SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT – AGENCY REPORT

PROGRESS ENERGY FLORIDA, INC.
LEVY COUNTY UNITS 1 & 2
SITE CERTIFICATION APPLICATION NO. PA-08-51

STAFF RECOMMENDATION – APPROVAL WITH CONDITIONS

I. PROJECT DESCRIPTION

Progress Energy Florida, Inc. (PEF) proposes to construct and operate a new electrical power generating facility known as the Levy Nuclear Power Plant, Units 1 & 2 (LNP), to be located on a 3,100-acre site in southern Levy County. The proposed LNP will generate approximately 2,200 megawatts (MW) of electrical power which will be distributed through approximately 178 miles of proposed transmission lines in Levy, Citrus, Marion, Sumter, Hernando, Hillsborough, Pinellas and Polk Counties. The plant will use state-of-the-art technology that includes two nominal 1,000 MW nuclear reactor generating units manufactured by Westinghouse Electric Company, LLC. The reactor design is certified by the U.S. Nuclear Regulatory Commission (NRC), and construction and operation of the nuclear reactors must comply with NRC regulations in addition to conditions required for site certification.

This agency report addresses the main site and associated facilities proposed for site certification. The transmission line portion of the application was addressed in a separate District agency report submitted to DEP in August 2008. Associated facilities proposed in the application included construction of a railroad spur, a heavy haul road and a barge slip on the Cross Florida Barge Canal to provide construction access and ongoing material supply access to the LNP site. Proposed to be located in Levy and Marion counties, the railroad spur has since been eliminated by PEF after further determination that rail transport will not be cost effective. The construction of two substations proposed to be located in Sumter and Citrus counties has also been removed from the site certification application and will be addressed through separate permitting applications to the appropriate regulatory agencies at a later date.

Site Description

Situated in the western portion of Levy County, the LNP site is approximately eight miles east of the Gulf of Mexico, three miles north of the Withlacoochee River and near U.S. Highway 19. The area is characterized as a poorly drained, low relief region containing extensive swamps, marches and terraces formed by ancient sea-level high stands. The site lies within the Gulf Coastal Lowlands which are comprised of broad, flat marine erosional plains underlain with karstic limestones covered by thin sand deposits. Extensive site investigation undertaken by PEF revealed no voids located under or immediately adjacent to the proposed nuclear reactor locations. The LNP site

was formerly used for silviculture and has been impacted by many years of timber planting and harvesting. No streams or ephemeral ditches are identifiable onsite. Pockets of shallow wetlands collect runoff that may discharge as sheet flow during wet periods. There are approximately 1,185 acres of wetlands on the site. Nearby surface waters are designated as Class III freshwater except for the lower reaches of the Withlacoochee River, which are designated both as Class II waters and Outstanding Florida Waters.

Proposed Water Use

The LNP will require water for plant cooling and operational uses. Most of the water to be used at the LNP site will be needed for steam condenser cooling which will take place in two cooling towers; one for each unit. The source for cooling tower makeup water will be surface water withdrawn from the nearby Cross Florida Barge Canal. Approximately 120 million gallons per day (mgd) will be withdrawn from the canal for cooling tower needs. A new intake structure will be constructed on the canal at a site south of the LNP site and downstream from the Inglis Lock. Canal waters from downstream of the Lock to the Gulf are predominately saline. PEF advises that the waters in the canal downstream of the Inglis Lock vary in salinity both seasonally and with tidal influences; however, when the intake is operational, it is anticipated that the makeup waters to the cooling towers will be drawn from shallow nearshore Gulf of Mexico waters. The canal intake structure will withdraw surface water through four 54-inch diameter intake pipelines (two for each nuclear unit) that will convey water to cooling tower basins for use within the cooling towers. Two additional 54-inch diameter pipes will convey discharged cooling water approximately 13 miles to PEF's existing Crystal River Energy Complex discharge canal. Flows will be combined with flows released from the Crystal River Energy Complex and discharged to the Gulf of Mexico. Supply and discharge pipelines will generally be buried to a minimum depth of five feet. Pipelines will cross over the Inglis Lock Bypass Canal on an approximately 33-ft.-wide utility bridge and will cross beneath the Barge Canal bottom.

PEF also proposes to develop an onsite fresh water system that will be supplied by Floridan aquifer groundwater withdrawn from four supply wells. Groundwater will be used for plant operations, fire suppression, potable water needs and demineralized water needs. Demineralized water is processed to remove ionic impurities and dissolved oxygen and is used for plant operations that require pure water. PEF anticipates that when operational, the LNP site will supply potable water to approximately 800 employees and visitors daily. During the construction stage, potable water will be needed for up to 3,500 people anticipated to be onsite. The fire protection system will provide water to points throughout the plant where wet system fire suppression may be required. The fire suppression system is designed to supply water at a flow rate and pressure sufficient to satisfy the demand of automatic sprinkler systems and fire hoses for a minimum of 2 hours. PEF proposes to withdraw 1.58 mgd on an annual average basis and a maximum daily withdrawal of 5.8 mgd for these uses.

Wastewater (backwash and blowdown) from reactor and plant operations will be treated and discharged to the cooling tower basins for reuse within the cooling towers. Treated sanitary wastewater will also be discharged to the cooling water basins for reuse in the cooling towers. Stormwater from onsite impervious areas will be treated to comply with state water quality regulations and will be managed and discharged in accordance with environmental resource permitting requirements.

The extent of significant construction-related dewatering necessary for the 75-foot deep foundations needed for the nuclear reactors will be determined after design specifications are finalized. PEF proposes to install an impervious diaphragm wall around and below the foundation excavations, to minimize water flow into the construction site. It is anticipated that dewatering at each unit could last as much as two years. Additional construction dewatering will also be necessary in some locations for installation of the pipelines and other linear facilities. Construction-related dewatering activities will be approved by DEP and the District on a post-certification basis after final construction designs are submitted.

Application Review

The LNP site certification application was submitted to DEP on June 2, 2008. District staff submitted comments on the completeness of the main site and associated facilities portion of the application on July 2, 2008. District staff determined that the application as submitted was incomplete for purposes of determining consistency with District substantive permitting requirements. Information requested by the District included additional data supporting the groundwater drawdown impact modeling submitted in support of the application, further analyses of cumulative impacts, additional aquifer transmissivity data, further assessment of environmental impacts to surrounding water resources, exploration of alternative water use, assessment of withdrawal impacts on water quality of the barge canal and associated issues, plans for addressing dewatering activities, water conservation methods and potential impacts to nearby water supply sources such as Lake Rousseau. On July 14, 2008, DEP issued its determination that the application was not complete.

PEF submitted additional information in August 2008. Following meetings involving District staff, PEF and PEF's consultants, modifications were made to the modeling studies. The wellfield initially proposed to be located in the northeast portion of the site, near Goethe State Forest, was relocated to avoid and minimize potential impacts to surface waters, wetlands and adjacent users. PEF now proposes to locate the groundwater wells further south and has submitted additional modeling addressing the relocated wellfield. To ensure sufficient time to address all issues, the District sought an extension of time to submit a second completeness determination, which was granted and extended to September 3, 2008. However, due to issues remaining for the District and other agencies, upon motion by DEP and PEF, reviewing agencies were granted an extension of time to October 28, 2008 to submit their completeness determination, and DEP's deadline for a second completeness determination was extended to October 30, 2008. District staff has determined that the application is now complete for purposes of

determining appropriate conditions. The District's completeness determination is based upon negotiated conditions that require post-certification submittal of further confirming studies, ongoing environmental monitoring, continued groundwater modeling and impact analysis and assessment and implementation of alternative water supplies, to ensure no adverse impacts will occur and that the water resource will be appropriately conserved and protected over the life of the facility. The District's agency report, including proposed conditions for certification, must be submitted to DEP by December 17, 2008.

II. PROPOSED WATER USE

Following review and discussion with the applicant, District staff recommends authorization for an annual average total of 1.58 mgd of Floridan aquifer groundwater and 5.8 mgd for maximum daily use for process and potable water needs, provided the conditions attached hereto and incorporated herein are applicable to the certification order. To confirm that water use associated with plant operations does not cause adverse environmental impacts, conditions proposed by staff include requiring the development and implementation of an environmental monitoring plan to evaluate the relative condition of surface waters and wetlands in areas potentially affected by ground water withdrawals. Monitoring will continue for a minimum of five years after groundwater withdrawals reach 1.25 mgd on an annual average basis. Annual monitoring summaries will be submitted. If, after five years, monitoring demonstrates that no adverse impacts are occurring or predicted, PEF may request that monitoring be discontinued. Conditions also require PEF to investigate the feasibility of developing alternative water supply projects to offset groundwater use. The conditions are structured to require that if ongoing environmental monitoring, aquifer performance testing or groundwater modeling predict or detect adverse environmental impacts, PEF will be required to either mitigate the adverse impacts or implement an approved alternative water supply project.

To confirm Upper Floridan aquifer transmissivity and leakage values used in the groundwater flow model supporting the application, staff is requiring that an aquifer performance testing plan be submitted, approved by the District and implemented within a specified timeframe. Required aquifer performance testing will include step-drawdown tests of all groundwater wells and a multi-well constant-rate test to be performed on two of the wells after all wells are fully developed. If values derived from actual well tests differ significantly from values determined through earlier modeling, PEF will revise its groundwater model to incorporate the aquifer test results and undertake further modeling. Updated modeling results will be used to help determine whether alternative water supply efforts should be implemented. Conditions also require PEF to develop a water conservation plan and a timetable for implementing technically and economically feasible water-conserving measures.

Proposed conditions also address ongoing monitoring and compliance by requiring a full compliance report every five years, to demonstrate continued reasonable assurance that the water use is meeting all of the applicable substantive water use requirements

set forth in District rules. Groundwater withdrawals will be metered and reported to the District on a monthly basis. Periodic water quality sampling will be implemented to ensure no adverse impacts to water quality. Other standard conditions relating to well construction, mitigation of any adverse impacts to existing legal users or offsite land uses and information reporting are also included.

III. SURFACE WATER MANAGEMENT SYSTEM

Issues and impacts associated with the construction or alteration of surface water management systems as part of this project are being reviewed by DEP. District staff did not include recommendations in this regard.

IV. REGIONAL WATER SUPPLY

The District has not prepared a Regional Water Supply Plan for counties in the Northern Planning Area of the District, which includes Levy County. This is due to the general lack of existing regional impacts to water resources. However, there are smaller scale cumulative effects of withdrawals throughout the region and areas where the rate of growth has accelerated beyond what was previously anticipated to occur that could impact water resources through future ground-water withdrawals. The proposed LNP is not located within an accelerated growth area. Ongoing water supply planning activities in the Northern Planning Area include: 1) comprehensive water supply planning conducted cooperatively by Marion County, the Withlacoochee Regional Water Supply Authority, the District, and the St. John's River Water Management District (SJRWMD); 2) extensive resource assessments involving the District, the SJRWMD, and the U.S. Geological Survey; 3) an aggressive program to establish minimum flows and levels; 4) the development of a sophisticated ground-water flow model that will be used to determine safe yield; and 5) programs to provide funding and technical assistance for the development of conservation and reclaimed water projects and conservation education programs. Based on the fact that most of the water to be used at the LNP site will be withdrawn from the Cross Florida Barge Canal, which is not a current or planned source of potable water for the region, and that the amount of groundwater to be used will be limited to approximately 1.58 mgd on an annual average basis, District staff anticipates that the regional water supply is adequate to support this use as well as other projects currently planned in the region. The proposed water use does not conflict with or otherwise impact the anticipated plans and water uses proposed by the Withlacoochee River Water Supply Authority.

IV. VARIANCE, EXCEPTION OR EXEMPTIONS

Staff has not identified any District nonprocedural requirements for which a variance, exemption or exception is necessary in order for the proposed main site and associated facilities to be certified.

IV. STAFF RECOMMENDATION

Staff has determined that this project will meet District substantive requirements for authorized water use, provided that the attached conditions are included in the conditions for certification for the main site and associated facilities. Staff recommends approval and submittal of this agency report to DEP.

REPORT AND CONDITIONS PREPARED BY:

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Date: 12/16/08

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Date: 12/16/08

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Date: 12/16/08

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
AGENCY REPORT – RECOMMENDED CONDITIONS OF CERTIFICATON
PROGRESS ENERGY FLORIDA, INC. – LEVY COUNTY UNITS 1 & 2
SITE CERTIFICATION APPLICATION NO. PA-08-51

GROUNDWATER WITHDRAWAL QUANTITIES AND FACILITIES

District ID/ Owner ID	Water Allocation Average Gallons per Day	Well Casing/Depth Feet	STATUS
1/PW-1	395,000	100/300	PROPOSED
2/PW-2	395,000	100/300	PROPOSED
3/PW-3	395.000	100/300	PROPOSED
4/PW-4	395.000	100/300	PROPOSED
TOTAL ALL WELLS	1,580,000		

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rule 40D-2.301, F.A.C., District Basis of Review (BOR) Sections 3.2, 3.4, 4.1, 4.4, 4.8, 4.10

A. SPECIAL CONDITIONS:

All conditions referring to the District shall mean the

Southwest Florida Water Management District
2379 Broad Street
Brooksville, Florida 34604-6899

The term, "Licensee" as used herein, shall refer to Florida Power Corporation dba Progress Energy Florida, Inc.

The conditions of certification as used herein refer to Conditions of Certification proposed for Site Certification Application No. PA-08-51.

SUBMIT REPORTS / DATA

1. All reports and data required by these conditions of certification shall be submitted to the District according to the due dates contained in the specific condition. If the report or data is received on or before the tenth day of the month following data collection, it shall be deemed as a timely submittal. The Licensee may use the District's website to submit data, plans or reports online. To set up an account, the Licensee can address the request to permitdata@watermatters.org. All mailed reports and data are to be sent to:

   Permit Data Section, Regulation Performance Management Department
   Southwest Florida Water Management District
   2379 Broad Street

Brooksville, Florida 34604-6899

Submission of plans and reports: Unless submitted online or otherwise indicated in the special condition, the original and two copies of each plan and report required herein.

Submission of data: Unless submitted online or otherwise indicated in the special condition, an original (no copies) is required for data submittals such as meter readings and/or pumpage, rainfall, water level, evapotranspiration, or water quality data

2. Within sixty (60) days, the Licensee shall designate one individual responsible for receiving and responding to District notices and correspondence related to these conditions of certification. Notification to the District of the designee, including address and telephone number shall be in written form.

Citation: Sections 373.016, 373.219, 373.236, F.S.; Rules 40D-2.301(1) and 40D-2.381(1), (2) and (4), F.A.C.; BOR Section 6.2

ENVIRONMENTAL IMPACTS, MONITORING AND MITIGATION

3. Environmental Assessment

A. Environmental Monitoring Plan

Licensee shall submit an Environmental Monitoring Plan for District review and approval within 90 days of conditions of certification issuance. The monitoring plan, at a minimum shall utilize the District's Wetland Assessment Procedure to evaluate the relative condition of surface waters and wetlands in areas potentially affected by water withdrawals of Licensee. Upon District approval, the plan shall be implemented and monitoring reports shall be provided in the annual monitoring report required by Condition No. 3 E. After five years of monitoring following groundwater use rising to more than 1.25 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, the Licensee may request the District release the Licensee from monitoring. If the District concurs with the request, the District will request DEP modify the conditions of certification to remove the monitoring condition.

B. Data Collection

Licensee shall maintain and monitor the environmental monitoring sites included in the approved monitoring plan. Water levels for monitor wells staff gauges, and piezometers for the sites included in the monitoring plan shall be referenced to National Geodetic Vertical Datum (NGVD) and reported in a form acceptable to the District by the 10th day of each month for the preceding month. The time and date that the elevation is taken shall be included. Any changes to the methods or frequency of monitoring for any of these data collection programs must be approved by the District.

C. Staff Gauges

Licensee shall install and thereafter maintain District-approved staff gauges and shall report measurements of water levels, as indicated in the monitoring plan. Water levels shall be recorded and reported to the District on or before the tenth day of the following month. To the maximum extent possible, water levels shall be recorded as indicated in the monitoring plan. The frequency of recording may be modified by the District as necessary to ensure protection of the resource.

D. Monitoring Wells and Piezometers

Licensee shall monitor water levels in the monitor wells and piezometers as specified in the monitoring plan. Reports of the data shall be submitted to the District in a form acceptable to the District. All data shall be referenced to NGVD. The frequency of water-level recording may be modified by the District as necessary to ensure the protection of the resource.

E. Annual Environmental Monitoring Reports

Licensee shall submit an annual environmental monitoring data summary by January 1st of each year for the preceding water year (October 1 - September 30). The Annual Monitoring Report shall include all raw data, essential graphs, tables, and text. Monitoring progress at each site shall be summarized in the Annual Monitoring Report, as specified below. Licensee shall submit three copies of the Annual Monitoring Report each year. Interpretive reports of environmental conditions shall incorporate all environmental monitoring sites used. The Annual Monitoring Report shall assess relationships between water level fluctuations, well pumpage, atmospheric conditions, and drainage factors related to the environmental condition of the wetlands and surface waters in the vicinity of the Levy Nuclear Plant. Pumpage data, wetland, water level data collected from the aquifer and for the region, and environmental parameters collected at the monitoring sites and in the region (SWFWMD data shall be used for information of the region) shall be used for the report results. Statistical trend analysis, such as double-mass curve analysis, multiple linear regression, time series analysis and/or factor analysis shall be performed to analyze the interactions of rainfall and pumpage on surficial water levels, potentiometric levels in the semi-confined aquifers, surface waters, and wetland water levels, rate of soil subsidence, and evidence of vegetational succession. Data shall be obtained through field measurements and aerial photo interpretation. A brief summary of any recommended changes to the monitoring requirements shall be provided. Upon review of those recommended changes, SWFWMD may approve changes to the monitoring requirements under the approved Environmental Monitoring Plan.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 2.381(1), 2.381(4), F.A.C.; BOR Sections 1.5, 4.2, 5.8

ALTERNATIVE WATER SUPPLY IMPLEMENTATION

4. The Licensee shall investigate the development of one or more alternative water supply projects to supply the water supply demands to offset all or a portion of the groundwater allocated by these conditions of certification. Alternative water supplies include seawater desalination, brackish surface or ground water, water that has been reclaimed after one or more uses, stormwater, and any other water supply source designated as non-traditional. If adverse impacts are detected or predicted through the Environmental Monitoring as specified in Condition 3 or through aquifer performance testing or groundwater modeling as specified in Conditions 5 and 6 below, Licensee shall either mitigate such adverse impacts in accordance with a plan submitted by the Licensee and approved by the District or, by selecting and implement an Alternate Water Supply project in accordance with the following schedule.

A. Within 3 years of completion of site aquifer testing specified in condition 5, the Licensee shall submit for District approval, an Alternative Water Supply Plan. The Alternative Water Supply Plan shall evaluate, identify, and propose alternative water supply development of one million five hundred eighty thousand (1,580,000) gallons per day (gpd).

B. Within 4 years of completion of site aquifer testing and modeling specified in condition 5, Licensee shall submit to the District, a preliminary design of the approved alternative water supply project that the Licensee will implement.

C. Within 3 years of groundwater use rising to more than 1.25 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, the Licensee shall provide an analysis of environmental conditions as specified in Condition 3 above. The Licensee may ask for a time extension or waiver for implementing the Alternate Water Supply project if the District confirms that adverse environmental impacts have not been detected or are not predicted to occur. The Alternate Water Supply project schedule shall be maintained unless the District confirms that adverse environmental impacts have not been detected or are not predicted to occur. If adverse environmental impacts are occurring or are predicted to occur, the Alternative Water Supply quantity required to be developed will be determined based upon a revised hydrogeologic evaluation performed by the Licensee and accepted by the District.

D. With 4 years of completion of site aquifer testing specified in condition 5, submit to the Florida Department of Environmental Protection and the District, applications for authorization to develop and use 1,580,000 gpd of alternative water sources for the project as appropriate, unless an extension of time or waiver has been granted by the District.

E. Within 4 years of completion of site aquifer testing specified in condition 5, submit to the District an alternative water supply implementation schedule detailing the dates when construction will begin and end, and the date when water will be delivered from the project for use by the Licensee.

F. Compliance with the Alternative Water Supply Implementation Schedule is required by the Licensee, unless extended or otherwise modified in writing by the District. Each year, by March 1, after the triggers described above, the Licensee shall submit to the District a status report describing the progress made on the Alternative Water Supply Implementation Schedule, including the specific actions taken to meet the requirements set forth above. If the project has fallen behind schedule, Licensee shall provide just cause for the delay and/or explain how the Licensee will comply with the schedule described herein.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rule 40D-2.301(1); BOR Section 3.1(pending amendment)

AQUIFER TESTING AND GROUNDWATER IMPACT ANALYSIS

5. For the purpose of confirming Upper Floridan transmissivity and leakance values used in Licensee's groundwater flow model, a step -drawdown test shall be performed on the production wells. A multi-well constant-rate test shall be performed on two of the following production wells: District ID Nos. **1, 2, 3, 4,** Licensee ID Nos. **PW-1, PW-2, PW-3, PW-4**, after the wells have been fully developed. Constant-rate multi-well test locations will be based on step-drawdown tests, water quality, and other data submitted to the District prior to the multi-well constant-rate site selections. The constant-rate tests shall be performed in accordance with the specifications in an Aquifer Performance Testing (APT) Plan submitted to and approved by the District. The APT Plan shall be submitted to the District within 90 days of the approval of the conditions of certification. The step-drawdown and constant-rate tests shall be conducted by the Licensee within 6 months of construction of the wells included in the APT Plan and prior to the use of any of the wells for production purposes. All recorded raw data and a full report analyzing the data shall be submitted to the District within ninety (90) days of completion of all the tests.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rule 40D-2.301(1); BOR Sections 1.5, 4.2, 4.5, 4.6, 4.8, 4.13

6. If any of the transmissivity or leakance values derived from either the step-drawdown or the multi-well constant-rate tests referenced in condition 5 above, differ significantly from the values used in

the groundwater flow model submitted as part of Licensee's application, the Licensee will revise its submitted Focused Telescoping Mesh Refinement groundwater model of the wellfield area based on the results of the aquifer tests described in Condition No. 5 above. Significantly different transmissivity or leakance values shall mean any well having either a leakance or transmissivity value twenty (20) percent higher or lower than those included in the Licensee's submitted groundwater flow model. The revised model will include wellfield-specific Upper Floridan aquifer transmissivity or leakance values and properties derived from well drilling and the aquifer tests described in Condition no. 5. The modeling parameters, including but not limited to the following: surficial aquifer transmissivity/hydraulic conductivity and thickness, Upper Floridan aquifer thickness and transmissivity/hydraulic conductivity, measured groundwater levels (NGVD) and gradients, aquifer leakage, and aquifer boundary conditions, may require revision to reasonably represent aquifer conditions. The revised model must also reflect a groundwater impact analysis including cumulative and incremental analysis to evaluate the pumping effects on other water users, and other analysis to confirm that the withdrawal meets the District's conditions of issuance for water-use permits. If required, all groundwater modeling and a full report, meeting District modeling guidelines, shall be submitted to the District within one-hundred eighty (180) days of completion of the aquifer tests described in Condition No. 5 above. Upon acceptance of the report by the District, the Licensee will complete any required Alternative Water Supply Implementation Plans as specified above.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 2.381(1), (4); BOR sections 4.2, 5.4, 5.5, 5.6, 5.7

COMPLIANCE REPORTING

7. The Licensee shall submit a compliance report beginning the fifth year after groundwater use rising to at least 1.25 million gallons per day (average annual daily withdrawal quantity) and at 5 year intervals thereafter. The report must contain sufficient information to demonstrate reasonable assurance that the withdrawals and use of water authorized by these conditions of certification continue to meet the substantive requirements set forth in Chapter 40D-2, F.A.C., and the District's Water Use Permit Information Manual Part B, Basis of Review. The compliance report shall include:

   A. Information documenting water demands and updated demand projections demonstrating that allocations from all sources in the conditions of certification will continue to be needed for the remainder of the conditions of certification duration;

   B. Documentation verifying that the sources are capable of supplying the needs authorized by these conditions of certification without causing harm to water and water-related resources;

   C. Documentation verifying that the use of water is efficient and that the Licensee is implementing all feasible water conservation measures;

   D. An updated ground water modeling analysis and data analysis demonstrating that the use of groundwater does not interfere with legal uses existing at the time of issuance of the conditions of certification;

   E. An updated ground water modeling analysis, along with statistical analyses of water-level and wetland monitoring data, demonstrating that the use does not cause adverse impacts to wetlands, and surface waters, or violations of MFLs;

   F. Documentation that ground water withdrawals by the Licensee are not causing or contributing to significant water quality deterioration, including but not limited to review and statistical analyses of groundwater level and water quality data collected by the Licensee under these conditions of certification;

G. Information demonstrating that the lowest quality source of water is being used to meet the water demands.

Following review of this report and as requested by the District, DEP may modify the conditions of certification to ensure that the use continues to meet the substantive conditions for the consumptive use of water as set forth in Section 373.223, F.S., and Chapter 40D-2, F.A.C.

Citation: Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4), F.A.C.

PUMPAGE REPORTING

8. Licensee shall meter withdrawals and record meter readings from each withdrawal point and water supply line on a monthly basis within the last week of the month. The meter readings shall be reported to the District on or before the tenth day of the following month. If a metered withdrawal is not utilized during a given month, the meter report shall be submitted to the District indicating the same meter reading as was submitted the previous month.

Licensee shall install meters on District ID Nos. **1, 2, 3, 4,** Licensee ID Nos. **PW-1, PW-2, PW-3, PW-4,** within 90 days of completion of construction of the withdrawal facilities.

All meters shall adhere to the following descriptions and shall be installed and maintained as follows:

A. All meters shall be non-resettable, totalizing flow meters that have a totalizer of sufficient magnitude to retain total gallon data for a minimum of the three highest consecutive months permitted quantities. If other measuring devices or alternative accounting or reporting methods are proposed, prior to installation, the Licensee shall submit documentation that the other measuring devices or accounting methods meet the accuracy requirement provided below. If the alternative accounting method involves a meter belonging to another entity or to an alternative water supply provider, the Licensee shall submit documentation from the owner/supplier that the meter readings conform to these meter requirements. Such documentation is subject to approval by the District. Approval for other measuring devices, accounting methods, or reporting methods must be obtained in writing from the Brooksville Regulation Department Director.

1. The flow meter(s) or other approved flow-measuring device(s) shall have and maintain an accuracy within five percent of the actual flow as installed.

2. Accuracy testing requirements:
   a. For newly metered withdrawal points, the flow meter installation shall be designed for inline field access for meter accuracy testing.
   b. The meter shall be tested for accuracy on-site, as installed, every five years beginning from the date of its installation for new meters or from the date of initial issuance of the permit
   c. The testing frequency will be decreased if the Licensee demonstrates to the satisfaction of the District that a longer period of time for testing is warranted.
   d. The test will be accepted by the District only if performed by a person certified on the test equipment used as described in the section entitled Flow Meter Verification, below.
   e. If the actual flow is found to be greater than 5% different from the measured flow, within 30 days the Licensee shall have the meter re-calibrated, repaired, or replaced, whichever is necessary. Documentation of the test and a certificate of re-calibration, if applicable, shall be submitted within 30 days of each test or re-calibration.

B. The meter shall be installed according to the manufacturer's instructions for achieving accurate flow to the specifications above, or it shall be installed in a straight length of pipe where there is at least an upstream length equal to ten (10) times the outside pipe diameter and a downstream length equal to two (2) times the outside pipe diameter. Where there is not at least a length of ten diameters upstream available, flow straightening vanes shall be used in the upstream line. Existing systems that would require retrofitting to achieve the above standards will not be required to retrofit provided it is documented on the Meter Accuracy Verification Form, Form No. LEG-R.014.00 (07/08) that the flow meter is accurately and reliably measuring flow over different flow ranges or for the permanent operating flow.

C. If a metered withdrawal point, AWS inflow line or re-pump withdrawal point is not utilized during a given month, the meter report shall be submitted to the District showing the same meter reading that was submitted the previous month.

D. Broken or malfunctioning meter:

If the meter or other flow-measuring device malfunctions or breaks, the Licensee shall:

1. Notify the District within 15 days of discovering the malfunction or breakage;

2. Replace the broken or malfunctioning meter with a repaired or new meter, subject to the specifications given above, within 30 days of the discovery; and

3. Submit estimates of their pumpage as described below.

If the meter is removed from the withdrawal point for any other reason, it shall be replaced with another meter having the same specifications given above, or the meter shall be reinstalled within 30 days of its removal from the withdrawal. In either event, the withdrawal point shall not lack a fully functioning meter for more than 60 consecutive days.

E. While the meter is not functioning correctly, the Licensee shall document the total amount of time in minutes that the withdrawal point was used for each month and multiply those minutes times the pump capacity (in gallons per minute) for total gallons. The estimate of the number of gallons used each month during that period shall be submitted on District scanning forms and noted as estimated per instructions on the form. If the data are submitted by another approved method, the fact that it is estimated must be indicated. The reason for the necessity to estimate pumpage shall be reported with the estimate.

F. In the event a new meter is installed to replace a broken meter, the meter and its installation shall meet the specifications of the District. The Licensee shall notify the District of the replacement with the first submittal of meter readings from the new meter.

Citation: Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1),(3), 40D-2.381(1), (4); F.A.C.; BOR 5.1, 6.2

DISTRIBUTION FLEXIBILITY

9. The average day, peak monthly, and maximum daily, if applicable, quantities for District ID No(s) **1, 2, 3, 4,** Licensee ID No(s). **PW-1, PW-2, PW-3, PW-4.** shown above in the production withdrawal table are estimates based on projected distribution of pumpage, and are for water use inventory and impact analysis purposes. The quantities listed in the table for these individual sources are not intended to dictate the distribution of pumpage from the withdrawal sources. The Licensee may make adjustments in pumpage distribution as necessary up to **125 percent** on an average basis, up to **125 percent** on a peak monthly basis, so long as adverse environmental impacts do not result and other conditions of this

certification are complied with. In all cases, the total average annual daily withdrawal and the total peak monthly daily withdrawal are limited to the quantities set forth above.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rule 40D-2.301, F.A.C., BOR sections 3.2, 3.4, 4.1

WATER QUALITY SAMPLING

10. Water quality samples shall be collected and analyzed for parameters and at the frequencies specified below. Water quality samples from production wells shall be collected from all wells, unless infeasible. If sampling is infeasible, Licensee shall indicate the reason for not sampling on the water quality data form. Water quality samples shall be analyzed by a laboratory certified by the Florida Department of Health utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64E-1, Florida Administrative Code, "Certification of Environmental Testing Laboratories". At a minimum, water quality samples shall be collected after pumping the well at its normal rate for a pumping time specified in the table below, or to a constant temperature, pH, and conductivity. In addition, Licensee's sampling procedure shall follow the handling and chain of custody procedures designated by the certified laboratory which will undertake the analysis. Any variance in sampling and/or analytical methods shall have prior approval of the Brooksville Regulation Department Director. Reports of the analyses shall be submitted to the Permit Data Section, Regulation Performance Management Department, (using District forms) on or before the tenth day of the following month, and shall include the signature of an authorized representative and certification number of the certified laboratory which undertook the analysis. The parameters and frequencies of sampling and analyses may be modified by the Brooksville Regulation Department Director, as necessary to ensure the protection of the resource.

District ID No.	Licensee ID No.	Minimum Pumping Time (minutes)	Parameter	Sampling Frequency
1	PW-1	20 minutes	Chlorides,	February, May,
2	PW-2	20 minutes	Sulfates, and	August and November
3	PW-3	20 minutes	T.D.S.	
4	PW-4	20 minutes		

Water quality samples shall be collected quarterly and on the same week of the months specified.

Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association-American Water Works Association-Water Pollution Control Federation (APHA-AWWA-WPCF) or Methods for Chemical Analyses of Water and Wastes by the U.S. Environmental Protection Agency (EPA).

Citation: Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4); F.A.C.; BOR 6.2

11. Water quality samples from monitor wells shall be collected and analyzed for the District ID No., parameter(s), and frequency(ies) specified in the table below. Water quality samples shall be collected after pumping the monitor wells(s) to a constant temperature, pH, and conductivity. Sampling method(s) shall be designed to collect water quality samples that are chemically representative of the zone to be sampled. Water quality samples shall be analyzed by a laboratory certified by the Florida Department of Health utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64E-1, Florida Administrative Code, "Certification of Environmental Testing Laboratories". The Permittee's sampling procedure(s) shall follow the handling and chain of custody procedures designated by the certified laboratory which will undertake the analysis. A report describing the sampling and chain of custody procedures shall be

included with the first data submitted after the date this permit is granted, and upon any change in sampling and/or analytical method(s). Any variance in sampling and/or analytical methods shall have prior approval of the District. Reports of the analyses shall be submitted to the District on District forms on or before the tenth day of the following month, and shall include the signature of an authorized representative and certification number of the certified laboratory that undertook the analysis. The parameters and frequency of sampling and analysis may be modified by the District as necessary to ensure the protection of the resource.

District ID No.	Licensee ID No.	Parameter	Sample Frequency
5	TBD	Chlorides,	May, September
6	TBD	Sulfates, and TDS	
7	TBD		
8	TBD		
9	TBD		
10	TBD		

Water quality samples shall be collected based on the following timetable:

Semi-annually Same week of months specified

Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association-American Water Works Association-Water Pollution Control Federation (APHA-AWWA-WPCF) or Methods for Chemical Analyses of Water and Wastes by the U.S. Environmental Protection Agency (EPA).

Citation: Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4); F.A.C.; BOR 6.2

12. The District with DEP's concurrence, reserves the right to set chloride, sulfate or TDS concentration limits on any production well in the future to prevent long-term upward trends or other significant water quality changes from occurring, based on data collected and after a sufficient data base has been established to determine limits. These limits shall be required after discussions with the Licensee. At such time as the concentration in any water sample reaches or exceeds the designated concentration limits, the Licensee shall take appropriate action to reduce concentrations to below those set for the particular well. If the District determines that long-term upward trends or other significant water quality changes are occurring, the District may consult with FDEP to reconsider the quantities included in these conditions of certification.

Citation: Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4); F.A.C.; BOR 6.2

13. During drilling of District ID Nos. **1, 2, 3, 4**, Licensee ID Nos. **PW-1, PW-2, PW-3, PW-4**, water quality samples shall be collected at intervals of the change of drill rod or 30 feet, whichever is less, from 150 feet to a maximum depth of five feet above the bottom of the well when drilling on reverse air. Regardless of the specified sample collection interval, a sample shall be collected from the depth which corresponds to five feet above the bottom of the well. Samples shall be collected during reverse air drilling, or other appropriate method with prior approval by the District.

Samples shall be analyzed by a certified laboratory for Chloride, Sulfate, and Specific Conductivity. Licensee' sampling procedure shall follow the handling and chain of custody procedures designated by the certified laboratory which will undertake the analysis. Reports of the analyses shall be

submitted to the Permit Data Section, Regulation Performance Management Department (using District forms) within thirty days of sampling, and shall include the signature of an authorized representative and the certification number of the Florida Department of Health certified laboratory utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64E-1, Florida Administrative Code, "Certification of Environmental Testing Laboratories".

Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association-American Water Works Association-Water Pollution Control Federation (APHA-AWWA-WPCF) or by Methods for Chemical Analyses of Water and Wastes by the U.S. Environmental Protection Agency (EPA).

Citation: Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4); F.A.C.; BOR 6.2

14. Monthly water levels for monitor wells for the sites included in the table below shall be referenced to NGVD, and reported in a form acceptable to the District by the **tenth** day of each month for the preceding month. The time and date that the elevation is taken shall be included. Changes to the methodology, extent, or frequency of monitoring at any of these sites may be modified by the District, as necessary to ensure the protection of the resources.

District ID No.	Licensee Site No.
5	TBD
6	TBD
7	TBD
8	TBD
9	TBD
10	TBD

Citation: Sections 373.016, 373.219, 373.223(1), 373.236, F.S.; Rules 40D-2.301(1), 40D-2.381(1), (4); F.A.C.; BOR 6.2

WELLS

15. Well construction permits shall be obtained from the District by the Licensee for all wells to be constructed for this project. Well construction shall conform to requirements set forth in District and DEP rules for well construction.

Citation: Sections 373.016, 373.219, 373.223(1), 373.308, 373.313, F.S.; Rules 40D-2.301(1), 40D-2.381(1), 40D-3.041, F.A.C.; WUP BOR 6.2

16. Wells not in use with no installed pumping equipment shall be capped or valved in a water tight manner in accordance with Rule 62-532.500(3)(a)(4), F.A.C.

Citation: Sections 373.016, 373.219, 373.223(1), 373.308, 373.313, F.S.; Rules 40D-2.301(1), 40D-2.381(1), 40D-3.037, 40D-3.041, 40D-3.521, 62-532.500, F.A.C.

17. Within 90 days of the completion of each proposed well, Licensee shall submit to the District specific capacity (well testing) information from any test performed by the Water Well Contractor or pump installer on the well. This information shall include:

    A. Static water level before pumping

B. Duration of test pumping
C. Gallons per minute pumped
D. Final water level measured during pumping

If step-drawdown tests were performed, the information listed above shall be submitted for each step. A report analyzing the results shall be presented.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), 40D-3.301(2), F.A.C.

18. Within 90 days of construction, Licensee shall submit to the Permit Data Section, Regulation Performance Management Department, the specific locations of District ID Nos. **1, 2, 3, 4,** Licensee ID Nos. **PW-1, PW-2, PW-3, PW-4,** on an original blue line aerial with a minimum scale of one inch equals 800 feet, or by latitude/longitude. Intake and mainline diameters for each of the above pumps shall be reported at the time of location reporting.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), 40D-3.301(2), F.A.C.

19. Within one year of conditions of certification issuance, Licensee shall develop and implement a Water Conservation Plan (Plan) that includes practices currently employed or planned. For planned components, include an estimated time-frame for implementation for each. The Plan must indicate that technically and economically feasible water conservation opportunities have been or will be employed.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR 3.4 (pending amendment)

20. The lowest quality water source, including reclaimed water, surface water and stormwater, must be used for each consumptive use authorized by these conditions of certification when available, except when Licensee demonstrates that the use of the lower quality water source is determined to be not economically, environmentally, or technologically feasible, in accordance with the District's Water Use Permit Information Manual Part B, Basis of Review, Sections 4.4 and 4.11.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR 4.4, 4.11

21. Wetlands and other surface waters may not be adversely impacted as a result of the water use authorized by these conditions of certification. If unacceptable adverse impacts occur, the District will request that DEP modify the conditions of certification to curtail or abate the unacceptable adverse impacts, unless the impacts can be mitigated by Licensee.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR 2.8, 4.2, 4.13, 6.2

22. A construction dewatering plan shall be provided to the District, for approval 6 months prior to the conduct of the dewatering. This plan shall include the details of the dewatering system, discharge quantities and location, a monitoring plan, and other details as appropriate to demonstrate that the dewatering plans meet the Districts Conditions of Issuance as included in 40D-2.301 and comply with all applicable Environmental Resource Permit construction dewatering requirements.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR Sections 3.5, 5.4, 5.5

B. STANDARD CONDITIONS:

Licensee shall comply with the following Standard Conditions:

1. If any of the statements in the application and in the supporting data are found to be untrue and inaccurate, or if Licensee fails to comply with all of the provisions of Chapter 373, F.S., Chapter 40D, or the conditions set forth herein, the District shall seek revocation of any conditions of certification.

2. These conditions of certification are imposed based on information provided by Licensee demonstrating that the use of water is reasonable and beneficial, consistent with the public interest, and will not interfere with any existing legal use of water. If, during the term of this certification, it is determined by the District that the use is not reasonable and beneficial, in the public interest, or does impact an existing legal use of water, the District shall seek modification these conditions of certification or revocation of the certification authorized by DEP.

3. Licensee shall not deviate from any of the District- imposed conditions of this certification without written approval by the District.

4. In the event the District declares that a Water Shortage exists pursuant to Chapter 40D-21, Licensee agrees that portions of these conditions of certification shall be modified, or declared inactive as necessary to address the water shortage.

5. The District shall collect water samples from any withdrawal point listed in these conditions of certification or shall require Licensee to submit water samples when the District determines there is a potential for adverse impacts to water quality.

6. Licensee shall provide access to an authorized District representative to enter the property at any reasonable time to inspect the facility and make environmental or hydrologic assessments. Licensee shall either accompany District staff onto the property or make provision for access onto the property.

7. Licensee shall cease or reduce any surface water withdrawals as directed by the District if water levels in surface water fall below applicable minimum water level established in Chapter 40D-8 or rates of flow in streams fall below the minimum levels established in Chapter 40D-8.

8. Licensee shall cease or reduce withdrawals if water levels in aquifers fall below the minimum levels established by the District.

9. Licensee shall practice water conservation to increase the efficiency of transport, application, and use, as well as to decrease waste and to minimize runoff from the property. At such time as the District adopts specific conservation requirements for Licensee's water use classification, these conditions of certification shall be modified accordingly.

10. The District may establish special regulations for Water Use Caution Areas. At such time as the Governing Board adopts such provisions, these conditions of certification shall be subject to them upon notice and after a reasonable period for compliance.

11. Licensee shall mitigate any adverse impact to existing legal uses caused by withdrawals. When adverse impacts occur or are imminent, Licensee shall be required to mitigate the impacts. Adverse impacts include:

    A. A reduction in water levels which impairs the ability of the well to produce water;
    B. Significant reduction in levels or flows in water bodies such as lakes, impoundments,

wetlands, springs, streams or other watercourses; or

C. Significant inducement of natural or manmade contaminants into a water supply or into a usable portion of any aquifer water body.

12. Licensee shall mitigate any adverse impact to environmental features or offsite land uses as a result of withdrawals. When adverse impacts occur or are imminent, the Licensee shall be required to mitigate the impacts. Adverse impacts include:

A. Significant reduction in levels or flows in water bodies such as lakes, impoundments, wetlands, springs, streams or other watercourses;
B. Sinkholes or subsidence caused by reduction in water levels;
C. Damage to crops and other vegetation causing financial harm to the owner; and
D. Damage to the habitat of endangered or threatened species.

13. When necessary to analyze impacts to the water resource or existing users, Licensee shall be required to install flow metering or other measuring devices to record withdrawal quantities and submit the data to the District.

14. A District identification tag shall be prominently displayed at each withdrawal point by permanently affixing the tag to the withdrawal facility.

15. Licensee shall notify the District within 30 days of the sale or conveyance of permitted water withdrawal facilities or the land on which the facilities are located.

16. The annual average daily withdrawal quantity is determined by calculating the total quantity of water to be withdrawn over a one year period, divided by 365 days, which results in a gallons per day (gpd) quantity pursuant to Basis of Review, Section 3.2, Permitted Withdrawal Quantities. This is a running 12-month average, whereby each month the annual average daily quantity is recalculated based on the previous 12-month pumpage.

Citation: Sections 373.016, 373.219, 373.223(1), F.S.; Rules 40D-2.301(1), 40D-2.381(1), F.A.C.; BOR Section 6.1