

# EXHIBIT 23

## INTRODUCTION

In response to extensive agency questions, comments and data requests in the completeness process related to operational impacts of FPL's proposed backup cooling water supply for the Project, FPL is continuing to perform additional and more refined groundwater modeling of the radial collector wells to address these completeness questions.

For purposes of the Site Certification Application (SCA), in order to be conservative, FPL modeled and included the results for the radial collector well system operating 24 hours per day, 365 days per year. However, in actuality, and as stated in the SCA, the radial collector well system is proposed as a backup cooling water supply which would be required only during periods when reclaimed water (the primary cooling water supply source) is not delivered to the Site in sufficient quality or quantity. FPL is currently conducting a reliability study to quantitatively characterize the expected reliability of the reclaimed water treatment and delivery systems to Turkey Point Units 6 & 7. The results of this study will enable a more accurate assessment of expected annual use of the radial collector well system.

The Southwest Florida Water Management District (SFWMD) water use regulatory program recognizes that when reclaimed water is proposed as a source, a limited duration backup or secondary water supply may be authorized. FPL's West County Energy Center (WCEC) provides an example of a recently licensed power plant that uses reclaimed water as its primary water source. The WCEC certification allows withdrawals from the Floridan Aquifer for up to 90 days per year as a temporary secondary water supply source. FPL is prepared to accept a similar water use restriction for the backup water supply for Turkey Point Units 6 & 7 that would allow for operational reliability in the event that reclaimed water is not available. FPL proposes, for discussion purposes, that a durational restriction be applied to use of the radial collector wells for Turkey Point Units 6 & 7. An example of language for such a condition, based on the WCEC condition, is provided below.

“Although reclaimed water will be the primary water source for Turkey Point Units 6 & 7, there may be temporary interruptions in the delivery, quantity, or quality of reclaimed water supply to the Site. Consequently, authorizing a reliable, secondary water supply source for the Project is in the public interest. Therefore, this Certification authorizes withdrawals from the radial collector wells as a temporary secondary water supply source for up to 90 days during any calendar year.”

FPL requests that FDEP, SFWMD, and MDC advise whether this type of restriction would be acceptable and allow a recommendation for approval of the radial collector wells or whether such a restriction would alter the information necessary to prepare the Project Analysis Reports pursuant to Section 403.507, F.S.

FPL has endeavored to work with the reviewing agencies with remaining completeness questions to clarify the requests and to provide the information sought, where available. Although not stated for each 3<sup>rd</sup> Completeness Round plant and non-transmission response, FPL maintains its objections to those incompleteness questions identified in the 1<sup>st</sup> and 2<sup>nd</sup> Round Part A plant and non-transmission completeness responses.

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## QUESTIONS AND RESPONSES

### I. DEP SED WATERSHED MANAGEMENT AND PLANNING

#### 3FDEP-I-C-4: Radial Collector Wells

FPL notes that they are still working with the SFWMD and the Department to evaluate the potential impact of the construction dewatering and radial collector well operation and the results will be provided with the second set of responses (Part B Submittal) by July 15, 2010. Until the Part B Submittal is received and reviewed, concerns still remain regarding unknowns including but not limited to possible impacts to the Bay including the seabed, seagrasses and salinity. The reliability of the well to produce the water at a volume and quality needed for the facility will remain speculative until it is in production. This is a significant unknown and thus a risk for the facility, public and the environment.

#### RESPONSE:

Comment noted.

#### New Question: FPL –Owned Fill Source

In an amendment to the Site Certification Application submitted in May 2010, FPL has suspended pursuit of local approvals for the FPL-owned fill source site. With that being said, how will FPL obtain the required amount of fill for the project?

#### RESPONSE:

Fill for the Project will be obtained from commercial sources.

### II. DEP SED ENVIRONMENTAL RESOURCE PERMITTING

#### A. Drainage/Engineering

3-FDEP-II-A-1: As a proposed post-certification requirement prior to construction, it will be necessary for FPL to demonstrate that all runoff from Units 6 & 7 and associated impervious areas will be treated and directed to and contained within the industrial wastewater facility (Cooling Canal System).

DEP Comment: DEP is modifying the above proposed post-certification requirement as shown in strikethrough/underline.

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## RESPONSE:

All areas where hazardous materials are stored, transferred or handled will have engineered containment systems. Therefore, pretreatment of stormwater is not required before release to the industrial wastewater facility under the ERP BOR Section 5.2.2(a).

As per discussion with FDEP SED on 6/17/2010, FPL suggests the proposed condition be modified to read as follows,

"Prior to construction, FPL shall demonstrate that all runoff from the Units 6 & 7 Site, and the nuclear administration building, training building and parking area, will be directed to the industrial wastewater facility (cooling canal system). All areas where hazardous materials are stored, transferred or handled shall have engineered containment systems."

**3-FDEP-II-A-12: As a proposed post-certification requirement prior to excavation, FPL will be required to perform an appropriate environmental site investigation for the fill area. In the event any potential waste disposal areas and/or contaminated soils are identified during the site investigation or encountered during construction activities, FPL will be required to notify and will coordinate closely with FDEP and DERM for a specific plan for handling of any such material. There may be additional specific requirements conditioned for this part of the project.**

**DEP Comment: FPL has amended the SCA to remove the FPL-owned fill source. As a proposed post-certification requirement, FPL shall notify the DEP of its selection(s) of the fill source(s). FPL shall demonstrate that imported fill materials to be deposited on site is free of contaminants so as to know adversely impact ground water and/or surface water onsite or offsite.**

## RESPONSE:

FPL has withdrawn the proposed fill site from the SCA (Rev. 1, May, 2010). FPL will continue to work with the County and other agencies to evaluate the viability of future potential fill sites and will continue to pursue commercial fill sources. FPL is agreeable to a post-certification requirement to advise the FDEP of its selected fill sources and methodology for insuring that fill material is free of contaminants.

### III. DEP OFFICE OF COASTAL AND AQUATIC MANAGED AREAS (CAMA)

**Part of the proposed project is located within the boundaries of Biscayne Bay Aquatic Preserve, as described in Chapter 258.397 Florida Statute (F.S.) and Chapter 18-18 Florida Administrative Code (F.A.C.) and is located in Miami-Dade County.**

**The Biscayne Bay Aquatic Preserve (BBAP) was established to preserve Biscayne Bay in an essentially natural condition so that its biological and aesthetic values may endure for the enjoyment of future generations. Preservation and promotion of seagrass habitat is specifically named in the 'Intent' of the Biscayne Bay Aquatic Preserve Rule, Paragraph 18-18.001(f), F.A.C. Furthermore, it was the intent of the Legislature upon designating and establishing Biscayne Bay an aquatic preserve, including Card Sound, "...that Biscayne Bay be preserved in**

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an essentially natural condition so that its biological and aesthetic values may endure for the enjoyment of future generations” Chapter 258.397, F.S.

The project is located in the waters of the BBAP, which is a Class III Outstanding Florida Waters, pursuant to Rule 62-302.700(9)(h)5 & 6. This rule states, “It shall be the Department [of Environmental Protection] policy to afford the highest protection to Outstanding Florida Waters and Outstanding National Resource Waters.” It defines this as “no degradation of water quality.”

BBAP staff has identified several areas of the FPL Site Certification Application that lack sufficient data and/or pertinent information to substantiate claims that there will be little or no adverse impacts to the BBAP, thereby prohibiting any further evaluation of the proposed activities until such information can be obtained. In reviewing the Site Certification Application for completeness, staff cited authority in Chapter 18-18 F.A.C. and 258.397 F.S. that established the Biscayne Bay Aquatic Preserve, Chapter 18-21 F.A.C. that rules Sovereignty Submerged Lands Management as well as the Outstanding Florida Water designation pursuant to rule 62-302.700(9)(h) 5 and 6. Staff also employed Environmental Control 403.509(3)(e) and (f) F.S. which states that “...In determining whether an application should be approved in whole, approved with modifications or conditions, or denied, the board, or secretary when applicable, shall consider whether, and the extent to which, the location, construction, and operation of the electrical power plant will...(e) Effect a reasonable balance between the need for the facility as established pursuant to s. 403.519 and the impacts upon air and water quality, fish and wildlife, water resources, and other natural resources of the state resulting from the construction and operation of the facility” as well as “...(f) Minimize, through the use of reasonable and available methods, the adverse effects on human health, the environment, and the ecology of the land and its wildlife and the ecology of state waters and their aquatic life.”

Each of the questions or requests that follow is categorized under Groundwater Issues, and Surface Water and Benthic Resources and can be qualified by the authority cited above.

## Groundwater Issues

Concerns still remain regarding unknowns related to the Radial Collector Well (RCW) System including, but not limited to: possible impacts to the Bay including benthic flora and fauna; salinity; and possible impacts of the radial collector wells on the freshwater input to the bay, flora and fauna. These issues and concerns will require further review and discussion. Notably, questions related to 2FDEP-VI (CAMA)-1, -2, -4, -5, -6, -7 remain. We look forward to receiving the additional information to be sent with July 15, 2010 response to better understand these issues and may have further questions after reviewing the new information.

New Groundwater Issues requests/questions relating to FPL’s responses:

3FDEP-VI(CAMA)-1: The seepage meter data provided (see excerpt below) indicates that the bay bottom experiences a net loss of freshwater flow, as the “All Days No Pumping” scenario produces a higher flow rate than the “All Days Active Pumping” at all but two meters. Please provide the field data for the “7 day APT Test” and “All Days Active Pumping” as well as all pump tests conducted within the footprint of the proposed units (PW-6U, PW-7U, PW-6L, and PW-7L) including Aqua Trolls data logger results from all observation wells, water quality

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## 3<sup>RD</sup> ROUND PLANT AND NON-TRANSMISSION COMPLETENESS RESPONSES FPL-TURKEY POINT UNITS 6 & 7 SITE CERTIFICATION APPLICATION

analyses, and field measurements (i.e., depth to water readings, temperature, conductivity, flow rates, etc.).

*Note: “The seepage meter data provided (see excerpt below)” was appended to the same page with Questions 3FDEP-VI(CAMA)-1 and 3FDEP-VI(CAMA)-2. FPL has copied it here for reference.*

### Seepage Meter Data Provided:

		Meter Number											
		11 (S. Array)	12 (S. Array)	1	3	7	2	4	8	5	6	9	10
Distance from Pump		230'	230'	265'	255'	255'	290'	280'	280'	305'	330'	500'	900'
7 Day APT Test: Pumping	Minimum	-0.0063	0.0103	0.0017	-0.0013	0.0066	0.0084	-0.0025	0.0072	0.0002	0.0000	0.0016	-0.0035
	Maximum	0.0124	0.0314	0.0173	0.0169	0.0305	0.0276	0.0176	0.0251	0.0195	0.0052	0.0047	0.0055
	Average	0.0081	0.0163	0.0051	0.0027	0.0236	0.0167	0.0056	0.0170	0.0078	0.0015	0.0029	0.0019
2 Day Post APT Test: Not Pumping	Minimum	0.0081	0.0131	-0.0002	0.0002	0.0202	0.0220	0.0069	0.0235	0.0181	0.0006	0.0037	-0.0014
	Maximum	0.0143	0.0174	0.0049	0.0009	0.0256	0.0267	0.0090	0.0305	0.0245	0.0055	0.0055	0.0067
	Average	0.0112	0.0153	0.0024	0.0006	0.0229	0.0243	0.0079	0.0270	0.0213	0.0030	0.0046	0.0026
All Days Active Pumping (n=14 )	Minimum	-0.0063	0.0095	-0.0017	-0.0013	0.0066	0.0059	-0.0025	0.0072	0.0002	0.0000	0.0016	-0.0035
	Maximum	0.0132	0.0314	0.0173	0.0214	0.0374	0.0276	0.0176	0.0316	0.0195	0.0055	0.0100	0.0115
	Average	0.0085	0.0165	0.0044	0.0093	0.0253	0.0153	0.0060	0.0198	0.0064	0.0023	0.0046	0.0039
All Days No Pumping (n=12 )	Minimum	0.0025	0.0087	-0.0015	0.0002	0.0136	0.0069	0.0025	0.0018	-0.0018	-0.0002	0.0019	-0.0014
	Maximum	0.0146	0.0431	0.0182	0.0227	0.0581	0.0267	0.0126	0.0305	0.0245	0.0097	0.0084	0.0104
	Average	0.0086	0.0210	0.0051	0.0105	0.0288	0.0167	0.0055	0.0221	0.0041	0.0041	0.0047	0.0056

### RESPONSE:

Regarding the field data for the APT conducted at the Turkey Point peninsula, the following information is provided:

- The files included in the Aquiferwin and Modeling folders submitted on 4/13/10 include the data pertinent to the APT. Please find additional information in the folder entitled “Water Level Elevations” on the enclosed CD #1 at 3FDEP-VI-(CAMA)-1. This data was provided in hardcopy format previously. The rainfall data was obtained from DB Hydro.
- Down hole logging tools – Please see file entitled "Geophysical Logs Turkey Point Peninsula APT" on the enclosed CD #1 at 3FDEP-VI-(CAMA)-1. Please note, these data were previously provided in hardcopy format.
- Video images- The televiewer video is provided in enclosed DVD labeled "FPL Turkey Point / Video MW-1" as an attachment for 2SFWMD-B-3(2). Snapshots of this information were included in the APT report previously submitted.

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- Water quality- Please see attached file APT Water Quality data.pdf. in the folder 3FDEP-VI(CAMA)-1 on CD #1 at 3FDEP-VI-(CAMA)-1.

Regarding the information describing the aquifer pumping tests conducted within the footprint of the proposed Units 6 & 7 plant area, the following information is provided:

- A description of the Units 6 & 7 aquifer pumping tests is described in the FPL Turkey Points Units 6 & 7 COL Application, FSAR Chapter 2, Subsection 2.4.12, Appendix 2BB included on the attached CD #1 at 3FDEP-VI-(CAMA)-1
- The AQTESOLV™ software package input/output files used to analyze the pumping test conducted in the Units 6 & 7 plant area were provided with Round 2, Part A completeness responses on CD#2 (April 2010).
- A description of the field activities and the data collected for the Units 6 & 7 aquifer pumping tests were provided in response to question SFWMD-B-75 in October of 2009 which is summarized below:

Slug test results for the wells presented in SCA Appendix 10.7.7 are provided in the MACTEC, 2008 report entitled *Final Data Report – Geotechnical Exploration and Testing: Turkey Point COL Project Florida City, Florida, Rev. 2.*, Volume 4, Appendix G on the CD attached to the response to SFWMD-B-75. The MACTEC, 2009 *Final Data Report Aquifer Pumping Test* is also contained on the same CD.

The results suggest that the rate-limiting recharge of the well filter pack may be influencing the results of the tests. The rate-limiting recharge effect is caused by the formation having a higher hydraulic conductivity than the filter pack material, resulting in the filter pack controlling the slug test response rather than the formation. This interpretation is supported by regional studies that suggest much higher hydraulic conductivity values for the aquifer as presented in SCA Table 3.3.1-2.

The raw water level and temperature data (WinSitu® format files) from the data loggers, tidally corrected water level data (Microsoft Excel format files), and electronic flowmeter data files (Microsoft Excel format files) for the Units 6 & 7 aquifer pumping tests (PW-6U, PW-6L, PW-7U, and PW-7L) are provided as electronic files attached to this response on CD #1 at 3FDEP-VI-(CAMA)-1.

**3FDEP-VI(CAMA)-2: Please provide further information regarding the operation of the RCWs, including the frequency at which the following readings will be collected; pumped water volume rates, water elevations inside the caissons, and water sample parameters, including a map to scale showing the layout of the RCW laterals and the Biscayne Bay Aquatic Preserve boundaries including the proposed coordinates of the position of the RCWs and the projected cone of influence of the full-scale operation of the RCWs, and a definitive depth at which the laterals will be placed as well as their length and diameter.**

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## RESPONSE:

During the operation of the radial collector wells, it is anticipated that flow rate of the water pumped from each from each caisson, water level within the caisson, temperature, conductivity and salinity would be measure on a continuous basis. A typical layout of the radial collector well laterals was presented in Figure 4.5-2 of the SCA. In addition, SCA Figure 4.5-3 of the SCA presents the area anticipated for the installation of the laterals.

Information on the predicted “cone of influence” from the operation of the radial collect wells will be provided upon completion of the current groundwater modeling effort. Although general information as to the location, lengths and diameters of the laterals was presented in the SCA, exact details will not be available until the detail design activities are completed.

**3FDEP-VI (CAMA)-4: Documentation for the Salinity Impact Analysis is incomplete. Please provide published references for the use of an equilibrium mixing chamber model in estuarine environments. Please provide published references and/or supporting documentation for the equations applied and assumptions made for the SFWMD B-63b Mixing Chamber Analysis model (steady state conditions are assumed). Please include published references and/or supporting documentation for the adjustments used to estimate the input parameters provided in the Scenario 1 and Scenario 2 Table of the Salinity Impact Analysis.**

## RESPONSE:

In the water treatment field, a mixing chamber model is often referred to as a continuous flow stirred-tank reactor (Metcalf & Eddy, Inc. (1991). The tidal prism method for calculating estuary flushing times uses an equilibrium mixing chamber model. This method is discussed in the EPA guidance document entitled *Water Quality Assessment: A Screening Procedure for Toxic and Conventional Pollutants in Surface and Ground Water – Part II* (EPA, 1985). The concept of tidal exchange is discussed in the text book titled *Mixing in Inland and Coastal Waters* (Fischer, et. al., Academic Press, 1979).

The equations applied and the assumptions made were discussed in 1<sup>st</sup> Round Plant and non-Transmission Completeness Responses Attachment SFWMD-63a (October 2009), which was provided in both the 1<sup>st</sup> and 2<sup>nd</sup> Round Completeness responses as a PDF file: *Attachment SFWMD-B-63a Salinity Impact Analysis.pdf*, and is attached here in the folder labeled 3FDEP-VI-CAMA)-4 on CD #1 at 3FDEP-VI-(CAMA)-4.

The required model input is the freshwater inflow to the system. The freshwater inflow was estimated from an independent reference source (Langevin, 2003). The salinities in the area of interest and the freshwater inflow are matched based on the percentile of each. For example, the median freshwater inflow is used with the median salinity. The maximum freshwater inflow is used for the minimum salinity, and vice versa. The model is then “adjusted” (i.e., calibrated) to match the background salinity condition (i.e., without the radial collector wells) by adjusting the tidal exchange coefficient. Finally, the conservation equations are solved with the radial collector wells operating to determine the change in the salinity. The salinities with the radial collector wells operating are plotted against the values without the radial collector wells to obtain the regression equation.

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## References

Fischer, H.B., J.E. List, C.R. Koh, J. Imberger, N. H. Brooks. (1979) *Mixing in Inland and Coastal Waters*, Academic Press, San Diego, California.

Langevin, C.D. 2003. Simulation of submarine ground water discharge to a marine estuary: Biscayne Bay, Florida. *Ground Water* 41, no. 6: 758-771.

Metcalf & Eddy, Inc. (1991). *Wastewater Engineering Treatment Disposal Reuse*, 2 Rev. Ed. McGraw-Hill Companies.

USEPA (September 1985). *Water quality assessment: A screening procedure for toxic and conventional pollutants in surface and ground water: Part II [Revised]*, EPA Number 600/685/002b at <http://www.epa.gov/waterscience/models/library/wqascreenpart2.pdf>

**3FDEP-VI (CAMA)-5: This question was not adequately addressed in FPL's response to CAMA's submission on December 15, 2009. The SFWMD-B-63b spreadsheet does not appear to produce the exact values displayed in the "Scenario 1 & 2" table, which were used to obtain the linear regression equations that predict the 1 square mile and 4 square mile impact. It is stated that "Within ½ mile of the intake (blue line), the RCWs have a slight moderating effect on the salinity (i.e., low salinities are not as low and high salinities are not as high)," but then it is stated that "At 1.0 mile from the intake (green line), there is no measurable impact from the RCWs. This is indicated in the figure by the fact that the green and black lines separate only in a few locations. CAMA staff look forward to clarification related to this discrepancy, and given that the Biscayne Bay Coastal Wetlands projects (part of the Comprehensive Everglades Restoration Plan) seeks to do just the opposite by returning to lower salinities along the shoreline where they currently are variable depending on season, tide and distance from shore, please explain how moderating salinity in any way helps to meet restoration goals, maintains the Biscayne Bay Aquatic Preserve in an essentially natural condition and does not affect salinity values.**

## RESPONSE:

There is no discrepancy in the fact that there is a slight moderating effect near the radial collector wells (i.e., within ½ mile) and no measurable impact at 1 mile. It is reasonable to expect the magnitude of the impacts to decrease as the distance from the wells increases.

The Biscayne Bay Coastal Wetland (BBCW) projects have an objective to return the salinities in Biscayne Bay to more natural conditions. As mentioned above, one of the goals is to lower salinities along the shoreline. However, this is not the only consideration. It is also widely recognized that cumulative urban development and channelization of the drainage basins around Biscayne Bay have increased variability in freshwater flow to the Bay. More fresh water enters the Bay in rapid response to storm events and less enters the Bay as a steady base flow. The increased temporal variability in the freshwater inflow causes a corresponding increased variability in the Bay salinity, especially near the shoreline. The salinity impact analysis shows that operation of the radial collector wells will have no significant adverse impact on the average salinity in the Bay. Salinity changes attributable to the radial collector wells (changes that are calculable, but not likely measureable), tend to moderate the extreme salinity variations. Because the radial collector wells reduce the salinity extremes, they tend to move the system back toward the more natural salinity condition that existed before development.

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With regard to the comment of maintaining the Biscayne Bay Aquatic Preserve “in an essentially natural condition,” please see FPL’s first round response to FDEP-VI-A-7. “Essentially natural condition” is not a non-procedural standard, and is therefore not the proper basis for a completeness question.

**3FDEP-VI (CAMA)-6: FPL’s response to this question states that “The ocean is the ultimate source of water flowing into the Bay to replace water withdrawn by the radial collector wells. Operation of the radial collector wells does not change precipitation, evaporation or freshwater inflow from upland areas. Therefore, the ocean salinity concentration of 35 ppt should reflect the ocean salinity. It should not represent the seasonally variable salinity within Biscayne Bay.” While there is a semi-diurnal tidal phase in Biscayne Bay that is influenced by the ocean, the water that resides in Biscayne Bay in any one basin at any one time is greatly affected by groundwater inflow from the bay bottom and tributary discharges, wind patterns and other variables. Salinities are typically lower along the shoreline, between a few hundred meters to 1000m and during the wet season (Langevin, 2001). The referenced county water quality site, BB41, is a surface water sample site approximately 4 miles west of Turkey Point peninsula and does not reflect a near-shore salinity regime, which fluctuates seasonally. It also does not reflect the salinity at or near the bay bottom, the depths most likely to be impacted by operation of the RCWs. Please provide more accurate data for salinity in the vicinity (such as data collected on a continual basis and particularly in the vicinity of the Turkey Point) and explain how this affects the results possible impacts by the RCWs. Continuous sampling results with a frequent timestep obtained from the bay bottom are most appropriate in developing a realistic salinity impact analysis, and a bay bottom depth profile represents the depth of most probable impact by the RCWs.**

## RESPONSE:

The initial comment above regarding ocean salinity is correct. In the salinity impact analysis, the value represents ocean salinity; it does not represent a seasonally variable salinity within the Bay. While station BB41 is about 3.5 miles northeast of the Turkey Point peninsula, studies conducted by FPL (discussed in 1<sup>st</sup> Round Plant and non-Transmission Response SFWMD-B-60, October 2009) and by Stalker (2008) show that the average salinity in this area is similar to the salinity found at other stations around the Turkey Point peninsula. Furthermore, studies by Stalker (2008) show that this area of the Bay has a freshwater fingerprint (i.e., percent composition of canal water, groundwater and precipitation) that is similar to the composition of the fresh water predicted by Stalker for the area around the Turkey Point peninsula (see Figures 2.13 and 2.14, Stalker, 2008). Therefore, the salinities at this station are representative of salinities at the radial collector well site. In addition, FPL has provided the salinity impact analysis using data from station BISC122, which is located about 2 miles south of the Turkey Point peninsula. The conclusions remained unchanged. The radial collector wells will have no adverse impact on the salinity in Biscayne Bay.

In addition to the salinity analysis provided in SCA 6.1.3.1 and previous completeness responses, an additional salinity analysis was conducted with salinity data from Site 12B of the Biscayne Bay Salinity Monitoring Network recently provided to FPL by Biscayne National Park. The data was collected, verified and validated by Biscayne National Park. The site is a bottom station located about 1 mile east of the Turkey Point peninsula (latitude 25.43600, longitude -80.30100). The period of record is from May 7, 2004 to December 31, 2009. The data were recorded on 15-minute intervals. The average salinity at this station for the period of record was 33.02 psu. The median

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value was 33.23 psu. The minimum and maximum weekly average salinity values were 24.63 psu and 40.83 psu, respectively. The salinity impact analysis was rerun using weekly average values calculated from this data set. Weekly average values were used in the salinity impact analysis because this interval is reasonable and appropriate considering the estimated flushing time (several days to more than a week) for the Bay volume contained within the radial collector wells area of influence. The attached Excel file *BNP Site 12 Salinity Impact Analysis.xlsx* on CD #1 at 3FDEP-VI(CAMA)-6 contains two figures. The “Time Chart” tab shows the time history salinity plot without the radial collector wells and two scenarios with the radial collector wells operating. Scenario 1 uses a control volume with a radius of approximately ½ mile. Scenario 2 uses a control volume with approximately 1 mile radius. The “Probability Chart” tab in the same Excel file shows the cumulative probability plot without the radial collector wells and with the radial collector wells operating. The other tabs in the same Excel file provide a copy of the calculations. The average and median salinity value increases by only approximately 0.1 psu (0.3 percent) within ½ mile of the radial collector wells (Scenario 1) and by less than 0.02 psu (0.06 percent) within 1 mile (scenario 2). The conclusions remain unchanged, as provided in Section 6.1.3.1 of the SCA and confirmed with salinity impact analyses of other SFWMD stations provided in 1<sup>st</sup> Round Plant and non-Transmission Completeness Response SFWMD-B-60 and 2<sup>nd</sup> Round Completeness Response 2SFWMD-B-60(58). These salinity impact analyses from multiple stations demonstrate that radial collector wells will have no adverse impact on the salinity in Biscayne Bay.

## Reference

Stalker, J. C. 2008. Hydrological Dynamics Between a Coastal Aquifer and the Adjacent Estuarine System, Biscayne Bay, South Florida. Ph.D. Dissertation, Florida International University, Miami, FL.

## Surface Water and Benthic Resources

**3FDEP-VI (CAMA)-7: FPL’s response does not adequately address how benthic resources in the footprint of the RCWs and adjacent areas will not be significantly affected given the fact that at least 3% of the water will come from the Biscayne Aquifer,, a source of freshwater inputs to the bay bottom, helping to support the benthic community.**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

## Conditions of Certification

**CAMA reiterates the need for the following conditions (included in the Department’s January 13, 2010 2nd Completeness Determination) to be considered in future review of this application.**

- 1. An adequate baseline survey of seagrass cover and benthic fauna in the vicinity of the proposed construction and operation of the radial collector wells and the vicinity of the onsite plant where reuse water would be used, to be conducted within a certain amount of time before the onset of construction-related activities. FP&L will work with DEP staff to design monitoring studies to accomplish these surveys. The monitoring should**

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- occur sufficiently prior to and after the beginning of activities at the sites, dates to be determined by FP&L and DEP staff. More information related to the lateral extent of the radial collector wells needs to be provided during this phase also.
2. All dewatering/construction activities happening on the upland may impact the waters of the cooling canal system in that the byproduct will be placed in the system. Given that the cooling canal system has a tidally-connected influence on the groundwater, it can be assumed based on existing knowledge that groundwater moves through the aquifer and into the surface waters of the bay. Best management practices and/or other ways to ensure that artifacts of the dewatering and construction process should be followed to protect the surface waters of the Biscayne Bay Aquatic Preserve.
  3. FP&L will provide funds to hire an independent contractor, selected by FDEP, to study the karst features at and adjacent to the radial well collector sites and construction site to determine the feasibility of karst fractures occurring related to their activities. The report will also include recommendations to avoid any fractures during operation and construction as well as proposed mitigation measures in the event of a fracture that impacts benthic communities in the area.
  4. FP&L will monitor the velocity of water intake from their collector wells utilizing permanently installed equipment to verify that they are not exceeding the proposed velocities submitted in the application. In addition FP&L will put in place monitoring to verify that no entrainment of vertebrate or invertebrate species is occurring due to their radial collector wells. If entrainment is occurring a remediation plan and mitigation measures will be adopted to eliminate, minimize, or mitigate for this entrainment will be adopted and followed.
  5. FP&L will work with CAMA and DEP/ERP to monitor and ensure that no further impacts to the Biscayne Bay Aquatic Preserve will occur from the operation and/or construction of the new units.

## RESPONSE:

It is acknowledged that the items listed under the heading “Conditions of Certification” are not completeness questions and therefore no action by FPL is required for a determination of completeness. Nonetheless, FPL recognizes that under the PPSA it is appropriate for the agencies to propose conditions of certification in the agency report. FPL will continue to work with the appropriate staff of the Department to determine if there is a need for and the scope of appropriate and acceptable conditions of certification.

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SOUTH FLORIDA REGIONAL PLANNING COUNCIL

0938-7652

## 3<sup>RD</sup> ROUND PLANT AND NON-TRANSMISSION COMPLETENESS RESPONSES FPL-TURKEY POINT UNITS 6 & 7 SITE CERTIFICATION APPLICATION

### INTRODUCTION

In response to extensive agency questions, comments and data requests in the completeness process related to operational impacts of FPL's proposed backup cooling water supply for the Project, FPL is continuing to perform additional and more refined groundwater modeling of the radial collector wells to address these completeness questions.

For purposes of the Site Certification Application (SCA), in order to be conservative, FPL modeled and included the results for the radial collector well system operating 24 hours per day, 365 days per year. However, in actuality, and as stated in the SCA, the radial collector well system is proposed as a backup cooling water supply which would be required only during periods when reclaimed water (the primary cooling water supply source) is not delivered to the Site in sufficient quality or quantity. FPL is currently conducting a reliability study to quantitatively characterize the expected reliability of the reclaimed water treatment and delivery systems to Turkey Point Units 6 & 7. The results of this study will enable a more accurate assessment of expected annual use of the radial collector well system.

The SFWMD water use regulatory program recognizes that when reclaimed water is proposed as a source, a limited duration backup or secondary water supply may be authorized. FPL's West County Energy Center (WCEC) provides an example of a recently licensed power plant that uses reclaimed water as its primary water source. The WCEC certification allows withdrawals from the Floridan Aquifer for up to 90 days per year as a temporary secondary water supply source. FPL is prepared to accept a similar water use restriction for the backup water supply for Turkey Point Units 6 & 7 that would allow for operational reliability in the event that reclaimed water is not available. FPL proposes, for discussion purposes, that a durational restriction be applied to use of the radial collector wells for Turkey Point Units 6 & 7. An example of language for such a condition, based on the WCEC condition, is provided below.

“Although reclaimed water will be the primary water source for Turkey Point Units 6 & 7, there may be temporary interruptions in the delivery, quantity, or quality of reclaimed water supply to the Site. Consequently, authorizing a reliable, secondary water supply source for the Project is in the public interest. Therefore, this Certification authorizes withdrawals from the radial collector wells as a temporary secondary water supply source for up to 90 days during any calendar year.”

FPL requests that FDEP, SFWMD, and MDC advise whether this type of restriction would be acceptable and allow a recommendation of approval for the radial collector wells or whether such a restriction would alter the information necessary to prepare the Project Analysis Reports pursuant to Section 403.507, Florida Statutes (F.S.).

FPL has endeavored to work with the reviewing agencies with remaining completeness questions to clarify the requests and to provide the information sought, where available. Although not stated for each 3<sup>rd</sup> Round plant and non-transmission response, FPL maintains its objections to those incompleteness questions identified in the 1<sup>st</sup> and 2<sup>nd</sup> Round Part A plant and non-transmission completeness responses.

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## QUESTION AND RESPONSE

### Sea Level Rise

**In response to our request for analysis of sea level rise, FPL provided an assessment of some potential impacts from a one-foot rise, based historical data and SLOSH data from early 2009. The most recent SLOSH data (December 2009) proposes a higher level of surge for Biscayne Bay, than the earlier data iteration. Please provide a revised analysis of the possible impacts of sea level rise on the proposed project with all of its associated facilities, using the most current SLOSH data (available from NOAA).**

**The South Florida Regional Planning Council is an affected agency, as identified in Florida Statute 403.407(2)(a), and will be actively involved in the review and comment during the Site Certification process. This provides the Council the opportunity to ensure the project's consistency with the *Strategic Regional Policy Plan for South Florida*. If you require further information, please contact me at 954-985-4416.**

**RESPONSE:** The effect of long-term sea level rise is included in the analysis of the Turkey Point Units 6 & 7 site, as described in the previous response to this question. The adopted long-term sea level rise of 1.0 foot is input to the SLOSH Biscayne Bay Basin model, which is used to simulate the maximum storm surge elevation from a probable maximum hurricane event near the site. The model grid data including basin topography and bathymetry used in SLOSH model simulations were updated in 1998 and were the latest at the time of the analysis.

The recent update of SLOSH grid data mainly includes terrestrial LiDAR (Light Detection and Ranging) data along the coastline with limited bathymetric data update near the shore with very shallow water depths [National Oceanographic and Atmospheric Administration (NOAA), 2010a)]. Because the Turkey Point Units 6 & 7 site is located on the shore where the hurricane storm surge approaches from Biscayne Bay with nearly unchanged bay bathymetry, the storm surge elevation at the site is not expected to change significantly. The most recent SLOSH Display Program (Version 1.62a, June 2010) (NOAA, 2010b) indicates that for a Category V hurricane, the change in surge elevation at the site, if any, would be small and well within the range of SLOSH model uncertainties applied for the Turkey Point site. Consequently, the SLOSH model results used for the Turkey Point Units 6 & 7 site are expected to remain valid for the updated SLOSH model grid.

### References

NOAA, 2010a. Digital Coast: Data Access Viewer, website <http://csc-s-maps-q.csc.noaa.gov/dataviewer/viewer.html>, access date 6/18/2010.

NOAA, 2010b. SLOSH Display Package, National Weather Service, MDL Evaluation Branch, website <http://slosh.nws.noaa.gov/sloshPriv/download.php?L=6>, access date 6/17/2010.

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## 3<sup>RD</sup> ROUND PLANT AND NON-TRANSMISSION COMPLETENESS RESPONSES FPL-TURKEY POINT UNITS 6 & 7 SITE CERTIFICATION APPLICATION

### INTRODUCTION

In response to extensive agency questions, comments and data requests in the completeness process related to operational impacts of FPL's proposed backup cooling water supply for the Project, FPL is continuing to perform additional and more refined groundwater modeling of the radial collector wells to address these completeness questions.

For purposes of the Site Certification Application (SCA), in order to be conservative, FPL modeled and included the results for the radial collector well system operating 24 hours per day, 365 days per year. However, in actuality, and as stated in the SCA, the radial collector well system is proposed as a backup cooling water supply which would be required only during periods when reclaimed water (the primary cooling water supply source) is not delivered to the Site in sufficient quality or quantity. FPL is currently conducting a reliability study to quantitatively characterize the expected reliability of the reclaimed water treatment and delivery systems to Turkey Point Units 6 & 7. The results of this study will enable a more accurate assessment of expected annual use of the radial collector well system.

The SFWMD water use regulatory program recognizes that when reclaimed water is proposed as a source, a limited duration backup or secondary water supply may be authorized. FPL's West County Energy Center (WCEC) provides an example of a recently licensed power plant that uses reclaimed water as its primary water source. The WCEC certification allows withdrawals from the Floridan Aquifer for up to 90 days per year as a temporary secondary water supply source. FPL is prepared to accept a similar water use restriction for the backup water supply for Turkey Point Units 6 & 7 that would allow for operational reliability in the event that reclaimed water is not available. FPL proposes, for discussion purposes, that a durational restriction be applied to use of the radial collector wells for Turkey Point Units 6 & 7. An example of language for such a condition, based on the WCEC condition, is provided below.

“Although reclaimed water will be the primary water source for Turkey Point Units 6 & 7, there may be temporary interruptions in the delivery, quantity, or quality of reclaimed water supply to the Site. Consequently, authorizing a reliable, secondary water supply source for the Project is in the public interest. Therefore, this Certification authorizes withdrawals from the radial collector wells as a temporary secondary water supply source for up to 90 days during any calendar year.”

FPL requests that FDEP, SFWMD, and MDC advise whether this type of restriction would be acceptable and allow a recommendation for approval of the radial collector wells or whether such a restriction would alter the information necessary to prepare the Project Analysis Reports pursuant to Section 403.507, F.S.

FPL has endeavored to work with the reviewing agencies with remaining completeness questions to clarify the requests and to provide the information sought, where available. Although not stated for each 3<sup>rd</sup> Round plant and non-transmission response, FPL maintains its objections to those incompleteness questions identified in the 1<sup>st</sup> and 2<sup>nd</sup> Round Part A plant and non-transmission completeness responses.

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## QUESTIONS AND RESPONSES

### 3SFWMD-B-10(8)

**1) The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore this response remains incomplete.**

#### RESPONSE:

While the projected water level in the cooling canal system may change with the updated modeling of the dewatering quantities, the conclusion that a local westward gradient between the cooling canal system and the Interceptor Ditch is consistent with the intended operation of the Ditch will not change. Therefore this question was addressed previously.

### 3SFWMD-B-15(10)(h)

**2) Please provide the following:**

- **Copies of all Aqua Troll calibration sheets discussed in this question.**
- **A corrected version of Figure 6.3.**
- **A correlation graphics between grab samples (lab samples) and the corresponding Aqua Troll readings. .**

**Please explain why the Aqua Troll recorded relatively constant specific conductance while water quality results in Appendices G-1 and G-2 report decreases in chlorides in MW1, MW2, MW4, and MW5 (while Bay chloride levels increased).**

**The responses to be provided by FPL for Part B could be related to certain parts of this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD may have additional completeness questions/comments after FPL submits their Part B responses. Therefore, this response remains incomplete.**

#### RESPONSE:

The Aqua Trolls were factory-calibrated and installed in accordance with the manufacturer's recommendations.

The graphical representation of the Salinity data for the aquifer performance test (APT) Test Period is attached as SCA Figure 6.3 (Revised) on CD #1 at 3SFWMD-B-15(10)(h).

The chloride measurements for the monitoring wells were two grab sample events prior to and at the end of the APT test period. As such, it is not possible to determine an increasing or decreasing trend. A table of the chloride values from the grab sample events is presented in Response 3SFWMD-B-26(18) below.

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## 3SFWMD-B-19(11)

- 3) **Please provide missing attachment SFWMD K-167A & B. Please provide a map showing the location of the sample taken.**

### RESPONSE:

Attachments SFWMD-K-167a & b were included on the CD as part of the 1<sup>st</sup> Round Plant and non-Transmission Completeness Responses (October 2009). Please note that the information on the CD included analyses taken in the L-31 Canal and the industrial wastewater treatment facility since they were taken at the same time. The location was described in the 1<sup>st</sup> Round Plant and non-Transmission Completeness Response SFWMD-K-167(b) as being near the intakes of Units 1 through 4. This area is relatively small compared to the area of the industrial wastewater facility and well-mixed due to the high flow rates of the intake pumps for Units 1 through 4.

## 3SFWMD-B-26(15)

- 4) **If reported values are validated by available quality control, then there appears to be a potential water quality problem at these well sites. The response that these values "do not appear to be inconsistent with the water quality expected from individual grab samples" seems incorrect. For example, a TP concentration of 0.956 mg/L is between ten times and 100 times greater than that typically found in regional groundwater. Please investigate and explain these apparent anomalous values.**

### RESPONSE:

The value for Total Phosphorus (TP) is as reported by the laboratory. In general, the values of the grab sample analysis are within the expected range. The TP results may appear to be high based on what the long-term continuous monitoring of the Bay may indicate. There is no additional information that either confirms or disputes the values present for TP.

## 3SFWMD-B-26(16)

- 5) **Please provide calibration sheets or other QA/QC documents concerning Genepure's "questionable" conductivity values.**

**The responses to be provided by FPL for Part B could be related to certain parts of this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD may have additional completeness questions/comments after FPL submits their Part B responses. Therefore, this response remains incomplete.**

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**RESPONSE:**

The QA/QC documents for the Genapure laboratory analysis are included with the Genapure results included on the CD attached to the 1<sup>st</sup> Round Plant and non-Transmission Completeness Responses (October 2009). This information is also included on CD #1 attached to these responses at 3SFWMD-B-26(18).

- 6) Since the Aqua Troll failed in PW-1 during the APT, please provide the summarized chloride data (in Excel format) collected during the APT. In addition, please provide the lab documentation.**

**RESPONSE:**

The grab samples taken from PW-1 during the pump test are summarized below and included in a spreadsheet included on the CD attached to these responses. The laboratory analyses were included on the CD with the 1<sup>st</sup> Round Plant and non-Transmission Completeness Responses (October 2009) and, as referenced in 3SFWMD-B-26(16) above.

Date	Report ID	Units	Grab Sample Location for Chloride						
			Bay/SP-1	MW-1	MW-2	MW-3	MW-4	MW-5	PW-1
01/28/09	901055	mg/L							
01/30/09	901055	mg/L							
02/03/09	901313	mg/L							
02/06/09	901313	mg/L							
03/17/09	902963	mg/L			18400				
03/17/09	902901	mg/L	20200						
03/18/09	902964	mg/L		19600		18700	18600	17800	
04/05/09	903730	mg/L	20100						17500
04/06/09	904005	mg/L							
04/08/09	904005	mg/L							22100
04/09/09	904005	mg/L							22900
04/10/09	904005	mg/L							23300
04/11/09	904040	mg/L							12300
04/11/09	904040	mg/L							21700
04/13/09	904040	mg/L							18700
04/17/09	904223	mg/L							18100
04/28/09	904760	mg/L							17900V
04/30/09	904760	mg/L	25000V						17100V
05/01/09	904760	mg/L	21700V						16800V
05/02/09	904918	mg/L	25300						22200
05/03/09	904918	mg/L	25100						20500
05/04/09	904918	mg/L	3590						8000
05/05/09	904918	mg/L	21200						20600
05/12/09	905147	mg/L	23900	16300	13200	19500	15900	16600	

V=Present in blank



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### 3SFWMD-B-26(19)

- 7) **Please provide a scaled site map of seepage meter layouts during the APT. Please provide the distances from the pumping well and from the seepage meters. If this information is not available, please provide electronic drawings (in GIS or Autocad formats) for staff to extract the points and the distances.**

#### RESPONSE:

A map showing the seepage meter locations was provided in Figure 3.2 “Seepage Meter Locations” in “FPL’s Turkey Point Exploratory Drilling and Aquifer Performance Test Program” (HDR, 2009). The coordinates for the seepage meters are listed below. The pump well location coordinates are provided in Table 3.1 of the report entitled “Florida Power and Light Turkey Point Exploratory Drilling and Aquifer Performance Test Report, August 19, 2009” provided with the responses to the 1<sup>st</sup> Round of Completeness for the Plant and non-Transmission Associated Facilities, October 2009.

<u>Latitude</u>	<u>Longitude</u>	<u>Seepage Meter</u>
25.43751	-80.32150	1
25.43753	-80.32153	2
25.43748	-80.32144	3
25.43754	-80.32144	4
25.43764	-80.32146	5
25.43770	-80.32150	6
25.43750	-80.32135	7
25.43754	-80.32133	8
25.43818	-80.32154	9
25.43932	-80.32162	10
25.43649	-80.32088	11
25.43646	-80.32094	12

#### Reference:

HDR Engineering, Inc. (2009). *Florida Power and Light Turkey Point Exploratory Drilling and Aquifer Performance Test Report*, August 19, 2009.

### 3SFWMD-B-26(21)

8) **The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore this response remains incomplete.**

#### RESPONSE:

The 2<sup>nd</sup> Round comment and the response related to water level data collected as part of the APT. It did not relate to the groundwater modeling effort. No additional APT work will be conducted. The information requested in this question was previously addressed.

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## 3SFWMMD-B-27(22)

9) The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore this response remains incomplete.

### RESPONSE:

The 2<sup>nd</sup> Round comment and the response related to topographic data for the Turkey Point Peninsula. Available data was provided. FPL indicated in the response that a topographic survey could be done, if the District requested it; the District has not requested the survey.

## 3SFWMMD-B-29(25)(f)

12) The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore this response remains incomplete.

### RESPONSE:

The 2<sup>nd</sup> Round comment asked for specific information about data that was provided previously. The 2<sup>nd</sup> Round response answered the question. While this question may be related to other questions on the quality of the muck, this specific question was answered previously and in Response 2SFWMMD-92(78).

## 3SFWMMD-B-34(27)

- 14) Please provide all data on Unit 5 dewatering effluent production rates, water levels, and salinity and water quality in these waters at the construction site and in adjacent waters of the industrial wastewater facility, wetlands, and Biscayne Bay.

The responses to be provided by FPL for Part B could be related to certain parts of this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD may have additional completeness questions/comments after FPL submits their Part B responses. Therefore, this response remains incomplete.

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## RESPONSE:

FPL submitted dewatering plans to the SFWMD for SFWMD Unit 5 on December 21, 2004 as required by Certification Condition XXXIII.C.7. The plans were accepted by the SFWMD on February 23, 2005. FPL was not required by the dewatering authorization to collect and report the data requested above. FPL will meet with the District to discuss the Turkey Point Unit 5 dewatering.

### 3SFWMD-B-35(28)

**15) The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore this response remains incomplete.**

## RESPONSE:

Available pump test data for the radial collector well area has been provided. No additional pump test data will be submitted. The information requested in this question was previously addressed.

### 3SFWMD-B39(30)

**Round 2: 30) Regarding the response to subsection (b), the efficacy of turbidity curtains depends upon local wave energy. Given the open waters around Turkey Point, they would not likely be effective at times when the potential for erosion is greatest (with wind and waves). Please provide additional detailed information on plans to prevent such erosion. In addition to controlling particle movement, how will the construction area be configured to minimize the discharge of dissolved materials (including nutrients and sulfides) to adjacent waters?**

**Round 3: The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore, this response remains incomplete.**

## RESPONSE:

Regarding the construction techniques for the radial collector wells, previous responses have provided the available information until a design is completed and construction contractor is selected. Additional information will be available post-certification.

### 3SFWMD-B-40(32)

**Round 2: (32) The response includes statements that “there is no evidence that water from the Industrial Wastewater Facility (IWF) flows to surface waters, including Biscayne Bay” and “there is no reason to believe there would be impacts to surface waters associated with construction dewatering at the Unit 6 & 7 site”. Arguments were presented to support these statements; however, insufficient information is considered in these arguments. The**

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response focuses on net groundwater flux from Biscayne Bay and the IWF, ignoring that very large water fluxes move both from the Bay to the IWF and from the IWF to the Bay. The Bechtel hydrologic modeling report estimates that this input to Biscayne Bay is about 4,000 acre-feet per month, equivalent to about 30,000 gpm (more than the estimated input to the IWF from dewatering the Unit 6&7 site). Given that concentrations of salts and wastewater contaminants are much higher in the WWF than in Biscayne Bay, there is almost certainly a large gross flux of these materials from the IWF to the bay and a resultant net flux in this direction as well. Additional materials will be added to the IWF from dewatering activities and muck storage. Please address the original question, considering gross fluxes of water and materials and resultant net flux between the IWF, Biscayne Bay, and other adjacent areas.

**Round 3:** The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore, this response remains incomplete.

### RESPONSE:

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

### 3SFWMD-B-40(34)

**20)** The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore this response remains incomplete.

### RESPONSE:

This question was answered in the 2<sup>nd</sup> Round response. Future information and updated groundwater modeling will not change the information provided in the previous response.

### 3SFWMD-B-40(35)

**Round 2:** (35) The response states that there is no reason to expect that water flowing out of the IWF will flow back up to Biscayne Bay, or any other surface water. Does this statement consider the upward hydraulic gradients evidenced in the following well pairs in the Units 6 & 7 footprint: OW-606U& L, OW-621U&L, OW-706U, OW721 U&L, OW-735-U, OW-802U, OW805U, and OW809U, listed in Table 1 of the Bechtel (2008) report? The report states (page 5) that “the well pairs consistently show an upward hydraulic gradient. An upward hydraulic gradient indicates groundwater flows from deeper to shallower depths”. The FPL response to SFWMD-81(c) explains that the upward gradient is likely due to extracting cooling water from the return basin that is hydraulically connected to the same hydrogeologic unit as the upper zone wells. The well pairs are approximately one-half to one-mile south of the intake basin. What is the influence of extracting cooling water on vertical gradient in the Biscayne

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**aquifer to the east of the IWF, below Biscayne Bay and intertidal areas that are closer to the plant intake than the listed well pairs?**

**Round 3: The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore, this response remains incomplete.**

## **RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

## **3SFWMD-B-40(37)**

- 22) Please provide all of the manually read depth to water measurements (DTW) from the deployment of the Aqua Troll in MW-5. These should have been written in a field book and collected during the operation of the data logger.**

## **RESPONSE:**

Monitoring well MW-5 was equipped with an Aqua Troll and a Level Troll. Once both probes were installed, manual measurements were suspended to avoid influencing the detailed water level data being collected by the two trolls installed in the monitor wells, including MW-5.

## **3SFWMD-B-42(38)**

**Round 2: 38) Regarding the response to subsection (a), will the proposed discharges require a modification of the existing permit? If not, will these discharges be addressed in any other permit?**

**Round 3: The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore, this response remains incomplete.**

## **RESPONSE:**

The additional information requested regarding this question was provided in the 2<sup>nd</sup> Round Completeness response. Nonetheless, FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

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## 3SFWMD-B-46(45)

**25) Staff could not find the requested report on the referenced CD. Please provide.**

### RESPONSE:

The report (Lyerly, 1998) is attached on CD #1 at 3SFWMD-B-46(45).

### Reference:

Lyerly, R. L. (October 1998). *Thermal performance of the Turkey Point cooling canal system in 1998*, prepared for Florida Power & Light Company, Miami, Florida. (45pp.)

## 3SFWMD-B-46(46)(a)

**26) The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore this response remains incomplete.**

### RESPONSE:

This question was answered in the 2<sup>nd</sup> Round response. Future information and updated groundwater modeling results will not change additional information related to the original question.

## 3SFWMD-B-48(48)

**Round 2: 48) How much deeper will the barge canal be after dredging? How ill dredging affect the exchange of water and materials between the industrial wastewater facility and the barge canal? What is the magnitude of this exchange currently? Please provide information on the chemical constituents within the material that is proposed to be dredged and stored on the banks of cooling canals. Please estimate leaching rates and expected fate (rate of transport out of the industrial wastewater facility to adjacent areas).**

**Round 3: The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore, this response remains incomplete.**

### RESPONSE:

The additional information requested regarding this question was provided in the 2<sup>nd</sup> Round Completeness response. Nonetheless, FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

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## 3SFWMD-B-50(50)

- 28) Although the response states that there is no aquatic vegetation in the caisson areas, please clarify if there is any wetland or upland vegetation in this area. If there is any wetland or upland vegetation, please provide the information previously requested.

### RESPONSE:

A description of the vegetative communities within the proposed caisson area is provided in Section 3.3.6.1 of the SCA (Rev. 0, April 2009) as follows:

Previously Filled Areas/Roadways (FLUCFCS 744) – The areas designated for the radial collector well caissons and laydown are comprised of previously filled areas and roadways generally consisting of limerock aggregate uplands. Vegetative species are sparse within the previously filled areas, primarily consisting of grasses and occasional Brazilian pepper (*Schinus terebinthifolius*), morning glory (*Ipomoea* sp.), wild sage (*Lantana involucrata*), seaside mahoe (*Thespesia populnea*), and half-flower (*Scaevola sericea*).

A survey of jurisdictional wetland boundaries associated with the radial collector well caissons and delivery pipeline is contained in SCA Appendix 10.4, Section 2, Attachment G, Sheets 3.00 through 3.08 (Rev. 1), and are attached to this response on CD #1 at 3SFWMD-B-50(50).

## 3SFWMD-B-51(51)

- Round 2: 51) The response does not clarify whether the unnatural continuous downward flux of water, as might be produced by operation of the radial well system, would impact benthic organisms adapted to normal tidal oscillatory fluxes. Please address.

### RESPONSE:

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

## 3SFWMD-B-53(52)

- Round 2 52) Please provide the location, including page number references within the cited report, that contain the specific information requested by this question and to which the other references, such as salinity data, are made. Please specify how the information provided or referenced specifically answers this question. The referenced table (Table 3.3.4-1) does not show the “water quality characteristics of the potentially affected areas adjacent to the project site.” Please revise.

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**Round 3: The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore, this response remains incomplete.**

## RESPONSE

The additional information requested regarding this question was provided in the 2<sup>nd</sup> Round Completeness response. Nonetheless, FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

### 3SFWMD-B-55(53)

**(30) The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore this response remains incomplete.**

## RESPONSE:

Future information and updated groundwater modeling will not change the salinity impact analysis, because the model inputs, including the radial collector well pumping rates, will not change.

### 3SFWMD-B-56(54)

**31) Is FPL's analysis confined to the three monitoring stations indicated (i.e., BB41, Bisc 123 and Bisc 122)? In order to facilitate staff's assessment of the "general" area referenced in this response, please provide the coordinates for the Fowey Rock station. In addition, please provide the location of this station on Figure SFWMD B-59.pdf.**

## RESPONSE:

The monitoring stations that are considered representative of the area around the Turkey Point peninsula that were used to evaluate the salinity statistics and radial collector well impacts include: BB41, BISC123 and BISC122. The mean salinity at station BISC123 was compared to station BB41 and there was no statistically significant difference. The salinity impact analyses using salinity data stations BB41 and BISC122 have been provided.

Data from BISC101 were also evaluated. This station is approximately 2.5 miles north of the Turkey Point peninsula and directly influenced by nearby drainage canals. The mean salinity at this station is significantly less than ( $\alpha = 0.05$ ) the salinity at stations BB41 and BISC123. Therefore, this station is not considered representative of the area around the Turkey Point peninsula. Nevertheless, the salinity impact analysis for this station was provided in the 1<sup>st</sup> Round Plant and non-Transmission Completeness Response SFWMD-B-60 (October 2009). The analysis was done to evaluate the

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potential impacts of the radial collector wells, assuming the salinity regime in the area of BISC101 were representative of the radial collector well area; an assumption that is not supported by the available information.

The Fowey Rocks station is located east of Soldier Key about 6.5 miles southeast of the southern end of Key Biscayne at latitude 25.59062 and longitude: -80.09673. This station is in the ocean, outside Biscayne Bay; therefore, it cannot be located on Figure SFWMD-B-59.

### 3SFWMD-B-57(55)

- 32) Qualitative estimates of groundwater flow into Biscayne Bay were provided; however, quantitative estimates were not. Please provide quantitative estimates of groundwater flow into Biscayne Bay.**

#### RESPONSE:

Quantitative estimates of the groundwater contribution to Biscayne Bay in the area of the Turkey Point peninsula have been provided. As discussed in 2<sup>nd</sup> Round Response 2SFWMD-B-57(55) (April 2010), canal water contributes approximately 48 percent of the fresh water in the area around the Turkey Point peninsula. This water flows into the Bay from canals located north of Homestead Bayfront Park. The groundwater contribution to the total freshwater inflow at the Turkey Point peninsula is only approximately 2 percent in the dry season and 14 percent in the wet season. The annual average groundwater contribution to the total freshwater inflow is only approximately 8 percent. Direct precipitation contributes the remaining 44 percent of the annual average freshwater inflow. This study shows that groundwater contributes on an annual average basis less than 0.5 percent to the Bay water near the Turkey Point peninsula (Stalker, 2008).

In addition, based on modeling results, Langevin (2003) concludes that the average groundwater discharge to the coastline of Biscayne Bay is approximately  $3.7 \times 10^5$  cubic meters per day ( $m^3/day$ ) and the annual fluctuation is approximately  $1.0 \times 10^5$   $m^3/day$ . He also concludes that nearly 100 percent of the groundwater discharge to Biscayne Bay is to the northern half of the Bay (north of structure S-123, which is about 12 miles north of the Turkey Point peninsula). FPL is not aware of evidence of a significant direct fresh groundwater discharge to Biscayne Bay in the area of the Turkey Point peninsula (i.e., south of Homestead Bayfront Park). The fresh groundwater component of the Bay water around the Turkey Point peninsula, as estimated by Stalker (2008), is most likely transported into the area from the north by surface currents in the Bay.

#### References:

Langevin, C.D. 2003. Simulation of submarine ground water discharge to a marine estuary: Biscayne Bay, Florida. *Ground Water* 41, no. 6: 758-771.

Stalker, J.C. 2008. Hydrological Dynamics Between a Coastal Aquifer and the Adjacent Estuarine System, Biscayne Bay, South Florida. Ph.D. Dissertation, Florida International University, Miami, FL.

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## 3SFWMD-B-60(57)

33) The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore this response remains incomplete.

### RESPONSE:

This question was answered in the 2<sup>nd</sup> Round response. Future information and updated groundwater modeling will not change the salinity impact analysis, because the model inputs, including the radial collector well pumping rates, will not change.

## 3SFWMD-B-60(58)

34) The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore this response remains incomplete.

### RESPONSE:

This question was answered in the 2<sup>nd</sup> Round response. The additional analysis was provided. Future information and updated groundwater modeling will not change the salinity impact analysis, because the model inputs, including the radial collector well pumping rates, will not change.

## 3SFWMD-B-61(59)

35) The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore this response remains incomplete.

### RESPONSE:

This question was answered in the 2<sup>nd</sup> Round response. The requested information was provided a second time because the District could not locate it the first time. Future information and updated groundwater modeling will not change the salinity impact analysis, because the model inputs, including the radial collector well pumping rates, will not change.

## 3SFWMD-B-62(60)

36) The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore this response remains incomplete.

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### RESPONSE:

This question was answered in the 2<sup>nd</sup> Round response. The requested information was provided a second time because the District could not locate it the first time. Future information and updated groundwater modeling will not change the salinity impact analysis, because the model inputs, including the radial collector well pumping rates, will not change.

### 3SFWMD-B-63(61)

**37) The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore this response remains incomplete.**

### RESPONSE:

This question was answered in the 2<sup>nd</sup> Round response. The requested information was provided a second time because the District could not locate it the first time. Future information and updated groundwater modeling will not change the salinity impact analysis, because the model inputs, including the radial collector well pumping rates, will not change.

### 2SFWMD-B-65(63)

**38) The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore this response remains incomplete.**

### RESPONSE:

This question was answered in the 2<sup>nd</sup> Round response. Future information and updated groundwater modeling will not change the cooling tower drift calculations because the inputs, including the cooling water quality characteristics and the cooling tower pumping rates, will not change.

### 3SFWMD-B-65(64)(c)

**39) The results provided were derived from a 1986 report; however, the modeling was for 2001-2005. Please provide background deposition results based on measurements at the NADP and CASTNET station in Everglades National Park for 2001-2005, along with any other concurrent relevant data.**

**RESPONSE:** The modeling was performed with hourly meteorological data that represents a sufficiently long period of record to provide a representative prediction of future deposition. The background deposition is also a representative period of record of deposition not influenced by sources of deposition. These periods of record do not have to be coincident since they represent different components of deposition. Nonetheless, the National Atmospheric Deposition Program (NADP) and Clean Air Status and Trends Network (CASTNET) data from the station located in the Everglades National Park are summarized below. The NADP represents wet deposition while the CASTNET model represents predictions of air sampling. In contrast, the background data from the

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Florida Acid Deposition Study (FADS) (Florida Electric Power Coordinating Group, Inc., 1986) represented an inland station near Everglades National Park that included wet deposition and measured dry deposition. The reported dry deposition included procedures to minimize contamination through sampler design and the identification of contamination through a review of the sampling results. The FADS wet deposition used the same procedures as NADP.

<u>Year</u>	<u>NADP Summary</u>		<u>CASTNET Model</u>		<u>NADP/CASTNET</u>	
	<u>Wet Deposition</u>		<u>Output (MLM)</u>		<u>kg/ha/yr</u>	<u>kg/ha/month</u>
	<u>kg/ha/yr</u>	<u>kg/ha/month</u>	<u>kg/ha/yr</u>	<u>kg/ha/month</u>	<u>kg/ha/yr</u>	<u>kg/ha/month</u>
2001	54.76	4.56	(a)	(a)	(a)	(a)
2002	44.48	3.71	(a)	(a)	(a)	(a)
2003	51.81	4.32	4.22	0.35	56.03	4.67
2004	39.96	3.33	4.92	0.41	44.88	3.74
2005	56.47	4.71	4.85	0.40	61.32	5.11
Average	49.50	4.12	4.66	0.39	54.08	4.51
Maximum	56.47	4.71	4.92	0.41	61.32	5.11
Minimum	39.96	3.33	4.22	0.35	44.88	3.74
(a) Chloride not included in reported results.						

Sources: NADP Station FL11 2001-2005; <http://nadp.sws.uiuc.edu/sites/siteinfo.asp?net=NTN&id=FL11>; accessed 6/1/2010; and CASTNET Station EVE419 2001-2005; <http://www.epa.gov/castnet/data.html>; accessed 6/2/2010.

As described in the response to 2SFWMD-B-65(64)(c) (April, 2010), a background value of 4.5 kg/ha/month was used for comparisons with potential impacts from the circulation water cooling towers using saltwater. As shown in the table, the average deposition using NADP and CASTNET data is 4.51 kg/ha/month, very similar to the FADS background deposition provided in the SCA and completeness responses. Please note that the station locations for both the FADS and NADP/CASTNET are inland from the Turkey Point Units 6 & 7 location. As presented in Completeness Response 2SFWMD-B-65(64)(c) (April, 2010), deposition for a coastal site in the Florida Keys was 6.5 ha/kg/month primarily due to the marine location. While background deposition near Turkey Point Units 6 & 7 may not be as high as 6.5 ha/ha/month, actual background near the Site is likely higher than 4.5 kg/ha/month, especially near Biscayne Bay.

Reference:

Florida Electric Power Coordinating Group, Inc. (March 1986). Florida Acid Deposition Study, Final Report: A synthesis of the Florida Acid Deposition Study, Volumes I and II, Tampa, FL.

**3SFWMD-B-66(65)**

**40) Staff could not locate the referenced file on the CD. Please provide.**



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## RESPONSE:

Figure FDEP-II-B-53 was included on the CD in the folder titled “Figures” in the sub-folder titled “1<sup>st</sup> Round Figures”. This figure was originally included in 1<sup>st</sup> Round Completeness Responses with the figures provided to FDEP.

### 3SFWMMD-B70(69)

**Round 2 69) Please provide the specific pages in the referenced report where the data to address this question is located. Please note that additional information may be requested following the completion of testing at the underground injection well site.**

**Round 3: The responses to be provided by FPL for Part B could be related to this response. Consequently, the SFWMD cannot conduct a full completeness evaluation of this response at this time. The SFWMD will conduct its completeness evaluation of this response after FPL submits their Part B responses. Therefore, this response remains incomplete.**

## RESPONSE:

The additional information requested regarding this question was provided in the 2<sup>nd</sup> Round Completeness response. Nonetheless, FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

### 3SFWMMD-B-83(73)

- 42) Please provide an update on the status of the Joint Agreement between FPL and the Miami-Dade County Board of County Commissioners that is expected to be approved during the 2nd quarter of 2010. In addition, please provide the SFWMD with a copy of the approved Agreement. The Agreement should provide assurances that a volume of reclaimed water will be available by the projected Unit 6 & 7 startup dates and Miami-Dade County will supply an adequate volume of reclaimed water for the life of Units 6 & 7. Please provide the revised Unit 6 & 7 startup dates. If reclaimed water is not available by the new projected startup dates, is FPL proposing to use the radial wells as the primary source in the interim?**

**The response references the 5th Supplemental Agreement between the South Florida Water Management District and Florida Power & Light Company. This document is for the monitoring program for the Interceptor Ditch Program and the Cooling Canal System, rather than reclaimed water supply. Consequently, this reference appears to be an error. Please clarify.**

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### RESPONSE:

The Joint Participation Agreement (JPA) between FPL and Miami-Dade County (MDC) has been signed by FPL and submitted to MDC for review and approval and is attached here on CD#1 at 3SFWMD-B-83(73). The JPA will be reviewed by the appropriate Committee who will make a recommendation to the Board of County Commissioners regarding approval. The JPA identifies the roles and responsibilities of FPL and MDC in developing the Project and executing the Reclaimed Water Service Agreement (RWSA) that is included as Exhibit 1 to the JPA. The JPA and RWSA represent the intent of FPL and MDC to provide 100 percent of the cooling water requirements for the Turkey Point 6 & 7 Project using treated wastewater from the South District Waste Water Treatment Plant on a timeline that supports the in-service dates of the project. The current in-service dates are 2022 for Unit 6 and 2023 for Unit 7. 2<sup>nd</sup> Round Plant and non-Transmission Completeness Response 2SFWMD-B-83(73) (April 2010) included an incorrect reference to the *Fifth Supplemental Agreement between the South Florida Water Management District and Florida Power & Light Company*.

### 3SFWMD-B-84(74)

- 43) **Please provide a letter of commitment from Miami-Dade County stating that they have the available excess uncommitted capacity to serve all phases of the project with potable water, including both project construction and the operational life of Units 6 & 7.**

### RESPONSE:

Attached is the letter dated June 28, 2010 from Miami Dade County as requested on CD#1 at 3SFWMD-B-84(74).

### 3SFWMD-D-119(87)

- 44) **As previously requested, please narrow the corridor to exclude the previously mentioned CERP Biscayne Bay Coastal wetlands parcels. If this is not possible, please provide documentation demonstrating that use of these parcels is unavoidable and the pipeline will be designed, installed, operated, and maintained in such a way as to avoid impacts to the CERP Biscayne Bay Coastal Wetlands Project or other SFWMD projects that may be proposed on these lands.**

### RESPONSE:

As indicated in the previous response, it is FPL's intent to design and construct the reclaimed water pipeline so as to avoid SFWMD CERP Biscayne Bay Coastal Wetlands parcels to the greatest extent practicable. The width of the reclaimed pipeline corridor allows for flexibility in location. Parcel TA500-130 is located to the east of SW 87<sup>th</sup> Drive, outside of the reclaimed water pipeline corridor as illustrated in SCA Figure P9.0.0-2. Parcels GZ100-001 and GZ100-002 are located within the reclaimed water pipeline corridor, immediately north of the FPL transmission line right-of-way. As illustrated in SCA Figure P9.0.0-3, segments of the preliminary routes are adjacent to, but do not cross, either of these parcels. The temporary impact associated with installation of the reclaimed water pipeline will not impact the CERP Biscayne Bay Coastal Wetlands Project or other SFWMD

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projects that may be proposed on these lands. Details regarding the installation, operation, and maintenance of the reclaimed water pipeline are provided in SCA Chapter P9.

## 3SFWMD-E-131(90)

- 45) **FPL's interpretation of Rule 40E-6.091 is incorrect. The definition of transmission lines is not limited to just electrical transmission lines; it also includes all other types of utility transmission lines, such as water supply pipelines.**

**FPL's proposal to place the proposed reclaimed water supply pipeline parallel to and within the SFWMD's L-31 E Canal right-of-way would require approval of a waiver of SFWMD criteria. The requirement for a waiver in this situation is consistent with the action taken at the SFWMD's February 10, 2010, Governing Board (Board) meeting where the Board approved a waiver of this same criteria for the Miami-Dade County Water and Sewer Department to construct a 42" diameter reclaimed water pipeline parallel to and within a 3.75 mile segment of the C-1 and C-1W Canal rights-of-way.**

**As previously mentioned, the SFWMD will be commencing construction of culverts on the east side of the L-31 E right-of-way for the CERP Biscayne Bay Coastal Wetland Project and, as per Rule 40E-6.091, F.A.C., FPL should make use of its own rights-of-way for linear facilities whenever possible. Furthermore, the SFWMD believes that the width of the existing FPL electrical transmission line right-of-way is adequate to accommodate the proposed reclaimed water pipeline. Therefore, please narrow the proposed reclaimed water pipeline(s) corridor to exclude use of the SFWMD's L-31 E Canal right-of-way. If this is not possible, please provide documentation demonstrating that the use of the L-31 E Canal right-of-way is unavoidable and that the pipeline project will be designed, installed, operated, and maintained in such a way as to avoid impacts to SFWMD operational and maintenance needs and the CERP Biscayne Bay Coastal Wetlands Project or other SFWMD projects that may be proposed on these lands.**

**If FPL is formally requesting a waiver of the above criteria, FPL needs to provide confirmation of this. In support of a waiver request, FPL needs to provide the additional information previously requested.**

**If FPL does not provide the additional information requested for further evaluation by SFWMD staff, the SFWMD will recommend a condition of certification in its agency report prohibiting FPL from using any portion of the L-31 E Canal right-of-way for the proposed pipeline project.**

## RESPONSE:

Comment acknowledged. FPL will schedule a meeting with District right-of-way staff to discuss the necessary informational requirements to pursue a waiver, as applicable.

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### 3SFWMD-H-150(94)(a)

**46) Please address the following:**

- **The single (1 .5' MSL) land elevation provided is insufficient to confirm the assumed flow path of water to Biscayne Bay and to determine whether the mitigation lift can be justified. Please provide topographic survey information, or equivalent.**
- **Based on review of the figure provided, it is not clear how the remnant creeks near the L-31 E Canal will be routed around the cooling canal system to the Bay. Please provide additional details, including flow maps.**
- **While it appears that FPL is seeking to mimic seasonal patterns, the quantitative intentions are not clear. Please provide a table of monthly flow distribution for typical wet, dry, and average years.**

### RESPONSE:

The figure included in the 2<sup>nd</sup> Round Completeness Responses illustrated topographic contours from Florida City to Biscayne Bay. The 1.5 MSL contour is adjacent to the L-31E Canal in the area of the proposed mitigation activity, with contours at 0.25 foot intervals illustrated eastward to Biscayne Bay. FPL is refining the mitigation plan in accordance with input from MDC, USACE, FDEP, and the SFWMD to identify a final plan of wetland enhancement, restoration, and preservation that will offset the loss of wetland functions. The final mitigation plan, including details of proposed restoration activities, monitoring, and success criteria, will be available during the post-certification review process authorized by Section 403.5113(2), F.S., and Rule 62-17.191, F.A.C. Upon finalization of the mitigation plan, FPL will update the currently available topographic data with a detailed topographic survey of the proposed S20A/L-31E hydrologic enhancement site, if applicable.

The remnant creeks near the L-31E Canal will be connected to Biscayne Bay through installation of culverts underneath existing roadways, as illustrated in SCA Appendix 10.4, Section 2, Attachment E, Figure 8 (Rev. 0, April 2009).

As described in previous completeness responses, the proposed seasonal distribution is to mimic the historical rainy season flow between May and October, through addition of 525 acre-feet of water on a 5-year rolling average, allowing for variation in annual precipitation and water availability. During dry years, no water would be diverted from the L-31E Canal for the proposed wetland rehydration project. Monthly flow distribution will be available upon completion of a detailed hydrologic analysis of the proposed S20A/L-31E hydrologic enhancement site, and consultation with SFWMD regarding elevation of the proposed weirs and the resulting quantity of water.

### 3SFWMD-H-153(98)(e)

- 47) Please provide the basis for the assumed functional lift (0.05/acre) applied to this mitigation feature. Please provide an analysis demonstrating that the additional culverts within S.W. 359<sup>th</sup> Street will not cause over-drainage of the marsh system north of S.W. 359<sup>th</sup> Street.**

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### RESPONSE:

As stated in SCA Appendix 10.4, Section 2, Attachment E (Turkey Point Units 6 & 7 Project Mitigation Plan):

The current UMAM functional score for wetlands associated with the Model Lands Basin Hydrologic Enhancement Site is 0.77. The functional score is reduced as a result of the hydrological alteration and reduction in vegetative productivity. It can reasonably be expected that following hydrologic enhancement of the area, the functional value would improve to 0.83 as a result of increased health of the vegetative community and subsequent increase of forage fish, macro-invertebrates, and wading bird utilization. Utilizing the difference between pre- and post-mitigation UMAM functional scores (0.07) divided by the TL and R factors (TL of 2 years = 1.04, R factor of 1.25,  $TL \times R = 1.3$ ), the resulting functional lift per acre is 0.05.

TL = time lag; R factor = risk factor.

The associated UMAM functional assessment worksheet is included as an Appendix A to the Mitigation Plan. The “with-project” variable score for location and landscape remained unchanged, while the water environment and vegetation community scores were each increased by 1.

It is reasonable to assume that the unrestricted flow of freshwater through additional culverts in SW 359<sup>th</sup> Street and proposed addition of water from the Florida City Canal will benefit wetlands both north and south of 359<sup>th</sup> Street. The analysis demonstrating that the additional culverts will not cause over-drainage of the marsh system north of SW 359<sup>th</sup> Street will be provided post-certification following detailed hydrologic analysis of the existing and proposed condition of the receiving wetlands. FPL will work with the agencies to develop the appropriate conditions of certification for the culverts.

Analyses proposed by the BBCW CERP Project team in support of the proposed pump stations designed to divert freshwater from the Florida City Canal to the parcel immediately north of SW 359<sup>th</sup> Street should provide details regarding the existing water budget and proposed seasonal delivery, which would provide a baseline and proposed hydroperiod to further refine this mitigation alternative. FPL will work with FDEP and SFWMD to define the seasonal hydroperiod.

### 3SFWMD-H-159(104)

- 48) **The response provided does not address the question and is, therefore, incomplete. Has FPL considered other information, such as the recent Engineering Circular released by the U.S. Army Corps of Engineers regarding sea level rise projections? Please note that a copy of the Engineering Circular was provided with our second completeness letter.**

### RESPONSE:

As described in the 1<sup>st</sup> Round Completeness Response SFWMD-I-159 and 2<sup>nd</sup> Round Completeness Response 2SFWMD-H-159(104), the Turkey Point Units 6 & 7 Project has been designed to accommodate the potential sea level rise during the life of the Project. Specifically, The Turkey Point Units 6 & 7 Site elevation of 26 ft NAVD 88 was based on NRC requirements that are applicable to

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the Project. It is noted that the US Army Corps of Engineers has a circular regarding guidance for USACE Civil Works. Notwithstanding, the Site elevation of 26 ft NAVD 88 is clearly above any projected sea level rise provided in the circular.

### 3SFWMD-J-165(105)

- 49) **The response does not address the question. Please provide the information previously requested.**

#### RESPONSE:

FPL has initiated the process to collect samples as requested by FDEP as part of the renewal application for Industrial Wastewater Facility Permit No. FL0001562 and will submit the requested information to FDEP as soon as it is available. FPL will provide a courtesy copy of the results to the District in Form 2CG Section V once available.

Please note that this response is provided for the District's informational purposes although this request is outside the scope of a completeness request for additional information because it requests information about issues for which the District has no applicable regulatory standard. FDEP has primary jurisdiction over this issue.

### 3SFWMD-K-169(106)

- 50) **Please provide a letter of commitment from Miami-Dade County stating that they will have an uncommitted volume of reclaimed water and the ability to provide service to FPL for the life of Units 6 & 7.**

**The response references the 5th Supplemental Agreement between the South Florida Water Management District and Florida Power & Light Company. This document is for the monitoring program for the Interceptor Ditch Program and the Cooling Canal System, rather than reclaimed water supply. Consequently, this reference appears to be an error. Please clarify.**

#### RESPONSE:

The Joint Partnership Agreement (JPA) between FPL and Miami-Dade County (MDC) has been signed by FPL and submitted to MDC for review and approval and is attached to Response 3SFWMD-B-83(73) above. The JPA will be reviewed by the appropriate Committee who will make a recommendation to the Board of County Commissioners regarding approval. The JPA identifies the roles and responsibilities of FPL and MDC in developing the project and executing the Reclaimed Water Service Agreement (RWSA) that is included as Exhibit 1 to the JPA. The JPA and RWSA represent the intent of FPL and MDC to provide 100 percent of the cooling water requirements for the Turkey Point 6&7 project using treated wastewater from the South District Waste Water Treatment Plant on a timeline that supports the in-service dates of the project. The current in-service dates are 2022 for Unit 6 and 2023 for Unit 7.

The 2<sup>nd</sup> Round Plant and non-Transmission Completeness Response, 2SFWMD-B-169(106) (April 2010) included an incorrect reference to the *Fifth Supplemental Agreement between the South Florida Water Management District and Florida Power & Light Company*.

## INTRODUCTION

In response to extensive agency questions, comments and data requests in the completeness process related to operational impacts of FPL's proposed backup cooling water supply for the Project, FPL is continuing to perform additional and more refined groundwater modeling of the radial collector wells to address these completeness questions.

For purposes of the Site Certification Application (SCA), in order to be conservative, FPL modeled and included the results for the radial collector well system operating 24 hours per day, 365 days per year. However, in actuality, and as stated in the SCA, the radial collector well system is proposed as a backup cooling water supply which would be required only during periods when reclaimed water (the primary cooling water supply source) is not delivered to the Site in sufficient quality or quantity. FPL is currently conducting a reliability study to quantitatively characterize the expected reliability of the reclaimed water treatment and delivery systems to Turkey Point Units 6 & 7. The results of this study will enable a more accurate assessment of expected annual use of the radial collector well system.

The SFWMD water use regulatory program recognizes that when reclaimed water is proposed as a source, a limited duration backup or secondary water supply may be authorized. FPL's West County Energy Center (WCEC) provides an example of a recently licensed power plant that uses reclaimed water as its primary water source. The WCEC certification allows withdrawals from the Floridan Aquifer for up to 90 days per year as a temporary secondary water supply source. FPL is prepared to accept a similar water use restriction for the backup water supply for Turkey Point Units 6 & 7 that would allow for operational reliability in the event that reclaimed water is not available. FPL proposes, for discussion purposes, that a durational restriction be applied to use of the radial collector wells for Turkey Point Units 6 & 7. An example of language for such a condition, based on the WCEC condition, is provided below.

“Although reclaimed water will be the primary water source for Turkey Point Units 6 & 7, there may be temporary interruptions in the delivery, quantity, or quality of reclaimed water supply to the Site. Consequently, authorizing a reliable, secondary water supply source for the Project is in the public interest. Therefore, this Certification authorizes withdrawals from the radial collector wells as a temporary secondary water supply source for up to 90 days during any calendar year.”

FPL requests that FDEP, SFWMD, and MDC advise whether this type of restriction would be acceptable and allow a recommendation for approval of the radial collector wells or whether such a restriction would alter the information necessary to prepare the Project Analysis Reports pursuant to Section 403.507, Florida Statutes (F.S.).

FPL has endeavored to work with the reviewing agencies with remaining completeness questions to clarify the requests and to provide the information sought, where available. Although not stated for each 3<sup>rd</sup> Round plant and non-transmission response, FPL maintains its objections to those incompleteness questions identified in the 1<sup>st</sup> and 2<sup>nd</sup> Round Part A plant and non-transmission completeness responses.

## QUESTIONS AND RESPONSES

### SECTION A - PLANT SITE FOR UNITS 6 & 7 INCLUDING BARGE AREA

#### 3MDC-A-3 (Third Round)

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.**

#### RESPONSE:

With respect to satisfaction of Condition 15 of the Zoning Resolution, FPL recognizes that the zoning approval is an independent authorization and that the conditions of zoning are independent requirements. FPL has met with the County and is developing a submittal framework through which this zoning condition, and the remainder of the conditions, will be addressed such that the County can determine the application complete, and prepare an agency report addressing which conditions are satisfied and which conditions remain to be satisfied post-certification, during construction, or during the operation of the Project.

The Exploratory Drilling and Aquifer Performance Test Program (APT) was intended to collect data to help further evaluate the use of a radial collection well system. The APT is one element of the hydrologic study. Data collected from the APT and the hydraulic parameters derived from the test have been used to help conceptualize, calibrate and validate the Turkey Point groundwater model. As such the APT is not unlike test that are normally undertaken in planning and developing a traditional wellfield. While the APT alone does not address the impacts presented in the completeness question above, the APT together with the modeling does address those impacts.

A draft of the APT plan was provided to Miami-Dade County and reviewed with the County during a meeting at DERM on February 4, 2009 and a follow up meeting on March 20, 2009. In addition, the South Florida Water Management District was also provided a copy of the plan and a meeting was held on March 6, 2009 to discuss the plan. Both agencies had comments and suggestions, most of which were incorporated into the APT plan. The only sampling recommendation that MDC made that was not included was sampling the well water for tritium. FPL decided to use other stable isotopes during the pump test to address this question. The results of the isotope analysis were provided in the APT report (HDR, 2009). Please see also Response 3MDC-A-5 below.

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of

the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

#### Reference

HDR Engineering, Inc. (2009) *Florida Power and Light Turkey Point Exploratory Drilling and Aquifer Performance Test Program*, August 9, 2009.

#### **2-MDC-A-3 (Second Round)**

**The hydrologic information provided does not satisfy condition 15 of Resolution Z-56-07 or provide sufficient information for evaluation of the proposed project with requirements of Chapter 24, Miami-Dade County Code. Condition 15 requires the submittal of a hydrologic study in accordance with the substantive requirements of Chapter 24, Miami-Dade County Code in order for DERM to evaluate the impacts of the proposed project on surface and groundwater. The APT was of a narrow scope, was not approved by DERM, does not meet the substantive requirements of the County Code, and does not allow for an evaluation of the project's impacts. As an example, the study does not provide the necessary data to determine whether the model output and conclusions drawn from the modeling are reliable. In addition, it fails to show how the existing groundwater plume created by operation of the cooling canal system would respond to construction dewatering activities. Furthermore, the information provided is inadequate to determine the extent to which the plume would be drawn under Biscayne Bay and/or into the radial collector wells. Also see comments provided in MOC-C-6**

#### **1-MDC-A-3 (First Round)**

**The application proposes to dewater up to 26 MGD of groundwater by discharging it to the cooling canals. Pursuant to Condition No. 15 of the Unusual Use Approval Resolution Z-56-07, a DERM approved hydrologic study is required. The study results are required to evaluate all impacts to surface and groundwater, including but not limited to all dewatering activities.**

#### **3MDC-A-4 (Third Round)**

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".**

**RESPONSE:**

Please refer to Response 3MDC-C-24 below.

**2-MDC-A-4 (Second Round)**

**The information provided is not sufficient for evaluation of the project with requirements of Chapter 24, Miami-Dade County Code and the COMP, does not meet the requirements of conditions 4 and 5 of Resolution Z-56-07, and it is not sufficient in comprehensiveness of data or in quality of information to allow the County to prepare the reports required by 403.526 F.S. Additional information and further clarification of information provided 'IS required. As an example, the water source analysis was based, at least in part, on incorrect assumptions and conflicting information. See comments provided in MOC-C-24.**

**1-MDC-A-4 (First Round)**

**Not enough information provided to assess water supply alternatives.  
Appendix 10.9 is a summary of alternative water supply study conducted by FPL**

**3MDC-A-5 (Third Round)**

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.**

**RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

Regarding the requested Comprehensive Environmental Impact Statement (CEIS), FPL reasserts the response contained in our 1<sup>st</sup> Round Response (October, 2009). Under the Power Plant Siting Act (PPSA), the SCA is the procedural vehicle for addressing the applicable substantive requirements of the MDC code. The procedural requirements of local ordinances are superseded by PPSA procedures and submittal requirements under Section 403.510, F.S. FPL will therefore not prepare a CEIS in support of the SCA.

Regarding radiological monitoring, FPL reasserts the federal NRC preemption in this area. Regarding use of radionuclides such as tritium as “tracers”, FPL believes that these are not suitable for use as “tracers” in proximity to a nuclear power plant, and did not use them to identify water sources for this reason.

To determine water sources for the radial collector wells, stable isotopes of water ( $\delta D$  and  $\delta^{18}O$ ) were measured during the APT. FPL believes the combined use of these two isotopes provide a better indicator of the water source (fresh or salt water) contributing to the water obtained from pumping during the APT. Fresh groundwater from the Biscayne Aquifer and saline water from Biscayne Bay can potentially have overlapping tritium signatures due to the low ambient tritium levels (< 6 tritium units\*) (Price et al. 2003). Therefore, using tritium to identify fresh or saltwater sources of coastal groundwater was not a practical option for the APT.

\*1 tritium unit (TU) = 3.19 picocuries/L (pCi/L)

#### Reference

Price, R. M., Top, Z., Happel, J.D., Swart, P.K. (2003). Use of tritium and helium to define groundwater flow conditions in Everglades National Park, *Water Resources Research*, 39:9, p. 1267, DOI 10.1029/2002WR001929

#### 2-MDC-A-5 (Second Round)

**This comment remains incomplete. The requested information is not strictly a procedural requirement under local law and FPL's response did not address the request for information provided in the County's first completeness comments. Additional information as requested regarding dewatering activities is required for proper evaluation of the potential impacts associated with the proposed project pursuant to local requirements including Chapter 24, Miami-Dade County Code. With regard to the use of radionuclide tracers such as tritium, there is no federal preemption for use of this parameter for evaluation purposes. Miami-Dade County has repeatedly advised that the use of tracers such as tritium is not related to public health and safety issues and that it would be necessary to use such tracers to determine water sources for the radial collector wells as part of a comprehensive hydrologic study.**

#### 1-MDC-A-5 (First Round)

**Sufficient information is not provided to make a determination of dewatering impacts. Please provide a description of all required dewatering activities and the techniques that will be used to ensure that all surface and groundwater quality standards will be met. The application states that "General area dewatering activities will be confined to areas associated with construction within the power block and the effluent released to the existing industrial wastewater facility. Localized dewatering activities may occur during the construction of some associated non-linear facilities. Water produced during dewatering will be managed local to each facility or released to the industrial wastewater facility." Please detail which facilities will require dewatering during construction, provide a dewatering plan for each facility that includes impact to the groundwater (e.g. radius of influence, drawdown), the method of discharging the recovered groundwater, groundwater assessment, potential treatment requirements, and providing a comprehensive monitoring plan are required, a water quality analysis of the source water, duration and total volume for each dewatering project, disposal options for any contaminated water, applicable calculations and supporting models, and justification for why dry conditions are required for each specific construction element where dewatering is proposed. Mention is made of a**

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**MODFLOW groundwater model within the submittal, however, no model runs or data is provided for review. The modeling efforts must be provided, including, but not limited to the capabilities and limitations of the model, the assumptions made during the construction of the model, boundary conditions and variables (including background data) utilized, the method in which the groundwater and surface water interaction is simulated, method of calibration, and the resulting reporting outputs**

### **3MDC-A-6 (Third Round)**

**This item remains incomplete. Miami-Dade County acknowledges the additional information provided related to the sanitary sewer wastewater issues and the requested variance to forego connection to sanitary sewers in association with the proposed onsite wastewater treatment plant not in conformance with Section 24-43 of the Miami-Dade Code, which requires connection to the public sanitary sewer system, prohibits an onsite wastewater treatment plant, and prohibits generation of liquid waste at facilities not connected to the sewer system. The appropriateness of any variance request must consider all regulatory standards applicable to the project. Although FPL asserts that all regulatory standards will be met, relevant information in support of this claim has not been provided. In particular, additional information on the wastewater treatment process and resultant discharge water quality is necessary as part of the wastewater discharge plan required by condition 6 of Z-56-07. In addition, FPL has not demonstrated how the proposed disposal of wastewater via injection wells complies with this condition including the use of this wastewater (after appropriate treatment) for the benefit of the Biscayne Bay Coastal Wetlands CERP project as required. The hydrologic study required by condition 15 of Z-56-07 is also necessary to evaluate the appropriateness of this variance request and the proposed discharge of the wastewater treatment plant effluent to deep wells. Therefore, the hydrologic study needs to include an evaluation of all impacts to surface waters as well as the boulder zone, the Floridan, and Biscayne Aquifers including an evaluation of the proposed elimination of the freshwater inputs to the Biscayne Aquifer from the existing treatment plant.**

**In addition, with regard to the flow analysis provided by FPL in 2MDC-A-6, please explain why the calculation of the assumed volume that would be returned to MDWASD (75,000 MGD) did not include the contribution from [sic] the wastewater retention basin effluent to blowdown sump (590,400 MGD). Please provide a revised analysis with this additional waste stream included. With regard to the existing septic tanks mentioned in FPL's response, please provide detailed information including locations, volumes, size of drainfields, setbacks from wetlands and other surface waters, identification of the facilities served by these septic tanks and a characterization of the wastewater discharge to each system.**

### **RESPONSE:**

This response is being provided to respond to 3MDC-A-6, 3MDC-A-8, 3MDC-A-9, and 3MDC-A-11 as these completeness questions each ask questions related to the proposed management of sanitary and industrial wastewater on-site.

With regard to FPL's requested variance from the sanitary sewer connection requirement, FPL reasserts the response contained in 1<sup>st</sup> Round Plant and non-Transmission Completeness Response MDC-A-6 that under Section 403.511(2), F.S., the County will not be issuing a variance. Nonetheless, the information provided in this and FPL's 1<sup>st</sup> and 2<sup>nd</sup> round responses affirmatively

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demonstrates why a sewer connection is not technically feasible or economically reasonable and has demonstrated entitlement to a variance from sewer connection requirements pursuant to Section 25-12(1) of the MDC code. The information provided is sufficient for MDC to make a recommendation to the Siting Board that a variance from sewer connection requirements of the MDC code should be granted by the Siting Board.

FPL is continually working to identify secondary beneficial reuse opportunities for water at our facilities as evident by the proposed use of reclaimed water as the primary cooling water source. As described below, when cooling water makeup is provided by reclaimed water, the plant wastestreams are used in their entirety as another secondary beneficial reuse for dilution and are not available for other uses.

As described below, when cooling water makeup is provided by reclaimed water, the plant wastestreams are being used for a beneficial use in their entirety for dilution. FPL is continually working to identify secondary beneficial reuse opportunities for water at our facilities as evident by the proposed use of reclaimed water as the primary cooling water source.

MDC has requested that FPL provide more detail on these wastestreams to identify if there are any secondary beneficial reuse opportunities for the wastestreams on-site. The following response provides detail on the wastestreams, as well as regulatory basis governing liquid radwaste effluent discharges.

2<sup>nd</sup> Round Attachment 2MDC-A-6-1 (April 2010) details the two categories of wastestreams generated on-site: sanitary wastewater and industrial wastewater. Sanitary wastewater will be processed by the new on-site sanitary plant for Turkey Point Units 6 & 7. The details of this sanitary plant are provided in the attached technical memorandum entitled Turkey Point Plant: On-Site Sanitary Wastewater Treatment Plant on CD #1 at 3MDC-A-6. The objective of this technical memorandum is to provide a description of the treatment processes, design and regulatory criteria proposed for a new Turkey Point plant on-site sanitary wastewater treatment plant. The industrial wastestreams will be produced primarily from cooling tower blowdown with substantially smaller amounts resulting from several plant processes. The estimated water quality of these wastestreams is discussed later in this response.

As demonstrated in the water flow diagram all of the wastewater (industrial and sanitary) combines to form a single discharge stream. This provides dilution of the radionuclides liquid effluents to ensure concentrations within the limits of NRC regulatory standards (10 CFR Part 20). The NRC's "Final Safety Evaluation Report [FSER] Related to Certification of the AP1000 Standard Design" (NUREG-1793), September 13, 2004, contained the following statement:

“When the waste discharge flow is diluted by the circulating water blowdown flow of 22,712 liters/minute (6,000 gallons/minute), the discharge flow rate for any waste stream should be restricted, as necessary, to maintain an acceptable concentration level for radionuclides liquid effluents discharged into any unrestricted area. The above criterion for liquid waste discharge flow ensures compliance with the 10 CFR Part 20, Appendix B, Table 2, Column 2, limits for concentrations of radionuclides in liquid effluents discharged into any unrestricted area. All liquid radwaste (WLS) discharges are made through a single liquid waste discharge line to the circulating water blowdown stream.”

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In addition, Section 11.2.2 of NUREG-1793, Conclusion, states, “The AP1000 design has met the dose requirements of 10 CFR 20.1302 by assuring that the annual average concentration of radioactive materials in liquid effluents released into an unrestricted area will not exceed the limits specified in 10 CFR Part 20, Appendix B, Table 2, Column 2.”

### **Basis for Dilution Flow**

The design basis for the dilution flow, 6000 gallons per minute (gpm) per unit for a typical liquid waste release of 1925 gallons per day, is stated in Westinghouse AP1000 Design Control Document (DCD) Section 11.2.3.3, Dilution Factor. This value of dilution flow is part of the plant design as reviewed and approved by the NRC in support of their certification of the AP1000 design. Turkey Point Units 6 & 7 will use cooling tower blowdown water, with supplemental water from other sources, if necessary, as described below, to meet the DCD specified dilution rates. When the cooling water system is using reclaimed water as makeup to the cooling towers, the tower blowdown quantity is supplemented by additional reclaimed water from the reclaimed water treatment facility to meet the required dilution rates. When using the radial collector wells as the backup source to supply cooling tower makeup water, the blowdown quantity is sufficient to meet the dilution quantity without any supplemental supply. A small amount of dilution flow is available from the discharges of the wastewater retention basin and the sanitary wastewater treatment plant, and is added into the blowdown sump as part of the dilution flow.

NRC has accepted use of cooling water blowdown, supplemented by additional flow from the plant water sources as needed, as the method for dilution of liquid radwaste effluent as prescribed in the DCD. NRC has sole jurisdiction over the determination that this dilution flow will result in concentration levels for liquid radwaste effluent remaining within the limits of NRC regulatory standards for effluent (10 CFR Part 20). By employing the standard AP1000 design, FPL is committed to implementing the DCD requirements for dilution and therefore has used appropriate wastestreams for dilution.

Below is the link to the NRC website for Chapter 11 of the Westinghouse AP1000 DCD:

[http://www.nrc.gov/reactors/new-reactors/design-cert/ap1000/dcd/Tier%202/Chapter%2011/11-toc\\_r10.pdf](http://www.nrc.gov/reactors/new-reactors/design-cert/ap1000/dcd/Tier%202/Chapter%2011/11-toc_r10.pdf)

### **Wastestream Quality**

The flow streams shown within the “Power Plant” box in SCA Figure 4.5-1 are simplified representations of AP1000 standard plant systems. Individual wastestreams included in the flow streams listed in Tables 4.5-1 and 4.5-2 and shown in the “Power Plant” box are evaluated to the extent necessary to obtain a reasonable estimate of the concentrations of the constituents in the wastestream to/from the wastewater retention basin (#28/34) based on the potable water supply to the “Power Plant” (#2) for use in plant processes. Information necessary to demonstrate the reasonableness of the waste characterization as listed in SCA Tables 4.6-2 and 4.6-3 is available in the following:

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- Table 4.5-3: Water Quality Data for Sources of Cooling Water (Input)
- Table 4.5-1: Plant Water Use 100% Reclaimed Water
- Table 4.5-2: Plant Water Use 100% Saltwater (provide information about various flow splits when considered in conjunction with the next item)
- Table 4.6-4: Examples of Chemicals Added to Liquid Effluent Streams (small amounts of chemicals are added only as needed to obtain desired water quality)
- Plant equipment operation assumptions (e.g. typical demineralization system recovery and operational assumptions).

Note: Additional information regarding the makeup of the wastestream to the wastewater retention basin was provided in 2<sup>nd</sup> Round Plant and non-Transmission Completeness Response 2MDC-A-9 (April 2010).

For the blowdown stream from the service water system (#32/35), the constituents are the same as the potable water supply (stream #29) except as affected by the assumed cycles of concentration associated with the service water cooling tower operation and chemical addition to obtain the desired system water quality.

For the blowdown stream from the circulating water system (#44), the constituents are the same as the reclaimed water supply (#39) or radial collector well supply (#41) except as affected by the assumed cycles of concentration associated with the circulating water system cooling tower operation, and chemical addition to obtain the desired system water quality, and inflow of the blowdown stream from the service water system (#35) discussed in the previous paragraph.

The only other waste flow stream shown in Tables 4.5-1 and 4.5-2, other than sanitary waste (#5, which is from the sanitary wastewater treatment plant that treats wastestreams #4 and #54), liquid radwaste (#22) and the wastestream to the UIC (#50/51) is the FPL reclaimed water treatment facility solid waste (#53, water entrained in FPL reclaimed water treatment facility solid waste; the solid waste will be disposed off-site by an approved disposal contractor). Because of the nature of these streams, further discussion is not necessary regarding determination of the constituents within these streams.

FPL's response to 1<sup>st</sup> Round Plant and non-Transmission Response SFWMD-K-172 (October 2009) contained a discussion of the appropriate regulatory standard for constituents listed in SCA Tables 4.6-2 and 4.6-3 and also included the numeric target limits provided in FPL's response to 1<sup>st</sup> Round Plant and non-Transmission Response MDC-A-9 (October 2009). FPL's response to SFWMD-K-172 included information as follows:

"... Rule 62-528.400(1), F.A.C., prohibits the injection of hazardous waste to any underground formation in Florida.

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Thus, the appropriate regulatory standard for the constituents listed in SCA Tables 4.6-2 and 4.6-3 is that the fluid cannot be hazardous waste (as stated in Chapter 62-528, Underground Injection Control, the injection of hazardous waste through any well is prohibited). The definition of a hazardous waste given in Chapter 62-730, adopts by reference, with some exceptions, the definitions contained in Title 40 Code of Federal Regulations (CFR) 260.10. The limiting values associated with the constituents listed in SCA Tables 4.6-2 and 4.6-3 are the toxicity levels for metals and the characteristic limit for corrosivity. These limits apply to 10 constituents, as shown in the table below; for the other constituents, no regulatory standard is identified.

Constituent	Limit, mg/L
Hexavalent Chromium	5
Arsenic	5
Barium	100
Cadmium	1
Chromium	5
Lead	5
Selenium	1
Silver	5
Mercury	0.2
pH (standard units)	> 2 and < 12.5

For the above table, maximum concentrations that apply for metals are provided in 40 CFR 261.24, Table 1 and the characteristic limit for corrosivity is provided in 40 CFR 261.22.

### Conclusion

In conclusion, the dilution of the liquid wastestream, prior to the release into the deep injection wells, by cooling tower blowdown when using reclaimed water and other plant sources is a secondary beneficial reuse and necessary to meet the dilution requirements of the Westinghouse DCD.

### Beneficial Use of Reclaimed Water

As described above, all of the wastestreams are being used for beneficial use as the required volume needed for the processer. Alternatively, the reclaimed water treated by the FPL reclaimed water treatment facility will be the highest quality alternative “new” freshwater in the region. FPL has been monitoring MDWASD’s pilot study on the additional treatment of wastewater as well as the potential level of treatment required of the effluent for beneficial use in wetland rehydration. Both phases of study are important to determine how and if water from FPL’s reclaimed water treatment facility can serve as source of rehydration water or other additional beneficial uses or can does the facility serve as a pretreatment facility to another treatment process or facility to generate another quality of water. Until additional information from the ongoing study is available, the further advancement of these scenarios cannot be conducted. However, FPL is willing to continue to explore opportunities with Miami-Dade County and other agencies for further development of beneficial reuse of reclaimed water.

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### Septic Systems

Domestic wastewater generated by the personnel at Units 1 & 2 and the Land Utilization (LU) facilities are treated by septic tanks. There are no sanitary facilities specifically associated with Unit 5. The waste sent to the septic tanks is domestic wastewater generated from the plant personnel working in the facilities. Solids are removed from the tanks by an approved septic tank waste hauler. The available information on the existing septic tanks is presented in the table below and the approximate locations of these tanks are presented on the attached Figure 3MDC-A-6-1.

	LU	Fossil Plant (Units 1,2)
Number of septic tanks	2	1
General location	one tank at the LU offices, one tank at the LU Shop	East end of the plant
Septic tank size	1,100 gal each	3,665 gal
Estimated daily flow	Less than 100 gpd for each location	Approximately 810 gpd
Frequency of solids removal	Pumped approximately every 2 years	Pumped approximately every 2 years

These septic tanks, which were installed over 40 years ago, are proposed to be removed from service as part of the proposed new on-site sanitary treatment plant.

### 3MDC-A-7 (Third Round)

**This item remains incomplete. Not all of the requested information has been provided such as the technical specifications of the proposed treatment train. With regard to Miami-Dade County's request to identify environmentally sensitive receptors, it is acknowledged that there are no such receptors within the boulder zone. However, sufficient information and assurances have not been provided to establish that wastewater injected via deep wells would not impact sensitive receptors beyond the boulder zone over the operational life of the facility. In addition sufficient information and assurances have not been provided to determine whether variances from Section 24-43 of the Miami-Dade County Code would be appropriate pursuant to Section 24-12 of the Miami-Dade County Code. These variances would be required for the proposed construction and operation of a wastewater treatment plant and the proposed discharge to the boulder zone (including but not limited to discharge of the sanitary wastewater stream) in lieu of the required waste stream connections to the sanitary sewer system, which are otherwise prohibited by Code. . The hydrologic study required pursuant to condition 6 of Z-56-07 is also needed to evaluate the proposed project and modeling may also be necessary to evaluate this aspect. With regard to FPL's reference to a previous EQCB approval related to the existing wastewater treatment plant, no information has been provided in the SCA to demonstrate that a variance would be appropriate relative to the effluent discharge from the proposed wastewater treatment plant to the boulder zone. FPL shall provide the necessary information (including the referenced hydrologic study) for Miami-Dade County to review this application.**

**Please also see MDC's response MDC-G-12 (Third Round)**

**RESPONSE:**

Please see Response 3MDC-A-6 above.

In addition, a technical memorandum entitled Turkey Point Plant: On-Site Sanitary Wastewater Treatment Plant is attached to Response 3MDC-A-6 above. The objective of this technical memorandum is to provide a description of the treatment processes, design and regulatory criteria proposed for a new Turkey Point Plant on-site sanitary wastewater treatment plant.

**3MDC-A-8 (Third Round)**

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03- 45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".**

**Also, during the March 8<sup>th</sup>, 2010 meeting FPL explained to County staff that, when using reclaimed water as the cooling water source, nearly all of the wastewater streams proposed to be injected into the boulder zone are needed to dilute the liquid radiologic waste that will be generated by the operation of Units 6 & 7. According to the information presented during the meeting (using the waste stream flow rates presented in Table 4.5-1 of the SCA) an estimated volume of 12,458 gpm is required for the dilution of the estimated 3 gpm of liquid radwaste effluent that will be generated by the operation of the proposed Units 6 & 7. . Therefore, further clarification is needed and all information that has been provided to DERM outside of the SCA process shall be submitted in response to this item. This clarification shall include details of all regulatory requirements related to the disposal of liquid radwaste effluent, including but not limited to the federal requirements to dilute the liquid radwaste effluent discharge and the applicable dilution target concentrations of the discharge. This shall also include a description of the regulatory thresholds based on receiving water volumes or other criteria that pertain to whether dilution is required under federal or other applicable laws. FPL shall also include in the response a description of all the available liquid radiologic waste alternative disposal methods along with any studies and alternative analysis performed and evaluated in the process that led to FPL's selection of the proposed disposal method. FPL shall include a complete characterization of the radiologic components of the waste stream including but not limited to the estimated Gross Beta activity of the proposed discharge prior to and after the proposed dilution relative to the standard contained within Section 24-42 of the Miami-Dade County Code.**

**During the aforementioned March 8<sup>th</sup>, 2010 meeting with County staff, FPL explained that FPL had not determined that the proposed dilution of the liquid radwaste effluent was required pursuant to applicable federal law because the volume of the receiving water body within the boulder zone was not known. Rather, FPL conservatively assumed that the volume would be inadequate and is therefore proposing dilution. However this information has not been provided as part of the SCA process and therefore this information shall be included in the**

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**applicant's response to this item i. Pursuant to condition 15 of Z-56-07, a hydrologic study is required to evaluate all impacts to surface and groundwaters. Therefore, the hydrologic study shall include an investigation of the receiving waters within the boulder zone to determine if use of the wastewater discharge is required for dilution of the liquid radwaste effluent pursuant to applicable federal law as well as to evaluate the appropriateness of the proposed disposal of wastewaters including liquid radwaste effluent to the boulder zone. FPL shall provide the information necessary including the referenced hydrologic study, for Miami-Dade County to review this application for compliance with the substantive requirements of Miami-Dade County Code and the CDMP.**

**Please also see MDC's response MDC-A-6 (Third Round)**

### RESPONSE:

Please refer to 3<sup>rd</sup> Round Plant and non-Transmission Completeness Response 3MDC-A-6 above for a complete description of all cooling water sources and wastestreams when using either reclaimed water and/or radial collector wells.

With respect to the question regarding the volume of the boulder zone for providing the dilution volume, Section 11.2.3.3 of the Westinghouse AP1000 Design Control Document (DCD), Dilution Factor, states, in part, "With a typical liquid waste release of 1925 gallons per day, the nominal *circulating water blowdown* (emphasis added) flow of 6000 gpm provides sufficient dilution flow to maintain the annual average discharge concentrations well below the effluent concentration limits." DCD Section 11.2.3.4, Release Concentrations, indicated that "The annual release data provided in Table 11.2-7 represent expected releases from the plant. To demonstrate compliance with the Reference 1\* effluent concentration limits, the discharge concentrations have been evaluated for the release of a typical daily liquid waste volume of 1925 gallons per day and using the nominal circulating water blowdown flow of 6000 gpm. Table 11.2-8 lists the annual average nuclide release concentrations and the fraction of the effluent concentration limits using base BWR-GALE (Boiling Water Reactor Gaseous and Liquid Effluents) code assumptions. As shown in Table 11.2-8, the overall fraction of the effluent concentration limit is 0.11, which is well below the allowable value of 1.0."

The NRC's "Final Safety Evaluation Report [FSER] Related to Certification of the AP1000 Standard Design"(NUREG-1793), September 13, 2004, contained the following statement:

"When the waste discharge flow is diluted by the circulating water blowdown flow of 22,712 liters/minute (6,000 gallons/minute), the discharge flow rate for any waste stream should be restricted, as necessary, to maintain an acceptable concentration level for radionuclides liquid effluents discharged into any unrestricted area. The above criterion for liquid waste discharge flow ensures compliance with the 10 CFR Part 20, Appendix B, Table 2, Column 2, limits for concentrations of radionuclides in liquid effluents discharged into any unrestricted area. All liquid radwaste (WLS) discharges are made through a single liquid waste discharge line to the circulating water blowdown stream."

In addition, Section 11.2.2 of NUREG-1793, Conclusion, states, "The AP1000 design has met the dose requirements of 10 CFR 20.1302 by assuring that the annual average concentration of

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radioactive materials in liquid effluents released into an unrestricted area will not exceed the limits specified in 10 CFR Part 20, Appendix B, Table 2, Column 2.”

In conclusion, the dilution of the liquid waste stream, prior to the release into the Underground Control Injection, by the waste stream from the cooling tower blowdown when using reclaimed water and the 458 gpm from other plant sources is in compliance and consistent with the requirements of the Westinghouse DCD and as shown in SCA Tables 4.5-1 and 4.5-2 and Figure 4.5.-1 and 4.5-2.

Below is the link to the NRC website for Chapter 11 of the Westinghouse AP1000 DCD:

[http://www.nrc.gov/reactors/new-reactors/design-cert/ap1000/dcd/Tier%202/Chapter%2011/11-toc\\_r10.pdf](http://www.nrc.gov/reactors/new-reactors/design-cert/ap1000/dcd/Tier%202/Chapter%2011/11-toc_r10.pdf)

### Reference

10 CFR Part 20, Appendix B, Table 2, Column 2

### 3MDC-A-9 (Third Round)

**The information necessary to verify the accuracy of the waste characterization as listed in Tables 4.6-2 and 4.6-3 must be provided. Specifically the concentration of each constituent needs to be provided for each of the individual waste streams listed in Tables 4.5-1 and 4.5-2. In addition, please provide the specific regulatory reference for the numeric target limits provided in FPL's response to MDC-A-9.**

### RESPONSE:

Please see Response 3MDC-A-6 above.

### 3MDC-A-11 (Third Round)

**This item remains incomplete. Based on the information presented to date, it is premature to conclude what waste streams, if any, are necessary for the dilution of the liquid radwaste effluent, or whether this is the appropriate disposal method for said waste. The information requested in other completeness items such as MDC-A-8 (Third Round) above is required in order to evaluate this issue.**

**FPL's conclusion that the most appropriate option for disposal of cooling water is injection to the boulder zone is premature in the absence of the Miami-Dade County required hydrologic study and wastewater discharge plan and the additional information requested that relates to impacts to surface and groundwaters and to wastewater disposal issues. In addition, information needs to be provided in support of FPL's characterization that injection of the cooling water to the boulder zone is the most appropriate disposal option for this waste stream and that there are only two potential disposal options (i.e. wastewater treatment plant or deep well injection to the boulder zone). Miami-Dade County acknowledges that disposal of the cooling water to the public sewer system may not be appropriate given the large volume of water involved. However, the feasibility analysis of treating the wastewater discharge for the benefit of the Biscayne Bay Coastal Wetlands project, as required by condition 6 of Z-56-07 has not been adequately performed by FPL.**

**RESPONSE:**

Please see Response 3 MDC-A-6 above.

**3MDC-A-13 (Third Round)**

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03- 45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".**

Please also see MDC response MDC-A-6 (Third Round)

**RESPONSE:**

FPL believes that the information provided in our responses is sufficient to demonstrate compliance with the applicable, adopted non-procedural requirements of the Miami-Dade County Code related to wastewater discharge, including any applicable water quality standards for the receiving groundwater.

With respect to satisfaction of Condition 6 of the Zoning Resolution, FPL recognizes that the zoning approval is an independent authorization and that the conditions of zoning are independent requirements. FPL is committed to satisfying all conditions of zoning. FPL has met with the County and agreed to a submittal framework through which this zoning condition, and the remainder of the conditions, will be addressed such that the County can determine the application complete and prepare an agency report addressing which conditions are satisfied and which conditions remain to be satisfied post-certification, during construction or during the operation of the Project.

**2-MDC-A-13 (Second Round)**

**FPL's assertion that Miami-Dade County has no regulatory standards with regard to the disposal of industrial or other wastewater via injection into the groundwaters of Miami-Dade County is incorrect. FPL is advised that the mere generation of liquid waste other than domestic sewage at a property not connected to the sanitary sewers system is not allowed under Chapter 24. The hydrologic study required pursuant to condition 15 of Z-56-07 is intended to examine all aspects of water use and wastewater disposal that will impact surface and groundwaters, including groundwaters within the Floridan Aquifer and boulder zone. No such study has been provided and no information on the impacts to these groundwaters is presented. In addition, FPL has not demonstrated how the proposed disposal of wastewater via injection wells complies with condition 6 of Z-56-07 including the use of this wastewater (after appropriate treatment) for the benefit of the Biscayne Bay Coastal Wetlands CERP project as required. Miami-Dade County notes that FPL is required to provide a wastewater**

**discharge plan that meets the requirements of Chapter 24 and to "modify the plan as needed to satisfy compliance with Chapter 24." (Please see comment under MDC-A-11). This information is required for evaluation of the proposed project with requirements of Chapter 24, Miami-Dade County Code, the CDMP, and with requirements of the local land use approval Resolution Z-56-07.**

### **1-MDC-A-13 (First Round)**

**The application proposes the discharges of industrial wastes from several sources to injection wells. No information was provided to ascertain compliance with the applicable discharge standards. No information was provided to show that no treatment is necessary or that contamination will not result from such discharges**

### **3MDC-A-17**

**Please see MDC's responses MDC-A-18-1 to MDC-A-18-9 (Third Round)**

#### **RESPONSE:**

Please see Responses 3MDC-A-18-1 to 3MDC-A-18-9 below.

### **3MDC-A-18 (Third Round MDC-A-18-1 to MDC-A-18-4)**

**This item remains incomplete. Please provide revised calculations following the procedures established in "Design Example for an Industrial Site, p XF-1 to XF-20, Permit Information Manual Volume IV, SFWMD, 2009" Please ensure that all drawings and plans accurately depict the location and details of the emergency spill ways, include all necessary elevations and dimensions including length and width of streets, buildings, ponds, weir, orifices, inverts, etc. that are needed to verify (re-calculate) the elevations vs. area/volume curve and hydraulic characteristics of the proposed drainage system. Also please ensure the areas used to calculate surface runoff in pre and post development are the same.**

**Please also see MDC's response MDC-A-18-8 (Third Round)**

#### **RESPONSE to 3MDC-A-18-1, -2, -3, -4:**

Although the calculations presented in SCA Appendix 10.8 do not directly follow the methodology presented in "Design Example for an Industrial Site, pp. XF-1 to XF-20, Permit Information Manual Volume IV" (SFWMD 2009), they contain the information required to show that the surface water management for the Turkey Point Site and associated non-linear facilities will be designed to meet applicable requirements. The stormwater runoff from the proposed Site (plant area plus laydown area), and the administration building, training building and parking area will decrease in runoff volume as compared to the pre-development condition. All runoff from these areas is directed to the industrial wastewater facility, not to the waters of the state. For the FPL reclaimed water treatment facility, it has been demonstrated that a) two stormwater basins as designed are adequate in meeting the water quality treatment requirements, b) reduced runoff volume of post-development as compared to the existing condition, thus meeting the water quantity requirement, and c) the emergency

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spillways are so designed that they will safely pass the 100-year 72-hour storm's peak discharge without overtopping the basins or flooding the Site.

As presented in Tables 24 and 25 of SCA Appendix 10.8, stage-area-storage data for both stormwater basins of the FPL reclaimed water treatment facility are provided. Within each of these two basins, an emergency spillway is provided with the design criteria to pass the 100-year 72-hour storm without overtopping. Both of these two emergency spillways are to have a 50 ft crest width with the spillway crest at El. 12.5 ft NAVD 88. Updated SCA Appendix 10.8 Attachment B (Rev. 1) and SCA Figure 4.2-6 (Rev.1), which were submitted as part of 2<sup>nd</sup> Round Plant and non-Transmission Response 2MDC-A-18-4 (April 2010), show the location, width, and the elevation of the emergency spillways.

Finally the areas used for pre-development and post-development drainage analysis are consistent as presented in SCA Appendix 10.8, as clarified in 2<sup>nd</sup> Round Response 2MDC-A-18-2 (April 2010).

To further facilitate the review process of SCA Appendix 10.8, as discussed during a conference call between FPL and MDC DERM on June 22, 2010, the following items are being generated and will be provided and discussed in a meeting in the near future.

1. FPL will revise the figures of SCA Appendix 10.8 and SCA Figure 4.2-6 to include, where applicable:
  - Vertical datum
  - Scale
  - Dimensions of stormwater ponds
  - Additional information on outlet structures (emergency spillway and riser outlet) such as locations, dimensions and elevations.
  - Area identification to facilitate runoff computation
2. FPL will generate an Excel table showing pre- and post-development areas (part by part) of the entire site along with the runoff calculations for the respective areas.
3. FPL will generate extra figures/drawings that will include:
  - A figure/drawing showing the pre- and post-development drainage areas identifying the contributing and non-contributing areas
  - A figure/drawing showing the outlet structures (emergency spillway and riser outlet) details and elevations of the stormwater basins in the reclaimed water treatment facility area.
  - A figure/drawing for the plant area showing the dimensions and sectional views of the makeup water reservoir
4. FPL will update stormwater calculation for the reclaimed water treatment facility to add the peak discharge rate calculation for the pre-development condition. This is to facilitate comparison with the peak discharge rate for the post-development.

**3MDC-A-18-5 (Third Round)**

**This item remains incomplete. Miami-Dade County disagrees with FPL's conclusion that FPL is not required to perform the flood routing calculations for the 25-year and the 100-year rainfall events. The absence of stormwater discharges to waters of the state does not exempt the project from this regulatory requirement. These calculations are required to demonstrate absence of impact to the adjacent floodplain.**

**RESPONSE:**

FPL believes that adequate information has been provided in previous responses to demonstrate absence of impact to the adjacent floodplain. To further facilitate the review process of SCA Appendix 10.8, as discussed during a conference call between FPL and MDC DERM on June 22, 2010, this question will be discussed in a meeting in the near future.

**3MDC-A-18-6 and MDC-A-18-7 (Third Round)**

**This item remains incomplete. Regulatory requirements include water quality and water quantity criteria that must be met by the applicant. Absence of stormwater discharges to waters of the state does not exempt the project from these regulatory requirements. In addition, with regard to the proposed reclaimed treatment facility, please provide the design criteria for emergency overflow and the proposed operation schedule. Please note that onsite retention is required for all rainfall events below the 100-year rainfall event; offsite discharges should only occur for rainfall events above the 100-year rainfall event provided that the applicable water quality discharge criteria are met.**

**RESPONSE:**

Please see Response MDC-A-18 above for a discussion of the emergency overflow design criteria. FPL does not agree with the statement "that onsite retention is required for all rainfall events below the 100-year rainfall event; offsite discharges should only occur for rainfall events above the 100-year rainfall event..." To further facilitate the review process of SCA Appendix 10.8, as discussed during a conference call between FPL and MDC DERM on June 22, 2010, this question will be discussed in a meeting in the near future.

**3MDC-A-18-8 (Third Round)**

**This item remains incomplete. The plans, figures and other information provided in Appendix 10.8 of the SCA and FPL's first and second completeness responses are inadequate because they do not meet the minimum required Environmental Resource Permit standards for the 35% design. Please provide revised plans, figures and information consistent with these requirements.**

**RESPONSE:**

Please see Response MDC-A-18 for a discussion of additional information that will be provided. To further facilitate the review process of SCA Appendix 10.8, as discussed during a conference call between FPL and MDC DERM on June 22, 2010, this question will be discussed in a meeting in the near future.

### 3MDC-A-18-9 (Third Round)

**This item remains incomplete. Please explain how stormwater rainfall associated with industrial activity (equipment area runoff) at FPL's proposed reclaimed water treatment facility will be captured, treated as necessary, and reused within the reclaimed water treatment process. The explanation shall include appropriate drawings and flow charts.**

The stormwater management facilities exceed the pre-treatment water quality requirements for stormwater runoff, however they do not have the capacity to retain the total runoff volume from the 25-year 72-hour rainfall event. Under those conditions, stormwater could be discharged directly to the adjacent wetlands. For the 100-Y 72-H rainfall event, the runoff volume is 33.94 (Table 22 Appendix 10.8), and the total volume of the two SWBs is 10.11 Ac-FT at 14.0 FT elevation. SWB-A is overtopped at 14 FT, and SWB-B at 16 FT. If FPL believes that the SWB-A and SWB-B will not be overtopped during a 100-year 72-hour rainfall event, FPL shall submit additional information (i.e., modeling information) to demonstrate that the proposed structures will not be overtopped. If FPL agrees with the County's conclusion that the SWB-A and SWB-B will be overtopped during a 100-year 72-hour rainfall event then FPL shall provide a detailed description of alternative stormwater management features that could be used to eliminate the possibility of stormwater discharges to adjacent wetlands and retain any excess stormwater onsite.

Please also see MDC's responses MDC-A-18-1 (Third Round) to MDC-A-18-9 (Third Round)

#### RESPONSE:

Within the equipment area, there are open basin structures that will completely retain the design storm rainfall. The open basin structures, including trickling filters, chemical unloading areas, solid contact basin, filters, waste backwash basins and chlorine contact basins, are formed by berms or walls. For the chemical unloading areas, stormwater is pumped to the backwash basin and is then added to the process flow stream. Stormwater collected in the equipment areas is treated and re-used with zero surface water discharge. The stormwater basins and the emergency spillways have been designed to account for the removal of this pre-development runoff.

FPL could not locate a regulation that requires retaining total stormwater runoff volume either from a 25-year 72-hr storm event or a 100-year 72-hr storm event. Please cite to any such specific standard that the County believes is applicable. As demonstrated in SCA Appendix 10.8, the total stormwater runoff volume from the post-development is actually less than that at the pre-development level, and all stormwater discharges fully comply with all the pre-treatment water quality requirements. Therefore FPL believes that applicable regulations have been satisfied and does not see the impact on the post-treatment stormwater discharge to the adjacent wetlands.

As already demonstrated in SCA Appendix 10.8, the emergency spillways located within the two stormwater basins can safely pass the peak discharges associated with storm events up to and including a 100-year 72-hr event without overtopping the basins or flooding the treatment facility. Because there are no rules or regulations that FPL is aware of that preclude stormwater discharge from the reclaimed water treatment facility, no alternate stormwater management features are presented.

**3MDC-A-20-1 (Third Round)**

Please see responses MDC-A-18-1 (Third Round) through 2MDC-A-18-9 (Third Round).

**RESPONSE:**

Please see Responses 3MDC-A-18-1 through 3MDC-A-18-9 above.

**3MDC-A-20-2 (Third Round)**

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness

**RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

**2-MDC-A-20 (Second Round)**

The information provided is incomplete because the surface water model and groundwater model should be coupled. For example, MODFLOW and HEC-RAS). Please provide revised modeling with coupled surface and groundwater models.

**1-MDC-A-20 (First Round)**

The Report does not cover enough drainage area within the hydrologic model. Simulation should cover, at a minimum, the area bounded by SW 344th St in the north, Old Card Sound Road in the west, and the coastline in the south and east. The EPA-SWMM and XP-SWMM are recommended models to simulate the variety of structures within the area, in order to obtain hydrographs and pollutographs at selected points. The model should also simulate contaminant transport and dilution effect. Event simulations should be run to obtain the conditions before and after the proposed development, including the new inflow and loads from the proposed Administrative/Training Buildings, Parking area, and Reclaimed Water Treatment Facility. Please provide model runs with the expanded area.

**MDC-A-20-1 (Third Round)**

Please see responses MDC-A-18-1 (Third Round) though 2MDC-A-18-9 (Third Round).

**Response:**

Please see Responses 3MDC-A-18-1 through 3MDC-A-18-9 above.

**3MDC-A-21 (Third Round)**

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.**

**RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

**2-MDC-A-21 (Second Round)**

**According to Bechtel (2009) report entitled *Groundwater Model Development and Analysis: Units 6 & 7 Dewatering and Radial Collector Well Simulations Report* did not use MODFLOW packages to include the canal flows and the two/variable groundwater density. Further evaluation will require the MODFLOW input and output files.**

**1-MDC-A-21 (First Round)**

**The SCA does not include sufficient information to evaluate the results and applicability of the referenced models, and does not contain sufficient information to ascertain the effect that the proposed facility would have on surface and groundwater quality, and groundwater table elevation within the C111 Basin (Model Land Area). Furthermore, any model used for evaluation of this project should be able to predict changes, if any, in the contaminant concentrations; in the water table elevations; and in the salinity wedge movement under different scenarios (baseline and postconstruction conditions, for a wet, dry, and average year, etc). Models should combine groundwater with surface water and contaminant transport, and shall include the effect of the difference in densities between salt and fresh water. In addition, the area in the model should be large enough to avoid any boundary-induced bias; boundary conditions could be taken from South Florida Water Management District regional models. EPA authorized models, such as MODFLOW, MODPATH, and FEMWATER should be considered for use in this study. Another possible model would be the FEFLOW, which combines the**

groundwater contaminant transport (MODFLOW and MODPATH capabilities) with the two density fluids wedge salinity difference (FEMWATER capability).

### 3MDC-A-23 (Third Round)

This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. Miami-Dade County notes that opportunistic observations should not be the sole basis for a determination of which habitats are utilized by wildlife and which of those habitats are critical to wildlife, including threatened and endangered species. Miami-Dade County has continued to request comprehensive, seasonal studies on both wildlife utilization and plant occurrence for the region within and surrounding the proposed locations for the plant and associated nontransmission facilities. Such studies are needed to properly document the use and value of the habitat in order to understand the potential impacts of the proposed project on flora and fauna of the region. Miami-Dade County notes that FPL has continued to dismiss the County's request for comprehensive information for flora and fauna, including seasonal utilization, or any other 9 information resulting from a Comprehensive Environmental Impact Statement based upon FPL's assertion that the request is procedural in nature. However, Miami-Dade County reiterates that the information regarding flora and fauna including seasonal variations is required to evaluate this project for conformance with nonprocedural requirements of Miami-Dade County. Miami-Dade County acknowledges the additional information provided by FPL in its completeness responses related to this issue; however, the information remains incomplete. Without the requested information, Miami-Dade County is unable to determine whether the proposed plant and associated non-transmission facilities meet the requirements of Chapter 24 of the Miami-Dade Code and the CDMP, and is unable to prepare the reports required by Section 403.526, F.S.

FPL's response also remains incomplete because: 1) Some of the reports cited in FPL's response were missing from the provided CD or were corrupt/unable to be opened, and 2) the requested seasonally-based biological survey for the proposed plant site was not included in the reports that were provided.

FPL shall provide readable copies of:

- Final Environmental Impact Statement Related to Operation of Turkey Point Plant, Dockets No. 50-250 and 50-251, Washington D.C. (US Atomic Energy Commission, 1972) [File name: Final EIS Turkey Point 1972.pdf]*
- Turkey Point Expansion Project SCA (FPL, 2003) [File name: Volume 3.pdf]*

None of the provided reports that were readable contained information on seasonal vegetation shifts for the Units 6 and 7 plant site that might provide an identity for the vegetation that was the source of the observed flush and/or information on seasonal faunal utilization that might result from such a flush. FPL states in its response that "Short-term flushes of vegetation within the mud flat areas are unable to survive the alteration of hydroperiod and exposure to hypersaline waters, regardless of season." Without a seasonal study, it is speculation that vegetation is unable to survive local conditions. It is an equally plausible hypothesis that the flush of vegetation observed by County staff represents an annual event for vegetation that has

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resistant underground biomass and that this seasonal flush could support use by a variety of other biota, which may include rare, threatened or endangered species.

None of the readable reports provided by FPL included current information on bird utilization of the proposed plant site during the April-June breeding season. County staff observed utilization of the site by juvenile birds, including but not limited to the Wilson's Plover, which is protected by the Migratory Bird Treaty Act, and the Reddish Egret, which is state-listed as Threatened. County staff considers the available habitat potentially suitable for nesting by these and other rare, threatened, and endangered species and requests an appropriate study to determine whether the proposed plant area is being utilized for nesting and if so, by which species.

Miami-Dade County reiterates its request for a seasonally-based biological survey for the proposed facility site that includes, but is not limited to, plant cover, plant species abundance, and utilization by wildlife species including but not limited to birds, insects, fish, reptiles, and amphibians, mammals, and aquatic invertebrates. Wildlife utilization information provided should include but not be limited to behavior, such as but not limited to feeding, roosting, nesting or other breeding behavior, and specific location where the behavior was observed. This information is needed in order to determine the effect of the project on rare, threatened and endangered species as per evaluation factors in Section 24-48.3 of the Miami-Dade Code and relevant policies and objectives in the CDMP.

### RESPONSE:

Regarding readable copies of:

- *Final Environmental Impact Statement Related to Operation of Turkey Point Plant*, Dockets No. 50-250 and 50-251, Washington D.C. (US Atomic Energy Commission, 1972) [File name: *Final EIS Turkey Point 1972.pdf*]
- *Turkey Point Expansion Project SCA* (FPL, 2003) [File name: *Volume 3.pdf*]

Random copies of the CD that were distributed with the 2<sup>nd</sup> Completeness Responses were reviewed and the cited reports were “readable” for every page of the document. FPL is providing additional copies of the files on CD to MDC that have been reviewed.

As stated in the 2<sup>nd</sup> Round Completeness Response (2MDC-A-23) the hydroperiod of the Site and resulting presence or absence of common vegetation such as saltwort (*Batis maritima*), sea oxeye daisies (*Borrchia* spp.), woody glasswort (*Salicornia virginica*), and dwarf glasswort (*Salicornia bigelovii*) is directly related to operation of the existing electrical generating facilities and the cooling canals, not seasonal variations of typical wetland systems. The Site is typically completely inundated much of the year, depending upon the operation of the Turkey Point plant and associated cooling needs. Seasonal studies are not required to conclude that saltwort and glasswort cannot survive extended periods of complete inundation. Nor is a seasonal study required to conclude that sparse vegetation occurs in the mudflat areas when the Site is not inundated. The presence of listed species within the Site has been documented, therefore the purpose of the statement “this seasonal flush could support use by a variety of other biota, which may include rare, threatened or endangered species” is unclear.

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The information provided in the SCA and Completeness Responses includes results of multi-season field surveys, past studies conducted at the Site and surrounding vicinity, anticipated species occurrence based upon availability of suitable habitat, correspondence with the US Fish and Wildlife Service (USFWS), and data from the USFWS, Florida Fish and Wildlife Conservation Commission (FWC), and Florida Natural Areas Inventory (FNAI). The assessment of potential utilization of suitable habitat provides a conservative evaluation of potential listed species occurrence. A summary of surveys conducted at the Site and associated facilities, including source, type of survey, and dates, includes the following:

Source	Type of Survey	Date
Turkey Point Units 6 & 7 SCA and Appendix 10.7.1.3	Field reconnaissance of plant, wildlife, and fish species, including T&E	August 2007, November 2007, June through September 2008
	Reconnaissance – DERM visit	August 2007
	Crocodile nest surveys	Annually - 1978 to present
Threatened and Endangered Species Surveys of Existing Transmission Corridors and Planned Transmission Corridors and Water Pipeline Corridor, Turkey Point Property Associated with Units 6 & 7	T&E species survey (pedestrian/vehicular)	April and June 2008
Threatened and Endangered Fauna Species Survey of Planned Transmission Corridors Levee to Pennsuco and Davis to Miami, Turkey Point Property Associated with Units 6 & 7	T&E wildlife survey (pedestrian/vehicular)	March 2009
Avian Surveys of the Turkey Point Property Associated with Units 6 & 7	Pedestrian and vehicular avian surveys of cooling canal system and spoil disposal areas, Units 6 & 7 Site, proposed nuclear administration/training building and parking area, radial collector well area, water treatment facility area, and portion of the proposed construction access road immediately west of the cooling canal system	March and June 2009
Mammal Trapping and Herpetology Surveys, Turkey Point Property Associated with Units 6 & 7	Small mammal live-trapping; reptile survey (minnow traps, cover boards); reconnaissance	April 2009
Fish Surveys of the Turkey Point Property Associated with Units 6 & 7	Cast net, seine, minnow trap surveys at several locations: cooling canals, mangrove wetlands, access road ditch, return canal, dead-end canal, remnant canals and shallow flats of Units 6 & 7 Site	June 2009
Turkey Point Unit 5 Expansion Project SCA	Field reconnaissance of plant, wildlife, and fish species, including T&E	April, July, and October 2003
Final Environmental Impact Statement Related to Operation of Turkey Point Plant, Dockets No. 50-250 and 50-251, Washington D.C. (US Atomic Energy Commission, 1972)	Turkey Point area - trap sampling and gill netting of fish	August 1970
	Trawl sampling in South Biscayne Bay and Card Sound	October 1970
	Terrestrial ecology surveys	February and May 1972
TP Annual Non-radiological Environmental Monitoring Report 1980	Gill nets and minnow traps in cooling canals, comparison to Biscayne Bay/Card Sound	January through December 1980

Prior to actual commencement of construction, FPL will conduct pre-clearing listed species surveys during the nesting season; if any nests of listed species are observed, construction in those areas will be scheduled outside of the nesting season. The surveys will be conducted in consultation with MDC, along with the FWC and USFWS. FPL will comply with the FWC and USFWS regulations regarding avoidance, minimization, and mitigation of impacts to listed species, including plants that may be found within the area where construction will be undertaken.

Regarding the requested CEIS, FPL reasserts the response submitted in 1<sup>st</sup> Round Completeness (October, 2009). Under the PPSA, the SCA is the procedural vehicle for addressing the applicable

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substantive requirements of the MDC code the procedural requirements of local ordinances are superseded by PPSA procedures and submittal requirements under Section 403.510, F.S. FPL will therefore not prepare a CEIS in support of the SCA.

### 3MDC-A-24 (Third Round)

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03- 45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".**

**FPL shall clarify the statement that "Wetland impacts ... will be mitigated at the Everglades Mitigation Bank, which will include seagrass enhancement/restoration". Are seagrasses being restored in the EMB, or is FPL proposing mitigation other than in kind mitigation for impacts to seagrasses?**

### RESPONSE:

A mosaic of habitats have been and are currently being enhanced within the Everglades Mitigation Bank (EMB), including the creation of seagrass providing Essential Fish Habitat within the eastern coastal area adjacent to Card Sound, reconnection of tidal creeks' freshwater headwaters to benefit hypersaline mangrove parcels, and removal of berms and roads that have isolated parcels of historically contiguous mangrove wetlands. Planned coastal restoration in the EMB includes degrading a bermed area on the eastern side of the Card Sound Canal and connecting it to the eastern coastal area to promote seagrass recruitment. Seagrass within the remnant cooling canals of the Units 6 & 7 Site do not provide the typical ecosystem functions of seagrass communities, primary production and nursery habitat needed to support commercial and recreational fisheries, as they are contained within a closed industrial wastewater treatment facility. Nevertheless, wetland impacts associated with the Units 6 & 7 Site, including seagrasses, will be mitigated through purchase of credits from the EMB.

### 3MDC-A-25 (Third Round)

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03- 45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".**

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Miami-Dade County notes that opportunistic observations should not be the sole basis for a determination of which habitats are utilized by wildlife and which of those habitats are critical to wildlife, including threatened and endangered species. Miami-Dade County has continued to request comprehensive, seasonal studies on both wildlife utilization and plant occurrence for the region within and surrounding the proposed locations for the plant and associated nontransmission facilities. Such studies are needed to properly document the use and value of the habitat in order to understand the potential impacts of the proposed project on flora and fauna of the region. Miami-Dade County notes that FPL has continued to dismiss the County's request for comprehensive information for flora and fauna, including seasonal utilization, or any other information resulting from a Comprehensive Environmental Impact Statement based upon FPL's assertion that the request is procedural in nature. However, Miami-Dade County reiterates that the information regarding flora and fauna including seasonal variations is required to evaluate this project for conformance with nonprocedural requirements of Miami-Dade County. Miami-Dade County acknowledges the additional information provided by FPL in its completeness responses related to this issue; however, the information remains incomplete. Without the requested information, Miami-Dade County is unable to determine whether the proposed plant and associated non-transmission facilities meet the requirements of Chapter 24 of the Miami-Dade Code and the CDMP, and is unable to prepare the reports required by Section 403.526, F.S.

In addition, no information or data have been provided in support of FPL's statement that the southern shoreline of Biscayne Bay provides adequate shorebird habitat at low tide. The shoreline of Biscayne Bay is mostly mangroves, and very few exposed mudflats exist in the area other than the proposed development site. Clarification of this statement is also necessary. Is FPL suggesting that the shoreline habitat along Biscayne Bay is adequate to mitigate the loss of the mudflat habitat proposed for development for the numerous species of shorebirds that utilize the development site? Information is also required in support of FPL's statements that "the impact to the artificial mudflat habitat associated with Units 6 & 7 is not anticipated to result in significant adverse impact to shorebirds". In just one field visit with FPL, staff documented more than 15 species of shorebird including Long Billed Curlew, Whimbrel, American Avocet and Wilson's Plover. In addition, juvenile Wilson's Plover and Reddish Egret (a wading bird that is a listed species of special concern), were also observed, which may indicate that nesting occurs on site. Documentation of all shorebird species at the site, including any nesting species, is important and required to *evaluate* the proposed mitigation including whether it adequately offsets the loss of what appears may be significant shorebird habitat.

Miami-Dade County also reiterates its request for FPL to provide equivalent information for the other components of the project as well as an "in-kind" mitigation component to compensate for the proposed loss of shorebird habitat currently being provided at the site. Furthermore, we note that creation of this in-kind habitat would not necessarily require impact to other sensitive environmental resources in the vicinity. For example, former agricultural lands now dominated by species such as Brazilian pepper and owned by FPL could be appropriate for this type of mitigation as shore bird habitat need not be located directly along the shoreline.

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### RESPONSE:

Question 2MDC-A-25 requested information regarding the use of saline mitigation credits from the EMB and “in-kind” mitigation for shorebird habitat. The second paragraph of this question appears to request the same information as 3MDC-A-23; please see Response 3MDC-A-23 above.

Regarding the requested CEIS, FPL reasserts the response contained in our 1<sup>st</sup> Round Plant and non-Transmission response (October, 2009). Under the PPSA, the SCA is the procedural vehicle for addressing the applicable substantive requirements of the MDC code the procedural requirements of local ordinances are superseded by PPSA procedures and submittal requirements under Section 403.510, F.S. FPL will therefore not prepare a CEIS in support of the SCA.

As to the adopted non-procedural requirements, as stated in the SCA, the potential for threatened and endangered species occurrence is based upon evaluation of the availability of suitable habitat, field surveys, previous studies, agency consultation, and data from the USFWS, FWC, and FNAI, and not upon “opportunistic observations.” FPL has provided a thorough analysis of the potential utilization of the Site and associated facilities by threatened and endangered species, based upon presence of habitat, field surveys, agency consultation, and over three decades of data collected at the Turkey Point plant.

Information to support the statement “the impact to the artificial mudflat habitat associated with Units 6 & 7 is not anticipated to result in significant adverse impact to shorebirds” includes the following:

- No loss of individual shore birds will occur as a result of construction at the Site;
- No nesting has been observed at the Site;
- Pre-clearing listed species surveys during the nesting season will be conducted; if any nests are observed, construction will be scheduled in those areas outside of the nesting season;
- The regional population of shorebirds is not dependent upon the industrial wastewater treatment system at Turkey Point;
- Large areas of sparsely-vegetated habitat with exposed substrate occur east of the cooling canal system that will not be disturbed by the Project; and
- While the majority of the coastline of Biscayne Bay supports mangroves, areas that provide exposed substrate (mudflat) habitat at low tide occur in close proximity to the Site, directly east of the Scout Lagoon area and adjacent to Card Sound where mitigation was performed for Unit 5.

While shorebird habitat mitigation is not required, FPL will work with MDC and other interested agencies to explore development of additional regional shorebird habitat on available lands owned by FPL.

### 3MDC-A-26-1 (Third Round)

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time**

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frames prescribed in the "Fifth Revised Schedule for *Review* of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03- 45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".

**FPL's response is not adequate. All of the requested information is necessary including but not limited to that information sufficient to determine whether the spoil to be stockpiled as depicted in Figure 5.1-1 meets the definition of clean fill of Chapter 24 of the Code of Miami-Dade County. Also please provide an aerial view of the cooling canals identifying those areas used by crocodiles for ingress and egress to the CCS and the surrounding areas including but not limited to the C-107 canal; please include all supporting data and documentation relied upon in the identification of these ingress and egress areas.**

**Please also see MDC's response MDC-G-46**

### **RESPONSE:**

All spoils material to be stored will meet the definition of *clean fill* in Chapter 24. Chapter 24-5, MDC Code defines *Clean Fill* as "Clean fill shall mean material consisting of soil, rock, earth, marl, clay stone and/or concrete rubble." As described in Response -G-46 below, FPL will continue to work with MDC on the details of the earthwork and materials management plan.

Ingress/egress points utilized by crocodiles are clearly evident in the field through the resulting tail drags; locations are illustrated in the attached Figure 3MDC-A-26-1 on CD #1 at 3MDC-A-26-1. These crossing points have been documented by FPL biologists during crocodile monitoring efforts over the past 3 decades. As previously stated, the spoil disposal areas shown in SCA Figure 5.1.1 have been selected to avoid crocodile ingress/egress areas.

Note: FPL is not filling wetlands with spoils material. Best management practices (BMPs) are in place to prevent slumping and runoff. Spoils will not be deposited in identified crocodile ingress and egress areas.

With respect to satisfaction of Conditions 7 and 14 of the Zoning Resolution, FPL recognizes that the zoning approval is an independent authorization and that the conditions of zoning are independent requirements. FPL is committed to satisfying all conditions of zoning. FPL has met with the County and agreed to a submittal framework through which this zoning Condition, and the remainder of the conditions, will be addressed such that the County can determine the application complete and prepare an agency report addressing which conditions are satisfied and which conditions remain to be satisfied post-certification, during construction or during the operation of the Project.

### **3MDC-A-26-2 (Third Round)**

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application**

for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03- 45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".

The FPL Turkey Point Threatened and Endangered Species Evaluation and Management Plan, submitted as part of the SCA (Appendix 10.7.1.3), continues to fail to fulfill the requirements of Condition 2 of MDC Zoning Resolution Z-56-07 nor is it consistent with either Chapter 24 of the Miami-Dade Code or the Miami-Dade County CDMP. Sections 24-48, 24-49 and 24-50 of the Code of Miami-Dade County relate to the preservation and protection of the County's natural resources including but not limited to wetlands, trees, Natural Forest Communities (NFCs), Environmentally Endangered Lands (EELs) and rare, threatened and endangered species. Similarly, Objective CM-1, Policy CM-1 E, Objective CM-4, Policy CM-4A, Policy, Objective CON-7 Policy CON-7A, Objective CON-9, Policy CON-9A, Policy CON-98, Policy CON-9C and Policy LU38, of the County's CDMP require the protection of these natural resources.

The information presented in FPL's Second Completeness Response fails to adequately address comments raised by Miami-Dade County in its second completeness review. Miami-Dade County has concluded from the response that FPL may misunderstand the purpose of the threatened or endangered species management plan required under Condition 2 of Z-56-07 and hereby provides clarification. The intent of this plan is to provide sufficient information for Miami-Dade County to determine whether the proposed project, including ancillary non-transmission facilities, meets the substantive requirements of Chapter 24 of the Miami-Dade Code and the CDMP. FPL has submitted a plan, however, that only covers the "area within which nonlinear project facilities will be constructed and operated, which encompasses the 365-acre Project site where Units 6 and 7 will be located". In addition, FPL has provided information that was primarily gathered from existing sources, when Miami-Dade County has been clear in its request for seasonally-based studies that thoroughly document occurrence of flora and fauna, including listed species of plants and animals, within and adjacent to the proposed plant site. These seasonally-based studies must also document utilization by flora and fauna of habitats found within and adjacent to the proposed plant site and associated non-transmission facilities. Such information is needed to evaluate the short and long-term impacts of the proposed plant and associated non-transmission facilities and determine whether the proposed plant and associated non-transmission facilities are consistent with the requirements of Chapter 24 of the Miami-Dade Code or the Miami-Dade County CDMP.

Examples of more specific deficiencies in the information provided by FPL include, but are not limited to the following: FPL states in its response that "Indirect impacts of construction, such as noise, may potentially reduce the nesting suitability of the berms directly adjacent to Units 6 & 7." FPL shall clarify whether the proposed impacts to this nesting habitat would result in potential abandonment of the significant crocodile nesting area shown in Figure 5 of Appendix 10.7.1.3 as located immediately south of the proposed development site. Please provide information as to the location and nature of any specific project/s proposed to mitigate indirect impacts to crocodile nesting habitat as a result of this project. Please also explain how these mitigation projects will be distinguished from mitigation projects proposed for impacts to crocodile habitat as a result of the Units 3 & 4 Uprate project. FPL has stated that "The primary cooling water intake for Units 6 & 7 will be located within the makeup water reservoir; therefore entrainment of any biota is extremely unlikely" but FPL has failed to provide information on how biota will be kept out of the makeup water reservoir, which is a freshwater pool situated within one of the richest wetland systems in the County. Elevation of the reservoir

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will not be a deterrent for crocodile or other wildlife access, and this freshwater pool will likely support biota within a short period of operation. FPL shall provide information on how FPL will address possible entrainment of crocodiles and other wildlife in the intakes for the new plants. FPL's information on the Florida panther is incomplete because it only takes into account Florida panther occurrence data within 2 miles of the proposed access road network. Florida panthers are known to travel at least 5 miles in a day, and have a home range of more than 100 square miles. FPL shall provide all available Florida panther occurrence information within a minimum of 10 miles of the proposed plant and access road network and, given that there have been 2 such documented occurrences within the past 3 years plus several recent anecdotal occurrences, shall provide an assessment of the likelihood that a Florida panther that is neither radio-collared nor microchipped (i.e. undocumented, untracked) could reappear within 10 miles of the proposed plant site (including non-transmission linear facilities) during the construction phase of the project. FPL states that "The roadways are not intended to be used as or to become major public thoroughfares comparable to heavily traveled highways passing through occupied panther habitats, such as 1-75 in Collier County" but has not provided specific information on how public access to the proposed access roads will be restricted. FPL states that "speed limits will be set to minimize the likelihood of future panther collisions with motor vehicles" but the information is incomplete because FPL does not provide information on what speed limits will be used or how speed limits on the proposed access roads will be enforced. FPL states that "Recent observations of Eastern indigo snakes have occurred within upland areas of the Everglades Mitigation Bank ... " and "The proposed roadway improvements are primarily surrounded by freshwater marsh wetlands, and will not result in significant impacts to upland habitats preferred by the Eastern indigo snake." The information is incomplete because it inaccurately assesses the area through which the proposed access roads will travel. Miami-Dade County staff experience indicates that the proposed construction access roads will traverse a complex of upland and wetland habitats similar to those in the Everglades Mitigation Bank where the Eastern indigo snake has already been documented. FPL shall provide a corrected analysis of the likelihood for Eastern indigo snake occurrence in this region, including the results of a detailed survey for Eastern indigo snake burrows along the proposed access corridor and adjacent and interconnecting upland road corridors, along with information on what protective measures will be taken once the proposed construction access roads are operational to limit Eastern indigo snake mortality. FPL has also failed to provide detailed information on how potential impacts will be addressed for other federally and state-listed species (including plants) that could potentially be encountered during construction or operation of the facilities, including the proposed access roads. FPL has provided documented occurrence data for federally and state-listed species (including plants), other than crocodiles, that is primarily derived from outside sources and has failed to provide the requested flora and fauna studies that would address the likelihood that these species may be encountered where similar habitat types occur within the proposed site for the plant and associated facilities. This information is needed to determine whether this project is consistent with Chapter 24 of the Miami-Dade Code and relevant objectives and policies of Miami-Dade County's Comprehensive Development Master Plan that protect critical habitat for endangered or threatened species.

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### RESPONSE:

The scope of the FPL Units 6 & 7 Threatened and Endangered Species Evaluation and Management Plan (SCA Appendix 10.7.1.3) is not limited to the Site, but includes the associated linear and non-linear facilities.

The information provided in the SCA and Completeness Responses includes results of multi-season field surveys, past studies conducted at the Site and surrounding vicinity, anticipated species occurrence based upon availability of suitable habitat, correspondence with the USFWS, and data from the USFWS, FWC, and FNAI. The assessment of potential utilization of suitable habitat provides a conservative evaluation of potential listed species occurrence.

With regards to the crocodile, the indirect impact of construction noise may reduce the suitability of berms directly adjacent to the Units 6 & 7 Site for crocodile nesting. FPL will create additional nesting habitat both within and adjacent to the industrial wastewater treatment system to mitigate for this potential indirect impact. As described in SCA Appendix 10.7.1.3 and the previous response (2-MDC-A-26-2), crocodile habitat enhancement activities within the industrial wastewater treatment system include substrate enhancement activities upon selected berms that have not historically supported crocodile nesting due to lack of preferred soil conditions, creation of additional juvenile freshwater refugia areas upon selected berms, and vegetative restoration. The location of proposed crocodile habitat creation adjacent to the industrial wastewater treatment facility was provided in SCA Appendix 10.4, Section 2, Attachment E, Figure 18. The area will be restored following the design of the successful crocodile sanctuary constructed immediately south of the industrial cooling canal system (see SCA Appendix 10.4, Section 2, Attachment E, Appendix C, Photographs 2 and 3). The proposed creation of additional crocodile nesting habitat within or adjacent to the industrial wastewater treatment system is not associated with the Units 3 & 4 Uprate Project.

With regards to the potential for entrainment of crocodiles associated with the makeup water reservoir, the potential for a crocodile to access the cooling tower reservoir is very low. FPL disagrees with the statement “elevation of the reservoir will not be a deterrent for crocodile or other wildlife access.” To access the reservoir, a crocodile would have to scale a 20-24 foot vertical wall or cross a bridge to the Site. It is highly unlikely that crocodiles would be attracted to an elevated, paved, active industrial site. The screened intake structures will be located within the makeup water reservoir and with an anticipated typical average intake velocity of 0.15 ft/second (1.5 ft/second maximum) make it extremely unlikely that any entrainment of biota would occur.

MDC can access all available Florida panther occurrence information within the State through the FWC. FPL has utilized this data in preparation of the attached report (*Estimated Impacts to the Florida Panther Habitat Turkey Point Units 6 & 7 Project*) on CD#1 at 3MDC-A-26-2. Please see SCA Appendix 10.7.1.3, Figure 10, which identifies all panther telemetry data from 1981 to 2008 within >10 miles of the Project. Due to the location of the Site and associated non-transmission facilities outside of the panther consultation area with the exception of a portion of the temporary construction access roadway improvements, coupled with the increase in development associated with Homestead and Florida City since the last telemetry points were recorded within the vicinity of the Site and associated non-transmission facilities (1988), it is unlikely that panthers would reappear within the area during construction. As previously stated, FPL will enforce speed limits of 45 MPH upon the temporary construction access roads to reduce the potential of impacts to panthers, based on consultation with FWC.

# EXHIBIT 23

July 2010

MIAMI-DADE COUNTY

0938-7652

## 3<sup>RD</sup> ROUND PLANT AND NON-TRANSMISSION COMPLETENESS RESPONSES FPL-TURKEY POINT UNITS 6 & 7 SITE CERTIFICATION APPLICATION

FPL will comply with the USFWS Standard Protection Measures for the Eastern Indigo Snake to avoid any adverse impacts to Eastern Indigo snakes. As previously stated, FPL will conduct pre-clearing listed species surveys following selection of final rights-of-way for associated linear facilities, to include the requested Eastern indigo snake survey. The surveys will be conducted in consultation with the FWC and USFWS, and results will be forwarded to MDC. FPL will comply with agency regulations regarding avoidance, minimization, and mitigation of impacts to listed species, including plants. Please also see Response 3MDC-D-21 below.

### **3MDC-A-27 (Third Round)**

Please see MDC response MDC-A-26-1 (Third Round)

#### **RESPONSE:**

Please see Response 3MDC-A-26-1 above.

### **3MDC-A-29 (Third Round)**

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".**

Please also see MDC response MDC-A-26-2 (Third Round).

#### **RESPONSE:**

Please see Response 3MDC-A-26-2 above.

### **3MDC-A-30 (Third Round)**

**Miami-Dade County acknowledges receipt of the requested reports. Please see MDC's responses MDC-A-23 (Third Round) and MDC-A-26(b) (Third Round).**

#### **RESPONSE:**

Please see Responses 3MDC-A-23 and 3MDC-A-26-1 above.

### **3MDC-A-31 (Third Round)**

**This item remains incomplete. Historical data indicate that manatees are found in the Turkey Point area and utilize this area for a number of behaviors. A reference in the FPL response states that the existing "Manatee Protection Plan for the Turkey Point Power Plant" will continue to be used during the operational phase of the facility; however, this plan was not**

provided for review. Furthermore, it is not clear from the application whether the construction of the barge unloading area is proposed to include the required fendering system for barges over 100 feet in length, which provide at least 4 feet of standoff from the bulkhead under maximum compression. Based on the information that has been provided, it appears that large barges with potentially deeper drafts will be utilizing this mooring area, as well as the access channel into the barge turning basin. FPL shall provide information regarding the size of the barges and tugs including length, beam and draft of the vessels and barges that will be utilizing the facility in order for the agencies to be able to determine whether there will be adequate clearance between the vessels and the bay bottom.

**RESPONSE:**

The previous response included a reference to the location of the FPL Turkey Point Units 6 & 7 Project Manatee Protection Plan (SCA Appendix 10.7.1.2), and also attached the Plan. Please revisit the SCA 2<sup>nd</sup> Round Plant and non-Transmission Completeness Round Part A (April 2010) CD No. 1, where this was included as attachment 2MDC-A-31-2 at Attachments\2nd Round Attachments\Attachment 2MDC-A-31-2\_MDC\_manatee\_protection\_plan.pdf. The Plan is consistent with the FWC's Standard Manatee Conditions for In-Water Work (2009).

The final design for construction of the barge unloading areas will include the proposed fendering system for barges over 100 feet in length, to provide at least 4 feet of standoff from the bulkhead under maximum compression.

Please see SCA Appendix 10.7.1.2 for information regarding the maximum length, beam, and draft of the barges that will be utilizing the equipment barge unloading facility for equipment delivery. The maximum size barge for equipment delivery will not exceed the typical dimensions for the existing oil barges servicing the plant (230 feet long by 55 feet wide with a maximum draft of 6.5 feet).

**3MDC-A-32 (Third Round)**

Please see MDC's response MDC-A-33 (Third Round)

**RESPONSE:**

Please see Response 3MDC-A-33 below.

**3MDC-A-33 (Third Round)**

This item remains incomplete. FPL has identified that benthic resources, specifically *Halodule wrightii*, is located within the turning basin at a density of 5 to 10 %, over area equal to 0.002 acres. Furthermore, FPL has indicated that no additional mitigation will be provided to offset the dredging of this area of seagrasses. It is not clear from this statement whether or not mitigation has already been proposed for the dredging of the turning basin or this statement is referring to other mitigation being proposed for the Units 6 & 7 project. The MDC Code requires that mitigation be provided for all unavoidable adverse environmental impacts. DERM requires mitigation for the dredging of vegetated and unvegetated substrate, as well as mitigation for potential water quality impacts. Although FPL has indicated that they will be using BMPs to help alleviate secondary impacts to resources, FPL shall identify appropriate

**mitigation for the direct impacts to both the vegetated and unvegetated benthic communities associated with the dredging of the tidal substrate in the turning basin.**

**RESPONSE:**

The existing FPL Turkey Point turning basin was authorized under U.S. Army Corps of Engineers Permit 79\*-0146, and DER Permit No. DF-13-16293 (March, 1979). Dredging within the permitted basin qualifies for an exemption under 403.813(1), F.S. and 62-312.050, F.A.C., performance of maintenance dredging of existing manmade canals, channels, basins, berths, and intake and discharge structures. No mitigation is proposed in association with dredging of approximately 0.1 acre within the existing basin. Expansion of the equipment barge unloading area will involve excavation of adjacent uplands, which will increase the area of tidal substrate in the turning basin, which may also provide areas of substrate for colonization by seagrasses.

**SECTION B - WASTEWATER REUSE**

**3MDC-B-2 (Third Round)**

**FPL's response is incomplete and does not demonstrate that the proposed alignment adequately avoids or minimizes wetland impacts. For purposes of clarification, Miami-Dade County is not suggesting the removal of SW 107 Avenue and also is not suggesting that the work should be conducted outside the ROW, rather that temporary impacts to the public ROW may be appropriate if the large amount of impacts proposed to mangrove wetlands can be reduced. Elimination of avoidable impacts and minimization of unavoidable impacts are important regulatory requirements where large amounts of mangrove wetland impacts are proposed. Chapter 24-48.4 Miami-Dade Code requires projects to maximize preservation of existing natural resources. The proposed route is described by FPL as the "least environmentally damaging alternative". However, information is needed to support this assertion since there is neither presentation nor discussion of how the proposed route maximizes preservation of existing wetlands resources, when compared with potential alternatives located west of jurisdictional wetlands in areas south of the C-102 Canal. The routes evaluated as shown in Figure SCA P9.0.9-3 are all in areas with little or no wetlands north of the C-102 Canal, however, similar alternatives do not appear to be considered in the large wetland expanses south of SW 256 Street. Information is needed on the locations and environmental impacts for these alternatives, including an explanation and documentation that demonstrates how the selected route "is the least environmentally damaging" alignment in the area south of SW 256 Street.**

**FPL shall also clarify the accuracy of the following statement "This co-location avoids the impacts of developing a new route for this linear facility", in light of the fact that a new route is required for the area north of the C-102 Canal in any case. FPL should also explain why this would be preferable since as a consequence of co-locating south of this canal, excavation of a 75 foot wide trench through mangrove wetlands would be required through much if not the entire portion of the co-located alignment along more than 5 miles of the corridor. Information is also needed in support of the stated 75 foot excavation width and whether the proposed alignment would minimize wetland impacts within the existing transmission corridor. Is the same width required in the upland areas and/or in public ROW or does this estimate apply only to work in wetlands within the transmission corridor? An explanation shall also be provided to explain whether the impact width can be reduced through construction practices such as sheet pile**

**containment which have been used successfully in sensitive environmental areas with other pipeline projects in Miami-Dade County. In addition, information is needed to describe the improvements to sheet flow across this corridor that would be necessary pursuant to condition 17 of Z-56-07. Per this condition, proposed upgrades within the transmission corridor shall not impede the flow of ground or surface water.**

**RESPONSE:**

The proposed route south of SW 256<sup>th</sup> Street allows for use of the existing, previously disturbed upland transmission line patrol road for installation of the pipeline, thus avoiding and minimizing impacts to wetlands as well as avoiding impacts to public rights-of-way. As explained previously, the public right-of-way along SW 107<sup>th</sup> Avenue is approximately 50 feet in width, with approximately 24 feet occupied by the existing roadway. There is insufficient area to allow installation of the reclaimed water pipeline within the public right-of-way without removal of SW 107<sup>th</sup> Avenue. Work outside of the SW 107<sup>th</sup> Avenue right-of-way would impact adjacent ditches and wetlands, which occur along the entire length of the roadway. Utilization of the SW 107<sup>th</sup> Avenue right-of-way would also increase the total length of pipeline installation, thereby potentially increasing the total area of impact.

The installation of the reclaimed water pipeline will not involve excavation of a 75-foot wide trench. The temporary construction area will require a maximum width of 75 feet, while the actual excavation will be approximately 28 feet in width as illustrated in SCA Figure P9.3.2-3. It should be noted that the 28 foot wide excavation will include approximately 16 feet of existing transmission access road, while the remaining 12 feet will be adjacent to the proposed FGT Phase VIII Expansion Project. Thus, the proposed route within the transmission line right-of-way will utilize previously-disturbed areas to the greatest extent practicable.

Temporary wetland impacts resulting from pipeline installation will be mitigated through restoration of the excavated trench with native wetland soils to allow the natural regeneration of the vegetative community. Additional mitigation to offset time lag and risk factors associated with in-situ restoration of temporary wetland impacts will be provided, as stated previously in 2<sup>nd</sup> Round Plant and non-Transmission Response 2MDC-G-18. The restoration of temporarily impacted wetlands will result in no net loss of wetland acreage or wetland functions following pipeline installation.

The statement that “co-location avoids the impacts of developing a new route for this linear facility” refers to the decreased impact associated with placing a pipeline underneath or adjacent to an existing linear facility when compared to a new “cross-country” route. The statement is valid for the area north of the C-102 Canal, where the pipeline will be co-located with existing roadways.

FPL will evaluate the potential for use of sheet pile containment or trench boxes in order to reduce the width of disturbance within wetlands, as requested. Regarding Condition 17, the installation of an underground reclaimed water pipeline will not impede the sheetflow.

**3MDC-B-3 (Third Round**

**The references to information in the FDEP and SFWMD completeness responses are acknowledged, however, the information remains incomplete. In addition, FPL must provide further clarification. FPL states in FDEP-II-B-85 that the area where the potential impact from deposition to freshwater vegetation is greatest is the area west of the L-31 E Canal. FPL**

**concludes that no adverse impacts to the wetland vegetation will occur in this area as these species are salt tolerant. However, much of this area is dominated by freshwater species such as sawgrass which have only limited salt tolerance in comparison to other species present in the area such as buttonwood. In addition, the sawgrass in the area of potential impact is likely already under stress, and may not be able to tolerate additional chronic stress from airborne deposition. Miami-Dade County field staff have observed for many years that the sawgrass in this region is more sparse and lower in stature than other freshwater wetlands either farther west or farther south. FPL must provide a revised analysis based on an assessment of the current vegetation in the area of potential impact, the current physiological condition of that vegetation, and testing to determine the limits of tolerance of the current vegetation for aerial deposition of total dissolved solids similar in composition to that projected for the radial-collector- wells-saltwater scenario.**

**The summary of FPL's analysis in FDEP-II-B-53 appears to indicate that total dissolved solids (TDS) under the predicted radial-collector-wells-saltwater scenario would increase in this area about 47% over natural atmospheric background deposition levels. Given the projection of elevated levels of TDS and chlorides in this area, it is not at all clear that the receiving waters would continue to meet the standards contained within Section 24-42(4) of the Miami-Dade County Environmental Protection Ordinance or whether the projected increase in TDS or chlorides would cause prohibited water pollution as defined in Section 24-5 of the aforementioned ordinance. In addition, it is not clear that species such as sawgrass could persist in these freshwater wetlands under such conditions. FPL must provide sufficient information to demonstrate that applicable standards will be met by the operation of the cooling towers, including Miami-Dade County numeric and narrative standards.**

#### **RESPONSE:**

FPL met with MDC Director of Planning and Zoning on June 7, 2010. In that meeting the respective positions regarding the status of ancillary facilities in general, and the reclaimed water treatment facility specifically, were discussed. The Director indicated that he had yet to make a formal determination. FPL offers the following for consideration, and maintains that the FPL reclaimed water treatment facility is an ancillary facility of the power plant and that Zoning Resolution Z-07-207 provides the necessary approvals.

FPL has already provided information demonstrating that deposition associated with cooling tower operation will not adversely affect water quality or vegetation in the area west of the L-31E Canal referenced in the above comment. While the deposition rate resulting from operation of the Project cooling towers is projected to increase in the area west of the L-31E Canal, the resulting increase in the concentration of TDS in those areas due to the Project is predicted to be very low, resulting in negligible impacts to vegetation in that area. The information provided in 1st Round Plant and non-Transmission Completeness Response FDEP-II-B-85 recognized that sawgrass was located west of the L-31E Canal. This area is comprised of sawgrass marsh with strands of forested wetlands classified as mixed wetland hardwoods that are comprised of a variety of native and exotic canopy species, including buttonwood, Australian pine, cocoplum, red mangrove, Brazilian pepper, and cabbage palm. The conclusion that the species in this area would not be adversely impacted was based on the predicted concentrations provided in the completeness responses (FDEP-II-B-53) and the overall salt tolerance of the species located in this area.

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## 3<sup>RD</sup> ROUND PLANT AND NON-TRANSMISSION COMPLETENESS RESPONSES FPL-TURKEY POINT UNITS 6 & 7 SITE CERTIFICATION APPLICATION

While 1<sup>st</sup> Round Completeness Response FDEP-II-B-53 (October 2009) provides a predicted deposition rate increase above the conservative background deposition rate, the resultant concentration of increased TDS is over two orders of magnitude lower than the existing TDS concentration in the surface waters in the area west of the L-31E Canal. Specifically the information supplied with Response FDEP-II-B-53 demonstrated that the average resultant increase in TDS concentration from Project-related atmospheric deposition (drift deposition and rainfall) when using saltwater for Plant cooling would be 0.84 milligram per liter (mg/L) in this area. By comparison, SFWMD-collected data on existing TDS concentrations in surface water in this same area range from 200 to 271 mg/L. Similarly, available water quality data for the Florida City Canal has ranges in average salinity from 0.28 practical salinity units (PSU) at a station near U.S. Highway 1 to 0.32 PSU at a station nearer to Biscayne Bay, with the average estimated TDS between 280 and 320 mg/L at these stations. The TDS concentrations resulting from project-related salt deposition when using saltwater for Plant cooling therefore would not be distinguishable from the ambient ranges currently observed in this area west of the L-31E Canal. When the plant uses reclaimed water (the primary source of cooling water) the Project-related predicted increase in TDS in surface waters in this area will be 12.5 times lower than the predicted increase in TDS when saltwater is used for cooling in the Project.

In addition, the background deposition rate of 4.5 kilograms per hectare per month (kg/ha/month) used for comparison is for an inland site located near the northern portion of the Everglades National Park and obtained from Florida Acid Deposition Study (FADS) (Florida Electric Power Coordinating Group, Inc., 1986). As discussed in SCA Section 6.1.4, (Rev. 0) the background deposition rate of TDS in southern Florida ranges from 4 to 6 kg/ha/month. Areas near the coast, like the Turkey Point Plant property, experience deposition at the higher end of this range due to the marine environment and predominant southeast trade winds.

It is important to note that the analyses presented in FPL's response to FDEP-II-B-53 and further discussed above, assume that FPL will use saltwater for plant cooling even though saltwater is the backup cooling water supply and would only be used when reclaimed water is not available. , When the plant uses reclaimed water (the primary source of cooling water) the Project-related TDS deposition rate will be approximately two orders of magnitude *below* the natural salt deposition rates

The information provided in response to FPL-II-B-3 and discussed further above demonstrates that the atmospheric deposition resulting from operation of the Project's cooling towers will not contravene any numerical or narrative water quality standards to the extent those standards apply in this context.

### Reference

Florida Electric Power Coordinating Group, Inc. (March 1986). Florida Acid Deposition Study, Final Report: A synthesis of the Florida Acid Deposition Study, Volumes I and II, Tampa, FL.

**With regard to the area immediately east of the cooling canals within Biscayne National Park and/or the Biscayne Bay Aquatic Preserve, FPL's Figure 6.1.4-1 appears to indicate that monthly deposition under the predicted radial-collector-wells-saltwater scenario would range up to about 40 to 80 kg/ha/month in a limited area with typical levels in a larger area similar to natural atmospheric background deposition levels of about 4.5 kg/ha/month. Although the projected amount of deposition in these areas is low relative to existing TDS levels, it does appear to constitute a proposed increase in an area where narrative standards, including anti-**

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## 3<sup>RD</sup> ROUND PLANT AND NON-TRANSMISSION COMPLETENESS RESPONSES FPL-TURKEY POINT UNITS 6 & 7 SITE CERTIFICATION APPLICATION

**degradation standards, apply and where salinities are currently already considered too high. FPL must provide sufficient information to demonstrate that applicable standards will be met by the operation of the cooling towers, including federal, state, and Miami-Dade County numeric and narrative standards.**

### RESPONSE:

The maximum predicted deposition rates outside of the Turkey Point plant property were presented in the SCA, assuming use of saltwater for Plant cooling. This maximum deposition rate was predicted to be approximately 65 kg/ha/month and at the property boundary south of the Turkey Point Units 6 & 7 Site. Similar to the information provided in 1<sup>st</sup> Round Plant and non-Transmission Completeness Responses FDEP-II-B-53 and FDEP-II-B-85, the predicted maximum project-related increase in TDS concentration at this location is 53.4 mg/L. This level of TDS increase is three orders of magnitude lower than the existing TDS concentrations for the surface water of the area where TDS exceeds 20,000 mg/L. This level of project-related deposition is not expected to result in any discernible impact on surface water quality in the area. Moreover, as noted above, the increase in deposition would only occur when the Project is using saltwater, the backup water supply for the circulating water cooling towers. When the Project is using the primary cooling water source, which is reclaimed water, the impacts on TDS in this area will be much lower. Thus, operation of the cooling towers will not contravene any numerical or narrative water quality standards to the extent those standards apply in this context.

Because deposition from the cooling towers is not expected to have any discernible impact on surface waters in the area, no additional analyses are required. Furthermore, atmospheric deposition does not constitute an “activity” or “discharge” subject to anti-degradation or Outstanding Florida Waters (OFW) standards.

**In addition, FPL must provide additional explanation and rationale regarding the calculation of average resultant concentration using annual rainfall data as shown in the tables in FDEP-II-B-53 and B-86. Please explain how this metric is useful in the evaluation of this issue.**

### RESPONSE:

The average resultant predicted TDS concentration (as mg/L) is the appropriate measure of total atmospheric deposition impacts, as it accounts for the atmospheric input of rainfall and can be used as a direct comparison to concentrations in surface waters. As described in the SCA and several completeness responses, the drift particles are aerosols that contain dissolved minerals. The mineral makeup of these aerosols on a weight basis is 5 percent for drift when using saltwater and 0.4 percent when using reclaimed. The remaining portion of the drift aerosol is pure water. The drift particles are eventually deposited on solid surfaces. As the water evaporates, the minerals in the aerosols remain on the solid surfaces. Because the minerals are highly soluble, they are re-dissolved in rainwater during subsequent rainfall events.

**The County does not agree with the assertion made in FPL's 2nd Round Plant and Non Transmission Completeness Responses, that no Unusual Use Approval is necessary for the proposed FPL Wastewater Reuse Plant (reclaimed water treatment facility). Resolution Z-56-07 is to approve a, "nuclear power plant (atomic reactors) and ancillary structures and equipment". The Miami-Dade County Code (Unusual Uses, Section 33-13(e) establishes that a**

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water treatment plant is a land use that shall not be permitted in any district unless approved upon public hearing. Therefore, the proposed reclaimed water treatment facility will require an Unusual Use Zoning Approval. Florida Statute 403.507(3)(a) requires that agencies 'Preliminary Statement of Issues include the following, "A notice of any nonprocedural requirements not specifically listed in the application from which a variance, exemption, exception, or other relief is necessary in order for the proposed electrical power plant to be certified." The County is hereby providing notice to FPL that all information necessary for an Unusual Use review should be supplied to the County at this time, and approval of a wastewater reuse plant as an Unusual Use is necessary prior to certification. This information shall demonstrate whether the proposed reclaimed water treatment facility would adequately avoid or minimize mangrove wetland impacts. FPL shall provide information adequate to determine whether it would be possible to relocate the water treatment facility to an area of lower quality wetlands beyond the CDMP-designated Mangrove Protection Area and/or to an area outside of wetlands jurisdictional to Miami-Dade County. Elimination of avoidable impacts and minimization of unavoidable impacts are important regulatory requirements where large amounts of mangrove wetland impacts are proposed. Chapter 24-48.4 Miami-Dade Code requires projects to maximize preservation of existing natural resources. Sufficient details about potential project impacts are needed to enable Miami-Dade County to evaluate the proposed primary and secondary impacts of the proposed facility for consistency with the aforementioned and other applicable requirements of the Miami-Dade County Code, plus relevant objectives and policies in the CDMP. FPL shall provide all necessary information demonstrating that construction and operation of this proposed facility would meet all requirements of the Z-56-07, Chapter 24 and the CDMP.

### RESPONSE:

As to the assertion that the wastewater treatment facility requires further zoning approvals, FPL responds as follows:

In April of 2009, FPL provided MDC with a list of ancillary facilities included in the SCA, including the proposed reclaimed water treatment facility, and requested concurrence that no additional zoning approvals were needed for these features. We indicated at that time it was our opinion that the water treatment facility was an ancillary feature addressed in the zoning approval through the approval of the Conceptual Site Plan and that no additional zoning approvals were needed for this ancillary facility. This completeness question now suggests that the reclaimed water treatment facility requires zoning approval, specifically, an Unusual Use approval by the Board of County Commissioners, because it was not approved at public hearing. We believe it clear that this feature is an ancillary facility authorized at the public hearing approving the Unusual Use in December, 2007 by Resolution Z-56-07 ("2007 Resolution").

The 2007 Resolution approved an unusual use for "a nuclear power plant (atomic reactors) and ancillary structures and equipment". The approved Conceptual Site Plan (FPL Turkey Point Public Hearing Application Detailed Operating Facility Plan, July 2007) specifically identified "Utility/waste stream/ storm systems", among other ancillary facilities, as required "Support Facilities".

Condition 5 of the Unusual Use approval specifically required the use of reclaimed water to the maximum extent possible. The Reclaimed water Treatment facility is needed to provide final treatment or "polishing" of the reclaimed water to be delivered to the site in order to maximize its use. The utility structures needed to polish the delivered reclaimed water to make it possible for use are

logical if not obvious “ancillary structures”, given the zoning approvals *requirements* regarding use of reclaimed water.

FPL and MDC are scheduled to go to the MDC Board of County Commissioners with our reclaimed water agreement. The utility infrastructure needed to maximize the use of reclaimed water were contemplated as ancillary facilities and approved as such under the 2007 Resolution. For this reason, no amendment to the 2007 Resolution is necessary for the reclaimed water treatment facility.

## SECTION C - RADIAL WELLS

### 3MDC-C-1 (Third Round)

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.**

#### RESPONSE:

Please refer to 2<sup>nd</sup> Round Plant and non-Transmission Completeness Response 2MDC-A-3.

With respect to Condition 4 of the zoning approval, FPL continues to work with the County and other agencies on the assessment of the impacts of operation of the radial collector well system as the backup water supply for Turkey Point Units 6 & 7. The back-up water supply is necessary for reliability of plant operations and allow for use of reclaimed water as a primary makeup water source. FPL designed a cooling water resource plan for the Project that we believe employs the best combination of alternative sources to maximize the use of reclaimed water and minimize impacts to the environment. In doing so, FPL proposes that the plan meets the intent of Condition 4. FPL will work with the County to clarify the language of this condition, if needed.

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

### 2-MDC-C-1 (Second Round)

**A complete hydrologic study is required in order for Miami-Dade County to evaluate the impacts of the proposed project on surface and groundwater in accordance with the substantive requirements of Chapter 24, Miami-Dade County Code, to meet the**

requirements of Z-56-07, and to prepare the reports required by 403.526 F.S. The aquifer performance test was of a narrow scope, was not approved by DERM, does not meet the substantive requirements of DERM and the County Code, and does not allow for an evaluation of the project's impacts. FPL's interpretation of condition 4 of Z-56-07 is incorrect. The purpose of this condition is to prevent negative environmental impacts to surface and groundwater that could be caused by pumping from the Biscayne Aquifer.

#### **1-MDC-C-1 (First Round)**

The land use statement in Appendix 10.5 is inaccurate and sufficient information has not been provided to make a land use/zoning consistency determination. The plant site is located in Environmental Protection Subarea F, and is consistent only if the use is deemed consistent with the goals, objectives and policies of the Comprehensive Development Master Plan (CDMP). Conditions outlined in Zoning Resolution Z-56-07 must be met to achieve land use/zoning consistency. This resolution stated that no water will be withdrawn from the Biscayne Aquifer (Condition 4) and that a hydrologic study (Condition 15) will be performed. The radial well component does not demonstrate consistency with these two conditions; therefore this component will be subject to a land use/zoning consistency determination.

#### **3MDC-C-2 (Third Round)**

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".

#### **RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

With respect to Condition 4 of the zoning approval, FPL continues to work with the County and other agencies on the assessment of the impacts of operation of the radial collector well system as the backup water supply for Turkey Point Units 6 & 7. The back-up water supply is necessary for reliability of plant operations and allow for use of reclaimed water as a primary makeup water source. FPL designed a cooling water resource plan for the Project that we believe employs the best combination of alternative sources to maximize the use of reclaimed water and minimize impacts to

the environment. In doing so, FPL proposes that the plan meets the intent of Condition 4. FPL will work with the County to clarify the language of this condition, if needed.

## **2-MDC-C-2 (second Round)**

**Please see response to MDC-C-1 and MDC-C-24**

## **1-MDC-C-2 (First Round)**

**Application does not adequately demonstrate that the proposed radial collector wells do not violate Condition 4 of Z-56-07 which prohibits withdrawal from the Biscayne Aquifer.**

## **3MDC-C-3 (Third Round)**

**This item remains incomplete and information previously requested still needs to be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.**

## **RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

## **2-MDC-C-3 (Second Round)**

**The requested information is required to evaluate potential impacts of the project and determine if the project can be certified as proposed, or whether modification of the project is necessary for certification. Hydrogeologic information from the area of the proposed radial collector well installation is required to evaluate the potential impact of the project on groundwater, surface water, salt intrusion, movement of the hyper-saline plume associated with the cooling canal system, and to evaluate project related impacts to wetlands resources and Biscayne Bay. Also see comments provided in MDC-C-6.**

## **1-MDC-C-3 (First Round)**

**Adequate hydrogeologic data have not been presented**

### 3MDC-C-4 (Third Round)

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.**

#### RESPONSE:

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

### 2-MDC-C-4 (Second Round)

**The requested information is required to evaluate potential impacts of the project and determine if the project can be certified as proposed, or whether modification of the project is necessary for certification. Site specific aquifer characteristics from the area of the proposed radial collector well installation is required to evaluate the potential impact of the project on groundwater, surface water, salt intrusion, movement of the hyper-saline plume associated with the cooling canal system, and to evaluate potential project related impacts to wetlands resources and Biscayne Bay. Also see comments provided in MDC-C-6.**

### 1-MDC-C-4 (First Round)

**Site specific aquifer characteristics have not been made available.**

### 3MDC-C-5 (Third Round)

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.**

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**RESPONSE:**

Please see 2<sup>nd</sup> Round Completeness Responses 2MDC-C-6 (July 2010) and 2SFWMD-B-3(2) (July 2010).

**2-MDC-C-5 (Second Round)**

Please see comments provided in MDC-C-6.

**1-MDC-C-5 (First Round)**

**Lithologic descriptions are contradictory. The observations from the site subsurface investigation (Section 3.3.2.2) contradict expectations that almost all the water withdrawn by the radial collector wells would be recharged from the Bay (Section 3.3.4.1). Therefore additional information is necessary to evaluate this aspect of the proposal.**

**3MDC-C-6 (Third Round)**

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.**

**With regard to the partial information related to the APT and provided by FPL as part of the second completeness response for this issue, this information should be used to inform the design of the hydrologic study required pursuant to condition 15 of Z-56-07 in order to properly evaluate baseline conditions and the effects of the proposed activities.**

**It should be noted that monitoring data indicate that the lens of fresher groundwater mentioned by FPL in its response (2MDC-C-6-APT-1) may cover an area much greater than the area of the APT on the Turkey Point peninsula. Please provide information on the extent of this fresher water lens and the degree to which it would be drawn into the proposed radial collector wells during pumping.**

**RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

The lens of fresher groundwater that was mentioned in 2<sup>nd</sup> Round Plant and non-Transmission Completeness Response 2MDC-C-6-APT-1 (April 2010) should not extend much past the shoreline of the Turkey Point peninsula because the source of the fresh water is infiltration of rainfall (Fetter, 1994, p.691). FPL is not aware of any monitoring data from the area around the Turkey Point peninsula that indicates the presence of a larger area of fresher groundwater.

#### Reference

Fetter, C. W. (1994) Applied Hydrogeology, Section 9.8.2, 3<sup>rd</sup> ed. MacMillan College Publishing New York, NY.

### **2-MDC-C-6 (Second Round)**

**The information provided is not sufficient for evaluation of the potential impact of the project on groundwater, surface water, salt intrusion, movement of the hyper-saline plume associated with the cooling canal system, and to evaluate potential project related impacts to wetlands resources and Biscayne Bay. Miami-Dade County has determined the results of the APT and the findings of the groundwater modeling report presented as a part of the site certification application (SCA) completeness review to be incomplete. The following subsections will provide further details of the County's review of both the APT results submitted and the groundwater model referenced above:**

#### **Aquifer Performance Test (APT)**

##### *General Overview*

The APT was performed using a vertical well (36 foot open interval), pumping at a rate of approximately 10 million gallons per day (mgd). However, the RWCs are proposed to be horizontal wells pumping at a rate of approximately 100 mgd. There was no discussion in the HDR report explaining how the results will be utilized to scale up for the proposed RCW pumpage. The increase in pumpage for the RCW by tenfold over the APT pumpage would be expected to result in major hydrologic effects. These hydrologic effects were not addressed in the documents provided.

##### *Exploratory Drilling*

The Biscayne Aquifer (BA) is conceptualized based on work completed by the USGS (Cunningham et al, 2009; Renken et al 2008) as a dual porosity aquifer, with stratiform beds of touching vug porosity separated by limestone beds of matrix porosity. The geologic interpretations provided by FPL (HDR 8/19/09, Hydrologic Associates [HAJ, correspondence dated 4/14/09 and 9/16/08) do not appear to adequately describe the complex lithology of the BA. The following is a discussion of the shortcomings found with respect to the exploratory drilling conducted as a part of the APT.

One pilot hole was drilled at monitoring well MW-1 to a depth of 75 It below land surface (bls). The base of the BA was determined by HA to be at 115 bls. The pilot hole should have been drilled to the base of the aquifer for complete lithological determination. The logging activities in the pilot hole included caliper, temperature, gamma, and fluid conductivity. In addition, video surveying was conducted in the pilot hole. Vertical borehole flow meters and a more comprehensive use of borehole fluid conductivity and temperature logs when analyzed with depth have proven to be very

# EXHIBIT 23

July 2010

MIAMI-DADE COUNTY

0938-7652

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useful to determine preferential flow zones in the BA. However, optical borehole imaging is now used instead of video surveying as it is more accurate in defining macroporosity of the BA.

Rock cuttings were used in monitoring wells MW-2 through MW-5 to determine the lithology of the area. It should be noted that preferential flow zones cannot be identified using rock cuttings. The assumption of lithology across the site based on rock cuttings may not be an accurate approach. The boreholes should have been logged to determine the vertical and horizontal extent of the preferential flow zones within the aquifer.

The HDR report describes the lithologic features of the BA as follows:

Fill:	0-9 It thick at Point
Peat:	0 to -5.5 ft NAVD 88
Miami Limestone:	top of unit -4 to -7 ft NAVD 88
Cemented Sand:	top of unit 36 - 43 ft bls and not present at MW-5. Note for Figure 2.11 - thickness of the cemented sand layer: there are not enough data points to assume the contours as indicated in the figure.
Key Largo Limestone:	top of unit -29 - -40 ft NAVD 88 base of unit - 58 feet bls

Lt Gray to white Sandy limestone: no complete description of unit. Report notes that the cuttings were smaller than the shallower facies.

Geophysical logging results: the logs do not appear to adequately describe the complexity of the BA. It is not clear whether the zones indicated by the caliper log are flow zones, or washout due to the drilling. The temperature and conductivity logs should have been more comprehensive. The logs cannot identify preferential flow zones. The lithology described in the HDR report does not reference the 04 and 02 referenced in the HA correspondences.

### *Pilot Hole at Monitoring Well MW-1*

As noted above, issues were noted with the field activities associated with the pilot hole at monitoring MW-1. The casing depth was determined based on a mud loss zone during drilling (25-26 ft bls) where the casing target was set at 22 - 24 It bls. Due to the known complexity of the BA, casing depth based on mud loss may not be the best method to determine casing depth. Based on the above referenced lithology, the casing was set in the Miami Limestone. The target production zone was selected to include the permeable portion of the Miami Limestone, but also the upper portion of the Key Largo Limestone (coralline limestone), with the rationale that this production interval would encompass the potential depth of the RCW laterals. However, this production zone also includes the cemented sand interval (which according to the HDR report indicates that it is discontinuous across the site), the Miami Limestone, and the Key Largo Limestone, which are likely in direct communication with one another.

According to the lithology observed in the rock cuttings described in the HDR report, the cemented sand was only absent at MW-S. Additionally, the lithologies contained in the HA correspondences noted that although the 04 (cemented sand) was observed only at two borings, they attributed the observations due to non-recoveries at most of the cores inspected. Although permeable zones were noted below the 46 It bls interval, these lower intervals were not investigated for potential production zones.

#### *Surface Water and Surficial Aquifer Monitoring Wells*

Only two surface water monitoring points were installed at the site - one at the Industrial Wastewater Facility (IWWF); the other near the mouth of the barge slip. As indicated in prior discussions during meetings with HDR and FPL, more surface water monitoring points were recommended for the APT.

Furthermore, the number, location, and intervals of the monitoring wells for the APT had been discussed with FPL and HDR in previous meetings prior to the performance of the APT. The County's comments do not appear to have been incorporated into the APT field activities. For example, monitoring well MW-S is located north of the dredged barge channel, and is close to the FPL pump operations, and these conditions may have overwhelmed any effects seen by the APT. In addition, most of the monitoring wells utilized for the field activities were completed with open holes from an approximate depth of 22 - 47 It bls. As indicated above, the County does not believe this number, location and intervals are adequate to evaluate the hydrologic behavior of the APT.

#### *Seepage Evaluation*

While seepage meters are well documented for their difficulties, data collected during the APT did not show seepage from the Bay into the subsurface (i.e. BA). Rather, a majority of the seepage meter data indicated seepage from the subsurface into the Bay. However, the seepage issue is not discussed in the report as the data was not interpreted and the results were disqualified. The County finds the absence of the seepage evaluation and discussion as a basis to find the results of the APT to be incomplete. Further investigation is required to address this issue in order to understand and quantify the seepage rate and behavior of the site with respect to the region. At a minimum, the Applicant should meet with the County to discuss the most appropriate approach to determine the seepage occurring in the environment.

#### *Water Quality Sampling*

The limited water quality data provided in the APT indicated no change in the production zone during the field activities. However, the sampling plan utilized and as discussed in prior meetings with HDR and FPL, was not sufficient.

Specifically, samples collected for the Bay at the time intervals of a week prior, Day 1, and Day 7 of the APT may not be adequate to fully capture water quality changes to the bay as a result of the pumping activities. At a minimum, sufficient samples need to be collected to address baseline conditions, conditions during the APT, and conditions after the completion of the APT to determine the time for the system to return to baseline conditions. In addition, the tidal effects were not taken into account during this time period and thus not addressed by the water quality results. For example, salinity data in MW-1 SS shows an increase in salinity after the APT, but given the limited data provided, it is not possible to distinguish the source of the salinity. In addition, no

groundwater samples were collected from the monitoring wells during the conductance of the APT; therefore water quality fluctuations were not captured.

Furthermore, an effort to distinguish the water sources (e.g. Biscayne Bay water versus Biscayne Aquifer) prior to the test was not provided. Based upon review of reports completed by FIU (Stalker et al, 2009), and UM (Swart, 2009), key analyses to distinguish source water was not completed. Although determining source water is not an objective of the report, the water quality does not show any significant fluctuations as a result of the APT, which could indicate water flow to the production well may be primarily BA water. However, the length of time of the APT and the limited parameters do not provide enough data to adequately determine source of water.

#### *APT Data Analysis*

The following are specific comments and inquiries that were compiled with respect to the data presented within the APT Report and at a minimum must be addressed as a part of the application completion review:

- 1.) What was the salinity difference between MW-1 SS and the deep wells?
- 2.) Why is MW-5 water levels significantly different from the other monitoring points towards the end of February?
- 3.) Water Contour maps Figures 5.2 and 5.3 do not seem to match the graph in Figure 5.1 The barge slip would probably have an effect on water levels, so it may not be appropriate to interpret water contours through the slip. Additional monitoring points would be necessary. The contour maps indicate a steep (for south Florida) gradient towards the west, indicating flow towards the west at both high and low tide. This is contradictory to published regional groundwater flows. Is this an effect of the CCS and Industrial waste water facility to the west?
- 4.) Because the open intervals in the MW-1 wells are open to 24 - 60 ft, it may be difficult to assess the vertical hydraulic gradient.
- 5.) Did the rainfall graph include full monitoring period for the report? Even small amounts of precipitation have been shown to affect water levels, which would hamper data interpretation during the APT.
- 6.) It is not clear how tidal effects were accounted for, as there was no documentation provided for the USGS model referenced. Was this corrected solely internally in the Excel spreadsheet? It is not clear either how the Level troll and Aqua troll data were used. The HDR report indicates that there were data adjustment factors added or subtracted to the APT readings. Where was adjustment factor applied? Data was not provided to review. Was the data discrepancy consistent?
- 7.) Results from the USGS model RMSE clearly indicate conditions at MW-5 that would hamper APT result interpretation. Although from Table 5.1 it is not clear how the final R2 is calculated. It would appear that the model fit is most sensitive to barge water level and canal water level.

8.) With respect to the drawdown data, the input files were not provided for review. Turbulent conditions induced by the pumping wells were not addressed. Head losses near the production well as a result of turbulent conditions will result in lower transmissivity (T) estimates.

9.) The water quality graphs (salinity data) provided are too small to read. Linear regression on limited data points is not appropriate. In reference to Graph 6.3, are the fluctuations in salinity at MW-1 DZ Deep and MW-4 before the APT test?

### Groundwater Model

#### *General Overview and Findings*

Based on a review of the groundwater modeling efforts presented in the report prepared by Bechtel Power Corporation (dated October 2009), the County finds the model unacceptable for the evaluation purposes of the radial collector well system and the effect on the surrounding environment.

While a groundwater model was produced and supplied for review, many questions with respect to the manner in which the model was calibrated and the verification process for the simulated results remain. At a minimum, the MODFLOW data files (input and output files) need to be provided for evaluation by the County. The model report only documents the model construction and analysis of the data obtained from the model runs. It is not clear the manner in which the surface waters associated with the simulations were constructed. No mention of a separate surface water module was listed to illustrate the interaction between the bay, canals, and cooling canal system with the groundwater matrix. More importantly, given the questions associated with the characterization of the groundwater and surface water quality, a separate module was not presented in the model to evaluate the solute transport aspect of the simulations. In addition, seepage from the cooling canal system is not sufficiently addressed in this document. The groundwater flow model developed for the project is a steady state, constant density three dimensional representation of the Biscayne aquifer. The model was used to evaluate origin of the water when the proposed radial collector wells are in operation, and the resultant drawdown and velocities at the bay/aquifer interface. The model is comprised of nine layers, representing the Biscayne aquifer. Boundary conditions include river boundaries (cooling canal system (CCS), L- 31E, C-107, Card Sound Canal and Florida City Canal), constant head boundary (Biscayne Bay), recharge boundary (layer 1), ET boundary (layer 1), general head boundary (model sides), and no flow boundary (bottom of model). The radial collector wells (RCWs) were simulated at a pumpage rate of approximately 124 MGD. The following are specific comments and inquiries that were compiled with respect to the data presented within the above referenced report. At a minimum, the following items should be addressed as a part of the completeness review:

1) The cooling canal system (CCS) contains warm, hypersaline water; Biscayne Bay has varying salinity, and the Biscayne Aquifer ranges from fresh to saline salinities in the model domain. Biscayne Bay and the aquifer have salinity temporal and spatial variations. There has been increasing evidence to suggest the CCS is hydrologically

connected to the aquifer. The salinity and temperature of the CCS are significantly greater than the natural salinities in the aquifer and bay, and these will have an effect on the hydrology of the area. All of these hydrologic conditions cannot be simulated by a steady-state constant-density model. The above referenced boundary conditions are not adequate to simulate the complex hydrology of the area.

2) The hydrogeologic framework the model is based on was found to be deficient. The BA is conceptualized as a dual-porosity aquifer; the model assumes equivalent porous media flow regimes. The aquifer contains preferential flow zones and matrix porosity, which will dictate groundwater flow. These zones must be investigated and characterized by appropriate field and geophysical methodologies, and integrated into a model that will be capable of simulating dualporosity flow regimes.

3) The model was developed as a steady state model, and per assumption 3.3.2 it appears that the model was compared to the average of the monthly averages from June and December 2008. The hydrology of the CCS, Aquifer and the Bay have significant temporal differences that will affect sources of water into the RCWs. Average conditions at the start of the wet and dry season are not adequate to assess source water of the RCWs.

4) The model found 97% of water for the RCWs to originate from the Bay. Although model documentation is not clear how this number was obtained, it appears to be an artifact of the model. The Bay is represented by a constant head boundary, with the zone budget analysis (Figure 51) limited to the Bay area itself. The top two hydrostratigraphic units were assigned an anisotropy ratio of 1:1, and assigned therefore a vertical hydraulic conductivity equal to the horizontal hydraulic conductivity, based on model calibration. This is contrary to published data referenced in the model documentation.

5) Biscayne Bay salinity varies temporally as well as spatially, and the Bay ecosystem is extremely sensitive to the changes and timing of salinity. The RCWs at 124 mgd will place significant stress on the aquifer and Bay (see above - model concludes 97% of water for RCWs comes from the Bay). The model assumes Biscayne Bay is a constant head, constant density, and at steady state, therefore it cannot assess the changes in salinity over time and space in the bay as a result of the RCWs.

### Conclusions

Based on the completeness review performed on the results of the APT and the groundwater modeling report provided in the SCA, the County finds the information submitted as being incomplete. With respect to the performance of the APT, the County has determined that the following items must be addressed in order to comply with the completeness determination of this application:

1. The hydrologic effects of increasing the pumpage tenfold *over* the pumping rates utilized during the field activities associated with the APT.

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2. The exploratory drilling activities associated with the lithologic classification of the BA and the identification of preferential flow zones within the subsurface need to be performed to address the shortcomings noted in the APT.
3. The inclusion of the adequate number, location, and intervals of both groundwater monitoring wells and surface water monitoring points to properly evaluate the hydrologic behavior of the APT.
4. Further investigation to understand and quantify the seepage rate and the hydrologic behavior of the site with respect to the region and the proposed RCWs.
5. An adequate water quality sampling plan that provides the collection of sufficient samples to address baseline conditions prior to, during, and after the completion of the new APT to determine the time for the system to return to baseline conditions. The water quality sampling plan shall also increase the frequency of the sample collections to take into account the tidal effects at the site.
6. Provide an adequate approach to adequately determine the source of water being pulled in by the RCWs.

With respect to the groundwater modeling report, the County finds the model unacceptable for the evaluation purposes of the radial collector well system and the effect on the surrounding environment. Regardless, it should be noted that even though issues associated with the groundwater model have been noted, the conclusions demonstrate a violation of Condition NO.4 of Z-56-07 which prohibits the withdrawal of groundwater from the Biscayne Aquifer.

At a minimum, the County requires that the deficiencies noted above to be remedied and incorporated into a single, comprehensive hydrological study for a thorough technical review to allow the County to determine compliance with the requirements of Chapter 24 Miami-Dade County and the CDMP, Condition No. 15 of Z-56-07, and to allow the County to prepare the reports required by 403.526 F.S.

#### 1-MDC-C-8 (First Round)

FPL proposes to withdraw cooling water from the Biscayne Aquifer. Such withdrawal is specifically prohibited pursuant to Condition 4 of Z-56-07. In addition, the application does not provide sufficient information to support stated conclusions or to adequately evaluate the affect of the radial collector well system on hydrology and water quality. Specifically, the application does not provide adequate information to determine the impact of the radial collector well system on the fate and transport of the groundwater plume associated with the cooling canal system, the potential for and effect of the recharge of the radial collector well system through horizontal preferential flow zones in the aquifer, the impact of the radial collector well system on salt intrusion, and the impact on wetlands and nearshore surface and groundwater water quality in Biscayne Bay, including as it relates to CERP efforts to promote estuarine conditions in nearshore areas.

**3MDC-C-7 (Third Round)**

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.**

**RESPONSE:**

Comment noted. Regarding radiological monitoring, FPL reasserts the federal NRC preemption in this area. Regarding use of radionuclides such as tritium as "tracers," FPL believes that these are not suitable for use as "tracers" in proximity to a nuclear power plant, and did not use them to identify water sources for this reason.

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

**2-MDC-C-7 Second Round)**

**See comments provided in MDC-C-6. In addition, with regard to FPL's response on the use of radiological tracers such as tritium, there is no federal preemption for monitoring of radiological parameters to evaluate the proposed project.**

**1-MDC-C-7 (First Round)**

**The proposed radial collector wells would be located within or adjacent to a groundwater plume emanating from FPL's Cooling Canal System, which contains high levels of chlorides. It also contains tritium, which may be used as a tracer. In addition, portions of this plume contain heated water, although underground directional travel of the heated water has not been established. No information regarding the delineation of this plume is contained within the application and the extent to which this plume would be affected by the proposed groundwater withdrawals is not documented. In addition, no information was found in the application discussing potential effects of inducing ground water flow towards the proposed withdrawal wells. The applicant needs to provide a hydrologic study, as required under Condition 15 of Z-56-07, that shall include but not be limited to delineation of the existing plume that emanates from the Cooling Canal System and characterization of the tritium levels of the groundwater in the area of the Biscayne Aquifer where the wells are proposed. Any existing heat plume that may extend towards Biscayne Bay should also be delineated as part of the**

**hydrologic study to determine whether warmer water would be induced into the cooling water radial collector lines or the Bay during pumping.**

### **3MDC-C-8 (Third Round)**

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.**

### **RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

### **2-MDC-C-8 (Second Round)**

**The information provided is not sufficient for evaluation of the potential impact of the project on groundwater, surface water, salt intrusion, movement of the hyper-saline plume associated with the cooling canal system, and to evaluate potential project related impacts to wetlands resources and Biscayne Bay. In addition, the information is not sufficient for evaluation of the project with requirements of Chapter 24, Miami-Dade County Code, the CDMP, requirements of conditions of Resolution Z-56-07, and it is not sufficient in comprehensiveness of data or in quality of information to allow the County to prepare the reports required by 403.526 F.S. Also see response to MDC-C-6.**

### **1-MDC-C-8 (First Round)**

**Neither preferential vertical nor horizontal stratigraphic flow directions have been established. Vertical hydraulic conductivity data is not presented in the application, but it is needed to properly evaluate how the horizontal screens installed in the Fort Thompson Formation 30 to 35 feet below the shallow bay bottom are expected to preferentially draw water from the less transmissive Miami Limestone above instead of from the much more transmissive Fort Thompson.**

**3MDC-C-9 (Third Round)**

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.

**RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

**2-MDC-C-9 (Second Round)**

The information provided is not sufficient for evaluation of the potential impact of the project on groundwater, surface water, salt intrusion, movement of the hyper-saline plume associated with the cooling canal system, and to evaluate potential project related impacts to wetlands resources and Biscayne Bay. In addition, the information is not sufficient for evaluation of the project with requirements of Chapter 24, Miami-Dade County Code, the CDMP, requirements of conditions of Resolution Z-56-07, and it is not sufficient in comprehensiveness of data or in quality of information to allow the County to prepare the reports required by 403.526 F.S. Also see response to MDC-C-6.

**1-MDC-C-9 (First Round)**

Cones of influence are not defined and aquifer pump-test data has not been presented to properly evaluate hydrologic conditions under which the collector wells would be operated. Neither has there been any data presented to indicate the potential cone of depression that pumping more than 120 million gallons a day from a wellfield located along the shoreline would have on the movement of the salt front line. In order to evaluate the application, the results (including all the data) for all the aquifer pumping tests conducted from 2006 to present shall be provided.

**3MDC-C-10 (Third Round)**

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in

order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.

#### **RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

#### **2-MDC-C-10 (Second Round)**

The information provided is not sufficient for evaluation of the potential impact of the project on groundwater, surface water, salt intrusion, movement of the hyper-saline plume associated with the cooling canal system, and to evaluate potential project related impacts to wetlands resources and Biscayne Bay. In addition, the information is not sufficient for evaluation of the project with requirements of Chapter 24, Miami-Dade County Code, the CDMP, requirements of conditions of Resolution Z-56-07, and it is not sufficient in comprehensiveness of data or in quality of information to allow the County to prepare the reports required by 403.526 F.S. Also see response to MDC-C-6.

#### **1-MDC-C-10 (First Round)**

Water quality data summarized in Table 3.3.4-2 is not sufficient to fully assess the hydrologic characteristics of the cooling canal system.

#### **3MDC-C-11 (Third Round)**

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.

**RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

**2-MDC-C-11 (Second Round)**

**The information provided is not sufficient for evaluation of the potential impact of the project on groundwater, surface water, salt intrusion, movement of the hyper-saline plume associated with the cooling canal system, and to evaluate potential project related impacts to wetlands resources and Biscayne Bay. In addition, the information is not sufficient for evaluation of the project with requirements of Chapter 24, Miami-Dade County Code, the CDMP, requirements of conditions of Resolution Z-56-07, and it is not sufficient in comprehensiveness of data or in quality of information to allow the County to prepare the reports required by 403.526 F.S. Also see response to MDC-C-6.**

**1-MDC-C-11 (First Round)**

**Data presented for Groundwater Impact assessment is not sufficient. Visual MODFLOW data files are not provided for assessment.**

**3MDC-C-12**

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.**

**RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

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3<sup>RD</sup> ROUND PLANT AND NON-TRANSMISSION COMPLETENESS RESPONSES  
FPL-TURKEY POINT UNITS 6 & 7 SITE CERTIFICATION APPLICATION

**2-MDC-C-12 (Second Round)**

The information provided is not sufficient for evaluation of the potential impact of the project on groundwater, surface water, salt intrusion, movement of the hyper-saline plume associated with the cooling canal system, and to evaluate potential project related impacts to wetlands resources and Biscayne Bay. In addition, the information is not sufficient for evaluation of the project with requirements of Chapter 24, Miami-Dade County Code, the CDMP, requirements of conditions of Resolution Z-56-07, and it is not sufficient in comprehensiveness of data or in quality of information to allow the County to prepare the reports required by 403.526 F.S. Also see response to MDC-C-6.

**1-MDC-C-12 (First Round)**

Not enough data provided to assess statement that radial collector wells are substratum collectors of saltwater that will recharge from below Biscayne Bay.

**3MDC-C-13 (Third Round)**

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z -56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.

**RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

**2-MDC-C-13 (Second Round)**

The information provided is not sufficient for evaluation of the potential impact of the project on groundwater, surface water, salt intrusion, movement of the hyper-saline plume associated with the cooling canal system, and to evaluate potential project related impacts to wetlands resources and Biscayne Bay. In addition, the information is not sufficient for evaluation of the project with requirements of Chapter 24, Miami-Dade County Code, the COMP, requirements of conditions of Resolution Z-56-07, and it is not sufficient in comprehensiveness of data or in quality of information to allow the County to prepare the reports required by 403.526 F.S. Also see response to MDC-C-6.

**1-MDC-C-13 (First Round)**

The applicant states that almost all the water withdrawn by the proposed radial collectors will be recharged from the Bay; however, no data to support this statement is provided in the application. The applicant shall provide all relevant data relating to recharge of the Biscayne Aquifer that would be induced by operation of the radial collectors.

**3MDC-C-14 (Third Round)**

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z -56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.

**RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

**2-MDC-C-14 (Second Round)**

The information provided is not sufficient for evaluation of the potential impact of the project on groundwater, surface water, salt intrusion, movement of the hyper-saline plume associated with the cooling canal system, and to evaluate potential project related impacts to wetlands resources and Biscayne Bay. In addition, the information is not sufficient for evaluation of the project with requirements of Chapter 24, Miami-Dade County Code, the CDMP, requirements of conditions of Resolution Z-56-07, and it is not sufficient in comprehensiveness of data or in quality of information to allow the County to prepare the reports required by 403.526 F.S. Also see response to MDC-C-6.

**1-MDC-C-14 (First Round)**

The applicant has not provided sufficient geologic, hydrologic and water quality data to evaluate the application.

**3MDC-C-15 (Third Round)**

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.

**RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

**2-MDC-C-15 (Second Round)**

The information provided is not sufficient for evaluation of the potential impact of the project on groundwater, surface water, salt intrusion, movement of the hyper-saline plume associated with the cooling canal system, and to evaluate potential project related impacts to wetlands resources and Biscayne Bay. In addition, the information is not sufficient for evaluation of the project with requirements of Chapter 24, Miami-Dade County Code, the CDMP, requirements of conditions of Resolution Z-56-07, and it is not sufficient in comprehensiveness of data or in quality of information to allow the County to prepare the reports required by 403.526 F.S. Also see response to MDC-C-6.

**1-MDC-C-15 (First Round)**

The applicant has not provided sufficient information to evaluate the mixing chamber model that was used to project impacts from the radial collector wells. The applicant shall provide a modeling development report that meets all professional modeling standards and provides background information, including but not limited to the capabilities and limitations of the model, assumptions made during model construction, boundary conditions and variables (including background data) utilized, the method in which the groundwater and surface water interaction is simulated, method of calibration, and the resulting reporting outputs.

**3MDC-C-16 (Third Round)**

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed

project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.

#### **RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

#### **2-MDC-C-16 (Second Round)**

The information provided is not sufficient for evaluation of the potential impact of the project on groundwater, surface water, salt intrusion, movement of the hyper-saline plume associated with the cooling canal system, and to evaluate potential project related impacts to wetlands resources and Biscayne Bay. In addition, the information is not sufficient for evaluation of the project with requirements of Chapter 24, Miami-Dade County Code, the CDMP, requirements of conditions of Resolution Z-56-07, and it is not sufficient in comprehensiveness of data or in quality of information to allow the County to prepare the reports required by 403.526 F.S. Also see response to MDC-C-6.

#### **1-MDC-C-16 (First Round)**

The application states "During the wet season, a seaward gradient exists and groundwater flow is southeasterly towards Biscayne Bay. This gradient tends to disappear during the dry season, where the groundwater levels are depressed below the sea level, resulting in a reverse flow direction. The groundwater at the Turkey Point Plant is classified by FDEP as Class G-III (see Appendix 10.6) that has no reasonable potential as a future source of drinking water due to the high dissolved solids." The radial wells are located so as to draw from the easterly groundwater flow. Please resolve the apparent conflict between the location of the wells and the water from which they are drawing and Condition 4 of Z-56-07, which prohibits withdrawal from the Biscayne Aquifer.

#### **3MDC-C-17 (Third Round)**

This item remains incomplete. The revised figure (fig. 4.5-3) referenced in FPL's response must be clarified. It does not appear that the full extent of privately owned submerged land is shown as described in the legend; also, the owner of this land should be identified on the figure. It is also not clear what lands, if any, are located within the Biscayne Bay Aquatic Preserve. FPL

# EXHIBIT 23

July 2010

MIAMI-DADE COUNTY

0938-7652

## 3<sup>RD</sup> ROUND PLANT AND NON-TRANSMISSION COMPLETENESS RESPONSES FPL-TURKEY POINT UNITS 6 & 7 SITE CERTIFICATION APPLICATION

**shall provide the 1925 TIFF survey documents and the navigation channel easement resolution documents referenced in the figure. Also provide information relating to the referenced "potential submerged land easements". Would these potential easements be issued by the State of Florida and if so, what coordination is required, if any, with the Biscayne Bay Aquatic Preserve? Are these lands located within the Aquatic Preserve?**

### **RESPONSE:**

This response is provided to MDC for informational purposes although this request is outside the scope of a completeness request for additional information, in accordance with Sections 403.5066 and 403.507, F.S., because it requests information about issues for which MDC has no regulatory jurisdiction.

The cross-hatching on Figure FDEP-II-B-55-1[a survey version of SCA Figure 4.5.3 (Rev. 0)] was intended to depict privately owned submerged lands within the area to be utilized for the radial collector wells, not the extent of all privately owned submerged lands in the vicinity of Turkey Point. These "privately owned submerged lands" are now owned by FPL as a result of conveyance of these lands by the Trustees of the Internal Improvement Trust Fund ("Trustees") to a predecessor in title. The requested survey is attached to the deed from the Trustees to FPL's predecessor in title, and a copy is provided with this response. These FPL-owned submerged lands are located within the defined boundaries of the Biscayne Bay Aquatic Preserve (BBAP). FPL does not have a copy of the navigation channel easement resolution.

The shaded portion of the Figure FDEP-II-B-55-1 shows the sovereign submerged lands under which laterals for the radial collector wells may be installed. These sovereign submerged lands are located within the BBAP. Any sovereign submerged land easements for the radial collection wells would be issued by the Trustees. Coordination by DEP State Lands staff with the staff of the BBAP would be typical in connection with such easements, but this question concerning coordination can best be answered by, and should be addressed to, DEP.

### **3MDC-C-18 Third Round)**

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness**

# EXHIBIT 23

July 2010

MIAMI-DADE COUNTY

0938-7652

## 3<sup>RD</sup> ROUND PLANT AND NON-TRANSMISSION COMPLETENESS RESPONSES FPL-TURKEY POINT UNITS 6 & 7 SITE CERTIFICATION APPLICATION

### RESPONSE:

This comment, which originated in the 1<sup>st</sup> Round Plant and non-Transmission Completeness, requests well construction details for the radial collector wells, including locations, designs, number and pipe sizes. These well construction details will not be available until post certification.

Section 24-43.2 of the MDC code is inapplicable to the radial collector well system proposed to supply backup cooling water supply for the operation of Turkey Point Units 6 & 7. Subsection (1) is titled "Regulation of on-site *domestic well* systems generally" [emphasis added]. A review of that code section does not reveal any provision that seeks to regulate a well other than an "on-site domestic well system." The County's Code, at Section 24-5, defines "domestic well system" to mean "any water supply system using a well and piping to provide potable water for human consumption." The proposed radial collector wells will not be providing water for human consumption; the produced water will be use for cooling purposes within the Project. Potable water for use at the site will be supplied by MDWASD or from bottled water sources.

Even assuming that the remaining subsections of 24-5 apply to wells other than domestic wells, to the extent this comment suggests that these remaining subsections of establishes well construction criteria applicable to the radial collector wells, the delegation from South Florida Water Management District to the MDC Health Department of its exclusive authority to regulate water well construction is limited to water wells less than 12 inches in diameter. The radial collector wells will be larger than 12 inches in diameter.

Further, Section 373.217, F.S., grants the state of Florida (including the Siting Board for projects subject to the PPSA) "the exclusive authority . . . for consumptive use of water." Any local regulation in conflict with that exclusive authority over consumptive use of water is preempted. As such, to the extent Section 24-43.2 of the MDC code purports to regulate consumptive use of water, it is preempted.

Subject to the foregoing, FPL will provide the County with those analyses of water use required under the various conditions of the Zoning Resolution.

### 2-MDC-C-18 (Second Round)

**FPL is incorrect in its statements that Section 24-43.2 of the Miami-Dade County Code relates solely to domestic water supply wells. FPL's assertion that Section 24-43.2 does not apply to saltwater wells is also incorrect. Section 24-43.2 applies to all surface and groundwaters of the county including coastal waters and applies to all "on-site domestic well systems and other water supply wells" (Section 24-43.2). Miami-Dade County does not agree that the information requested relates to standards that are not applicable and notes that FPL has previously agreed pursuant to conditions 5 and 15 of Z-56-07 to demonstrate that the substantive requirements of this code section are met and to conduct a hydrologic study in compliance with Chapter 24, Miami-Dade County Code. Submittal of the requested information consistent with the Z-56-07 requirements is necessary for Miami-Dade County to evaluate the project and to prepare the reports required pursuant to 403.526 F.S.**

### 1-MDC-C-18 (First Round)

Adequate hydrogeologic data have not been presented and the application does not include sufficient information to determine whether the proposed withdrawals from the radial collector wells would meet the requirements of Section 24-43.2 Miami-Dade County Code. Selection of potential locations, idealized designs, number of wells, and even the pipe sizes of the radial lines of the collector wells should be based on hydrogeologic data within the areas under Biscayne Bay that the wells would tap. Such data has not been presented in the application. The applicant shall provide information that is sufficient to determine whether the radial collector wells meet the requirements of Chapter 24 and the CDMP for this aspect of the proposed project.

### 3MDC-C-19 (Third Round)

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness

### RESPONSE:

As provided in FPL's 1<sup>st</sup> Round Plant and non-Transmission Completeness Response to the request for groundwater data, "Additional water quality data was collected from the test well as part of the APT conducted on Turkey Point and can be found in the report entitled *FPL Turkey Point Exploratory Drilling and Aquifer Performance Test Program Report* (HDR, 2009)." The cited report was provided with 1<sup>st</sup> Round Plant and non-Transmission Completeness Responses (October, 2009).

### Reference:

HDR Engineering, Inc. (2009) *Florida Power and Light Turkey Point Exploratory Drilling and Aquifer Performance Test Program*, August 9, 2009.

**2-MDC-C-19 (Second Round)**

The information provided is not sufficient for evaluation of the potential impact of the project on groundwater, surface water, salt intrusion, movement of the hyper-saline plume associated with the cooling canal system, and to evaluate potential project related impacts to wetlands resources and Biscayne Bay. In addition, the information is not sufficient for evaluation of the project with requirements of Chapter 24, Miami-Dade County Code, the CDMP, requirements of conditions of Resolution Z-56-07, and it is not sufficient in comprehensiveness of data or in quality of information to allow the County to prepare the reports required by 403.526 F.S. Also see response to MDC-C-6.

**1-MDC-C-19 (First Round)**

The application indicates that a surface water sample from Biscayne Bay was collected to characterize the water from the radial collectors. Providing a surface water sample as a surrogate for groundwater data is inappropriate. The applicant shall provide a characterization of groundwater based on actual data from the area in which the radial collector wells are proposed.

**3MDC-C-20 (Third Round)**

This item remains incomplete. The scale of SCA Figure 3.1.3-1 is inadequate to provide the necessary level of detail to be able to clearly identify the wetland areas that may be impacted during the radial well delivery pipeline installation. FPL shall provide a detailed map clearly delineating the jurisdictional wetland areas as well as the existing mangrove mitigation areas and the areas to be impacted by the installation of the radial well delivery pipeline. The scale of this figure must be appropriate to allow for a clear differentiation of all these areas.

**RESPONSE:**

A survey of jurisdictional wetland boundaries associated with the radial collector well delivery pipeline are contained in SCA Appendix 10.4, Section 2, Attachment G, Sheets 3.00 through 3.08 and can be found on attached CD#1 at 3MDC-C-20. A drawing illustrating the existing mangrove mitigation area, jurisdictional wetlands boundary and proposed radial collector well pipeline route is attached as Figure 3MDC-C-20 on CD#1 at 3MDC-C-20. The radial collector well delivery pipeline will avoid the existing mangrove mitigation area and minimize wetland impacts within the remainder of the route through installation within and adjacent to the existing onsite internal roadway.

**3MDC-C-21 (Third Round)**

This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. Will any impacts to wetlands or wetland vegetation, such as mangroves, in the in situ restoration areas, be required for maintenance, repair or other activities after restoration is complete? If so, FPL shall provide details of such impacts and shall also provide corrected UMAM scores that account for these future impacts.

**RESPONSE:**

Following installation of the radial collector well delivery pipeline, no maintenance is required, nor is any requirement for repair of the radial collector well delivery pipeline anticipated. If any disturbance of the restored areas becomes necessary, the areas will be returned to the pre-disturbance condition to avoid any loss of wetland functions.

**3MDC-C-22 (Third Round)**

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness**

**RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

With respect to satisfaction of conditions of the Zoning Resolution, FPL recognizes that the zoning approval is an independent authorization and that the conditions of zoning are independent requirements. FPL is committed to satisfying all conditions of zoning. FPL has met with the County and is developing a submittal framework through which these zoning conditions will be addressed such that the County can determine the application complete and prepare an agency report addressing which conditions are satisfied and which conditions remain to be satisfied post-certification, during construction or during the operation of the Project.

**2-MDC-C-22 (Second Round)**

**The information provided is not sufficient for evaluation of the potential impact of the project on groundwater, surface water, salt intrusion, *movement* of the hyper-saline plume associated with the cooling canal system, and to *evaluate* potential project related impacts to wetlands resources and Biscayne Bay. In addition, the information is not sufficient for evaluation of the project with requirements of Chapter 24, Miami-Dade County Code, the CDMP, requirements of conditions of Resolution Z-56-07, and it is not sufficient in comprehensiveness of data or in quality of information to allow the County to prepare the reports required by 403.526 F.S. Also see response to MDC-C-6.**

**1-MDC-C-22 (First Round)**

**Please provide adequate analysis in support of the conclusion made that the Biscayne Aquifer is not affected by the Radial Collector wells. A fully three dimensional mathematical model should be used to determine the boundary conditions (influence cones) of the proposed radial collector well. These boundary conditions should be simulated in the overall ground water model, which was described in the Cooling Canal/Industrial Wastewater Treatment and Disposal Facility.**

**3MDC-C-23 (Third Round)**

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness**

**RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

**2-MDC-C-23 (Second Round)**

**The information provided is not sufficient for evaluation of the potential impact of the project on groundwater, surface water, salt intrusion, movement of the hyper-saline plume associated with the cooling canal system, and to evaluate potential project related impacts to wetlands resources and Biscayne Bay. In addition, the information is not sufficient for evaluation of the project with requirements of Chapter 24, Miami-Dade County Code, the CDMP, requirements of conditions of Resolution Z-56-07, and it is not sufficient in comprehensiveness of data or in quality of information to allow the County to prepare the reports required by 403.526 F.S. Also see response to MDC-C-6.**

**1-MDC-C-23 (First Round)**

**A fully three dimensional mathematical model is needed in support of the conclusion made that the Biscayne Aquifer would not be affected by operation of the radial collector wells. This shall assist in the determination of the boundary conditions (influence cones) of the proposed radial collector wells. These boundary conditions**

should be simulated in the overall ground water model, which was described in the Cooling Canal/Industrial Wastewater Treatment and Disposal Facility. Whether the extraction of water from the Biscayne Bay system will change or reduce the freshwater inflow to the bay and/or increase salinity at least seasonally shall be examined through additional modeling as part of the application

### 3MDC-C-24 (Third Round)

This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03- 45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".

Miami-Dade County acknowledges the information provided in response to the specific questions regarding the March 2008 HDR report. However, without the information required by conditions 5 and 15 of Z-56-07 and the additional outstanding information that has been requested relating to these matters, Miami-Dade County will be unable to complete the evaluation of the issues raised in this item. In addition, FPL has not demonstrated that the radial collector well alternative would be appropriate given the requirement of condition 4 of Z-56-07.

### RESPONSE:

With respect to satisfaction of conditions of the Zoning Resolution, FPL recognizes that the zoning approval is an independent authorization and that the conditions of zoning are independent requirements. FPL is committed to satisfying all conditions of zoning. FPL has met with the County and is developing a submittal framework through which these zoning conditions will be addressed such that the County can determine the application complete and prepare an agency report addressing which conditions are satisfied and which conditions remain to be satisfied post-certification, during construction or during the operation of the Project.

As provided in FPL's 1<sup>st</sup> Round Completeness Response MDC-C-24 (October 2009) to this question related to Condition 5:

“The information requested is presented in the following five reports:

- *Analysis of Baseline Water Source Technical Review Report* (HDR, December 2007);
- *Initial Water Source Alternative Screening Technical Review Report* (HDR, March 2008);
- *Water Source Alternative Characterization and Scope Technical Review Report* (HDR, March 2008);

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- *Conceptual Engineering of Cooling Water Supply and Disposal for Turkey Point Units 6 & 7* (HDR, June 30, 2008); and
- *Cooling Water Supply and Disposal Design Report* (HDR, March 2009).

These reports were summarized in SCA Appendix 10.9, Water Supply Alternative Analysis and Water Conservation Plan.”

FPL believes that the information provided in our responses fully describes FPL’s water supply alternative analysis conducted in accordance with the water use Basis of Review (BOR) and is sufficient to demonstrate compliance with the applicable, adopted non-procedural requirements of the Miami-Dade County Code and satisfies Condition 5 as well as the relevant aspects of Condition 15 of the zoning approval.

With respect to the water supply alternatives analysis required under Condition 5, this Condition provides: “Should WASD be unable to provide the applicant with sufficient quantity or quality or consistency in water delivery as required by FPL for its cooling system, *alternative sources may be proposed to satisfy such deficiencies*. FPL will provide the County with an Alternative Water Sources Plan, which will outline *all sources of water not supplied by WASD through reuse*.” FPL is proposing only one source of water not supplied by WASD through reuse – the use of water withdrawn from a saltwater aquifer, which will be recharged by saltwater from Biscayne Bay as a backup to reuse. FPL has addressed that source of water and is modeling that source. No other sources are proposed. FPL believes this Condition does not require detailed examination, modeling and other permitting level requirements for sources that FPL does not propose to use. However, FPL will continue to work with the County to ensure satisfaction of the requirements of Condition 5.

With respect to Condition 4 of the zoning approval, FPL continues to work with the County and other agencies on the assessment of the impacts of operation of the radial collector well system as the backup water supply for Turkey Point Units 6 & 7. The back-up water supply is necessary for reliability of plant operations and allow for use of reclaimed water as a primary makeup water source. FPL designed a cooling water resource plan for the Project that we believe employs the best combination of alternative sources to maximize the use of reclaimed water and minimize impacts to the environment. In doing so, FPL proposes that the plan meets the intent of Condition 4. FPL will work with the County to clarify the language of this condition, if needed.

## SECTION D - ACCESS ROAD

### 3MDC-D-1(a) (Third Round)

**FPL's response is incomplete because they fail to provide the information requested in the first Completeness Response, which is required to evaluate whether the access roads, as currently proposed, fulfill the substantive requirements of Sections 24-48.3, 24-48.4, and 24-49 of the Miami-Dade Code. This is a separate substantive requirement from whether the proposed use is consistent with the CDMP and detailed information is required in order to evaluate the proposed use as temporary construction access roads and prepare the agency reports required by Section 403.526, F.S. FPL shall provide the requested information, which consists of an evaluation of impacts that "include but are not limited to disruption of ecological corridors, altered hydrogeology in surrounding wetlands (e.g. via barriers to sheetflow), increased invasion rate of non-native species, increased road-kill, impacts to listed species and their habitat, including but not limited to Florida panthers and Eastern indigo snakes, and increased**

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access that may facilitate illegal dumping, A TV riding, poaching, and other activities that may directly or indirectly impact surrounding wetlands. The applicant shall also address how road construction and operation would compromise the ability of the EEL Program and other agencies to appropriately manage public lands. FPL shall provide an analysis of these impacts on the hydrologic and ecological values of the surrounding lands, including information on how these impacts will be minimized and avoided to the maximum extent possible and how unavoidable impacts will be mitigated." (Miami-Dade County Completeness Response, question MDC-D-1).

Miami-Dade County acknowledges FPL's provision of information on federally and state-listed species (including plants), including Florida panthers and Eastern indigo snakes under response 2MDC-A-26-2, however, considers this information still incomplete because of limitations and inaccuracies detailed in Miami-Dade County's response to 2MDC-A-26-2.

Miami-Dade County hereby clarifies that the ability of the EEL Program and other agencies to appropriately manage public lands is the result of several factors, only one of which, access across FPL-owned lands, has been partially addressed by FPL in its response. Information must be provided to allow for a review of these additional factors including but not limited to: 1) impact to access such as the availability of safe pull-out areas for transport vehicles that may be towing trailered [*sic*] equipment and other types of motorized vehicles on the access roads plus elevation differences and/or slopes between the roads and surrounding lands that may preclude accessing the surrounding publicly-owned wetlands with wetland-compatible vehicles, and 2) impact to management costs due to degradation of the wetlands adjacent to the roads that are the result of a) the increased level of disturbance from construction and operation of the roads, which includes an elevated opportunity for the spread of invasive plant species and b) increased access by the general public to an area that has previously been difficult to access by street-compatible vehicles. FPL must address all of these factors in its response.

FPL states that several alternative access roadway configurations were reviewed, but failed to include the information that supported that review with its response. Figure W9.3.1-1 shows only the SW 359 Street corridor alternative in the region immediately around the Turkey Point complex. FPL shall provide all available access road alternatives that were considered and any supporting analyses that resulted in their conclusion that SW 359 Street corridor was the "least environmentally damaging practicable alternative".

### RESPONSE:

The proposed temporary construction access roads are improvements to existing public and private roadways. These are not new roadways. Therefore, it is unclear how improvements to existing linear features would disrupt ecological corridors.

There will be no barriers to sheetflow. All roads improvements will be designed in coordination with DERM, as required by Condition 21 of Resolution Z-56-07, to address proposed wetland restoration projects. Following coordination with DERM staff, FPL will prepare and submit under separate cover a conceptual plan to address the maintenance of sheet flow. Final road design will be coordinated with DERM post-certification. FPL will work with DERM to develop the appropriate conditions of certification.

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Exotic vegetation infestation that may occur adjacent to project features will be managed according to the Exotic Species Management Plan. FPL will coordinate with DERM staff to revise the Exotic Species Management Plan to include the approximate areas surrounding each project feature that will be managed for exotic vegetation removal as well as the timing and frequency of maintenance activities. The revised plan will be submitted under separate cover for review and monitoring for compliance with conditions of certification by DERM.

Prior to construction, FPL will conduct pre-clearing listed species surveys. The surveys will be conducted in consultation with the FWC and USFWS, and results will be forwarded to MDC. FPL will comply with the FWC and USFWS regulations regarding avoidance, minimization, and mitigation of impacts to listed species, including plants. FPL will consider design features, such as lighting, controlled speed, and signage, to minimize impacts to listed species as far as practicable.

The following conditions of the CDMP Amendment approved by the Miami-Dade County Board of County Commissioners on April 28, 2010 and agreed to by FPL are provided regarding public access restrictions on the construction access roads:

“Temporary roadway improvements on privately owned property shall not be open to the general public. Miami-Dade County and other agencies with needed access shall, after providing proper notification to FPL, be granted access to this private roadway. At FPL's expense, all temporary roadway improvements south of SW 344th Street shall be patrolled by security personnel when in active use. In addition, FPL shall maintain security gates or other appropriate security measures during inactive periods on privately owned roadway improvements. To the greatest extent possible, FPL shall deter access by the general public on temporary roadways south of SW 344th Street.”

Any restrictions in accessing EEL lands by County staff during road construction will be temporary. Access to EEL lands by County staff after road construction will be provided as referenced above pursuant to the CDMP conditions. It is premature to request design-level details for these linear facilities, including the access facilities, which are proposed as part of FPL's transmission corridors. FPL does not intend to modify the design of the private roadway to include “pull-out” areas; FPL does not believe separate “pull-out” areas will be needed because the proposed access roads and structure pads can be used for the types of access explained in the County's question.

Although other roadway alignment and lane configuration options were reviewed in the process of determining the most appropriate roadway alignment for construction access, many were discounted due to safety, security, traffic or construction issues. FPL conducted a thorough evaluation of the County's proposed New Canal Road Option. FPL provides the following documents on CD# 1 (at 3MDC-D-1) reflecting the analysis of the New Canal Road Option that was reviewed during the CDMP Modification process:

- New Canal Road Option Analysis Memo (dated 2/8/10)
- New Canal Road Option Figures (dated 2/8/10)
- New Canal Road Option Wetland Summary Tables (dated 2/8/10)
- PTN 6&7 Project Memorandum (dated 3/15/10)

**3MDC-D-1(b) (Third Round)**

The item is still incomplete because complete information has not been provided and clarification is needed on a statement that FPL made in its response. FPL stated in its response that, "After construction is complete, public access to SW 359'h Street will be restricted by locked gates." FPL shall clarify whether "after construction is complete" refers to construction of the access roads or construction of the plant. If FPL meant that the roads will be restricted after construction of the plant, FPL shall provide information on what specific features and actions will be taken to restrict public access to the access roads after the roads have been constructed but before the plant construction is complete. In addition, FPL shall provide information on how often the gates will be inspected for integrity and repaired, if necessary, during the foreseeable life of Units 6 and 7.

**RESPONSE:**

The statement "after construction is complete" refers to the completion of Units 6 & 7. After the road improvements have been made, the roadways will be utilized continually during construction of Units 6 & 7. The following conditions of the CDMP Amendment approved by the Miami-Dade County Board of County Commissioners on April 28, 2010 are provided regarding public access restrictions:

"Temporary roadway improvements on privately owned property shall not be open to the general public. Miami-Dade County and other agencies with needed access shall, after providing proper notification to FPL, be granted access to this private roadway. At FPL's expense, all temporary roadway improvements south of SW 344th Street shall be patrolled by security personnel when in active use. In addition, FPL shall maintain security gates or other appropriate security measures during inactive periods on privately owned roadway improvements. To the greatest extent possible, FPL shall deter access by the general public on temporary roadways south of SW 344th Street."

Following the completion of Units 6 & 7, the gates will be checked and repairs made as needed to maintain public access restrictions on SW 359<sup>th</sup> Street east of SW 137<sup>th</sup> Avenue. It is premature to request design-level details for the maintenance of these access facilities, which are proposed as part of FPL's transmission corridors.

**3MDC-D-1(c) (Third Round)**

Miami-Dade County acknowledges the information provided by FPL, but considers this item still incomplete. FPL has stated, "SW 359th Street will be reduced to a transmission line patrol road after construction is complete" but has not provided specific information on the future configuration of this road, nor has FPL explicitly stated whether this stretch of transmission line patrol road will continue to be *paved* or not. FPL shall provide clarification on the pavement status of the future transmission maintenance road within the SW 359 Street corridor, from east of SW 137 Avenue to the plant, once construction of the plant has been completed, and shall provide a cross-sectional figure for the future configuration of this transmission maintenance road. Miami-Dade County acknowledges FPL's commitment that all public roads will be returned to their previous 2-lane configuration, however, it should be noted that SW 117 Ave south of SW 344 St. is presently a single lane roadway. FPL shall provide an explanation whether this road will be returned to a single lane road following construction.

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### RESPONSE:

The following conditions of the CDMP Amendment approved by the Miami-Dade County Board of County Commissioners on April 28, 2010 provided removal of road improvements as follows:

“Within 2 years following the construction of Turkey Point Units 6 & 7 (a) all temporary roadway improvements on publicly owned rights-of-way will be returned to the status of the roadway(s) prior to the commencement of construction of the temporary roadways and roadway improvements, and, (b) any privately owned roadway will be returned to the minimum roadway width required to provide maintenance to FPL facilities; and shall not be more than two lanes.”

SW 359<sup>th</sup> Street will not be paved after the road is restored to two lanes for the transmission patrol road. A typical cross section of the transmission patrol road is included in SCA Figure W9.3.4-1 (Rev. 0). FPL has committed to returning public roadways to the status existing before roadway improvements. Therefore, SW 117<sup>th</sup> Avenue south of SW 344<sup>th</sup> Street would be returned to a single lane roadway.

### 3MDC-D-9 (Third Round)

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the timeframes prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".**

**Miami-Dade County has concluded from the response that FPL may misunderstand the purpose of the exotic vegetation management plan required under Condition 12 of Z-56-07 and hereby provides clarification. The exotic vegetation management plan is not intended solely for areas where construction of buildings and infrastructure will eliminate existing exotic vegetation, but instead is intended for nearby areas which may be invaded or further invaded by exotic species as a result of construction and operation of the plant site and associated facilities including nontransmission linear facilities. Such areas may include, but are not limited to locations within the plant site that currently have or are likely to have invasive exotic plant species colonize. Such areas may also include, but are not limited to areas near current or future non-transmission linear facilities, because such areas currently have or are likely to have invasive exotic plant species colonize, facilitated by vehicle traffic utilizing the linear facility .. This information is required to determine whether the substantive requirements of the Miami-Dade County Code relating to the removal of exotic vegetation would be met by the proposed project.**

**RESPONSE:**

On June 18, 2010, FPL met with the County and agreed to schedule a meeting with the DERM and EEL management staff to review the limits of exotic vegetation management adjacent to project features. FPL will provide a Conceptual Exotic Vegetation Management Plan providing details of the timing and frequency of management activities. FPL will draft a Condition of Certification under the PPSA addressing this condition to provide a final plan prior to construction.

**3MDC-D-10 (Third Round)**

Please see MDC's Response MDC-D-9 (Third Round).

**RESPONSE:**

Please see Response 3MDC-D-9 above.

**3MDC-D-11 (Third Round)**

**Miami-Dade County acknowledges that FPL has provided a portion of the information, however, the response remains incomplete because FPL has not provided the requested tree survey for the proposed plant site and associated facilities, including non-transmission linear facilities. Protected tree resources may occur on any upland portion of the proposed plant site and associated facilities, including non-transmission linear facilities. Miami-Dade County staff, for example, observed a spiny black olive (*Bucida molinetii*, fka *Bucida spinosa*) adjacent to one of the roads near the proposed plant site during a site visit. This rare hardwood species is protected under Section 24-49 of the Miami-Dade County Code and is an example of why such a tree survey is needed. This information is needed to determine whether the project fulfills the substantive requirements of Chapter 24 of the Miami-Dade County Code, including but not limited to Section 24-49, and to prepare the agency reports required by Section 403.526, F.S.**

**RESPONSE:**

FPL will avoid impacts to protected tree resources located within the Site and associated facilities to the greatest extent practicable, and will comply with the tree replacement requirements specified in Section 24-49.4 of the MDC Code for any unavoidable removal of protected trees. As mentioned previously, the vast majority of the Project's proposed impacts occur in wetlands or disturbed areas such as spoils areas and previously-filled areas/roadways. No tree removal permit is required from the County when the subject property is wetlands in accordance with MDC Code Section 24-49(2)(h). Previously disturbed upland areas typically include those exotic invasive species of trees identified as exempt from tree removal permits as listed in MDC Code Section 24-29(4)(f), although the potential for protected tree species is acknowledged. Tree surveys will be conducted within applicable Project areas, including final rights-of-way for the access roads and other linear facilities, post-certification, pursuant to Chapter 24 of the MDC Code. Any protected tree resources on any upland portion of the proposed Site or associated facilities, including non-transmission linear facilities, will be identified. The results of the tree survey and tree mitigation plan (if applicable) will be available during the post-certification review process authorized by Section 403.5113(2), F.S., and Rule 62-17.191, F.A.C. FPL will work with the agencies to develop the appropriate conditions of certification for the tree survey.

**3MDC-D-12 (Third Round)**

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the timeframes prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03- 45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".**

**Miami-Dade County has concluded from the response that FPL may misunderstand the request for information. Construction and operation of non-transmission linear facilities, including but not limited to construction access roads, may have an adverse impact on adjacent and nearby EEL lands, including but not limited to disruption of ecological corridors, disruption of sheetflow patterns, degradation of environmental quality due to disruption of management activities from access limitations, increased mortality of wildlife that utilizes EEL lands for some portion of their life cycle, increased invasive exotic plant colonization due to increased traffic, increased dumping and ATV/ORV use due to improved access for unauthorized parties, and other changes that may occur as a direct or indirect result of constructing and operating construction access roads located in a large, contiguous wetland system. FPL has not provided sufficient information on any of these issues and Miami-Dade County reiterates the need for such information in order to evaluate direct and indirect impacts of access road construction and operation and prepare the reports required by 403.526 F.S**

**FPL shall provide specific information relating to potential impacts to wildlife associated with access road/wildlife corridor overlap. Without the requested information, Miami-Dade County is unable to determine whether the proposed access roads cross through commonly used migration routes, travel corridors between feeding and breeding or resting areas, and any other types of travel corridors. The locations of such overlap, the types of species that would be affected, and the nature of the impacts need to be identified at this time. The information should ensure that information is included on rare, threatened or endangered species including state listed and federally listed species. Miami-Dade County has previously requested additional information on wildlife impacts that may result from the project in order to evaluate the potential adverse and cumulative adverse environmental impacts of the proposed work pursuant to Chapter 24, Miami-Dade County Code and the Miami-Dade County Comprehensive Development Master Plan. Miami-Dade County also notes that FPL has continued to dismiss the County's request for information resulting from a Comprehensive Environmental Impact Statement based upon FPL's assertion that the request is procedural in nature. However, Miami-Dade County reiterates that the information is required to evaluate this project for conformance with nonprocedural requirements of Miami-Dade County. Miami-Dade County acknowledges additional information provided by FPL in its completeness responses related to this issue, including limited information regarding invasive plant control within the nontransmission linear features; however, the County reiterates that the information remains incomplete.**

**RESPONSE:**

The second paragraph is a restatement of Round 1 question MDC-D-1; please see the response to MDC-D-1. Non-transmission linear facilities include water pipelines installed underground and temporary construction access roadway improvements. The installation of pipelines adjacent to or underneath existing roadways and addition of temporary construction access lanes to existing roadways will not result in significant adverse impacts to adjacent or nearby EEL lands, or limit access for management activities upon EEL lands.

As to specific information relating to potential impacts to wildlife associated with the temporary construction access roadway improvements, FPL has provided this information in 1<sup>st</sup> Round Plant and non-Transmission Completeness Responses MDC-D-18 and MDC-D-2 (October 2009), 2<sup>nd</sup> Round Responses 2-MDC-A-26-2, and 2-MDC-D-21 (April 2010). Please also see 3<sup>rd</sup> Round Response 3MDC-A-26-2 above.

With regard to potential increased exotic plant colonization due to construction traffic, FPL will comply with the requirements associated with the management of exotic pest plant species in accordance with Section 24-49.9(1) of the MDC Code. FPL will identify all species of exotic vegetation occurring within the Site and associated facilities, as described in the *Florida Exotic Pest Plant Council 2009 List of Invasive Plant Species*. The exotic vegetation management plans will focus upon the removal of those species identified within the Site and associated facilities, including treatment area boundaries, protection of surrounding habitat, season of treatment, frequency of treatment, and variation in treatment techniques to suit site-specific conditions. The exotic vegetation management plans will be available during the post-certification review process authorized by Section 403.5113(2), F.S., and Rule 62-17.191, F.A.C. FPL will work with the agencies to develop the appropriate conditions of certification for the exotic vegetation management plan.

Regarding the requested CEIS, FPL reasserts the response contained in our 1<sup>st</sup> Round Response (October, 2009) Under the PPSA, the SCA is the procedural vehicle for addressing the applicable substantive requirements of the MDC code the procedural requirements of local ordinances are superseded by PPSA procedures and submittal requirements under Section 403.510, F.S. FPL will therefore not prepare a CEIS in support of the SCA.

**3MDC-D-13 (Third Round)**

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the timeframes prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03- 45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".**

**FPL states that several alternative access roadway configurations were reviewed, but failed to include the information that supported that review with its response. Figure W9.3.1-1 shows only the SW 359 Street corridor alternative in the region immediately around the Turkey Point complex. FPL shall provide all available access road alternatives that were considered and any**

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supporting analyses that resulted in their determination that "the best course of action is to pursue the roadway improvements described in the SCA."

### RESPONSE:

Please see Response 3MDC-D-1(a) above.

#### 2-MDC-D-13 (Second Round)

FPL's response is incomplete and is not sufficient in comprehensiveness of data or quality of the information to allow Miami-Dade County to prepare the reports required by Section 403.526, F.S. Miami-Dade County is requesting information that is needed to determine compliance with Sections 24-48 and 24-49 of the Miami-Dade Code, which require demonstration of avoidance and minimization of impacts to protected resources, and consistency with objectives and policies in the CDMP that protect sensitive resources such as wetlands and habitat for endangered and threatened species, protect surface water connectivity and flow, and require consistency with CERP.

In addition, the Mitigation Plan required under Condition 9 of Z-56-07 must include information on replacement tree canopy required under Section 24-49 of the Miami-Dade Code. The wetlands in the areas south of SW 344 Street also include mitigation areas (folios 10-7926-001-0020, 10- 7927-001-0010 and 30-7927-001-0150) that lie adjacent to the proposed improvements.

FPL has not provided information on possible impacts from the proposed roadway improvements to adjacent properties and the existing mitigation lands.

The information presented in SCA Appendix 10.7.4 is not sufficient to demonstrate compliance with the requirements for avoidance and minimization; in Chapter 24, Miami-Dade Code.

In addition, the response and the SCA application does not adequately address potential access road alternatives along SW 344th Street currently under review with Miami-Dade County.

#### 1-MDC-D-13 (First Round)

Application fails to provide an alternatives analysis for the proposed access road network, both for construction access to the plant and access to the transmission line corridors, and to adequately demonstrate that impacts to resources are minimized and avoided. Please provide an analysis of alternatives for the access roads that considers and compares the benefits and impacts of all feasible alternative routes for ingress-egress, and demonstrates minimization and avoidance of impacts including but not limited to wetlands, impacts to state and federally protected species, impacts to existing water management features, impacts to Environmentally Endangered Lands projects, Natural Forest Communities and tree resources protected by Chapter 24, Miami-Dade Code. Alternatives evaluated for ingress-egress to Turkey Point should include but not be limited to utilization of the existing Palm Drive (SW 344 Street) corridor with and without shift change modifications, and alternative construction entrances including but

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MIAMI-DADE COUNTY

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3<sup>RD</sup> ROUND PLANT AND NON-TRANSMISSION COMPLETENESS RESPONSES  
FPL-TURKEY POINT UNITS 6 & 7 SITE CERTIFICATION APPLICATION

**not limited to utilizing the existing plant entrance with shift change modifications or making improvements to the L-31 East levee for use as a temporary construction entrance by backfilling a section of the L-31 E borrow canal.**

### 3MDC-D-14 (Third Round)

**Please see MDC's responses MDC-D-1 (Third Round), MDC-D-9 (Third Round), and MDC-D-12 (Third Round).**

#### **RESPONSE:**

Please see Responses 3MDC-D-1, 3MDC-D-9 and 3MDC-D-12 above.

### 3MDC-D-15 (Third Round)

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the timeframes prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03- 45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".**

#### **RESPONSE:**

The specific mitigation to offset the loss of wetland functions associated with the temporary construction access temporary roadway improvements will involve in-kind enhancement, restoration, and preservation of wetlands located between SW 344<sup>th</sup> St and SW 328<sup>th</sup> St, adjacent to the L-31E Canal (Northwest Restoration Site) as discussed in the Wetland Mitigation Plan contained in SCA Appendix 10.4, Attachment E (Rev. 1, May 2010). It should be noted that FPL intends to restore the temporary construction access roadways following completion of construction; however, wetland mitigation will be provided to offset the impacts as if permanent. FPL is in the process of meeting with DERM and other appropriate agency staff to discuss the mitigation plan in greater detail.

FPL is refining the mitigation plan in accordance with input from MDC, USACE, FDEP, and the SFWMD to identify a final plan of wetland enhancement, restoration, and preservation that will offset the loss of wetland functions. A revised mitigation plan will be available prior to agency reports. The final mitigation plan, including details of proposed restoration activities, monitoring, and success criteria, will be available during the post-certification review process authorized by Section 403.5113(2), F.S., and Rule 62-17.191, F.A.C.

### 3MDC-D-16 (Third Response)

**Please see MDC's responses MDC-D-1 (Third Round), MDC-D-9 (Third Round), MDC-D-12 (Third Round), MDC-D-14 (Third Round), and MDC-D-15 (Third Round).**

**RESPONSE:**

Please see Responses to 3MDC-D-1, 3MDC-D-9 and 3MDC-D-12 above.

**3MDC-D-17 (Third Round)**

FPL's response is incomplete because the response failed to provide all of the requested information. FPL states that several alternative access roadway configurations were reviewed, but failed to include the information that supported that review in the response. Figure W9.3.1-1 shows only the SW 359 Street corridor alternative in the region immediately around the Turkey Point complex. FPL shall provide all available access road alternatives that were considered and any supporting analyses that resulted in their conclusion that SW 359 Street corridor was the "the least environmentally damaging practicable alternative that meets the Project needs". In addition, FPL shall clarify whether any other access road options were considered, including but not limited to options that would result in reduced or redistributed traffic to avoid the need for additional roadways or options that would limit the number of additional lanes needed to maintain an appropriate level of service or options that would route the additional capacity needed past more highly disturbed wetland areas or non-wetland areas. If such options to avoid and minimize impacts were not considered, FPL shall provide an explanation for why not. Such information is needed to evaluate the mitigation proposed for construction of the access roads, as per Section 24-48.4 of the Miami-Dade Code, and is needed in order for Miami-Dade County to prepare the reports required by 403.526, F.S.

FPL shall also clarify statements made in the response. FPL states that the total difference in wetland impacts between the original proposal and the MDC alternative to maximize utilization of SW 344 Street was only one acre. FPL shall clarify what specific impacts were considered in the analysis, how those impacts were classified (direct or secondary), and whether FPL's analysis included consideration of factors such as disruption of ecological corridors and subsequent effects such as an increased risk for roadkill.

FPL also stated that an insufficient amount of land exists within the road ROW on the north side of New City Canal, and additional easements and/or condemnation would be necessary. FPL shall provide maps showing where New City Canal is located, where the proposed road alignment is projected to be located relative to the existing ROW, and where the need for additional easements and/or condemnation occurs. FPL shall also identify the 19 private property owners over whose lands easements are projected to be needed, and provide justification for why there are no other alternatives using the same general concept for access to the proposed plant site that would further minimize the number of private property owners affected. For example, was expansion to the south of the SW 344 Street ROW considered to avoid the need to acquire 19 private properties?

FPL stated that the MDC alternative would result in an additional \$40 million cost to the Project aside from easement acquisition. FPL shall provide a specific breakdown of how the \$40 million cost was derived.

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**RESPONSE:**

Please see Response 3MDC-D-1(a) above.

The attached survey on CD#1 (at 3MDC-D-17) (SW 344<sup>th</sup> Street Route Survey by Ford, Armenteros & Manucy, Inc. dated 3/4/10) provides the location of the New City Canal and the amount of land within the existing 50 ft. ROW north of the canal. The New City Canal encroaches into the 50-ft. road right-of-way by varying amounts along the entire route surveyed.

The 19 private properties that would be affected by constructing a two-lane road north of the New City Canal are shown on the attached figure from BBCW and found on CD#1 at 3SFWMD-D-17. As described in Response 2MDC-D-17 (April 2010), many factors were reviewed in determining the proposed temporary roadway improvement alignment. These factors include environmental impacts, safety, security, traffic patterns, evacuation routes, costs, and impacts to existing plant operations and construction schedules. Based upon all of those factors, FPL determined that the route proposed in the SCA was the least environmentally damaging practicable alternative that met the needs of the Project.

The \$40 million additional cost associated with the New Canal Road Option was calculated by \$9.3 million in additional road construction costs (more lane miles and an additional bridge), \$1.6 million to relocate the existing daycare center on SW 344<sup>th</sup> Street, and \$30 million in costs resulting from 16 additional months necessary to construct the roadways due to the additional time during which Units 6 & 7 construction and existing plant operations traffic would be required to share roads.

These estimates do not include the costs related to acquisition of property rights.

**3MDC-D-19 (Third Round)**

**This item remains incomplete. The document referenced in page 2 of appendix 10.7.1.3 (Tucker et al., 2004) was requested by Miami-Dade County in the first and second completeness responses; said document has not been provided by FPL in either of its completeness responses to date. Therefore, the County reiterates its request that a copy of this document be submitted with the next completeness response to this item.**

**Miami-Dade County acknowledges FPL's submittal of The American Crocodile Monitoring Program for the Turkey Point Uprate 2009 Annual Report (Mazotti et al., 2009) and the 2009 Turkey Point American Crocodile Report. For the first report, FPL must provide an explanation of how the surveys conducted in January and May, for Task 1, account for nest success, hatchling sex ratios, and survivorship given that these two surveys were conducted prior to the period that crocodile eggs usually hatch, typically late July early August. FPL shall provide an explanation of why salinity is not being monitored in a continuous manner, like temperature.**

**RESPONSE:**

The unpublished document by Tucker et al. (n.d.) referenced in page 2 of SCA Appendix 10.7.1.3 is attached to the current response on CD #1 at 3MDC-D-19.

The primary purpose of the *American Crocodile Monitoring Program for the Turkey Point Uprate* (Mazzotti et al., 2009) is to determine growth and survival of crocodiles at the Turkey Point site, as

well as spatial patterns of crocodiles at Turkey Point in relation to temperature and salinity, as stated on Page 2 of the report. Task 1 specifically states that capture surveys are conducted for *growth and survival of crocodiles* [emphasis added].

Information regarding nest success and hatchling sex is provided in the *Turkey Point Plant Annual American Crocodile Report*, submitted in accordance with Federal Permit TE092945-1 and State Permits WS06468a and WX06467a. The 2009 annual report was provided with Response 2-MDC-D-19 (April 2010) and is attached on CD#1 at 3MDC-D-19.

Salinity is being monitored regularly. The frequency of salinity measurements (monthly) is in accordance with the requirements of the existing Turkey Point Condition of Certification XVI, Cooling Canal System Crocodile Population Protection.

#### References:

Mazzotti, F.J., M. D. Cherkiss, J. B. Beauchamp (2009). *Annual Report: American Crocodile Monitoring Program for the Turkey Point Uprate*; prepared for Florida Power & Light Company, Juno Beach, FL.

Tucker, W.A., J. Wasilewski, E. Zillioux, A.B. Shortelle, and J. Lindsay (n.d.). *Assessment of American Crocodile Populations of Southern Florida: Trends in Population and Reproduction Rates, unpublished*.

#### 3MDC-D-20 (Third Round)

**Miami-Dade County stated in comments on the Completeness Response that staff has observed crocodiles outside the designated critical habitat. FPL has stated in the response that "It would be beneficial if County staff would document all observances of listed species with the USFWS, FWC, and FNAI, as well as the appropriate landowners, to facilitate applicants' ability to fulfill the requirements of Chapter 24, Miami-Dade County Code and the Endangered Species Act." Miami-Dade County notes that opportunistic observations should not be the sole basis for a determination of which habitats are utilized by wildlife and which of those habitats are critical to wildlife, including threatened and endangered species. Miami-Dade County has continued to request comprehensive, seasonal studies on both wildlife utilization and plant occurrence for the region within and surrounding the proposed locations for the plant and associated non-transmission facilities. Such studies are needed to properly document the use and value of the habitat in order to understand the potential impacts of the proposed project on flora and fauna of the region. Miami-Dade County notes that FPL has continued to dismiss the County's request for comprehensive information on flora and fauna, including seasonal utilization, or any other information resulting from a Comprehensive Environmental Impact Statement based upon FPL's assertion that the request is procedural in nature. However, Miami-Dade County reiterates that the information regarding flora and fauna including seasonal variations is required to evaluate this project for conformance with nonprocedural requirements of Miami-Dade County. Miami-Dade County acknowledges the additional information provided by FPL in its completeness responses related to this issue; however, the information remains incomplete. Without the requested information, Miami-Dade County is unable to determine whether the proposed plant and associated non-transmission facilities meet the requirements of Chapter 24 of the Miami-Dade Code and is unable to prepare the reports required by Section 403.526, F.S.**

**Miami-Dade County acknowledges the information provided by FPL on proposed wildlife protection measures within the roadway improvement corridor, however, this information remains incomplete. Please refer to comments in MDC-D-21 (Third Round).**

**RESPONSE:**

As stated in the SCA, the potential for threatened and endangered species occurrence is based upon evaluation of the availability of suitable habitat, field surveys, previous studies, agency consultation, and data from the US Fish and Wildlife Service (USFWS), Florida Fish and Wildlife Conservation Commission (FWC), and Florida Natural Areas Inventory (FNAI), and not upon "opportunistic observations." FPL has provided a thorough analysis of the potential utilization of the Site and associated facilities by threatened and endangered species, based upon presence of habitat, field surveys, agency consultation, and over three decades of data collected at the Turkey Point plant.

Prior to actual commencement of construction, FPL will conduct additional pre-clearing listed species surveys following selection of final rights-of-way for associated linear facilities. The surveys will be conducted in consultation with the FWC and USFWS, and results will also be forwarded to MDC. FPL will comply with the FWC and USFWS regulations regarding avoidance, minimization, and mitigation of impacts to listed species, including plants that may be found with area where construction will be undertaken.

Regarding the requested CEIS, FPL reasserts the response contained in our 1<sup>st</sup> Round Response (October, 2009). Under the PPSA, the SCA is the procedural vehicle for addressing the applicable substantive requirements of the MDC code the procedural requirements of local ordinances are superseded by PPSA procedures and submittal requirements under Section 403.510, F.S. FPL will therefore not prepare a CEIS in support of the SCA.

Please also see Response 2-MDC-A-23 (April 2010).

**3MDC-D-21 (Third Round)**

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the timeframes prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03- 45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".**

**Miami-Dade County continues to consider the application incomplete because FPL omitted information on Eastern indigo snake habitat preferences that was provided as part of the information submittals for the proposed transmission corridors, which has resulted in an inaccurate assessment of the likelihood that the Eastern indigo snake occurs within or near the plant site or associated linear and non-linear features, including the proposed construction access roads. The County continues to request the following information:**

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FPL-TURKEY POINT UNITS 6 & 7 SITE CERTIFICATION APPLICATION

- **FPL shall provide a revised assessment of the likelihood for occurrence of the Eastern indigo snake that accurately addresses the similarity between nearby habitat where the snake has been documented and habitat available within the boundaries of the proposed plant site and associated linear and non-linear non-transmission features.**
- **FPL shall also provide information on wildlife protection measures to be incorporated into the design for the access roads, in accordance with requirements under Condition 9 of Z-56-07 that will provide protection for the Eastern indigo snake from mortality due to road kill.**

The County has been clear in expressing concern about the potential impact of the proposed construction access roads on wildlife that occupy the upland and wetland habitats near the proposed roads, and has presented information indicating that reptiles, and especially snakes, are disproportionately represented in a roadkill survey for a multilane road, US Highway 1, that passes through habitat similar to where the proposed construction access road will be located. Miami-Dade County wishes to clarify that the County did not claim that there were Eastern indigo snakes represented in the roadkill survey, but instead stated that "reptiles, and particularly snakes, are disproportionately represented in road-kill surveys for other paved roads that have wetlands on both sides of the road, such as US Highway 1". This information may be obtained directly from the Florida Department of Transportation, District 6.

FPL has continued to dismiss the County's concerns, stating in its Second Completeness Response that "The majority of the roadway improvement corridor traverses shallow hydroperiod freshwater marsh wetlands, tree nurseries, exotic wetland hardwoods, mixed wetland hardwoods, and existing roadways. Based on the lack of suitable habitat for Eastern indigo snakes within the roadway improvement corridor, it is highly unlikely that this species would be at risk of adverse impact associated with the proposed roadway improvements." This statement is not consistent with information provided for the transmission corridors, which stated, "In response to Miami-Dade County's request for acknowledgement that indigo snakes could occur in and around wetland habitats along the corridors similar to those found in the FPL Everglades Wetland Mitigation Bank, FPL, in the submittals referenced above, has indicated the snake uses a wide variety of habitats. As Moler (1992)\* also indicates, the snake can be found in "habitats ranging from mangrove swamps and wet prairies to xeric pinelands and scrub." Moler also reports the snake favors wetland edges for foraging, preying on frogs and other snakes. FPL has recorded indigo snake sightings within the Everglades Mitigation Bank, but they are typically found on tree islands and spoil berms or roads. In fact, FPL has created an upland indigo snake habitat area within the Crocodile Preserve portion of the Bank. Therefore FPL does concur that the indigo snake could utilize wetland habitats along the corridors similar to those within the Everglades Wetland Mitigation Bank." (FPL's Turkey Point Units 6 & 7 Supplemental Analysis, Transmission Lines, Third Completeness and Supplemental Analysis CD of SCA Information Submitted by FPL Regarding Turkey Point Transmission Line Corridors, Response MD(3)-09) Given that the construction access roads overlap with the proposed West Transmission Corridor for approximately 3 miles and includes the same habitat, FPL must correct its assessment to provide consistency with information and conclusions that were drawn with respect to the transmission corridors.

In addition, FPL must provide detailed information on how public access will be restricted from the construction access roads (including areas where those access roads occupy a public

**rightof- way), what steps FPL will take to enforce and/or maintain the means for restricting access, along with a schedule for enforcement/maintenance of those means, what speed limits will be posted, how and how often speed limits will be enforced, language/graphics for any wildlife crossing signage, locations where wildlife crossing signage will be posted and how those locations were selected, locations where the road crosses wildlife travel corridors but wildlife crossing signage will not be posted along with justification for why not, and information on what schedule of maintenance for the signage will be followed.**

**RESPONSE:**

Please refer to the USFWS South Florida Multi-Species Recovery Plan for a detailed discussion of habitat preferences of Eastern indigo snakes in the region (U.S. Fish and Wildlife Service, 1999). The analysis provided by FPL is consistent with the USFWS information, and provides the basis for the opinion that it is possible that indigo snakes may occur within the area of the proposed temporary construction access roadway improvements, but it is unlikely that the proposed temporary addition of lanes to existing roadways to facilitate construction traffic will adversely affect the Eastern indigo snake.

Nevertheless, as stated previously, FPL will conduct additional pre-clearing listed species surveys following selection of final rights-of-way for linear facilities, to include surveys for the Eastern indigo snake. The surveys will be conducted in consultation with the agencies. FPL will comply with the regulations regarding avoidance, minimization, and mitigation of impacts to listed species, including plants.

All construction personnel will receive mandatory wildlife training to include identification of protected species potentially occurring within the construction areas/access roads and notice to stop work and notify FPL environmental managers if protected species are observed within the work area, including panthers, Eastern indigo snakes, and American crocodiles. In addition, FPL will comply with the USFWS Standard Protection Measures for Eastern Indigo Snakes, including posting of informational signs along the access roads to contain the following information, at a minimum:

- a. a description and photograph of the eastern indigo snake, American crocodile, and Florida panther, their habits, and protection under Federal Law;
- b. instructions not to injure, harm, harass or kill these species;
- c. directions to cease clearing activities and allow the species sufficient time to move away from the site on its own before resuming clearing; and,
- d. telephone numbers of pertinent agencies to be contacted if a dead individual is encountered. The dead specimen should be thoroughly soaked in water and then frozen.

The exact location of wildlife crossing and protected species information signage has not been determined; FPL will consider locations proposed by DERM if provided. The signs will be maintained as needed to ensure visibility and legibility of information.

Please see response to 3MDC-D-1(a) and (b) regarding public access restrictions. Speed limits will remain as they currently exist on public roadways. The speed limit on SW 359<sup>th</sup> Street between SW 137<sup>th</sup> Avenue and the plant site will be at 45 miles per hour. As previously discussed in Response 2MDC-D-1(b) (April 2010), public access will be restricted from SW 359<sup>th</sup> Street by locked gates. The other roadways included in FPL's proposed temporary roadway improvements alignment are

designated as Miami-Dade County public right-of-ways. FPL proposes to enforce a 45-mile speed limit upon temporary construction access roads; compliance by FPL contractors will be mandatory.

Reference:

U.S. Fish & Wildlife Service (1999). USFWS South Florida Multi-Species Recovery Plan, "Eastern Indigo Snake" retrieved July 2010 from <http://www.fws.gov/verobeach/images/pdflibrary/eisn.pdf> pp. 4-567-582.

### **3MDC-D-22 (Third Round)**

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the timeframes prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03- 45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".**

**Please also see MDC's responses MDC-A-23 (Third Round), MDC-A-26-2(Third Round), MDCD-1(a) and MDC-D-1(b) (Third Round), MDC-D-9 (Third Round), MDC-D-12 (Third Round), MDC-D-13 (Third Round), MDC-D-21 (Third Round), MDC-D-23(Third Round).**

### **RESPONSE:**

FPL has met with the County and agreed to schedule a coordination meeting with MDC staff and the USFWS to determine the appropriate wildlife protection features necessary for the construction access roads. Upon consultation with MDC and USFWS, FPL will revise the Threatened and Endangered Species Management Plan as necessary to address management and preservation of listed species and their critical habitats.

### **2-MDC-D-22 (Second Round)**

**The Threatened and Endangered Species Evaluation and Management Plan presented in Appendix 10.7.1.3 of the SCA and the SCA sections referenced in FPL's response do not satisfy the requirements of Condition 11 of Z-56-07.**

- **FPL shall provide additional information on how this plan satisfies the requirements of Condition 11 of Z-56-07, including but not limited to when and how FPL fulfilled the requirement for consultation with DERM and the US Fish and Wildlife Service (USFWS), how the plan provides for management of all federal and state listed threatened or endangered species, documented within the proposed access area, and how the plan provides for preservation, to the maximum extent possible, of all habitat identified as critical to these species.**

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- FPL shall address short-term and long-term measures necessary to protect all critical habitats.
- FPL shall detail how the plan was reviewed and interpreted by DERM for compliance with the substantive requirements of applicable statutes and regulations and how FPL has modified the management plan as needed to satisfy compliance with such applicable statutes and regulations.

#### 1-MDC-D-22 (First Round)

The application does not include the management plan for all federal and state listed threatened and endangered species documented within the proposed access area, as required under Condition 11 of Z-56-07. Please provide the required plan.

#### 3MDC-D-23 (Third Round)

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution *1-56-07* is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.

FPL's response stated, "Co-location of the temporary access roadways with these existing disturbed linear features [existing roadways and linear facilities, including existing FPL transmission line access roads] reduces the probability of adverse impacts to sensitive resources that are discovered at a later date." Miami-Dade County respectfully disagrees with this assertion and requires additional detailed information in order to assess the probability of adverse impacts to sensitive resources. FPL is proposing to convert the existing disturbed linear features south of SW 344 Street, which are unpaved, unmaintained, single or double lane roads that traverse otherwise contiguous and connected wetland habitats and whose use is generally limited to ORV, car, truck, and moderate-duty equipment, into multilane paved access roads that will be continuously used by heavy haul equipment. Impacts to wildlife resources are likely, which is why Condition 9 of Z-56-07 requires the use of wildlife protection features to address this issue.

FPL shall provide information on wildlife protection features that is sufficient to determine whether the requirements of Miami-Dade County Code and the CDMP as well as Condition 9 of Z-56-07 have been met. Pursuant to Condition 9 of Z-56-07, FPL shall provide locations, details, and descriptions of all wildlife protection features, including but not limited to location of any fencing and wildlife underpasses that will be provided for the construction access roads, how public access will be restricted from the construction access roads (especially for areas where those access roads occupy a public right-of-way), what steps FPL will take to enforce

**and/or maintain the means for restricting access, along with a schedule for enforcement/maintenance of those means, what speed limits will be posted, how and how often speed limits will be enforced, language/graphics for any wildlife crossing signage, locations where wildlife crossing signage will be posted and how those locations were selected, locations where the road crosses wildlife travel corridors but wildlife crossing signage will not be posted along with justification for why not, and information on what schedule of maintenance for the signage will be followed.**

**RESPONSE:**

FPL has met with the County and agreed to schedule a coordination meeting with MDC staff and the USFWS to determine the appropriate wildlife protection features necessary for the construction access roads. After consultation with MDC and USFWS, FPL will revise the Threatened and Endangered Species Management Plan to include the necessary protection features.

All construction personnel will receive mandatory wildlife training to include identification of protected species potentially occurring within the construction areas/access roads and notice to stop work and notify FPL environmental managers if protected species are observed within the work area, including panthers, Eastern indigo snakes, and American crocodiles.

Please see Responses 3MDC-D-1(a), 3MDC-D-1(b) and 3MDC-D-21 above. Although FPL will patrol the construction access roads, FPL cannot restrict public access to public roadways.

**3MDC-D-24 (Third Round)**

**FPL states in its response that "FPL acknowledges the requirement pursuant to Condition 9 of Resolution Z-56-07 to maintain sheetflow across roadways and to coordinate with DERM to develop a conceptual plan for the roadway elevations to account for increased water elevations resulting from planned restoration activities in the area adjacent to the roads." No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the timeframes prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.**

**FPL's submittal shall include information on how this conceptual plan meets the requirements of Condition 17 of Z-56-07. Those proposed construction access roads that fall within the boundaries of the West Preferred Transmission Corridor qualify as "transmission corridor upgrades to this area" /i.e. "within the Biscayne Bay Coastal Wetlands CERP Project study boundaries"] and "improvements to sheet flow such that the corridors do not impede the flow of ground or surface waters" are required.**

**RESPONSE:**

Please see Response 3MDC-D-1(a) above.

**2-MDC-D-24 (Second Round)**

The requested information is not outside the scope of a completeness request for additional information. FPL's response is incomplete because it fails to provide details on how multilane road construction will be made compatible with restoration features planned by CERP. FPL shall provide details including but not limited to road elevation, location and details on whether any segments of the proposed roads will be elevated, placement within the available right of way, reservations (if any) for planned CERP features including but not limited to Pump PU-M3 and the north-south spreader canal planned for the Tallahassee Road alignment, existing features (natural and man-made) that would be impacted by road construction, total acres of wetlands that will specifically be impacted by the installation of the access roads, and size and location of culverts intended to maintain hydrologic connectivity across the road, The information requested is required to evaluate whether the proposed project is consistent with Condition 9 of Z-56-07, Section 24-48.3 of the Miami-Dade County Code and objectives and policies in the CDMP that require consistency with CERP.

**1-MDC-D-24 (First Round)**

Most of the lands adjacent to the proposed roadway segment improvements occur within the boundaries of the Biscayne Bay Coastal Wetlands CERP Project, and several segments would be located where this CERP project proposes infrastructure for restoration of the surrounding wetlands and Biscayne Bay. These road improvements would directly interfere with CERP features associated with the Biscayne Bay Coastal Wetlands Project, including pumps and spreader canals. A pump station is proposed on the south side of the Florida City Canal at the Tallahassee Road (SW 137 Avenue) alignment. The purpose of this pump station is to transfer water south into the Model Lands Basin via a north/south spreader canal that would be constructed within the SW 137 Avenue road right of way. The CDMP requires that the FPL project be consistent with CERP, yet the lands that would be impacted by the FPL roadway improvement feature are the same lands that would be restored under CERP. Please address how the proposed roadway features would be constructed to be consistent with the proposed CERP features.

**3MDC-D-25 (Third Round)**

See MDC's response MDC-D-24(Third Round).

**RESPONSE:**

Please see Response 3MDC-D-1(a) above.

**3MDC-D-26 (Third Round)**

This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the timeframes prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03- 45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.

**RESPONSE:**

Please see Response 3MDC-D-1(a) above.

**2-MDC-D-26 (Second Round)**

The requested information is not outside the scope of a completeness request for additional information. The information requested is required to evaluate whether the proposed project is consistent with Condition 9 of Z-56-07, Section 24-48.3 of the Miami-Dade County Code, and objectives and policies in the CDMP that require preservation of natural drainage and other wetland functions. As requested and pursuant to Condition 9 of Z-56-07, please provide locations, details and descriptions of all features that are intended to maintain sheetflow across the roadways.

**1-MDC-D-26 (First Round)**

Pursuant to Condition 9 of Z-56-07, "Sheet flow shall be maintained across roadway alignments by elevating portions of the roadway and through the installation of culverts in other areas." The application does not contain sufficient information to determine whether the requirements of Condition 9 of Z-56-07 have been met. Pursuant to Condition 9 of Z-56-07, please provide locations, details and descriptions of all features that are intended to maintain sheetflow across the roadways.

**3MDC-D-27 (Third Round)**

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".

**RESPONSE:**

Please see Responses 3MDC-D-1(a), 3MDC-D-1(b), and 3MDC-D-21 above.

**2-MDC-D-27 (Second Round)**

The requested information is required to evaluate potential impacts of the project and determine if the project can be certified as proposed, or whether modification of the project is necessary for certification. Drainage plans and associated calculations for the proposed access roads are needed to evaluate the project for compliance with requirements of the CDMP and Miami-Dade County Code. Including but not limited to Section 24-48.3 of the Miami-Dade Code, which addresses potential adverse environmental impact and cumulative adverse environmental impact of the proposed work, including but not limited to the effect upon hydrology, water quality, water supply, wildlife habitats, floral and faunal values, rare, threatened and endangered species, wetland values, and any other environmental values, affecting the public interest.

**1-MDC-D-27 (First Round)**

Please provide drainage plans and associated calculations for the proposed access roads.

**3MDC-D-29 (Third Round)**

This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".

Miami-Dade County reiterates the request for " ... a detailed map identifying areas where roads or road improvements would not be completely contained within the boundaries of either FPL-owned land or an existing public right-of-way. The applicant must also identify adjacent property owners whose land may need to be obtained to accommodate the road or road improvements, including but not limited to the Miami-Dade Environmentally Endangered Lands, Program, and explain the process by which the additional property will be obtained."

**RESPONSE:**

FPL is certifying a corridor for these roadways and therefore, this information will not be available until post-certification. FPL will work with the agencies to develop an appropriate condition of certification for submittal of the final roadway designs. The roadway improvements along SW 359<sup>th</sup> Street will be completely contained within FPL property. Although specific details of roadway improvements have yet to be determined, it appears that significant right-of-way exists along SW 328<sup>th</sup> Street to accommodate the roadway improvements with no impact to private landowners. Depending upon the final design width of the roads along SW 137<sup>th</sup> Avenue and SW 117<sup>th</sup> Avenue,

some impacts to adjacent property owners outside of the right-of-way may be necessary. If additional property is needed outside of public rights-of-way, FPL will obtain the necessary property interests.

## SECTION G - MISCELLANEOUS

### 3MDC-G-1 (Third Round)

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03- 45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".**

With regard to the additional information required relating to Z-56-07, Condition 6 of the Unusual Use approved by the BCC (Resolution Z-56-07) states 'That FPL shall prepare and submit a wastewater discharge plan ... ". It further states that "... The plan shall be developed in accordance with the substantive requirements of Chapter 24, Miami-Dade County Code and shall be reviewed by DERM for compliance with Chapter 24 as interpreted by DERM based upon the impacts of this application ... " To date FPL has not submitted the required report to Miami-Dade County. FPL shall submit to Miami-Dade County the required plan in order to allow the County to determine completeness of this particular issue. The plan shall include all data and supporting documentation evaluated by FPL in order to arrive at the determination that " ... *using water after it passed through the cooling towers was not a feasible alternative for regional wetland rehydration project, ...* ". In addition, the same information needs to be provided to Miami-Dade County relating to wastewaters other than the blow down waste. The complete results of the required wastewater discharge plan as well as the associated feasibility study for potential rehydration of CERP wetlands are needed at this time.

Miami-Dade County acknowledges the information provided in FPL's response 2MDC-A-6. However, this response is inadequate and does not provide information in answer to the questions contained in MDC-G-1. FPL states that industrial wastewaters will not be acceptable for land application pursuant to Chapter 62-610 FAC. Has FPL concluded that the use of wastewater to rehydrate wetlands is not technically feasible based on Chapter 62-610? Has FPL concluded that other uses such as canal or aquifer recharge would not be acceptable under the applicable portions of Florida Administrative Code given appropriate treatment? If so, information is needed to demonstrate this including code references. What "other constituents", as mentioned by FPL, are proposed to be added that would render the water unacceptable from a technical perspective? Has FPL concluded that it is technically infeasible to remove any of these constituents prior to rehydration of wetlands? If so, information is needed including the specific constituents that cannot be feasibly removed.

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## RESPONSE:

Please see Response 3MDC-A-6 above.

### 3MDC-G-3 (Third Round)

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.**

## RESPONSE:

Please see Responses 3MDC-C-6 and 3MDC-A-21 above.

### 2-MDC-G-3 (Second Round)

Please see response to MDC-C-6 and MDC-A-21

### 1-MDC-G-3 (First Round)

**The application predicts the potential for additional salinization throughout the area as a result of the project by drawing salty water landward via the radial collector wells and from deposition of salts as a result of cooling tower operations. In contrast, the CERP BBCW project seeks to reduce salinity levels in and adjacent to Biscayne Bay to restore more natural estuarine conditions. No documentation is provided to examine the specific impacts to the area from additional salinization generally and for CERP consistency specifically. A study is needed that includes a salt budget and an examination of the cumulative effects of existing and proposed operations at Turkey Point including but not limited to the existing chloride plume created by the cooling canal system and the additional salts that would be added to the area as a result of the proposed project. The study shall also be sufficient to determine the extent to which the radial collector wells would capture, redirect, or otherwise affect groundwater from the existing plume emanating from FPL's Cooling Canal System.**

### 3MDC-G-4 (Third Round)

Please see MDC's response MDC-C-24 (Third Round)

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### RESPONSE:

Please see Response 3MDC-C-24 above.

### 3MDC-G-5 (Third Round)

Please see MDC's response MDC-C-24 (Third Round)

### RESPONSE:

Please see Response 3MDC-C-24 above.

### 3MDC-G-6 (Third Round)

This item remains incomplete because FPL did not provide any new information that is relevant to the County's request for information. Regarding the reports cited as provided on CD-1, please see MDC's response MDC-A-23 (Third Round).

FPL states in its response that the "proposed Units 6 & 7 Site is isolated and wholly contained within FPL's industrial wastewater treatment facility, a previously impacted area", however, in just one field visit with FPL in 2007, Miami-Dade County staff documented more than 15 species of shorebirds including Long Billed Curlew, Whimbrel, American Avocet and Wilson's Plover, which are rarely seen in Miami-Dade County. In addition, juvenile Wilson's Plover and Reddish Egret (a wading bird that is a state-listed species of special concern), were also observed, which may indicate that nesting occurs on site. The potential for nesting/breeding activity by shorebirds *and/or* other species protected at state or federal levels on a site considered by FPL to be "impacted" is one example of why Miami-Dade County is requesting seasonal biological surveys for all lands likely to be impacted by the proposed plant and associated nontransmission facilities. Information on wildlife breeding is not likely to be complete without a study whose timing is designed for this purpose.

FPL also states in its response that the "native upland tree resources protected by Chapter 24 of the Miami-Dade County Code are uncommon", however, the response remains incomplete because FPL has not provided the requested tree survey for the proposed plant site and associated facilities, including non-transmission linear facilities. Protected tree resources may occur on any upland portion of the proposed plant site and associated facilities, including nontransmission linear facilities. Miami-Dade County staff, for example, observed a spiny black olive (*Bueida molinetii*, fka *Bueida spinosa*) adjacent to one of the roads near the proposed plant site during a site visit. This rare hardwood species is protected under Section 24-49 of the Miami-Dade County Code and is an example of why such a tree survey is needed. This information is needed to determine whether the project fulfills the substantive requirements of Chapter 24 of the Miami-Dade County Code, including but not limited to Section 24-49, and to prepare the agency reports required by Section 403.526, F.S.

FPL also states in its response that the "SCA includes results from existing databases such as Florida Natural Areas Inventory (FNAI), consultation with FWC and USFWS, reconnaissance surveys of the area, ... surveys within the Site and surrounding areas were conducted in June 2009 (fish survey utilizing minnow traps, seines, and cast nets) and April 2009 (small mammal survey utilizing 345 trapnights with Sherman live traps)". Miami-Dade County acknowledges

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FPL's provision of this information, but the item remains incomplete because the number and type of recent studies that have been conducted to document flora and fauna for this area are inadequate to properly characterize the diverse habitats that are likely to be impacted by the proposed project. For example, Appendix 10.4 of the SCA cites FNAI-provided data as the source for a single occurrence of the golden leather fern (*Aerostiehum aureum*, state-listed Threatened) near Black Point. Miami-Dade County staff, in contrast, has spent extensive time in the coastal wetlands surrounding the presumed site for the proposed plant and associated non-transmission facilities, and regularly encounters golden leather fern in the forested wetlands and mangrove swamps in this area. One recently discovered occurrence on public land was less than 3 miles from the proposed access roads in forested wetlands that are similar to those found along the access road corridor. This is a difficult species to distinguish from leather fern (*Acrostichum danaeifolium*) unless the individual is reproductive, which occurs during the late wet season. Table 3 in Appendix 10.4 of the SCA lists the likelihood as low for occurrence of the bracted colic root (*Aletris braeteata*, state-listed Endangered) near the West Preferred/Secondary Transmission Corridor, which overlaps with the construction access roads. Miami-Dade County staff, in contrast, has documented several populations on public land in the region, including one that is located in mixed graminoid prairie approximately 2 miles southwest of the proposed access roads. This species is difficult to identify without a seasonal study, since it consists of a basal rosette of leaves that is inconspicuous when the tall flower spike is not present.

Comprehensive information about flora and fauna within and surrounding the proposed plant site and associated non-transmission facilities, including the construction access roads, is needed to enable Miami-Dade County to evaluate the proposed primary and secondary impacts of the proposed plant and associated non-transmission facilities for consistency with the requirements of Sections 24-48.3 and 24-49 of the Miami-Dade County Code, plus relevant objectives and policies in the CDMP.

### RESPONSE:

The statement that the proposed site for Units 6 and 7 is considered “impacted” by FPL is consistent with the November 28, 2007 MDC Department of Planning and Zoning Recommendation to the Developmental Impact Committee regarding FPL Unusual Use request (Application Z07-207), “the area in which the proposed facility is to be located has already been highly disturbed and de-graded. As a result, the mangroves in the plant expansion area have been significantly replaced by coastal salt and mud flats.”

Questions regarding shorebird use of the proposed Units 6 & 7 Site, protected tree resources, evaluation of probability of occurrence of threatened and endangered species, and as to the number and type of recent studies to document flora and fauna for this area, are restatements of questions contained in 3MDC-A-23, 3MDC-A-25, 3MDC-A-26-2, 3MDC-D-11, 3MDC-D-20, and 3MDC-D-21. Please see the referenced responses.

As stated previously, FPL will conduct additional pre-clearing listed species surveys of the plant and associated linear facilities following selection of final rights-of-way. The surveys will be conducted in consultation with the agencies. FPL will comply with the agency regulations regarding avoidance, minimization, and mitigation of impacts to listed species, including plants.

**3MDC-G-7 (Third Round)**

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.

**RESPONSE:**

Please see Response 2MDC-G-7 (July 2010).

**2-MDC-G-7 (Second Round)**

The response is insufficient. Please provide complete and detailed water quality information on the treatment methodology, the resulting quality, volume, and timing of the discharge sufficient to determine whether the water quality of the proposed discharge water is sufficient to prevent degradation of the receiving wetlands and meet applicable restoration standards/targets such that mitigation credit would be appropriate. As mentioned in FPL's response, this shall include FPL's evaluation of the reclaimed water from the perspective of nutrients and in comparison with ambient water quality of the Florida City Canal.

**1-MDC-G-7 (First Round)**

The mitigation plan proposes to discharge wastewater into the Model Lands and to seek mitigation credit for this discharge. Since the area proposed for discharge is a sawgrass wetland, pollutant levels, including but not limited to nutrient levels, would need to be very low (e.g. less than 10 ppb phosphorous). The application, however, provides insufficient information on the treatment methodology, the resulting quality, volume, and timing of the discharge. The applicant shall provide complete and detailed water quality information for the proposed discharge water that is sufficient to determine whether the water quality of the proposed discharge water is sufficient to prevent degradation of the receiving wetlands.

**3MDC-G-9 (Third Round)**

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised

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**RESPONSE:**

Based on a meeting with DERM on June 18, 2010, FPL understands that an acceptable approach to addressing this question would be to define culvert inverts in a Condition of Certification, such that the inverts would account for planned water level increases associated with regional restoration projects, along with normal seasonal variations in surface water levels. FPL understands that from DERM's perspective this would provide for consistency with CERP.

In addition, as provided in FPL's 1<sup>st</sup> Round Plant and non-Transmission Completeness Response MDC-G-9 (October 2009),

"FPL has already provided the level of detail that is currently available regarding the project features in the SCA and has provided additional information within these completeness responses. FPL has designed the associated facilities to account for water level increases. SCA Sections R9.3.4 and W9.4.1.2 present information on elevations. These elevations were based on the planned higher water levels in this area as well as sea level rise pursuant to Policy CM-9H of the MDC CDMP. Those associated facilities will also be based on higher water levels."

**2-MDC-G-9 (Second Round)**

**See response to MDC-G-8.**

**1-MDC-G-9 (First Round)**

**Pursuant to Condition 21 of Z-56-07, FPL has agreed to allow water level increases on the project site on the order of one foot or more, pursuant to regional restoration projects, and will design the project to accommodate these water level increases at FPL's expense. Information in the application is not sufficient to determine whether the requirements of this condition have been met. The applicant shall provide detailed information on all project design elements that must be modified to meet Condition 21 of Z-56-07 that is sufficient to determine whether this requirement is being met.**

**3MDC-G-10 (Third Round)**

**Please see MDC's response MDC-D-12 (Third Round)**

**RESPONSE:**

Please see Response 3MDC-D-12 above.

**3MDC-G-11 (Third Round)**

Please see MDC's responses MDC-G-6 (Third Round), as well as comments MDC-D-1 (Third Round), MDC-D-9 (Third Round), MDC-D-12 (Third Round), MDC-D-14 (Third Round), and MDC-D-16 (Third Round).

**RESPONSE:**

Please see referenced responses 3MDC-G-6, 3MDC-D-1, 3MDC-D-9, 3MDC-D-1, 3MDC-D-12, 3MDC-D-14, and 3MDC-D-16 above

**3MDC-G-12 (Third Round)**

No additional information has been provided specific to any other variances needed for this project. It is not possible for Miami-Dade County to provide a comprehensive determination of all aspects of FPL's project that would be prohibited by the Miami-Dade County Code until all information requested by Miami-Dade County under the SCA completeness reviews have been provided. However, based on a preliminary review of the information submitted thus far, it appears that the proposed wastewater treatment plant is prohibited pursuant to the Miami-Dade County Code in addition to the proposal to discharge to the boulder zone in lieu of connection to the sanitary sewer system. With regard to the proposed mitigation project involving the discharge of wastewater to the Model Lands wetlands, it appears that the effluent would not meet the water quality standards or criteria that Miami-Dade County has advised FPL are necessary for wetlands rehydration. FPL has also been advised by Miami-Dade County that the proposal to construct a well field in the Biscayne Aquifer for cooling water purposes would be in noncompliance with Z-56-07, most specifically with condition 4. With regard to the modeling that FPL has performed to date related to this proposed well field, condition 5 of Z-56-07 requires the approval of Miami-Dade County. However, this model has not been approved by Miami-Dade County and FPL has been advised that this model is inadequate and inappropriate to address the requirements of Z-56-07, Chapter 24 and the CDMP.

Please also see MDC's response MDC-A-7 (Third Round)

**RESPONSE:**

FPL acknowledges the County's comment. However, FPL believes it has either demonstrated its satisfaction of the requirements for the requested variance for sanitary sewer connection, or otherwise is in compliance with the cited County regulatory requirement for which a variance is not required. Please see Responses 3MDC-A-6 and 3MDC-B-3 above, 2MDC-G-7 (July 2010), and 2MDC-A-3 (July 2010). If the County believes variances or other relief from the cited regulations are required, that is a matter the County can address in its agency report under Section 403.507(3)(a), F.S.

With regard to FPL's requested variance from the sanitary sewer connection requirement, FPL reasserts the response contained in our first round response to MDC-A-6 that under Section 403.511(2), F.S., the County will not be issuing a variance. Nonetheless, the information provided in this and our first and second round responses affirmatively demonstrates why a sewer connection is not technically feasible or economically reasonable and has demonstrated entitlement to a variance from sewer connection requirements pursuant to Section 25-12(1) of the MDC code. The information

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provided is sufficient for MDC to make a recommendation to the Siting Board that a variance from sewer connection requirements of the MDC code should be granted by the Siting Board.

Information relating to the technical infeasibility of sending a relatively small volume of domestic wastewater from Turkey Point to the MDWASD South District Waste Water Treatment Plant was presented in 1<sup>st</sup> Round Plant and non-Transmission Completeness Responses MDC-A-6 and 2MDC-A-6 in request for additional information. In addition, FPL met with MDC on March 8, 2010 to discuss this issue. To aid in reviewing the variance information, attached to Response 3MDC-A-6 above is a technical memorandum entitled Turkey Point Plant: On-Site Sanitary Wastewater Treatment Plant. The objective of this technical memorandum is to provide a description of the treatment processes, design and regulatory criteria proposed for a new Turkey Point Plant on-site sanitary wastewater treatment plant.

For information regarding the water quality standards necessary for wetlands rehydration associated with the proposed discharge of reclaimed water to the Model Lands Basin, please see 2<sup>nd</sup> Round Plant and non-Transmission Response 2-MDC-G-7.

With respect to the comments regarding the proposed radial collector wells and modeling, and the requirements of zoning Conditions 4 and 5, please see response 3MDC-C-1 and 3MDC-C-24.

### **3MDC-G-13 (Third Round)**

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will review that information in a subsequent round of completeness.**

Please see also MDC's response MDC-C-6 (Third Round)

### **RESPONSE:**

FPL continues to work with the reviewing agencies to address questions about the hydrologic impacts of the Project as they pertain to the proposed back-up cooling water supply and/or dewatering. Due to the complexity and duration of additional groundwater modeling necessary to respond to some of the agency comments and questions, additional time is necessary to provide the full response to this completeness question. FPL will provide the response to this question at a later date.

### **2-MDC-G-13 (Second Round)**

**The application and response does not contain sufficient information to adequately evaluate the potential impact of the project on groundwater, surface water, salt**

**intrusion, movement of the hyper-saline plume associated with the cooling canal system, and to evaluate potential project related impacts to wetlands resources and Biscayne Bay. Furthermore, Miami-Dade County does not agree that the information provided satisfies Condition 15 of Z-56-07. FPL shall provide information detailing how the various reports and comments provided in the SCA and in the Completeness Responses document were developed in accordance with the substantive requirements of Chapter 24, Miami-Dade County Code. FPL shall also provide documentation on how and when the information comprising the study was reviewed by DERM for compliance with Chapter 24 as interpreted by DERM based upon the impacts of this application. Please see comments provided in MDC-C6.**

#### **1-MDC-G-13 (First Round)**

**Pursuant to Condition No. 15 of the Unusual Use Approval Resolution Z-56-07, included in Appendix 10.3, a DERM approved hydrologic study and its results shall be provided that evaluates all impacts to surface and groundwater. This study should include consideration of seasonal differences in groundwater flow cited in Section 3.3.3.2 and determine the extent to which these differences are due to current operations at Turkey Point.**

#### **3MDC-G-18 (Third Round)**

**FPL shall clarify the response provided in 2MDC-G-18. Will any impacts to wetlands or wetland vegetation, such as mangroves, in the in situ restoration areas, be required for maintenance, repair or other activities after restoration is complete? If so, FPL shall provide details of such impacts and shall also provide corrected UMAM scores that account for these future impacts.**

#### **RESPONSE:**

Following installation of the reclaimed, potable, and radial collector well delivery pipelines, no maintenance is required, nor is any requirement for repair of the pipelines anticipated. If any disturbance of the restored areas becomes necessary, the areas will be returned to the pre-disturbance condition to avoid any loss of wetland functions.

#### **3MDC-G-20 and MDC-G-21 (Third Round)**

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. Miami-Dade County requires a detailed Mitigation Plan at this time to *evaluate* completeness of the application. The plan must identify the specific mitigation for each of the specific impacts proposed in order for the County to *evaluate* the mitigation and to prepare the reports required by Section 403.526 F.S. and shall include categorization of each specific mitigation type (i.e. direct, secondary, temporary, etc). In addition, as per Miami-Dade County's First Round Completeness comment for MDC-G-35, "the time lag associated with the proposed mitigation projects must be calculated from the initiation of the impacts to the time in which the mitigation reaches the proposed "with mitigation" score". FPL shall also clarify the**

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**comment that "some mitigation activities may be initiated prior to the time of impacts. Is FPL proposing to do "up-front" mitigation? If so, FPL shall provide details, including time frames relative to each specific impact.**

**RESPONSE:**

As described in 2<sup>nd</sup> Round Plant and non-Transmission Response 2-MDC-A-25 (April 2010), the ERP application form (SCA Appendix 10.4, Rev. 1, May 2010), Section E, includes a Project Impact Summary (Table 1), which details the amount of wetland impact associated with each project feature and the proposed mitigation to offset those impacts. In the case of the Units 6 & 7 Site, impacts are proposed to be mitigated through the Everglades Mitigation Bank. In the case of the transmission lines, impacts are proposed to be mitigated through the Hole in the Donut Mitigation Bank. These two project features comprise approximately 70 percent of the total project wetland impact. Please see wetland impact totals below:

UNITS 6 & 7 PROJECT WETLAND IMPACT SUMMARY

Area	Wetland Impacts (acres)			Functional Loss (UMAM Credits)
	Direct	Secondary <sup>a</sup>	Temporary	
Units 6 & 7 Site	250.2			128.3 <sup>b</sup>
Associated Non-Linear Facilities	70.2	3	6.4 <sup>c</sup>	53.5
Access Roads	81.6	45		80.6
Reclaimed Water Pipelines			41.9 <sup>c</sup>	5.7
Transmission Line Corridors	308 <sup>d</sup>			241 <sup>d</sup>
TOTAL	710	48	48	509

<sup>a</sup> Secondary wetland impact calculated as 25-foot zone surrounding areas of wetland fill; functional loss for secondary impacts calculated as 60 percent of direct impact.

<sup>b</sup> Functional loss calculated via W.A.T.E.R. functional assessment methodology for the Units 6 & 7 Site = 148.4 W.A.T.E.R. credits.

<sup>c</sup> Loss of functional value for temporary impacts associated with pipeline installation will be replaced through in-situ restoration. Mitigation credits to offset time lag associated with in-situ restoration are provided.

<sup>d</sup> Transmission line impacts approximated utilizing conservative estimates regarding road and pad design layout within corridor and average functional assessment scores within the corridor segments; actual wetland impacts will be reduced upon completion of detailed engineering design. Acreage of clearing/conversion of forested to herbaceous wetlands will be calculated upon completion of detailed engineering design.

For the remaining project features, including the temporary construction access roadway improvements, water delivery pipelines, reclaimed water treatment plant, and the administration and training buildings and parking area, FPL is refining the mitigation plan in accordance with input from MDC, USACE, FDEP, and the SFWMD to identify a final plan of wetland enhancement, restoration, and preservation that will offset the loss of wetland functions.

FPL is refining the mitigation plan in accordance with input from MDC, USACE, FDEP, and the SFWMD to identify a final plan of wetland enhancement, restoration, and preservation that will offset the loss of wetland functions. A revised mitigation plan will be available prior to agency reports. The final mitigation plan, including details of proposed restoration activities, monitoring, and success criteria, will be available during the post-certification review process authorized by Section 403.5113(2), F.S., and Rule 62-17.191, F.A.C.

In accordance with 62-345.600, F.A.C., FPL will initiate mitigation activities simultaneously or prior to the time of wetland impacts in order to address the time lag associated with the proposed mitigation relative to the time of impacts.

### **3-2-MDC-G-23 (Third Round)**

Please see MDC's response MDC-G-11 (Third Round)

#### **RESPONSE:**

Please see Response 3MDC-G-11 above.

### **3MDC-G-26 (Third Round)**

**This item remains incomplete because FPL did not provide the requested information. Please see MDC's responses MDC-D-1 (Third Round), MDC-D-9 (Third Round), MDC-D-12 (Third Round), MDC-D-13 Third Round), MDC-D-21 (Third Round), and MDC-D-23 (Third Round).**

#### **RESPONSE:**

Please see Responses 3MDC-D-1, 3MDC-D-9, 3MDC-D-12, 3MDC-D-13, 3MDC-D-21 and 3MDC-D-23 above.

### **3MDC-G-27 (Third Round)**

**This item remains incomplete. FPL' s response indicates that the acreages derived for the functional lift are estimates based on anticipated *volumes* of water, size of receiving wetlands, and past modeling for the Everglades Mitigation Bank Weir constructed in Card Sound Road Canal. FPL proposes to perform detailed hydrologic modeling post certification to refine the projected estimates. However, Miami-Dade County requires a detailed Mitigation Plan at this time. The plan must identify the specific mitigation (with finalized functional lift calculations, not estimates) for each of the specific impacts proposed in order for the County to *evaluate* the mitigation and to prepare the reports required by Section 403.526 F.S. Please also see MDCD-15 (Third Round)**

#### **RESPONSE:**

As described in 2<sup>nd</sup> Round Plant and non-Transmission Response 2-MDC-A-25, the ERP application form (SCA Appendix 10.4, Rev. 1, May 2010), Section E, includes a Project Impact Summary (Table 1), which details the amount of wetland impact associated with each project feature and the proposed mitigation to offset those impacts. In the case of the Units 6 & 7 Site, impacts are proposed to be mitigated through the Everglades Mitigation Bank. In the case of the transmission lines, impacts

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are proposed to be mitigated through the Hole in the Donut Mitigation Bank. These two project features comprise approximately 70 percent of the total project wetland impact.

For the remaining project features, including the temporary construction access roadway improvements, water delivery pipelines, reclaimed water treatment plant, and the administration and training buildings and parking area, FPL is refining the mitigation plan in accordance with input from MDC, USACE, FDEP, and the SFWMD to identify a final plan of wetland enhancement, restoration, and preservation that will offset the loss of wetland functions. The amount of functional lift associated with the proposed hydrologic enhancement mitigation projects has been conservatively calculated, as described in SCA Appendix 10.4, Attachment E. A revised mitigation plan will be available prior to agency reports. The final mitigation plan, including details of proposed restoration activities, monitoring, and success criteria, will be available during the post-certification review process authorized by Section 403.5113(2), F.S., and Rule 62-17.191, F.A.C.

### 3MDC-G-28 (Third Round)

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. Miami-Dade County acknowledges the UMAM score sheets for the hydrologic improvement mitigation projects. However, the initial information provided by FPL regarding risk and uncertainty remains inadequate (please refer to MDC-G-27 (Third Round) above).**

#### RESPONSE:

It is not clear what aspect of the risk factor analysis associated with potential hydrologic enhancement projects remains inadequate to MDC. FPL has provided the risk factors for each potential mitigation alternative in SCA Appendix 10.4, Section 2, Attachment E, determined in accordance with Chapter 62-345, F.A.C. The estimated risk of uncertainty in hydrologic improvement and ecosystem response associated with the potential hydrologic enhancement projects ranges from 1.25 to 1.5, in accordance with 62-345.600(2) F.A.C. Please see 1<sup>st</sup> Round Plant and non-Transmission Completeness Response MDC-G-28 (October 2009) for a description of each individual parameter of the overall risk factor evaluation, in accordance with Chapter 62-345, F.A.C.

FPL is refining the mitigation plan in accordance with input from MDC, USACE, FDEP, and the SFWMD to identify a final plan of wetland enhancement, restoration, and preservation that will offset the loss of wetland functions. The final mitigation plan, including details of proposed restoration activities, monitoring, and success criteria, will be determined through ongoing discussions with the agencies.

### 3MDC-G-30 (Third Round)

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-**

**EPP". The County acknowledges FPL's desire to provide information towards the completeness of this item at a later date and the County will *review* that information in a subsequent round of completeness.**

**RESPONSE:**

Please see response 2MDC-G-7 (July 2010).

**2-MDC-G-30 (Second Round)**

**The requested information is required to evaluate proposed project mitigation prior to certification.**

**1-MDC-G-30 (First Round)**

**Please provide additional information on the quality, quantity, timing and reliability of the proposed reclaimed water for hydrologic improvements.**

**3MDC-G-31 (Third Round)**

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP". FPL shall clarify the statement regarding modification of HID to UMAM. Since HID has not been modified to UMAM, the relevance of this statement is unclear. Miami-Dade County is trying to verify FPL's proposed mitigation ratios based on the current applicable Basis of Review requirements as they relate to use of the HID. The proposed ratios do not appear to be consistent with applicable Basis of Review requirements, which call for a minimum of 1.5/1. FPL shall provide information to reconcile the discrepancy between the proposed mitigation ratios and the minimum ratios required under State and County law.**

**RESPONSE:**

The statement regarding modification of HID to UMAM is related to a statement from the FDEP in the 1<sup>st</sup> Round of Plant and non-Transmission Determination of Incompleteness, question FDEP-II-B-80 (October 2009).

“It should be noted that the HID Mitigation Bank is currently being reviewed for conversion to UMAM. If this modification to the HID Mitigation Bank is accomplished in the near future, the mitigation calculations for any use of this bank can be reevaluated.”

The use of the HID is proposed to offset impacts to similar wetland types occurring within the linear facility corridors. The mitigation ratios for HID were selected based upon consultation with the USACE, the HID managers, and are consistent with other applicants' use of the HID.

The HID was permitted prior to adoption of 62-345.100(6), F.A.C., with cost per credit equivalent to offset 1 acre of impact. The HID managers indicate that the bank currently uses a ratio of 1:1. Review of recent USACE permits indicate 1:1 ratio. The recent USACE public notice issued for the HID:

“GP-74 Expiration/Revised Mitigation Procedures at Hole-in-the-Donut (HID)”, states: “the existing ratio system established under the Special Area Management Plan (SAMP) will be maintained for the HID ledger. Mitigation will be calculated using the existing ratio of 1.5:1 established under the SAMP to off-set unavoidable wetland impacts for the Bird Drive and North Trail Basins. For the remainder of the Mitigation Service Area (Miami-Dade County) the HID will comply with the minimum ratio score of 1:1 as required by the Federal Mitigation Rule.”

### **3MDC-G-32 (Third Round)**

**This item remains incomplete. Miami-Dade County acknowledges FPL's statement that they have submitted Revised Figure 2MDC-G-32 (Rev. 1) titled FPL Lands Proposed for Preservation/Restoration & Development within the Biscayne Bay Coastal Wetlands & Model Lands Basin, however, the item remains incomplete because the requested figure could not be found, either in hard copy or in electronic format (File name: Figure2MDC-G-32\_09387652C014\_Rev1\_BBCW\_ModelLands.pdf). FPL shall resubmit this map.**

#### **RESPONSE:**

Revised Figure 2MDC-G-32 was provided with the 2<sup>nd</sup> Round of Plant and non-Transmission Completeness Responses on CD #1, in the PDF named 2<sup>nd</sup> Round Figures.pdf.

The figure is attached here and found on attached CD#1 at 3MDC-G-32.

### **3MDC-G-35 (Third Round)**

**This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. Miami-Dade County requires a detailed Mitigation Plan at this time to evaluate completeness of the application. The plan must identify the specific mitigation for each of the specific impacts proposed in order for the County to evaluate the mitigation and to prepare the reports required by Section 403.526 F.S. In addition, as per Miami-Dade County's First Round Completeness comment for MDC-G-35, "the time lag associated with the proposed mitigation projects must be calculated from the initiation of the impacts to the time in which the mitigation reaches the proposed "with mitigation" score". FPL shall clarify the comment that "some mitigation activities may be initiated prior to the time of impacts". Is FPL proposing to do "upfront" mitigation, and if so, provide details, including time frames relative to each specific impact.**

**Please also see MDC-D-15 (Third Round).**

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## RESPONSE:

Please see Responses 3MDC-G-20 and 3MDC-G-21 above for discussion of time lag associated with mitigation activities. Please see response 3MDC-D-15 above for discussion of specific mitigation for each of the specific impacts.

### 3MDC-G-40 (Third Round)

Please see MDC's responses MDC-A-26-1 (Third Round) and MDC-A-26-2 (Third Round).

## RESPONSE:

Please see Responses 3MDC-A-26-1 and 3MDC-A-26-2 above.

### 3MDC-G-41 (Third Round)

**This item remains incomplete. The reference to MDC-C-26 is a typographical error. In the first round of Completeness Responses, FPL disagreed with assertions made by Miami-Dade County that water is migrating from the Cooling Canal System (CCS). Miami-Dade County reiterates that the application provides insufficient information with regard to MDC-G-41. FPL shall submit data and information to demonstrate that the water is not migrating from the CCS.**

## RESPONSE:

FPL did not disagree with Miami-Dade County that water is migrating from the cooling canal system. In fact, the existing industrial wastewater facility was designed and permitted to allow for migration of water from the cooling canal system into the groundwater. However, due to its higher density, water from the industrial wastewater facility does not impact surface waters. Consequently, FPL cannot provide data to demonstrate that water is not migrating from the cooling canal system. Turkey Point Units 6 & 7 operation will result in the discharge of stormwater to the industrial wastewater facility, which will have negligible impact on the quantity or quality of the water in the cooling canals.

As discussed in 1<sup>st</sup> Round Plant and non-Transmission Completeness Response SFWMD-B-40 (October 2009), however, there is no evidence that water from the industrial wastewater facility flows to surface waters, including Biscayne Bay. Furthermore, sound reasons were provided in SFWMD-B-40 to demonstrate that water flowing out of the industrial wastewater facility to groundwater will move down toward the base of the aquifer. There is no reason to expect that water flowing out of the industrial wastewater facility will flow back up to Biscayne Bay, or to any other surface water. As discussed in 2<sup>nd</sup> Round Response 2SFWMD-B-40(32) (April 2010), the only known groundwater exchange between Biscayne Bay and the industrial wastewater facility is from the Bay into the industrial wastewater facility. There is no hydraulic basis for expecting flow in the opposite direction.

### 3MDC-G-42 (Third Round)

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".**

#### **RESPONSE:**

All fill material will meet the clean fill definition found in Chapter 24-5 of the MDC Code.

With respect to satisfaction of Condition 14 of the Zoning Resolution, FPL recognizes that the zoning approval is an independent authorization and that the conditions of zoning are independent requirements. FPL is committed to satisfying all conditions of zoning. FPL has met with the County and agreed to a submittal framework through which this zoning Condition, and the remainder of the conditions, will be addressed such that the County can determine the application complete and prepare an agency report addressing which conditions are satisfied and which conditions remain to be satisfied post-certification, during construction or during the operation of the Project.

Based on a meeting with MDC on June 18, 2010, FPL understands that an acceptable approach to addressing this question would be for FPL to submit an initial earthwork and materials disposal plan. The plan would include, but not be limited to, management/control practices, soil sampling protocols as necessary, avoidance of listed species (e.g. crocodile nesting habitat and ingress/egress routes), and clearly state that no wetlands will be filled for spoil storage. In addition, the plan will provide information on whether the disposal of spoil in the referenced upland locations will be permanent or temporary, expected slopes and elevations for the piles, what measures will be taken to address stormwater runoff from the spoil piles, and potential impacts to surrounding coastal wetlands.

For fill that would come from a source other than an approved quarry, the plan would include a statement that FPL will work with MDC to develop an appropriate material sampling protocol, sample the material, and obtain approval from MDC for use of the material.

### 2-MDC-G-42 (Second Round)

**Please see comments provided in MDC-A-26.**

### 1MDC-G-42 (First Round)

**The application does not provide sufficient information to determine whether all construction operations involving earthwork, including disposal, are limited to clean fill. Further, it is not clear that disposal of materials will meet the clean fill definition in Chapter 24 as required pursuant to Condition 14 of Z-56-07. Please provide the required information necessary to demonstrate consistency with Condition 14 of Z-56-07 and Chapter 24, Miami-Dade Code. This shall include, but not be limited to**

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**characterization of materials proposed for disposal to demonstrate that they are free of contaminants.**

### **3MDC-G-44 (Third Round)**

**No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".**

**In addition, FPL has not provided to the County the earthwork and materials disposal plan required pursuant to condition 7 of Z-56-07. The plan is required and shall include but not be limited to a description of how the fill material will be characterized in terms of its chemical composition, sampling methodologies proposed to be used to sample the fill material, a list of parameters proposed to be sampled, list of analytical methods including MDIs and POIs of the proposed analytical methods, how the materials will be stored to prevent storm water runoff from entering adjacent water bodies and wetlands. The aforementioned plan must be submitted to the County for review and approved by DERM.**

**Please see MDC's response MDC-A-26-1 (Third Round)**

### **RESPONSE:**

Please see Responses 3MDC-G-42 and 3MDC-A-26-1 above.

### **2-MDC-G-44 (Second Round)**

**Please see comments provided in MDC-A-26.**

### **1-MDC-G-44 (First Round)**

**Proposed Spoil Areas: Please submit the earthwork and materials disposal plan required under Condition 7 of Z-56-07. The plan should include, but not be limited to plans and sketches pertaining to the proposed Spoil Areas including elevation details and slope stabilization. The applicant should also provide the management plan for listed species required under Condition 2 of Z-56-07, which should include but not be limited to identifying the plans established to protect endangered or threatened species from impacts resulting from the proposed work.**

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## 3MDC-G-45 (Third Round)

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPI's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".

Please also see MDC's response MDC-A-26-1 (Third Round)

### RESPONSE:

Please see Response 3MDC-26-A-1 above.

## 2-MDC-G-45 (Second Round)

Please see comments provided in MDC-A-26.

## 1-MDC-G-45 (First Round)

The application does not include the listed species management plan, as required under Condition 2 of Z-56-07. Please provide the required plan. Pursuant to Condition 2 of Z-56-07, the plan shall include but not be limited to identification, location, and description of features such as permanent physical barriers, visual buffers, and the establishment of development setbacks necessary to prevent both direct and indirect impacts to adjacent critical habitat and disruption of sensitive behaviors such as breeding, nesting and foraging within the adjacent critical habitat.

## 3MDC-G-46 (Third Round)

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".

Please also see MDC's response MDC-A-26-1 (Third Round)

**RESPONSE:**

Please see Responses 3MDC-G-42 and 3MDC-A-26-1 above. Also, please see Response 2SFWMD-B-29(23)-1 (July 2010).

**2-MDC-G-46 (Second Round)**

Please see comments provided in MDC-A-26.

**1-MDC-G-46 (First Round)**

The application states that muck removed from several construction sites will be stored in the spoil disposal site identified in Figure 5.1-1. It is not possible to determine from the information provided in the SCA whether the spoil disposal site meets the requirements of Chapter 24, Miami-Dade Code and the requirements of Condition 7 of Z-56-07. The applicant must provide the earthwork and spoil disposal plan required under Condition 7 of Z-56-07, which should include but not be limited to information on whether the disposal of spoil in the referenced location will be permanent or temporary, final slopes and elevations for the piles, what measures will be taken to address stormwater runoff from the spoil piles, characterization of the material including but not limited to contamination levels, potential impacts to threatened and endangered species including but not limited to potential impacts to critical habitat, and potential impacts to surrounding coastal wetlands.

**3MDC-G-47 (Third Round)**

No additional information has been provided. This item remains incomplete and information previously requested must be provided to allow the County to determine whether the proposed project meets the substantive requirements of Miami-Dade County Code and the CDMP in order to prepare the reports required by 403.526 F.S. FPL's reference to a proposed plan that may be submitted to Miami-Dade County in the future to achieve compliance with the requirements of Resolution Z-56-07 is not responsive to this application completeness request. The requested information is required within the time frames prescribed in the "Fifth Revised Schedule for Review of Site Certification Application for Florida Power and Light Company's Turkey Point Units 6 & 7 Power Plant Siting App. PA03-45A3; DEP OGC Case No. 09-3107 DOAH Case No. 09-3575-EPP".

Please also see MDC's response MDC-A-26-1 (Third Round)

**2-MDC-G-47 (Second Round)**

Please see comments provided in MDC-A-26.

**1-MDC-G-47 (First Round)**

The application states that "FPL will prepare and submit an earthwork and materials disposal plan prior to the start of construction." It is not possible to evaluate whether the spoil disposal proposed in the application meets the requirements of Chapter 24 and

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**Condition 7 of Z-56-07 without evaluating the earthwork and materials disposal plan required under Condition 7 of Z-56-07. The applicant must submit the required plan.**

**RESPONSE:**

Please see Response 3MDC-G-46 above.

## INTRODUCTION

In response to extensive agency questions, comments and data requests in the completeness process related to operational impacts of FPL's proposed backup cooling water supply for the Project, FPL is continuing to perform additional and more refined groundwater modeling of the radial collector wells to address these completeness questions.

For purposes of the Site Certification Application (SCA), in order to be conservative, FPL modeled and included the results for the radial collector well system operating 24 hours per day, 365 days per year. However, in actuality, and as stated in the SCA, the radial collector well system is proposed as a backup cooling water supply which would be required only during periods when reclaimed water (the primary cooling water supply source) is not delivered to the Site in sufficient quality or quantity. FPL is currently conducting a reliability study to quantitatively characterize the expected reliability of the reclaimed water treatment and delivery systems to Turkey Point Units 6 & 7. The results of this study will enable a more accurate assessment of expected annual use of the radial collector well system.

The South Florida Water Management District (SFWMD) water use regulatory program recognizes that when reclaimed water is proposed as a source, a limited duration backup or secondary water supply may be authorized. FPL's West County Energy Center (WCEC) provides an example of a recently licensed power plant that uses reclaimed water as its primary water source. The WCEC certification allows withdrawals from the Floridan Aquifer for up to 90 days per year as a temporary secondary water supply source. FPL is prepared to accept a similar water use restriction for the backup water supply for Turkey Point Units 6 & 7 that would allow for operational reliability in the event that reclaimed water is not available. FPL proposes, for discussion purposes, that a durational restriction be applied to use of the radial collector wells for Turkey Point Units 6 & 7. An example of language for such a condition, based on the WCEC condition, is provided below.

“Although reclaimed water will be the primary water source for Turkey Point Units 6 & 7, there may be temporary interruptions in the delivery, quantity, or quality of reclaimed water supply to the Site. Consequently, authorizing a reliable, secondary water supply source for the Project is in the public interest. Therefore, this Certification authorizes withdrawals from the radial collector wells as a temporary secondary water supply source for up to 90 days during any calendar year.”

FPL requests that Florida Department of Environmental Protection (FDEP), SFWMD, and Miami-Dade County (MDC) advise whether this type of restriction would be acceptable and allow a recommendation of approval for the radial collector wells or whether such a restriction would alter the information necessary to prepare the Project Analysis Reports pursuant to Section 403.507, Florida Statutes (F.S.).

FPL has endeavored to work with the reviewing agencies with remaining completeness questions to clarify the requests and to provide the information sought, where available. Although not stated for each 3<sup>RD</sup> Round Part B plant and non-transmission response, FPL maintains its objections to those incompleteness questions identified in the 1<sup>st</sup> and 2<sup>nd</sup> Round Part A plant and non-transmission completeness responses.

## QUESTIONS AND RESPONSES

The City of Miami ("CITY"), still has concerns, questions, and objections after responses received from Florida Power and Light ("FPL") related to the power plant and transmission line corridor. The CITY advises that questions related to the power plant and transmission lines still remain unanswered to the satisfaction of the CITY, though counsel for FPL and the Department for Environmental Protection feel that these questions are outside the scope of the application. Thus, the CITY recommends that the application is not complete at this time for the following reasons.

The CITY still incorporates all its questions and issues from its Completeness filings of July 30, 2009, September 3, 2009, October 15, 2009, January 6, 2010, and April 20, 2010, and states, specifically:

**A) POTABLE WATER.** We have still not received enough information to assess the effects on the water supply. Per our Comprehensive plan and Part II of Florida Statutes 163, we need to address the water supply effects of the plant to our area.

### RESPONSE:

FPL's first and second round responses have addressed the City's comments regarding potable water issues. The third round question essentially repeats the prior round questions without explanation as to the alleged deficiencies in the information already provided.

Further, pursuant to section 403.503(10), F.S., the purpose of "completeness" review is "to allow the department to determine whether the application provides the reviewing agencies adequate information to prepare the reports required by s. 403.507." Section 403.507, F.S., in turn, provides that local governments "in whose jurisdiction the proposed electrical power plant is to be located shall prepare a report as to consistency of the proposed electrical power plant with all applicable local ordinances, regulations, standards or criteria . . ." [emphasis added]. The proposed electrical power plant is not within the jurisdiction of the City of Miami, and the city has no applicable regulations or authority that it can exert through its comprehensive plan or chapter 163, F.S., over the proposed electrical power plant over facilities to be constructed outside of its geographical boundaries. As such, the information requested by the City is not necessary for the City to prepare its agency report as to the plant and non-transmission portion of the SCA and, therefore, are outside the statutory scope of completeness review.

For these reasons, in accord with FDEP's direction in its Third Determination of Incompleteness regarding the power plant and non-transmission line portion of the SCA that FPL is not required to respond to questions "that go beyond the statutory purpose for completeness review," FPL respectfully declines to provide any further technical response to this question.

**B) DEWATERING.** Sufficient information is not provided to make a determination of dewatering impacts. Please provide a description of all required dewatering activities and the techniques that will be used to ensure that all surface and groundwater quality standards will be met. We have still not received enough information to assess the effects. Per our Comprehensive plan and Part II of Florida Statutes 163, we need to address the water supply effects of the plant to our area.

### RESPONSE:

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FPL's first and second round responses have addressed the City's comments regarding dewatering water issues. The third round question essentially repeats the prior round questions without explanation as to the alleged deficiencies in the information already provided.

Further, pursuant to section 403.503(10), F.S., the purpose of "completeness" review is "to allow the department to determine whether the application provides the reviewing agencies adequate information to prepare the reports required by s. 403.507." Section 403.507, F.S., in turn, provides that local governments "in whose jurisdiction the proposed electrical power plant is to be located shall prepare a report as to consistency of the proposed electrical power plant with all applicable local ordinances, regulations, standards or criteria . . ." [emphasis added]. The proposed electrical power plant is not within the jurisdiction of the City of Miami, and the City has no applicable regulations or authority that it can exert through its comprehensive plan or chapter 163, F.S., over the proposed electrical power plant over facilities to be constructed outside of its geographical boundaries. As such, the information requested by the City is not necessary for the City to prepare its agency report as to the plant and non-transmission portion of the SCA and, therefore, are outside the statutory scope of completeness review.

For these reasons, in accord with FDEP's direction in its Third Determination of Incompleteness regarding the power plant and non-transmission line portion of the SCA that FPL is not required to respond to questions "that go beyond the statutory purpose for completeness review," FPL respectfully declines to provide any further technical response to this question.

**C) WASTEWATER. Will the plant cause wastewater to drain into our Biscayne Bay? We have still not received enough information to assess the effects of wastewater to the Bay. Per our Comprehensive plan and Part II of Florida Statutes 163, we are entitled to this information.**

### **RESPONSE:**

FPL's first and second round responses have addressed the City's comments regarding wastewater issues, including, among others, response 2COM-C-4, related to concerns regarding affects on Biscayne Bay. The third round question does not provide explanation as to any deficiencies in the information already provided.

Further, pursuant to section 403.503(10), F.S., the purpose of "completeness" review is "to allow the department to determine whether the application provides the reviewing agencies adequate information to prepare the reports required by s. 403.507." Section 403.507, F.S., in turn, provides that local governments "in whose jurisdiction the proposed electrical power plant is to be located shall prepare a report as to consistency of the proposed electrical power plant with all applicable local ordinances, regulations, standards or criteria . . ." [emphasis added]. The proposed electrical power plant is not within the jurisdiction of the City of Miami, and the City has no applicable regulations or authority that it can exert through its comprehensive plan or chapter 163, F.S., over the proposed electrical power plant over facilities to be constructed outside of its geographical boundaries. As such, the information requested by the City is not necessary for the City to prepare its agency report as to the plant and non-transmission portion of the SCA and, therefore, are outside the statutory scope of completeness review.

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For these reasons, in accord with FDEP's direction in its Third Determination of Incompleteness regarding the power plant and non-transmission line portion of the SCA that FPL is not required to respond to questions "that go beyond the statutory purpose for completeness review," FPL respectfully declines to provide any further technical response to this question.

**D) VEGETATIVE AND ECOLOGICAL IMPACTS. Impacts to submerged aquatic vegetation and marine mammals, such as the manatees and birds and other animals that live close to the plant. How will the plant affect those creatures and plant species? How will that affect the ecological balance of animals that migrate toward the City, via water or land?**

**RESPONSE:**

FPL's first and second round responses have addressed the City's questions regarding vegetative issues. The third round question has inappropriately expanded the scope of this comment.

Further, pursuant to section 403.503(10), F.S., the purpose of "completeness" review is "to allow the department to determine whether the application provides the reviewing agencies adequate information to prepare the reports required by s. 403.507." Section 403.507, F.S., in turn, provides that local governments "in whose jurisdiction the proposed electrical power plant is to be located shall prepare a report as to consistency of the proposed electrical power plant with all applicable local ordinances, regulations, standards or criteria . . ." [emphasis added]. The proposed electrical power plant is not within the jurisdiction of the City of Miami, and the City has no applicable regulations or authority that it can exert through its comprehensive plan or chapter 163, F.S., over the proposed electrical power plant over facilities to be constructed outside of its geographical boundaries. As such, the information requested by the City is not necessary for the City to prepare its agency report as to the plant and non-transmission portion of the SCA and, therefore, are outside the statutory scope of completeness review.

For these reasons, in accord with FDEP's direction in its Third Determination of Incompleteness regarding the power plant and non-transmission line portion of the SCA that FPL is not required to respond to questions "that go beyond the statutory purpose for completeness review," FPL respectfully declines to provide any further technical response to this question.

**E) GENERAL. The application does not address biological, hydrological, and ecological impacts resulting from its construction and operation. There is not enough information presented as to the effects of the plant itself to the environment.**

**RESPONSE:**

FPL's first and second round responses have addressed the City's questions regarding biological, hydrological and ecological issues resulting from road construction and operation. The third round question has inappropriately expanded the scope of the comment.

Further, pursuant to section 403.503(10), F.S., the purpose of "completeness" review is "to allow the department to determine whether the application provides the reviewing agencies adequate information to prepare the reports required by s. 403.507." Section 403.507, F.S., in turn, provides that local governments "in whose jurisdiction the proposed electrical power plant is to be located shall prepare a report as to consistency of the proposed electrical power plant with all applicable local ordinances, regulations, standards or criteria . . ." (emphasis added). The proposed electrical power

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plant is not within the jurisdiction of the City of Miami, and the City has no applicable regulations or authority that it can exert through its comprehensive plan or chapter 163, F.S., over the proposed electrical power plant over facilities to be constructed outside of its geographical boundaries. As such, the information requested by the City is not necessary for the City to prepare its agency report as to the plant and non-transmission portion of the SCA and, therefore, are outside the statutory scope of completeness review.

For these reasons, in accord with FDEP's direction in its Third Determination of Incompleteness regarding the power plant and non-transmission line portion of the SCA that FPL is not required to respond to questions "that go beyond the statutory purpose for completeness review," FPL respectfully declines to provide any further technical response to this question.

**F) GROUND STUDIES. Please provide analysis to support the conclusion that the Biscayne Aquifer is not affected by the radial collector wells. . This is of great importance to the City and Countywide pursuant to our Comprehensive plan and per Part II of Florida Statutes 163, as it may affect the potable water.**

**RESPONSE:**

FPL's first and second round responses have addressed the City's comments regarding the radial collector wells. The third round question essentially repeats the prior round questions without explanation as to the alleged deficiencies in the information already provided.

Further, pursuant to section 403.503(10), F.S., the purpose of "completeness" review is "to allow the department to determine whether the application provides the reviewing agencies adequate information to prepare the reports required by s. 403.507." Section 403.507, F.S., in turn, provides that local governments "in whose jurisdiction the proposed electrical power plant is to be located shall prepare a report as to consistency of the proposed electrical power plant with all applicable local ordinances, regulations, standards or criteria . . ." [emphasis added]. The proposed electrical power plant is not within the jurisdiction of the City of Miami, and the City has no applicable regulations or authority that it can exert through its comprehensive plan or chapter 163, F.S., over the proposed electrical power plant over facilities to be constructed outside of its geographical boundaries. As such, the information requested by the City is not necessary for the City to prepare its agency report as to the plant and non-transmission portion of the SCA and, therefore, are outside the statutory scope of completeness review.

For these reasons, in accord with FDEP's direction in its Third Determination of Incompleteness regarding the power plant and non-transmission line portion of the SCA that FPL is not required to respond to questions "that go beyond the statutory purpose for completeness review," FPL respectfully declines to provide any further technical response to this question.

**H) If the construction portion of the Plant has been suspended, the City would request that all applications associated with the plant be suspended as well in the interest of judicial economy. More information as to the status of construction is requested.**

**RESPONSE:**

The construction of the Project has not been suspended. FPL remains committed to creating an option to build clean and cost-effective generation for its customers. FPL continues to pursue the necessary

# EXHIBIT 23

July 2010

CITY OF MIAMI

0938-7652

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federal, state, and local licenses and permits while also monitoring the economic and regulatory environment. FPL will employ a deliberate, stepwise process throughout as the most effective way to manage the pace and position of the project. A decision on construction would occur after state and federal licensing of the proposed facility is completed and all approvals issued.

**The CITY establishes with the foregoing that FPL's Siting Certification Application is still incomplete. The CITY is unable to properly evaluate the impact the proposed transmission line corridor and plant will have upon the CITY, based on the information received thus far. The CITY requests that FPL provide additional information and materials.**

# EXHIBIT 23

July 2010

093-87652

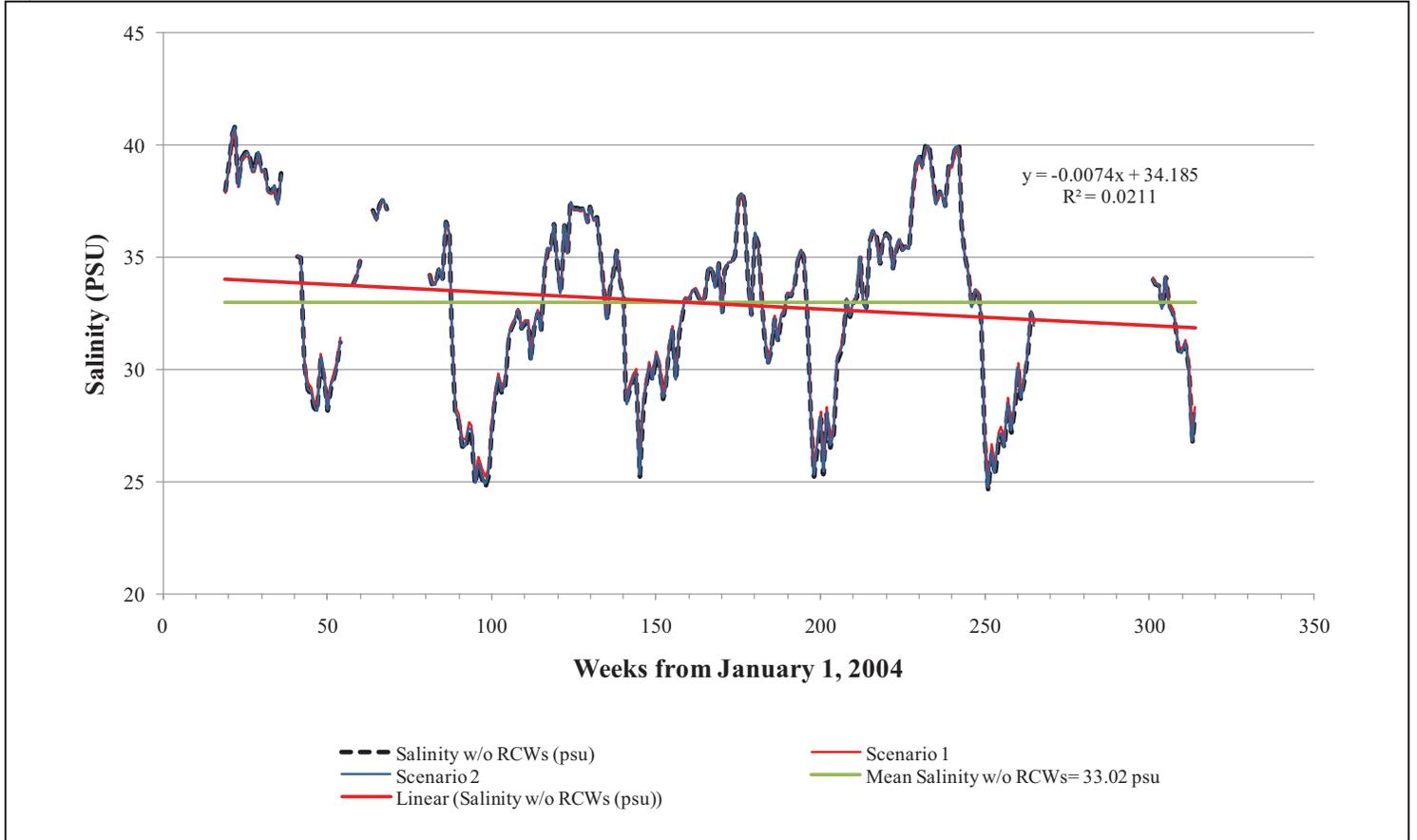


Figure 3FDEP-VI(CAMA)-6-1  
Time History Plot – BNP Site 12 Bottom – Weekly Average Salinity, 2004-2009

Figure 3FDEP-VI(CAMA)-6-1.docx

Source: Golder, 2010.



# EXHIBIT 23

July 2010

093-87652

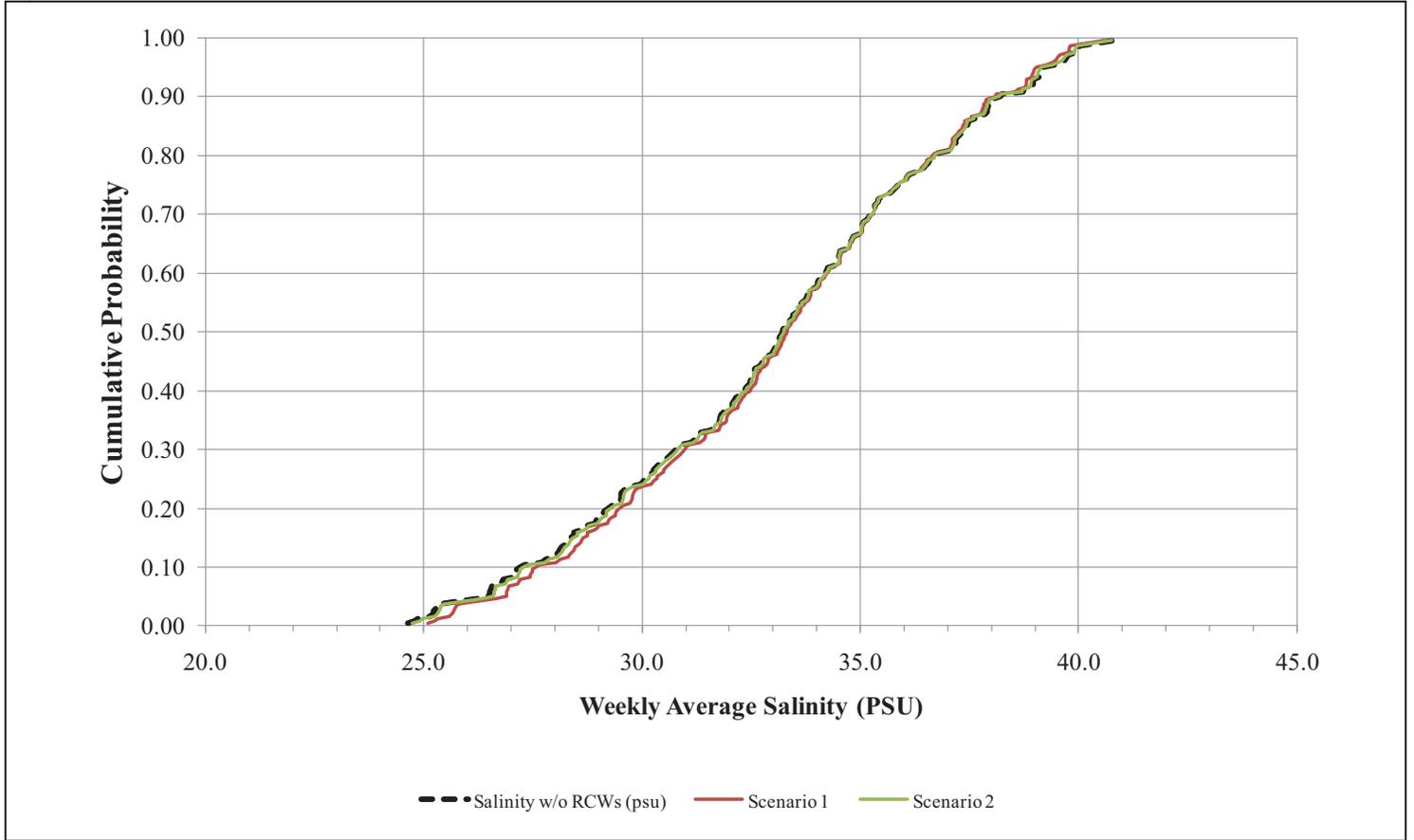


Figure 3FDEP-VI(CAMA)-6-2  
Cumulative Probability of Salinity – BNP Site 12 Bottom  
Figure 3FDEP-VI(CAMA)-6-2.docx  
Source: Golder, 2010.



## EXHIBIT 23

**DUE TO VARIOUS FILE TYPES OTHER THAN PDF,  
THE ATTACHMENTS TO THE FPL RESPONSES  
HAVE BEEN INCLUDED SEPARATELY ON THIS CD.**