above.

6. Individual Withdrawal Facility Authorization

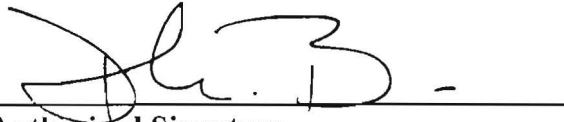
WITHDRAWAL POINT ID NO.	LOCATION SEC.TWN.RNG	GALLONS/DAY AVERAGE	GALLONS/DAY MAXIMUM
CEGP #1 (AAA6422)	Sec. 25, T1N, R30W		-0- To Be Abandoned
CEGP #2 (AAA6423)	Sec. 25, T1N, R30W		720,000
CEGP #3 (AAA6421)	Sec. 25, T1N, R30W		1,080,000
CEGP #4 (AAA6418)	Sec. 25, T1N, R30W		1,080,000
CEGP #5 (AAA6420)	Sec. 25, T1N, R30W		1,080,000
CEGP #6 (AAA6419)	Sec. 25, T1N, R30W		1,080,000
CEGP #7	Sec. 25, T1N, R30W		1,080,000 Proposed
CEGP 1A	Sec. 25, T1N, R30W		24,480,000
CEGP 1B	Sec. 25, T1N, R30W		24,480,000
CEGP 2A	Sec. 25, T1N, R30W		24,480,000
CEGP 2B	Sec. 25, T1N, R30W		24,480,000
CEGP 3A	Sec. 25, T1N, R30W		28,800,000
CEGP 3B	Sec. 25, T1N, R30W		28,800,000
CEGP 4A	Sec. 25, T1N, R30W		56,160,000
CEGP 4B	Sec. 25, T1N, R30W		56,160,000
CEGP 5A	Sec. 25, T1N, R30W		56,160,000
CEGP 5B	Sec. 25, T1N, R30W		56,160,000
CEGP 6A/7A	Sec. 25, T1N, R30W		17,568,000
CEGP 6B/7B	Sec. 25, T1N, R30W		17,568,000
CEGP 6C/7C	Sec. 25, T1N, R30W		17,568,000
* 2,500,000 Ground Water – 250,000,000 Surface Water ** 6,120,000 Ground Water – 299,300,000 Surface Water *** 88,360,000 Ground Water – 9,278,300 Surface Water			

7. The use of the permitted water withdrawal is restricted to the use classification set forth by the Permit. Any change in the use of said water shall require a modification of this Permit.

8. The District's staff, upon proper identification, will have permission to enter, inspect and observe permitted and related facilities in order to determine compliance with the approved plans, specifications and conditions of this Permit.
9. The District's staff, upon providing prior notice and proper identification, may request permission to collect water samples for analysis, measure static and/or pumping water levels and collect any other information deemed necessary to protect the water resources of the area.
10. The District reserves the right, at a future date, to require the Permittee to submit pumpage records for any or all withdrawal point(s) covered by this Permit.
11. Permittee shall mitigate any significant adverse impact caused by withdrawals permitted herein on the resource and legal water withdrawals and uses, and on adjacent land use, which existed at the time of permit application. The District reserves the right to curtail permitted withdrawal rates if the withdrawal causes significant adverse impact on the resource and legal uses of water, or adjacent land use, which existed at the time of permit application.
12. Permittee shall not cause significant saline water intrusion or increased chloride levels. The District reserves the right to curtail permitted withdrawal rates if withdrawals cause significant saline water intrusion or increased chloride levels.
13. The District, pursuant to Section 373.042, Florida Statutes, at a future date, may establish minimum and/or management water levels in the aquifer, aquifers, or surface water hydrologically associated with the permitted withdrawals; these water levels may require the Permittee to limit withdrawal from these water sources at times when water levels are below established levels.
14. Nothing in this Permit should be construed to limit the authority of the Northwest Florida Water Management District to declare water shortages and issue orders pursuant to Section 373.175, Florida Statutes, or to formulate and implement a plan during periods of water shortage pursuant to Section 373.246, Florida Statutes, or to declare Water Resource Caution Areas pursuant to Chapters 40A-2.801, and 62-40.41, Florida Administrative Code
 - (a) In the event of a declared water shortage, water withdrawal reductions shall be made as ordered by the District.
 - (b) In the event of a declared water shortage or an area as a Water Resource Caution Area, the District may alter, modify or inactivate all or parts of this permit.
15. The Permittee shall properly plug and abandon any well determined unsuitable for its intended use, not properly operated and maintained, or removed from service. The

well(s) shall be plugged and abandoned to District Standards in accordance with Section 40A-3.531, Florida Administrative Code.

16. Any Specific Permit Condition(s) enumerated in Attachment A are herein made a part of this Permit.

A handwritten signature in black ink, appearing to be "J. B.", written over a horizontal line.

Authorized Signature
Northwest Florida Water Management District

ATTACHMENT
Gulf Power Company
Crist Electrical Generating Plant

Individual Water Use Permit No. 1985-0074
Individual Water Use Application No. I05752

1. The Permittee shall record the data required on the Water Use Summary Reporting Form, NFWFMD A2-I, and submit copies to the District by January 31 of each year. The withdrawals shall be reported separately by source (ground water, surface, and recycled). The ground and surface water withdrawals shall also be provided as an aggregate. The first report is due by January 31, 2000.
2. The Permittee, by October 31 of each year, shall report the following information:
 - a. Results of all ground water laboratory analyses conducted for water sampled from well CEGP #5 during the previous 12 months. Water quality samples from well CEGP #2 shall be collected during February and August of each year and analyzed for sodium, chloride, sulfate, bicarbonate, carbonate, calcium, magnesium, potassium, specific conductance, total dissolved solids and pH. Prior to sampling, the Permittee shall purge approximately three to five well volumes from each well, and shall report with each set of test results, the duration of purging, purge volume, and purge rates used.
 - b. The Permittee shall record static water level data for each production well during the first two weeks of January, April, July, and October. The Permittee, by December 31, 1999, shall contact the District for assistance in designing the method and specifics of data collection. The water level data shall be referenced to mean sea level.

The Permittee, in the event drawdowns are detected greater than those predicted by the applicant's model or water quality degrades in any well to the level of concern by the District, shall immediately initiate the monthly collection, analysis, and reporting of water samples and water levels from all wells identified by the District at such time. The Permittee shall submit a written plan to the District identifying the specific actions it will implement to address the issue(s) of concern. Monthly recording of the data shall continue until such time as determined by the District.

The first water quality and water level reports are due by October 31, 2000. Historical water quality analyses and summaries for all wells shall be submitted with the first report.

3. The Permittee shall continue to return approximately 95% or more of the surface water withdrawn.
4. The Permittee, at the time of construction, shall install an in-line totaling flow meter at the well head of proposed well CEGP #7. The Permittee, by December 31, 2000, shall install

and maintain in working order in-line totaling flow meters on all other ground water wells (#2, #3, #4, #5, and #6).

5. The Permittee shall implement measures to increase water conservation and efficiency at the facility. The Permittee's water conservation/efficiency program shall have as a goal the reduction of its projected ground water withdrawal needs by 25% by December 31, 2004. The Permittee, by January 31 of each year, shall submit to the District a report detailing the actions taken, and the progress during the previous year, in achieving the stated goal. The first submittal is due by January 31, 2001.
6. The Permittee, by December 31, 2000, shall abandon well CEPG #1 in accordance with the District standards for well abandonment. Well CEPG #3 shall either be returned to service or properly abandoned by December 31, 2003.
7. The Permittee shall mitigate impacts attributable to the authorized withdrawal that interferes with users of water in the vicinity of Gulf Power's wells. The Permittee shall report the occurrence of any such impacts to the District and shall identify the mitigation action undertaken to address the impacts.
8. The Permittee, when corresponding with the District (e.g., pumping reports), shall reference its wells by the Florida Unique Identification Number.

**NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
INDIVIDUAL WATER USE PERMIT**

(NFWFMD Form No. A2-E)

Permit granted to: _____ Permit No.: 850073 Modification/Renewal

Gulf Power Company _____ Date Permit Granted: August 26, 1999
Lansing Smith _____
Electric Generating Plant _____ Permit Expires On: August 27, 2004
One Energy Place _____ Source Classification: Floridan Aquifer, North
Pensacola, Florida 32520-0328 _____ Bay, Recycled Water
(Legal Name and Address) Use Classification: Power Generation
Public Supply

County: Bay Area: B Location: Section 25, 36 1/4 Section _____

Application No.: I05717 Township 2 South Range 15 West

Terms and standard conditions of this Permit are as follows:

1. That all statements in the application and in supporting data are true and accurate and based upon the best information available, and that all conditions set forth herein will be complied with. If any of the statements in the application and in the supporting data are found to be untrue and inaccurate, or if the Permittee fails to comply with all of the conditions set forth herein, then this Permit shall be revoked as provided by Chapter 373.243, Florida Statutes.
2. This Permit is predicated upon the assertion by the Permittee that the use of water applied for and granted is and continues to be a reasonable and beneficial use as defined in Section 373.019(4), Florida Statutes, is and continues to be consistent with the public interest, and will not interfere with any legal use of water existing on the date this Permit is granted.
3. This Permit is conditioned on the Permittee having obtained or obtaining all other necessary permit(s) to construct, operate and certify withdrawal facilities and the operation of water system.
4. This Permit is issued to the Permittee contingent upon continued ownership, lease or other present control of property rights in underlying, overlying, or adjacent lands. This Permit may be assigned to a subsequent owner as provided by Chapter 40A-2.351, Florida Administrative Code, and the acceptance by the transferee of all terms and conditions of the Permit.

5. This Permit authorizes the Permittee to make a combined average annual withdrawal of **265,800,000*** gallons of water per day, a maximum combined withdrawal of **276,880,000**** gallons during a single day, and a combined monthly withdrawal of **8,531,200,000***** gallons. Withdrawals for the individual facilities are authorized as shown in the table below in paragraph six. However, the total combined amount of water withdrawn by all facilities listed in paragraph six shall not exceed the amounts identified above.

6. Individual Withdrawal Facility Authorization

WITHDRAWAL POINT ID NO.	LOCATION SEC,TWN,RNG	GALLONS/DAY AVERAGE	GALLONS/DAY MAXIMUM
LSGP #1	Sec. 36, T2S, R15W		720,000
LSGP #2	Sec. 36, T2S, R15W		720,000
LSGP #3	Sec. 36, T2S, R15W		720,000
LSGP #4	Sec. 25, T2S, R15W		720,000
LGSP 1A/NB	Sec. 36, T2S, R15W		68,256,000
LGSP 1B/NB	Sec. 36, T2S, R15W		68,256,000
LGSP 2A/NB	Sec. 36, T2S, R15W		68,256,000
LGSP 2B/NB	Sec. 36, T2S, R15W		68,256,000
* 1,200,000 Ground Water – 264,600,000 Surface Water ** 2,880,000 Ground Water – 274,000,000 Surface Water *** 37,200,000 Ground Water – 8,494,000,000 Surface Water			

7. The use of the permitted water withdrawal is restricted to the use classification set forth by the Permit. Any change in the use of said water shall require a modification of this Permit.

8. The District's staff, upon proper identification, will have permission to enter, inspect and observe permitted and related facilities in order to determine compliance with the approved plans, specifications and conditions of this Permit.

9. The District's staff, upon providing prior notice and proper identification, may request permission to collect water samples for analysis, measure static and/or pumping water levels and collect any other information deemed necessary to protect the water resources of the area.

10. The District reserves the right, at a future date, to require the Permittee to submit pumpage records for any or all withdrawal point(s) covered by this Permit.

11. Permittee shall mitigate any significant adverse impact caused by withdrawals permitted herein on the resource and legal water withdrawals and uses, and on adjacent land use, which existed at the time of permit application. The District reserves the right to curtail

permitted withdrawal rates if the withdrawal causes significant adverse impact on the resource and legal uses of water, or adjacent land use, which existed at the time of permit application.

12. Permittee shall not cause significant saline water intrusion or increased chloride levels. The District reserves the right to curtail permitted withdrawal rates if withdrawals cause significant saline water intrusion or increased chloride levels.
13. The District, pursuant to Section 373.042, Florida Statutes, at a future date, may establish minimum and/or management water levels in the aquifer, aquifers, or surface water hydrologically associated with the permitted withdrawals; these water levels may require the Permittee to limit withdrawal from these water sources at times when water levels are below established levels.
14. Nothing in this Permit should be construed to limit the authority of the Northwest Florida Water Management District to declare water shortages and issue orders pursuant to Section 373.175, Florida Statutes, or to formulate and implement a plan during periods of water shortage pursuant to Section 373.246, Florida Statutes, or to declare Water Resource Caution Areas pursuant to Chapters 40A-2.801, and 62-40.41, Florida Administrative Code
 - (a) In the event of a declared water shortage, water withdrawal reductions shall be made as ordered by the District.
 - (b) In the event of a declared water shortage or an area as a Water Resource Caution Area, the District may alter, modify or inactivate all or parts of this permit.
15. The Permittee shall properly plug and abandon any well determined unsuitable for its intended use, not properly operated and maintained, or removed from service. The well(s) shall be plugged and abandoned to District Standards in accordance with Section 40A-3.531, Florida Administrative Code.
16. Any Specific Permit Condition(s) enumerated in Attachment A are herein made a part of this Permit.



Authorized Signature
Northwest Florida Water Management District

ATTACHMENT
Gulf Power Company
Lansing Smith Plant

Individual Water Use Permit No. 850073
Individual Water Use Application No. I05717

1. The Permittee shall record the data required on the Water Use Summary Reporting Form, NFWMD A2-I, and submit copies to the District by January 31 of each year. The withdrawals shall be reported separately by source (ground water, surface, and recycled). The ground and surface water withdrawals shall also be provided as an aggregate. The first report is due by January 31, 2000.
2. The Permittee, by January 31, April 30, July 31, and October 31 of each year, shall report the following information as specified below:
 - a. Water quality results from tests conducted on each production well of the system during the first two weeks of the months of January, April, July, and October as appropriate to the reporting period. The water quality analysis shall test for the following chemical concentrations: chloride, sodium, sulfate, bicarbonate, carbonate, calcium, magnesium, potassium, and total dissolved solids. Prior to sampling, the Permittee shall purge approximately three to five well volumes from each well, and shall report with each set of test results, the duration of purging, purge volume, and purge rates used.
 - b. Static water level data for each production well as recorded during the first two weeks of January, April, July, and October as appropriate to the reporting period. The Permittee shall contact the District for assistance in designing the method and specifics of data collection. The water level data shall be referenced to mean sea level.

The Permittee, in the event drawdowns are detected greater than those predicted by the applicant's model or water quality degrades in any well to the level of concern by the District, shall immediately initiate the monthly collection, analysis, and reporting of water samples from all wells identified by the District at such time. The Permittee shall submit a written plan to the District identifying the specific actions it will implement to address the issue(s) of concern. Monthly water quality sampling shall continue until such time as determined by the District.

The first water use, water quality and water level reports are due by January 31, ²⁰⁰⁰~~1999~~. *KT*

3. The Permittee shall continue to return approximately 95% or more of the surface water withdrawn.

4. The Permittee, at the time of construction, shall install an in-line totaling flow meter at the well head of proposed well LSGP #4. The Permittee shall install and maintain in working order in-line totaling flow meters on all other ground water wells by August 31, 2000.
5. The Permittee shall not exceed a withdrawal rate of 2,000 gallons per minute from the Floridan Aquifer. The Permittee, at the earliest possible time, shall implement a schedule to automatically rotate the pumping of the wells in a manner to minimize impact to the resource and any nearby existing users. Additionally, the Permittee shall maximize to the extent practical the use of proposed well LSGP #4 to reduce demands placed on the existing wells located at the main facility.
6. The Permittee shall implement measures to increase water conservation and efficiency at the facility. The Permittee's water conservation/efficiency program shall have as a goal the reduction of its projected ground water withdrawal needs by 25% by December 31, 2004. The Permittee, by January 31 of each year, shall submit to the District a report detailing the actions taken, and progress during the pervious year, in achieving the stated goal.
7. The Permittee shall mitigate impacts attributable to the authorized withdrawal that interferes with users of water in the vicinity of Gulf Power's wells. The Permittee shall report the occurrence of any such impacts to the District and shall identify the mitigation action undertaken to address the impacts.
8. The Permittee, when corresponding with the District (e.g., pumping reports), shall reference its wells by the Florida Unique Identification Number.

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

WATER USE SUMMARY REPORTING FORM

Mail To: Northwest Florida Water Management District Permit # _____ County _____
 Division of Resource of Regulation
 Route 1, Box 3099, Havana, Florida 32333-9700 Month & Year _____
 (850) 539-5999

Permittee Name & Phone No.: _____

Water Use Reporting Method: Flow Meter _____ Pump Run Time _____ Other _____

Comments: _____

FOR IRRIGATION WATER USERS ONLY	
Crop/Vegetation Type(s)	Net Acres Irrigated

DAYS OF MONTH	FACILITY/WELL # (1000 GALS)	FACILITY/WELL # (1000 GALS)	FACILITY/WELL # (1000 GALS)	FACILITY/WELL # (1000 GALS)	SYSTEM DAILY TOTAL (1000 GALS)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
Signature of Person Completing Form _____ Date _____				SYSTEM MONTHLY TOTAL	
				SYSTEM DAILY MAXIMUM	

**MITIGATION PLAN SPECIFICATIONS
LANSING SMITH UNIT 3
BAY COUNTY, FLORIDA**

INTRODUCTION

The construction of Smith Unit 3 in Bay County, Florida will result in the unavoidable loss of 15.2 acres of Florida Department of Environmental Protection (FDEP) wetlands and 15.3 acres of U.S. Army Corps of Engineers (USACE) wetlands (i.e., 6.4 acres of cypress-titi swamp, 0.2 acre of ditch, and 8.7 acres of wet pine plantation). To provide compensation for the loss of the 15.3 acres of FDEP/USACE wetlands, Gulf Power will enhance 130 acres of wet pine plantation within a 232-acre parcel of land located along the southeastern corner of Jackson's Titi Swamp about 1-mile north of Smith Unit 3 by removing the existing pines and planting native hardwood and cypress trees (Figure 1). The 130 acres of mitigation is based upon a 12:1 ratio of wetland enhancement to wetland loss for impacts to cypress-titi swamp (i.e., 6.4 acres x 12 = 77 acres) and a 6:1 ratio of wetland enhancement to wetland loss for impacts to wet pine plantation and the ditch (i.e., 8.9 acres x 6 = 53 acres). The 232-acre parcel of land borders existing cypress-titi swamp on the north and west, an existing transmission line to the east, and County Road 2300 on the south (Figure 2). The existing transmission line corridor along the eastern boundary of the parcel of land provides access to the mitigation site. After success, the 130-acre parcel of land will be preserved in perpetuity either through a conservation easement or, if preferred, transferred in fee title to FDEP, another resource agency or a third party. More specific details concerning the property transfer will be provided after further discussion with USACE and FDEP.

TREE SPECIES AND DENSITY

Bottomland hardwood and cypress tree plantings will result in an average density of surviving trees of at least 400 trees per acre after each growing season for five years following initial planting, as determined by annual monitoring. The overall tree species composition of bottomland hardwood and cypress seedlings will be:

- Twenty percent bald cypress (*Taxodium distichum*);
- Twenty percent red maple (*Acer rubrum*);

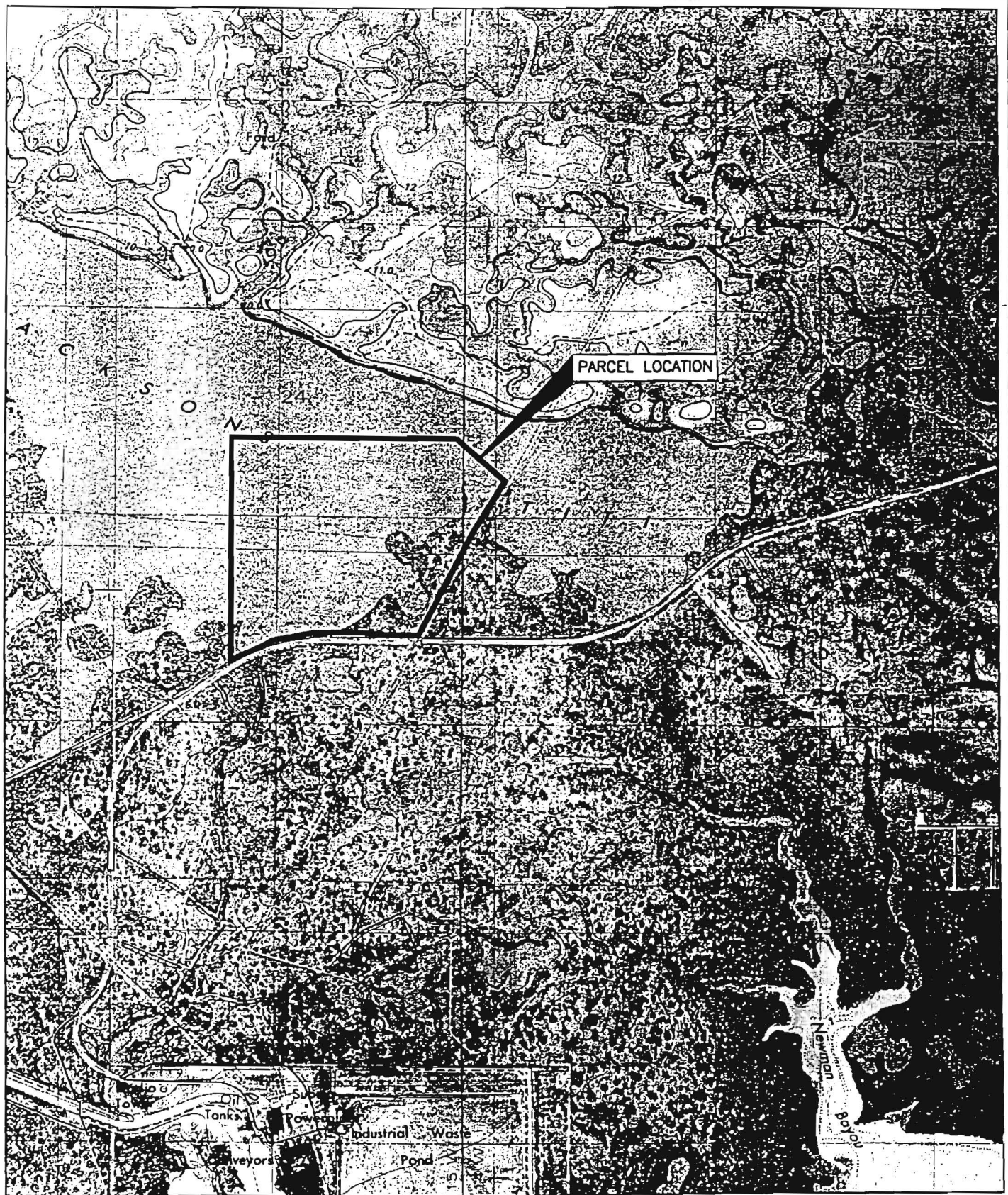
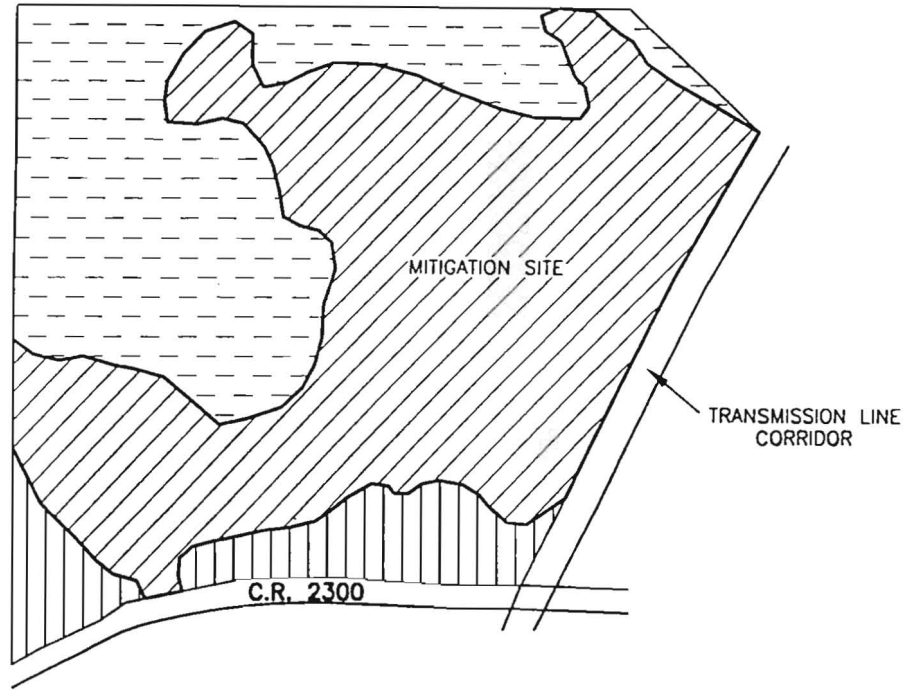


FIGURE 1.
TOPOGRAPHIC MAP OF PARCEL CONTAINING THE
PROPOSED MITIGATION SITE
GULF POWER
SMITH UNIT 3

Sources: USGS Quod Map of Southport, FL.; ECT, 2000.

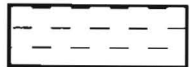
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LEGEND



WET PINE PLANTATION - PLANTING
AREA (130 ACRES)



EXISTING CYPRESS-TITI SWAMP



EXISTING WET PINE PLANTATION

NOTE: MITIGATION SITE BOUNDARIES ARE APPROXIMATE.



GRAPHIC SCALE

0 250.0 500 1000



SCALE IN FEET

FIGURE 2.
MITIGATION PARCEL MAP
GULF POWER
SMITH UNIT 3

Source: ECT, 2000.

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- Twenty percent dahoon holly (*Ilex cassine*);
- Twenty percent elm (*Ulmus americana*); and
- Twenty percent laurel oak (*Quercus laurifolia*).

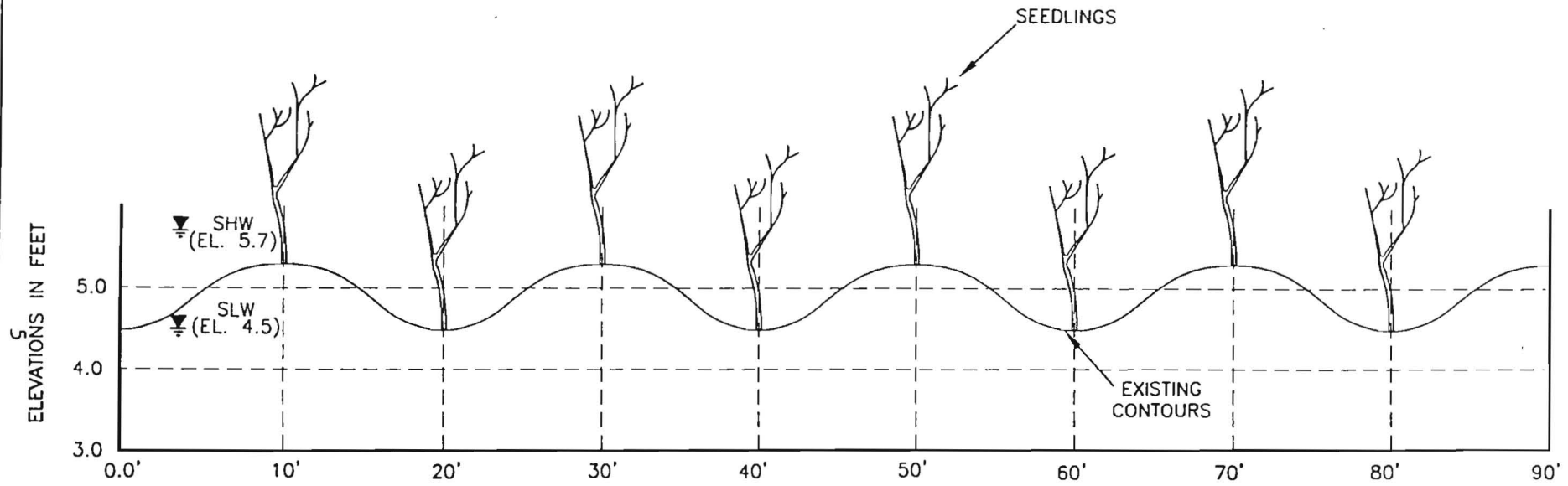
The above species occur naturally in hardwood/cypress swamps in the immediate vicinity.

Substitutions of species based on commercial availability will be at the approval of the project biologist. Species substitutions will only include those species that occur naturally in swampland in the region. Examples of possible species substitutions could include, but not be limited to, sweet bay (*Magnolia virginiana*), myrtle holly (*Ilex cassine* var. *myrtifolia*), swamp red bay (*Persea palustris*), popash (*Fraxinus caroliniana*), and swamp tupelo (*Nyssa sylvatica* subsp. *biflora*). The placement and species composition within each grouping of tree seedlings at the parcel of land will be finalized by the onsite project biologist prior to planting. A cross section view of the planting scheme is provided in Figure 3.

TREE MATERIAL

The tree material will be first-class grade, true to name and consist of 3-gallon or larger container size seedlings. All plants will be nursery grown and originate within a 200-mile distance from the parcel of land. Trees having any of the following defects will be rejected:

1. Undue abrasions of the bark;
2. Dried root systems;
3. Dried top wood of deciduous plants or dried foliage of evergreens;
4. Prematurely opened buds or with buds stripped off;
5. Diseased or insect-infected trees; and
6. Trees in containers that are overgrown or rootbound.



NOTES:

SEEDLINGS WILL BE PLANTED AT ROUGHLY 10-FOOT INTERVALS ALONG THE TOP AND BOTTOM OF THE EXISTING FURROWS.

SEEDLINGS WILL BE PLANTED ALONG STAGGERED ROWS.

THE DISTANCES BETWEEN THE TOPS AND BOTTOMS OF FURROWS VARIES. THE 10-FOOT SPACING INDICATED ON THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY.

FIGURE 3.
TYPICAL CROSS-SECTION OF MITIGATION
GULF POWER
SMITH UNIT 3

Source: ECT, 2000.

ECT
Environmental Consulting & Technology, Inc.

TREE DELIVERY

No shipment of plant material will be accepted or planted by the contractor until such material has been inspected and accepted by the project biologist onsite. Plants will not be delivered to the project until ordered in writing by the owner and when so ordered, the owner/engineer and project biologist shall be notified of a proposed delivery of plant material at least 24 hours prior to its arrival at the project. Each shipment will be accompanied by an invoice showing the number, size, and name of each of the several kinds of plant material included, with each kind of plant adequately identified by tags.

The entire plant will be properly protected from sun and air damage from the time of purchase from the supplier until planting on the project. Plants will be kept moist until planted.

Upon arrival, the project biologist will make an immediate inspection and will accept for planting all plants complying with these specifications and any plants rejected under the same will be immediately removed from the project.

The contractor should provide a warranty on work for a resultant average survival density of 400 trees per acre following each growing season for five years, as determined by the annual monitoring program. The warranty should commence on the date of final completion. If the average survival rates are not achieved after each growing season, additional trees will be installed according to these specifications to meet the minimum survival rate on a yearly basis.

Warranty should include coverage of plants from death or unhealthy conditions.

SITE PREPARATION

Prior to planting, all of the existing pines within a 130-acre area of the referenced parcel will be removed by a timber contractor by cutting. After the removal of pines and before planting, fallow or weedy/grassy areas of the planting areas may be mowed and/or disked to reduce competition for the tree seedlings.

TREE PLANTING

Planting holes may be dug by hand or by mechanical means. Trimming of the sides or bottoms of the hole to uniform shape will not be required. Planting holes will have a minimum horizontal dimension of two times the specified diameter of the root ball.

Bottomland hardwoods and cypress will be planted in the 130-acre treeless area of the mitigation parcel. Trees will be planted on approximate 10-ft centers at a maximum. An approximate even mix of target species will be accomplished over the planting area, but species selection for any given zone will be based on hydrology (i.e., obligate species in wetter areas). Specific boundaries of the planting area and the location of tree species will be identified by the project biologist prior to the planting activity.

When planting commences within the identified planting areas, plants initially will be placed for review and orientation under the supervision of the onsite project biologist.

At the time of planting, all non-biodegradable root containers will be removed. Container plants will be installed in a vertical position. Backfill soil will be placed in 6-inch layers. Plant materials will be maintained in a vertical position during backfilling. If needed, the soil will be saturated with water when the pit or bed is half full of topsoil and again when full.

PLANTING SCHEDULE

The planting of the parcel of land will be initiated during the first winter/early spring season following the start of power plant construction based upon the availability of planting stock. Replanting will occur as necessary during the first five years to achieve the required stocking rate.

FERTILIZER

A slow-release granular fertilizer with a 12-6-6 NPK ratio will be applied to each planting hole according to label directions at initial planting.

INITIAL PLANT WATERING

All plants will be watered with 5-gallons per tree if soils are not wet enough at the time of planting.

MAINTENANCE PROGRAM

No exotic/invasive plant species were observed during prior inspections of the parcel of land. However, prior to the planting effort, a survey will be conducted across the entire parcel of land for exotic/invasive plant species. Any exotic/invasive plant species found during the survey will be removed from the site. Surveys will be conducted for exotic/invasive plant species on an annual basis to repeat the maintenance effort as necessary.

If weedy herbs, shrubs, and/or vines threaten the growth and/or vigor of planted hardwood seedlings, these plants will be removed within a suitable radius from affected seedlings by hand or more effective methods such as mowing, weed whacking, machete, etc. If deemed necessary, watering of tree seedlings will also be conducted after the initial planting effort should drought conditions prevail.

PLANTING DOCUMENTATION

The planting process will be documented and records will be retained at the Smith Unit 3 facility. A written report of the planting effort, including onsite photographs and as-built drawings of the planting areas will be provided to Gulf Power by the project biologist within 30 days of completion of the plantings. Gulf Power will forward copies of the report to the FDEP and USACE within 30 days of receipt of the report from the project biologist.

FOLLOW-UP MONITORING PROGRAM

Annual monitoring will be conducted at the parcel of land over a five-year period. Annual monitoring will include quantitative sampling across the planted area to determine numbers of healthy, dead, and reduced-vigor trees and the percent cover of

herbaceous and shrubby (non-canopy woody species) vegetation. Planted trees will be sampled using the quadrat sampling technique (Oosting, 1956; Mueller-Dombois and Ellenberg, 1974) along permanently marked transects. Trees will be sampled within quadrats spaced at 25-ft intervals along the transects. The beginning and end points and two equidistant points of each transect will be permanently marked with 10-ft lengths of aluminum pipe. In addition, a 10-ft length of one-half inch polyvinyl chloride (PVC) pipe will be located at the corner of each quadrat along the transects. Both the aluminum and PVC pipes will be partially painted at the top with a biodegradable fluorescent orange or red paint for easy identification in the field. The starting and end points of each transect will be so identified on the pipes together with transect number/codes.

The tree quadrats will consist of 5-meter by 10-meter rectangle plots oriented with the 10-meter dimension perpendicular to the transect. The sides of the tree plots will be measured and then flagged with surveyor's flagging to mark the boundaries in the field for easy identification during the sampling effort. Proceeding from the starting point to the end, the tree plots will be situated on the left side of each transect.

All planted, live trees located within the quadrats will be identified to species and measured for height and crown covers. Each tree will be identified in the field with aluminum tags labeled with a distinct code. The code uses the first two letters of the genus and species followed by a consecutive number. The numbers identify the individual trees measured consecutively from the beginning to the end of each transect (e.g. AR-1, TD-2, TD-3, and AR-4 indicate that *Acer rubrum*, *Taxodium distichum*, *Taxodium distichum*, and *Acer rubrum* were the first four trees sampled in the transect). The percent cover of recruited and/or existing shrub species (i.e., non-canopy woody species) will also be recorded within the 5 x 10 square meter (m²) tree quadrats along all of the vegetation transects.

The herbaceous plant cover within the ground layer will also be visually estimated for all of the vegetation transects. Herbaceous cover will be estimated within 1 m² quadrats situated at approximately 25-ft intervals along each transect (i.e., each 1-m² quadrat will be nested at the corner of each tree/shrub plot). Aerial cover of each species will be

recorded as a percent of the quadrat area. In addition, the percent cover of unvegetated surface area will also be recorded for each quadrat (e.g., open water, bare ground, litter, detritus, etc.).

Hydrological data will be collected from staff gauges located near each transect. Relative water level depths will also be recorded at each 25-ft interval along the transects during the collection of vegetation data. The number of quadrats/transects will be adequate to achieve a statistically valid sample of tree survival and vegetation cover.

In addition to the quantitative sampling, the parcel of land will be qualitatively inspected during the annual monitoring efforts to develop a complete listing of all plant species. Also, qualitative monitoring utilizing random pedestrian transects will be conducted across the parcel of land to compare the analysis of data obtained during the quantitative sampling and to evaluate overall planting and maintenance success. Qualitative information will include the following:

1. Visual estimates of percent coverages by wetland planted/recruited trees as well as desirable herbaceous and shrubby species, nuisance/exotic species, **upland** species, and bare ground/open water;
2. Visual determination of overall hydrological conditions;
3. Assessment of jurisdictional status pursuant to FDEP and USACE criteria; and
4. Incidental wildlife sightings or indications of wildlife usage.

Color panoramic photographs will be taken at permanent photo documentation stations located at the ends of each transect. The transect, photo station, and staff gauge locations will be depicted on the as-built drawings of the planting areas.

DATA ANALYSIS

Aerial coverage values will be summed for all transects and quadrats for each species. Individual tree crown covers will be calculated for the parcel of land using the following formula:

$$\left[\frac{D_1 + D_2}{4} \right]^2 \pi = \text{Area of Crown Cover}$$

D₁ = Diameter of crown on the longest axis.

D₂ = Diameter of crown on the shortest axis.

The percent cover/dominance for each planted tree species will be calculated by dividing the sum of the crown covers over the area sampled. The sum of the covers for each species of shrub and herb will be divided by the total number of quadrats of each respective layer to obtain the percent cover/dominance for a species. The relative dominance will be estimated by summing the dominance for a species and dividing by the total dominance for all species.

Frequency will be calculated by dividing the numbers of quadrats in which a species occurs by the total number of quadrats sampled. The relative frequency will be estimated by summing the frequency for a species and dividing by the total frequency for all species.

The number of trees per acre will also be calculated for all tree species measured. The average tree heights will be calculated for the planted species of trees. Tree density will be calculated by determining the number of individuals of a species over the area sampled. The relative density will be calculated as the density for a species divided by the total density for all species.

Importance values will be calculated as either the sum of the relative frequency, relative density, and relative dominance (trees) or the sum of the relative frequency and relative dominance (shrub and herb layers). Combining these relative values into a single importance value reflects the different measures of the importance of each species in a community.

The formulas for the values identified above are provided as follows:

$$\text{Percent Cover/Dominance} = \frac{\text{Crown covers or cover values of each species}}{\text{Total area sampled or total number of plots sampled}}$$

$$\text{Density} = \frac{\text{Individuals of a species}}{\text{Area sampled}}$$

$$\text{Frequency} = \frac{\text{Number of plots in which a species occurs}}{\text{Total number of plots sampled}}$$

$$\text{Relative Dominance} = \frac{\text{Dominance for a species}}{\text{Total dominance for all species}} \times 100$$

$$\text{Relative Density} = \frac{\text{Density for a species}}{\text{Total density for all species}} \times 100$$

$$\text{Relative Frequency} = \frac{\text{Frequency for a species}}{\text{Total frequency for all species}} \times 100$$

$$\text{Importance Value} = \text{Relative dominance} + \text{relative density} + \text{relative frequency}$$

The jurisdictional status of the parcel of land will be determined by a separate estimate of the percent cover of wetland species. Wetland species are those plants listed in Chapter 62-340.450, Florida Administrative Code (F.A.C.), as aquatic (AQUA), facultative (FAC), facultative wet (FACW), or obligate (OBL) (Florida Wetlands Delineation Manual, 1995). Any plants not listed in the referenced vegetative index are considered to be upland plants (UP). Plants listed as vines (VINE) in the vegetative index will also not be considered to be wetlands vegetation. Finally, in estimates of desirable/jurisdictional wetland vegetation cover, the covers for exotic or undesirable (nuisance) species will be calculated separately. The identification of exotic and nuisance species will be made using the 1999 List of Florida's Most Invasive Species (Florida Exotic Pest Plant Council, 2000) provided in Attachment A, but also include climbing hemp vine (*Mikania scandens*), cattail (*Typha sp.*), and primrose willow (*Ludwigia peruviana*). Finally, hydrological data will be tabulated and shown in graphical form in order to depict overall hydrological conditions.

MONITORING INTERVAL

Upon completion of the initial planting phase of the project, the parcel of land will be monitored for a period of five years to determine if replanting is required. Vegetation monitoring will be conducted during the summer season (June to August) by a qualified biologist (i.e., the project biologist).

REPORTING

Written compliance update reports with photographs will be submitted to Gulf Power by the project biologist following each annual monitoring session. The written reports will outline compliance with the FDEP and USACE wetland permits and this mitigation plan. Copies of the reports will be forwarded to FDEP/USACE no later than 60 days after completion of each annual monitoring session.

PROJECT BIOLOGIST

Gulf Power will contract the services of a qualified project biologist to conduct all of the above-referenced tasks associated with the mitigation effort.

(Imperata brasiliensis)

ATTACHMENT A

Florida Invasive Pest Plant Council's

1999

List of Florida's Most Invasive Species

Purpose: To focus attention on:

1. The impacts exotic pest plants have on native bio-diversity in Florida ecosystems.
2. The impact of exotic pest plants on the integrity of native plant community functions.
3. Habitat losses due to exotic plant infestations.
4. The impacts of exotic plants on endangered species via habitat loss and alteration (e.g., Cape Sable seaside sparrow).
5. The need to prevent such losses by comprehensive management for exotic pest plants.
6. The socioeconomic impacts of exotic pest plants (e.g., increased wildfires in *Melaleuca*).
7. Changes in the seriousness of different exotic pest plants over time.
8. The need to provide information that will help managers set priorities for management.

Definitions: *Exotic*—a non-indigenous species, or one introduced to this state, either purposefully or accidentally. A naturalized exotic, such as those listed here, has escaped into the wild where it reproduces on its own either sexually or asexually. *Native*—a species already occurring in Florida at the time of European contact (1500). *Invasive*— a variable condition defined by the category to which the species is assigned.

Abbreviations used: for "Government listed": P=Prohibited by Fla. Dept. of Environmental Protection, N=Noxious weed as listed by Fla. Dept. of Agriculture & Consumer Services and/or U.S. Department of Agriculture.

For information on distributions within Florida, see: <http://www.usf.edu/~isb/projects/atlas/mapindex.html>

For other information:

Langeland, K. A. and K. Craddock Burks (editors). 1999. Identification & Biology of Non-native Plants in Florida's Natural Areas. Production is supported by 14 federal and private agencies, including Florida EPPC.

Category I—Species that are invading and disrupting native plant communities in Florida. *This definition does not rely on the economic severity or geographic range of the problem, but on the documented ecological damage caused.*

Scientific Name	Common Name	FLEPPC Rank	Government Listed
<i>Abrus precatorius</i>	rosary pea	I	
<i>Acacia auriculiformis</i>	earleaf acacia	I	
<i>Albizia julibrissin</i>	mimosa, silk tree	I	
<i>Albizia lebbek</i>	woman's tongue	I	
<i>Ardisia crenata</i> (= <i>A. crenulata</i>)	coral ardisia	I	
<i>Ardisia elliptica</i> (= <i>A. humilis</i>)	shoebuttan ardisia	I	
<i>Asparagus densiflorus</i>	asparagus-fern	I	
<i>Bauhinia variegata</i>	orchid tree	I	

<i>Bischofia javanica</i>	bischofia	I	
<i>Calophyllum antillanum</i> (= <i>C. calaba</i> ; <i>C. inophyllum</i> , often misapplied in cultivation)	santa maria (names "mast wood," "Alexandrian laurel" used in cultivation)	I	
<i>Casuarina equisetifolia</i>	Australian pine	I	P
<i>Casuarina glauca</i>	suckering Australian pine	I	P
<i>Cestrum diurnum</i>	day jessamine	I	
<i>Cinnamomum camphora</i>	camphor-tree	I	
<i>Colocasia esculenta</i>	wild taro	I	
<i>Colubrina asiatica</i>	lather leaf	I	
<i>Cupaniopsis anacardioides</i>	carrotwood	I	N
<i>Dioscorea alata</i>	winged yam	I	N
<i>Dioscorea bulbifera</i>	air-potato	I	N
<i>Eichhornia crassipes</i>	water-hyacinth	I	P
<i>Eugenia uniflora</i>	Surinam cherry	I	
<i>Ficus microcarpa</i> (<i>F. nitida</i> and <i>F. retusa</i> var. <i>nitida</i> misapplied)	laurel fig	I	
<i>Hydrilla verticillata</i>	hydrilla	I	P, N
<i>Hygrophila polysperma</i>	green hygro	I	P, N
<i>Hymenachne amplexicaulis</i>	West Indian marsh grass	I	
<i>Imperata cylindrica</i> (<i>Imperata brasiliensis</i> misapplied)	cogon grass	I	N
<i>Ipomoea aquatica</i>	waterspinach	I	P, N
<i>Jasminum dichotomum</i>	Gold Coast jasmine	I	
<i>Jasminum fluminense</i>	Brazilian jasmine	I	
<i>Lantana camara</i>	lantana, shrub verbena	I	
<i>Ligustrum sinense</i>	Chinese privet, hedge privet	I	
<i>Lonicera japonica</i>	Japanese honeysuckle	I	
<i>Lygodium japonicum</i>	Japanese climbing fern	I	N
<i>Lygodium microphyllum</i>	Old World climbing fern	I	N
<i>Macfadyena unguis-cati</i>	cat's claw vine	I	
<i>Melaleuca quinquenervia</i>	melaleuca, paper bark	I	P, N
<i>Melia azedarach</i>	Chinaberry	I	
<i>Mimosa pigra</i>	catclaw mimosa	I	P, N
<i>Nandina domestica</i>	nandina, heavenly bamboo	I	
<i>Nephrolepis cordifolia</i>	sword fern	I	
<i>Nephrolepis multiflora</i>	Asian sword fern	I	
<i>Neyraudia reynaudiana</i>	Burma reed; cane grass	I	N
<i>Paederia cruddasiana</i>	sewer vine, onion vine	I	N

<i>Paederia foetida</i>	skunk vine	I	N
<i>Panicum repens</i>	torpedo grass	I	
<i>Pennisetum purpureum</i>	Napier grass	I	
<i>Pistia stratiotes</i>	water lettuce	I	P
<i>Psidium cattleianum</i> (= <i>P. littorale</i>)	strawberry guava	I	
<i>Psidium guajava</i>	guava	I	
<i>Pueraria montana</i> (= <i>P. lobata</i>)	kudzu	I	N
<i>Rhodomyrtus tomentosa</i>	downy rose-myrtle	I	N
<i>Rhoeo spathacea</i> (= <i>R. discolor</i> ; <i>Tradescantia spathacea</i>)	oyster plant	I	
<i>Sapium sebiferum</i>	popcorn tree, Chinese tallow tree	I	N
<i>Scaevola sericea</i> (= <i>Scaevola taccada</i> var. <i>sericea</i> , <i>S. frutescens</i>)	scaevola, half-flower, beach naupaka	I	
<i>Schefflera actinophylla</i> (= <i>Brassaia actinophylla</i>)	schefflera, Queensland umbrella tree	I	
<i>Schinus terebinthifolius</i>	Brazilian pepper	I	P, N
<i>Senna pendula</i> (= <i>Cassia coluteoides</i>)	climbing cassia, Christmas cassia, Christmas senna	I	
<i>Solanum tampicense</i> (= <i>S. houstonii</i>)	wetland night shade, aquatic soda apple	I	N
<i>Solanum torvum</i>	susumber, turkey berry	I	N
<i>Solanum viarum</i>	tropical soda apple	I	N
<i>Syzygium cumini</i>	jambolan, Java plum	I	
<i>Tectaria incisa</i>	incised halberd fern	I	
<i>Thespesia populnea</i>	seaside mahoe	I	
<i>Tradescantia fluminensis</i>	white-flowered wandering jew	I	
<i>Urochloa mutica</i> (= <i>Brachiaria mutica</i>)	Pará grass	I	†

Category II—Species that have shown a potential to disrupt native plant communities. These species may become ranked as Category I, but have not yet demonstrated disruption of natural Florida communities.

Scientific Name	Common Name	FLEPPC	Government
		Rank	Listed
<i>Adenantha pavonina</i>	red sandalwood	II	
<i>Agave sisalana</i>	sisal hemp	II	
<i>Aleurites fordii</i>	tung oil tree	II	

<i>Alstonia macrophylla</i>	devil-tree	II	
<i>Alternanthera philoxeroides</i>	alligator weed	II	P
<i>Anredera leptostachya</i>	Madeira vine	II	
<i>Antigonon leptopus</i>	coral vine	II	
<i>Aristolochia littoralis</i>	calico flower	II	
<i>Asystasia gangetica</i>	Ganges primrose	II	
<i>Begonia cucullata</i>	begonia	II	
<i>Broussonetia papyrifera</i>	paper mulberry	II	
<i>Callisia fragrans</i>	inch plant, spironema	II	
<i>Casuarina cunninghamiana</i>	Australian pine	II	P
<i>Cereus undatus</i> (= <i>Hylocereus undatus</i>)	night-blooming cereus	II	
<i>Clerodendrum bungei</i>	strong-scented glorybower	II	
<i>Cryptostegia madagascariensis</i>	rubber vine	II	
<i>Cyperus alternifolius</i> (=C. <i>involucratus</i>)	umbrella plant	II	
<i>Cyperus prolifer</i>	dwarf papyrus	II	
<i>Dalbergia sissoo</i>	Indian rosewood, sissoo	II	
<i>Eleagnus pungens</i>	thorny eleagnus	II	
<i>Enterolobium contortisilquum</i>	ear-pod tree	II	
<i>Epipremnum pinnatum</i> cv. Aureum	pothos	II	
<i>Ficus altissima</i>	false banyan	II	
<i>Flacourtia indica</i>	governor's plum	II	
<i>Flueggea virosa</i>	Chinese waterberry	II	
<i>Hibiscus tiliaceus</i>	mahoe, sea hibiscus	II	
<i>Hiptage benghalensis</i>	hiptage	II	
<i>Jasminum sambac</i>	Arabian jasmine	II	
<i>Koelreuteria elegans</i>	golden rain tree	II	
<i>Leucaena leucocephala</i>	lead tree	II	
<i>Ligustrum lucidum</i>	glossy privet	II	
<i>Livistona chinensis</i>	Chinese fan palm	II	
<i>Melinis minutiflora</i>	molasses grass	II	
<i>Merremia tuberosa</i>	wood-rose	II	
<i>Murraya paniculata</i>	orange-jessamine	II	
<i>Myriophyllum spicatum</i>	Eurasian water-milfoil	II	P
<i>Ochrosia parviflora</i> (=O. <i>elliptica</i>)	kopsia	II	
<i>Oeceoclades maculata</i>	ground orchid	II	
<i>Passiflora biflora</i>	twin-flowered passion vine	II	
<i>Passiflora foetida</i>	stinking passion-flower	II	

<i>Phoenix reclinata</i>	Senegal date palm	II
<i>Phyllostachys aurea</i>	golden bamboo	II
<i>Pteris vittata</i>	Chinese brake	II
<i>Ptychosperma elegans</i>	solitary palm	II
<i>Rhynchelytrum repens</i>	Natal grass	II
<i>Ricinus communis</i>	castor bean	II
<i>Ruellia brittoniana</i> (=R. <i>tweediana</i>)	Mexican petunia	II
<i>Sansevieria hyacinthoides</i> (=S. <i>trifasciata</i>)	bowstring hemp	II
<i>Sesbania punicea</i>	purple sesban, rattlebox	II
<i>Solanum diphyllum</i>	twinleaf nightshade	II
<i>Solanum jamaicense</i>	Jamaica nightshade	II
<i>Syngonium podophyllum</i>	arrowhead vine	II
<i>Syzygium jambos</i>	rose-apple	II
<i>Terminalia catappa</i>	tropical almond	II
<i>Tribulus cistoides</i>	puncture vine, burnut	II
<i>Triphasia trifoliata</i>	lime berry	II
<i>Urena lobata</i>	Caesar's weed	II
<i>Wedelia trilobata</i>	wedelia	II
<i>Wisteria sinensis</i>	Chinese wisteria	II
<i>Xanthosoma sagittifolium</i>	malanga, elephant ear	II

Citation example:

Florida Exotic Pest Plant Council. FLEPPC 1999 List of Florida's Most Invasive Species. Internet: <http://www.fleppc.org/99list.htm>

The 1999 list was prepared by the FLEPPC, Exotic Pest Plant List Committee:

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: Petition of Gulf Power Company)
for approval of new environmental programs)
for cost recovery through the Environmental)
Cost Recovery Clause)
_____)

Docket No. _____

Certificate of Service

I HEREBY CERTIFY that a true copy of the foregoing was furnished by hand delivery or the U. S. Mail this 30th day of June 2000 on the following:

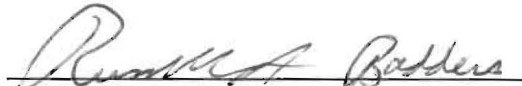
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