

1 SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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4 RESOLUTION NO. 2009- 701
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7 A RESOLUTION OF THE GOVERNING BOARD OF THE SOUTH
8 FLORIDA WATER MANAGEMENT DISTRICT AUTHORIZING
9 TRANSMITTAL OF THE DISTRICT'S AGENCY REPORT ON THE
10 FLORIDA POWER AND LIGHT (FPL) RIVIERA BEACH ENERGY
11 CENTER TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL
12 PROTECTION; PROVIDING AN EFFECTIVE DATE (PALM BEACH
13 COUNTY).

14
15 WHEREAS, Pursuant to the Florida Electrical Power Plant Siting Act (Sections
16 403.501, Florida Statutes, et seq.), Florida Power & Light (FPL) filed with the
17 Department of Environmental Protection (DEP) an application for site certification to
18 convert its existing ±46-acre Riviera Beach power plant into a new combined cycle
19 power plant (1,250 MW proposed vs. 600 MW existing); and

20 WHEREAS, FPL is requesting approval to construct the entire project (1,250
21 MW) at this time; and

22 WHEREAS, the proposed application includes a request to continue to withdraw
23 6.169 MGM/37.318 MGY from the Surficial aquifer for landscape irrigation and water
24 pump bearing cooling water; and

25 WHEREAS, the existing Surficial aquifer withdrawals have been permitted by the
26 District under Permits 50-04187-W and 50-04188-W; and

27 WHEREAS, process, service, and potable water will continue to be provided by
28 the City of Riviera Beach; and

29 WHEREAS, cooling water will continue to be obtained from the Intracoastal
30 Waterway (Lake Worth Lagoon), which is exempt from the permitting requirements of
31 Chapter 40E-2, F.A.C., since the chloride concentration is greater than the District's
32 regulatory threshold for seawater (19,000 mg/l); and

33 WHEREAS, the District is required by Section 403.507, Florida Statutes, to
34 prepare a report for submittal to DEP as to matters within its jurisdiction; and

1 **WHEREAS**, the District staff has reviewed the proposed application and has
2 prepared the attached Agency Report for submittal to DEP, subject to Governing Board
3 approval; and

4 **WHEREAS**, the Governing Board has determined that the Agency Report
5 prepared by District Staff is appropriate and authorizes staff to submit the Agency
6 Report to DEP; now therefore

7 **BE IT RESOLVED BY THE GOVERNING BOARD OF THE SOUTH FLORIDA**
8 **WATER MANAGEMENT DISTRICT:**

9 **Section 1.** The Governing Board of the South Florida Water Management
10 District hereby approves the Agency Report to DEP recommending approval of FPL's
11 request to continue to withdraw 6.169MGM/37.318 MGY from the Surficial aquifer for
12 landscape irrigation and water pump bearing water, subject to certain conditions and
13 restrictions.

14 **Section 2.** A copy of the agency report is attached hereto and made a part
15 hereof.

16 **Section 3.** The District staff is authorized and directed to transmit this Agency
17 Report to DEP.

18 **Section 4.** This resolution shall take effect immediately upon adoption.

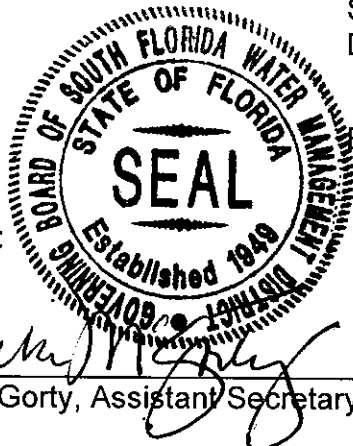
19
20 **PASSED and ADOPTED** this 9 day of July, 2009

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22 SOUTH FLORIDA WATER MANAGEMENT
23 DISTRICT, BY ITS GOVERNING BOARD

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26 BY:

Eric Buermann, Chairman

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28
29 ATTEST:



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34 Jacki McGorty, Assistant Secretary

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36 Approved as to form:

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38
39 BY:

40 Carlyn Kowalsky, Office of Counsel

IMPACT ASSESSMENT REPORT

Prepared by

South Florida Water Management District

I PROJECT SUMMARY

Name: Riviera Beach Energy Center
Applicant: Florida Power and Light Company (FPL)
SFWMD ID No.: PA09-54
Location: Sections 3,4,33&34/Townships 42&43 South/Range 43 East,
Palm Beach County
Existing Land Use: Power Plant Facility
Size: ±46 acres
Proposed Land Use: New Power Plant Facility
Power Generation Capability: Nominal 1,250 Megawatts (MW)
Certification Threshold: Mandatory (75 MW or greater)
Optional (Less than 75 MW)

II POTENTIAL FOR ADVERSE REGIONAL IMPACTS SUMMARY

Category	Minimal	Significant	Major
District Lands	N/A		
Surface Water Management – Quantity	N/A*		
Surface Water Management – Quality	N/A*		
Wetlands/Other Surface Waters – Functions	N/A*		
Water Use	X		

* Surface water management, wetlands and related Environmental Resource Permit (ERP) issues associated with the construction of the proposed power plant are being reviewed by Florida Department of Environmental Protection staff (DEP) staff, pursuant to the terms of the Operating Agreement Concerning Management and Storage of Surface Waters Regulation and Wetland Resource Regulation between the DEP and the SFWMD.

III GENERAL PROJECT-RELATED INFORMATION

A. PURPOSE OF ACT AND DISTRICT RESPONSIBILITIES

The purpose of the Florida Electric Power Plant And Transmission Line Siting Act (subsequently referred to herein as the "Siting Act"), Sections 403.501-403.539, Florida Statutes, is to certify the location, construction, operation, and maintenance of electrical power plant sites and electrical transmission lines, including associated facilities, through a centralized and coordinated planning and licensing process administered by the Florida Department of Environmental Protection (DEP). Authority to issue the Certification Order is assigned to the Governor and Cabinet sitting as the State Siting Board, or the Secretary of the DEP, after issuance of a Recommended Order by an Administrative Law Judge (the DEP or the applicant may request that the Administrative Law Judge cancel the certification hearing and relinquish jurisdiction to the DEP if all parties to the proceeding stipulate that there are no disputed issues of material fact to be raised at the certification hearing). This process is commonly referred to as one-stop permitting process.

The Siting Act process specifically pre-empts all other existing state, regional, and local permitting and approval processes normally required of new development, including the SFWMD's Right Of Way Occupancy Permit, Environmental Resource Permit (ERP), and Water Use Permit review processes (Note: Under the current Operating Agreement between the DEP and the SFWMD, the DEP is responsible for conducting the ERP-related review of the entire project). However, the Siting Act mandates that the Department of Community Affairs, affected water management district(s), affected local government(s), Florida Fish and Wildlife Conservation Commission, affected regional planning council(s), Department of Transportation, and Public Service Commission participate in the process, prepare an assessment report on matters within their jurisdiction, and grants each agency party status in the proceedings. Other affected agencies may also participate in the process at the request of the DEP or by filing for party status.

The certification process is the only opportunity that the SFWMD will have to review and "permit" the proposed activities. Through the required agency report, the SFWMD can assess the project's compliance with SFWMD non-procedural (i.e., technical) criteria and recommend approval or denial. The SFWMD recommended certification conditions then become the means by which the SFWMD is assured that all applicable SFWMD criteria has been applied and met in the design, construction, operation and maintenance of the proposed power plant or electrical transmission line and any associated facilities.

B. PROJECT PROPOSAL

The Licensee, the Florida Power and Light Company (FPL), is proposing to convert its existing ±46 acre Riviera Beach power plant, consisting of two nominal 300 MW conventional dual-fuel fired generating units that were constructed in the early 1960s, into a new combined cycle power plant using the latest combined cycle technology. The existing power plant site, located primarily in the City of Riviera Beach with a small portion located in the City of West Palm Beach, is bounded on the north by the Port of Palm Beach, on the east by the Intracoastal Waterway (Lake Worth Lagoon), on the south by 59th Street, and on the west by U.S. Highway 1 (see Exhibit 1).

The existing facility includes approximately 7 acres located west of U.S. 1 on which transmission lines are located.

The proposed new plant, the Riviera Beach Energy Center, is a "3 on 1" combined cycle power plant firing natural gas as a primary fuel and ultra low-sulfur light oil as a backup fuel. The new plant will be capable of producing over 100% more power than the existing plant (1,250 MW vs. 600 MW). The proposed new plant will be interconnected with FPL's existing electrical transmission line network through two onsite switchyards. A manatee viewing center open to the public will be constructed in the southern portion of the project site. The new plant is scheduled for operation in June, 2014.

The proposed source of cooling water for condenser and auxiliary cooling for the new generating facilities will continue to be the Intracoastal Waterway (Lake Worth Lagoon), which will provide once-through cooling water. This will also be the source of intake screen wash water. This source is exempt from the permitting requirements of Chapter 40-2, F.A.C., since the chloride concentration is greater than the SFWMD's regulatory threshold for seawater (19,000 mg/l). The proposed source of process and service water for combustion turbine inlet air cooling, nitrogen oxide injection, steam cycle makeup, and fire protection, as well as potable water for employee use, will continue to be the City of Riviera Beach Utilities Department. The proposed source of water for landscape irrigation and water pump bearing cooling will continue to be the existing on-site Surficial aquifer wells. The existing withdrawals have been permitted by the SFWMD under permits 50-04187-W and 50-04188-W.

Additional details concerning the proposed project can be found in the attached Water Supply and Development checklist and footnotes on pages 13 and 14 of this report. The checklist and footnotes evaluate the potential water use impacts associated with the siting, construction, operation, and maintenance of the proposed project.

IV CONCLUSIONS AND RECOMMENDATIONS

This report contains the SFWMD's conclusions and recommendations to the Florida Department of Environmental Protection (DEP) regarding the Certification of the proposed Riviera Beach Energy Center project for inclusion in the DEP Report required by Section 403.507(2)(a)3, F.S., and Rule 62-17.133, F.A.C.

SFWMD staff has reviewed the Site Certification Application with respect to current SFWMD statutes and rules. Based on the information contained in the original application and the additional submittals, and assuming compliance with the intent of the SFWMD recommended certification conditions, staff is of the opinion that the proposed project can be constructed consistent with the applicable statutes and rules.

It is the recommendation of SFWMD staff that DEP incorporate the following conditions into the Recommended Conditions of Certification for the Riviera Beach Energy Center project. SFWMD staff will work with the DEP, the Licensee, and the other parties to reach agreement on a final set of recommended certification conditions. In addition, if the Licensee submits any of the

supplemental information required by certain of the recommended certification conditions prior to the Certification Hearing on this project, and SFWMD staff is able to make a determination of consistency with the appropriate SFWMD rules, SFWMD staff will provide DEP with a revised set of recommended certification conditions that reflect the results of the SFWMD's review of the additional information.

A. LEGAL/ADMINISTRATIVE CONDITIONS

1. GENERAL

a. Responsible Entity

The Licensee shall be responsible for compliance with the Certification Conditions. If contractual rights, duties, or obligations are transferred under this Certification, notice of such transfer or assignment, including the identification of the entity responsible for compliance with the Certification, shall immediately be submitted to the Florida Department of Environmental Protection and the SFWMD by the previous certification holder (Licensee) and the Assignee. Any assignment or transfer shall carry with it the full responsibility for the limitations and conditions of this Certification. The previous Licensee shall be responsible for informing the Assignee of all authorized facilities and uses and the conditions under which they were authorized. The previous Licensee shall remain liable for corrective actions that may be required as a result of any violations prior to transfer or assignment of any contractual rights, duties, or obligations under this Certification. Reference: Sections 373.044, 373.113, 373.223, and 373.342, F.S.; Rules 40E-2.091, 40E-2.301, 40E-2.381, 40E-3.101(1), and 40E-6.351, F.A.C.

b. Minimum Standards

This Certification is based on the Licensee's submitted information to the SFWMD which reasonably demonstrates that harm to the site water resources will not be caused by the authorized activities. The plans, drawings and design specifications submitted by the Licensee shall be considered the minimum standards for compliance. Reference: Sections 373.219, 373.223, 373.229, 373.308, and 373.316, F.S.; Rules 40E-2.091, 40E-2.301, 40E-2.381, and 40E-3.500-531.

c. Compliance Requirements

This project must be constructed, operated and maintained in compliance with and meet all non-procedural requirements set forth in Chapter 373, F.S., and Chapters 40E-2 (Consumptive Use), 40E-3 (Water Wells), and 40E-20 (General Water Use Permits), F.A.C.

d. Off-site Impacts

It is the responsibility of the Licensee to ensure that harm to the water resources does not occur during the construction, operation, and maintenance of the project. Reference: Sections 373.223 and 373.309, F.S.; Rules 40E-2.091, 40E-2.381, 40E-3.301(3), and 40E-3.301(4), F.A.C.

e. Liability

The Licensee shall hold and save the SFWMD harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment and/or use of any system authorized by this Certification, to the extent allowed under Florida law. Reference: Section 373.223, F.S.; Rules 40E-2.091, and 40E-2.381, F.A.C.

f. Construction, Operation, and Maintenance Responsibilities

The Licensee shall be responsible for the construction, operation, and maintenance of all facilities installed for the proposed project. Reference: Section 373.309, F.S.; Rule 40E-3.301, F.A.C.

g. Access

SFWMD representatives shall be allowed reasonable escorted access to the power plant site, the water withdrawal facilities and any associated facilities to inspect and observe any activities associated with the construction of the proposed project and/or the operation and/or maintenance of the on-site wells in order to determine compliance with the conditions of this Certification. The Licensee shall not refuse entry or access to any SFWMD representative who, upon reasonable notice, requests entry for the purpose of the above noted inspection and presents appropriate credentials. Reference: Sections 373.223 and 373.319, F.S.; Rules 40E-2.091, 40E-2.301, 40E-2.381, and 40E-3.461, F.A.C.

h. Post Certification Information Submittals

Information submitted to the SFWMD subsequent to Certification, in compliance with the conditions of this Certification, shall be for the purpose of the SFWMD determining the Licensee's compliance with the Certification conditions and the non-procedural criteria contained in Chapters 40E-2, 40E-3, and 40E-20, F.A.C., as applicable, prior to the commencement of the subject construction, operation and/or maintenance activity covered thereunder. Reference: Rule 62-17.191, F.A.C.

i. Enforcement

The SFWMD may confer with DEP to request DEP to take any and all lawful actions that are necessary to enforce any condition of this Certification based on the authorizing statutes and rules of the SFWMD. Reference: Sections 373.223, 373.319, 373.603, and 403.514, F.S.; Rules 40E-2.091, 40E-2.301, 40E-2.381, and 40E-3.461, F.A.C.

2. PROCESSING OF INFORMATIONAL REQUESTS

a. Completeness and Sufficiency Review

At least ninety (90) days prior to the commencement of construction of any portion of the project, the Licensee shall submit to SFWMD staff, for a completeness and sufficiency review, any pertinent additional information required under the SFWMD's conditions of Certification for that portion proposed for construction. If SFWMD staff does not issue a written request for additional information within thirty (30) days, the information shall be presumed to be complete and sufficient. Reference: Sections 373.219 and 373.342, F.S.

b. Compliance Review and Confirmation

Within sixty (60) days of the determination by SFWMD staff that the additional information is complete and sufficient, the SFWMD shall determine and notify the Licensee in writing whether the proposed activities conform to SFWMD rules, as required by Chapters 40E-2, 40E-3, and 40E-20, F.A.C., and the Conditions of Certification. If necessary, the SFWMD shall identify what items remain to be addressed. No construction activities shall begin until the SFWMD has determined either in writing, or by failure to notify the Licensee in writing, that the activities are in compliance with the applicable SFWMD criteria. Reference: Sections 373.219 and 373.342, F.S.

c. Revisions to Site Specific Design Authorizations

The Licensee shall submit, consistent with the provisions of Condition A.2., any proposed revisions to the site specific design authorizations specified in this Certification to the SFWMD for review and approval prior to implementation. The submittal shall include all the information necessary to support the proposed request, including detailed drawings, calculations and/or any other applicable data. Such requests may be included as part of the appropriate additional information submittals required by this Certification provided they are clearly identified as a requested amendment or modification to the previously authorized design. Reference: Sections 373.085, 373.219, 373.223, 373.313, and 373.342, F.S.; Rules 40E-2.091, 40E-2.301, and 40E-3.461, F.A.C.

d. Dispute Resolution

Since this Certification is the only form of permit required from any agency, it is understood that the Licensee and the SFWMD shall strive to resolve disputes by mutual agreement. Reference: Sections 373.044, 373.085, 373.113, and 373.129, F.S.; Rule 40E-1.601, F.A.C.

e. Objections

Objections to modifications of the terms and conditions of this Certification shall be resolved through the process established in Section 403.516, F.S.

f. Changes to Information Requirements

The SFWMD and the Licensee may jointly agree to vary the informational requirements. Reference: Sections 373.085 and 373.229, F.S.; Rules 40E-2.101(1) and 40E-3.101(2), F.A.C.

B. WATER USE CONDITIONS

1. GENERAL

a. Water Shortage Compliance

In the event of a declared water shortage, the Licensee must comply with any water withdrawal reductions ordered by the SFWMD in accordance with the Water Shortage Plan, Chapter 40E-21, F.A.C. Reference: Section 373.246, F.S.; Rule 40E-2.381, F.A.C.

b. Interference with Existing Legal Uses

The Licensee shall mitigate interference with existing legal uses, in existence at the time of issuance of the Certification Order, caused in whole or in part by the Licensee's withdrawals, consistent with the approved mitigation plan. As necessary to offset the interference, mitigation may include pumpage reduction, replacement of the impacted individual's equipment, relocation of wells, change in withdrawal source, or other means. Interference to an existing legal use is defined as an impact that occurs under hydrologic conditions equal to or less severe than a 1 in 10 year drought event that results in the:

- (1) Inability to draw water consistent with the provisions of the permit, such as when remedial structural or operational actions not materially authorized by existing permits must be taken to address the interference;
- (2) Change in the quality of water pursuant to primary State Drinking Water Standards to the extent that the water can no longer be used for its authorized purpose, or such change is imminent; or
- (3) Inability of an existing legal user to meet its permitted demands without exceeding the permitted allocation.

Reference: Section 373.223, F.S.; Rules 40E-2.091, 40E-2.301, and 40E-2.381, F.A.C.

c. Harm to Existing Off-Site Land Uses

The Licensee shall mitigate harm to existing off-site land uses caused by the Licensee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the SFWMD will require the Licensee to modify withdrawal rates or mitigate the harm. Harm, as determined through reference to these Conditions of Certification includes:

- (1) Significant reduction in water levels on the property to the extent that the designed function of the water body and related surface water management improvements are damaged, not including aesthetic values. The designed function of a water body is identified in the original permit or other government authorization issued for the

construction of the water body. In cases where a permit was not required, the designed function shall be determined based on the purpose for the original construction of the water body (e.g., fill for construction, mining, drainage canal, etc.);

- (2) Damage to agriculture, including damage resulting from reduction in soil moisture resulting from consumptive use;
- (3) Land collapse or subsidence caused by reduction in water levels associated with consumptive use.

Reference: Sections 373.223, F.S.; Rules 40E-2.091, 40E-2.301, and 40E-2.381, F.A.C.

d. Harm to Natural Resources

The Licensee shall mitigate harm to natural resources caused by the Licensee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the SFWMD will require the Licensee to modify withdrawal rates or mitigate the harm. Harm, as determined through reference to these Conditions of Certification includes:

- (1) Reduction in ground or surface water levels that results in harmful lateral movement of the fresh water/salt water interface;
- (2) Reduction in water levels that harm the hydroperiod of wetlands;
- (3) Significant reduction in water levels or hydroperiod in a naturally occurring water body such as a lake or pond;
- (4) Harmful movement of contaminants in violation of state water quality standards; or
- (5) Harm to the natural system including damage to habitat for rare or endangered species.

Reference: Sections 373.223, F.S.; Rules 40E-2.091, 40E-2.301, and 40E-2.381, F.A.C.

e. Well System Operation

At any time, if there is an indication that the well casing, valves, or controls associated with the on-site well system leak or have become inoperative, the Licensee shall be responsible for making the necessary repairs or replacement to restore the well system to an operating condition acceptable to the SFWMD. Failure to make such repairs shall be the cause for requiring that the well(s) be filled and abandoned in accordance with the procedures outlined in Chapter 40E-3, F.A.C. Reference: Sections 373.308 and 373.316, F.S.; Rules 40E-3.041, 40E-3.101, 40E-3.411, and 40E-3.500-531, F.A.C.

2. SITE SPECIFIC DESIGN AUTHORIZATIONS/REQUIREMENTS

a. Authorized Monthly Withdrawals

This Certification authorizes a maximum monthly withdrawal of 6.169 MGM from the Surficial aquifer for water pump bearing cooling water and landscape irrigation water.

b. Authorized Annual Withdrawals

This Certification authorizes an average annual withdrawal of 37.318 MGY from the Surficial aquifer for water pump bearing cooling water and landscape irrigation water.

c. Authorized Withdrawal Facilities

1 – 6" X 85' X 225 GPM WELL WITH UNKNOWN CASED DEPTH

1 – 6" X 100' X 225 GPM WELL CASED TO 84 FEET

1 – 6" X 175' X 225 GPM WELL WITH UNKNOWN CASED DEPTH

d. Emergency Withdrawals

Any withdrawals from the Surficial aquifer in excess of the withdrawals authorized under this Certification shall require prior SFWMD approval. Any withdrawals from alternative surface or ground water supply sources shall require prior SFWMD approval. The SFWMD may grant such approval for any emergency withdrawals less than 90 days in duration without modifying these Conditions of Certification. The SFWMD's approval shall be based on the non-procedural requirements of Chapter 40E-2, F.A.C.

e. Consistency Review of Authorized Withdrawals

Within five years from the date of issuance of the Certification Order and every five years thereafter, unless extended by mutual agreement between the Licensee and the SFWMD, the Licensee shall submit to the SFWMD a report on the project's consistency with SFWMD's Water Use Conditions of Certification contained herein. Within 90 days after receipt of the completed report, the SFWMD shall evaluate the information contained therein and issue a written notification to the DEP and the Licensee as to whether the ground water withdrawals for consumptive use authorized by this Certification remain in compliance with the provisions of Chapter 373, F.S., and Chapter 40-2, F.A.C., in effect at the time the certification was issued by the Siting Board. In determining whether the Licensee has established that its use of water complies with rule 40E-2, F.A.C., and the Basis of Review for Water Use Permit Applications within the SFWMD, the SFWMD shall evaluate whether the Licensee's use of water interferes with a legal use of water that existed at the time the certification was issued by the Siting Board. If the notification indicates that the withdrawals are not in compliance with these provisions, the SFWMD shall recommend to the Licensee possible alternatives for bringing the withdrawals into compliance with SFWMD's Water Use Conditions of Certification contained herein. In addition, if DEP determines, in consultation with SFWMD, based upon a review of a report submitted pursuant to this condition, that the Licensee has failed to establish that the Licensee's use of water meets the consumptive water use requirements described herein, DEP may seek to modify the authorization to use water in the

certification or take other appropriate measures to ensure that the consumptive use of water meets the conditions for issuance in Chapter 40E-2, F.A.C., as described herein. Any modification made pursuant to this condition shall not be subject to competing applications provided there is no increase in the allocation and no change in source.

f. Request for Modification of Withdrawals

The SFWMD may request a modification of the ground water withdrawals for consumptive use authorized by this Certification, in accordance with the provisions of Section 403.516, F.S. and Section 62-17.211, F.A.C. Any request for an increase in water withdrawals shall be made pursuant to the provisions of Section 403.516, F.S., and Section 62-17.211, F.A.C.

g. Dewatering Activities

Prior to commencement of construction of those portions of the project that involve dewatering activities, the Licensee shall submit a detailed plan for any such activities to the SFWMD for a determination of compliance with the non-procedural requirements of Chapters 40E-2, 40E-3 and 40E-20, F.A.C., in effect at the time of submittal. The following information, referenced to NGVD where appropriate, shall be submitted:

- (1) A detailed site plan which shows the location(s) for each proposed dewatering area;
- (2) The method(s) used for each dewatering operation;
- (3) The maximum depth for each dewatering operation;
- (4) The location and specifications for all proposed wells and/or pumps associated with each dewatering operation;
- (5) The duration of each dewatering operation;
- (6) The discharge method, route, and location of receiving waters generated by each dewatering operation, including the measures (Best Management Practices) that will be taken to prevent water quality problems in the receiving water(s);
- (7) An analysis of the impacts of the proposed dewatering operations on any existing on and/or off-site legal users, wetlands, or existing groundwater contamination plumes;
- (8) The location of any infiltration trench(es) and/or recharge barriers; and
- (9) All plans must be signed and sealed by a Professional Engineer or a Professional Geologist registered in the State of Florida.

Reference: Sections 373.229 and 373.308, F.S.; Rules 40E-2.091, 40E-2.301, and 40E-3.500-531, F.A.C.

h. Monitoring and Reporting Requirements

Prior to commencement of operation of the new plant, the Licensee shall install one (1) saline water intrusion monitoring well east of the existing Surficial aquifer production wells, pursuant to the Licensee's proposed Saline Water Intrusion Monitoring Plan. Prior to the use of any withdrawal facility authorized under this Certification, the Licensee shall equip each withdrawal facility with a SFWMD-approved operating water use accounting system and submit a report of calibration to the SFWMD, pursuant to Section 4.1 of the Basis of Review For Water Use Permit Applications. Recalibration reports for the water use accounting system for each water withdrawal facility (existing and proposed) authorized under this Certification shall be submitted to the SFWMD every five years from each previous calibration, continuing at five year increments. The Licensee shall report monthly withdrawals for each withdrawal facility to the SFWMD quarterly. The quarterly reports shall include water levels in the monitoring well referenced to feet NGVD and conductivity, temperature, and chloride concentration for the monitoring and production wells. The Licensee shall specify the water accounting method and means of calibration on each report. Reference: Section 373.223, F.S.; Rules 40E-2.091, 40E-2.301, and 40E-2.381, F.A.C.

i. Existing Well Repair, Replacement, Abandonment

If any of the existing on-site wells require repair, replacement, and/or abandonment, the Licensee shall submit the information described in Chapter 40E-3, F.A.C., for review by the SFWMD prior to initiating such activities. Reference: Sections 373.308 and 373.316, F.S.; Rules 40E-3.041, 40E-3.101, 40E-3.411, and 40E-3.500-531, F.A.C.

j. New Well Construction

Prior to construction of any new or replacement production or monitoring wells, the Licensee shall submit the drilling plans and other pertinent information, required by Chapter 40E-3, F.A.C., to the SFWMD for review and approval. If the well locations are different from those previously reviewed and approved in this Certification, the Licensee shall also submit to the SFWMD, for review and approval, an evaluation of the impacts of the proposed pumpage from the proposed well location(s) on adjacent existing legal users, pollution sources, environmental features, and water bodies. Reference: Section 373.223, F.S.; Rules 40E-2.091, 40E-2.301, and 40E-2.381, F.A.C.

k. Water Conservation Plan

Prior to commencement of construction the Licensee shall submit a Water Conservation Plan, as required by Chapter 40E-2, F.A.C., in effect at that time, for review and approval by SFWMD staff. The plan shall, at a minimum, incorporate the following components:

- (1) An audit of the amount of water needed in the Licensee's operational processes. The following measures shall be implemented within one year of audit completion if found to be cost effective in the audit:

- (a) Implementation of a leak detection and repair program;
 - (b) Implementation of a recovery/recycling or other program providing for technological, procedural or programmatic improvements to the Licensee's facilities; and
 - (c) Use of processes to decrease water consumption.
- (2) Development and implementation of an employee awareness program concerning water conservation.

Reference: Sections 373.223, F.S.; Rules 40E-2.091, 40E-2.301, and 40E-2.381, F.A.C.

SUBJECT: WATER SUPPLY AND DEVELOPMENT - Riviera Beach Energy Center, PA09-54

Proposed Potable Water Source: City of Riviera Beach Utilities Department (CRB)

Permit No.: 50-000460-W

Expiration Date: Permit renewal application currently undergoing review

Current Usage: 204.2 MGM/2,403 MGY (based on January, 2009 data)

Permitted Allocation: 450.8 MGM Max/3,250 MGY Avg

Projected Demand: 0.131 MGM Max/0.526 MGY Avg

Proposed Non-Potable Water Sources: Lake Worth Lagoon/CRB/Surficial aquifer

Projected Demands: 599.33 MGD Peak/218,068 BGY Peak (Lake Worth Lagoon)

0.0014 MGD Max/0.525 MGY Avg (CRB)

0.199 MGD Max/37.318 MGY Avg (Surficial aquifer)

	ACCEPTABLE RESPONSE IN APPLICATION	RESOLVABLE THROUGH SITE SPECIFIC STANDARDS		MAJOR REGIONAL ISSUES
		MINOR	MAJOR	

I. PROJECTED DEMANDS OF PROJECT

A. POTABLE WATER

1. Use generation rates	X			
2. Conservation practices		X(1)		

B. NON-POTABLE WATER

1. Use generation rates	X			
2. Conservation practices		X(1)		
3. Wastewater re-use	X			

II. WATER USE IMPACTS

A. ON-SITE

1. Proposed Sources

a. Groundwater	X(2)	X(3)		
b. Surface water	X			
c. Wastewater re-use	N/A			
d. Reverse osmosis	N/A			
2. Resource capability	X			

3. Impacts

a. Salt water intrusion	X(4)			
b. Pollution/contamination	X			
c. Environmental	X			

B. OFF-SITE

1. Verification of availability from utility

2. Resource capability	X			
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3. Impacts

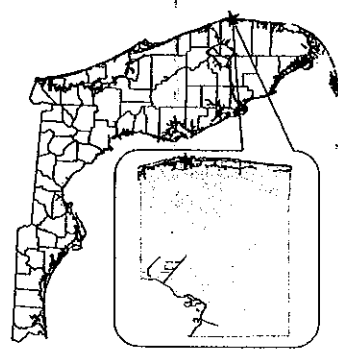
a. Salt water intrusion	X			
b. Pollution/contamination	X			
c. Environmental	X			
d. Other legal users	X			

FOOTNOTES: See following page.

WATER SUPPLY AND DEVELOPMENT FOOTNOTES:

- (1) The SFWMD is requiring submittal of a water conservation plan (see Recommended Certification Condition B.2.k)
- (2) The ground water demands for the proposed new power plant are similar to the existing power plant. The Licensee is not proposing an increase in the existing permitted allocations. The authorized allocations and withdrawal facilities under existing Water Use Permits No. 50-04187-W (landscape irrigation) and 50-04188-W (water pump bearing cooling/other incidental industrial uses) will be incorporated into the Recommended Conditions of Certification (see Recommended Certification Conditions B.2.a, B.2.b, and B.2.c).
- (3) Prior to the commencement of construction, the details of the proposed dewatering activities must be submitted for review and approval by SFWMD staff (see Recommended Certification Condition B.2.g)
- (4) The existing Surficial aquifer wells are located approximately 1,400 feet from the Lake Worth Lagoon. The Licensee has provided a proposed Saline Water Intrusion Monitoring Plan (Plan) to observe the potential for the movement of saline water from this source. The Plan proposes the installation of one monitoring well located 500 feet east of the existing Surficial aquifer production wells. The Plan will be incorporated into the Conditions of Certification (see Recommended Certification Condition B.2.h).

AREA MAP



★ RSEC Site Location

LEGEND

- ▨ FPL Riviera Beach Energy Center (To Be Certified)
- ▨ Construction Parking & Laydown Area
- HIGHWAY
- LIMITED ACCESS
- MAJOR ROADS
- RAMP

REFERENCES

1. FPL Riviera Beach Energy Center (to be certified) FPL, 2009.
2. Construction Parking and Laydown Area, FPL, 2009.
3. Municipalities, Palm Beach County Planning, Zoning, and Building Departments, July 2008.



REV.	DATE	DESCRIPTION	DES.	CHK.	APP.
1					

FPL
RIVIERA BEACH ENERGY CENTER

GENERAL EXISTING
RIVIERA PLANT SITE LOCATION

PROJECT NO. 06-000000		FILE NO. 06-000000
DESIGN	NO. 12770000	SCALE AS SHOWN (REV. 1)
CHECK	NO. 12770000	
REVIEW	NO. 12770000	



FIGURE 1.1.0-1

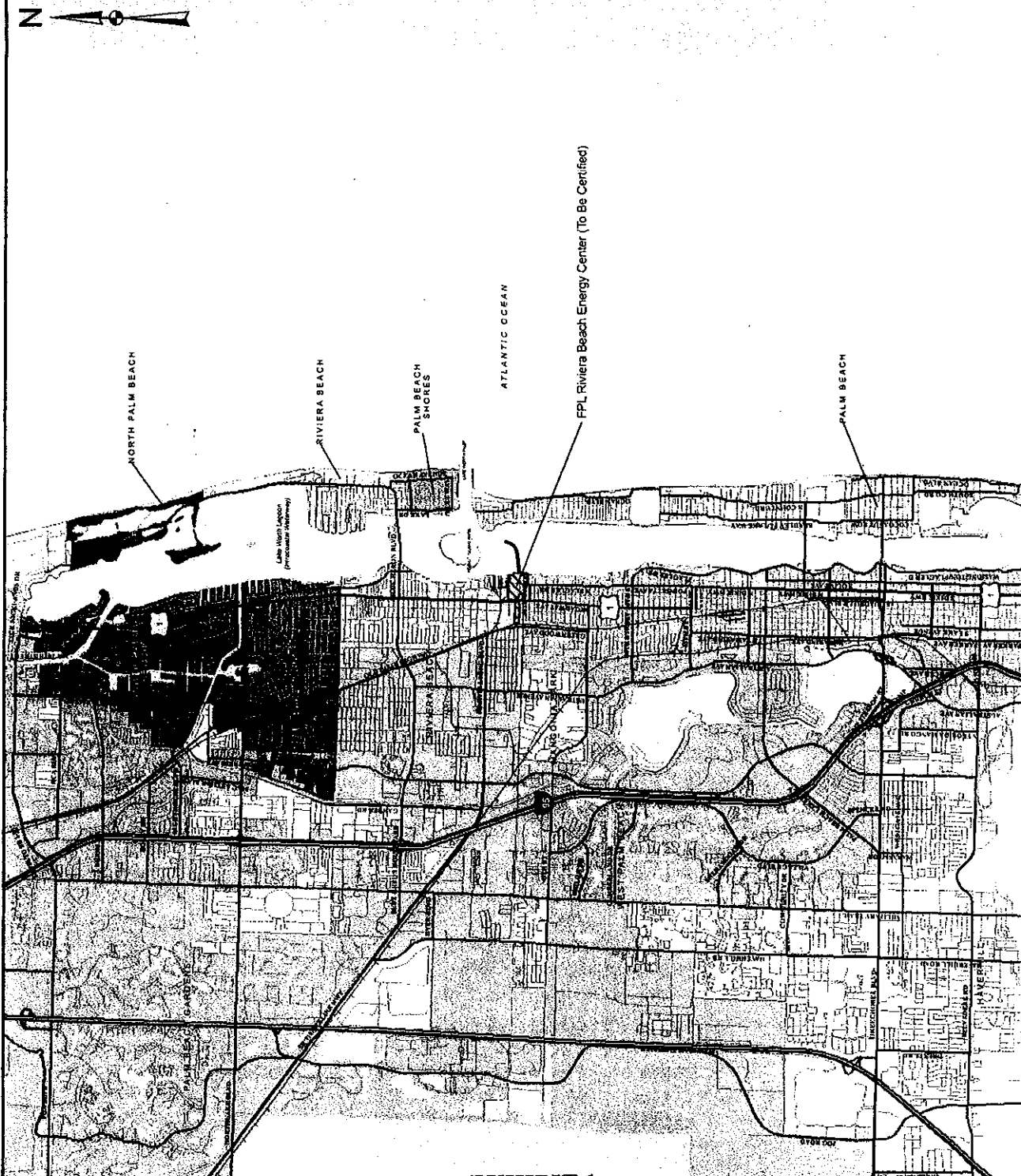


EXHIBIT 1