

STATE OF FLORIDA  
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: FLORIDA POWER & LIGHT )  
COMPANY TURKEY POINT UNITS )  
6 & 7 POWER PLANT SITING ) Case No. 09-3575EPP  
APPLICATION NO. PA 03-45A3 )  
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RECOMMENDED ORDER

Pursuant to notice, this matter was heard before the Division of Administrative Hearings by its assigned Administrative Law Judge, D.R. Alexander, on July 8-11, 15-19, 22-26, 29-31, August 1, 2, 5-9, 26-28, September 16-19, and October 1-3, 2013, in Miami, Florida. In addition, public testimony sessions were conducted in Homestead, Coral Gables, and Miami, Florida.

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STATEMENT OF THE ISSUES

The issues are (1) whether the Governor and Cabinet, sitting as the Siting Board, should issue certification to Florida Power & Light Company (FPL) to construct and operate a 2,200 megawatt (MW) nuclear electrical generating facility and associated facilities, including electrical transmission lines, to be located in Miami-Dade County (County), and if so, what conditions should be imposed; (2) whether the Siting Board should direct the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees) to grant FPL three separate easements over state-owned lands for certain Project features; and (3) whether the Siting Board should approve FPL's request for a variance from section 24-43.1(6), Miami-Dade County Code (MDC), to allow use of the on-site package sanitary treatment

plant and other on-site cooling water and wastewater treatment and disposal in lieu of connecting the Project to a public sanitary sewer line for treatment and disposal of these waters by the County.

PRELIMINARY STATEMENT

This proceeding arose under section 403.501, et seq., Florida Statutes (the PPSA), and requires the Siting Board to determine whether to approve, approve with modifications or conditions, or deny FPL's request to construct and operate two new nuclear generating units (Units 6 and 7) and supporting facilities on an approximately 300-acre site within FPL's existing Turkey Point plant property, as well as new electrical transmission lines and other off-site associated linear and non-linear facilities. FPL has proposed approximately 88.7 miles of transmission line corridors: 52 miles in the West Preferred Corridor and 36.7 miles in the East Preferred Corridor. An alternate western transmission line corridor (the West Secondary Corridor) was withdrawn by FPL on the last day of the hearing. All facilities will be located in the County. Except for the City of Miami, which opposes all aspects of the Project, the primary focus of the parties is on the location of the proposed transmission line corridors and conditions of certification.

On September 13, 2011, the Department of Environmental Protection (Department) found the plant and non-transmission

portions of the application complete. On August 7, 2012, the Department issued a Project Analysis Report (PAR) on the transmission line portion of the project, recommending certification of FPL's proposed transmission lines, subject to conditions of certification. A PAR was issued on March 4, 2013, recommending certification of the plant and non-transmission portion of the Project, subject to conditions of certification.

In accordance with section 403.509(6), FPL is also requesting that the Siting Board direct the Board of Trustees to issue a public easement on sovereign submerged lands in the Biscayne Bay Aquatic Preserve for a series of radial collector well laterals beneath the bottom of Biscayne Bay, a public easement for a subaqueous transmission line crossing of the Miami River, and an easement over an approximately four-acre upland easement in the western transmission corridors.

On April 11, 2008, the Florida Public Service Commission (PSC) issued an affirmative need determination order for the Project.

When filing its application, FPL exercised its option pursuant to section 403.5064(1)(b) to allow the filing of alternate transmission line corridors. The Village of Pinecrest (Pinecrest) and City of Coral Gables (Coral Gables) jointly filed a notice of an alternate 21.35-mile corridor to FPL's proposed eastern transmission line corridor, and the Miami-Dade

Limestone Products Association (MDLPA) and the National Parks Conservation Association (NPCA) filed alternate corridors for FPL's proposed western transmission lines. MDLPA later filed a notice of two additional alternate corridors for FPL's proposed western transmission lines. Together with the transmission line corridors proposed by FPL, the alternate corridors proposed by Pinecrest/Coral Gables, MDLPA, and NPCA are "corridors proper for certification" as that term is used in sections 403.503(11) and 403.522(10). Consistent with its normal practice, the Department made no comparative evaluation of the proposed corridors. The Department has issued its Supplemental PARs on the alternate transmission line corridors proposing conditions of certification.

Pursuant to section 403.50665(2), the County issued its "Determination Regarding Land Use and Zoning Consistency of Proposed Turkey Point Units 6 & 7 and Associated Facilities." Following public notice, no person challenged that determination.

Pursuant to section 403.508(3)(b), FPL and the Department are parties to this certification proceeding. During the course of this case, the Board of Trustees, Florida Department of Transportation (DOT), and Miami-Dade County Expressway Authority (MDX) were added as parties. In addition, the Florida Fish & Wildlife Conservation Commission (FWC), South Florida Water

Management District (SFWMD), South Florida Regional Planning Council (SFRPC), the County, Monroe County, Coral Gables, City of Doral (Doral), Pinecrest, City of Miami, City of South Miami (South Miami), Town of Medley (Medley), Coconut Grove Village Council, and Friends of the Everglades filed notices of intent to be parties. Friends of the Everglades later withdrew from the proceeding.

The following parties filed Motions to Intervene and were granted intervention: Kendale Homeowners' Association; MDLPA; NPCA; Limonar Development, Inc. and Wonderly Holding, Inc. (Limonar); Vecellio & Grogan d/b/a White Rock Quarries (White Rock Quarries); and Kendall Federation of Homeowners Associations, Inc. No party has disputed the standing of any other party to participate in this certification proceeding.

All notices required by law were timely published by FPL, the Department, and the proponents of alternate corridors in accordance with section 403.5115 and Florida Administrative Code Rule 62-17.281. All direct written notices required by law were timely mailed in accordance with subsections 403.5115(6) and (7). All statutory precedents to the certification hearing in this proceeding have been completed.

Prior to, during, and after the certification hearing, FPL and several agencies and parties entered into stipulations that resolved certain issues between those parties, and in most

cases, agreed to various conditions of certification. FPL entered into bilateral stipulations with the following agencies and/or parties: the Department, Department of Economic Opportunity, DOT, FWC, SFWMD, SFRPC, Village of Palmetto Bay, the County, MDX, Coral Gables, City of Homestead, City of Florida City, City of Miami, and MDLPA. See FPL Ex. 20.

Pursuant to the stipulation with MDLPA, FPL is now seeking certification of the "West Consensus Corridor" as its preferred western corridor -- a corridor that combines portions of its West Preferred Corridor with portions of one of the alternate corridors proposed by MDLPA. As noted above, FPL is no longer seeking certification of its West Secondary Corridor.

At the final hearing, FPL presented the live testimony of 24 witnesses in its case-in-chief and six witnesses in rebuttal. By stipulation, the pre-filed written testimony and exhibits of eight FPL witnesses were received into evidence with affidavits attesting to their veracity. The pre-filed testimony and exhibits were provided to all parties and made available for public review at seven local libraries, pursuant to rule 62-17.141(3). FPL Exhibits 1-28, 30-32, 34-64, 66-70, 72-75, 78-92, 94-104, 106-134, 138-148, 150-234, 236-240, 243, 245-247, 249-278, 280-302, 309-337, 340-391, 401, 402, 405-415, and 418-430 were admitted into evidence. Pinecrest and Coral Gables jointly called five witnesses to testify in their case-in-chief

and two witnesses in rebuttal; Coral Gables/Pinecrest Exhibits 1-5, 12, 13, 15, 20, 22, 23, 27, 33-35, 37-39, 51, 63-70, and 72-78 were admitted into evidence. Coral Gables called one witness to testify; Coral Gables Exhibits 1, 3, 5, 7, 8, 18, 53, 54, 63-66, 80, and 94 were admitted into evidence. Pinecrest presented the testimony of one witness; Pinecrest Exhibits 1, 2, 5, 8, and 11 were admitted into evidence. NPCA called seven witnesses to testify in its case-in-chief; NPCA Exhibits 1, 4, 6, 7-10, 12, 13, 15, 17, 18, 25, 40, 43, 49, 51, 55-59, and 63-66 were admitted. MDLPA presented one witness in its case-in-chief; MDLPA Exhibits 1, 3, and 5-9 were admitted into evidence. The Department called one witness; DEP Exhibits 1-5 and 7 were admitted into evidence. SFWMD presented the testimony of three witnesses; SFWMD Exhibits 2-4 and 13 were admitted. The County presented the testimony of five witnesses; Exhibits 1, 5-7, 9-14, 20, 22-24, and 32-41 were admitted into evidence. The City of Miami presented the testimony of 12 witnesses; City of Miami Exhibits 7, 8, 11, 28-31, 38, 50, 59-62, 69, 74, 75, and 100-103 were admitted into evidence. Limonar called one witness to testify; Limonar Exhibits 2, 26, 36, and 40 were admitted into evidence.

Pursuant to section 403.508(4)(b), more than 150 members of the public testified or offered comments at six publicly-noticed sessions in Homestead, Coral Gables, and Miami. Several

exhibits and comment letters were also received from members of the public.

Finally, the undersigned has granted FPL's request for official recognition of the Recommended and Final Orders entered in Case No. 08-2727EPP, In re: Progress Energy Florida Levy Nuclear Project Units 1 and 2, 2009 Fla. ENV LEXIS 151 (Fla. DOAH May 15, 2009), 2009 Fla. ENV LEXIS 150 (Fla. Siting Bd. Aug. 26, 2009), and specifically those portions of the Orders which confirm that the United States Nuclear Regulatory Commission (NRC) has exclusive jurisdiction over the subject of radiological safety; and the City of Miami's request for official recognition of United States Census Bureau data for certain tracts of property on which transmission corridors have been proposed in the City of Miami, Pinecrest, Coral Gables, the County, and South Miami. After proposed recommended orders were filed, FPL and the Department requested that official recognition be taken of the franchise agreements between FPL and Florida City, South Miami, City of Miami, Medley, and Coral Gables. Coral Gables, South Miami, and City of Miami filed responses in opposition to the request. The Joint Motion for Official Recognition is denied.

A Transcript of the hearing (60 volumes of hearing transcript, plus six volumes for the public testimony sessions) has been filed. Proposed Findings of Fact and Conclusions of

Law were submitted jointly by FPL and the Department, jointly by Coral Gables and Pinecrest, and jointly by NPCA and the County. Separate filings were made by the City of Miami and SFWMD. Limonar has joined in those portions of FPL and the Department's Joint Proposed Recommended Order that relate to the "West Transmission Lines"; it also submitted additional findings of fact. MDLPA has joined in those portions of FPL and the Department's Joint Proposed Recommended Order solely as they relate to "the Western Consensus Corridor and other alternates to the western transmission line corridor." All filings have been carefully considered in the preparation of this Recommended Order.

#### FINDINGS OF FACT

##### I. An Overview of the Project

1. FPL is a subsidiary of NextEra Energy, Inc. As a regulated utility, FPL is granted an exclusive franchise by the PSC to provide reliable and cost-effective electric service to customers within its service territory in Florida. FPL's service territory covers all or parts of 35 Florida counties and serves approximately nine million customers. It has 14 electrical generation sites in Florida and an electrical transmission line system of approximately 6,500 miles.

2. FPL proposes to construct, operate, and maintain two new 1,100 MW (net) nuclear electrical generating units (Units 6

and 7) and supporting facilities on an approximately 300-acre site (site) within its existing Turkey Point plant property, as well as new transmission lines and other off-site associated linear and non-linear facilities (the Project). This is FPL's single largest project of this magnitude in over 40 years.

3. The Project includes the following proposed non-transmission line associated facilities: a laydown area; a nuclear administration building; a training building; a parking area; a FPL reclaimed water treatment facility; a reclaimed water pipeline corridor; radial collector well system and associated pipelines; an equipment barge unloading area; corridors for construction access roads and bridges; and a potable water pipeline corridor.

4. The Project also includes the on-Site Clear Sky electrical substation, expansion of the Levee electrical substation, two access-only transmission line corridors, and proposed corridors for the following transmission lines:

a. Clear Sky-Turkey Point transmission line: a 230-kV line from the proposed Clear Sky substation to the existing Turkey Point substation on the Turkey Point plant property;

b. Clear Sky-Davis and Davis-Miami transmission lines: a 230-kV line from the proposed Clear Sky substation to the existing Davis substation in southeast Miami-Dade County, and another 230-kV line from the Davis substation to the existing

Miami substation in downtown Miami, just north of the Miami River, in FPL's East Preferred Corridor;

c. Clear Sky-Levee No. 1 and No. 2 transmission lines: two 500-kV lines from the proposed Clear Sky substation to the Levee substation in west Miami-Dade County in the West Consensus Corridor or, as a back-up, in FPL's West Preferred Corridor; and

d. Clear Sky-Pennsuco transmission line: a 230-kV line from the proposed Clear Sky substation to the existing Pennsuco substation in northwest Miami-Dade County, also in the West Consensus Corridor or, as a back-up, in FPL's West Preferred Corridor.

5. FPL has proposed to locate these transmission lines in approximately 88.7 miles of transmission line corridors: 52 miles in the West Preferred Corridor (or 51 miles in the West Secondary Corridor) and 36.7 miles in the East Preferred Corridor. FPL is now seeking certification of the West Consensus Corridor -- a combination of an alternate corridor proposed by MDLPA and FPL's West Preferred Corridor -- as its preferred western corridor. FPL is also seeking certification of the original West Preferred Corridor to serve as a back-up to the West Consensus Corridor should a contiguous right-of-way (ROW) be unable to be timely achieved within that West Consensus Corridor or if a right-of-way cannot be obtained in a cost-

effective manner. FPL is no longer seeking certification of the West Secondary Corridor.

6. On April 11, 2008, the PSC issued its affirmative need determination for the Project in Final Order No. PSC-08-0237-FOF-EI. That Order was not appealed and is now final. By that Order, the PSC found that there is a need for the Project taking into account the need for electric system reliability and integrity; the need for fuel diversity and supply reliability; the need for base load generating capacity; the need for adequate electricity at a reasonable cost; and whether the Project is the most cost-effective alternative available. In making its determination of need, the PSC also found that there are no renewable energy sources and technologies or conservation measures reasonably available to FPL which might mitigate the need for Units 6 and 7. The PSC's need determination remains in legal effect and requires annual monitoring of the feasibility of construction of the Project. Reconsideration of that determination is neither permissible nor appropriate in this proceeding.

7. Section 366.93 allows for the PSC's annual reviews and cost recovery for nuclear plant construction. The nuclear cost recovery process includes an annual hearing to review past, current, and subsequent year costs for the Project. The PSC's annual review considers "a detailed analysis of the long-term

feasibility of completing the power plant." Fla. Admin. Code R. 25-6.0423(5)(c)5. The PSC has annually approved FPL's requested nuclear cost recovery, and it has recognized and accepted the projected in-service dates for Units 6 and 7 of 2022 and 2023, respectively.

8. In association with the Project, FPL has obtained from the Department an Air Construction/Prevention of Significant Deterioration Permit; Exploratory Well and Dual Zone Monitoring Well Permit; an Underground Injection Control (UIC) well construction and operational testing permit; Federal Aviation Administration (FAA) approvals for the Units 6 and 7 containment buildings; County Unusual Use Approval for a nuclear power plant and ancillary structures and equipment; an amendment to the County's Comprehensive Development Master Plan (CDMP) to allow roadway improvements to accommodate construction traffic; and a County zoning approval for the Radial Collector Well System, Reclaimed Water Treatment Facility (RWRF), and other various requests. Pending approvals for the Project include the Combined Operating License (COL) from the NRC; a Section 404 Dredge and Fill permit from the United States Army Corps of Engineers; and an Industrial Wastewater Permit modification from the Department.

9. FPL has submitted three amendments to its application. The first amendment primarily removed the proposed FPL-owned

fill source from the application. The second amendment updated information presented in the original submittal of the application and completeness responses; it did not materially affect the environmental impact analysis or the conclusions presented. The third amendment related to two minor revisions in the previously-submitted groundwater model and corresponding groundwater modeling report. FPL also submitted errata to the second amendment, correcting page and appendix numbering issues.

10. FPL has engaged in an extensive public outreach program for the Project, including among other things, direct mailings, newspaper notices, nine open houses, agency workshops, numerous presentations and meetings, a public survey, periodic e-mail updates to local and state agencies, a website, and toll free telephone number. The public outreach program activities provided the public and agency representatives opportunities to informally voice preferences on transmission line corridor selection and Project concerns. The application was available for public review at seven public libraries and at FPL and Department offices.

11. All notices required by law were timely published by FPL, the Department, and the proponents of alternate transmission line corridors in accordance with section 403.5115 and rule 62-17.281. Proofs of publication were timely provided to the Department in accordance with rule 62-17.281(12). All

direct written notices required by law were timely mailed, and lists of landowners and residences notified were timely submitted to the Department in accordance with subsections 403.5115(6) and (7). The Department sent direct mailings for the sovereign submerged lands easements for the radial collector well laterals and Miami River crossing in accord with section 253.115 and rule 18-21.005(3).

## II. Plant and Non-Transmission Line Associated Facilities

### A. Generally

12. FPL's Turkey Point plant property is located in unincorporated southeast Miami-Dade County, east of Florida City and the City of Homestead, and bordered by Biscayne Bay to the east. The existing 9,400-acre plant site consists of two nominal 400-MW natural gas/oil-fired steam electric generating units (Units 1 and 2), two nominal 800-MW nuclear units (Units 3 and 4), and a nominal 1,150-MW natural gas-fired combined-cycle unit (Unit 5). Units 3, 4, and 5 are certified under the PPSA. Units 1 and 2 pre-date the PPSA and are not certified.

13. The Site for Units 6 and 7 is south of Units 3 and 4 and occupies approximately 300 acres within the existing permitted industrial wastewater facility.

14. Proposed Units 6 and 7 are two 1,100-MW nuclear electric generating units. The principal structures are the nuclear reactors, a containment building, a shield building, an

auxiliary building, a turbine building, an annex building, a diesel generator building, and other related buildings. Each unit will include two standby diesel generators, two ancillary diesel generators, and one diesel-driven fire pump.

15. FPL has selected the Westinghouse AP1000 as the plant design for Units 6 and 7. The Westinghouse design has been certified by the NRC as complying with federal regulations. This design incorporates the latest technology and advanced safety features.

16. The NRC oversees the construction, safety, and operation of all nuclear units in the United States, including the transport and handling of nuclear fuel. Construction and operation of Units 6 and 7 require separate approval by the NRC. As part of the federal permitting process for nuclear power plants, FPL submitted a COL application to the NRC. The NRC is currently reviewing that application. As least one party in this case, the NPCA, has intervened in the NRC proceeding and opposes federal approval. The process for obtaining the state site certification under the PPSA is separate from the NRC approval process. Certification is not dependent upon prior issuance of the NRC's approval.

17. In addition to the two reactor units, other Project facilities include six cooling towers with a makeup water reservoir, a blowdown sump, tanks, a sanitary wastewater

treatment plant, electrical transformers, and various buildings. A new electrical switchyard/substation, named Clear Sky, will also be located on the Site, and a laydown area will be located on the far western portion of the Site. New nuclear administration and training buildings, along with a parking area, will be located just north of the Units 6 and 7 Site. Other Project-related features to be located within the existing FPL Turkey Point plant property include the RWTF, a portion of the reclaimed water pipeline, radial collector well caissons and delivery pipelines, portions of new access roads to be used during Project construction, a portion of the potable water pipeline, and an equipment barge unloading area.

18. The new units will use reclaimed water supplied by the County as the primary source of cooling water. This water will be supplied by a reclaimed water pipeline and will receive further treatment in the RWTF. That treatment facility will be located northwest of the Units 6 and 7 Site. When reclaimed water is not available in sufficient quantity and quality to meet the Project's water needs, cooling water will be supplied from a radial collector well system to be installed northeast of the Units 6 and 7 Site. The laterals for that well system will extend from the FPL plant property out beneath Biscayne Bay.

19. In accordance with Condition 4 of County Resolution Z-56-07, as amended by Resolution Z-1-13, FPL will not use the Biscayne Aquifer as a primary source of cooling water for Units 6 and 7.

20. The foundation for the nuclear units will include engineered fill and reinforced concrete that supports the containment building and auxiliary building. Site preparation will require removing the existing muck (organic layer) down to the initial rock layer. This muck is unsuitable for use in the foundation. The Site will then be backfilled with approximately 7.8 million cubic yards of structural fill (aggregate) to a finished grade of approximately 25.5 feet North American Vertical Datum of 1988 (NAVD 88) above mean sea level that will support power plant and ancillary facility construction. The design elevation of the plant floor is 26 feet NAVD 88. An additional three million cubic yards of fill will be required for other plant facilities, including the administration and training buildings and the RWTF.

21. Material from excavation for the Site will be deposited on designated berms within the existing industrial wastewater facility or stock-piled on the Turkey Point plant property for other future uses. FPL will utilize best management practices to prevent erosion and sedimentation impacts during placement of the spoil materials on the berms to

protect nearby wetlands and surface waters. FPL will obtain the majority of fill from certified vendors.

22. In accordance with Condition 14 of County Resolution Z-56-07 and Condition 17 of County Resolution Z-1-13, all fill used on the two units and onsite facilities will be "clean fill" as defined in section 24-5, MDC. All fill material will comply with section 24-48.3(4), MDC.

23. FPL has prepared and submitted an earthwork and materials disposal plan to the reviewing agencies, including the County. FPL's earthwork and materials disposal plan is consistent with Condition 7 of County Resolution Z-56-07 and Condition 16 of County Resolution Z-1-13. FPL has fulfilled the requirements of those two conditions.

24. In accordance with Condition 21 of County Resolution Z-56-07, FPL has designed the Project to accommodate water level increases on the order of one foot or more to accommodate potential physical modifications and operational changes to County and State drainage canals.

25. Relative sea level is measured using tide or water level gauges to measure water levels with respect to tidal benchmarks. The hourly water level heights from the tide gauge are averaged to get a monthly or annual average. Using that information, the long-term change in the annual or monthly mean is determined over a period of decades or centuries. Relative

sea level is affected by vertical land motion; tectonic uplift; thermal expansion; glacial melt; ocean circulation; wind effects; changes in barometric pressure; and tides and tidal currents.

26. The Project has been designed to accommodate potential sea level rise during the life of the Project. The proposed finish floor elevation at the Units 6 and 7 plant area was selected by FPL based on the calculation of probable maximum storm surge and coincident wind-wave effects. FPL input a conservative estimate of one foot of sea level rise over the life of the plant to the "Sea, Lakes and Overland Surge from Hurricanes" (SLOSH) Biscayne Bay Basin model. The SLOSH model was used to predict a maximum storm surge elevation of 21 feet during a probable maximum hurricane near the Site. The maximum water level at the safety-related structures, including predicted maximum storm surge elevation and estimated storm-related wave run-up, is calculated to be 24.8 feet. The design elevation of the plant floor is 26 feet NAVD 88. Facilities to be located at this elevation include, among other Project components, the reactors, the electrical turbines, and the emergency diesel generators. Impacts on support facilities and services for the Project will be managed through final design and by pre-planning for storm effects. In addition, plant procedures will be focused on nuclear and personnel safety

during a hurricane and post-storm recovery. Plant safety-related functions will not be adversely affected by sea level change or storm events.

27. Based on available records from stations throughout the state -- Cedar Key, Fernandina Beach, Key West, Mayport, Miami Beach, Pensacola, and St. Petersburg -- sea level rise throughout Florida is tightly grouped around the level of 0.74 feet per century, with a very small standard deviation of plus or minus 0.07 feet per century. The nearest station with the longest (from 1913 to 2012) continuous sea level record to the Turkey Point Site is the Key West station; relative sea level rise there is 0.75 feet per century. Mathematically, the best explanation for the Key West relative sea level rise is a linear trend. There is no statistically significant evidence of acceleration in relative sea level rise at Key West. Given the available records in the area and the close grouping of values for sea level rise throughout the state, use of Key West records to project sea level rise at Turkey Point is appropriate.

28. FPL used a linear trend method in assessing the relative sea level change for the Project. The linear trend is generally accepted by the scientific community as an appropriate method for evaluating relative sea level change. The sea level rise projections used by FPL are reasonable and conservative. FPL's projection appropriately responds to various assessments

on sea level rise. The plant design elevation accounts for more than maximum storm surge plus sea level rise. FPL has provided reasonable assurance that the Project is not contrary to the public interest as it relates to sea level rise.

29. The plant and non-transmission line portion of the Project will be built above the 100-year flood level, and will not increase erosion or create a flood hazard to others. The Project will be constructed outside of the coastal high hazard area to comply with applicable flood protection requirements.

30. The plant and non-transmission line portion of the Project has sufficient operational safeguards to protect the public welfare.

31. The Project will meet the electrical energy needs of the state in an orderly, reliable, and timely fashion.

32. The plant and non-transmission line portion of the Project will not adversely affect the public health, safety, welfare, or property of others.

B. Water and Use Treatment

i. Construction Dewatering

33. Excavation is required to construct the foundations of Units 6 and 7. Concrete diaphragm walls around each foundation excavation will minimize horizontal flow of groundwater into the excavation. In addition, a horizontal grouted barrier constructed below the bottom of each unit to the bottom of the

diaphragm walls will minimize vertical flow of groundwater into the excavation. Grout will be injected in a series of "primary" borings. Subsequent borings will then be drilled in between the primary borings. Three sets of borings are possible after the primary set -- secondary, tertiary, and quaternary. Each set is drilled and grout is injected until refusal occurs. Quaternary borings may not be required at all locations, only where continuing seepage is observed as the excavation progresses.

34. The diaphragm walls and grouting will minimize groundwater flow during construction to less than 100 gallons per minute (gpm) per unit, which will be controlled by sump pumps at the bottom of the foundation excavations. Dewatering effluent from construction of these facilities will be routed to the existing industrial wastewater facility or disposed in the underground injection wells. During the three-month grouting process, short-term maximum groundwater withdrawals from each unit will not exceed 1,000 gpm and average withdrawals will be 230 gpm. During the three-month excavation phase, the maximum groundwater withdrawals per unit will not exceed 1,000 gpm and average withdrawals will be about 400 gpm. These short-term withdrawals will be sequential, not simultaneous. During the 24-month foundation construction phase, the groundwater withdrawal rate for each unit will not exceed 100 gpm, and the maximum combined groundwater withdrawal rate (construction of

Unit 6 combined with grouting/excavation of Unit 7) will average about 430 gpm.

35. Construction dewatering will not cause adverse impacts to ground or surface water resources. The projected inland groundwater impacts, expressed as drawdown, will not extend beyond the cooling canal system that surrounds the Units 6 and 7 Site or cause a water resource concern.

36. No large-scale or area-wide dewatering is anticipated to be associated with construction of the cooling tower foundations, RWTF, the nuclear administration and training buildings, or parking area. However, local small-scale dewatering of these facilities and onsite pipelines may be required. Dewatering during construction of the radial collector wells will be limited to the caissons, which will be dewatered to allow for horizontal drilling of the well laterals.

37. Construction dewatering will not cause saltwater intrusion into areas where saltwater is not already present.

ii. Hydrologic Evaluations and Water Conservation

38. FPL submitted to the County an extensive and comprehensive hydrologic study for the Project as required by Condition 15 of County Resolution Z-56-07. FPL has fulfilled the requirements of that condition.

39. FPL submitted a complete description of all surface and groundwater practices at the existing Turkey Point Plant to

the County as required by Condition 16 of County Resolution Z-56-07. FPL has fulfilled the requirements of that condition.

40. FPL has submitted a water conservation plan for the Project. FPL will implement the County's water use efficiency manual.

iii. FPL Reclaimed Water Treatment Facility and Reclaimed Water Pipeline Corridor

41. The Project includes a RWTF. The proposed location for the RWTF is approximately 44 acres in size located northwest of the Site on the Turkey Point plant property. Pipelines will convey the treated reclaimed water from the RWTF to the cooling water makeup reservoir.

42. The RWTF will polish the reclaimed water to remove dissolved solids, nutrients, and mineral content that would otherwise negatively impact the efficient and reliable operation of the cooling reservoir, the cooling towers, and the circulating water system.

43. The treatment provided by the RWTF will allow FPL to utilize reclaimed water to the maximum extent possible. The treated water from the RWTF will comply with applicable Department requirements for use of reclaimed water in cooling towers. Operation of the RWTF and the use of reclaimed water will comply with applicable local government non-procedural requirements.

44. FPL has fulfilled the requirements of Condition 5 of County Resolution Z-56-07 through utilization of reclaimed water to the maximum extent possible and by conducting an evaluation of alternative water sources for the Project.

45. FPL and the County have entered into an agreement for the County to provide the reclaimed water. This reclaimed water use is a beneficial and cost-effective means of maximizing the use of reclaimed water from the County and helps the County meet its reclaimed water compliance requirements. In the absence of reuse opportunities, this treated domestic wastewater would likely continue to be discharged to the ocean or deep injection wells. The County is required to eliminate ocean outfalls and increase the amount of water that is reclaimed for environmental benefit and other beneficial uses.

46. The RWTF will be constructed at an elevation of 14 feet. This elevation is above the 100-year flood elevation of ten feet; will accommodate an additional one foot of increased water levels due to regional hydrologic restoration projects that affect the RWTF site; and will account for one foot of sea level rise. There will be a two-foot reserve capacity above any predicted water levels at the RWTF location.

47. FPL has proposed an approximately nine-mile reclaimed water pipeline corridor for delivery of reclaimed water from the Miami-Dade Water and Sewer Department's (MDWSD) South District

Wastewater Treatment Plant to the FPL RWTF. FPL selected the reclaimed water pipeline corridor to utilize, to the greatest extent practicable, existing infrastructure in order to minimize environmental impacts. The reclaimed water pipeline corridor is also co-located with an existing FPL overhead transmission line right-of-way (ROW) for most of its route. The pipeline corridor varies in width from 500 feet to one mile. The pipeline will be installed below ground level the entire length with subaqueous canal crossings. Open cutting or trenching will be utilized for the majority of the reclaimed water pipeline installation. Trenchless technologies will be used when crossing canals.

48. The reclaimed water pipeline will cross several SFWMD canals. When constructing the pipeline, FPL will avoid as much as practicable Biscayne Bay Coastal Wetland parcels, avoid longitudinal runs in the L-31 E canal right-of-way, and will use subaqueous crossings of SFWMD canals.

49. All reclaimed water pipeline canal crossings will be located, designed, and constructed consistent with applicable SFWMD non-procedural requirements, including the Criteria Manual for Use of Works of the District.

iv. Radial Collector Well System

50. The radial collector wells will be used as a backup source of cooling water. Radial collector wells have been used since the 1920s in commercial, industrial, and power plant

facilities, including another nuclear power plant. The wells will consist of four central caissons located on the Turkey Point peninsula. Up to 12 laterals will be directionally drilled from within each of the caissons horizontally at a distance of up to 900 feet beneath Biscayne Bay and at a depth of approximately 25 to 40 feet below the Bay bottom. The laterals will not extend beneath Biscayne National Park (BNP). The wells will be designed, sited, constructed, and operated to induce groundwater recharge from Biscayne Bay.

51. FPL has agreed to a condition of certification that would limit operation of the radial collector wells to 60 days in any consecutive 12-month period.

52. When using 100 percent salt water or saline water (based on 1.5 cycles of concentration in the cooling water system's cooling towers), Units 6 and 7 will use a maximum of 124.4 mgd. Each of the four wells will have a design capacity of 43.2 mgd. Operation of three wells will meet the plant make-up requirements, with the fourth well acting as a back-up.

53. The caissons for the radial collector wells will be installed within previously-filled upland areas of the Turkey Point peninsula. Construction of the radial collector wells will not result in any discharges to Biscayne Bay, other than construction-period stormwater run-off. Sedimentation barriers

or other best management practices will be implemented to limit potential impacts to surface water bodies.

54. The radial collector well laterals will be constructed using conventional rotary-type horizontal drilling with the drilling fluid consisting of formation water. The drilling will occur from inside the concrete caisson. The directional drilling for the laterals is designed to avoid "frac out," a situation where drilling mud enters a surface water body via a fracture or solution channel. Construction of the radial collector wells will not require dredging in Biscayne Bay.

55. The radial collector wells will be constructed and operated in accordance with all Department, SFWMD, and local government applicable non-procedural requirements related to well construction and monitoring. No explosives will be used during construction of the plant and non-transmission line portion of the Project, including during construction of the radial collector wells.

56. The radial collector well easement area is in the Biscayne Bay Aquatic Preserve. The radial collector well area includes the portion of the radial collector well system that will extend beneath State-owned submerged lands in Biscayne Bay.

57. The Department's Division of State Lands reviewed the information submitted by FPL regarding the radial collector well sovereign submerged lands easement and concluded that the

Project is in the public interest. The Division of State Lands recommended that the Siting Board direct the Board of Trustees to issue the sovereign submerged lands easement for the radial collector well system.

58. FPL owns the upland area adjacent to the requested easement for the radial collector wells. The radial collector wells will be designed and constructed to avoid restriction or infringement on riparian rights of adjacent upland landowners.

59. Construction and operation of the radial collector wells is a water-dependent activity. By the nature of the design and location, the radial collector well laterals cannot be reasonably constructed without going under the Biscayne Bay Aquatic Preserve.

60. The radial collector wells are "structures required for the installation or expansion of public utilities" and "reasonable improvements for public utility expansion," and are therefore specifically allowed by the Act that created the Biscayne Bay Aquatic Preserve. See § 258.397, Fla. Stat.

61. Construction and operation of the Project, including the radial collector well system, is consistent with the Biscayne Bay Aquatic Preserve Management Plan and is in the public interest.

v. Groundwater Modeling

62. FPL has conducted extensive groundwater modeling of the predicted impacts of the groundwater withdrawals associated with operation of the radial collector wells to supply cooling water. That modeling utilized the MODFLOW 2000 computational system. To support this modeling effort, FPL undertook an aquifer performance test (APT) at the Turkey Point peninsula to provide information on the potential yield from the water bearing units and to identify changes in existing water levels and water quality during pumping in the shallow aquifer at the location of the radial collector wells. The APT was undertaken in accordance with professional standards.

63. MODFLOW 2000 was developed by the United States Geological Survey. It is a widely accepted computer code for groundwater modeling. The groundwater modeling was conducted consistent with the applicable SFWMD non-procedural requirements.

64. The steady-state, constant-density, and three-dimensional groundwater model used conservative assumptions to produce an environmentally conservative assessment of potential environmental impacts.

65. In assessing the potential impacts associated with operation of the radial collector wells, the model considered water levels prior to radial collector well operation, water

level changes as a result of operating the radial collector wells, seabed approach velocity, and a breakdown of the sources of water that will be withdrawn by the radial collector wells. Seabed approach velocity is the velocity of the water just prior to entering the seabed above the radial collector wells.

66. The results of the groundwater model predict that the radial collector wells will withdraw water from a saltwater or saline aquifer that will be recharged from Biscayne Bay. FPL's model predicted that: (1) approximately 97.8 percent of the aquifer recharge will originate from boundaries representing Biscayne Bay; (2) approximately two percent will originate from boundaries representing the cooling canal system; and (3) approximately 0.2 percent will be from boundaries representing precipitation onshore. The modeling indicated that operation of the radial collector wells will not cause water from the existing cooling canal system to enter Biscayne Bay.

67. The seabed approach velocity is predicted to be a maximum rate of 0.00002 feet per second overlying the laterals. To put this in perspective, a one-foot, wind-driven wave on Biscayne Bay in five to six feet of water can induce a velocity of approximately one foot per second near the Bay bottom. This wave velocity is about five orders of magnitude greater than the velocity predicted to be induced by the radial collector wells. Additionally, the United States Environmental Protection

Agency's (EPA) benchmark for regulating potential impingement of species from intake structures that draw directly from the water column is 0.5 feet per second. This is 25,000 times higher than the seabed approach velocity predicted for the radial collector wells.

68. In terms of the predicted effect of operation of the radial collector wells, the maximum drawdown in groundwater levels of three feet occurs near the radial collector well laterals, located 25 to 40 feet below the Bay bottom. This drawdown reduces to one foot at a distance of 1,500 feet from the radial collector well caissons, and this level of drawdown is confined to off-shore of the Site. The 0.1 foot drawdown contour extends on-shore a maximum of 3,000 feet.

vi. Radial Collector Well Potential Impacts

69. FPL's proposed water uses will not cause harm to wetlands or other surface waters or cause pollution of water resources or degradation of surface or ground water quality.

70. Some of the areas contributing precipitation recharge to groundwater west of the radial collector wells contain wetlands. Water contributed to the radial collector wells from these areas is captured as it flows under natural conditions toward the coast. This water is not induced to flow from these areas by the operation of the radial collector wells; it would flow from these areas regardless of whether the radial collector

wells were pumping or not. The operation of the radial collector wells will not have an adverse impact to these wetlands.

71. Construction and operation of the radial collector wells will not adversely impact the ambient water quality of Biscayne Bay, including the Biscayne Bay Aquatic Preserve and BNP.

72. Construction and operation of the radial collector wells will not cause saltwater intrusion into areas where saltwater is not already present.

73. FPL conducted extensive simulation modeling of the potential salinity impact to Biscayne Bay from operation of the radial collector wells using a regional hydrodynamic model. The model used a bounding approach, simulating operation of the radial collector wells at drawdown rates both below and well above the design flow rate as sensitivity analyses. At the design flow rate, the model predicted that any changes to salinity in Biscayne Bay caused by operation of the radial collector wells would be immeasurable and imperceptible. Even at a simulated rate of 850 mgd, or nearly seven times the design flow rate of the radial collector wells, the predicted change in salinity in Biscayne Bay would be very slight. Operation of the radial collector wells will not adversely impact salinity levels in Biscayne Bay.

74. The design of the radial collector well system minimizes adverse impacts to fish and wildlife habitat, including endangered and threatened species habitat, and other natural or cultural resources in Biscayne Bay, including Biscayne Bay Aquatic Preserve.

75. Operation of the radial collector wells will not interfere with the ecology and aquatic life, regional fisheries, and recreational uses of Biscayne Bay.

76. Construction and operation of the radial collector wells will not adversely impact fish and wildlife, including threatened and endangered species, or their habitats.

77. FPL evaluated the potential entrainment and impingement impacts of the radial collector well system using particle drift modeling. The modeling considered conservatively bounded scenarios to evaluate potential impacts under varying levels of drawdown and natural environmental conditions. The modeling predicted that at the design flow rate of the radial collector wells, the expectation of entrainment and impingement impacts associated with the radial collector wells is zero. Even at 350 mgd, or more than double the design flow rate, the model predicted no entrainment or impingement of organisms. Operation of the radial collector wells will not result in impingement or entrainment of larvae or other biological particles.

78. FPL conducted a six-month long replicated mesocosm study to determine the impacts, if any, to seagrasses associated with the operation of the radial collector well system by simulating the downward movement of water into seagrass sediments. Mesocosms are generally accepted by the scientific community as an appropriate and accurate method of evaluating impacts to seagrasses. The study conservatively tested the potential stress to seagrass for three months, or one month longer than FPL would normally be allowed to operate the radial collector wells in any 12-month period.

79. The results of the mesocosm study showed that operation of the radial collector wells could result in a 95 percent reduction in porewater nutrient concentrations. Despite that potential reduction, there was no evidence of an adverse impact on seagrass productivity. Leaf turnover rates fell within the range of values expected for healthy seagrass meadows and cumulative biomass production rates showed that the seagrass continued to grow over the course of the entire experiment. There was no evidence of reduced cumulative biomass production rates. Results during the recovery period of the experiment showed that porewater nutrient concentrations were capable of increasing to the higher levels found prior to the imposition of the downward flux of waters into the bottom sediments.

80. Construction and operation of the radial collector wells will not adversely impact submerged land resources, including seagrasses and other benthic resources, and will not impact the County's potable water wellfields. Those wellfields are not within the area impacted by the withdrawals.

81. The radial collector wells are compatible with and will not detract from or adversely affect the natural conditions, propagation of fish and wildlife, and traditional recreational uses of Biscayne Bay, including Biscayne Bay Aquatic Preserve. Because the radial collector wells will not have an adverse impact on Biscayne Bay Aquatic Preserve, they will not contribute to a cumulative impact on the Preserve's natural system.

82. FPL has a demonstrated need for the proposed water uses. FPL has provided reasonable projections of the Project's water needs, quantities, and sources. FPL has legal control over the Project site and facilities, and the proposed uses of water are compatible with the current land use at the Project site.

83. FPL has a demonstrated demand for an alternative secondary or back-up cooling water source to be provided via the radial collector well system.

84. FPL's proposed water uses are not inconsistent with SFWMD-established minimum flows and levels and will not withdraw

water reserved under chapter 40E-10. They will not be harmful to water resources. They are reasonable-beneficial uses, will not interfere with present existing legal users, and are consistent with the public interest. The water withdrawals will not harm off-site land uses.

85. The Department, FWC, and SFWMD have proposed conditions of certification requiring monitoring of the impacts of the radial collector well system. FPL has agreed to those conditions as reflected in stipulations of the parties. FPL and the County have also stipulated to imposition of radial collector well system monitoring conditions. FPL's compliance with these agreed-upon conditions of certification fulfills its obligations under Conditions 3 through 12 of County Resolution Z-1-13.

vii. Potable Water and Potable Water Pipeline

86. Potable water from the MDWSD will be used as makeup water for the service water system (SWS) cooling system. The SWS is a much smaller system that dissipates heat from reactor components. Unlike the collector well system that can be designed to use saltwater or freshwater, the SWS must use freshwater. Assuming four cycles of concentration, the normal amount of potable water needed for the SWS is 0.7 mgd. The SWS normal water use is approximately one percent of the total plant water use when the collector well system is using reclaimed

water and approximately 0.6 percent when using saltwater. Potable water will also be used for the potable water system, fire protection system, de-mineralized water treatment system, and other miscellaneous uses.

87. The normal total amount of potable water needed for the Project is 1.3 mgd, including the water used in the SWS. The maximum amount of potable water needed is 3.7 mgd, including the SWS, potable water system, de-mineralized water system, equipment/floor washdown, and fire water system. It is highly unlikely that all of these streams will be at maximum capacity at the same time.

88. Potable water will be delivered to the Site via an approximately nine-mile proposed pipeline that will connect to the County potable water supply system. The potable water pipeline ROW will be located within or adjacent to existing or planned roads and ROWs. Typically, pipe installation takes place by excavation and backfill techniques.

89. SFWMD canals will be crossed by the potable water pipeline. Pipeline crossings of SFWMD canals will be located, designed, and constructed consistent with applicable SFWMD non-procedural requirements, including the Criteria Manual for Use of Works of the District.

viii. Wastewater Disposal

90. During the construction phase of the Project, wastewaters including dewatering effluent will be disposed by the injection wells or released to the cooling canal system. Construction site stormwater will be released to the cooling canal system. The cooling canal system is an existing permitted industrial wastewater facility. These releases will not cause adverse impacts to water quality.

91. During operation, the major wastewater streams associated with the Project are the circulating water system blowdown, the service tower blowdown, and effluent from the demineralized water treatment system. These and other smaller wastewater streams, except stormwater, will be collected in a lined blowdown sump along with other Project waste streams and then will be discharged to the deep injection wells. Operation of Units 6 and 7 will not utilize the existing industrial wastewater facility for cooling or wastewater disposal, except that stormwater will be routed to this facility.

92. The Project will not result in any discharge of industrial wastewaters to any jurisdictional surface waters during construction or operation. Construction and operation of the Project will not cause or contribute to violations of any applicable state and local surface or ground water quality standards.

93. It is not technically feasible to reuse Project wastewaters for discharge to the Biscayne Bay Coastal Wetlands Project.

94. In accordance with Condition 6 of County Resolution Z-56-07, FPL has prepared and submitted documentation comprising a wastewater discharge plan to the reviewing agencies, including the County.

ix. Underground Injection Well System

95. The proposed underground injection well system consists of 12 or 13 Class I industrial deep injection wells and six or seven dual zone monitoring wells. At least two of these injection wells will serve as back-up wells. These injection wells will be designed to meet applicable injection well design requirements, including incorporating measures to protect the wells against corrosion or damage resulting from native groundwater and the injected fluids. The wells will be periodically tested for mechanical integrity.

96. The underground injection wells will dispose of Site wastewaters into the Boulder Zone, which is within a geologic formation known as the Oldsmar formation approximately 3,000 feet below land surface. The water in the Boulder Zone has salinity close to that of sea water. The Boulder Zone is used extensively to dispose of wastewaters in Florida.

97. The Boulder Zone is located deep underground and separated and confined from the shallower aquifers that are classified and used as underground sources of drinking water in South Florida.

98. The Boulder Zone at the Turkey Point Plant is classified by the Department as a G-IV aquifer because it is a confined aquifer with no potable use and with a total dissolved solids (TDS) content of 10,000 milligrams per liter (mg/L) or greater. Except for a prohibition on injection of hazardous waste, no groundwater quality criteria, including thermal standards or limitations, apply to discharges into the Boulder Zone.

99. FPL analyzed the geology at the Turkey Point property to determine if it was suitable for disposal of wastewater through underground injection by constructing a 3,230-foot deep exploratory well. This exploratory well was authorized by a Department-issued underground injection control (UIC) permit, and it was constructed to the standards for a Class I injection well. On July 29, 2013, the Department issued UIC permit number 293962-002-UC, authorizing FPL to convert this exploratory well to an injection well to dispose wastewaters associated with the construction of Units 6 and 7. This converted exploratory well could also be used to dispose of industrial wastewater after

Units 6 and 7 become operational, subject to authorization for this purpose by the Department through another UIC permit.

100. FPL also constructed a dual zone monitoring well approximately 75 feet from the exploratory well, within the 150-foot maximum distance of the Department's UIC rules. The dual zone monitoring well allows for collection of groundwater samples from two separate subsurface intervals. Dual zone monitoring wells help determine whether there is adequate confinement of the injected fluid. Construction of the exploratory well and dual zone monitoring well was in accordance with applicable Department requirements and authorized by a permit.

101. During construction of the exploratory well, FPL conducted testing to determine the appropriate well casing setting depths, confirm the presence of an injection zone, and evaluate the confining characteristics of intervals overlying the injection zone. A report documenting this testing was prepared and provided to Department staff who agreed with the report's information and conclusions. This testing determined that the top of the injection zone occurs at a depth of approximately 2,915 feet below pad level and there is a confining unit of approximately 985 feet above the top of the injection zone. The injection zone is over 1,400 feet below the deepest potential underground source of drinking water as

defined by the Department. The injection zone is a confined aquifer with a total dissolved solids concentration greater than 10,000 mg/L. This injection zone is capable of receiving water at the proposed injection rate. Before beginning operational use of the injection wells, FPL will be required to further test the ability of the injection zone to receive the injected fluid.

102. The Department UIC rules required FPL to conduct an "area of review" analysis to ensure that there were no wells, springs, mines, faults, or other geological features that could provide a pathway to allow Turkey Point injected wastewater to migrate upwards into an underground source of drinking water. FPL's area of review analysis found no wells, springs, mines, faults, or other geological features that could provide a pathway to allow the Turkey Point injected wastewater to migrate upwards into a potential underground source of drinking water. The Department reviewed FPL's area of review analysis as part of the exploratory well permit.

103. To further ensure that the geology above the Boulder Zone was sufficient to confine the injected wastewater to the Boulder Zone, FPL performed a confinement analysis by comparing hydrogeologic data collected during the exploratory well testing to data from other injection wells. This data comparison, particularly comparing the sonic logs, demonstrated that the geology above the Boulder Zone has little evidence of

fracturing. This is indicative of effective vertical confinement.

104. Finally, although not required by the UIC rules, FPL performed a density-dependent groundwater flow modeling analysis to determine how the injected wastewater would move through the underground formations. This groundwater flow model considered the geology of the area, the differences in the density of the injected wastewater compared to the native groundwater, and simulated a period of 60 years of injection followed by 40 years of no injection for a total of 100 years. The groundwater flow model showed that even after 100 years the injected wastewater did not move out of the confining layer and did not move into any potential underground source of drinking water.

105. Additionally, the injected wastewater will not affect the mechanical integrity of the injection wells, will not jeopardize the integrity of the confining zone, and will not alter the hydrologic characteristics of the injection zone to the point of endangering the underground source of drinking water.

106. All of the testing, analysis, and modeling demonstrate that there is adequate confinement to prevent upward migration of the injected wastewater out of the injection zone. Also, the injection of this industrial wastewater will not modify the ambient water quality of other aquifers overlying the

injection zone, and the injection zone can receive wastewater at the rate proposed by FPL. Thus, injection of industrial wastewater from Units 6 and 7 will not cause or allow the movement of fluid into underground sources of drinking water that would cause a violation of drinking water standards or otherwise adversely affect the health of persons. Even after 100 years of plant operation, the injected wastewater will remain over 1,000 feet below the base of the underground source of drinking water.

107. The injection wells will be operated consistent with applicable injection pressure and fluid velocity requirements. The injection wells will also comply with applicable emergency discharge requirements. Through the underground injection control permitting process, FPL will be required to continually monitor these injection wells and report that information to the Department.

108. The wastewater discharged to the underground injection wells will not be hazardous as defined by chapter 62-730. Thus, the wastewater complies with the Department's Boulder Zone's G-IV aquifer requirements. Additionally, the wastewater is not a radioactive waste as defined by rule 62-528.200(54). Thus, the injection wells are considered Class I industrial injection wells under rule 62-528.300(1)(a)2.

109. Separate from this certification proceeding, FPL has obtained a permit to convert the Class V exploratory well to a Class I injection well. The permit to convert the exploratory well to a Class I injection well includes a requirement to operationally test the injection well for up to two years. The construction of the other underground injection wells will require a Class I UIC construction permit from the Department. That permit will contain a requirement to operationally test the injection wells for up to two years. This operational testing will allow FPL to further confirm that the underground injection control system operates as designed with no upward fluid migration. This operational testing period data will, in part, support FPL's application for one or more separate Class I UIC operating permits from the Department for the system. The operating permit must be renewed by the Department every five years. Class I UIC permits require periodic monitoring of the injection process and reporting of that monitoring information to the Department. Thus, the Department will continually oversee FPL's deep well injection system and will re-review the system every five years as part of the Class I operation permit renewal.

x. Stormwater/Surface Water Management

110. FPL has prepared and submitted to the reviewing agencies as part of its application a stormwater management plan

for construction and operation of the Project at the Site and for the associated non-linear facilities.

111. During construction of the Site and associated non-linear facilities, erosion control measures such as silt fences and hay bales will be used to decrease velocity of sheet flow and to control small amounts of sediment from disturbed areas in runoff. Temporary basins or sediment traps will be constructed to control runoff from larger disturbed areas. Temporary fill diversions will be used for slope protection and to divert runoff to sediment basins and stabilized outlets. Construction stormwater requirements will be addressed through compliance with rule 62-621.300(4) and other applicable agency regulations.

112. During operation, the stormwater management system is designed to release stormwater runoff from the Units 6 and 7 site into the existing permitted industrial wastewater facility. The stormwater runoff from the nuclear administration building, training building, and parking area will also be released to the industrial wastewater facility. The industrial wastewater facility currently has sufficient capacity and will not be impacted by stormwater runoff from the Project during operation.

113. All stormwater associated with industrial activity from the RWTF equipment area will be captured, treated as necessary, and reused within the reclaimed water treatment

process. Runoff from non-equipment areas will be routed to stormwater management facilities and released to local drainage.

114. Stormwater during construction and operation of the non-transmission linear facilities will be handled in accordance with applicable Department, SFWMD, and County non-procedural requirements. The proposed reclaimed water and potable water pipelines will be installed underground. The construction access roads will include stormwater management facilities designed to meet applicable Department standards. Runoff from the potentially oil-contaminated areas, such as the containment area for transformers and other oil-containing or handling equipment, will first be directed through an oil/water separator and then routed to the industrial wastewater facility.

115. There will be no adverse impacts from stormwater during construction, operation, or maintenance of the plant and non-transmission line portion of the Project.

116. Construction, operation, and maintenance of the stormwater management systems for the plant and non-transmission line portion of the Project will not cause adverse water quantity impacts to receiving waters and adjacent lands; will not cause flooding to on-site or off-site property; will not cause adverse impacts to existing surface water storage and conveyance capabilities; will not adversely affect the quality of any jurisdictional waters or result in a violation of any

water quality standards; will not cause adverse secondary impacts to water resources; and will not cause adverse impacts to any SFWMD water resources.

xi. Domestic/Sanitary Wastewater

117. Sanitary wastewater treatment for Units 6 and 7 will be provided by a new on-site package sanitary treatment plant. The sanitary treatment plant will be designed to process sanitary wastes from Units 1 through 7. This treatment plant will replace several existing septic tanks and an existing sanitary wastewater plant that serve Units 1 through 4 and that discharges to the surficial aquifer.

118. Units 6 and 7 will have a sanitary drainage system that will collect sanitary waste from plant restrooms and locker room facilities and carry this waste to the sanitary treatment plant where it will be processed. Effluent from the proposed sanitary treatment plant will be disposed through the underground injection wells in compliance with applicable regulations.

119. FPL is requesting that the final certification for the Project include approval for the use of the on-site package sanitary treatment plant and the other on-site cooling water and wastewater treatment and disposal facilities in lieu of connecting the Project to a public sanitary sewer line for treatment and disposal of these waters by the County. FPL has

requested a variance from section 24-43.1(6), MDC. No reviewing agency, including the County, objected to the requested variance. With the exception of this one requested variance, the Project will comply with all applicable non-procedural standards and requirements of all reviewing agencies.

120. A pipeline of the required length to connect to the MDWSD system for the flow generated by the Project would be below the desired minimum design velocity for the pipeline.

121. The sanitary wastewater treatment plant will provide secondary waste treatment and high level disinfection; it will be designed in accordance with sound engineering practice; and the design, construction, and operation of the sanitary wastewater facilities will be consistent with applicable Department and County non-procedural requirements.

C. Storage Tanks

122. The Project will include some above-ground storage tanks for petroleum products and for the storage of chemicals. Above-ground storage tanks will be inside buildings or covered and will have required secondary containment.

123. All storage tanks will be constructed, operated, and maintained according to the applicable requirements of chapters 62-761 and 62-762.

D. Air Emissions, Controls, Impacts, and Airspace

124. The sources of air emissions associated with the Project will include circulating water cooling towers and service water system cooling towers, standby diesel generators, ancillary diesel generators, diesel fire pumps, diesel fuel storage tanks, and general purpose diesel engines. There will also be air emissions associated with Site preparation and construction.

125. The Project will have six circulating water cooling towers to support the operation of the nuclear units, with three towers for each unit. The primary air emissions from Units 6 and 7 during operation are particulate matter (PM) and PM with an aerodynamic diameter of ten microns or less (PM<sub>10</sub>) in the form of atmospheric drift. The primary source of the PM and PM<sub>10</sub> emissions is the circulating water cooling towers. There will also be small amounts of PM and PM<sub>10</sub> from the service water system cooling towers. There will be emissions of PM and PM<sub>10</sub>, nitrogen oxides (NO<sub>x</sub>), carbon monoxide, volatile organic compounds, and sulfur oxides from the use of emergency diesel generators.

126. Cooling tower drift will be controlled through the use of state-of-the-art cooling tower design including drift eliminators designed to limit drift to 0.0005 percent of the amount of water circulating through the cooling towers. The use

of high efficiency drift eliminators represents Best Available Control Technology as required by the EPA and Department. The water treatment levels and location and the operation of the cooling towers will comply with the Department's regulations for the use of reclaimed water in cooling towers.

127. The Department has issued Air Permit No. PSD-FL-409, Project No. 025003-013-AC. The Department found that the Project would not cause or significantly contribute to a violation of any ambient air quality standards. It also determined that the Project would comply with all applicable state and federal regulations.

128. Construction and operation of the Project will not have an adverse impact on air quality in the vicinity, including air quality in the Everglades National Park, BNP, or Big Cypress National Preserve.

129. There will be no adverse visibility, fogging, or icing impacts resulting from the operation of the Turkey Point Units 6 and 7 cooling towers.

130. "Drift" is made up of various sized water droplets containing minerals. These water droplets fall out of the cooling tower plume at various distances from the cooling tower and deposit materials. Deposition results when the solution drift falls to a surface such as the ground or water.

131. The constituents in treated reclaimed water will not result in adverse environmental impacts as a result of cooling tower deposition. FPL's deposition analysis considered the quality of the treated reclaimed water and the areas that may be potentially impacted by deposition. The results demonstrate that, while deposition of the various constituents can be calculated, the resulting concentrations of the constituents will be negligible and immeasurable.

132. The constituents in saltwater, when using the back-up cooling water source, will not result in adverse environmental impacts as a result of cooling tower deposition. FPL's deposition analysis considered the quality of water and the areas that may be potentially impacted. The results demonstrate that, while deposition of the various constituents can be estimated through modeling, the resulting concentrations of these constituents could not be measured since their concentrations are extremely small compared to natural variation, and concentrations of many constituents would be well below the detection limits of analytical methods. While the deposition of TDS is higher in the vicinity of the cooling towers than background deposition, that area consists of vegetation that is salt tolerant due to the close proximity to Biscayne Bay. Moreover, the resultant concentration from deposition is much lower than the levels found in the

environment and the use of saltwater would be short-term given the durational condition of certification to which FPL has agreed.

133. When using either treated reclaimed water or saltwater, air emissions from the Project will not have an adverse effect on natural resources, including surface waters and wetlands, in the vicinity of the Project. Atmospheric deposition from the operation of cooling towers associated with the Project will not degrade or lower ambient water quality in Biscayne Bay, including Biscayne Bay Aquatic Preserve and BNP.

134. Operation of Units 6 and 7 will avoid a considerable amount of air pollution emissions and greenhouse gases. Over a 40-year period of operation, Units 6 and 7 will avoid approximately 21,300 to 49,200 tons of NO<sub>x</sub>, approximately 14,200 to 75,400 tons of sulfur dioxide, and at least 266 million tons of carbon dioxide emissions.

135. Open burning during Project construction will be conducted in accordance with applicable non-procedural requirements of state and local agencies.

136. FPL has complied with Condition 19 of County Resolution Z-56-07. FPL has obtained authorizations from the FAA for the Units 6 and 7 containment buildings. FPL will submit applications for FAA permits for the construction cranes prior to construction.

137. In accordance with Condition 18 of County Resolution Z-56-07, FPL has coordinated with the Homestead Air Reserve Base and is in compliance with Article XXXV, Homestead General Aviation Airport Zoning in sections 33-372 through 33-387, MDC.

138. The County is currently designated as being in attainment for all Ambient Air Quality Standards for all pollutants. The non-transmission line portion of the Project will comply with applicable state and local non-procedural requirements for control and protection of air quality.

139. The Project complies with applicable County non-procedural requirements related to air quality and all provisions of the County's CDMP related to air quality and air space. The air emissions associated with the non-transmission line portion of the Project are consistent with all applicable environmental regulations.

E. Equipment Barge Unloading Area

140. FPL currently has a barge delivery facility at the Turkey Point plant that is used for fuel oil delivery. The barge delivery facility is located at the north bank of the barge turning basin, east of the existing Units 1 and 2.

141. To allow for deliveries of Project components, equipment, and material during Project construction, the existing barge unloading area will be enlarged by excavation of uplands landward to approximately 90 feet by 150 feet, to a

depth of approximately nine feet. The excavation area will be isolated from surface waters with sheet piles or similar structures. FPL will implement other best management practices during this excavation to prevent impacts to surface waters.

142. The maximum draft of the barges to be used for delivery during construction is 6.5 feet. Normal operation of Units 6 and 7 will not require regular barge traffic.

143. Construction of the enlarged barge unloading area will not require any construction in Biscayne Bay or its natural tributaries.

F. Construction Access Roadways and Traffic Impacts

144. FPL is seeking certification for roadway improvements as associated linear facilities to the Project in order to accommodate peak construction traffic and provide access to Units 6 and 7 during construction. The roadways are those necessary to provide safe and secure access to the Project site.

145. Improvements will be made to approximately 3.5 miles of existing paved roadways by widening those roads from two lanes to four lanes. In addition, improvements will be made to seven miles of unpaved roads by constructing three or four paved lanes. Improvements will also be made to six intersections by adding new turn lanes.

146. The construction access roadway improvements include a new bridge over a SFWMD canal. This bridge will be located,

designed, and constructed consistent with applicable SFWMD non-procedural requirements, including the Criteria Manual for Use of Works of the District.

147. In addition to roadway segment and intersection improvements, traffic control in the form of traffic signals or police control will be required at several intersections during the peak morning and afternoon periods. These traffic control measures are only required at times of high traffic volume entering and leaving the Site during Project construction. In addition, roadway improvements south of Southwest 344th Street will be patrolled by security personnel.

148. The roadway and intersection improvements will be designed and constructed in accordance with applicable city, county, and state non-procedural requirements. The roadways will comply with the criteria established in the Traffic Circulation Element of the CDMP for the Project's construction access roads. The construction activities will involve the installation of silt fences, removal of vegetation, construction of drainage, removal of unsuitable soils, placement of road-base materials, laying asphalt, and striping. Typical road construction equipment will be used to construct the roadway improvements. The final design of the roadway improvements will maintain sheet flow across roadway alignments. The final design of the roadway improvements on the Turkey Point plant property

will account for increased water elevations of up to one foot planned as part of regional environmental restoration projects.

149. FPL will pay all costs associated with construction and removal of the construction access roads. Construction of the roadway improvements will commence no sooner than two years prior to the commencement of construction of the Project.

150. The roadway and intersection improvements are temporary and designed to accommodate traffic during the construction of the Project. Following construction, all temporary roadway improvements on publicly owned ROWs will be returned to the status of the roadway prior to the commencement of construction of the temporary roadways and roadway improvements. Any privately owned roadway will be returned to the minimum roadway width required to provide maintenance to FPL facilities and will not be more than two lanes.

151. Roadway improvements on privately owned property will not be open to the general public. The County and other agencies with needed access will be granted access to these private roadways.

152. Level of service standards and the County's reserve capacity standards will be met with the addition of Project-related traffic during construction and operation.

153. The construction access roads and pipelines will not be located within local wellfields.

G. Land Use/Comprehensive Plan

154. Land uses adjacent to the site and associated non-linear facilities comprise undeveloped land; electrical generating Units 1, 2, 3, 4, and 5; and transmission infrastructure. The industrial wastewater facility is located to the west and south of the Units 6 and 7 site. Canals that return cooling water to Units 1 through 4 surround that site. The BNP, Biscayne Bay Aquatic Preserve, and the FPL Everglades Wetland Mitigation Bank are adjacent to the larger Turkey Point plant property. The Homestead Air Reserve Base and the Homestead-Miami Speedway are northwest of the site. Most of the existing land uses in the vicinity of the larger FPL Turkey Point plant property are vacant land.

155. The Project site and associated non-linear facilities are compatible with the existing proximate land uses.

156. Existing land uses within and in the vicinity of the proposed corridors for the temporary construction access roads and the potable water pipeline are comprised of vacant land, agriculture, residential, electric power facilities, the Homestead Air Reserve Base, and the Homestead International Speedway. Most of the existing land uses in the immediate vicinity of the southern portion of the temporary construction access roads are vacant land.

157. Land uses within the proposed corridor for the reclaimed water pipeline comprise a water treatment facility, a landfill, agricultural land, and transmission infrastructure. The BNP and Biscayne Bay Aquatic Preserve are located to the east of the proposed reclaimed pipeline corridor. The Homestead Air Reserve Base and the Homestead International Speedway are located approximately five miles northwest of the corridor. Most of the existing land uses in the immediate vicinity of the proposed corridor are vacant land.

158. The proposed temporary construction access roads, the potable water pipeline, and the reclaimed water pipeline are compatible with the existing land uses within those proposed corridors.

159. FPL will grant the MDWSD an unobstructed utility easement along Southwest 360th Street from Southwest 177th Avenue to the plant property as required by Condition 2 of County Resolution Z-1-13.

160. FPL will also grant the County an easement along section line road ROW on the Southwest 344th Street alignment east of Levee L-31 in accordance with Condition 13 of County Resolution Z-1-13.

161. FPL will design the construction access roads to avoid impacts to County-designated Environmentally Endangered Lands.

162. The plant and non-transmission line portion of the Project will be consistent with local land development regulations (LDRs), including zoning ordinances.

163. FPL intends to comply with all of the conditions of County Resolutions Z-56-07 and Z-1-13 and with all of the criteria of the CDMP amendment for the construction access roadways.

164. The plant and non-transmission line portion of the Project will be consistent with the CDMP and the City of Homestead's comprehensive plan; consistent with the Strategic Regional Policy Plan of the SFRPC; and consistent with the State Comprehensive Plan.

#### H. Wetlands and Wetlands Mitigation

165. Construction of the Plant and non-linear associated facilities would permanently impact approximately 398 acres of wetlands. Approximately 250.2 acres are associated with construction on the site and are contained within the industrial wastewater treatment facility. The remaining permanent wetland impacts are associated with construction of the associated non-transmission line facilities. There will also be approximately 43.6 acres of temporary impacts associated with construction of the reclaimed water pipeline.

166. Wetland impacts associated with the construction of the radial collector well system are limited to approximately

three acres of temporary wetland impacts during installation of the radial collector well delivery pipeline. The construction and operation of the radial collector wells will not impact wetland vegetation upon sovereign submerged lands.

167. There will be no wetland impacts associated with construction of the equipment barge unloading area.

168. FPL has made efforts to reduce and eliminate impacts to wetlands through a variety of engineering, design, and other measures, including for example, locating the site within the existing, previously impacted, permitted industrial wastewater facility; relocating the parking and laydown areas to locations within the existing Turkey Point plant property; reconfiguring the RWTF to reduce the footprint and relocating the RWTF; and restoration of roadways within the construction access improvements corridors.

169. FPL conducted its wetlands assessment in accordance with the Department's Uniform Mitigation Assessment Method (UMAM). A total of 262 UMAM credits of functional loss are associated with construction of the plant and non-transmission line portion of the Project. This includes permanent, temporary, and secondary wetland impacts.

170. FPL has proposed a wetland mitigation plan for the entire Project. FPL proposes to mitigate for wetland impacts associated with the plant and non-transmission line portion of

the Project through a combination of regional wetland restoration, enhancement, and preservation initiatives furthering regional restoration goals, as well as the use of credits obtained from the Everglades Mitigation Bank and restoration of temporary wetland impacts associated with pipeline installation. The mitigation plan includes over 800 acres of wetland restoration, enhancement, and preservation. Additional mitigation activities are proposed within the Model Lands Basin to the west and south of the Turkey Point plant, including creation of a crocodile nesting sanctuary and restoration of wetlands associated with the temporary construction access roadways. FPL's proposed wetland mitigation plan is appropriate to offset the expected wetland impacts.

171. FPL's proposed wetland mitigation plan for the plant and non-transmission line portion of the Project will fully offset impacts to the functions of wetlands and other surface waters within the same drainage basins as the impacts and will avoid unacceptable cumulative impacts to wetlands or surface waters.

172. FPL's proposed wetland mitigation plan for the plant and non-transmission line impacts of the Project will fully offset the effects, including functional wetland loss, caused by the construction, operation, and maintenance of the Project.

173. FPL is capable of successfully implementing the proposed mitigation plan.

174. FPL's proposed wetland mitigation plan complies with Conditions 1 and 9 of County Resolution Z-56-07 and Condition 15 of County Resolution Z-1-13.

175. The plant and non-transmission line portion of the Project is not contrary to the public interest.

176. The plant and non-transmission line portion of the Project is consistent with relevant requirements of the SFWMD.

I. Wildlife/Threatened and Endangered Species

177. FPL has submitted to all reviewing agencies a comprehensive threatened and endangered species management plan for all listed species for the Project. FPL has preserved, to the maximum extent practicable, all habitat that supports or is critical to listed species. The threatened and endangered species management plan addresses short-term measures to be taken during construction and permanent measures necessary to protect critical habitat. No nests of listed species will be destroyed without prior approval and relocation, if required. The plan includes permanent measures to prevent direct and indirect impacts to critical habitat sufficient to prevent disruption of sensitive behaviors such as breeding, nesting, and foraging within critical habitat.

178. FPL's threatened and endangered species management plan complies with Conditions 2 and 11 of County Resolution Z-56-07 and Condition 18 of County Resolution Z-1-13.

179. The threatened and endangered species management plan includes a comprehensive inventory of all threatened or endangered flora and fauna and identifies all habitat that supports these species.

180. FPL has avoided and minimized impacts to wildlife, including listed species, by locating the site and associated non-transmission line facilities within previously disturbed areas to the greatest extent practicable, avoidance of nesting habitat, commitment to conduct pre-clearing surveys, incorporation of wildlife protection features in the design of construction access roadway improvements, and requiring wildlife training of all construction employees.

181. FPL's proposed wildlife protection features associated with the construction access roads include installing crocodile and wildlife underpasses on Southwest 359th Street east of the L-31E Canal; installing fencing (including fine mesh material along the base of the fencing) along Southwest 359th Street from the L-31E Canal to Southwest 137th Avenue and along portions of both Southwest 117th Avenue and Southwest 137th Avenue between Southwest 344th Street and Southwest 359th Street; providing a six-foot box culvert wildlife underpass

along Southwest 359th Street between Southwest 117th Avenue and Southwest 137th Avenue; providing a second wildlife underpass associated with the bridge on the west side of the L-31E along Southwest 359th Street; and installing enlarged arch culverts along Southwest 359th Street from the L-31E Canal Westward to Southwest 137th Avenue to replace existing culverts.

182. FPL's proposed conservation and monitoring plans will protect listed species from adverse effects from construction and operation of the plant and non-transmission line portions of the Project. FPL's proposed mitigation plan offsets any potential impacts to listed species.

183. The plant and non-transmission line portion of the Project is not anticipated to cause adverse impacts to the abundance and diversity of fish, wildlife, or listed species.

184. Construction, operation, and maintenance of the plant and non-transmission line portion of the Project will not adversely affect the conservation of fish, wildlife, listed species, or their habitat; will not cause adverse secondary impacts to water resources, or aquatic or wetland-dependent fish or wildlife; and will not adversely impact the value of functions provided to fish and wildlife and listed species by wetlands and other surface waters.

185. In accordance with Condition 3 of County Resolution Z-56-07, prior to construction, FPL will obtain all permits and

assessments required by United States Fish and Wildlife Service (USFWS) for the preservation and management of habitat for listed species in accordance with applicable state and federal law.

J. Florida Panther

186. The Florida panther is classified as an endangered species. The USFWS has not designated critical habitat for the Florida panther. USFWS has, however, designated a Panther Focus Area (PFA).

187. Approximately 5.75 miles of the construction access roadway corridors are within the PFA. Where the potable water pipeline is co-located with the construction access roadway corridor, it is also within the PFA. The remainder of the plant and non-transmission line portion of the Project is outside of the PFA. The roads and pipeline corridors within the PFA will result in an impact to approximately 69 acres on the fringe of the PFA. The 69 acres have a panther habitat value of 297 panther habitat units (PHUs).

188. There is a very low likelihood that Florida panthers would occur in the area of the Turkey Point plant and the non-transmission line portion of the Project.

189. Construction, operation, and maintenance of the plant and non-transmission line portion of the Project will not

destroy, degrade, or result in a reduction of habitat that is critical to Florida panthers.

190. Panthers do not use the area of the construction access roadway corridors, including for denning or as a travel corridor.

191. FPL's proposed wildlife protection measures are appropriate and sufficient to prevent adverse impacts to Florida panthers from any traffic mortalities associated with the access roads, and are appropriate mechanisms to enhance protection for wildlife in the area.

192. Construction, operation, and maintenance of the plant and non-transmission line portion of the Project will not impact the values of wetland or other surface water functions so as to cause adverse impacts to the habitat of the Florida panther.

193. The construction, operation, and maintenance of the plant and non-transmission line portion of the Project will not have an actual or potential negative impact on Florida panther habitat; will not have adverse impacts on Florida panthers, their habitat, or affect the conservation of the Florida panther and its habitat; will not have adverse secondary impacts on Florida panthers or their habitat; will not result in a reduction in the number of Florida panthers; will not destroy, degrade, or result in a reduction of habitat that is critical to Florida panthers; will comply with all applicable federal,

state, and local laws and regulations for protection of Florida panthers, including FWC requirements, County code and zoning requirements, CDMP provisions, and City of Homestead requirements; is in compliance with all applicable agency non-procedural requirements related to Florida panthers; and will minimize adverse effects on Florida panthers.

K. American Crocodiles

194. The American crocodile is listed as a threatened species by USFWS and endangered by FWC. The American crocodile was first designated as endangered by the USFWS in 1975, and reclassified (downlisted) as threatened in 2007.

195. In the 1980s, FPL developed a comprehensive crocodile management program for the crocodiles that are found in the existing cooling canal system at Turkey Point. These activities instituted at Turkey Point have largely been responsible for the increase in American crocodile population in South Florida over the last 25 years.

196. USFWS has designated critical habitat for the American crocodile. The site, the radial collector well system area and delivery pipeline area, nuclear administration building, a small portion of the training building, a portion of the parking area, a portion of the potable water pipeline corridor, and a portion of the construction access roadways are within designated critical crocodile habitat. Historical

monitoring of the crocodile population indicates occasional observations of basking crocodiles on the Units 6 and 7 site. There has been no habitual utilization of any of those areas of the Site for foraging or nesting by crocodiles due to the lack of suitable nesting substrate, altered and highly variable hydrology, and limited food supply.

197. The proposed facility locations outside of the designated critical habitat likewise do not provide significant basking, nesting, or foraging habitat for American crocodiles.

198. American crocodiles do not use any of the Units 6 and 7 plant and non-transmission line facility proposed locations for nesting.

199. The areas proposed for spoil disposal are not suitable for crocodile nesting. Placement of the spoil will not affect crocodile movement into and out of the cooling canal system or result in any adverse impacts to American crocodiles.

200. The plant and non-transmission line portion of the Project will not adversely impact American crocodile travel corridors.

201. FPL will enhance and create crocodile habitat within and adjacent to the cooling canal system, including creation of additional juvenile low salinity refugia upon selected berms, vegetative restoration, substrate enhancement to create suitable nesting habitat upon selected berms that have not historically

supported crocodile nests, and construction of an additional American crocodile nesting and foraging sanctuary (the Sea Dade Canal Sanctuary) south of the cooling canal system within the Everglades Mitigation Bank.

202. FPL's proposed constraints on traffic, maintenance, and construction within the cooling canal system and proposed wildlife protection measures, including crocodile underpasses, are appropriate and sufficient to enhance protection of American crocodiles.

203. The measures proposed and agreed to by FPL are adequate to avoid adverse impacts to the size and health of the American crocodile population from construction and operation of the Project.

204. The habitat that is being impacted by the plant and non-transmission line portion of the Project is not critical to American crocodile viability or survival, is not suitable for American crocodile nesting or foraging, and is only occasionally used for basking. The habitat that is being created far outweighs the value of any habitat being impacted.

205. The plant and non-transmission line portion of the Project will not compromise the viability or survival of the American crocodile or result in a net reduction in the number of American crocodiles.

206. Construction, operation, and maintenance of the plant and non-transmission line portion of the Project will not impact the values of wetland or other surface water functions so as to cause adverse impacts to the abundance of the American crocodile; will not adversely affect the conservation of American crocodile habitat; will not have any adverse impacts, including secondary or cumulative impacts, on American crocodiles, their habitat, or affect the conservation of the American crocodile and its habitat; will not adversely impact nesting locations of American crocodiles; will not cause adverse impacts to the abundance and diversity of American crocodiles; will comply with all applicable federal, state, and local laws and regulations for protection of American crocodiles, including FWC requirements, County code and zoning requirements, CDMP provisions, and City of Homestead requirements; complies with all applicable agency non-procedural requirements related to American crocodiles; and will minimize adverse effects on American crocodiles.

L. Eastern Indigo Snakes

207. Eastern indigo snakes are classified as threatened by USFWS and FWC. No critical habitat has been designated for Eastern indigo snakes.

208. Eastern indigo snakes have not been observed in the proposed locations for the Project Site or the construction

access roadways. The areas impacted by the plant and non-transmission line portion of the Project will not compromise the viability or survival of Eastern indigo snakes or result in a reduction in the number of Eastern indigo snakes.

209. FPL's proposed pre-clearing surveys and wildlife protection measures along the construction access roadways are appropriate and sufficient to enhance protection of Eastern indigo snakes.

210. Construction, operation, and maintenance of the plant and non-transmission line portion of the Project will not impact the values of wetland or other surface water functions so as to cause adverse impacts to the habitat of the Eastern indigo snake; will not have adverse secondary impacts on Eastern indigo snakes; will not have any adverse impacts on Eastern indigo snakes, or affect the conservation of Eastern indigo snakes and their habitat; will not cause adverse impacts to the abundance of Eastern indigo snakes; complies with all applicable federal, state, and local laws and regulations for protection of Eastern indigo snakes, including FWC requirements, County code and zoning requirements, CDMP provisions, and City of Homestead requirements; complies with all applicable agency non-procedural requirements related to Eastern indigo snakes; and will minimize adverse effects on Eastern indigo snakes.

M. Manatees

211. The Florida manatee is classified as endangered. The equipment barge unloading area, radial collector well system area, and the reclaimed water pipeline crossings of canals occur in or near areas that may be used by Florida manatees.

212. The presence of the Florida manatee is known to occur in Biscayne Bay, but not within the site or the industrial wastewater facility, as the closed-loop cooling canals do not connect to the Bay. Manatees occasionally are found in some of the SFWMD canals connecting to Biscayne Bay north of the Turkey Point plant, some of which are contained within the reclaimed water pipeline corridor.

213. Construction of the plant and non-transmission line portion of the Project will involve minimal in-water work and will be limited to the equipment barge unloading area and temporary impacts associated with canal crossings of the reclaimed water pipeline.

214. The equipment barge unloading area will be constructed through excavation of uplands adjacent to the Turkey Point plant turning basin. No dredging within Biscayne Bay will be required.

215. The FWC Standard Manatee Conditions for In-Water Work will be followed for all in-water activity located where waters are accessible to manatees. FPL will comply with the Project's

Manatee Protection Plan to avoid any impacts to the manatees during the equipment barge unloading area expansion. FWC-approved manatee observers will be on-site during all in-water construction activities and will advise personnel to cease operation upon sighting a manatee within 50 feet of any in-water construction activity.

216. The plant and non-transmission line portion of the Project will not adversely impact manatees and is consistent with FWC requirements to conserve and protect manatees and will not have any adverse impacts on the Florida manatee.

N. Avian Species

217. FWC has not designated critical habitat for any of the listed avian species in the regional ecosystem of the plant and non-transmission line portion of the Project. While some habitat used by listed species will be affected by the plant and non-transmission line facilities, the extent of this habitat impact is minimal and will be fully mitigated.

218. No wood stork nesting colonies are located within the vicinity of the Site or associated non-transmission line facilities. The plant and non-transmission line portion of the Project will have minimal impacts to wood storks, due to minimal loss of foraging habitat.

219. Snail kites do not normally occur in the area of the plant and non-transmission line associated facilities.

Construction, operation, and maintenance of the plant and non-transmission line portion of the Project will not adversely impact snail kites.

220. Construction, operation, and maintenance of the plant and non-transmission line portion of the Project will not result in a net loss of shorebirds or their habitat. FPL's proposed mitigation offsets any impacts to shorebird habitat.

221. FPL will employ measures to deter Least Tern nesting on the gravel parking areas.

222. There are no known bald eagle nests in the vicinity of the plant and non-transmission line facilities. FPL's planned activities are unlikely to have any impact on the bald eagle.

223. The plant and non-transmission line portion of the Project will not result in a reduction in the number of listed avian species.

224. Construction, operation, and maintenance of the plant and non-transmission line portion of the Project will not impact the values of wetland or other surface water functions so as to cause adverse impacts to the abundance and diversity of avian species, including listed species; will not adversely impact the conservation of avian species, including threatened and endangered avian species or their habitats; will not cause adverse secondary impacts to avian species; and complies with

all applicable federal, state, and local laws and regulations for protection of avian species, including FWC requirements, County code and zoning requirements, CDMP provisions, and City of Homestead requirements.

225. The plant and non-transmission line portion of the Project complies with all applicable agency non-procedural requirements related to avian species; and will utilize reasonable and available methods to minimize adverse impacts to avian species and their habitat.

0. Plants/Exotics/Landscaping

226. Botanical surveys were conducted within the Site and associated linear facilities, resulting in a total of 33 threatened or endangered plant taxa observed. Many of these listed plant species were observed on side-slopes of existing roadways, transmission structure pads, and pine rockland soils that are subject to routine vegetation management such as mowing. Impacts to listed plant species will be avoided or minimized to the greatest extent practicable through pre-clearing surveys, relocation of individuals, if feasible, and/or modification of facility design, such as modification of access road or pipeline alignments so as to avoid impacting listed plants.

227. FPL has prepared an exotic vegetation management plan. FPL will not plant listed exotic or nuisance species. If

encountered on the locations of the site and associated non-transmission line facilities or mitigation areas, they will be removed prior to construction in that location.

228. FPL will maintain wetland mitigation lands free of exotic vegetation, as required by Condition 10 of County Resolution Z-56-07.

229. FPL's exotic vegetation management plan complies with Condition 12 of County Resolution Z-56-07.

230. FPL will undertake final tree surveys before commencement of construction of the plant and of the construction access roads and water pipelines. FPL will take measures to avoid impacts to protected trees during construction, in accordance with local requirements. FPL will provide mitigation for impacts to trees.

231. All off-site landscaping, including for the construction access roadways, complies with the local non-procedural requirements for landscaping and with Condition 13 of County Resolution Z-56-07 and Condition 14 of County Resolution Z-1-13. Also, FPL will comply with Condition 19 of County Resolution Z-1-13.

P. Comprehensive Everglades Restoration Project (CERP)

232. The CERP was authorized by Congress in 2000 and provides a framework and guide to restore, protect, and preserve the water resources of central and southern Florida, including

the Everglades National Park. The plant and non-transmission line associated facilities are within the boundary of one CERP project; a small portion of the reclaimed water pipeline corridor falls within the Biscayne Bay Coastal Wetlands Project. All plant and non-transmission line associated facilities, including the reclaimed water pipeline and construction and operation of the radial collector wells are not inconsistent with that CERP Project.

233. The plant and non-transmission line portion of the Project is consistent with CERP and its overall objectives.

Q. Archeological and Historic Sites

234. FPL conducted cultural resources assessment surveys for the Site and associated non-linear facilities in compliance with applicable state and federal requirements. No historical or archaeological resources were identified.

235. FPL also conducted a preliminary cultural resource assessment survey for the Project's associated linear facilities. It is typical practice when certifying corridors to conduct a review of known or previously-recorded resources, with the field surveys to be conducted after the final ROW location is finalized. No previously-recorded archaeological sites, archaeological zones, historic structures, historic districts, historic linear resources, historic cemeteries, or historic bridges were identified within or adjacent to the reclaimed

water pipeline corridor, the construction access roadway corridors, or the potable water pipeline corridor.

236. The State Division of Historical Resources (DHR), State Historic Preservation Office (SHPO), reviewed the cultural resources assessment reports and agreed that the site and associated non-linear facilities will not have an effect on historic properties. The SHPO also concurred with the work plans submitted for the site and associated non-linear facilities and the linear facilities.

237. The plant and non-transmission line portion of the Project will comply with the National Historic Preservation Act and applicable SHPO non-procedural requirements; all applicable County code non-procedural requirements related to cultural, archaeological, and historical resources; all CDMP provisions related to archaeological and historical resources; and all applicable non-procedural requirements of the City of Homestead code and comprehensive plan related to cultural, historical, and archaeological resources.

238. The plant and non-transmission line portion of the Project will not have adverse impacts, including secondary impacts, on cultural, historical, or archaeological resources.

R. Solid and Hazardous Waste

239. All solid waste from construction and operation will be stored, recycled, processed, and disposed of in accordance

with the applicable federal, state, and local rules and regulations. All solid waste will be disposed of at a permitted solid waste management facility.

240. Used oil from construction vehicles and equipment will be collected in appropriate containers and transported off-site for recycling or disposal at an approved facility.

241. Hazardous waste materials generated during construction and operation will be managed and disposed of by a licensed hazardous waste contractor in accordance with all applicable federal, state, and local rules and regulations.

S. Noise and Lighting Impacts

242. Noise associated with construction and operation of the plant and non-transmission line portion of the Project will comply with the applicable County and City of Homestead non-procedural requirements. Construction and operation of the plant and non-transmission line portion of the Project will not have any adverse noise-related impacts.

243. Units 6 and 7 will require outdoor lighting for security purposes and worker and plant safety, including lighted walkways, parking areas, and various equipment areas. The plant and non-transmission line portion of the Project will not have adverse lighting-related impacts and will comply with NRC, United States Occupational, Safety, and Health Administration, and County non-procedural requirements.

T. Socioeconomic/Public Impacts and Benefits

244. The Project will have a positive fiscal impact on the County, the County School Board, and the community. The Project is anticipated to result in payment of \$1.4 to \$2.0 billion in property taxes to the County over the Project's operating life; payment of \$52.6 to \$74.2 million in state sales taxes during the construction period; payment of \$1.1 to \$1.7 billion in property taxes to the County School Board over the Project's lifetime; and payment of \$138.3 million to \$202.9 million to other taxing authorities over the Project's lifetime.

245. From an economic impact perspective, the Project is anticipated to result in creation of 806 permanent, onsite jobs for plant operations; creation of approximately 3,950 direct onsite jobs and 3,689 indirect jobs (annual average) at peak during the construction period; \$28.3 billion in total economic output over the operating period; and \$8.2 to \$11.2 billion in total economic output during the construction period.

246. Project construction will take approximately 123 months. Construction and operation of the plant and non-transmission line portion of the Project will not have an adverse population impact to the County. There will be adequate housing and school capacity in the County to accommodate the construction and operation workforce and their families. Police, fire, emergency management, and medical facilities in

the region will be sufficient to accommodate construction and operation of the plant and non-transmission line portion of the Project.

247. Construction and operation of the plant and non-transmission line portion of the Project will not have an adverse impact on regional scenic, cultural, or natural landmarks or on residential, commercial, or recreational facilities and uses. Construction, operation, and maintenance of the plant and non-transmission line portion of the Project likewise will not adversely affect fishing or recreational values or marine productivity.

248. The Project meets an identified need for electrical power and has substantial economic and fiscal benefits. The Project will ensure electrical reliability for FPL's customers. The Project will also have environmental benefits. The environmental benefits include use of reclaimed water as the primary source of cooling water. The encouragement and promotion of water conservation and use of reclaimed water are State objectives and considered to be in the public interest. FPL's use of reclaimed water is also consistent with the County's efforts to meet the requirements of Florida's 2008 ocean outfall legislation. As described earlier, the use of nuclear power will also avoid substantial emissions of greenhouse gases. The evidence also shows that the Project will

fully offset all impacts to wetlands and includes additional mitigation activities conducted without credit for the generation of functional lift. The Project is clearly in the public interest and will serve the broad interests of the public.

249. The PSC has determined that there is a need for the Project, and it reaffirmed that need through annual review. The Project will not result in any unmitigated adverse impacts to air and water quality, fish and wildlife, water resources, or other natural resources of the state. The Project effects a reasonable balance between the need for the facility 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 Project.

U. Road Right-of-Way Dedications

250. The County has proposed conditions of certification to require FPL to dedicate to the County approximately 131 parcels of land at locations identified by the County in Attachment 3 to its Plant Agency Report.

251. The County's zoning code is found in chapter 33, MDC. Section 33-133 establishes "minimum right-of-way widths for streets, roads and public ways for the unincorporated area of the County . . . ." Section 33-46 provides that "[n]o permit shall be issued for a building or use on a lot, plot, tract, or

parcel in any district until that portion of the applicant's lot, plot, tract, or parcel lying within the required official zoned right-of-way has been dedicated to the public for road purposes . . . ." Dedications are only required where the applicant owns the land in fee.

252. The list of 131 locations was identified by the County Public Works Department and Environmental Resources Department. The County has existing roads at some of these locations, but it does not have the full dedicated road ROW at other locations. The County does not currently have plans to construct roads at other locations identified for dedication. The County is aware that FPL does not own the land in fee at some of the identified locations but did not identify if FPL owned the land at the listed locations. The County witnesses were not aware of prior permitting by the County Works Department or Environmental Resources Department, including permitting of transmission lines, requiring dedication of road ROW.

253. At some locations, the County is seeking dedications in areas identified for restoration of the Everglades or Biscayne Bay under CERP; however, the County might make the dedicated road ROW available for CERP features and not use them for public roads. The County also seeks dedications to obtain County access to environmentally endangered lands managed by the

County. Instead of dedications for public roads at several locations, the County would require FPL to close roads and convey the land to the County. If the County later decides to not build a road, the landowner can file a petition to request that the County Commission abandon the road ROW dedication through a public hearing.

254. Many of these 131 parcels are along or across the corridors for the electrical transmission lines, the reclaimed and potable water pipelines, and the construction access roads. The County did not identify where these parcels are located within established ROWs. Several parcels identified by the County for dedications are not located in areas proposed for Project-related facilities

### III. Transmission Facilities

#### A. Overview

##### 1. Transmission Facilities

255. As noted above, the transmission facilities associated with the Project proposed by FPL include the on-site Clear Sky electrical substation, expansion of the existing Levee electrical substation, two access-only transmission line corridors, and two transmission line corridors containing a total of five transmission lines.

256. "Transmission facilities" refers to the proposed transmission lines in the application, as defined in sections

403.503(14) and 403.522(22), including the Clear Sky-Turkey Point 230-kV transmission line and the Clear Sky-Davis and Davis-Miami 230-kV transmission line (the eastern transmission lines); Clear Sky-Levee No. 1 and No. 2 500-kV transmission lines and Clear Sky-Pennsuco 230-kV transmission line (the western transmission lines); and the Clear Sky substation and Levee substation expansion.

257. FPL originally proposed to locate the transmission lines in approximately 88.7 miles of transmission line corridors: 52 miles in the FPL West Preferred Corridor and 36.7 miles in the FPL East Preferred Corridor. For its western transmission lines, FPL is now seeking certification of the West Consensus Corridor/MDLPA No. 2 -- a combination of an alternate corridor proposed by MDLPA and FPL West Preferred Corridor -- as its favored western corridor. The West Consensus Corridor/MDLPA No. 2 and the FPL West Preferred Corridor are both approximately 52 miles in length. FPL is concurrently seeking certification of its original FPL West Preferred Corridor as a back-up, to be used only in the event a ROW for the western transmission lines in the West Consensus Corridor/MDLPA No. 2 cannot be secured in a timely fashion and at a reasonable cost.

258. The proposed transmission lines are necessary to safely and reliably connect the new power generation from the Project to FPL's existing electrical transmission network.

Certification of the eastern and western transmission lines, as conditioned, serves the broad interests of the public by ensuring reliable electric service at a reasonable cost.

259. An electrical transmission line is a high voltage system that is used to transfer power, typically from power plants or other generation facilities, to one or more substations that may be connected by the transmission line.

260. A substation is a facility where the voltage of electricity carried on a transmission line can be increased or reduced by the use of transformers and other related electrical equipment for safe and practical transmission to other substations or distribution directly to customers.

261. The general components of a transmission line are structures (single or multiple poles), insulators, conductors (wires that carry the electricity) and overhead ground wires (OHGW) that protect the conductors from lightning strikes and also provide for relay protection and telecommunications, other communications wires, various hardware, and access roads. In wet areas, a transmission line may also include structure pads.

262. An access road is an integral part of a transmission line. It allows access to each structure location for construction purposes and also provides ongoing access for routine and emergency maintenance. The transmission line access

roads and structure pads required for the lines, if not already existing, will be unpaved.

263. A structure pad is an unpaved area of compacted and stabilized fill that is of sufficient size to accommodate necessary access for construction and for subsequent maintenance, restoration, and emergency operation activities.

264. Transmission line siting involves identifying a route for the transmission lines, selecting a corridor that encompasses that route, and ultimately acquiring the ROW within the corridor in which the transmission lines will be built, operated, and maintained.

265. The route or route alignment is the line between the endpoints for the transmission lines.

266. The corridor is the area within which the transmission ROW will be located. At a minimum, it must be wide enough to accommodate a ROW that in turn is wide enough for the planned transmission facilities; the corridor can be up to a mile wide. Once the ROW is acquired, the corridor boundaries narrow to include only the ROW.

267. The ROW for the transmission line is established through the acquisition of property rights or through use of existing property rights.

268. Including the alternate transmission line corridors proposed by other parties, there are a total of two corridors

proper for certification in the east study area and five corridors proper for certification in the west study area.

## 2. FPL's Siting and Corridor Selection Process

269. FPL utilized a multidisciplinary transmission line siting team consisting of experts in land use, engineering, the environment, and public outreach to select its preferred corridors for both the eastern and western transmission lines. For the following reasons, the corridor selection process used by FPL is found to be reasonable, is consistent with the methodology, guidelines, and criteria used in prior corridor projects throughout the State, and therefore is appropriate for use in this proceeding. The fact that population data and/or density information, house-by-house or parcel-by-parcel, were not specifically used by FPL, does not detract from the validity of the selection process.

270. The objective of FPL's corridor selection study was to select a certifiable corridor that balances land use, environmental, engineering, and cost considerations. Corridor selection methods were designed to be integrative of multidisciplinary siting criteria; rational and objective in decision-making; sensitive to social and environmental conditions; responsive to regulatory requirements; reflective of community concerns and issues; and capable of accurate documentation and verification.

271. The process sought to maximize collocation opportunities and minimize intrusion into siting constraints to the extent practicable. Collocation is the ability to follow (within or adjacent to) an existing linear feature, easement, or ROW, providing the opportunity to reduce the amount of new access road construction, impacts to wildlife habitat, and other impacts. It may include siting a utility within or adjacent to an existing vacant but established ROW. Collocation provides a way to minimize impacts in several ways. With an existing structure, the vegetation, wildlife habitat, and surrounding land uses have already been affected by the existing facility. Adding a new transmission line in such areas will add very little, if any, additional impact. In addition, positioning a corridor along existing roads where feasible to provide access often offers an opportunity to reduce wetland impacts. FPL uses existing access roads where available to minimize wetland impacts. Also, the transmission lines can be designed to avoid clusters of roadside canopy trees.

272. The corridor selection process consisted of multiple steps, including project and study area definition, public outreach, resource mapping and alternative route delineation, quantitative and qualitative evaluation of alternate routes, and selection of a preferred corridor.

273. First, for both the eastern and western transmission lines, FPL defined the project and study area by specifying the voltages and typical ROW widths of the transmission lines to be built, the substation endpoints for the route to connect, the types of typical structures, and existing transmission line ROWs in the area.

274. For the eastern transmission lines, FPL specified transmission structures for a single circuit, 230-kV transmission line to connect the proposed Clear Sky substation to the Turkey Point substation, and a single circuit, 230-kV transmission line to connect the Clear Sky, Davis, and Miami substations. The study area was developed to include those four substations and FPL's existing transmission line ROWs connecting them.

275. The west study area included the Clear Sky, Levee, and Pennsuco substations and existing FPL transmission ROWs and other linear features that occur between these substations.

276. For the western transmission lines, FPL specified two 500-kV lines extending from the on-site Clear Sky substation, extending west and then north to the existing Levee substation. From the proposed Clear Sky substation, FPL also specified a 230-kV transmission line from the on-site Clear Sky substation to the existing Pennsuco substation.

277. For the next corridor selection step, FPL evaluated collocation opportunities and siting constraints within the study areas in a regional screening mapping exercise. Public outreach was initiated to solicit information for the regional screening exercise. Resource mapping information was obtained from available information sources, including local, regional, state, and federal agency geographic information systems data. FPL used a technique of overlay mapping software programs to allow flexibility in adding new information as it became available and modifying layers to analyze certain constraints or opportunities.

278. For all transmission line routes, the types of resources mapped included base map information, including: highways, roads, and streets; county and city boundaries; railroads, airports, and heliports; existing and proposed FPL substations; existing FPL transmission lines; existing FPL properties, ROWs, and easements; water bodies, rivers, streams, and canals; land use information (existing and proposed development for which local approvals are pending); planned unit developments and developments of regional impact; property boundaries; existing schools and County School Board lands; cemeteries and historical structures and districts; national parks, wildlife refuges, estuarine sanctuaries, landmarks, or historical sites; state parks, preserves, proposed and existing

Florida Forever lands, Areas of Critical State Concern, Save Our Rivers lands, and aquatic preserves; SFWMD-owned lands; County lands, parks, recreation areas, and mitigation lands; Native American lands; privately-designated wetland mitigation areas; privately-owned environmental preserves/sanctuaries; military properties; and environmental information, i.e., listed federal and state-protected species and unique habitats; USFWS-designated critical habitats; and wetlands as delineated on USFWS National Wetlands Inventory maps.

279. Once those resources were mapped, the team used the study area regional screening maps as a visual tool, along with aerial photography, ground reconnaissance, and helicopter flyovers, to develop alternative routes. The team identified routes designed to best avoid or minimize siting constraints and maximize use of collocation opportunities with existing linear features/ROWs. Using route selection guidelines developed by the multidisciplinary team and based on similar guidelines used in previous projects in Florida, several alternative route segments were developed that, when combined, could connect the Project substations. The route selection guidelines used were designed to:

1. Maximize collocation with certain linear features (existing FPL transmission lines, easements, or ROW; roads; canals; etc.).

2. Follow parcel or section lines where practicable and when other linear collocation opportunities do not exist.
3. Minimize crossing of constraints identified as a result of regional screening (e.g., environmentally sensitive lands, existing development, and proposed development for which local approvals are pending).
4. Avoid known airports and private airstrips consistent with FAA and other applicable regulations.
5. Follow disturbed alignments (ditches, roads) through wetlands, where practicable.
6. Minimize crossing of existing transmission lines.

280. Applying the route selection guidelines to the study area regional screening maps, FPL's multidisciplinary team identified 35 route segments that combined to form 134 eastern alternative routes and 34 route segments that combined to form 99 western alternative routes.

281. Once alternative routes were identified, evaluation of these alternative routes involved a systematic, quantitative and qualitative evaluation of each route using environmental, land use, cost, and engineering criteria, integrating information received from the public and other stakeholders through FPL's outreach program.

282. For all transmission line routes, the quantitative criteria used were: number of non-FPL parcels/lots crossed;

length of route not following FPL-owned ROW or other transmission line easements; length of route not following other linear features; length of route through existing parks/recreation areas/designated conservation lands; length of forested wetlands crossed; length of non-forested wetlands crossed; number of eagle nests/wading bird colonies within one-half mile; and engineering/construction cost estimates. These criteria are based on the application of accepted transmission line siting factors used on previous projects across Florida.

283. In addition, the quantitative route evaluation criteria included the number of buildings and schools/school properties within 200 feet of eastern route centerlines and within 500 feet of western route centerlines. The use of these measures of separation was not unreasonable. The proximity distance for this relative comparison among eastern routes was shorter than for the western routes due to the much higher density of development within the east study area.

284. Data for quantitative route evaluation criteria came from the regional screening map data, recent digital aerial photography for the study area, input from agencies and local governments, ground and aerial surveys of routes, and input from the community outreach program. Each segment was analyzed for each quantitative criterion, and the value for each criterion was recorded by segment. The relative weight (importance) of

each criterion to be used in the alternative route evaluation was then established by the siting team. These criteria and weights were validated through input from the community obtained as part of the community outreach program. The weighting of criteria in this manner was not shown to be unreasonable.

285. The next step of the integrated alternative route evaluation process involved performing a qualitative assessment of more localized conditions. This evaluation included analyses of siting issues and opportunities; siting constraints; additional ground and aerial surveys; and feedback, additional public input, and comments received at agency workshops and meetings, nine community open houses, and numerous individual and small group meetings with area residents, property owners, and local governments.

286. Qualitative criteria evaluated for all transmission line routes included: available space within existing FPL ROW, easements, or fee-owned property; available ROW along roads, transmission lines, and railroads; road plans; proposed development plans; proximity of existing development; types of development in proximity; proximity and orientation of public airports and private airstrips; ingress/egress at substations; bridge crossings; constructability; acquisition status of existing and proposed conservation lands and/or greenways; ability to avoid or minimize wetland impacts; ability to avoid

or minimize impacts to parks, recreation, and conservation lands; proximity to historical districts, roads, and/or structures; review of potential underground scenarios where an overhead transmission line design is not feasible; potential listed species presence; crossing of Native American lands; potential use of local access roads/trails; proximity to known archaeological locations; and vegetative landscapes along streets (tall trees).

287. Qualitative criteria for western transmission line routes also included the significance of the Everglades National Park and the ability to utilize or cross government-owned parcels. Environmental considerations and land ownership were key considerations in the west.

288. FPL's corridor selection process took into account proposed development in the corridor areas, while avoiding environmentally sensitive areas to the extent practicable. It reflected a reasoned balancing of the need for the transmission lines against the potential impact on both the public and the environment.

289. After quantitative and qualitative evaluation of all identified route alignments and consideration of public input throughout the corridor selection process, FPL selected preferred corridors and delineated corridor boundaries.

290. The PPSA requires a balancing analysis of "whether, and the extent to which" a number of considerations are satisfied. § 403.509(3), Fla. Stat.; In re: Gainesville Renewable Energy Center, LLC, Case No. 09-6641EPP, 2010 Fla. ENV LEXIS 174 (Fla. DOAH Nov. 1, 2010), 2010 Fla. ENV LEXIS 173 at \*11 (Fla. Siting Bd. Dec. 15, 2010) (PPSA statutory scheme is one of balancing and reasonableness). Although the route selection criteria and process employed by FPL's team are not expressly enumerated in the PPSA, the criteria were used to quantitatively and qualitatively assess the balance of statutory factors that the various routes would achieve. Similar criteria were used to evaluate multiple proposed routes in numerous other successful transmission line certification proceedings for projects throughout Florida. In those proceedings, the criteria were vetted by agency review, local government review, and public input.

3. Post-Certification Planning and Design, All Corridors Proper for Certification

a. ROW Selection and Delineation

291. Once a corridor has been selected for a transmission line and certified, FPL establishes a ROW through multiple means, including (1) purchasing easement rights over the affected parcels; (2) purchasing the property in fee simple if necessary; and/or (3) acquiring longitudinal use permits and

licenses for public lands, where transmission lines cross or are longitudinally located within public properties or public rights-of-way. A combination of these three methods can take place over the length of a transmission line in order to establish a ROW for that line.

292. FPL cannot construct transmission lines on ROWs for which it has not acquired the necessary property rights.

293. Unless the transmission line is located on available public ROW, based on a review of recently completed projects, it costs FPL approximately four times the market value of land to actually acquire and assemble a ROW within a certified corridor. This is called the "acquisition factor."

294. After certification, FPL will be required to submit its proposed transmission line ROW alignments to the Department, with copies to DOT, SFWMD, SFRPC, the County, and the affected municipalities delineating the proposed ROW for the areas within each agency's jurisdiction. Each agency will then have the opportunity to notify the Department of any apparent conflicts with the requirements of the Conditions of Certification.

295. The final transmission line alignment will take into account approved development to be constructed in the area. For example, upon FPL's request, the County will identify the location of approved but not yet constructed development within the County's jurisdiction so FPL can plan to avoid or minimize

conflicts with any such development. Further, to address any concerns by local governments regarding future development, FPL is willing to comply with a condition of certification to accommodate approved but not yet constructed development in the design of the transmission line.

296. Selection of a ROW within a corridor and optimal placement of structures within the ROW can also avoid potential obstructions and minimize wetland impacts. For example, the ROW can be positioned along existing roads to provide access, which can reduce wetland impacts.

b. Transmission Line Design Standards

297. FPL's transmission lines are designed to conform to applicable codes, guidelines, and industry standards, including: National Electrical Safety Code (NESC) standards, such as those for clearances, loading, strength, and extreme wind event design; Department standards for electromagnetic fields (EMF); DOT Utility Accommodation Manual specifications; American Society of Civil Engineers (ASCE) standards; Institute of Electrical and Electronic Engineers standards; American Society of Testing Material (ASTM) standards; American Concrete Institute (ACI) standards for the design of concrete transmission poles; United States Occupational Safety and Health Administration requirements for safe minimum approach distances;

applicable noise ordinances of local governments, and FPL's own design and hardening standards for transmission lines.

298. The NESC is the standard adopted by the PSC with which FPL's transmission lines must comply to protect public safety. The NESC, rather than local building codes, is the national industry standard for construction and public safety that is most applicable for transmission lines.

299. FPL presented evidence demonstrating that many of its internal design standards exceed those of the national standards. These internal design standards may require minimization of impacts even beyond regulatory requirements, where practical. For example, FPL may reverse phase on double circuit lines to minimize the magnetic field or may vary the span between structures to avoid significant environmental, historical, or archaeological resources or conflicts with existing land uses like driveways.

300. Overhead design for its transmission lines constitutes FPL's current standard and customary practice where there is no engineering constraint requiring an underground installation. About 98 percent of FPL's transmission system is overhead in design.

301. Undergrounding of FPL's proposed transmission lines is not justified by any asserted concern about their structural integrity. The concrete monopole structures are specifically

engineered to withstand extreme wind events, which meet or exceed NESC requirements.

302. Extreme weather can affect both underground and overhead transmission lines. In some cases, restoration of an underground circuit can take significantly longer than for an overhead circuit. The Coral Gables/Pinecrest transmission line expert agreed that undergrounding transmission lines can involve reliability problems, and it could take weeks or months to repair a fault on an underground transmission line.

303. FPL's overhead transmission lines such as those proposed for this Project have performed very well in extreme weather events over their operating history.

304. The PSC, not local governments, has regulatory authority over undergrounding of electric utility lines. The incremental costs of undergrounding transmission lines, where overhead transmission lines are feasible, but undergrounding is requested for aesthetic reasons, are typically paid by the requesting entity. This cost allocation principle has been recognized by the PSC, the Florida Legislature, and the Florida Supreme Court to ensure that entities that benefit from extraordinary costs will bear those costs when other means are technically feasible. See § 366.03, Fla. Stat. ("No public utility shall make or give any undue or unreasonable preference or advantage to any person or locality, or subject the same to

any undue or unreasonable prejudice or disadvantage in any respect."); Fla. Power Corp. v. Seminole Cnty., 579 So. 2d 105, 108 (Fla. 1991) ("Permitting cities or counties to unilaterally mandate the conversion of overhead lines to underground would clearly run contrary to the legislative intent that the [PSC] have regulatory authority over this subject.").

c. Transmission Line Construction and Maintenance Process

305. The first step in transmission line construction is to survey the land to locate property lines, property corners, section corners, and road ROW lines to prepare the easement descriptions for ROW acquisition or to establish the boundaries of an existing transmission ROW. After any necessary acquisition, additional surveying is undertaken to stake out ROW lines and stake locations for poles, anchors, structure pads, and access roads for ROW preparation.

306. The second step in transmission line construction is ROW preparation. ROW preparation requires trimming or removal of vegetation in conflict with safe construction and operation of the transmission line. Where clearing is required in uplands or wetlands, trees and shrubs whose mature height could exceed 14 feet and which are very close to the transmission line will be evaluated for pruning or clearing to ground consistent with American National Standards Institute (ANSI) standards. Stumps may be removed or grubbed and treated with approved herbicides.

FPL will implement tree protection, replacement, and relocation measures in compliance with applicable non-procedural requirements of the local government within which the work is being conducted. In wetland areas, selective clearing of vegetation by hand may be required. Additionally, in wetlands and sensitive pine rockland communities such as County-designated Natural Forest Communities (NRCs), trees and shrubs whose mature height could exceed 14 feet which are very close to the transmission line will be pruned or cleared using only restrictive cutting techniques.

307. Where there is an existing cluster of canopy trees, FPL can design the transmission lines to avoid removing the trees with higher structures or shorter or longer spans.

308. FPL will implement tree protection and replacement measures in compliance with the applicable non-procedural requirements of the local government where the clearing is being conducted. Alternately, a contribution to a local government's tree fund may be made, where allowed.

309. ROW preparation also includes construction of access roads and structure pads where required. FPL will evaluate existing access roads, both public and private, for possible use. If necessary, in some instances these existing access roads may need to be improved to accommodate the construction and maintenance equipment needed for the transmission lines.

310. Where new access roads and pads are necessary, they will be constructed with hauled in clean fill material. Culverts will be included in the design of the roads and pads as necessary to maintain existing surface water flow conditions.

311. The next steps in transmission line construction are material hauling and spotting and structure erection. The transmission line poles are trucked to each pole location and can be laid out along the patrol or access road or can be installed as soon as they are delivered to the site. A hole will be augured at each pole location. For the concrete single-pole, this hole will typically be 18 to 25 feet deep and approximately 72 inches in diameter on average. The material excavated from the holes will be spread evenly onto adjacent uplands, either onto existing or recently constructed access roads or pads where appropriate, or be removed from the site. The pole will then be set by the use of cranes and backfilled with crushed rock. The framing process, or installation of hardware and insulators on the poles, may be done with the poles laid on the ground or once erected. Some of the transmission line structures, including most of the structures for the western transmission lines and some of the heavy angle structures for the eastern transmission lines, will also require the installation of anchors and guy wires.

312. Anchors will be either multi-helix screw-in-type anchors or pile-type anchors. Pile-type anchors provide strength applications by embedding a short reinforced concrete pole section to a required depth with backfill. Multi-helix anchors are installed using truck-mounted equipment to screw the anchor into the ground to the required length or torque to meet design requirements. Guy wires will be attached to hardware connected to the anchor extending above the ground and to the transmission line structure.

313. Span lengths can be varied for several reasons. Sometimes a pole location or height is adjusted to avoid a wetland, cluster of canopy trees, or other environmentally sensitive feature, or to coincide with property lines or the location of existing distribution poles that will be displaced. Span length can also be adjusted to accommodate the location or crossing of other electric utility lines or poles, or over highways, canals, or other linear features.

314. Once the poles are in place and the insulator assemblies and hardware are installed, conductors and OHGW will be installed. A rope will be used as a pilot line to pull the conductors and OHGW through the stringing blocks. Conductor pulls will be up to two miles apart, or about 10,000 feet or shorter between dead-end or heavy angle structures. A conductor or OHGW stringing operation typically has a puller at one end of

the installation and the conductor reels with the tensioner at the opposite end of the installation. The pilot lines will be pulled in one direction, and the conductors will be pulled in the opposite direction. After pulling, the conductors and OHGW will be spliced together and ultimately sagged (tensioned) to ensure that the conductor is installed with the proper clearance. The conductor will then be attached to the insulator assemblies, and the transmission line will be energized.

315. FPL will minimize the potential for impacts to wetlands during construction through the use of sedimentation control devices to control erosion and turbidity, along with regrading and seeding/mulching of side slopes if needed after construction.

316. The final step in constructing a transmission line is ROW restoration, which is the final clean-up of the ROW after construction is complete. Where necessary, this involves restoring areas that might have been disturbed during construction due to use of heavy vehicles. Restoration may also include stabilizing any potentially erodible areas or replacement of vegetation impacted during construction.

317. FPL will conduct routine maintenance on the ROWs following construction. As is typical and customary for FPL transmission line construction, the transmission lines will require minimal maintenance. Vegetation on and adjacent to the

ROWS will be maintained to ensure the safe, reliable operation of the lines. In areas that are not in active agricultural or nursery use, FPL will manage vegetation on the ROW by a variety of methods, including trimming, mowing, and the use of approved growth regulators and herbicides, targeting species that are incompatible with the safe access and operation and maintenance of the transmission system. Where the transmission lines are located along a roadside, very little maintenance of the ROW will need to take place. FPL's management techniques will encourage a broad diversity of vegetation growth to remain on the ROW. FPL will control exotic vegetation within the ROWs in any certified corridor.

d. Applicable Non-Procedural Requirements

i. Wetland and Ecological Impacts

318. In selecting the preferred transmission line corridors, and in comparing the alternate corridors proposed by other parties with the FPL preferred corridors, FPL analyzed wetland ecology within all proposed transmission line corridors through a combination of formal wetland delineation in the field, field reconnaissance, review of aerial photography, and review of SFWMD land use/land cover data. FPL conducted a wetlands assessment of the transmission line corridors in accordance with the UMAM. FPL evaluated the amount of mitigation required using the acreage of wetland impact based on

a conceptual transmission line design and the average quality of affected wetlands.

319. In addition to reducing impacts to wetlands through collocation with existing linear facilities and reducing the construction footprint of the transmission lines, FPL has submitted a wetland mitigation plan for the entire Project to all reviewing agencies. FPL proposes to mitigate wetland impacts associated with the transmission line portion of the Project through purchase of credits from the agency-approved Hole-in-the-Donut Mitigation Bank and the Everglades Mitigation Bank. The service territory for the Hole-in-the-Donut Mitigation Bank and Everglades Mitigation Bank covers the entirety of the Project area.

320. FPL's proposed wetland mitigation plan for the transmission line impacts will offset the adverse effects, including functional loss, caused by the location, construction, operation, and maintenance of the transmission lines in the certified corridors, and the transmission lines will not cause unmitigated secondary or cumulative impacts to wetlands or surface waters.

321. FPL will use best management practices in constructing the proposed transmission lines to prevent, to the extent practicable, spills, erosion, dust generation, off-site

sedimentation, and pollution of waterways and storm drainage systems.

322. No wastes will be discharged during location, construction, operation, and maintenance of the proposed transmission lines without being given the degree of treatment necessary to protect the beneficial uses of the waters of the state. FPL will not discharge any wastewater, stormwater, or groundwater from a transmission line excavation into a storm sewer.

323. In light of the measures proposed in the conditions of certification, construction of the proposed transmission lines will not adversely affect navigation or the flow of water or cause harmful erosion or shoaling.

324. FPL's location, construction, operation, and maintenance of the proposed transmission lines will not result in the discharge of any stormwater, surface water, groundwater, roof runoff, or subsurface drainage to the public sewer system.

325. After construction, during the period that any planted vegetation is being established and afterward during maintenance of its ROW, FPL will comply with all applicable non-procedural requirements for water conservation and environmental resource protection.

326. Location, construction, operation, and maintenance of the proposed transmission lines in the proposed transmission

line corridors will not have a significant adverse effect on wildlife habitat or the abundance and diversity of wildlife within that corridor, including listed plant and animal species; will not adversely affect the conservation of fish and wildlife populations, including endangered or threatened species, or their habitats; will not adversely affect the fishing or recreational values or marine productivity in the vicinity; will not adversely impact the functions of wetlands or other surface waters from a wildlife perspective; will not adversely impact the ecological value of uplands to avian or non-avian aquatic or wetland-dependent listed animal species for nesting and denning; and will not be inconsistent with CERP Projects or the overall CERP objectives.

ii. Wildlife and Threatened and Endangered Species

327. As noted above, FPL has submitted to all reviewing agencies a comprehensive threatened and endangered species management plan for all listed species for the Project. This plan includes sufficient protection measures for the Florida panther, the American crocodile, and avian species, among other species, regarding the proposed transmission lines.

328. There is little likelihood that panthers are present in the transmission line corridors. In general, Florida panthers are not adversely affected by the presence of transmission lines, structures, fill pads, and access roads

within their home ranges. These features actually have the potential to benefit panther conservation by providing new movement corridors; by providing elevated habitat features likely to provide refuges during periods of high water; and by enhancing white-tailed deer populations, the principal prey species of panthers, in the herbaceous wetland habitats adjacent to the transmission line access roads. Location, construction, operation, and maintenance of the proposed transmission lines in any of the corridors proper for certification will not adversely impact the conservation and preservation of Florida panthers or their habitats; will not adversely impact the abundance of Florida panthers; will not adversely impact panther denning; will not impact travel corridors used by Florida panthers; and will not pose an actual or potential threat of adverse impacts to Florida panthers or their habitat, including secondary or cumulative impacts.

329. In the small geographic portion of the proposed corridors where the transmission lines intersect the designated American crocodile critical habitat, FPL has proposed conservation measures to prevent adverse impacts to American crocodiles. FWC has also proposed, and FPL has agreed to, conditions of certification to minimize impacts to American crocodiles. FPL's proposed mitigation measures will far outweigh any impacts to American crocodile habitat. The

wildlife protection measures proposed by FPL and the agreed upon conditions of certification, in Attachment 1, Section C.III, are sufficient to prevent adverse impacts to the American crocodile from the location, construction, operation, and maintenance of the transmission lines in any of the corridors proper for certification.

330. The location, construction, operation, and maintenance of the proposed transmission lines in any of the corridors proper for certification will not adversely impact the conservation or preservation of American crocodiles or their habitat; will not adversely impact American crocodile nesting; will not impact travel corridors used by American crocodiles; will not impact the abundance of American crocodiles; and will not have any potential or actual adverse impacts on American crocodiles, including secondary or cumulative impacts.

331. FPL has proposed conservation measures to prevent adverse impacts to Eastern indigo snakes. FWC has also proposed, and FPL has agreed to, conditions of certification to minimize impacts to Eastern indigo snakes. FPL's proposed mitigation measures will far outweigh any impacts to Eastern indigo snake habitat. The wildlife protection measures proposed by FPL and the agreed upon conditions of certification are sufficient to prevent adverse impacts to the Eastern indigo snake from the location, construction, and operation and

maintenance of the transmission lines in any of the corridors proper for certification.

332. The location, construction, operation, and maintenance of the proposed transmission lines in any of the corridors proper for certification will not adversely impact the conservation or preservation of Eastern indigo snakes or their habitat; will not impact the abundance of Eastern indigo snakes; and will not have any potential or actual adverse impacts on Eastern indigo snakes, including secondary or cumulative impacts.

333. FPL has proposed conservation measures, including an Avian Protection Plan (APP) to prevent adverse impacts to avian species, including the wood stork, Everglade snail kite, and least tern. FWC has also proposed, and FPL has agreed to, conditions of certification to minimize impacts to avian species. The wildlife protection measures proposed by FPL and the agreed upon conditions of certification are sufficient to prevent adverse impacts to avian species from the location, construction, operation, and maintenance of the transmission lines in any of the corridors proper for certification.

334. Location, construction, operation, and maintenance of the proposed transmission lines in any of the corridors proper for certification will not adversely impact any listed avian species; will not impact the values of wetland or other surface

water functions so as to cause adverse impacts to avian species; will not have an actual or potential negative impact on avian species; will not adversely (including cumulatively) impact avian species or avian species conservation, including listed species, or their habitat; will not adversely impact nest locations or nesting behavior of avian species; will not cause adverse impacts to the ecological value of uplands to aquatic or wetland-dependent listed avian species, including nesting locations or nesting behavior; and will not cause adverse impacts to the abundance and diversity of avian species.

335. The location, construction, operation, and maintenance of the transmission lines in accordance with the conditions of certification and the mitigation and species protection plans will not result in the intentional death or injury of migratory birds in violation of the Migratory Bird Treaty Act of 1918, as amended.

336. The location, construction, operation, and maintenance of the transmission lines in any of the corridors proper for certification will not have any adverse impacts to the abundance and diversity of fish or to fish habitat.

337. FWC, SFWMD, and the County have proposed, and FPL has agreed to, conditions of certification to minimize impacts to species, including listed plant and wildlife species. Location, construction, operation, and maintenance of the transmission

lines in any of the corridors proper for certification will not significantly adversely affect wildlife populations, including endangered or threatened species, or their habitats, and will not adversely impact the ecological value of uplands to aquatic or wetland-dependent listed animal species for nesting or denning.

iii. Public Health and Welfare

338. FPL's proposed transmission lines will comply with applicable non-procedural pre-construction and construction requirements.

339. The proposed transmission lines will comply with good engineering practices and safety standards for the design of such facilities.

340. The design, location, construction, operation, and maintenance of the proposed transmission lines will ensure electric system reliability and integrity for the electric customers served by the transmission lines. Reliable, safe, cost-effective electrical service is in the public interest and supports the general welfare of the community.

341. FPL will dispose of transmission line construction debris in compliance with all applicable non-procedural state, county, and local requirements.

342. The design, location, construction, operation, and maintenance of the proposed transmission lines will comply with

all applicable design codes, standards, and industry guidelines, as well as FPL's customary internal design practices, and will have sufficient safety standards to protect the public. This includes compliance with local government public works requirements.

343. Location, construction, operation, and maintenance of the transmission lines will comply with all applicable non-procedural public ROW requirements.

344. FPL will comply with all applicable limitations on parking of large trucks in areas zoned residential during construction of the proposed transmission lines.

345. FPL will maintain traffic during construction of the proposed transmission lines using a certified maintenance of traffic plan that complies with the DOT's Roadway and Traffic Design Standards, the Manual of Uniform Traffic Control Devices for streets and highways, or other applicable non-procedural requirements relating to traffic of the local jurisdiction within which the traffic is being maintained.

346. During construction of the proposed transmission lines, FPL will not locate any temporary office, trailer, portable toilets, equipment, or storage materials and supplies within any temporarily obstructed public roads or ROWs.

347. Waste created by location, construction, operation, or maintenance of the proposed transmission lines will not be

allowed to accumulate on the ROW. All waste will be collected on a daily basis during construction and disposed of in accordance with applicable state, county, and local non-procedural requirements.

348. The location, construction, operation, and maintenance of the proposed transmission lines will comply with all applicable noise regulations; will not have an adverse impact on air quality; will not result in harmful quantities of contaminants being released to any existing or potential drinking water resource; and will not result in the creation of depressions in which water can accumulate in a manner that would encourage the propagation of mosquitoes.

349. The proposed transmission lines will comply fully with the applicable Department standards for EMF from transmission lines. See Fla. Admin. Code Ch. 62-814. There is nothing unusual about the levels of EMF from the proposed transmission lines. The EMF levels are within the range to which people are exposed from many sources in everyday environments at home, work, and in public locations. The EMF levels are also many times lower than the international standards for public exposures to EMF and do not pose a health risk to people living or working near the proposed transmission lines. The large body of scientific research on EMF does not provide a reliable scientific basis to conclude that exposure to

EMF causes any adverse health effects, including the development or promotion of cancer or neurodegenerative illness in children or adults. The testimony presented by several members of the public claiming cancer or other risks was either unsupported by actual scientific evidence or was based on epidemiological studies whose results were inconsistent and did not establish a causal relationship between EMF and any adverse health effects.

350. Dr. Barredo and Dr. Bailey presented the only credible expert testimony on EMF and health. Based on their detailed expert evaluations of the body of relevant scientific research, the EMF will not have an adverse health effect on the populations living and working near the lines.

351. The proposed transmission lines will not result in any new public access points to public lands.

352. FPL's ROW maintenance will comply with applicable non-procedural requirements related to vegetation in proximity to electric facilities.

353. The location, construction, operation, and maintenance of the transmission lines in compliance with the conditions of certification will not cause harmful interference with microwave communications in South Florida.

iv. Archaeological/Historical Considerations

354. In 2009, FPL conducted a preliminary cultural resources survey of the linear facilities associated with the

Project, including the associated transmission line corridors. The assessment included a desktop analysis as well as a visual survey. In the context of evaluating the alternate corridors proposed by other parties, FPL updated the preliminary assessment and also evaluated the alternate corridors. The assessment was consistent with the typical practice in the cultural resources profession when evaluating corridors for linear facilities and did not include field surveys. Field surveys will be conducted after the final ROW locations are finalized.

355. The Area of Potential Effect (APE) is the geographic area within which the Project may directly or indirectly cause changes to the character or use of historic properties listed or eligible for listing in the National Register of Historic Places. FPL considered an APE of 100 feet from each side of the proposed transmission line corridors for direct effects to cultural resources and 500 feet from each side of the proposed transmission line corridors for indirect effects to historic resources. The DHR agreed with the APE FPL used in its assessment. The APE for the cultural resources survey to be conducted post-certification will be established in consultation with that agency and will vary depending upon the character of the surrounding built and natural environments and final design and locations of the transmission line structures. The survey

of the transmission line ROWs will identify, document, and evaluate any resources that are 50 years or older, both previously recorded and unrecorded, and will include coordination with local governments. Any historical resources that may have been discovered or listed in the National Register of Historic Places or DHR's Florida Master Site File in the intervening time between preparation of the preliminary cultural resources assessment and the full survey will be identified during the post-certification survey.

356. FPL's proposed transmission lines will comply with all applicable federal, state, and local requirements relating to the protection of archaeological and historic resources. FPL will avoid and minimize adverse impacts to historical and archaeological resources in all areas.

357. The City of Miami expressed concerns regarding the proximity of the eastern corridors to historic resources within its boundaries, potential adverse effects on those resources, and the adequacy of FPL's assessment of those resources. The greater weight of the evidence does not support these concerns. Rather, the evidence shows that FPL's assessment was conducted in accordance with typical practice in the cultural resources profession, and that FPL will avoid and minimize adverse impacts to historical resources in all areas. Notably, the DHR concurs with FPL's recommendations.

v. Applicability of Local Government Comprehensive Plans, Zoning Codes, and/or Land Development Regulations

358. Throughout this proceeding, the local governments have argued that FPL should be required to design its transmission lines to comply with local comprehensive plans and LDRs, such as height restrictions and locational constraints. At hearing, Department witnesses testified that the Department interprets the PPSA, and in particular section 403.509, to mean that there are no "applicable" local government comprehensive plans or LDRs for the proposed transmission lines and pipelines in this case. This interpretation of the PPSA is consistent with the plain language of sections 163.3164 and 380.04, is a logical and reasonable interpretation of the law, and should be accorded substantial deference. Moreover, the Department's interpretation of the PPSA was not shown to be contrary to the plain language in the statute or clearly erroneous.

359. If local governments were permitted to regulate the design, height, size, or placement of transmission pole structures, FPL could be unable to implement transmission line designs that comply with necessary industry standards and safety codes, such as the NESC, with which transmission lines must comply; unable to provide service to a designated area or substation; or unable to acquire the necessary uninterrupted contiguous ROW needed between substations and designated service

areas. To validate these concerns, it was not necessary, as Coral Gables asserts, for FPL to analyze every zoning and comprehensive plan requirement that might apply, speculate on whether or how it would be applied by the local government, and then predict with specificity how the regulation would impact FPL's ability to build the transmission lines.

360. For these reasons, transmission lines should not be subject to local comprehensive plans or LDRs, such as zoning codes. The Legislature has recognized this imperative by statutorily providing that transmission lines are not considered "development" for the purposes of local government comprehensive plans, LDRs, and zoning ordinances. See §§ 163.3164(14) and 403.50665, Fla. Stat.

361. Local development or zoning regulations and comprehensive plan requirements that might impose constraints on the location, height, or type of transmission lines constructed do not apply to the proposed transmission lines.

vi. Economic Impact

362. FPL conducted an analysis of the potential economic impacts of the proposed transmission lines on the municipalities located within the transmission line project areas. The location, construction, operation, and maintenance of the proposed transmission lines are anticipated to have little, if any, effect on the economy of the area or negative fiscal impact

on the municipalities located within the transmission line project areas.

363. The transmission lines will serve and protect the broad interests of the public by providing for a safe and reliable electrical system at a cost-effective price.

B. Eastern Transmission Lines

1. Typical Structures and Substation Proposed

364. The following constitutes FPL's proposed eastern transmission lines:

a. Clear Sky-Turkey Point transmission line: a 230-kV line from the proposed Clear Sky substation to the existing Turkey Point substation on the Turkey Point plant property (Clear Sky-Turkey Point);

b. Clear Sky-Davis-Miami transmission line: a 230-kV line running from the proposed Clear Sky substation to the existing Davis substation in southeast Miami-Dade County (Clear Sky-Davis), and another 230-kV line running from the Davis substation east and then north, predominately along U.S. Highway 1, to the existing Miami substation in downtown City of Miami just north of Miami River (Davis-Miami);

c. FPL proposes to locate these transmission lines in the approximately 36.7 miles of the FPL East Preferred Corridor.

365. The entire construction process for the eastern transmission lines will take between 24 and 36 months.

366. As part of this Project, FPL is proposing a new electrical substation, Clear Sky, on the Turkey Point Site in

southeastern Dade County. The Clear Sky substation will be connected to, and receive electricity from, proposed Units 6 and 7. That substation will occupy approximately 11.6 acres and will be the starting point for the two proposed 500-kV lines and the three proposed 230-kV lines associated with the Project. The substation site will be fenced and surrounded by a stormwater management area.

367. The proposed Clear Sky substation, existing Turkey Point substation, existing Davis substation, and existing Miami substation are part of the proposed eastern transmission lines, although only the work at the Clear Sky substation is being certified in this proceeding. Work at the other three substations will be permitted separately, if needed.

368. Zoning approval from the County for the construction of the Clear Sky substation as an "unusual use" has already been obtained.

369. For a portion of the Davis-Miami transmission line, FPL proposes to replace an existing, concrete monopole 138-kV line with a double-circuit unguyed 230-kV line on a new concrete monopole designed to accommodate the two circuits, each with separate insulators. This practice is proposed for the approximately two-mile stretch of the FPL East Preferred Corridor along Ponce De Leon Boulevard in Coral Gables.

370. FPL constructs concrete monopole transmission structures throughout its service area in urban, suburban, and rural settings similar to the structures proposed for the FPL East Preferred Corridor. Monopole construction of the type proposed within the FPL East Preferred Corridor, whether guyed or unguyed, follows its usual and customary practice for such lines.

371. Wooden transmission structures are not FPL's customary design for new transmission lines. Where poles are being replaced in urban areas in the east study area, old wooden structures have often been replaced by concrete monopoles as the need arises.

372. The typical height of the proposed 230-kV monopole structures in the FPL East Preferred Corridor is between 80 to 105 feet. (By stipulation, FPL has agreed that within Coral Gables, the poles will not exceed 98 feet in height or 4.1 feet in width.) This is similar to the height of other monopoles FPL has installed in its service area, including several in other parts of the County.

373. While urban density is a factor in corridor selection, it is not determinative as to the siting of a transmission line corridor.

374. FPL provided evidence of numerous 230-kV transmission lines of similar design to the transmission lines proposed for

the FPL East Preferred Corridor. These transmission lines are in similar urban areas of FPL's service territory, including areas of Miami-Dade, Broward, and Palm Beach Counties.

375. While sharply conflicting testimony on the issue was presented, the more persuasive evidence established that the transmission lines will be just one of many necessary urban features visible to the eye in the current urban landscape, such as street and traffic lights. Measures can be employed to minimize aesthetic impacts of the lines, such as landscaping to direct the eye away from the structures and adding new vertical elements to blend in with the pole. Numerous similar visible linear features exist in the U.S. Highway 1 multi-modal transportation corridor.

376. The only location where the overhead installation of the proposed eastern transmission lines is not feasible is at the point where the Davis-Miami transmission line crosses the Miami River. An underground crossing of the Miami River is proposed for the Davis-Miami Segment.

2. Corridor Selection Process for East Preferred Corridor

a. FPL East Preferred Corridor

377. In the corridor selection process for the eastern transmission lines, FPL's multidisciplinary team used the same process described in Findings of Fact 269 through 290.

378. The east study area included the Clear Sky, Turkey Point, Davis, and Miami substations and existing FPL transmission ROWs and other linear features that occur between these substations. Between the Turkey Point plant property and the Davis substation area, the study area focused on FPL's existing 330-foot-wide ROW that contains multiple existing 230-kV lines and has space available to accommodate the new Clear Sky-Davis transmission line. From there, the study area was expanded to include numerous available transmission lines, roadways, railways, and other linear features that could provide collocation opportunities to follow to the Miami substation. Much of the east study area is dominated by dense urban and suburban development. It contains several historical districts and sites and a major multi-modal transportation corridor.

379. In addition to the qualitative criteria evaluated for all corridor segments, qualitative criteria for eastern transmission line routes included assessment of crossings for the Miami River, historical districts, the availability and use of Miami-Dade Metrorail and/or Miami-Dade Transit Busway (Busway) ROW, and landscaping.

380. Land uses and constructability constraints were key considerations in the east.

381. FPL's corridor selection process attempted to reflect a reasoned balancing of the need for the transmission lines

against the potential impact on both the public and the environment.

382. After evaluation of all identified route alignments and significant consideration of public input throughout the community outreach program, FPL selected the East Preferred Route and delineated corridor boundaries for the route.

b. Filing of Alternate Corridors

383. During this process, one alternate corridor was proposed jointly by Coral Gables and Pinecrest, referred to as the Pinecrest/Coral Gables Alternate Corridor (PAC), for the portion of the FPL East Preferred Corridor from the area east of the Davis substation to the Miami substation. The PAC is described in more detail below.

c. Eastern Transmission Line Corridors Proper for Certification

384. FPL and the Department filed notices of acceptance of the PAC. The Department determined that both the FPL East Preferred Corridor and PAC met the criteria for certification.

385. While both the FPL East Preferred Corridor and PAC are proper for certification, the multidisciplinary team recommended, and FPL is seeking certification of, the East Preferred Corridor and opposes certification of the PAC.

### 3. FPL East Preferred Corridor

#### a. General/Constructability

386. Through the corridor selection process described above, FPL selected the East Preferred Corridor and delineated corridor boundaries. The FPL East Preferred Corridor is of variable width. This flexibility allows FPL to accommodate localized conditions, respond to future development between the times of corridor selection and construction, take advantage of certain collocation opportunities, and avoid siting constraints or utilize existing or relocated FPL ROWs.

387. For the east 230-kV transmission lines, the typical span length in the FPL East Preferred Corridor will range from approximately 200 to about 700 feet, depending on location-specific factors, ROW widths, and other design considerations. No new access roads or structure pads are anticipated to be needed in the FPL East Preferred Corridor.

388. The FPL East Preferred Corridor exits the Turkey Point plant property to the north and continues in a general north-south orientation following an existing FPL transmission line ROW. It follows this ROW west towards the Florida Turnpike, then northwestward to U.S. Highway 1, and then extends generally north to the Davis substation. The FPL East Preferred Corridor then continues generally east to the U.S. 1 corridor, then generally north following the U.S. Highway 1 corridor with

expansions around the downtown Kendall area and certain Metrorail stations, and terminating at the Miami substation immediately north of the Miami River in downtown City of Miami. In the FPL East Preferred Corridor, there is also a short proposed 230-kV transmission line between the proposed Clear Sky substation and the existing Turkey Point substation, both within the Turkey Point plant property.

389. The Clear Sky-Turkey Point portion of the Corridor is approximately 0.4 miles long; the Clear Sky-Davis portion is approximately 19 miles long; and the Davis-Miami portion is approximately 17.7 miles long.

390. Location, construction, operation, and maintenance of the Davis-Miami transmission line in proximity to the Metrorail facility in compliance with the conditions of certification will not interfere with operation of the Metrorail.

391. Location, construction, operation, and maintenance of the Davis-Miami transmission line in proximity to the Metrorail facility in compliance with the conditions of certification will not exceed safety or industry limits applicable to the Metrorail facilities.

392. Location, construction, operation, and maintenance of the Davis-Miami transmission line will not interfere with the use of U.S. Highway 1 as a multi-modal transportation corridor.

393. Location, construction, operation, and maintenance of the Davis-Miami transmission line will not interfere with the possible future southward extension of the Metrorail within the 100-foot Busway ROW.

394. Location, construction, operation, and maintenance of the eastern transmission lines in either of the eastern corridors will not cause obstructions to visibility.

b. FPL East Preferred Corridor: Land Use

395. The FPL East Preferred Corridor leaves the proposed Clear Sky substation and passes through Homestead Bayfront Park, heading north and west. It then passes through a largely agricultural area with existing transmission lines. Shortly before reaching the Davis substation, it crosses into low density residential land use.

396. From the Davis substation, the East Preferred Corridor proceeds east along an existing FPL transmission line ROW until its intersection with U.S. Highway 1, then northeast along U.S. Highway 1 and the Busway before reaching the Kendall Urban Center or Dadeland area. U.S. Highway 1 is a principal arterial roadway with six traffic lanes. For most of this segment along the U.S. Highway 1/Busway ROW, the Corridor is approximately 200 feet wide, ranging in width from approximately 200 feet to 350 feet. The FPL East Preferred Corridor in this area is co-located with a wide multimodal transportation

corridor. In this segment, the northern tip of the Village of Palmetto Bay and the western edge of Pinecrest are on the eastern edge of the Corridor, with the remainder of the Corridor being in unincorporated Miami-Dade County. The land uses within this segment are primarily commercial, with two parks on the east side of the Corridor, and industrial, commercial, and single-family residential uses on the west side. There are a limited number of cross streets compared to the east side of the Corridor.

397. In the area of the County-designated Kendall Urban Center, the FPL East Preferred Corridor widens to allow greater flexibility. In this segment, the Corridor is bounded by commercial and multi-family residential development. The Corridor here also includes ROWs for several existing linear features such as State Road 826 and the SFWMD's ROW along Snapper Creek.

398. The next segment of the FPL East Preferred Corridor narrows to follow the U.S. Highway 1/Metrorail ROW and stretches northeast through South Miami and Coral Gables, and into the City of Miami. For this segment, the Corridor ranges between 150 feet to 300 feet in width. Within South Miami, there is fairly continuous commercial development along the east side of U.S. Highway 1, including the Shops at Sunset and other highway strip commercial use. Uses along the west side of the Corridor

in South Miami include some single-family residential, South Miami Hospital, City Hall, South Miami Metrorail Station, and industrial uses. This segment then crosses Southwest 57th Avenue (Red Road), entering Coral Gables. Within Coral Gables, in addition to the Metrorail guideway, the M-Path, and U.S. Highway 1, the Corridor expands to include the Ponce de Leon Boulevard ROW and an existing 138-kV transmission line. This area has, from west to east, the University of Miami (with a large campus extending to the west), some commercial, multi-family, and single-family development on the west side of Ponce de Leon Boulevard, and the Metrorail guideway between Ponce de Leon Boulevard and U.S. Highway 1, and commercial development east of U.S. Highway 1. Farther north within Coral Gables, adjacent to the Corridor is multi-family residential and commercial development, including the Village of Merrick Park (a shopping mall), and an industrial area. In the portion of the Corridor along U.S. Highway 1, which contains limited single-family development, those homes are generally oriented away from U.S. Highway 1. Upon entering the City of Miami, the Corridor widens to include the Coconut Grove substation at Douglas Road (Southwest 37th Avenue) and Bird Road (Southwest 40th Street). Commercial development exists on either side of Bird Road in this portion of the segment. The Corridor returns to the U.S. Highway 1/Metrorail ROW, with single-family residential land use

on the northwest offset by a frontage road, and commercial land uses bordering the southeast side, with residential farther beyond. The Corridor then widens again around the Coconut Grove and Vizcaya Metrorail stations.

399. In the next segment, the Corridor enters downtown City of Miami before the subaqueous crossing of the Miami River. Land uses in this area include single family, multi-family residential, Simpson Park, and commercial. It also crosses the City of Miami-designated Coral Way scenic transportation corridor in the vicinity of Interstate Highway 95 (I-95). Industrial and commercial uses are also adjacent to the Miami River in this area.

400. The eastern transmission lines in either of the eastern corridors will be generally compatible with the communities' priorities and preferences as reflected in their comprehensive plans and LDRs.

c. FPL East Preferred Corridor: Environment

401. Most of the FPL East Preferred Corridor has been altered from its natural state. Surface waters are limited to canals, ditches, channelized waterways, and reservoirs. Closer to the Turkey Point Plant site, a variety of wetland communities of varying quality and types exist, including forested and herbaceous wetlands. Beyond this area of wetlands, wildlife habitats within the Corridor are generally lacking or absent in

the agricultural and urbanized uplands. Construction of the proposed transmission lines in this area would use existing transmission line and other ROWs, and existing access roads and structure pads where they are needed, limiting wetland and surface water impacts to less than one-half acre, requiring less than one-half credit of mitigation.

402. None of the lands within the Corridor contain native terrestrial ecological attributes in significant amounts. However, there is a small area of the Corridor that includes upland forest classified as NFC by the County within Simpson Park. There are also some NFCs adjacent to but not within the Corridor near the Davis substation. There is very little wildlife habitat value found north of Davis substation. South of the Davis substation, the native upland and wetland communities are limited and generally small. The presence of the existing transmission lines, adjacent agricultural operations, and other development means that existing wildlife communities have already adapted to these man-induced habitats in that area.

403. FPL will avoid and minimize impacts within the Simpson Park NFC and, to the extent practicable, will avoid placing any of the transmission lines within the NFC. FPL will only conduct minimum tree trimming, pruning, or topping of trees in the NFC to meet ANSI standards. High visibility markers will

be installed to protect trees in the NFC during construction. Exotic vegetation within the ROW in the NFC shall be controlled to the extent practicable. Impacts to this NFC or other NFCs due to placement of the proposed transmission lines in the Corridor are anticipated to be insignificant.

404. A portion of the Corridor, no more than 0.2 miles long immediately north of the Units 6 and 7 site, is within designated critical habitat for the American crocodile. The area of overlap is largely occupied by other proposed facilities, including the nuclear administration building, the construction and contractor parking area, and the training building. This area is largely void of vegetation and is primarily rock fill. As the Corridor progresses north beyond the area of designated critical habitat, it enters a highly urbanized area. No part of the Corridor is suitable for crocodile basking, nesting, or foraging.

405. American crocodiles are not commonly observed in the area of the FPL East Preferred Corridor.

406. Eastern indigo snakes, classified as threatened by USFWS and FWC, are not commonly found in southern Florida and are not commonly observed in the FPL East Preferred Corridor. Two recorded observations of Eastern indigo snakes occurred in the southern end of the Corridor in 2011. There is a moderate

likelihood of Eastern indigo snake occurrence within the Corridor south of the Davis substation.

407. The FPL East Preferred Corridor is entirely outside of the PFA and would not affect Florida panthers or their habitats.

408. The eastern transmission lines if constructed in either of the eastern corridors will not cause a flood hazard.

d. FPL East Preferred Corridor: Traffic

409. There will be some temporary, short-term impacts to traffic during construction of the proposed transmission lines within the FPL East Preferred Corridor, but no permanent or long-term impacts to traffic or traffic flow patterns will occur. Transmission line construction may require closure of one or more traffic lane segments among the six or four lanes within the Corridor, particularly in the area of U.S. Highway 1. To avoid closure of a high-volume traffic lane, construction in most segments of the Corridor would occur at night.

410. The Corridor is compatible with DOT and Miami-Dade Transit long-range plans.

4. The PAC

a. General/Constructability

411. The PAC begins east of the Davis substation, where the FPL East Preferred Corridor along Southwest 131st Street intersects with the existing ROW for the North-South segment of

the FPL Turkey Point-Flagami transmission lines in the Kendall area. From there, the PAC continues north along the existing transmission line ROW for approximately 10.15 miles to FPL's - Flagami substation. From the Flagami substation, the PAC continues east for approximately 11.2 miles to FPL's Miami substation. The total length of the PAC where it diverges from the FPL East Preferred Corridor is approximately 21.35 miles.

412. The Flagami-Miami (i.e., east-west) portion of the PAC mostly follows very narrow residential streets with typically only 50-foot wide ROWs. Except for a few areas with a ROW of 50 to 80 feet, however, the FPL East Preferred Corridor does not have this narrow configuration.

413. While there are several other utility lines in the PAC, those lines are not in FPL-controlled or owned ROWs. The public ROWs are typically only 50 feet wide along narrow residential streets. To add another transmission line to those pole locations would require reconstruction of the poles to allow for a double-circuit configuration. As noted above, where double circuits are installed on a pole, two sets of insulators are also required to be installed, one set for each circuit. This configuration in ROWs along narrow residential streets would require acquisition of private strip easements along the frontage of hundreds of residential and commercial lots, with sets of conductors overhanging front yards, or removal of on-

street parking, swales, or vegetation to place the poles in those spaces. In some cases, there are buildings with no setbacks, precluding placement of a double-circuit pole.

b. The PAC: Land Use

414. As the PAC diverges from the FPL East Preferred Corridor, the first segment stretches northward through unincorporated Miami-Dade County along the existing ROW for the North-South segment of the FPL Turkey Point-Flagami Kendall transmission lines in the Kendall area toward the Flagler Street area. Land uses vary from residential to commercial and also include some municipal and multi-family residential areas.

415. The second segment of the PAC extends from west to east between Southwest 92nd Avenue and Southwest 61st Avenue. Originating in unincorporated Miami-Dade County, the existing public road ROWs in this area are generally 50 feet wide. The PAC also encompasses an existing 138-kV transmission line in this area. This segment begins with a mix of residential areas, including townhomes and estate-zoned areas, and transitions toward more intense residential uses. Progressing into the City of Miami, the PAC enters dense, older neighborhoods. The residential home setbacks are shallower and the ROWs include sidewalks, parking spaces, and driveway access areas, which limit room for additional facilities. In addition, underground utilities likely exist within the ROWs. Depending on the

alignment of the Davis-Miami transmission line within the PAC, construction may require demolition of a residence. While most ROW in this City of Miami area is approximately 60 feet wide, Flagler Street along the northern edge of the PAC has a 100-foot ROW and an existing 138-kV transmission line. Throughout this segment, the residential uses face onto the proposed corridor.

416. Farther east into the City of Miami, the third segment of the PAC extends from west to east between Northwest 61st Avenue and Northwest 26th Avenue. This segment begins with largely single-family residential areas and transitions to multi-family residential, with as many as 65 dwelling units per acre in certain areas. It also includes elementary and middle schools. ROWs are approximately 50 and 60 feet in width.

417. The next segment of the PAC extends from west to east from Northwest 26th Avenue to Southwest 7th Avenue and also contains areas of 65 dwelling units per acre. Depending on the alignment, two aerial crossings of State Road 836 (an elevated roadway) may be required, which could require taller poles. Farther east, there are no existing transmission lines available for collocation. The higher-density residential neighborhoods have limited setbacks and contain primarily 50-foot road ROWs, occupied with sidewalks, parking, and driveway access, and homes facing the roadway. ROWs are as narrow as 30 or 45 feet in certain areas. For Americans with Disabilities Act compliance,

transmission line structures may have to be placed in what are currently parking areas. In addition, buildings with zero-foot setbacks in certain areas present design constraints.

418. Southwest 7th Avenue and Southwest 2nd Avenue bound the final segment of the PAC. In this area, the PAC approaches José Martí Park. It then encompasses the Miami River and I-95 before ultimately connecting to FPL's existing Miami substation.

c. The PAC: Environmental

419. From the proposed Clear Sky substation to the Davis substation area, the PAC coincides with the FPL East Preferred Corridor. As such, the land uses and vegetation within the PAC in this area are identical to those described for the first segment of the FPL East Preferred Corridor. Similarly, wetland and surface water impacts throughout the PAC will be limited to less than one-half acre and would require mitigation of less than one-half credit. None of the lands within the PAC contain native wetland ecological attributes in significant amounts.

420. Wetlands and surface waters within the PAC are limited primarily to low quality, man-made ditches and canals that can be spanned. The construction of the proposed transmission lines would use existing transmission line ROW, existing access roads, and existing structure pads. Wetland and surface water impacts will be limited to less than one-half acre

and would require mitigation of less than one-half credit of mitigation.

421. Where the PAC diverges from the FPL East Preferred Corridor, it traverses an existing transmission line ROW south of the Flagami substation and highly developed residential and commercial areas east of the Flagami substation that do not provide quality wildlife habitat. One federally-designated threatened plant species (Garber's Spurge) is recorded within the PAC.

422. There is no difference between the FPL East Preferred Corridor and the PAC with regard to the presence of or impacts to American crocodiles, Eastern indigo snake, Florida panther, avian species, or fish species or habitat.

d. The PAC: Traffic

423. There will be some temporary, short-term impacts to traffic during construction of the proposed transmission lines within the PAC, but no permanent impacts to traffic or traffic flow patterns will occur. Because the PAC largely consists of two-lane roadways with narrow ROWs, lane closure for construction would require flag personnel to direct one lane of traffic in two directions.

424. Because traffic volume in that area is not significant, construction within the PAC can be conducted during the day, though construction in certain road segments should be

conducted during night hours to avoid significant traffic disruptions.

e. Hardening or Improving Existing Transmission Lines Within the PAC

425. Coral Gables and Pinecrest argue that FPL should abandon its FPL East Preferred Corridor in favor of the PAC, which already contains existing 138-kV transmission lines. Their witnesses assert that co-locating the proposed Davis-Miami transmission line with existing 138-kV transmission lines in the PAC between the Flagami and Miami substations would provide an opportunity to harden or improve existing substandard or wooden poles by relocating existing transmission lines onto new, double-circuit concrete poles constructed for the 230-kV transmission line, thereby increasing reliability.

426. No credible evidence was presented that certification of the PAC would necessarily result in the hardening or improvement of existing lines there, once FPL considered all relevant factors for final design of the new Davis-Miami transmission line, beyond FPL's routine hardening or improvement of its transmission lines. Moreover, there is no credible evidence to rebut the testimony of FPL's transmission line engineer regarding the proposed design. In any event, a double-circuit configuration with one circuit on each side of the pole,

a configuration suggested by Coral Gables and Pinecrest, cannot be accommodated along many locations within the PAC.

427. While the Davis-Flagami segment of the PAC contains sufficient room to co-locate with existing FPL transmission lines, it contains significant barriers to placing the new transmission line on new poles together with the existing FPL transmission lines. In this segment, the road ROWs do not have sufficient width to accommodate the new, larger poles proposed for the Davis-Miami transmission line. This segment primarily contains narrow, two-lane residential streets with limited space, where sidewalks, road-side parking areas, and improvements on private, residential lots present a conflict for these larger poles.

428. Co-locating an existing transmission line with the new transmission line on a single, double-circuit pole is not technically feasible in many areas of the PAC due to space constraints. For example, where a single-circuit transmission line pole is currently located adjacent to buildings that are built to the edge of the street, replacement of that pole with a larger double-circuited pole may not be technically feasible. The new transmission line structure may need to be installed across the street, resulting in transmission lines along both sides of the street, or moved to another street entirely.

429. In addition, FPL routinely engages in hardening or improvement of its existing transmission lines as a standard and customary business practice, including replacing existing wooden structures with concrete monopoles as the need arises. Such hardening and improvement along the PAC will occur through FPL's normal course of hardening as pole replacement is needed.

5. Eastern Transmission Line Construction and Design Standards

a. Undergrounding

430. City of Miami, Coral Gables, South Miami, and Pinecrest have urged the Siting Board to require undergrounding of the transmission line in their own jurisdictions and rely upon their local comprehensive plans and local regulations in support of their position. Although the County originally proposed undergrounding of the eastern transmission lines, the County and FPL have reached agreement on conditions for placement of the eastern transmission lines overhead in either of the eastern corridors.

431. Credible preliminary estimates indicate that undergrounding the Davis-Miami transmission line within the FPL East Preferred Corridor would cost approximately \$13.3 to \$18.5 million per mile. These numbers compare to a cost range of \$1.5 to \$2.5 million per mile for overhead facilities, with a cost differential of \$10.8 to \$17 million per mile. Thus,

underground construction in this area would be roughly nine times more expensive than overhead construction.

432. Extreme weather events do not require undergrounding transmission lines in the FPL East Preferred Corridor.

433. FPL generally uses underground design where overhead construction is not feasible or the requesting entity pays the incremental cost of underground construction. With the exception of the Miami River Crossing, no engineering constraints require the use of undergrounding.

b. Miami River Crossing

434. Construction of the Davis-Miami 230-kV transmission line in any corridor proposed for the Davis-Miami transmission line will require an underground crossing of the Miami River.

435. In the area where the Davis-Miami transmission line crosses the Miami River, the Miami substation is bounded by the I-95 bridge west of Second Avenue and the Metrorail bridge to the east. These fixed bridges and their vertical clearances required for navigation prohibit the use of an overhead transmission line design into the Miami substation. Due to this engineering constraint, placement of the transmission line underground is the only technically feasible alternative. Accordingly, FPL proposes undergrounding the eastern transmission line at the Miami River Crossing.

436. A transition or termination structure will be required where the underground portion of the transmission line transitions to overhead. North of the Miami River, the termination structure will be within the Miami substation fence. South of the Miami River, the location of the transition structure has not been finally determined, but preliminarily its location has been identified as somewhere along Third Avenue on a private easement.

437. The proposed Miami River crossing is located within the Biscayne Bay Aquatic Preserve. This crossing requires an easement over sovereign submerged lands from the Board of Trustees, which was requested by FPL through this proceeding. FPL has existing underground transmission lines that cross the Miami River to the south of the Miami substation, with associated sovereign submerged lands easements.

438. The Miami River crossing can be constructed using horizontal directional drill technology. Construction of the Miami River crossing is a water-dependent activity.

439. The transmission line crossing of the Miami River is a "structure required for the installation or expansion of public utilities," constitutes "[r]easonable improvement for . . . public utility expansion," and is specifically allowed by the statute that created the Biscayne Bay Aquatic Preserve. § 258.397, Fla. Stat.; Fla. Admin. Code R. 18-18.006(3)(b)(iv)7.

440. Placement of the transmission line in the sovereign submerged lands easement will not disturb submerged land resources or result in unmitigated adverse impacts to sovereign lands.

441. The underground transmission line will be constructed and operated in compliance with all applicable codes, standards, and industry guidelines. FPL will use best management practices in constructing the underground transmission line beneath the Miami River.

442. The design, location, construction, operation, and maintenance of the proposed transmission line beneath the Miami River will ensure electric system reliability and integrity for electric customers served by the transmission line.

443. FPL owns the existing Miami substation, but must acquire any necessary private property interests for the transmission line easements north and south of the sovereign submerged lands at the Miami River. The Miami River crossing will be designed and constructed to avoid restriction or infringement on riparian rights of adjacent upland owners.

444. No wetland vegetation will have to be removed, cut, or destroyed to place the transmission line in the sovereign submerged easement for crossing the Miami River. There will not be any impacts to the shoreline from placement of the transmission line in the sovereign submerged lands easement for

crossing the Miami River. In this area, the Miami River is within bulkheads and seawalls.

445. Though temporary construction impacts will occur, the area affected by the underground installation will be restored soon after construction and there will not be any permanent impacts to property owners along the Miami River as a result of the transmission line crossing.

446. Construction of the underground portion of the transmission line beneath the Miami River will not affect navigation or the flow of water or cause harmful erosion or shoaling.

447. During location, construction, operation, and maintenance of the underground portion of the transmission line, no wastes will be discharged without being given the degree of treatment necessary to protect the beneficial uses of the waters of the state. Likewise, harmful quantities of contaminants will not be released to any existing or potential drinking water source.

448. The location, construction, operation, and maintenance of the underground portion of the transmission line will not have an adverse impact on air quality and will not result in any new public access points to public lands.

449. Placement of the underground transmission line in the sovereign submerged lands easement will not detract from or

interfere with propagation of fish and wildlife, or traditional recreational uses. Rather, it will minimize adverse impacts on fish and wildlife habitat and other natural and cultural resources.

450. Placement of the transmission line beneath the Miami River in the sovereign submerged lands easement is consistent with the Biscayne Bay Aquatic Management Plan.

451. Placement of the transmission line beneath the Miami River in the sovereign submerged easement is clearly in the public interest.

c. Maintenance of Hydrology/CERP Consistency

452. FPL has submitted flowage easements to the County that provide for maintenance of existing flow across transmission corridors within the Biscayne Bay Coastal Wetlands CERP Project study boundaries and allowing improvements to sheet flow consistent with planned restoration projects in the area. These easements satisfy the requirements of Condition 17 of County Resolution Z-56-07.

453. The eastern transmission lines in either of the eastern corridors are not inconsistent with CERP Projects or the overall objectives of CERP.

d. Economic Impacts

454. The Davis-Miami transmission line in the FPL East Preferred Corridor will have no quantifiable effect on property

values of adjacent properties. The evidence supports a finding that transmission lines will not adversely affect non-residential property values. Also, the more persuasive evidence shows that the effect on residential property values will be de minimis and below the levels that could be quantified to a reasonable degree of certainty. Accordingly, the placement of the proposed Davis-Miami transmission line within the FPL East Preferred Corridor will have little, if any, effect on the economy of the area or the fiscal situation of the municipalities.

455. The analysis regarding the transmission line's impact on property values within and adjacent to the FPL East Preferred Corridor and the PAC presented by Dr. Frishberg, a Coral Gables expert, was imprecise, methodologically flawed, and irrelevant to the extent it did not appropriately address the substantial amount of non-residential properties in both corridors. The analysis of Dr. Weisskoff, a public witness, was also flawed in several respects. For example, his analysis is based on a misrepresentation of the published literature, contained a substantial calculation error, and failed to take into account several important variables affecting property value impacts. Therefore, these witnesses' testimonies are not credited.

e. Clear Sky Substation

456. Construction of the Clear Sky substation expansion will require clearing and grubbing the expansion area. Turbidity screens and other erosion control devices and techniques will be used to minimize construction impacts to nearby wetlands and water bodies. The expanded substation yard area will be excavated, filled with clean fill that is trucked to the site, graded, and rolled to provide the necessary elevation. A new grounding grid will be constructed and a new security fence around the expansion area will be installed.

f. Compliance with Design Standards

457. All of the transmission lines, including the Clear Sky substation, will be constructed and operated in compliance with all applicable design codes, standards, and industry guidelines, including NESC, the Department's EMF standards, and the industry standards adopted by ASCE, ASTM, ANSI, ACI, and the Institute of Electronic and Electrical Engineers.

6. Applicable Non-Procedural Requirements for Eastern Transmission Facilities

a. Zoning Regulations and Comprehensive Plans

458. As noted above, local zoning regulations and comprehensive plan requirements are not applicable non-procedural requirements for transmission facilities. To the extent local ordinances have been incorporated into the

conditions of certification, FPL has committed to comply with them. Otherwise, the often competing zoning regulations of local jurisdiction are not applicable.

b. Work in SFWMD Rights-of-Way

459. FPL's Davis-Miami transmission line will cross several SFWMD canals and may use a portion of SFWMD ROW along the Snapper Creek Canal. There are no levees within the vicinity of the FPL East Preferred Corridor. Location, construction, operation, and maintenance of the Davis-Miami transmission line will comply with the requirements for SFWMD ROW Occupancy Permits and, as such, will not interfere with the SFWMD's access, operations, or maintenance of the works of the district.

460. Location, construction, operation, and maintenance of the eastern transmission lines in compliance with the conditions of certification will not interfere with the present or future construction, alteration, operation, or maintenance of the works or lands of the SFWMD that are crossed. This applies only to proposed future construction, alteration, operation, or maintenance known at the time of FPL's project design.

461. Location, construction, operation, and maintenance of the proposed eastern transmission lines will comply with applicable SFWMD non-procedural requirements, including

requirements of the Criteria Manual for Use of Works of the District.

c. Other Non-Procedural Requirements

462. The location, construction, operation, and maintenance of the proposed transmission lines will comply with applicable Department non-procedural environmental resource permitting criteria and other regulations.

463. The location, construction, operation, and maintenance of the transmission lines in either of the eastern transmission line corridors will comply with the tree ordinances of the local governments in which the facilities will be located.

464. The City of Miami raised concerns over impacts to tree canopy and the replacement of trees that must be removed within the final ROW within the City. A City witness testified that it was her preference that FPL do more than comply with the City of Miami's tree ordinance in siting and constructing the transmission line within the City. To this end, FPL will comply with the City's tree ordinance, and it will confer with local officials to identify areas of tree canopy that can be spanned or addressed by other engineering solutions, to relocate or replace trees that must be removed, or mitigate for impacts by paying into a tree fund. Within the City of Miami, the amount of tree removal in either of the eastern corridors will be

similar. The City also desires a condition of certification requiring FPL to not only comply with the City's tree ordinance, but also to submit a tree survey, a tree disposition plan, and a landscape plan to replace any trees prior to doing any work within the City of Miami, and to install transmission poles to avoid large, existing trees to the extent practicable. FPL has committed to a condition of certification to address each of the items.

465. If constructed within either the East Preferred Corridor or the PAC, the proposed Davis-Miami transmission line will comply with the applicable non-procedural requirements of the local governments in which it will be located. These applicable non-procedural requirements include the requirements within the City of Miami, Coral Gables, South Miami, and the County that (1) FPL construct and maintain transmission lines in accordance with its customary practice; (2) FPL transmission lines not unreasonably interfere with traffic on public ROW or reasonable egress from and ingress to abutting property; (3) FPL transmission lines be located as close to the outer boundary of public ROW as practicable, or as agreed with the local government; and (4) FPL repair or restore any damage to public ROW caused by construction or maintenance of transmission lines.

466. During construction of the proposed Davis-Miami transmission line within the City of Miami, FPL will not

excavate, dig up, or obstruct any public street or sidewalk in a manner that creates an obstruction for more than two adjacent blocks at a time. If any such obstruction is required, FPL will complete the work on one block before proceeding to work in the second block.

467. If any sidewalk must be reconstructed following construction of the Davis-Miami transmission line within the City of Miami, FPL will use only natural, uncolored Portland cement concrete for that sidewalk reconstruction.

468. If any road pavement must be repaired following installation of the proposed transmission line within the City of Miami, FPL will use paving of a long-life, hard-surfaced type with sufficient base to ensure lasting service and a minimum expense for maintenance, as chosen in consultation with the City's Public Works Department.

7. Eastern Corridors Comparison: Least Adverse Impacts, Including Cost

a. Comparison of Land Use Considerations

469. While the final ROW for the Davis-Miami transmission line will be identified post-certification during final design, preliminary alignments within the PAC and the FPL East Preferred Corridor were identified to facilitate comparisons between the two corridors where they diverge. FPL analyzed three routes to compare the proposed eastern corridors: (1) a route within its

East Preferred Corridor (the EPC Alignment); (2) the alignment identified by Pinecrest and Coral Gables within the PAC (the PAC Alignment); and (3) an alignment identified by FPL's engineers that they believe constitutes a more technically feasible alignment within PAC than the PAC Alignment (the 2013 Alignment).

470. The PAC Alignment has 2,829 buildings within 200 feet of the alignment; the 2013 Alignment has 2,746. These figures reflect the density within the PAC. In contrast, the EPC Alignment has only 762 buildings within 200 feet of the alignment. The transmission line, if built within either of the PAC Alignments, would be in proximity to three times more buildings than the EPC Alignment.

471. The PAC Alignment would cross or abut 1,217 separate parcels; the 2013 Alignment would cross or abut 1,164. In contrast, the EPC Alignment would cross or abut only 363 separate parcels. The transmission line, if built within either of the PAC Alignments, would cross or abut three times more parcels than the EPC Alignment.

472. There are 15 schools within 200 feet of the PAC Alignment and 14 schools within 200 feet of the 2013 Alignment; there are eight schools within 200 feet of the EPC Alignment, including the University of Miami.

473. There are more residential uses and smaller lots along the PAC. In contrast, more commercial parcels of larger size are along the FPL East Preferred Corridor.

474. Along the PAC Alignment, the available road ROW space is generally only 50 feet in width, rendering it generally too narrow for the construction of the necessary double-circuit transmission line structures suggested by Pinecrest and Coral Gables without acquiring additional ROW space on adjacent private property, much of which is dense residential development on shallow, narrow lots. However, along the EPC Alignment, the available road/Metrorail ROW is generally 200 feet wide or wider, making it less likely that FPL will need additional ROW space on adjacent private property.

b. Comparison of Engineering/Constructability Considerations

475. Where the FPL East Preferred Corridor and PAC diverge, both contain collocation opportunities. While the total length of existing FPL transmission lines for collocation along the PAC Alignments may be greater than the total length along the EPC Alignment, the Flagami-Miami segment of the PAC has significant barriers to implementing collocation with those existing FPL lines.

476. Besides the narrow ROWs along the PAC Alignments, there are many obstructions such as sidewalks, fences, porches,

and other improvements which constrain construction of the Davis-Miami transmission line as proposed by Pinecrest and Coral Gables. In contrast, along most of the EPC Alignment, the ROW has a larger amount of available open space with few obstructions.

477. There is greater potential conflict with underground utilities along the PAC than the FPL East Preferred Corridor. This is due to the greater likelihood of underground utilities parallel to streets, perpendicular lateral lines to service the homes in the PAC, and limited flexibility to adjust pole locations to avoid such constraints.

478. Proximity of the PAC to the Miami International Airport will require notification to the FAA and possibly the Miami-Dade Aviation Department for crane operations during construction. There are no airports near the FPL East Preferred Corridor for the Davis-Miami transmission line.

479. The cost of constructing the Davis-Miami transmission line within the PAC Alignment, including the cost of acquiring the necessary ROWs, ranges from \$83.1 million to \$107.7 million; the cost of construction within the 2013 Alignment within the PAC ranges from \$77.8 million to \$100.6 million. In contrast, the cost of construction of the Davis-Miami transmission line within the EPC Alignment ranges from \$50.7 million to \$68.6 million.

c. Comparison of Environmental Considerations

480. There are no material differences in environmental considerations between the PAC and the FPL East Preferred Corridor.

481. There is no material difference between the FPL East Proposed Corridor and the PAC from a wetlands impacts or wetlands mitigation perspective. Construction of a transmission line within either of the two corridors would not impact any significant amount of wetlands or surface waters.

482. The FPL East Preferred Corridor and the PAC are similar with respect to the likely magnitude of effects on the abundance and diversity of wildlife resulting from construction of a transmission line. From the point the FPL East Preferred Corridor and PAC diverge, approximately two miles east of the Davis substation, they largely traverse similar areas of dense urban development to reach the Miami substation. Neither corridor traverses high quality wildlife habitat or has the potential to impact listed species. Therefore, no adverse effects upon wildlife abundance and diversity would be anticipated.

483. FPL will minimize impacts to NFCs in the FPL East Preferred Corridor, avoiding impacts to the extent practicable, consistent with the NFC standards and requirements contained in chapter 24, MDC. The PAC does not cross a NFC.

484. There is no difference between the FPL East Preferred Corridor and the PAC with regard to impacts to American crocodiles; both must cross the same 0.2-mile area.

485. There is no difference between the FPL East Preferred and the PAC with regard to impacts to Eastern indigo snakes.

486. Avian issues are minimal with both of the proposed corridors, and there is no significant difference between the two corridors.

487. From the standpoint of impacts to Florida panthers and their habitat, there is no difference between the FPL East Preferred Corridor and the PAC because both corridors traverse urbanized, developed areas of the County outside of the PFA, and panthers are not likely to occur in those areas.

d. Comparison of Traffic Impacts

488. No material difference exists between the traffic impacts anticipated in the FPL East Preferred Corridor and the PAC. Both the PAC and the FPL East Preferred Corridor will involve moderate to significant disruption of traffic during the temporary construction activities. Construction in the FPL East Preferred Corridor requires lane closure in a higher-volume roadway (U.S. Highway 1) and would be limited during peak traffic hours. Construction in the PAC would impact lower-volume roadways and would not be limited to nighttime hours, but

would require flag personnel to direct one lane of traffic in two directions.

e. Archaeological and Historic Sites

489. There is no material difference between the FPL East Preferred Corridor and the PAC in terms of impacts to archaeological or historic resources. Location, construction, operation, and maintenance of the proposed transmission lines in accordance with the conditions of certification in either of the eastern transmission line corridors will not adversely impact archaeological or historic structures, sites, or resources, given the level of disturbance and alteration in both corridors.

f. Summary

490. Because of significant constructability issues and land use constraints within the PAC and in light of the relative costs for placement of the Davis-Miami transmission line within the two eastern corridors proper for certification, the FPL East Preferred Corridor represents the corridor which, on balance, has the least adverse impacts, including costs, considering the criteria in section 403.509(3).

C. Western Transmission Lines

1. Typical Structures and Substation Proposed

491. The following constitute FPL's proposed western transmission lines associated with the Project:

(a) From the proposed on-Site Clear Sky substation, FPL is proposing two 500-kV lines extending west and then north to the existing Levee substation. The total length of this alignment of the West Consensus Corridor/MDLPA No. 2 and FPL West Preferred Corridor is approximately 43.6 miles.

(b) From the proposed Clear Sky substation, FPL is also proposing to extend a 230-kV transmission line to the west and then north to the existing Pennsuco substation. This line is proposed to be constructed in the same ROW as the previously described 500-kV lines, but will bypass the Levee substation and continue to the Pennsuco substation. From the Levee substation area to the Pennsuco substation, FPL has an existing multi-circuit transmission line ROW. The section of the proposed Clear Sky-Pennsuco 230-kV transmission line between Levee and Pennsuco will be placed within this existing ROW. This 230-kV-only portion of the West Consensus Corridor/MDLPA No. 2 and FPL West Preferred Corridor is approximately 8.4 miles long.

(c) Also as part of the western corridors, there are three access-only corridor laterals to be used only for vehicular access to the certified transmission lines. If the West Consensus Corridor/MDLPA No. 2 is certified and used for the placement of the western transmission lines, one of the access-only corridor laterals extends from the northwest corner of Government Lot 4 to Northwest 137th Avenue. It is 200 feet wide with 100 feet extending on each side of the north section line of government Lots 3 and 4. The second access-only corridor lateral for the West Consensus Corridor/MDLPA No. 2 extends south from the northwest corner of government Lot 4 to the north bank of the C-4 Canal. It is 200 feet wide with 100 feet extending on each side of the west section line of Government Lot 4. From that point, it narrows to 100 feet in width and extends

to the west to include the bridge over the C-4 Canal at the entrance to the Trail Glades Sport Shooting Range. The third access-only corridor lateral extends from Krome Avenue to the L-31N ROW along the theoretical extension of Kendall Drive and is 200 feet in width. In addition, FPL will use the existing SFWMD access roadways on the L-31N levee and east of the L-31N canal within the SFWMD ROW, other public roadways, and newly constructed access roads within the corridor boundaries for access to transmission structures within the West Consensus Corridor/MDLPA No. 2 south of Tamiami Trail. If the FPL West Preferred Corridor is certified and used for placement of the western transmission lines, two access-only corridor laterals are also proposed. The Tamiami Trail Access Corridor is just north of Tamiami Trail where the FPL West Preferred Corridor crosses the road. This access corridor is a rectangle that adjoins the FPL West Preferred Corridor, is approximately 0.25 mile long and 370 feet wide, and includes the existing SFWMD levee access roadway and bridge associated with the L-29 canal. The Krome Avenue Access Corridor is proposed along the L-30 canal ROW and includes Krome Avenue from the point where the FPL West Preferred Corridor exits Water Conservation Area 3-B and turns east towards the Levee substation. This access corridor extends approximately five miles due north along SFWMD ROW, is approximately 600 feet wide, and includes the existing levee access roadway and bridge associated with the L-30 canal, as well as Krome Avenue.

(d) The total length of the western transmission lines is approximately 52 miles.

492. Construction of the proposed on-site Clear Sky substation is addressed above. The existing Levee substation is

a transmission substation with multiple existing 500- and 230-kV transmission lines connected to it. The substation property encompasses approximately 65 acres. The property currently includes the fenced area of substation equipment, stormwater retention areas, wetland mitigation areas, compacted access/patrol roads, and undeveloped areas. The fenced area of the existing Levee substation must be expanded approximately 130 feet to the north along the entire length of the fence (approximately 800 feet) to accommodate installation of transformers, breakers, and switchgear, and the connection of the two proposed 500-kV transmission lines being extended from the proposed Clear Sky substation at the Turkey Point site. The proposed expansion of the fenced area of the substation is approximately 2.3 acres. The expansion area is within the geographic boundaries of the County's "unusual use" approval for the existing substation. Zoning approval from the County for the expansion of the Levee substation as an unusual use has already been obtained.

493. All transmission facilities, including the Clear Sky substation and Levee substation expansion, will comply with applicable design standards.

2. Corridor Selection: FPL West Preferred Corridor and West Consensus Corridor/MDLPA No. 2

a. FPL's Existing Transmission Line ROW, Turkey Point to Levee Substation

494. In the 1960s and early 1970s, FPL acquired a ROW between the Turkey Point plant property and the Levee substation for placement of transmission lines. The existing ROW is wide enough to accommodate the proposed new transmission lines; it already contains an existing transmission line along most of its length south of the Everglades National Park.

495. Approximately 7.4 miles of this ROW was encompassed by the addition of the Everglades National Park Expansion Area (Expansion Area) to the Everglades National Park in 1989. Subsequent to the expansion, the National Park Service (NPS) and several other land-owning agencies in the area negotiated with FPL to exchange FPL's currently owned transmission line ROW in the Expansion Area for a combination of easements and property that would provide a continuous transmission ROW between the Turkey Point plant property and the Levee substation, and provided for a slight adjustment of the eastern boundary of the Everglades National Park so the relocated ROW would be entirely outside the Everglades National Park. Collectively, these efforts are referred to as the "Land Exchange." The NPCA is actively opposing the Land Exchange.

496. If the Land Exchange is consummated, a total of approximately 12 miles of FPL's existing ROW is proposed for relocation. The Land Exchange has been authorized by federal legislation and is undergoing final environmental review by the NPS. In 2011, the NPS began developing an Environmental Impact Statement (EIS) to review the impact of the proposed Land Exchange, which is a required review for such a federal action. The current schedule estimates the Draft EIS should be available in late 2013 with the Final EIS due to occur in the fall of 2014, although those dates could change. Thirty days after issuance of the Final EIS, the Record of Decision should be available.

497. Once finalized, the relocated ROW that will result from the Land Exchange will be within the FPL West Preferred Corridor and portions of it will be within the West Consensus Corridor/MDLPA No. 2. The existing transmission line ROW that FPL has owned since the 1960s and early 1970s in the area of the Land Exchange is identified in its application as the FPL West Secondary Corridor. However, the FPL West Secondary Corridor has been withdrawn from consideration by FPL.

498. FPL desires to execute the Land Exchange and utilize a portion of those land rights for siting either the West Consensus Corridor/MDLPA No. 2 or the FPL West Preferred Corridor.

b. West Preferred Corridor Selection

499. In the corridor selection process for the western transmission lines, the multidisciplinary team used the same process described in Findings of Fact 269 through 290 to evaluate potential corridors for the western transmission

500. The west study area included the Clear Sky, Levee, and Pennsuco substations and existing FPL transmission ROWs and other linear features that occur between these substations.

501. Much of the west study area is dominated by low-density residential development, agricultural and nursery operations, conservation lands, and mining activities. There are relatively few existing linear features that provide collocation opportunities.

502. Each of the routes identified by the multidisciplinary team during the corridor selection process was evaluated in detail according to the quantitative and qualitative process described above.

503. FPL's corridor selection process took into account planned development in the corridor areas, while avoiding environmentally sensitive areas to the extent practicable and reflected a balancing of engineering, environmental, and land use considerations against the need for the Project.

504. After evaluation of all identified route alignments and consideration of public and agency input throughout the

community outreach program, FPL selected the West Preferred Route and delineated corridor boundaries for the route. The FPL West Preferred Corridor is of variable width, being wider in certain areas to give FPL flexibility in delineating the ROW within the corridor so as to accommodate localized conditions or take advantage of certain opportunities like following a property boundary, and narrower in other areas to avoid siting constraints, such as development or an environmentally sensitive area, or to utilize existing or relocated FPL ROWs, while maintaining a continuous route.

c. Filing of Alternate Corridors

505. During the certification process, four alternate western transmission line corridors were proposed for consideration in addition to the western corridors included by FPL in its application. MDLPA presented three alternate corridors and NPCA presented one, each to replace all or a portion of the West Preferred Corridor between approximately Southwest 120th Street and the Levee substation.

506. MDLPA No. 2 is encompassed within the West Consensus Corridor/MDLPA No. 2 and is discussed in detail below, together with the FPL West Preferred Corridor. MDLPA No. 2 was developed after further discussions with the Everglades National Park and representatives of SFWMD and NPCA about the goal of reducing the potential impact on the Everglades National Park. The West

Consensus Corridor/MDLPA No. 2 achieves the combined goal of lessening potential impacts on the Pennsuco Wetlands and the Everglades National Park, while avoiding more urban uses to the east. It includes a segment of the FPL West Preferred Corridor, but also includes enough real estate east of the L-31N canal to potentially accommodate the full ROW where that proves to be a practical option for FPL and the rock mining companies.

507. The Pennsuco Wetlands, designated by the County as environmental protection lands, are a two-mile wide, approximately nine-mile long wetland between the Water Conservation Area 3B/Krome Avenue and rock mining lands known as the Lake Belt mining area. The Pennsuco Wetlands have long been a target of acquisition and restoration by various government agencies. Rock miners are still funding the ongoing acquisition and restoration of the wetlands as part of their wetland mitigation for mining wetlands within the Lake Belt mining area. About 80 percent of the Pennsuco Wetlands area has been acquired, and most of it has been restored.

508. MDLPA No. 1 was the first alternate corridor for the western transmission lines proposed by MDLPA and constitutes only a modest adjustment to the FPL West Preferred Corridor. MDLPA proposed its alternate corridor to avoid the FPL West Preferred Corridor's central crossing of the Pennsuco Wetlands. MDLPA No. 1 stays as close to the FPL West Preferred Corridor as

possible but crosses the Pennsuco Wetlands two miles farther south and eliminates much of the construction in Water Conservation Area 3B.

509. MDLPA No. 3 was developed after discussion between the MDLPA and other interested parties, including NPCA. The goal was to develop a corridor with less impact west of the L-31N canal. However, the mining companies were not willing to propose a corridor with impacts on private property south of the parcel owned by CEMEX. Instead, MDLPA proposed a deviation from the FPL West Preferred Corridor which would move the corridor to the east to Krome Avenue on property owned by CEMEX and Kendall Krome Properties and Investments.

510. NPCA filed one alternate corridor to be considered for portions of FPL's West Preferred Corridor, with a primary goal to eliminate potential impacts to conservation lands (primarily the Everglades National Park) and to wetlands. NPCA's corridor selection involved no analysis within the Everglades National Park itself. Potential impacts to future urban development in the Urban Expansion Area (UEA) of the County or encumbrances that might hinder use of NPCA's corridor were not considered in the selection process. NPCA's route selection team did not include a land use planner or a transmission line engineer. NPCA did not hold any publicly noticed open houses or workshops to solicit input from residents

and other stakeholders in the area before selecting its proposed corridor. Similarly, the number of government-owned parcels with encumbrances crossed by the proposed corridor was not considered. NPCA assumed parcels would likely be made available, despite a lack of confirmation through any final action or documentation. The County supports this corridor.

d. Western Transmission Line Corridors Proper for Certification

511. FPL and the Department filed notices of acceptance of the alternate corridors proposed by MDLPA and NPCA as proper for certification. The Department determined that all of the western alternate corridors met the criteria for certification. Consistent with its practice, the Department did not do a comparison of impacts among the different western alternate corridors.

512. Each of the alternate corridors was evaluated by FPL's multidisciplinary team using the same quantitative and qualitative factors used to select the FPL West Preferred Corridor.

513. Due to the withdrawal of the FPL West Secondary Corridor, only five western transmission line corridors are proper for certification as that term is used in sections 403.503(11) and 403.522(10).

514. FPL is seeking certification of the West Consensus Corridor/MDLPA No. 2 and the FPL West Preferred Corridor, with the FPL West Preferred Corridor to be utilized only if an appropriate ROW within the West Consensus Corridor/MDLPA No. 2 cannot be secured in a timely manner and at a reasonable cost. Both corridors are approximately 52 miles in length.

### 3. Corridor Descriptions

515. The western transmission line corridors can be divided into four separate geographic sections. Moving from south to north, these are referred to as the Turkey Point-U.S. Highway 1 Section, the U.S. Highway 1-Southwest 120th Section, the Southwest 120th-Levee Section (also known as the West Divergence Area), and the Levee-Pennsuco Section. The western transmission line corridors are co-existent in the Turkey Point-U.S. Highway 1, U.S. Highway 1-Southwest 120th, and Levee-Pennsuco Sections. They diverge only in the West Divergence Area.

#### a. Sections Common to All Western Corridors

516. The Turkey Point-U.S. Highway 1 Section, common to all of the corridors, begins at the proposed Clear Sky substation on Turkey Point plant property and continues west for approximately ten miles, co-located with an existing transmission ROW, to approximately U.S. Highway 1. The next section common to all western corridors, U.S. Highway 1-

Southwest 120th Section, heads west and then north from U.S. Highway 1 to approximately Southwest 120th Street, just south of the Everglades National Park. The final section common to all western corridors is the section where the western corridors reconverge in the Pennsuco Wetlands north of Tamiami Trail and just west of the Levee substation, to the Pennsuco substation, the Levee-Pennsuco Section.

i. Turkey Point-U.S. Highway 1

517. This Section of the western corridors coincides with FPL ROW containing existing transmission lines and access roads. Land uses are predominantly wetlands. Adjacent land uses already exist along this Section in a compatible manner with transmission line facilities. The proposed western transmission lines would be compatible with the land uses in this area.

518. The Turkey Point-U.S. Highway 1 Section consists of a variety of wetland habitats, including areas of mangrove wetlands in the vicinity of the L-31E canal, freshwater marshes dominated by sawgrass, occasional tree islands, as well as some areas dominated by nuisance and exotic species. Construction of the western transmission lines within this Section would result in no more than 59 acres of wetland impact, and likely less than that, based on the measures FPL has agreed to take to eliminate and reduce wetland impacts. The majority of wetlands within the

transmission line ROW would remain undisturbed, and the loss of wetland functions would be fully mitigated.

519. Plants and wildlife found in the Turkey Point-U.S. Highway 1 Section common to all western corridors are those adapted to wetland cover types such as wading birds, raptors, amphibians, and reptiles, as well as small mammals and occasional deer. Very few upland habitats exist, and the Section comprises an existing FPL transmission line easement, including an access road, structures, and structure pads.

ii. U.S. Highway 1-Southwest 120th Street

520. This Section of the western corridors coincides with FPL ROW containing existing transmission lines and access roads. Adjacent land uses have therefore adapted to the presence of transmission lines and have remained stable over time. Land uses are predominantly agricultural with some residential, and the northern end of this Section transitions to open lands. The western transmission lines would be compatible with the land uses in this area.

521. The Section is primarily upland in nature and dominated by agricultural land uses, primarily tree nurseries. Other agricultural uses in this area include row crops and citrus. This Section traverses portions of two areas designated by the County as NFCs, the Sunny Palms Pineland and Kings Highway Pineland. These NFCs could also be home to various

species of state-listed plants. Wildlife found in this Section includes common reptiles, amphibians, birds, and mammals that are habituated to human-induced habitats. Wetland resources within this area of the corridors are limited to small areas of freshwater marsh, ditches, and canals. Construction of the transmission lines within this area will incur minimal wetland impacts, estimated to be less than one acre of relatively low-quality wetlands.

iii. Levee-Pennsuco

522. North of the West Divergence Area, in the Levee-Pennsuco Section, all of the western corridors travel along an existing multi-circuit transmission line ROW through unincorporated Miami-Dade County, Doral, and Medley, passing alongside agricultural, industrial, and multi-family residential uses.

523. The Section comprises active rock mining facilities and contains very little undisturbed wildlife habitat. Rock quarries may contain some habitat for aquatic species, but very little native upland habitat exists. Wildlife usage is limited to common amphibians, reptiles, birds, and mammals found in the County. From the Florida Turnpike to the Pennsuco substation, the corridors are dominated by FPL's existing transmission lines with scattered uplands and herbaceous wetlands on the existing transmission line ROW. Adjacent land uses include residential,

commercial, and industrial uses in Doral. No unique wildlife usage is expected in any of this Section due to the fact the existing right-of-way has been in place and maintained for many years. Wildlife species have become accustomed to those habitats.

524. Construction of the transmission line between the Levee and Pennsuco substations will use the existing transmission line roads and structure pads to the greatest extent practicable, limiting estimated wetland impacts to approximately one acre.

525. Land uses for the western alternate corridors are identical to the land uses in the FPL West Preferred Corridor and West Consensus Corridor/MDLPA No. 2 in the Turkey Point-U.S. Highway 1, U.S. Highway 1-Southwest 120th, and the Levee-Pennsuco Sections, as these Sections are common to all the corridors.

b. West Divergence Area: FPL West Preferred and West Consensus Corridor/MDLPA No. 2

526. The West Divergence Area extends from the southernmost point where the first alternate corridor diverges from the FPL West Preferred Corridor to the Levee substation. This Section generally encompasses an area that will be entirely east of the Everglades National Park following the Land Exchange and includes the L-31N and L-30 levees/canals and eastward to

encompass the Krome Avenue area and Bird Drive Basin. It then runs northward to a point just west of the Levee substation where all the western corridors reconverge.

527. In the West Divergence Area, the FPL West Preferred Corridor turns due east at Southwest 120th Street towards the L-31N levee. Moving north from approximately Southwest 120th Street to Tamiami Trail, the FPL West Preferred Corridor straddles the L-31N canal and runs adjacent to the Krome Detention Center. After crossing Tamiami Trail, the FPL West Preferred Corridor then proceeds along the L-30 levee, passing the Miccosukee Casino property, and eventually parallels Krome Avenue to the north to a point just west of the Levee substation. The FPL West Preferred Corridor then proceeds due east across the Pennsuco Wetlands into the Levee substation.

528. Within the West Divergence Area, the ecological conditions differ among the various corridors. In this portion of the Corridor, freshwater marshes (sawgrass) dominate. These freshwater marshes provide suitable foraging habitat for a variety of wading birds, and support a variety of fish, amphibians, reptiles, and small mammals. Some tree islands also occur within the Southwest 120th-Levee Section of the Corridor and may provide suitable nesting habitats for wading birds, some of which are listed. No wading bird colonies exist within the Corridor, but there are two colonies within 0.5 mile of its

boundaries. These colonies have historically contained wood storks and listed wading birds during some nesting seasons. Additionally, the FPL West Preferred Corridor includes some historical nesting sites and marginally suitable foraging habitat for the endangered Everglade snail kite, particularly in the area north of Tamiami Trail. In any of the western corridors proper for certification, throughout the West Divergence Area, the potential for adverse impacts to any wildlife species is low.

529. In the West Divergence Area, the wetland quality in the Corridor tends to average between 0.70 and 0.80 using UMAM. Placing the ROW in the FPL West Preferred Corridor would impact no more than 137 wetland acres, given FPL's flexibility to site the ROW within the Corridor and position the transmission line structures to avoid or minimize wetland impacts to the extent practicable.

530. In the northern portion of the West Divergence Area, the wildlife habitats within the Corridor consist primarily of sawgrass marsh with scattered tree islands on the west side of the L-31N levee and Bird Drive Basin to the east, with scattered herbaceous marsh and tree islands. The Corridor itself is primarily co-located along disturbed areas including an existing levee and canal heading to the Levee substation.

531. Through much of the West Divergence Area, both the FPL West Preferred Corridor and the West Consensus Corridor/MDLPA No. 2 straddle the L-31N levee, which represents a seam between the Everglades National Park to the west, and residential and agricultural uses to the east. Some of the lands are in transition and include agricultural lands, a few large single family estates (one unit per five acres), and open lands, with more urban development to the east. Farther north along L-31N levee, the land uses to the east of the FPL West Preferred Corridor and the West Consensus Corridor/MDLPA No. 2 are previously-disturbed uses, rail, and predominantly rock mining. Farther north, but south of Tamiami Trail, the FPL West Preferred Corridor continues to run along a seam between conservation uses to the west and more developed uses, including the Krome Detention Center, to the east. North of Tamiami Trail, the FPL West Preferred Corridor straddles the L-30 levee and runs between the conservation lands in Water Conservation Area 3B and the Miccosukee Casino property and then Krome Avenue further north. The Corridor then turns east on existing ROW through the environmental protection lands of the Pennsuco Wetlands, and then through rock mining land uses to the Levee substation.

532. Existing tall structures in the vicinity of the FPL West Preferred Corridor include the Miccosukee Casino and the

Krome Detention Center water tower, as well as power poles and radio towers.

iii. West Consensus Corridor/MDLPA No. 2

533. In the West Divergence Area, the West Consensus Corridor/MDLPA No. 2 begins approximately one mile south of a hypothetical extension of Kendall Drive and extends to the Levee substation. Where it overlaps the FPL West Preferred Corridor along the L-31N levee, the Corridor widens eastward of the L-31N levee to encompass rock mining lands. It then diverges from the FPL West Preferred Corridor for approximately 13 miles, turning east at a point north of a hypothetical extension of 18th Street running just south of the Krome Detention Center. It then turns north at a point east of Krome Avenue, crossing Tamiami Trail and continuing north along the Dade-Broward Levee until it reaches the FPL West Preferred Corridor alignment; the West Consensus Corridor/MDLPA No. 2 then continues east until it reaches the Levee substation.

534. For most of the distance along the L-31N levee, the West Consensus Corridor/MDLPA No. 2 includes, but is wider than, the FPL West Preferred Corridor. This configuration provides enough room on both sides of the canal for placement of the proposed western transmission lines, with some flexibility to potentially locate all or part of the transmission lines on the rock-mining lands and other private and public property to the

east. The Corridor includes sufficient real property east of the L-31N Canal to accommodate the full transmission line ROW in some areas, if that proves to be a practical option for FPL and the rock mining companies.

535. Where the West Consensus Corridor/MDLPA No. 2 overlaps the FPL West Preferred Corridor in the West Divergence Area, such as along the L-31N Canal, the ecological conditions are the same, with conservation uses (the Everglades National Park) to the west and predominantly mining and rail uses to the east. However, the widened area of the West Consensus Corridor/MDLPA No. 2 immediately to the east of the FPL West Preferred Corridor includes primarily previously-disturbed rail and mining operations, as well as shrub and brushland, and remnant upland and wetland habitats.

536. The West Consensus Corridor/MDLPA No. 2 diverges from the FPL West Preferred Corridor by turning eastward along a hypothetical extension of Southwest 18th Street, at the northern boundary of the rock mining overlay west of Krome Avenue. In this area, the West Consensus Corridor/MDLPA No. 2 passes south of the Krome Detention Center, then runs eastward through the Bird Drive Basin overlay, consisting of open lands, wetlands, and conservation lands. The adjacent land uses in that area are open lands, wetlands, and conservation lands. In the Bird Drive Basin the land use is mixed ownership of governmental and

private parcels. The width of the corridor in this location provides flexibility to minimize crossings of private property in the Bird Drive Basin.

537. Where the West Consensus Corridor/MDLPA No. 2 crosses wetlands within the Bird Drive Basin and, north of Tamiami Trail, the eastern edge of the Pennsuco Wetlands, the wildlife habitats generally consist of herbaceous marsh (sawgrass), wet prairie, shrub/brushland, and tree islands (primarily melaleuca). This area is used by wetland-dependent wildlife, such as wading birds, reptiles, amphibians, small mammal, and deer. The West Consensus Corridor/MDLPA No. 2 is, however, located farther than the FPL West Preferred Corridor from known locations of wood stork colonies located along and north of Tamiami Trail. At the point where it turns north and for the remainder of its length until it reaches the Levee substation, the West Consensus Corridor/MDLPA No. 2 is very wide. This allows maximum flexibility in aligning the corridor so as to avoid obstacles and minimize impacts.

538. The Bird Drive Basin is a County regulatory zoning overlay that consists primarily of wetlands, although in many cases they are low-quality herbaceous wetlands with scattered tree islands (primarily melaleuca). It is located east of the rock mining zoning overlay and Krome Avenue from approximately Southwest 88th Street to Southwest 8th Street (Tamiami Trail).

539. Wetlands in the Bird Drive Basin and the east side of the Pennsuco Wetlands are generally lower in quality compared to wetlands located further to the west, due to increased proliferation of nuisance and exotic species of vegetation.

540. Wetland quality within the West Consensus Corridor/MDLPA No. 2 tends to average between 0.70 and 0.80, and siting the ROW within the West Consensus Corridor/MDLPA No. 2 would impact no more than 122 wetland acres.

541. The Urban Development Boundary (UDB) is an area designated by the County in the CDMP for existing urban uses, while the UEA, adjacent to the UDB, is designated by the County for anticipated future urban development after 2015, if there is a need based on population growth. Corridors farthest from these areas are more desirable from the standpoint of potential conflict with residential and urban land uses, although all would be compatible from a land use perspective.

542. Both the West Consensus Corridor/MDLPA No. 2 and the FPL West Preferred Corridor are entirely west of the area designated by the County as the UEA and even farther west of the area designated as the UDB. There is no urban development near the West Consensus Corridor/MDLPA No. 2 or the FPL West Preferred Corridor.

543. The western transmission lines in any of these corridors would be compatible and consistent with the adjacent

land uses, including the Everglades National Park, and would serve the broad interests of the public.

c. West Divergence Area: Other Western Alternate Corridors

544. Vegetation/wildlife habitats within the West Divergence Area of MDLPA No. 1, MDLPA No. 3, and the NPCA Corridor have a mixture of agricultural areas, uplands, and wetlands. Land is more disturbed and wetlands more degraded the farther east one heads, as compared to the areas closer to the Everglades National Park. Wildlife usage is more limited to the east than to the west as a result of the land disturbances. Wetland quality in MDLPA No. 1 tends to average between 0.70 and 0.80 using UMAM; MDLPA No. 3 wetlands were of somewhat lower quality in spots, averaging between 0.60 and 0.80. The NPCA Corridor, located farthest east, had the lowest quality wetlands, averaging between 0.60 and 0.70.

545. In the West Divergence Area, the acres of wetlands potentially impacted by each alternate corridor, and therefore the amount of mitigation required to offset the impacts, also tends to decrease to the east and increase to the west. MDLPA No. 1 would impact no more than 199 acres of wetlands. In contrast, MDLPA No. 3 and the NPCA Corridor, located the farthest east, would impact 165 and 152 acres of wetlands, respectively.

546. Wildlife species usage in the West Divergence Area of the alternate corridors consists of common amphibians, reptiles, birds, and mammals of the region. Some listed wading birds would be expected to forage in certain portions of the alternate corridors.

547. Within the West Divergence Area, the alternate corridors cross agricultural lands, open lands, rock mining, residential parcels, and wetlands.

i. MDLPA No. 1

548. In the north portion of the West Divergence Area, MDLPA No. 1 deviates from the FPL West Preferred Corridor for approximately four miles between Tamiami Trail and the Levee substation, turning east north of Tamiami Trail. It crosses the Pennsuco Wetlands approximately two miles farther south than the FPL West Preferred Corridor and is coexistent with the FPL West Preferred Corridor for its remainder, generally following the L-31N levee and canal. Except in the area north of Tamiami Trail to the Levee substation, MDLPA No. 1 is identical to the FPL West Preferred Corridor.

549. The ecological conditions in the south and center portions of the West Divergence Area of MDLPA No. 1 are the same as the West Consensus Corridor/MDLPA No. 2. Like the FPL West Preferred Corridor and West Consensus Corridor/MDLPA No. 2, it

travels along the same seam between land uses along the L-31N levee and canal and adjacent to/within active rock mining areas.

550. Within MDLPA No. 1, uplands in the north portion of the West Divergence Area consist primarily of roads and levees. The wetlands are primarily sawgrass marsh with melaleuca-dominated tree islands. Wildlife species usage consists of common amphibians, reptiles, birds, and mammals of the region. No known listed species occurrences were identified, but it is expected that wading birds would use the area for foraging. The northern part of MDLPA No. 1 in the West Divergence Area is within 1,500 feet of one wading bird colony containing wood storks along Tamiami Trail.

ii. MDLPA No. 3

551. MDLPA No. 3 follows a more easterly pattern in the West Divergence Area than the West Consensus Corridor/MDLPA No. 2 or the FPL West Preferred Corridor. It deviates from the FPL West Preferred Corridor and West Consensus Corridor/MDLPA No. 2 for approximately 13 miles between Southwest 120th Street and the Levee substation. It turns east approximately one-half mile south of the theoretical extension of Kendall Drive, then north along Krome Avenue, then through the Bird Drive Basin and eastern Pennsuco Wetlands to the Levee substation.

552. In the south portion of the West Divergence Area, MDLPA No. 3 follows the West Consensus/MDLPA No. 2 and FPL West

Preferred Corridors until it turns east along Southwest 100th Street, through residential, agricultural, and open/mining land uses.

553. In the south portion of the West Divergence Area, MDLPA No. 3 includes agricultural and rock mining areas as well as sawgrass marsh, native wetland hardwoods, and exotic wetland hardwoods. Wildlife habitat in this area is very limited.

554. The wildlife habitats within the central portion of MDLPA No. 3 in the West Divergence Area consist of agricultural areas adjacent to Krome Avenue and lower quality wetlands east of Krome Avenue. These areas include wetlands consisting primarily of freshwater marsh, wet prairie, and tree islands (many of which contain melaleuca).

555. The north portion of MDLPA No. 3 in the West Divergence Area crosses wetland habitat within the Bird Drive Basin and Pennsuco Wetlands. Some listed wading birds would be expected to forage in this area although no breeding colonies are known in this area. In the Bird Drive Basin, there is a mixture of some low-quality exotic wetland hardwoods, sawgrass marsh, and wet prairie wetlands; the corridors cross Tamiami Trail, and then enter the Pennsuco Wetlands in an area where there is a mixture of exotic wetland hardwoods, sawgrass marsh, and wet prairie. All of the corridors converge just to the west of the Levee substation.

556. The center and north portions of MDLPA No. 3 and NPCA Corridor in the West Divergence Area are generally overlapping. From the intersection of Southwest 100th Street and Southwest 177th Avenue/Krome Avenue, MDLPA No. 3 and NPCA Corridor move north following Krome Avenue/Southwest 177th Avenue and angle northeastward near Southwest 72nd Street to run through environmental preservation/wetlands, open lands, and rock mining lands, and near to residential lands. They are both located within the Bird Drive Basin in this area. From the Bird Drive Basin area, the corridors travel northward generally along the Dade-Broward Levee alignment to the Levee substation. A portion of MDLPA No. 3 is located within the County-designated North Trail Basin. The two corridors are both wide at this location, angling to the east through Bird Drive Basin wetlands to the Dade-Broward Levee alignment. In this area, they also generally overlap the West Consensus Corridor/MDLPA No. 2, which is the widest choice of corridors in this area.

557. The two corridors both cross the UEA and are the closest corridors to the UDB. They also cross the property owned by Limonar, which has yet-to-be finalized plans for future residential and mixed-use development of its 485-acre tract.

iii. NPCA Corridor

558. The NPCA Corridor deviates from the FPL West Preferred Corridor near Southwest 120th Street to the Levee

substation for approximately 15 miles. It turns eastward in the Southwest 120th Street area to Krome Avenue, where it turns northward along Krome Avenue, generally following MDLPA No. 3 to a point just west of the Levee substation, where the alternate corridors all converge.

559. The south boundary of the West Divergence Area is defined by the southern boundary of the NPCA Corridor. It turns eastward and encompasses an area on the south side of Southwest 120th Street, including land outside the Everglades National Park and south of the FPL West Preferred Corridor. Between Southwest 194th Avenue and Southwest 197th Avenue, the NPCA Corridor jogs northward to be within the FPL West Preferred Corridor. It then turns north to run for a short distance along the L-31N levee, and then eastward again along Southwest 112th Street, where it turns northward again at Southwest 177th Avenue/Krome Avenue. Like MDLPA No. 1 and MDLPA No. 3, the NPCA Corridor runs through predominantly agricultural areas/rock mining areas along Krome Avenue as well as the Bird Drive Basin overlay and the North Trail Basin overlay.

560. As noted above, in the central portion, the NPCA Corridor overlaps MDLPA No. 3 and thus has the same adjacent land uses. It also crosses the UEA as well as the property owned by Limonar, which has plans, although not yet final, for future residential and mixed-use development of this property.

561. The NPCA Corridor has similar ecology as MDLPA No. 3 in the southernmost part of the West Divergence Area but traverses more agricultural areas.

562. The center portion of the NPCA Corridor in the West Divergence Area, like MDLPA No. 3, consists of agricultural areas and wetlands, providing suitable habitat for a variety of common wading birds, mammals, fish, reptiles, and amphibians.

563. From an ecological perspective, the northern part of the NPCA Corridor within the West Divergence Area is also the same as MDLPA No. 3. Both traverse wetland habitat within the Bird Drive Basin, the North Trail Basin, and the Pennsuco Wetlands. Some listed wading birds would be expected to forage in this area although no breeding colonies are known for this area. In the Bird Drive Basin, there is a mixture of some low-quality exotic wetland hardwoods, sawgrass marsh, and wet prairie wetlands. The corridors cross Tamiami Trail, and then enter the Pennsuco Wetlands in an area where there is a mixture of exotic wetland hardwoods, sawgrass marsh, and wet prairie. All of the corridors converge just to the west of the Levee substation.

564. Wetlands to the east of the L-31N levee within the Bird Drive Basin and the Pennsuco Wetlands, in which MDLPA No. 3 and the NPCA Corridor traverse, are somewhat lower in quality

compared to wetlands located west of the L-31N canal, in which MDLPA No. 1 traverses.

565. In the north portion of the West Divergence Area, the West Consensus/MDLPA No. 2, MDLPA No. 1, and MDLPA No. 3 narrow as they approach the Levee substation, limiting the crossing of the Pennsuco Wetlands and adjacent land uses, while the NPCA Corridor remains wide from north of the North Trail Basin to the Levee substation.

#### 4. Western Transmission Line Construction and Design Standards

566. The location, construction, operation, and maintenance of the western transmission lines will comply with all applicable design standards. They will be located, constructed, operated, and maintained in a manner consistent with all applicable non-procedural regulatory standards; these standards are reflected in the Conditions of Certification, and FPL has committed to implementing those conditions. The entire construction process for the western transmission lines will take between four to five years.

567. Existing transmission lines and access roads in the certified corridor will first be assessed to determine whether they are suitable for construction and ongoing operation and maintenance activities for the proposed western transmission lines. If determined to be suitable, these features will be

used, which will minimize the need for new road construction in the area that could potentially impact wetlands or surface hydrology.

568. In the past, FPL has used the SFWMD's existing levees for access onto other projects and may seek to use these levees as access roads for this Project, which could further minimize the need for new access roads.

569. Where new access roads and structure pads are necessary, they will be constructed with clean fill material and unpaved. Access road and pad elevations will be established after a review of available drainage basin data, seasonal water elevations, and flow patterns. The final grade elevation of any necessary access roads and structure pads will be sufficient to ensure emergency access to provide at least 12 inches of clearance over seasonal or mean high-water levels or over controlled water levels in areas where water levels are regulated. The roads and pads will have two-to-one side slopes, which allows for a stable side slope. An 18-foot top width of the road is proposed to allow for large vehicular use during construction and maintenance. A variation on this width will occur in the southern portion of the corridor that is common to all of the western corridors proper for certification where the main plant construction temporary access road will be built over the location of the future permanent transmission line access

road. This wider plant access will also be used temporarily for transmission access. Once the plant construction is complete, the temporary additional width will be removed.

570. Where practicable, access roads and structure pads will be constructed outside of wetlands. Culverts will be installed under the access roads and structure pads as needed to maintain pre-construction flows. Culverts will be covered with at least two feet of clean fill to prevent them from being crushed by vehicles.

571. FPL will use sedimentation control devices to control erosion and turbidity, and will utilize stable, compacted fill material, along with seeding and mulching of side slopes, to minimize the potential for impacts to wetlands.

572. Transmission line construction includes material hauling, spotting, and structure erection. If multiple-piece structures are used for the western transmission lines (tubular steel poles installed on concrete caisson foundations), the augured holes will be approximately nine feet in diameter to accommodate the installation of concrete caisson foundations.

573. For the western 500-kV transmission lines, the typical span length will be approximately 1,000 feet between structures. For the west 230-kV transmission line, the typical span length from Clear Sky to the Levee substation area will be approximately 500 feet, and from the Levee substation area to

the Pennsuco substation, the typical span length will range from approximately 250 to 750 feet, following the alignment of the existing 230-kV transmission lines in that ROW.

574. Span lengths vary for several reasons. Sometimes a pole location is adjusted to avoid a tree canopy, wetland, or archaeological or historical site, or to coincide with property lines or the location of existing distribution poles that will be replaced. They can also be adjusted to accommodate the crossing of highways, water bodies, or other linear features.

575. The typical ROW width identified in the application to accommodate the three western transmission lines between the Clear Sky and Levee substations is approximately 330 feet, which for a majority of the length of the corridor comprises FPL's existing transmission line ROW. Between the Levee and Pennsuco substations the ROW will be approximately 170 feet, and the 230-kV transmission line will be mostly constructed within existing FPL transmission line ROWs, with the exception of the upland easement requested in a mining area.

576. FPL establishes a transmission line ROW through multiple means, such as the purchase of easement rights over affected parcels, property in fee simple, and for public ROW, the acquisition of longitudinal use permits and licenses for crossing permits.

577. Where FPL is not constrained to a 330-foot ROW, it may use its traditional 500-kV H-frame unguyed structures using a horizontal configuration. Use of such structures would allow greater span lengths between structures, potentially minimizing wetland impacts.

578. All of the western alternate corridors, including the West Consensus Corridor/MDLPA No. 2, cross property owned by state and federal agencies in the West Divergence Area east of the FPL West Preferred Corridor. FPL may not have the eminent domain authority to condemn all of the necessary rights in those government parcels.

579. No party presented evidence suggesting that undergrounding for any portion of the western transmission lines was appropriate for the proposed western transmission lines or that undergrounding was feasible for the western 500-kV transmission lines.

580. Construction of the Levee substation expansion will require clearing and grubbing the expansion area. Turbidity screens and other erosion control devices and techniques will be used to minimize construction impacts to nearby wetlands and water bodies. The expanded substation yard area will be excavated, filled with clean fill, graded, and rolled to match the existing substation yard elevation. The existing grounding

grid will be expanded and a new security fence around the expansion area will be installed.

581. After the substation expansion area is prepared, concrete caisson foundations will be installed for the new equipment using drilling rigs and large cranes. Once the foundations are complete, the new bus system, circuit breakers, switches, and other associated equipment will be installed.

5. Applicable Non-Procedural Requirements

a. Wetlands

582. The corridor selection process appropriately eliminated and reduced impacts to wetlands and waters of the state to the extent practicable, as required by applicable rules. First, FPL has eliminated consideration of the FPL West Secondary Corridor for this Project completely, despite having owned the ROW within this corridor for over 40 years. Second, assuming the West Consensus Corridor/MDLPA No. 2 can be feasibly and timely obtained, FPL's preference for the West Consensus Corridor/MDLPA No. 2 over the FPL West Preferred Corridor constitutes a substantial additional wetland impact elimination measure by moving a significant length of the lines in the West Divergence Area to the east side of the L-30 and L-31N levees and avoiding a central crossing of the Pennsuco Wetlands. Third, the FPL West Preferred Corridor and West Consensus Corridor/MDLPA No. 2 are co-located with existing disturbed

ROWS, with existing linear facilities and using existing access roads and infrastructure where available. The need for new access roads will be minimized in the West Consensus Corridor/MDLPA No. 2, due to the ability to use existing access.

583. Additional minimization of impacts will be incorporated throughout the entire certified corridor during final transmission line design. Locating the transmission lines within corridors allows flexibility in routing and additional wetland avoidance/minimization opportunities such as adjusting the location of structure pads and access roads, and/or adjusting the span lengths between structures.

584. No significant adverse effect on the abundance and diversity of wildlife is anticipated as a result of construction in any of the corridors proper for certification. Pre-clearing listed species surveys will be conducted. Most herbaceous and low-growing wetland vegetation will not need to be cleared. Construction practices in wetlands will retain the vegetative root mat in areas not filled, thereby minimizing impacts to wetland vegetation.

585. Impacts will be rectified or mitigated to the extent practicable by restoring wetlands within the ROW that are not directly impacted by structure or pad installation. Also, FPL has committed to controlling exotic vegetation within the entire ROW (both wetlands and uplands). Any remaining unavoidable

impacts will be fully compensated through the Hole-in-the-Donut Mitigation Bank and the Everglades Mitigation Bank.

586. These measures satisfy the state Environmental Resource Permit criteria and the County code criteria relative to wetland impacts.

587. Wetlands to the east of the L-31N levee within the Bird Drive Basin (where the West Consensus Corridor/MDLPA No. 2, MDLPA No. 3, and NPCA Corridor are located) are lower in quality compared to wetlands located west of the L-31N levee (where the FPL West Preferred Corridor and MDLPA No. 1 are located). They also experience more shallow inundation compared to wetlands to the west of L-31N levee, reducing the amount of wetland fill required to elevate proposed roads and transmission structure pads and the amount of mitigation required for the wetland impacts.

588. Construction, operation, location, and maintenance of the western transmission lines in any of the western corridors will not adversely impact the functions of wetlands or other surface waters from a wildlife perspective.

589. Restrictive clearing techniques will be employed in forested wetlands and sensitive pine rockland communities.

590. NPCA offered testimony regarding federal law and international treaties to underscore the importance of the Everglades National Park wetlands, including designation of part

of present-day Everglades National Park as a Wilderness Area (excluding the East Everglades addition) in 1978, designation of Everglades National Park as a world heritage site by the United Nations Educational, Scientific, and Cultural Organization in 1979, and inclusion of Everglades National Park among the Ramsar List of Wetlands of International Importance in 1987. However, all of these designations predated Congressional authorization of the Land Exchange.

591. In addition, the Everglades National Park Protection and Expansion Act of 1989 and the Water Resources Development Act of 2000, cited by NPCA witnesses, predated the negotiations and agreements, subsequently authorized by Congress, for the Land Exchange.

b. Avian Species

592. The western corridors were analyzed for their potential to impact avian species, including wading birds and the endangered wood stork and Everglade snail kite, since they are known to occur in the area.

593. There are no known current nesting sites for listed avian species within any of the western corridors, but there are wading bird colonies in the vicinity of the FPL West Preferred Corridor in the area of Tamiami Trail.

594. The USFWS has recommended primary and secondary protection zones with specific management restrictions in order

to minimize wood stork colony disturbance. Such recommended management restrictions for wood storks and their colonies would not prohibit placement of the proposed transmission lines in the FPL West Preferred Corridor or West Consensus Corridor/MDLPA No. 2.

595. The wood stork is known to nest in four colonies both south and north of Tamiami Trail and west of the FPL West Preferred Corridor. These colonies have been well documented for years and are known as the Tamiami East 1 and 2, Tamiami West, and 3B Mud East colonies. The NPCA Corridor and MDLPA No. 3 are the farthest from these colonies. The FPL West Preferred Corridor and MDLPA No. 1 fall within 1,500 feet of one of these colonies. The West Consensus Corridor/MDLPA No. 2 is located east of all of these colonies, and the closest colony (Tamiami East 1) is approximately one mile away from the closest corridor boundary. The West Consensus Corridor/MDLPA No. 2 falls outside the recommended primary (500 to 1,500 feet) and secondary (2,500 feet) management zones for the wading bird colonies published by the USFWS. No known listed species have been recorded in the West Consensus Corridor/MDLPA No. 2, MDLPA No. 3, or NPCA Corridor, but it could be expected that listed species would utilize portions of those corridors.

596. The primary and secondary management zones for these colonies are flexible and much smaller management zones may be

applied, as was done for the Tamiami Trail Modifications: Next Steps Project near the West Preferred Corridor. Three wood stork nesting colonies are located along Tamiami Trail to the west of the western corridors. One colony (3B-Mud East) is located farther north, to the west of L-30 levee. The FPL West Preferred Corridor crosses only portions of the secondary management zones for the Tamiami East 1 and 3B-Mud East colonies. None of the other western corridors cross either a primary or secondary management zone of a wood stork colony.

597. None of the Everglade snail kite's critical habitat areas, as designated by the USFWS, are crossed by any of the western corridors. The closest critical habitat area is over ten miles to the west, and not "in close proximity," as suggested by NPCA.

598. Although some parties contend otherwise, the record establishes there will be no adverse impacts on avian species, including listed species such as the wood stork and Everglade snail kite. In all of the corridors proper for certification FPL will implement design features to protect avian species. These include: (1) wide spacing of the energized conductors to avoid birds touching two conductors simultaneously, which is the manner in which many avian electrocutions on power lines occur; (2) perch discouragers on every pole; and (3) bird flight

diverters on all of the spans on the overhead or ground wires within one-half mile of any wood stork colonies.

599. FPL has agreed to comply with very specific wood stork and Everglade snail kite conditions of certification proposed by FWC. These are sufficient to protect the species.

600. The location, construction, operation, and maintenance of the proposed transmission lines in the western transmission line corridors will not adversely impact the ecological value of uplands to aquatic or wetland-dependent listed avian species for enabling existing nesting by these species because the upland areas to be affected are of low value to wetland-dependent species.

601. FPL's APP outlines specific design and construction standards for distribution and transmission lines, substations, and other avian mortality reduction methods. These standards are designed to avoid and minimize potential bird impact issues such as electrocutions and collisions, as well as avian enhancement activities that can provide benefits to birds from FPL structures and activities. These steps should resolve the concerns expressed by NPCA at hearing.

602. The APP also provides FPL managers and field personnel with a single, accessible information resource describing avian protection background issues, relevant bird species, potential impact issues, applicable federal, state, and

local regulatory context, key resources and contacts for bird issue responses, and FPL responsibilities.

603. The APP also outlines specific training, response, reporting, and quality control protocols to ensure that FPL personnel are adequately prepared for responding to potential bird impact issues, focusing on bird mortality, injury, or nesting incidents, and on key potentially affected listed bird species, as well as personnel safety procedures to be implemented during responses to bird impact situations.

604. In light of these measures to be implemented, FPL has provided reasonable assurances that avian species in the region are unlikely to suffer electrocution from or collision with the transmission lines.

605. The location, construction, operation, and maintenance of the proposed transmission lines in any of the western corridors will not adversely impact wood storks. There will be no loss of nesting habitat as a result of the proposed transmission lines, any loss of wood stork foraging habitat will be fully mitigated, and there will be minimal to negligible exposure of wood storks to risk of electrocution as a result of the western transmission line corridors. There will be only a small risk of a wood stork collision with the transmission lines because their large wings enable them to fly slowly with higher maneuverability. Any risk will be further minimized by use of

flight diverters. While it is assumed juvenile wood storks are poorer flyers than adults and may be more susceptible to collisions, there has never been a documented case of a juvenile wood stork colliding with a transmission line. The period of exposure of young wood storks to hazards around the colony is very short, as they leave the colony within about 48 hours after fledging.

606. The location, construction, operation, and maintenance of the proposed transmission lines in the western transmission line corridors will not adversely impact Everglade snail kites. While the Everglade snail kite is known to occasionally forage within parts of some of the western transmission line corridors, the area currently lacks apple snails, which are the Everglade snail kite's primary food source. If apple snails were to return, however, Everglade snail kites could also return. Everglade snail kite foraging and nesting behavior is compatible with transmission facilities and habitats under transmission lines, so no impacts to Everglade snail kites are expected. By virtue of their flight morphology and behavior, Everglade snail kites are not likely to be exposed to any risk of electrocution or collision mortality from the transmission lines.

607. With respect to all other listed avian species, habitat loss will be minimal to negligible because they will be

restricted to a minor loss of foraging habitat for some wetland-dependent species with no significant adverse effect on the population, and this habitat loss will be fully mitigated. There is no risk of electrocution from the proposed transmission lines, as the separation of energized parts exceeds the maximum wingspan or bill tip to foot length of all listed bird species potentially occurring within the area. While some listed species will be exposed to risk of collision with the lines, this risk will be relatively small and is not likely to affect any populations.

608. In light of the APP and other protection measures described above, the location, construction, operation, and maintenance of the proposed transmission lines in any of the western transmission corridors proper for certification will be consistent and in compliance with FWC regulations related to the protection of threatened and endangered avian species, as well as the Migratory Bird Treaty Act of 1918, as amended. More strict measures than those imposed by the FWC, or described in the APP, are not necessary.

609. The location, construction, operation, and maintenance of the proposed transmission lines in the western transmission line corridors will not impact the values of wetland or other surface water functions so as to cause adverse impacts to the abundance and diversity of any listed avian

species because all wetland impacts will be mitigated consistent with applicable regulations and the approved mitigation plan.

610. No adverse impact to the conservation of birds or their habitats, including endangered and threatened species, is expected. Impacts on birds, including listed species and their habitats, have been avoided and minimized through the siting of the corridors and design of the transmission lines. The risks to avian species are small and all impacts will be fully mitigated.

611. The location, construction, operation, and maintenance of the proposed transmission lines in the western transmission line corridors will not cause adverse secondary impacts to avian species.

612. The location, construction, operation, and maintenance of the proposed transmission lines in the western transmission line corridors will not adversely impact the population of any threatened or endangered avian species.

613. The location, construction, operation, and maintenance of the proposed transmission lines in any of the western corridors proper for certification will not prevent the preservation of avian species.

614. Through the use of reasonable and available methods, the location, construction, operation, and maintenance of the proposed transmission lines in any of the western corridors

proper for certification will minimize any adverse effects on avian species and their habitats. FPL has committed to taking a variety of steps to minimize any potential adverse impacts on avian species and their habitats including the siting of corridors, avian-protection design features and construction standards, and mitigation.

615. From an avian perspective, FPL's mitigation will fully compensate for any functions that may be lost on environmentally sensitive lands as a result of the location, construction, operation, and maintenance of the proposed transmission lines.

616. The location, construction, operation, and maintenance of the transmission lines will comply with all applicable non-procedural requirements related to protection of avian species, including listed avian species and their habitat.

c. Non-Avian Wildlife Species

617. Impacts of location, construction, operation, and maintenance of the transmission lines on non-avian wildlife were also evaluated and specifically included evaluations of potential impacts to the Florida panther, Eastern indigo snake, and the American crocodile, since they are listed species known to occur in the area.

618. In all of the corridors within the west study area, the potential for adverse impacts to any wildlife species,

including listed species, is low. Care was taken in the corridor routing to avoid and minimize proximity to known listed species locations. Listed species pre-clearing and construction surveys will be conducted. Prior to conducting surveys, FPL will coordinate with the FWC and USFWS to obtain and follow the current survey protocols, as memorialized in the FWC-recommended conditions of certification to which FPL has agreed to comply in any of the western corridors.

619. The ecological value of the uplands to wetland-dependent listed species for nesting and denning will not be adversely affected by location, construction, operation, and maintenance of the western transmission lines in any of the western corridors.

620. The location, construction, operation, and maintenance of the proposed transmission lines in any of the western transmission line corridors will not have an adverse effect on the abundance and diversity of wildlife, including listed species, because all corridors offer flexibility in locating the ROW to avoid site-specific listed species locations, all corridors will be required to comply with conditions of certification requiring pre-clearing and construction surveys, and all wetland impacts will be mitigated.

621. Construction of the proposed transmission lines in any of the western corridors proper for certification, or any

portion thereof, will not have a significant adverse effect on fish habitat or the abundance or diversity of fish.

622. The location, construction, operation, and maintenance of the proposed transmission lines in any of the western corridors will not adversely affect the conservation of fish and wildlife populations, including endangered and threatened species, or their habitats; will not adversely affect the fishing or recreational values or marine productivity in the vicinity; will not adversely impact the functions of wetlands or other surface waters from a wildlife perspective; and will not adversely impact the ecological value of uplands to non-avian aquatic or wetland dependent listed animal species for nesting and denning. Construction, operation, location, and maintenance will comply with all of the conditions proposed by FWC and all agency substantive requirements.

623. In light of the proposed protective measures and the proposed mitigation, the location, construction, operation, and maintenance of the proposed transmission lines in any of the western corridors will not cause adverse secondary impacts to fish and wildlife; will not adversely affect the fishing or recreational values or marine productivity in the vicinity; and will not adversely impact the functions of wetlands or other surface waters from a wildlife perspective.

i. Panthers

624. The proposed western transmission line corridors are within the extreme southeastern area of the range of the Florida panther in south Florida. All western corridors fall partially within the panther primary zone and partially within the panther secondary zone.

625. Florida panthers have been recorded in the area of the proposed western transmission line corridors. There is, however, a very low likelihood that panthers would actually occur in the area during construction.

626. There are positive benefits that accrue to Florida panthers and their habitat and prey associated with the placement of transmission lines within panther habitats. Therefore, the transmission lines will not result in the loss of panther habitat or adverse impacts to the panther.

627. FPL has proposed protection measures for Florida panthers in the unlikely event they would occur in the transmission line ROWs, including training of construction personnel and unannounced inspections. FPL has also agreed to FWC-proposed protection measures for Florida panthers. Those protection measures are sufficient to prevent adverse impacts to Florida panthers from the location, construction, operation, and maintenance activities associated with the proposed western transmission lines.

628. The location, construction, operation, and maintenance of the transmission lines will comply with all applicable non-procedural requirements related to protection of Florida panthers.

ii. Eastern Indigo Snakes

629. Eastern indigo snakes have not been observed in the western corridors. The location, construction, operation, and maintenance of the transmission lines will comply with all applicable non-procedural requirements related to protection of Eastern indigo snakes.

d. Hydrologic Considerations

630. New access roads, structure pads, and stormwater discharges during construction in any of the western corridors proper for certification have the potential to impact surficial hydrology. NPCA contends that FPL's current proposal to construct culverts in its preferred corridors will stop sheet flow, the proposed roads and structure pads will disrupt water flow, and this will adversely affect the hydrological resources of the Everglades National Park. For the following reasons, these concerns are not well-founded.

631. Where new access roads are needed or upgrades are required to accommodate construction vehicles, those access roads will be unpaved and constructed using clean fill. Culverts will be included in wetland areas to maintain channel

flow and overland flow. Culverts are also expected to be used under structure pads where required to maintain existing surface flows. These culverts would help to equalize water volume and maintain pool equilibrium.

632. The spacing, diameter, and length of the culverts for access roads and structure pads will be based on hydrological studies that will be conducted post-certification, where final project elements are reasonably expected to impact surface or groundwater. Any culverts will comply with applicable conditions of certification. A combination of different culvert sizes is expected to be used. The design will be dictated depending on where the corridor is located and the amount of water that will need to be managed, among many different criteria. Typically, culverts installed in wetlands are designed so the bottom of the culvert will match the wetland floor elevation.

633. The proposed western transmission lines will comply with applicable agency non-procedural requirements, including requirements of the County, SFWMD, and Department, as well as SFWMD ROW Occupancy Permit Criteria. In particular, the conceptual design specified by FPL in its application will maintain surface water flows and will not result in ponding or flooding.

634. The location, construction, operation, and maintenance of the proposed western transmission lines will comply with applicable Department non-procedural environmental resource permitting criteria and other non-procedural requirements.

635. Based upon the conceptual design specified by FPL in its application, the design of the roads and structure pads will incorporate drainage features such as culverts to allow the free flow of water. The function of culverts is to allow water to flow freely without impeding natural systems. The design used for the western transmission lines will ensure that culverts maintain equilibrium of water on both sides of roads and structure pads.

636. FPL will also implement and maintain erosion and sediment control devices and best management practices such as silt fences, hay bales, erosion control blankets, and turbidity screens.

637. FPL proposes to conduct hydrologic studies if the final project elements are reasonably expected to impact surface or ground water to ensure that any impacts associated with hydrology, water quality, and water supply will be avoided and minimized.

638. FPL has committed to a flowage easement that would maintain existing sheet water and allow for future improvement

of surface water flows across the transmission line ROW located within the Biscayne Bay Coastal Wetlands CERP Project study area boundaries, which traverse the Turkey Point-U.S. Highway 1 section of the western transmission corridors.

639. FPL has proposed specific design measures to protect surficial hydrology of the Wink Eye Slough and the Northeast Shark River Slough. These sloughs are unique environmental features. The Wink Eye Slough traverses the west corridors in the Turkey Point-U.S. Highway 1 Section, common to all the west corridors. The eastern edge of the Northeast Shark River Slough is within the FPL West Preferred Corridor and West Consensus Corridor/MDLPA No. 2 in the L-31N levee portion of the West Divergence Area. The predominant hydrologic flow of the Northeast Shark River Slough occurs west of the L-31N levee. FPL will design the transmission line access roads and structure pads to avoid sheet flow impacts to these sloughs, considering design alternatives such as culverts, stabilized at-grade roads, geoswales, or other techniques to maintain the sheet flow in compliance with applicable non-procedural requirements.

e. CERP

640. The location, construction, operation, and maintenance of the proposed western transmission lines in any of the western corridors proper for certification are not

inconsistent with CERP Projects or the overall objectives of CERP.

641. FPL demonstrated that the western transmission line structures and access roads will be designed and constructed in any of the western corridors in such a manner as to maintain surface flows and sheet flow, and no flood hazards will be created as a result of the transmission lines or access roads. Access roads will be properly culverted and appropriately constructed so as to maintain drainage and manage water quality and will not interfere with sheet flow or the higher water levels anticipated as a result of CERP implementation. The transmission line structures and access roads will not negatively impact the quality, quantity, or timing of the distribution of water. Given these considerations, a contention that the West Consensus Corridor/MDLPA No. 2 or back-up West Preferred Corridor will negatively affect the CERP Modified Water Deliveries Project, or specific goals and objectives of the CERP Yellow Book (the blueprint for Everglades restoration), is rejected.

642. FPL has submitted flowage easements to the County for review in accordance with Condition 17 of County Resolution Z-56-07.

f. East Everglades Area of Critical Environmental Concern

643. The County has a zoning overlay district known as the East Everglades Area of Critical Environmental Concern (EEACEC) that comprises approximately 242 square miles, part of which is within the Everglades National Park. See ch. 33B, MDC. A portion of the corridor common to all western corridors crosses the EEACEC south of Southwest 120th Street. In the West Divergence Area, the FPL West Preferred Corridor and portions of the West Consensus Corridor/MDLPA No. 2 and MDLPA No. 1 follow the extreme eastern edge of the EEACEC where they travel along the L-31N levee. The EEACEC's northern boundary is Tamiami Trail. The remaining alternate corridors are not located within the EEACEC in this area.

644. For parcels within the EEACEC zoning overlay district, additional restrictions apply to development to ensure, singly or cumulatively, no adverse effects on the hydrologic or ecologic integrity of the east Everglades. See ch. 33B, MDC. For the reasons set forth in the Conclusions of Law, these EEACEC restrictions do not apply to transmission lines.

645. Notwithstanding the inapplicability of these restrictions, the evidence establishes that the location, construction, operation, and maintenance of the western transmission lines in corridors traversing the EEACEC in

compliance with the agreed-upon conditions of certification will maintain existing flows and water quality and will not have an adverse impact on natural flow of water or cause a change in water quality or quantity in the adjacent Everglades National Park.

646. The location, construction, operation, and maintenance of the western transmission lines in any portion of the EEACEC likewise would not have an adverse impact on wetland flora and fauna within the adjacent Everglades National Park or cause material injury to wetland ecology on adjoining lands or on portions of the ROW not proposed for placement of the transmission lines. For example, FPL has committed to employ best management practices during construction to avoid sedimentation and undertake exotic vegetation control within the ROW.

g. Bird Drive Everglades Wetland Basin and North Trail Basin

647. The County has two environmental districts within portions of the proposed western transmission line corridors, which have been adopted in chapter 24, MDC. The Bird Drive Everglades Wetland Basin (Bird Drive Basin) is located south of Tamiami Trail and east of Krome Avenue. The North Trail Basin is located north of Tamiami Trail and approximately two miles east of Krome Avenue.

648. Sections 24-48.20 and 24-48.21 require that all work within the Bird Drive Basin or the North Trail Basin must be consistent with the Land Management Plan to ensure the maintenance of biological resources in that area. Those provisions call for minimizing impacts to flood drainage; minimizing impacts to water storage capacity and Biscayne Aquifer recharge; and maintaining desirable biological values, or mitigating for loss of such values.

649. A portion of the West Consensus Corridor/MLDPA No. 2, MDLPA No. 3, and the NPCA Corridor traverse the Bird Drive Basin and North Trail Basin. The West Consensus Corridor/MDLPA No. 2 traverses a short distance of the northern portion of the Bird Drive Basin and the westernmost edge of the North Trail Basin. MDLPA No. 3 and the NPCA Corridor traverse a significant portion of the Bird Drive Basin and the western edge of the North Trail Basin. The FPL West Preferred Corridor and MDLPA No. 1 are not located within the Bird Drive or North Trail Basins.

650. The western transmission lines will not cause impacts to flood drainage, will minimize impacts to water storage capacity and Biscayne Aquifer recharge, and will allow the areas to maintain desirable biological values. The location, construction, operation, and maintenance of the western transmission lines in any portion of the Bird Drive Basin or

North Trail Basin will not cause any unmitigated impacts to wetlands.

651. The placement of the western transmission lines in any of the western corridors within the Bird Drive Basin and North Trail Basin will be compatible with the County's land management plans for those areas.

h. Natural Forest Communities

652. Two NFCs are located in the section of the western corridors between U.S. Highway 1 and Southwest 120th Street, a section that is common to all the western corridors. In accordance with Condition 20 of County Resolution Z-56-07, FPL will minimize impacts to NFCs in the western corridors consistent with the NFC standards and requirements of chapter 24, MDC. FPL has agreed to a stipulation and associated conditions with the County to not place any structures within the edge of the Sunny Palms NFC, which is included in the western transmission line corridors. For the Kings Highway Pinelands NFC, FPL already has an existing easement and transmission line crossing in this area. Additional vegetation clearing and construction for the certified facilities will occur only in accordance with the stipulated conditions applicable to NFCs.

i. Use of SFWMD ROW, Crossings, and Levees

653. FPL's proposed western transmission lines will cross several SFWMD canals and may use a portion of SFWMD ROW linearly along the L-31N and L-30 levees. The proposed western transmission lines also involve the crossing of SFWMD bridges. Crossings of SFWMD canals and crossing or use of SFWMD levees and bridges will be required for all western corridors.

654. The FPL West Preferred Corridor traverses or runs longitudinally with the following SFWMD facilities: L-31E canal, C-113 canal, C-103 (Mowry) canal, C-102 (Princeton) canal, L-31N canal, C-1W (Black Creek) canal, C-4 (Tamiami) canal, L-29 Borrow Enlargement, and L-30N canal.

655. The FPL West Preferred Corridor or West Consensus Corridor/MDLPA No. 2 may use SFWMD levees L-31N, L-30, and L-29 for access during construction, operation, and maintenance. MDLPA No. 1, MDLPA No. 3, and the NPCA Corridor may also require the crossing of several SFWMD facilities including canals and levees. The location, construction, operation, and maintenance of the proposed transmission lines will not interfere with the present construction, alteration, operation, or maintenance of the works or lands of the SFWMD that are crossed. While parallel runs have a potential for interfering with the District's operation and maintenance of its system, it is possible to accommodate transmission lines with site-specific

configurations. Transmission lines have been successfully designed and constructed within SFWMD ROW previously.

656. The location, construction, operation, and maintenance of the proposed transmission lines will not interfere with proposed future construction, alteration, operation, or maintenance of the works or lands of the SFWMD that are crossed. This applies only to proposed future construction, alteration, operation, or maintenance known at the time of FPL's project design.

657. The proposed transmission lines within SFWMD lands will not result in damage from soil erosion.

658. Structural integrity of bridges crossed by vehicular traffic will be certified by a professional engineer registered in the State of Florida.

659. Before FPL's use of levees for construction and maintenance access, FPL will coordinate with the SFWMD Right-of-Way Department to develop a plan for compatible use of these facilities.

660. Any improvements within the associated canal ROWs will maintain the structural integrity of the levee(s) at a level as good as or better than the conditions in existence immediately prior to commencement of FPL's work activities.

661. All activity within SFWMD ROWs will be conducted consistent with applicable SFWMD non-procedural requirements and

will be consistent with the development and regulation of dams (or levees) and other works to provide water storage for beneficial purposes.

662. The western transmission lines will not adversely affect the levees or other works crossed or paralleled by the transmission lines; unduly burden SFWMD interests; contribute to damage from floods, soil erosion, or excessive drainage; affect disease-carrying vectors and pests so as to impact public health and welfare; or have adverse effects on human health or waters of the state.

663. SFWMD has stipulated to the use of its ROWs in whichever corridor is ultimately approved for certification, provided the Conditions of Certification in Attachment 1 to this Recommended Order are met.

664. FPL has agreed to accept the conditions of certification offered by SFWMD, and FPL has demonstrated that the conditions offered by SFWMD relating to ROW occupancy permits will be met.

j. Upland Easement

665. The 230-kV segment of the western transmission lines that is common to all western corridors proper for certification includes an approximately four-acre parcel of state-owned uplands. The parcel is adjacent to an existing FPL transmission line ROW through previously mined areas east of Levee substation

and northwest of the intersection of Doral Boulevard and the Homestead Extension of the Florida Turnpike. The area is currently subject to a commercial mining lease and is a limerock mine. FPL has requested that the Siting Board direct the Board of Trustees to issue an upland easement for this approximately four-acre parcel through this proceeding.

666. The upland easement over this narrow strip is required for the Clear Sky-Pennsuco 230-kV transmission line in order to comply with EMF standards and to accommodate conductor swing out in high winds. No construction will occur within the upland easement.

667. The narrow strip of uplands for which FPL is seeking an easement from the state is between two rock mine pits and currently used as a berm access road by mining operations. It has limited value to wildlife. All of the western corridors must use this same segment.

668. FPL will undertake all activities on the upland easement in accordance with best management practices. Placement of the proposed transmission line in the area of the requested upland easement over state lands will not have adverse impacts on conservation, the environment, natural resources, wetlands, or fish and wildlife values.

669. If the easement is not obtained, FPL could still construct the proposed line, but that would involve

reconstructing two of the existing transmission lines to make adequate space within FPL's existing ROW, and it may be very difficult to get the extended transmission line outages that would be required to reconstruct those facilities.

670. Grant of the easement is not contrary to the public interest, as the area is already subject to a commercial mining lease and is a limestone mine. There is a clear public need for the Project, and there are no reasonable alternative locations. The public does not use the area to be covered by the upland easement.

k. General Considerations

671. The evidence establishes that the structural integrity of bridges, dams, or levees will not be affected by construction or operation of the western transmission lines; the lines will not cause damage from soil erosion; they will not cause or contribute to flood damage or excessive drainage; they will not affect disease-carrying vectors and pests so as to impact public health and welfare; and they will not have other adverse effects on human health or water resources.

672. The location, construction, operation, and maintenance of the western transmission lines in accordance with the conditions of certification will comply with applicable noise regulations and will not have an adverse impact on air quality.

673. The western transmission lines will comply fully with the applicable Department standards for EMF from transmission lines.

674. The location, construction, operation, and maintenance of the proposed transmission lines in any of the western transmission line corridors proper for certification will not adversely impact archaeological or historic structures, sites, or resources. There is no material difference between the western transmission line corridors proper for certification in terms of impacts to cultural resources and archaeological and historic sites.

675. All of the western corridors provide sufficient access to the proposed transmission lines, either via existing public roads, existing FPL access roads, or through the use of access corridors to ensure suitable access. All of the alternate corridors east of the L-31N and L-30 levees provide flexibility for access because there will be multiple opportunities for access on public roadways along those routes.

676. There will be no adverse traffic impacts from construction of the proposed transmission lines in any of the western corridors. The western corridors are compatible with DOT and Miami-Dade Transit long-range plans.

677. If constructed within any of the corridors proper for certification, the proposed western transmission lines will

comply with the applicable non-procedural requirements of the local governments in which they will be located. These applicable non-procedural requirements include the requirements of Florida City, Doral, Medley, and the County that FPL: (1) construct and maintain transmission lines in accordance with FPL's customary practice; (2) ensure that its transmission lines do not unreasonably interfere with traffic on public ROW or reasonable egress from and ingress to abutting property; (3) ensure that transmission lines be located as close to the outer boundary of public ROW as practicable, or as agreed with the local government; and (4) repair or restore any damage to public ROW caused by construction or maintenance of transmission lines.

678. Impacts to wildlife habitat and listed species in any of the western corridors will be avoided, minimized, and mitigated. All of the western transmission line corridors proper for certification are appropriate for placement of the proposed western transmission lines from a wildlife perspective.

679. The evidence establishes that all of the five western corridors proper for certification meet the criteria for certification set forth in section 403.509(3).

#### 7. Corridor Comparison: Least Adverse Impacts Including Costs

680. As found above, the multidisciplinary team evaluated the various proposed western transmission line corridors based

on a theoretical centerline of the transmission lines through the middle of each corridor, with the centerline adjusted as needed to avoid certain obstacles. The comparative evaluation also assumed use of a ROW obtained through the implementation of the Land Exchange. For the NPCA Corridor, FPL evaluated both the alignment as proposed by NPCA and an adjusted centerline based on FPL's expertise as more feasible than that proposed by NPCA, to allow for a more equitable comparison.

a. Environmental Comparisons

681. Within the West Divergence Area, the FPL West Preferred Corridor would impact a maximum of 137 wetland acres, although these figures will likely be significantly reduced through FPL's final transmission line design process. The West Consensus Corridor/MDLPA No. 2 would impact no more than 122 wetland acres. The wetland ecology in both corridors is generally similar, as is the estimated acreage of wetland impact. Wetland quality in both corridors ranges between 0.70 and 0.80 as measured by UMAM.

682. Within the West Divergence Area, MDLPA No. 1 and MDLPA No. 3 would impact up to 138 or 104 wetland acres, respectively, and those wetlands range in quality from 0.70-0.80 (MDLPA No. 1) to 0.60-0.80 (MDLPA No. 3).

683. Using either centerline alignment, the NPCA Corridor would impact up to 91 wetland acres, ranging in quality from 0.60 to 0.70.

684. Construction of the proposed transmission lines within the NPCA Corridor would traverse lower quality wetlands and require a smaller amount of mitigation to offset unavoidable wetland impacts, as compared to the other proposed western corridors.

685. In the certification analysis required by section 403.509, wetland impacts are only one factor of a multi-faceted analysis. Determination of the appropriate corridor for certification is a balancing of the criteria, and impacts to wetlands or other natural resources are not the only factors in the analysis. See § 403.509(3), Fla. Stat.

686. From a surficial hydrology perspective, there is no material difference between any of the western corridors proper for certification, because each corridor can be engineered to maintain sheet flow and other surface water flow. However, the amount of engineering that would be required to maintain sheet flow in each area and the level of complexity involved differs between the corridors. The FPL West Preferred Corridor, MDLPA No. 1, and West Consensus/MDLPA No. 2 would require equivalent levels of surficial hydrology engineering. MDLPA No. 3 and the

NPCA Corridor would involve the least surficial hydrology engineering.

687. The potential for adverse unmitigated impacts to listed species is equally low within the FPL West Preferred Corridor and MDLPA No. 1, and lower in the West Consensus Corridor/MDLPA No. 2, MDLPA No. 3, and the NPCA Corridor.

688. From the perspective of PHUs, the NPCA Corridor would require the least panther mitigation credits (7), followed by MDLPA No. 3 (76), West Consensus Corridor/MDLPA No. 2 (207), MDPLA No. 1 (288), and FPL West Preferred Corridor (374). While PHUs are one metric for comparing potential habitat impacts, there is no material difference in any of the western corridors from a Florida panther perspective. Florida panthers are not adversely affected by, and may even benefit from, the presence of transmission lines.

689. There is no material difference among the western corridors with respect to potential impacts to American crocodiles or Eastern indigo snakes or their habitats.

690. The presence of the Everglades National Park was considered in the comparison of the alternate corridors and in the selection of the FPL West Preferred Corridor because it potentially harbors more listed wildlife species and is the subject of various government-funded restoration projects.

691. From a wildlife habitat standpoint, the FPL West Preferred Corridor and MDLPA No. 1 are about equivalent, with West Consensus Corridor/MDLPA No. 2, MDLPA No. 3, and the NPCA Corridor ranked as somewhat more desirable. However, in all of the western corridors proper for certification, the potential for adverse impacts to any wildlife species, including listed species, is low, given the pre-clearing listed species surveys and construction methods to be employed that serve to avoid and minimize impacts, as discussed above. FPL's wildlife experts do not see a significant difference in impact between the corridors from a wildlife perspective, and FWC recommends the identical wildlife conditions of certification for all western transmission line corridors.

692. In the FPL West Preferred Corridor and MDLPA No. 1, the potential for adverse impacts to any wildlife species is low. In any of the other proposed western alternate transmission line corridors, that potential is lower.

b. Land Use Comparison

693. The proposed western transmission lines in any of the western corridors will be compatible with adjacent land uses and consistent with the communities' priorities and preferences as reflected in the comprehensive plans and land development regulations. However, it is desirable from a land use perspective to be further from residential and urban land uses.

694. FPL balanced proximity to both existing and planned urban development/adjacent land use considerations, engineering considerations, and environmental considerations/effect on environmentally sensitive areas in comparing the western transmission line corridors and attempted to achieve the best balance of all of those considerations in selecting its preferred corridors. The presence of the Everglades National Park was one factor in the analysis. In contrast, NPCA and the County reviewed and considered primarily environmental impacts in proposing and comparing the various western corridors or assessing corridor impacts.

695. FPL assessed the visibility of the proposed transmission line structures from various vantage points. NPCA did no comparative visual impact analysis, including no assessment of visual impacts to Everglades National Park visitors. The County assessed only whether the proposed lines would be visible from Management Area 1, also known as the 8.5 Square Mile Area.

696. The west transmission line structures placed in any of the western corridors proper for certification would not be visible to visitors at the Everglades National Park Shark Valley Visitor's Center Observation Tower, which is approximately 16.7 miles west of the L-31N levee. At an airboat vantage point within Everglades National Park approximately 3.44 miles west of

the L-31N levee, existing structures in the area, such as the Miccosukee Indian Casino and numerous radio and cell towers, are visible, but the proposed transmission lines in the closest corridor proper for certification (the FPL West Preferred Corridor) would be barely visible on the horizon.

697. Transmission lines are not uncommon in rural areas. The location, construction, operation, and maintenance of the proposed western transmission lines in the west alternate corridors will not cause significant adverse effects to scenic or recreational values.

698. In the West Divergence Area, the FPL West Preferred Corridor is the farthest away from any urban or residential areas, minimizing potential for conflicts with adjacent land uses. The greater the distance a residence is from a transmission line, the likelihood of the visibility of that transmission line is reduced. Along the L-31N levee/Land Exchange area, there are three buildings within 500 feet of the FPL West Preferred Corridor centerline, one of which is residential. The FPL West Preferred Corridor is predominantly within existing ROWs or runs along existing linear features and would require crossing 49 individual parcels or lots throughout its length.

699. Regarding the number of buildings within 500 feet of the corridor centerline for the various corridor alignments, the

MDLPA No. 1 centerline has three buildings, one of which is residential; the West Consensus Corridor/MDLPA No. 2 centerline and the MDLPA No. 3 centerline each have nine buildings, two and four of which are residential, respectively; the NPCA Corridor recommended centerline has five buildings, all of which are residential; and the NPCA Corridor adjusted centerline has seven buildings, six of which are residential. The two NPCA Corridor centerline route alignments considered by FPL are close to urban areas. MDPLA No. 1 centerline would require FPL to cross 45 separate parcels, while the West Consensus Corridor/MDLPA No. 2 centerline would require crossing of 63 parcels, although some of these private parcels are owned by mining companies who may be amenable to land donations if the West Consensus Corridor/MDLPA No. 2 is certified. MDLPA No. 3 centerline, the NPCA Corridor recommended centerline, and the NPCA Corridor adjusted centerline would require the crossing of 96, 108, and 104 individual parcels, respectively. The higher the number of parcels to be crossed, the higher the acquisition costs will be.

700. In considering the number of buildings in proximity and the number of parcels crossed, the West Consensus Corridor/MDLPA No. 2, FPL West Preferred Corridor, and MDLPA No. 1 rank equally. MDLPA No. 3 and both of the NPCA Corridor centerline alignments ranked as the least desirable when considering these two land use factors.

701. MDLPA No. 1, like the FPL West Preferred Corridor, follows along existing levees for a good portion of its length (11.1 miles); West Consensus Corridor/MDLPA No. 2 and MDLPA No. 3 follow 8.3 and 4.8 miles of linear features, respectively, while the two NPCA Corridor route alignments would follow 7.1 or 5.9 miles of such features, respectively. The ability to collocate with existing linear features is important from a land planning perspective, as linear features serve as a seam between land uses and avoid or minimize potential conflicts with adjacent land uses, in addition to minimizing impacts to wildlife and wildlife habitat. There is also an efficiency to be gained by collocating in an existing utility ROW in terms of maintenance.

702. Accordingly, MDLPA No. 1 and the FPL West Preferred Corridor rank as the "most desirable" in terms of the ability to co-locate the new transmission lines with existing linear features in the landscape and thereby minimize potential adverse land use impacts. The West Consensus Corridor/MDLPA No. 2 Corridor and the remainder of the proposed western transmission line alternate corridors ranked as less desirable for this aspect, although in no case would the transmission lines change the land uses within the corridor.

703. FPL's multidisciplinary team expressly considered whether and how much of a corridor was located in conservation

lands, and in particular, the Everglades National Park. The FPL West Preferred Corridor does not traverse the wetlands comprising the Bird Drive Basin or the North Trail Basin. In contrast, the other western transmission line alternate corridors impact either Bird Drive Basin or North Trail Basin wetlands, with MDLPA No. 1 impacting 0.11 acres, West Consensus Corridor/MDLPA No. 2 impacting 2.27 acres, and MDLPA No. 3 and the two NPCA Corridor alignments impacting between 4.81 and 5.92 acres of wetlands, respectively, in these basins. The West Consensus Corridor/MDLPA No. 2, MDLPA No. 3, and NPCA Corridor avoid most or all of the Pennsuco Wetlands. None of the corridors traverse the Everglades National Park.

704. The FPL West Preferred Corridor is located primarily along the L-31N levee, which represents a seam between conservation uses of the Everglades National Park and more developed land uses to the east. Around 4.8 miles will be located in conservation lands. MDLPA No. 1 also has 4.8 miles in conservation lands, and MDLPA No. 3 and the NPCA Corridor alignments range between 3.8 and 4.1 miles in such lands. In contrast, the West Consensus Corridor/MDLPA No. 2 has only 2.8 miles of its length in conservation lands.

705. The Land Exchange would give FPL fee simple or easement rights over a contiguous ROW within the West Preferred Corridor as well as portions of MDLPA No. 1 and West Consensus

Corridor/MDLPA No. 2. Those rights are contingent on the Land Exchange occurring. This would leave no ROW to be acquired over government-owned parcels in the FPL West Preferred Corridor. If the Land Exchange occurs, MDLPA No. 1 would cross six government-owned parcels, while the West Consensus Corridor/MDLPA No. 2 and MDLPA No. 3 cross 27 and 49 government-owned parcels, respectively. The NPCA Corridor proposed alignment would cross 74 governmental parcels; the adjusted centerline alignment drawn by FPL in the NPCA Corridor would only cross 47 such parcels. Thus, the FPL West Preferred Corridor is the most desirable from this standpoint. MDLPA No. 1 is slightly less desirable, and the remaining western transmission line alternate corridors, which require substantially more government land crossings, are the least desirable since it is often significantly more difficult, costly, and time-consuming to acquire ROWs across government-owned parcels, and FPL may not have eminent domain authority to acquire those parcels if the agencies are not willing sellers.

706. Land uses within the FPL West Preferred Corridor and MDLPA No. 1 are canals and embankments and rock mining, the most desirable uses from a land use perspective. Land uses within the West Consensus Corridor/MDLPA No. 2 are rock mining and lands with regulatory overlays, somewhat less desirable due to the regulatory overlays. Lands within MDLPA No. 3 and the NPCA

Corridor are residential, agriculture, wellheads, and lands with regulatory overlays, which are less desirable land uses than those within the other three corridors.

707. The FPL West Preferred Corridor, MDLPA No. 1, and West Consensus Corridor/MDLPA No. 2 do not encroach on the UEA and are furthest from the UDB; thus, they are all equally the least likely of the western corridors to interfere with residential land uses. They run predominantly along seams between less developed, conservation lands to the west and transitional uses and more urban development to the east. They therefore avoid conflicts with more dense urban development.

708. MDLPA No. 3 and both NPCA Corridor alignments encroach on the UEA and are closest to the UDB. MDLPA No. 3 and the NPCA Corridor also cross the property of Limonar, a property owner with plans for future development that is opposed to the placement of transmission lines on its property. Also, placing a corridor over the UEA property would reduce the size of the UEA which has been identified by the CDMP that is available for urban development.

709. The mining companies prefer the West Consensus Corridor/MDLPA No. 2. It has the least interference with their uses and mining. It is on property where there is a lot of industrial activity associated with active rock mining, a heavy industry. In contrast, the mining companies are unsure of the

effect of MDLPA No. 3 on their ability to mine the eastern part of their property. There is a potential with the West Consensus Corridor/MDLPA No. 2 that the mining companies may be willing to donate their property for the transmission line ROW, thus offsetting the added cost of ROW acquisition in this corridor. However, the mining companies are not willing to do so for MDLPA No. 3.

710. The West Consensus Corridor/MDLPA No. 2 is wide enough to provide flexibility in siting the proposed transmission lines so that both the 500-kV and 230-kV lines could potentially be located on mining property land in significant portions of that corridor. However, there are some features such as the rock processing plant and shipping area near the quarry that could limit or preclude siting of the proposed transmission lines, requiring the lines to be placed in other portions of the corridor in this area.

711. MDLPA's goal for MDLPA No. 1 was simply to minimize potential impacts to the Pennsuco Wetlands; for the West Consensus Corridor/MDLPA No. 2 and MDLPA No. 3, the goal was both to minimize impacts on Everglades National Park and on Pennsuco Wetlands. The benefits of the West Consensus Corridor/MDLPA No. 2 include avoiding a central crossing of the Pennsuco Wetlands and completely removing the proposed transmission lines from Water Conservation Area 3B. This

corridor is also further removed from known wood stork colonies along and north of Tamiami Trail, and is farther east of potential Everglade snail kite foraging habitat within the Everglades National Park. Although the western transmission lines would not interfere with surface flows in any of the corridors, MDLPA believes use of the West Consensus Corridor/MDLPA No. 2 would be less likely to interfere with any attempts to restore flow inside the eastern part of Everglades National Park and also removes any potential future conflict inside Water Conservation Area 3B, if any.

c. Engineering Comparisons

i. Traffic

712. There is no material difference with regard to traffic impacts between any of the western corridors proper for certification.

713. There is minimal to no risk of conflict with traffic or with future roadway expansion or road widening projects in the FPL West Preferred Corridor or MDLPA No. 1. The remaining western corridors present some risk of potential conflict with the proposed expansions of Krome Avenue near Kendall Drive and the State Road 836 Southwest Extension, but it is recognized that conflicts with these projects are highly speculative at this stage.

ii. Construction and Maintenance Access

714. In the West Divergence Area, while all of the western corridors provide reasonable access for construction and maintenance, access along the FPL West Preferred Corridor and West Consensus Corridor/MDLPA No. 2 may be limited to one-way traffic.

iii. ROW Acquisition

715. For the West Preferred Corridor, FPL has executed agreements in place from all of the landowners involved in the Land Exchange area for conveyance of land clear of encumbrances. Already authorized by Congress, significant investment and commitment has been made to this exchange. It would also encompass portions of the West Consensus Corridor/MDPLA No. 2, MDLPA No. 1, MDLPA No. 3, and the NPCA Corridor.

716. From an engineering/constructability standpoint, the difficulty or ease in acquiring the necessary property interest in the land underlying the corridors is a significant consideration. Following implementation of the Land Exchange, the FPL West Preferred Corridor would be highly desirable from a property acquisition standpoint, as FPL would own all of the necessary property interests for placement of the western transmission lines in the FPL West Preferred Corridor. The remaining corridors are less desirable from this perspective, as FPL would need to acquire permanent easements over numerous

government parcels within any of the alternate corridors. Since FPL does not have eminent domain authority over all government lands, its ability to acquire the necessary easements over government parcels is uncertain. Additionally, consistent with past practice, FPL would seek a ROW over lands owned by the SFWMD, which would lessen this concern for the other western transmission line alternate corridors, and in particular, MDLPA No. 1 and the West Consensus Corridor/MDLPA No. 2, both of which also incorporate the L-31N and L-30 levees.

717. If the Land Exchange is timely implemented, no further ROW acquisition will be required for the West Preferred Corridor. A small portion of the West Consensus Corridor/MDLPA No. 2 will also use properties obtained through the Land Exchange. Between the point where the West Consensus Corridor/MDLPA No. 2 turns east from the SFWMD L-31N ROW and the point where it converges with the FPL West Preferred Corridor west of the Levee substation, FPL will need to establish a new ROW for the western transmission lines.

718. Some of the government parcels in the area where the western alternate corridors diverge from the FPL West Preferred Corridor were purchased with federal funds or other grants that limit the uses of the property. These encumbrances may be overcome if FPL purchases substitute land for the encumbered parcels. But removal of the encumbrances held by federal

agencies would require action or review under the National Environmental Policy Act. It is not known how much time or cost would be required to clear these encumbrances. These uncertainties are the reason FPL is seeking certification of the FPL West Preferred Corridor as a back-up to the West Consensus Corridor/MDLPA No. 2.

d. Cost Comparisons

719. The FPL West Preferred Corridor would cost approximately \$229.4 million to construct. MDLPA No. 1 would cost approximately \$282.5 million, while the West Consensus Corridor/MDLPA No. 2 would cost around \$273.2 million. The NPCA Corridor adjusted centerline alignment would cost approximately \$262.15 million. MDLPA No. 3 and the NPCA Corridor centerline would cost approximately \$298.25 million and \$313.7 million, respectively.

720. Conflicting testimony was presented on the cost of the NPCA Corridor ROW. Testimony by NPCA indicated that a transmission line ROW could be acquired within its alternate corridor for approximately \$23.3 million. However, the methodology used to prepare this estimate has not been credited. FPL submitted an appraisal consistent with the Uniform Standards of Professional Appraisal Practice that showed the cost for FPL to acquire a transmission line ROW in the NPCA Corridor would be approximately \$84 million. This estimate includes the cost of

the property, any damages to remainder parcels (severance damages), title work, survey work, legal fees, and appraisal fees, but does not include the cost to acquire and substitute lands for parcels within the transmission line ROW with federal encumbrances. Determination of the costs associated with exchanging substitute lands to clear encumbrances on government-owned parcels is not possible until a final ROW for the western transmission lines is identified and negotiations completed on the substitute lands to be accepted.

e. Summary: Least Adverse Impacts, Including Cost

721. Given these considerations, the West Consensus Corridor/MDLPA No. 2 has the least adverse impact, including costs, only if a ROW within that corridor can be acquired in a timely manner and at reasonable cost. If a ROW within the West Consensus Corridor/MDLPA No. 2 cannot be secured in a timely manner and at a reasonable cost, then the FPL West Preferred Corridor has the least adverse impact, including costs. While the FPL West Preferred Corridor is the least expensive and preferable from a land use perspective, including being farthest from urban uses that might potentially conflict with the transmission line, the West Consensus Corridor/MDLPA No. 2 is subject to an agreement limiting acquisition costs to no more than ten percent above the total projected costs of the FPL West Preferred Corridor, rendering the West Consensus Corridor/MDLPA

No. 2 the second least expensive. In addition, the West Consensus Corridor/MDLPA No. 2 is sufficiently wide to allow flexibility to site the ROW within the Corridor in a manner to minimize conflicts. Neither the FPL West Preferred Corridor nor West Consensus Corridor/MDLPA No. 2 encroaches on land designated as UEA. The FPL West Preferred Corridor includes a central crossing of the Pennsuco Wetlands, while the West Consensus Corridor/MDLPA No. 2 avoids such a crossing. From a cost and adjacent land use standpoint, the West Preferred Corridor is somewhat preferable to the West Consensus Corridor/MDLPA No. 2 and significantly preferable to the remaining western transmission line alternate corridors. From an environmental standpoint, the West Consensus Corridor/MDLPA No. 2 is somewhat preferable to the FPL West Preferred Corridor and MDLPA No. 1, but less preferable than the NPCA Corridor. The West Consensus Corridor/MDLPA No. 2 is fairly equivalent to MDLPA No. 1 from an adjacent land use standpoint, but has the added advantages of allowing the placement of transmission lines farther from Everglades National Park and is less expensive than MDLPA No. 1. Also, the West Consensus Corridor/MDPLA No. 2 is less expensive than MDLPA No. 3 or the NPCA Corridor, and is significantly preferable in terms of adjacent land uses and ROW acquisition to these western transmission line alternate corridors. The FPL West Preferred Corridor and West Consensus

Corridor/MDLPA No. 2 are roughly equivalent and both represent, on balance, the corridors with the least adverse impacts, considering the factors set forth in section 403.509(3), including costs.

722. Certification of the West Consensus Corridor/MDLPA No. 2 and the FPL West Preferred Corridor, as conditioned, serves the broad interests of the public by ensuring reliable electric service at a reasonable cost.

V. Conditions of Certification

A. Agreed Upon Conditions of Certification

723. In constructing, operating, and maintaining the Project, including the Plant and its associated non-transmission facilities and transmission lines, FPL has agreed to comply with the Conditions of Certification in Attachment 1 to this Recommended Order.

724. FPL has provided reasonable assurances that the Project, including the Plant and its associated non-transmission facilities and transmission lines, can be constructed in compliance with the agreed-upon Conditions of Certification in Attachment 1.

725. The Department has proposed and FPL has agreed that the conditions in Attachment 1 are appropriate or necessary. They are therefore authorized.

726. The only condition relative to the plant and non-transmission line portion of the Project remaining in dispute is addressed in the "Road Right-of-Way Dedications" section above. That condition is not authorized. Other transmission line conditions of certification proposed by local governments remaining in dispute are discussed below.

B. Disputed Conditions of Certification - Transmission Lines

1. Miami-Dade County

727. The County submitted its Agency Report on the proposed transmission lines associated with the Project to the Department's Siting Coordination Office, pursuant to sections 403.5064(4), 403.507(2), and 403.526(2). The Agency Report proposed 73 conditions of certification relating to the FPL transmission line corridors.

728. The County and FPL reached agreement on conditions to resolve the concerns in the Agency Report enumerated in General Conditions 1-5, 7-25, 27-29, and 32; East Conditions 1-17, 19, 20(b), 21, and 22; and West Conditions 1, 2, 3, 4(b), 5(c), 6-8, and 10-18 (with the exception of certain conditions to be applied in the West Corridor Divergence Area). The County and FPL have not reached agreement on proposed General Conditions 6, 26, 30, and 31; East Conditions 18 and 20; West Conditions 4, 5, and 9; the unnumbered conditions on page 59 of the Agency

Report; and the conditions to be applied in the West Corridor Divergence Area (General Conditions 14-23 and West Conditions 6-8, 11-13, and 16-18). Those conditions remain in dispute between the two parties.

729. FPL will comply with the conditions included in Sections C.VII.A through C.VII.5 of Attachment 1, which reflect the conditions stipulated with the County.

730. The Department's PAR for the transmission line portion of the application did not include some of the County's proposed conditions of certification, noting that section 403.507(3)(c) and rule 62-17.133(4) require that agency recommendations for conditions of certification be limited to those within the proposing agency's jurisdiction and authorized by a specific statute, rule, or ordinance. All of the conditions that remain in dispute between FPL and the County were rejected by the Department in Appendix I to the PAR.

731. Proposed General Condition 6 relating to air quality is rejected because it is based on provisions of state regulations, the County's comprehensive plan, which is not applicable to the proposed transmission lines, and section 24-7(6), MDC, establishing that the County Department of Environmental Resources Management has the authority to render assistance to persons operating equipment which may cause air pollution. The state regulations do not provide a proper basis

for a County condition and the comprehensive plan is not applicable to the proposed transmission lines, as discussed in the Conclusions of Law. Further, FPL established that the proposed transmission lines will not cause air pollution if constructed in compliance with the conditions of certification in Attachment 1. Thus, General Condition 6 is rejected.

732. For the reasons cited previously, proposed General Condition 26 (ROW dedication) is rejected.

733. Proposed General Condition 30 seeks to require FPL to compensate the County for its review of the application. The bases for this condition are sections 403.511(4) and 403.531(4), which allow local governments to charge "appropriate fees." These provisions, however, relate to post-certification reviews, and not review of the application. Thus, proposed General Condition 30 is rejected.

734. Proposed General Condition 31 seeks to require FPL to work with the County and the SFRPC to provide electric vehicle charging stations at County parking lots and other locations. However, the County offered no evidence to support this condition. Thus, proposed General Condition 31 is rejected.

735. Proposed East Condition 18 relates to conditions based on the land use designations of certain areas. These conditions are based on comprehensive plan provisions that are

not applicable to the proposed transmission lines, and are hereby rejected.

736. Proposed East Condition 20 relates to impacts within BNP. FPL is in the midst of federal government agency review of the Project, in which the United States Department of the Interior, representing BNP, is participating. Thus, any conditions regarding activities within BNP will be addressed in that federal process. The County cites only comprehensive plan provisions, which are not applicable to the proposed transmission lines, as bases for this condition. Further, it provided no evidence to even suggest that the proposed transmission lines will create negative impacts within BNP. Thus, proposed East Condition 20 is rejected.

737. Proposed West Conditions 4, 5, and 9 propose to restrict transmission lines based on land use designations and are based entirely on the comprehensive plan. Because the comprehensive plan is not applicable to the proposed transmission lines, these three conditions are rejected.

738. On page 59 of the Agency Report are listed five conditions of certification proposing to preclude the location of transmission lines in certain areas, including most of the West Corridor Divergence Area, based on the East Everglades Area Zoning Overlay District found in chapter 33B, MDC. Those zoning provisions are not applicable to the proposed transmission lines

and are not a proper basis for these proposed conditions. Other agencies, including the Department, SFWMD, and FWC, have proposed conditions that will require FPL to avoid and minimize impacts to the environmental resources in that area, and FPL has established that the transmission lines can be constructed, operated, and located to avoid and minimize impacts to the environmental resources in that area. Thus, these proposed conditions are rejected. Further, although the Department did not originally recommend the proposed conditions relating to wetlands protection and wildlife in its PAR, FPL is willing to accept those conditions in the West Corridor Divergence Area. These conditions are found in Attachment 1, §§ C.VII, I, J, and P.

739. The County has also proposed conditions for the West Consensus Corridor/MDLPA No. 2 that are similar to or the same as the conditions in the FPL West Preferred Corridor. Conditions 1 through 6 are based on the County zoning code and comprehensive plan, are not applicable to the proposed transmission lines, and are rejected. Further, FPL has established that the proposed transmission lines in the West Consensus Corridor/MDLPA No. 2 will not adversely impact the environmental resources in the West Corridor Divergence Area. Even so, FPL is willing to accept the County-proposed conditions relating to wetlands protection and wildlife in the West

Divergence Area. Those conditions have been included in Attachment 1.

740. Proposed Condition VII of County Exhibit 11, relating to alternate corridor access roads, tree islands, and Trail Glades Park, has been partially incorporated by the Department into the Conditions of Certification. FPL has agreed to comply with those conditions recognizing that "tree islands" are defined in section 24-5, MDC, as "a vegetative community located within freshwater wetlands whose dominant vegetation components consist of native hardwood trees and shrubs." Although the County proposed expanded versions of those conditions, those expanded versions are rejected because the County failed to present credible evidence to support those requirements.

741. Because PAC, MDLPA No. 1, MDLPA No. 3, and the NPCA Corridor are not recommended for certification, the County-proposed conditions for those corridors are rejected.

## 2. City of Miami

742. The City of Miami's Agency Report on the proposed transmission lines proposes conditions 5.1 through 5.15 to address its regulatory and other concerns related to the proposed transmission line. It also recommends denial of the proposed transmission line certification.

743. The City of Miami and FPL have reached an agreement on conditions to resolve the City's concerns set forth in

conditions 5.1, 5.3, 5.7, 5.8, 5.9, 5.11, 5.12, 5.13, 5.14, and 5.15 on the FPL Corridors, and conditions 5.1, 5.3, 5.7, 5.8, 5.9, 5.10, 5.12, 5.13, 5.14, and 5.15 on the Alternate Corridors. The stipulation acknowledged that the City of Miami's proposed conditions 5.2 (undergrounding), 5.4 (zoning), 5.5 (landscaping), 5.6 (EMF), and 5.10 (scenic transportation corridor) for the FPL East Preferred Corridor and 5.2, 5.4, 5.5, and 5.6 for the PAC remain in dispute between the two parties. FPL will comply with the conditions included in sections C.X.A. and C.X.C through C.X.G. of Attachment 1, which reflect the conditions stipulated with the City of Miami.

744. The Department's PAR for the transmission line portion of the application did not include some of the City of Miami's proposed conditions because section 403.507(3)(c) and rule 62-17.133(4) require that agency recommendations for conditions of certification be limited to those within the proposing agency's jurisdiction and authorized by a specific statute, rule, or ordinance. However, the Department included condition 5.10, as proposed by the City of Miami.

745. FPL will comply with the applicable non-procedural requirements of proposed condition 5.10 regarding the City of Miami's Scenic Transportation Corridor starting at Southwest 13th Street and continuing along Coral Way, as reflected in section C.X.B of Attachment 1. FPL also agrees that the

condition should be imposed on the construction of the transmission line within the East Preferred Corridor. This scenic transportation corridor is not located within the PAC, and is not relevant for that corridor.

746. FPL will comply with the applicable non-procedural requirements of the City of Miami's ordinances to protect and minimize impacts to trees in the construction and placement of the transmission line, and to replace or mitigate for any damage to, or removal of trees in, the construction and placement of the transmission line. To address the City of Miami's concerns regarding trees in proposed condition 5.5, FPL agrees that the condition in section II.A of Attachment 2 should be imposed on the construction of the transmission line within either of the east corridors proper for certification.

747. The City of Miami contends that FPL should exceed the applicable requirements of its ordinances to protect against tree impacts and/or replace trees damaged or removed as a result of the transmission line. However, such requirements are undefined, exceed the scope of the ordinances, and are rejected. See § 403.507(3)(c), Fla. Stat.

748. The City of Miami also proposed conditions 5.2 and 5.4 requiring underground construction of the transmission line in either of the east corridors. Those conditions are rejected

for the reasons previously discussed and in the Conclusions of Law.

749. The City of Miami proposed condition 5.6 regarding EMFs in both east corridors. However, it failed to offer into evidence this section of its two Agency Reports. The City's proposed condition is rejected because that topic is exclusively regulated by the Department; FPL has demonstrated that it will comply with the relevant, applicable Department standards; and the City of Miami presented no credible evidence to rebut that showing.

750. The City of Miami proposed condition 5.9 regarding historic resource preservation in both east corridors. On this issue, FPL established that it will comply with the applicable City of Miami non-procedural requirements through the conditions proposed in Attachment 2, section II.B. No credible evidence to the contrary was presented. Accordingly, condition 5.9 is rejected, and the condition proposed in Attachment 2, section II.B. is accepted.

### 3. City of Coral Gables

751. Coral Gables' Agency Report on the proposed transmission lines proposed conditions A-Q relating to the FPL East Preferred Corridor.

752. Coral Gables and FPL have reached an agreement on conditions to resolve Coral Gables' concerns set forth in

conditions A.5, C.1, D, E.1, E.2, E.3, E.4, F, G, H.1, H.2, I., J.1, J.2, K, L, M.1, M.2, M.3, N, O, and P in the Agency Report. However, they have not reached agreement on proposed conditions A.1, A.2, A.3, A.4, A.6, B, C.2, and Q. Those conditions remain in dispute between the two parties.

753. FPL will comply with the conditions included in sections C.VIII.A. through C.VIII.P. of Attachment 1, which reflect the conditions stipulated with Coral Gables.

754. The Department's PAR for the transmission line portion of the application did not include some of Coral Gables' proposed conditions because they fail to meet the requirements of section 403.507(3)(c) and rule 62-17.133(4). All of the conditions that remain in dispute between FPL and Coral Gables were rejected by the Department in Appendix I to the PAR.

755. Proposed conditions A.1, A.2, A.3, and A.4 relate to aesthetic impacts of the proposed transmission line and are based on the zoning code and comprehensive plan. They are not applicable to the East Preferred Corridor and are rejected.

756. Proposed condition A.6 seeks to require FPL to compensate Coral Gables for alleged "economic impacts" of the East Preferred Corridor. As discussed above, the more persuasive evidence establishes that the East Preferred Corridor will not cause negative economic impact to Coral Gables or properties within the City. Further, there is no ordinance

applicable to the proposed transmission lines that provides a basis for this condition. The proposed condition is rejected.

757. Proposed condition B seeks to require FPL to follow state laws regarding eminent domain in the acquisition of property rights for the proposed transmission line. However, FPL is already required to comply with state laws and regulations in the construction, operation, and maintenance of the transmission line, including in the acquisition of property rights. Further, Coral Gables cites no ordinance as a basis for this condition. Condition B is rejected.

758. Proposed condition C.2 seeks to require FPL to build the transmission line underground within the City, at FPL's expense. Coral Gables cites only its zoning code and comprehensive plan in support of the condition, which are not applicable to the proposed transmission line. For the reasons discussed above, this condition is rejected.

759. Finally, proposed condition Q, paragraphs 1 and 2, seek to require FPL to indemnify the City for any work done by FPL within the City. FPL is committed to comply with applicable ordinances requiring such indemnification and to comply with Condition C.VIII.P in Attachment 1 addressing this subject. Thus, no additional condition is required. Proposed condition Q, paragraph 3, seeks to require FPL to comply with all federal, state, and local regulations. FPL has committed to do so.

Thus, this condition is not required. Proposed condition Q, paragraph 4, seeks to require FPL to provide Coral Gables with any terms, benefits, or concessions or agreements provided to any other local government. Coral Gables has provided no applicable ordinance or other authority as a basis for this condition, and it is hereby rejected. Proposed condition Q, paragraph 5, adopts the recommendations and reports of the SFWMD, SFRPC, and the County. The issues of concern to those entities, as they relate to the FPL East Preferred Corridor, have been resolved to the satisfaction of those three agencies. Further, Coral Gables has identified no applicable non-procedural ordinance providing a regulatory basis for this condition. Accordingly, these proposed conditions are rejected.

#### 4. Village of Pinecrest

760. Pinecrest's Agency Report on the proposed transmission lines proposed conditions A.1 through D.8 to address its regulatory and other concerns related to the proposed transmission line. It also recommended denial of the proposed transmission line certification.

761. The Department included proposed conditions C.3 (nuisances) and C.4 (emergency management) in the PAR. FPL will comply with those conditions, now found in section C.XII.A and C.XII.B of Attachment 1.

762. In addition, to address Pinecrest's concerns reflected in conditions A.2 (solid waste), A.3 (noise), B.1 (location of the transmission line within Pinecrest), B.3 (trees), D.2 (obstructions of visibility), D.5 (trees), D.6 (trees), and D.8 (ROW restoration), FPL agrees that the conditions in section III.A. through III.F. of Attachment 2 should be imposed on the construction of the transmission line within the East Preferred Corridor. FPL is willing to comply with these conditions and has demonstrated its ability to do so.

763. Proposed condition B.2 seeks to require that FPL coordinate with appropriate authorities to accommodate expansion plans for the Busway and Metrorail along U.S. Highway 1. FPL has coordinated with DOT, MDX, and Miami Dade Transit and reached agreement with those agencies on conditions of certification addressing future facilities. Thus, FPL has satisfied this requirement and there is no need for inclusion of the proposed condition in this Recommended Order.

764. For reasons previously stated, proposed condition C.1, which seeks to require FPL to construct the transmission line underground, is rejected.

765. Proposed conditions C.2 (pole placement information), D.1 (historical resources), D.3 (appearance of structures), D.4 (compliance with comprehensive plan), and D.7 (signs) seek to require FPL to comply with chapter 30 of Pinecrest's LDRs and

its comprehensive plan. These conditions are rejected for the reasons previously found.

5. Cities of Doral and South Miami

766. Doral and South Miami also proposed conditions of certification beyond those included by the Department in Attachment 1. However, these cities provided no evidence or legal argument to support these conditions, and they are rejected.

VI. Public Testimony and Comments

767. Six sessions on four separate days were held to allow members of the public to testify or offer comments on the Project. In addition, a number of written comments or letters were submitted by mail. Members of the public testified both in favor of and in opposition to the Project.

768. Members of the public who testified in favor of the Project commented on the economic benefits of the Project and specifically focused on the potential for job creation. Many members of the public also commented that they believe nuclear power is safe and clean and that this Project will allow South Florida to sustainably meet its future energy needs. Several members of the public testified that FPL is a good corporate citizen and environmental steward.

769. The individuals who testified in opposition to the Project raised a wide range of concerns, such as economic

impacts, property values, health-related and aesthetic impacts of the proposed transmission lines, as well as safety and environmental impacts of various features of the Project.

770. Some members of the public expressed concerns that the Project is not needed and should be deferred in favor of other energy alternatives. Several individuals testified that they believe the PSC's determination of need is out of date and should be reconsidered. A few members of the public testified that they are concerned that the power to be generated by the new nuclear units is actually intended for other areas of Florida. As to these concerns, the PSC has made its determination that the Project is needed to meet the needs of FPL's customers, based in part on the PSC's consideration of renewable and other energy resources. The PSC's need determination remains in legal effect. The PSC annually reviews the Project's costs.

771. Several members of the public expressed concerns related to radiological safety of the nuclear units. However, issues related to radiological safety are exclusively considered by the NRC and are beyond the scope of this proceeding.

772. Some members of the public expressed concerns about the safety of new nuclear units at the Turkey Point location in the event of a natural disaster, questioning sea level rise projections and storm surge and high winds during hurricanes.

Another member of the public testified regarding concerns related to the use of deep well injection. FPL considered reasonable sea level rise and storm surge projections in the design of the proposed nuclear units. Regarding the deep well injection, the evidence reflects that the Boulder Zone, which will receive the injection of Project wastewaters can adequately confine the planned volumes of wastewater. Underground injection has been extensively used in Florida.

773. Some members of the public testified that they are concerned about impacts to the Biscayne Aquifer, specifically expressing concerns about saltwater intrusion and other contaminants entering the water supply. A few members questioned how well isolated the proposed radial collector well laterals below Biscayne Bay will be from the Biscayne Aquifer. Others expressed concerns about conflicting water uses potentially increasing water costs. One individual testified that he believed that the APT was not adequate. FPL conducted an appropriate APT, in accordance with accepted professional procedures, at the site of the proposed radial collector wells as part of the extensive groundwater modeling of those wells. That modeling and other evaluations demonstrated that the operation of the radial collector wells would not cause saltwater intrusion or cause contamination or other adverse impacts to groundwater or drinking water sources. Under the

conditions of certification and an agreement with the County, FPL will use reclaimed water from the County as the primary source of cooling water and will use the radial collector wells only when reclaimed water is not available in sufficient quantity or quality. FPL's use of reclaimed water is a beneficial and cost-effective means of maximizing the use of reclaimed water and helps the County meet its reclaimed water compliance requirements.

774. A few members of the public are concerned about potential negative environmental impacts to Biscayne Bay. The evidence shows that the Project will not have negative effects on Biscayne Bay. Construction in upland areas near the Bay for the radial collector wells and the barge unloading area will utilize measures to prevent adverse impacts from runoff that might reach the Bay. The radial collector well laterals will be drilled beneath the Bay without any dredging in the Bay itself. Operation of the radial collector wells will not adversely affect the water quality including salinity, or the ecological resources including fisheries in the Bay, and the radial collector wells will be closely monitored to ensure there are no adverse impacts.

775. Members of the public testified both in favor of and in opposition to the proposed transmission lines. Several of the individuals who testified in opposition were only opposed to

the FPL East Preferred Corridor and supported the Project if the alternate corridor proposed by Coral Gables and Pinecrest is certified instead. Similarly, several individuals were only opposed to the alternate corridor proposed by Coral Gables and Pinecrest and support the Project with certification of the FPL East Preferred Corridor. The FPL East Preferred Corridor is the corridor with the least adverse impacts, including costs, when considering and balancing the statutory criteria in section 403.509(3).

776. Several individuals testified about negative aesthetic impacts or blight that may be caused by the installation of transmission lines within their communities. Several also stated that they were concerned about negative impacts to quality of life. Specific aesthetic concerns included the height and diameter of the transmission line poles as well as the sway of the transmission lines. A few individuals were concerned about maintaining the historic aesthetic of Coral Gables. The greater weight of the evidence offered with respect to quality of life impacts from the transmission lines did not support these concerns as expressed by the public. Aesthetic and economic impacts have been addressed, and the height and diameter of the transmission line poles was established as customary for FPL. FPL complies with local tree ordinances, including tree replacement planting where

appropriate. Landscaping and trees can help to minimize any aesthetic impacts. The final transmission line alignment will take into account approved and proposed development to be constructed in the area. The testimony established that while transmission lines in urban settings may involve aesthetic impacts, those aesthetic impacts from placing transmission lines such as within any of the eastern corridors would be minimal, and the transmission lines would be just one of many urbanized vertical elements in the landscape. Any aesthetic impacts from the proposed transmission lines would be no different in kind from those normally experienced every day in settings like those proposed for the transmission lines. Additionally, FPL is not required to comply with zoning ordinances relating to aesthetics because they are not applicable non-procedural requirements with which FPL is required to demonstrate compliance in the siting of transmission lines.

777. A few members of the public testified that they are concerned that the tree canopy and other landscaping will be negatively affected by the proposed transmission lines. FPL will comply with numerous conditions regarding NFCs and tree pruning/maintenance that will avoid adverse impacts on tree canopy. Additionally, FPL restores the landscaping in the ROW following construction in compliance with applicable regulations.

778. Members of the public expressed concerns about negative economic impacts that may be caused by the installation of transmission lines within their communities, including potential reductions in property values and the potential for a negative impact on the economic development of the areas surrounding the proposed FPL East Preferred Corridor. While the evidence was conflicting on this point, the more persuasive evidence demonstrated that the economic effects on the property values of residential or commercial properties adjacent to the transmission lines would be nominal.

779. Several members of the public expressed concerns that the proposed transmission lines and associated poles are not in compliance with local codes and ordinances. A few members of the public expressed concerns about "humming" noises caused by the transmission lines. The transmission lines meet all applicable non-procedural requirements, including noise standards. Local zoning codes and LDRs are not applicable non-procedural requirements with which a transmission line is required to comply. Nevertheless, FPL has agreed to conditions of certification that incorporate, to the extent practicable, the desires and concerns of the local governments through which the transmission lines pass.

780. Several members of the public expressed concerns that the proposed transmission lines will have negative impacts on

multi-modal transportation uses within FPL's East Preferred Corridor. On this issue, the evidence established that the construction, operation, and maintenance of the transmission lines in proximity to the Metrorail facility or the U.S. Highway 1 multi-modal corridor will not interfere with the operation of the Metrorail. Multi-modal uses will not be affected.

781. A few members of the public expressed concerns about safety and health risks that they believe are associated with high-voltage transmission lines. The evidence established and the parties stipulated that the transmission lines will not have adverse effects on human health. In addition, the design and construction of the transmission line structures conforms to NESC requirements adopted by the PSC to protect public safety. No competent evidence was presented that proximity to transmission lines like the type proposed would cause adverse health effects. Also, there was no competent evidence of adverse health impacts associated with these lines.

782. A few members of the public expressed concerns about interference that could be caused by the transmission lines, specifically referencing EMF and interference with radio communications. The evidence established that there will be no interference with radio or microwave communications.

783. Some members of the public testified that they believe the proposed transmission lines should be or are

required to be placed underground. FPL is proposing underground construction only where an overhead design is not feasible; overhead design is feasible in all locations except when crossing the Miami River.

784. Several members of the public expressed concerns that some existing transmission lines are in poor condition and will never be improved if the FPL East Preferred Corridor is certified. The evidence established that FPL replaces inadequate or outdated transmission lines and poles on an as-needed basis; the certification of the East Preferred Corridor would not change this practice.

785. Several members of the public testified that they are concerned about allowing certification of transmission line corridors prior to the issuance of a license for the nuclear units by the NRC or a commitment to build the nuclear units by FPL. As discussed in the Conclusions of Law, the NRC proceeding need not be completed prior to the issuance of the site certification under the PPSA, including for the transmission lines.

786. Several members of the public expressed concerns about potential negative environmental and aesthetic impacts to Everglades National Park from the transmission lines. Several individuals were concerned about impacts to wading bird colonies. A few individuals expressed a concern about directing

freshwater away from the federal Everglades restoration program. A few other individuals expressed concerns about the proposed Land Exchange. FPL has minimized the impacts to the Everglades National Park by withdrawing its request to certify the West Secondary Corridor, which would have bisected the Everglades National Park. The evidence established that construction, operation, and maintenance of the transmission lines will not be inconsistent with Everglades restoration. Issues related to the Land Exchange involving the western corridors will be addressed by the United States Department of Interior. The evidence established that the transmission lines in the western corridors would not have adverse impacts to wading bird colonies.

787. Finally, one member of the public testified that traffic during construction within FPL's East Preferred Corridor is a concern. The evidence established that traffic impacts between both the East Preferred Corridor and the alternate corridor proposed by Coral Gables and Pinecrest are comparable, and these impacts only occur during the short time frame of construction.

#### CONCLUSIONS OF LAW

##### A. General

##### 1. Parties and Standing

788. Although some did not actively participate, the parties to this proceeding are: FPL; Department; Board of

Trustees; DOT; MDX; FWC; SFWMD; SFRPC; the County; Monroe County; Coral Gables; Doral; City of Miami; South Miami; Medley; Pinecrest; Coconut Grove Village Council; Kendale Homeowners' Association; MDLPA; NPCA; Limonar; White Rock Quarries; and Kendall Federation of Homeowners Associations, Inc. The standing of each party is not disputed.

## 2. Intent

789. This certification proceeding was held pursuant to the PPSA and chapter 62-17, which set out the procedures for power plant siting review. The intent of this licensing process is "to seek courses of action that will fully balance the increasing demands for electrical power plant location and operation with the broad interests of the public." §403.502, Fla. Stat.

## 3. Procedural Requirements/Statutory Prerequisites

790. The evidence demonstrates compliance with the procedural requirements of the PPSA.

791. The Department and reviewing agencies issued reports in satisfaction of their various statutory duties under the PPSA. All notices required by law were timely published by FPL, the Department, and proponents of alternate corridors in accordance with section 403.5115 and rule 62-17.281. Proofs of publication were timely provided to the Department in accordance with rule 62-17.281(12). All direct written notices required by

law were timely mailed, and lists of landowners and residences notified were timely submitted to the Department in accordance with subsections 403.5115(6) and (7). The Department sent direct mailings for the sovereign submerged lands easements for the radial collector well laterals and the Miami River crossing in accord with section 253.115 and rule 18-21.005(3).

792. At the commencement of the final hearing on July 8, 2013, the City of Miami moved for a continuance of the hearing, alleging that it had inadequate time to prepare for hearing or to conduct discovery; that the proceeding should be postponed until the NRC had completed its proceedings; and that FPL had not made certain showings related to cultural resources and population densities. The motion was denied. The motion was not timely filed under rule 28-106.210, which requires that motions for continuances must be filed no later than five days prior to commencement of a hearing, absent a showing of an emergency. The City of Miami made no showing of an emergency as the basis for its motion. Further, the arguments made in support of a continuance (and at various other times during the proceeding) are not well-founded substantively.

793. The City of Miami failed to demonstrate it was unable to engage in meaningful prehearing discovery. The Initial Order in this proceeding was issued on July 9, 2009, and expressly stated: "Discovery may be undertaken in the manner provided in

the Florida Rules of Civil Procedure and, if desired, should be initiated immediately." The City of Miami has been a party to the proceeding since filing a Notice of Intent to Be a Party on August 20, 2009. The undersigned recognizes, however, that the lengthy agency review process delayed the establishment of final deadlines, including a certification hearing date, for several years. Even so, the final certification hearing date was approved by Order dated August 21, 2012, or almost a year before the hearing began. Further, the City of Miami did not object to procedural and discovery deadlines established by Order dated March 26, 2013. The City of Miami's argument that it was not able to engage in meaningful discovery is not well taken.

794. Contrary to an assertion by some parties, the NRC proceeding need not be completed prior to the issuance of the site certification under the PPSA. The PPSA sets out a specific statutory process and time line for processing site certification applications. The Legislature did not allow or require an alternate time frame when federal approvals are pending. In fact, there is Siting Board precedent for issuance of the site certification while an application is pending at the NRC. See In re: Progress Energy Fla. Levy Nuclear Project Units 1 and 2, 2009 Fla. ENV LEXIS 150 at \*23 (certification approved in 2009 even though NRC approval was not expected until late 2011).

795. The PSC's need determination has not expired, and it is not so "stale" as to require a new need determination. As explained in the Findings of Fact, the PSC has issued an affirmative need determination for the Project in accordance with section 403.519. The PSC considers the continued feasibility of the Project annually. Under section 403.519(4), the PSC "shall be the sole forum for the determination of [need] and the issues addressed in the petition, which accordingly shall not be reviewed in any other forum, or in the review of proceedings in such other forum." § 403.519(4), Fla. Stat. (emphasis added). Thus, reconsideration of the need for the Project in this proceeding is improper and contrary to the statute. "The PSC is the sole judge as to the need for the power plant, with the [administrative law judge] and, indeed, the Siting board bound by that determination." Fla. Chapter of the Sierra Club v. Orlando Utils. Comm'n, 436 So. 2d 383, 387 (Fla. 5th DCA 1983) ("The determination of need is solely within the jurisdiction of the PSC, and any reevaluation of need at the certification hearing would be wasteful and improper. The purpose of that hearing is to judge the impact of the plant, after a need for the plant has been determined, on the surrounding environment. This determination does not require a weighing of the need beyond that done by the PSC, and the hearing officer and Board in this case were correct in so

holding."); see also In re: Progress Energy Fla. Levy Nuclear Project Units 1 and 2 , 2009 Fla. ENV LEXIS 151 at \*6-7 (issues relating to need and reliability were stricken as those matters were determined by the PSC and were not considered in the certification hearing).

#### 5. Burden of Proof

796. As the applicant for certification, FPL "carries the 'ultimate burden of persuasion' of entitlement through all proceedings, of whatever nature, until such time as final action has been taken by the agency." In re: Progress Energy Fla. Levy Nuclear Project Units 1 and 2, 2009 Fla. ENV LEXIS 151 at \*114; Fla. Dep't of Transp. v. J.W.C. Co., Inc., 396 So. 2d 778, 787 (Fla. 1st DCA 1981). The standard for FPL's burden of proof is one of reasonable assurances, not absolute guarantees, that the applicable criteria for the issuance of the certification have been satisfied. In re: Progress Energy Fla. Levy Nuclear Project Units 1 and 2, 2009 Fla. ENV LEXIS 151 at \*114-115. "Reasonable assurance" contemplates a "substantial likelihood that the project will be successfully implemented." Metro. Dade Cnty. v. Coscan Fla., Inc., 609 So. 2d 644, 648 (Fla. 3d DCA 1992); Hamilton Cnty. Bd. of Cnty. Comm'rs v. Fla. Dep't of Env'tl. Reg., 587 So. 2d 1378, 1387 (Fla. 1st DCA 1991). FPL is "not required to disprove all the 'worst case scenarios' or 'theoretical impacts' raised" by parties or members of the

public in the proceeding. In re: Progress Energy Fla. Levy Nuclear Project Units 1 and 2, 2009 Fla. ENV LEXIS 151 at \*115.

797. FPL has met its burden of showing by a preponderance of the evidence its entitlement to site certification under the PPSA for the Project, including the plant and transmission line facilities. The evidence submitted by FPL concerning the Plant and non-transmission portions of the Project has not been rejected or contested by any of the agency parties, which have expertise in the matters involved in this Project and which have reviewed the information submitted by FPL. Although the City of Miami challenged this evidence through cross-examination of FPL and agency witnesses, those efforts are not credited. The evidence offered by FPL regarding the plant and non-transmission portions of the Project is therefore entitled to acceptance as meeting FPL's burden of proof in support of issuance of a site certification for the Project. J.W.C., 396 So. 2d at 787.

798. In addition to FPL's evidence, the other evidence in support of issuance of certification for the Project includes the Department's PARs and testimony of the Department staff. The Department's PARs reflect various agencies' review of the Project. Those reports and the Department's testimony demonstrate the Project's compliance with applicable regulatory requirements, including the criteria for certification under section 403.509(3). These requirements include, but are not

limited to, air quality standards, ground and surface water use standards, state and local water quality standards, environmental resource permitting standards, wetland mitigation requirements, wildlife protection requirements, noise-related standards, traffic standards, EMF standards, tree ordinances, and applicable local comprehensive plans and LDRs, including zoning approvals and conditions contained in those approvals. Cumulatively, this evidence from FPL, the Department, and other agencies comprises the competent, substantial evidence in support of certification of the Project.

799. Once an applicant makes a preliminary showing of its entitlement to certification, as FPL has done here, the burden shifts to those opposing the Project to offer "contrary evidence of equivalent quality" to show why the certification should be denied. J.W.C., 396 So. 2d at 789. In this case, no agency or party offered credible evidence in opposition to that presented by FPL on issues related to the plant and non-transmission facilities, and no agency or party offered evidence of equivalent quality as that presented by FPL on any portion of the Project. The testimony offered and the issues raised by the public at the public testimony sessions regarding the Project are addressed above. None of that testimony and evidence as to the Project was of equivalent quality to that presented by FPL.

B. Plant and Non-Transmission Line

1. Criteria for Non-Transmission Line

800. The following criteria in section 403.509(3) apply to certification of the plant and non-transmission lines:

(3) 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:

(a) Provide reasonable assurance that operational safeguards are technically sufficient for the public welfare and protection.

(b) Comply with applicable non[-]procedural requirements of agencies.

(c) Be consistent with applicable local government comprehensive plans and land development regulations.

(d) Meet the electrical energy needs of the state in an orderly, reliable, and timely fashion.

(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.

(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.

(g) Serve and protect the broad interests of the public.

Based upon the evidence presented at the hearing, FPL has demonstrated that the plant and non-transmission line portion of the Project meets the criteria for certification set forth in section 403.509(3).

a. Operational Safeguards (section 403.509(3)(a))

801. In accordance with section 403.509(3)(a), and as explained above, FPL has provided reasonable assurance that the operational safeguards for the construction, operation, and maintenance of the plant and non-transmission line portion of the Project are technically sufficient for the public welfare and protection. The radial collector wells will use an established design and their use will be limited by conditions of certification in order to protect the resources of Biscayne Bay. The cooling towers will utilize proven technology to limit air emissions to the most stringent levels. Project roadways will be designed to meet local and state standards, and will be removed following construction of the Project. Stormwater associated with the Project will be treated and routed to the onsite wastewater treatment facility or to appropriate treatment basins or facilities, thereby protecting local waters. Use of reclaimed water as the primary source of cooling tower makeup water will meet Department standards to protect the public,

while also avoiding the need to use other, more valuable sources of water for cooling. Project wastewaters will be disposed via underground injection wells similar to ones used elsewhere in Florida or to the existing industrial wastewater treatment system. The Project's sanitary wastewater treatment facility will replace other existing sanitary treatment facilities and eliminate the existing disposal of sanitary wastewaters in the shallow aquifer. FPL's wetland mitigation plan can be implemented, assuring the protection of the public welfare in preserving wetland functions in the state. Wildlife protection measures will be implemented in the design of the Project including Project roadways to minimize impacts to native wildlife species.

802. Issues related to radiological safety are preempted by federal regulation under the Supremacy Clause of the United States Constitution and the Atomic Energy Act, 42 U.S.C § 2011, et seq. The Project must be approved by the NRC which regulates radiological safety of nuclear power plants. The NRC preempts the State on safety issues related to the nuclear power plants. See, e.g., Pacific Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n, 461 U.S. 190, 205 (1983) ("Congress . . . intended that the federal government should regulate the radiological safety aspects involved in the construction and

operation of a nuclear plant . . ."). Therefore, radiological safety issues were not considered in the certification hearing.

b. Non-procedural Requirements (section 403.509(3))

803. FPL has provided reasonable assurance that the location, construction, operation, and maintenance of the plant and non-transmission line portion of the Project will comply with all applicable non-procedural requirements of the Department, SFWMD, FWC, DOT, DHR, DACS, the County (with the exception of the variance noted below), and the City of Homestead.

804. FPL has provided reasonable assurance that the plant and non-transmission portion of the Project will not be inconsistent with CERP and will be consistent and in compliance with all applicable non-procedural requirements related to: surface and groundwater quality, including applicable surface water and groundwater quality standards; underground injection of wastewater; consumptive use of water; storage and treatment of stormwater; flood protection; wetland protection and mitigation; handling of solid and hazardous wastes; air quality; air space; open burning; noise; lighting; protection of historic and archaeological resources; traffic impacts; protection of wildlife, including threatened and endangered species; protection of native plants (including listed plants and their preservation); and the overall objectives of CERP.

805. FPL has provided reasonable assurance that the location, design, construction, operation, and maintenance of the radial collector wells; the above-ground storage tanks; the construction access roadways; the equipment barge unloading area; the potable water and reclaimed water pipelines; the reclaimed water treatment facility; the stormwater management systems for the plant and non-transmission line associated facilities; and the use of fill material will be consistent and in compliance with all applicable non-procedural requirements of the Department and other agencies.

806. FPL has provided reasonable assurance that the location, design, construction, operation, and maintenance of the sanitary wastewater system, including the on-Site sanitary wastewater treatment plant, will be consistent and in compliance with all applicable non-procedural requirements, with the exception of section 24-43.1(6), MDC, from which FPL has requested a variance.

807. FPL should be granted a variance from section 24-43.1(6) to allow use of the on-site package sanitary treatment plant and other on-site cooling water and wastewater treatment and disposal in lieu of connecting the Project to a public sanitary sewer line for treatment and disposal of these wastewaters by the County. Granting of the variance will not be detrimental to the public health, welfare, and safety; will not

create a nuisance; and will not materially increase the levels of pollution in the County.

808. FPL has provided reasonable assurance that the location, design, construction, operation, and maintenance of the underground injection control system will be consistent and in compliance with all applicable non-procedural requirements, subject to separate permitting requirements under the underground injection control program. FPL has provided reasonable assurance that the disposal of Project wastewaters by underground injection will comply with chapter 62-528, which sets forth the requirements for such disposal to protect the State's underground sources of drinking water.

c. Consistency with Comprehensive Plans and LDRs (section 403.509(3)(c))

809. Pursuant to section 403.509(3)(c), the location, construction, and operation of the Project will be consistent with applicable local comprehensive plans and LDRs, including all conditions of any land use approvals.

810. FPL has provided reasonable assurance that the plant and non-transmission line portion of the Project is consistent with the CDMP, the County's LDRs, and the City of Homestead's comprehensive plan and code.

811. FPL has provided reasonable assurance that the plant and non-transmission line portion of the Project is consistent

with the SFRPC Strategic Regional Policy Plan and the State Comprehensive Plan.

d. Meet the Electrical Energy Needs of the State in an Orderly, Reliable, and Timely Fashion (section 403.509(3)(d))

812. As the PSC has previously found, there is a need for the Project. The evidence presented demonstrates that the Project will meet that need in an orderly, timely, and reliable fashion.

e. Effect a Reasonable Balance Between the Need for the Facility and Environmental Impacts (section 403.509(3)(e))

813. Pursuant to section 403.509(3)(e), the Project will effect a reasonable balance between the need for the facility and the impacts resulting from construction and operation of the facility, including impacts to air and water quality, fish and wildlife, water resources, and other natural resources of the state. The plant and non-transmission line portion of the Project will not cause or contribute to any unmitigated adverse environmental impacts to air, water, and natural resources or local community facilities. The Project will provide extensive public benefits, including significant use of reclaimed water, and substantial economic and fiscal benefits. Certification of the Project represents a reasonable balance between the need for Project and its impacts.

f. Minimize 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 (section 403.509(3) (f))

814. Pursuant to section 403.509(3) (f), the plant and non-transmission line portion of the Project will 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. The Project will comply with applicable non-procedural requirements related to the protection of air, surface water and groundwater quality, fish and wildlife, and other requirements designed to protect the environment. The Project's use of reclaimed water will minimize impacts to local water resources, without impacting potable wellfields. The design and operation of the backup radial collector well system beneath the surface of Biscayne Bay will minimize impacts to the water quality and ecological resources of the Bay, including its aquatic life. Wastewaters during operation will be injected deep underground and away from underground sources of drinking water, thereby minimizing the Project's impacts to the quality of surface and groundwater resources. The Project and its various facilities, including roadways and pipelines, have been designed and sited to minimize, eliminate, and reduce impacts to

wetlands and wildlife habitat, including areas used by crocodiles, panthers, and manatees. Construction of the Project will involve limited work in open waters frequented by manatees, and will be undertaken using measures to protect manatees.

Other wildlife protection measures, including underpasses and fencing, will be incorporated into the design of the Project's temporary roadways to minimize impacts to wildlife. Siting of the new generating units within a disturbed area of the existing wastewater treatment facility will minimize impacts to wetlands and valuable habitat. FPL will mitigate for these and other wetland impacts. Project facilities such as roads and pipelines have been co-located with other existing linear facilities, minimizing the impacts to the public and to natural resources, including wetlands, from construction of those facilities.

g. Serve and Protect the Broad Interests of the Public  
(section 403.509(3)(g))

815. Pursuant to section 403.509(3)(g), the certification of the Project will serve and protect the broad interests of the public.

816. The evidence demonstrates that the Project fully satisfies all of the criteria for certification under the PPSA.

C. Transmission Lines

1. Statutory Requirements

817. Certification of the transmission lines and associated facilities is also governed by section 403.509.

Paragraph (4) (a) provides the following evaluation criteria:

(4) (a) Any transmission line corridor certified by the board, or secretary if applicable, shall meet the criteria of this section. When more than one transmission line corridor is proper for certification under s. 403.503(11) and meets the criteria of this section, the board, or secretary if applicable, shall certify the transmission line corridor that has the least adverse impact regarding the criteria in subsection (3), including costs.

2. Applicable Non-procedural Requirements/Local Government Comprehensive Plans or LDRs

818. In determining whether a PPSA application should be approved in whole, approved with modifications or conditions, or denied, the Siting Board must consider, among other things, whether, and the extent to which, the location, construction, operation, and maintenance of the electrical power plant will:

(1) comply with applicable non-procedural requirements of agencies, and (2) be consistent with applicable local government comprehensive plans and LDRs. See § 403.509(3) (b) and (c), Fla. Stat.

819. The PPSA defines "non[-]procedural requirements of agencies" as "any agency's regulatory requirements established

by statute, rule, ordinance, zoning ordinance, land development code, or comprehensive plan, excluding any provisions prescribing forms, fees, procedures, or time limits for the review or processing of information submitted to demonstrate compliance with such regulatory requirements." § 403.503(21), Fla. Stat.

820. There are no local government comprehensive plans or LDRs that are applicable to the proposed transmission lines and pipelines in this case. See §§ 403.509(3)(b), 403.509(3)(c), Fla. Stat. Florida courts have determined that local government comprehensive plans and LDRs do not apply to regulate the location and siting of linear facilities such as electrical transmission lines and pipelines. Fla. Power Corp. v. Seminole Cnty., 579 So. 2d 105, 107 (Fla. 1991) ("if 100 such municipalities each had the right to impose its own requirements with respect to installation of transmission facilities, a hodgepodge of methods of construction could result and costs and resulting capital requirements could mushroom"); Fla. Power Corp. v. Gadsden Cnty., Case No. 05-689-CAA (Fla. 2d Cir. Order and Final Judgment of Dec. 6, 2005). The PSC and Siting Board's authority to regulate FPL's proposed electrical transmission lines and corridors, including the access roads to facilitate construction and maintenance of such lines and the pipelines for reclaimed water and potable water, preempts the authority of the

County and other local governments to regulate them. Moreover, they lack any authority to regulate same under chapter 163 or under their independent home rule authority.

821. With respect to the PSC's preemption, the PSC has "exclusive and superior" jurisdiction to "regulate and supervise each public utility with respect to its rates and service," including electrical transmission lines. § 366.04(1), Fla. Stat. See also § 366.04(5), Fla. Stat. Generally, local ordinances, including comprehensive plans and LDRs, that would encroach upon this "exclusive and superior" jurisdiction of the PSC over electric services are invalid and unenforceable. Seminole County; Gadsden County; In re: Petition by City of Parker, PSC-003-0598-DS-EU (FPSC May 12, 2003).

822. With respect to the Siting Board's preemption, the Legislature enacted the PPSA to empower the Siting Board to decide on a "state position with respect to each proposed [power plant] site and its associated facilities." § 403.502, Fla. Stat. Consequently, the Siting Board's authority to regulate and certify "electrical power plant sites and electrical power plants" as defined in the PPSA preempts local government authority to regulate the same. § 403.510(2), Fla. Stat. ("[t]he state hereby preempts the regulation and certification of electrical power plant sites and electrical power plants"); see also §§ 403.511(1) and (3), Fla. Stat. (reserving to the

state the authority to certify and approve the location of such facilities and their associated infrastructure). While the Siting Board must consider whether and the extent to which a power plant and its associated facilities are consistent with applicable local land use and zoning requirements, it is not bound by local requirements. See §§ 403.50665, 403.508(1), 403.509(3), Fla. Stat.

823. Here, the County and municipalities lack the authority to regulate FPL's transmission lines and corridors because their authority to do so has been preempted by the PSC and the Siting Board under these statutes. Accordingly, the County and municipalities may not impose the plan consistency requirement of section 163.3194 or any LDRs to these facilities.

824. The County and municipalities lack any authority to regulate the Project and its associated transmission lines under chapter 163, or under their independent home rule authority. See Seminole County.

825. The definition of "development" under section 380.04 excludes "[w]ork by any utility and other persons engaged in the . . . transmission of . . . electricity . . . for the purpose of inspecting, repairing, renewing, or constructing on established rights-of-way any . . . pipes, . . . power lines, towers, poles, . . . or the like." § 380.04(3)(b), Fla. Stat. The "creation

or termination of rights of access" is also expressly excluded. § 380.04(3)(h), Fla. Stat.

826. This definition and the exclusions from it apply to the authority that a local government exercises under chapter 163 when adopting and enforcing a comprehensive plan or LDR. See § 163.3164(14), Fla. Stat. (incorporating section 380.04 into chapter 163 for purposes of local comprehensive plans and LDRs). Therefore, local governments are prohibited from exercising any authority to regulate the use and development of land through a comprehensive plan or LDR when it comes to matters encompassed by the exclusions in section 380.04(3).

827. The Florida Supreme Court, three District Courts of Appeal, and the Florida Department of Community Affairs have all confirmed this construction of the statute. See, e.g., Rinker Materials Corp. v. Town of Lake Park, 494 So. 2d 1123, 1126 (Fla. 1986) (relying upon the definition of "development" to preclude application of comprehensive planning requirements); St. Johns Cnty. v. Dep't of Cmty. Affrs., 836 So. 2d 1034 (Fla. 5th DCA 2002) (same); Love PGI Partners, LP v. Schultz, 706 So. 2d 887 (Fla. 5th DCA 1998), approved by Schultz v. Love PGI Partners, LP, 731 So. 2d 1270 (Fla. 1999) (same); Robbins v. City of Miami Bch., 664 So. 2d 1150 (Fla. 3d DCA 1995) (same); Bd. of Cnty. Comm'rs of Monroe Cnty. v. Dep't of Cmty. Affrs., 560 So. 2d 240 (3d DCA 1990) (same); Leon Cnty. Bd. of Cnty.

Comm'rs v. Karimipour, 4 So. 3d 777 (Fla. 1st DCA 2009),  
affirming Karimipour v. Leon Cnty., Case No. 07-CA-3437 (Fla. 2d  
Cir. Final Summary Judgment June 3, 2008); In re: Petition for  
Declaratory Stmt. filed by Hughes and Knowles, Case No. DCA-03-  
DEC-295, 2004 Fla. ENV LEXIS 166 at \*6-7 (Fla. DCA Apr. 9, 2004)  
(proposed powerline on newly established right-of-way not  
"development" under section 380.04).

828. The County and the municipalities also cannot rely upon home rule authority as an independent, alternative source of authority to regulate these facilities. According to the Florida Constitution, under their home rule authority, charter counties and municipalities may only enact ordinances not inconsistent with general law. See Art. VIII, §§ 1(g) and 2(b) Fla. Const. An ordinance is "inconsistent" with general law if (1) the Legislature has preempted a particular subject area, or (2) the local enactment conflicts with a state statute. Sarasota Alliance for Fair Elections, Inc. v. Browning, 28 So. 3d 880, 885-886 (Fla. 2010) (citations omitted).

829. For the reasons given above, the Legislature has preempted this subject area and therefore any County or municipal ordinances seeking to regulate FPL's transmission lines and corridors, access roads, and water pipelines would be inconsistent with general law and thus invalid. See also City of Hollywood v. Mulligan, 934 So. 2d 1238, 1247 (Fla. 2006)

(finding that a local government "cannot forbid what the legislature has expressly licensed, authorized or required, nor may it authorize what the legislature has expressly forbidden"); Dade Cnty. v. Acme Specialty Corp., 292 So. 2d 378 at n.2 (Fla. 3d DCA 1974) (finding that county ordinances under home rule charter treated the same as municipal ordinances).

830. Even if the County and the municipalities' home rule powers were to somehow free them from the statutory requirements of chapter 163, their comprehensive plan and LDRs would be nevertheless invalid as to FPL's transmission lines and corridors, access roads, and water pipelines because they seek to apply their plans and regulations in a manner that is directly at odds with the dictates of the Legislature.

831. County or municipal ordinances seeking to regulate FPL's transmission lines and corridors, access roads, and water pipelines would conflict with several statutes: chapter 366 to the extent that they purport to regulate FPL facilities that are part of the "coordinated electric power grid throughout Florida" for which the PSC has "exclusive and superior jurisdiction"; chapter 163 and section 380.04(3) to the extent those plans or regulations purport to regulate FPL in the "creation . . . of rights of access . . . or other rights in land," or in its "[w]ork . . . for the purpose of inspecting, repairing, renewing, or constructing on established rights-of-way"; and

chapter 361 to the extent that they purport to regulate FPL in the exercise of its broad eminent domain powers conferred by general law. See §§ 366.04(1), (5), 380.04(3)(b), (h), 361.01, Fla. Stat.

832. Local government comprehensive plans, zoning regulations, and LDRs are not "applicable" to the proposed electrical transmission lines under section 403.509(3)(b) and/or section 403.509(3)(c). This is consistent with the PPSA and is how the Department interprets the PPSA. This interpretation of the statute is reasonable, is not clearly erroneous, and should be accorded deference.

833. The County has a zoning overlay district known as the EEACEC that is approximately 242 square miles and contiguous with the Everglades National Park. The EEACEC is not a non-procedural requirement applicable to transmission lines within the meaning of chapter 403 for the reasons given above.

834. Because there are no "applicable" local government comprehensive plans or LDRs for the proposed transmission lines in this case, the EEACEC cannot be used to regulate them.

835. FPL nonetheless demonstrated that, notwithstanding their inapplicability, the location, construction, operation, and maintenance of the western transmission lines would not conflict with the County's zoning regulations governing the EEACEC. FPL also established that the proposed transmission

lines would not conflict with the County Aesthetics Master Plan and would not cause visual clutter or blight. Further, FPL has voluntarily stipulated to comply with certain local requirements as conditions of certification. These voluntary stipulations do not obviate the foregoing conclusions.

836. There are no local government comprehensive plans or LDRs that apply to the location, construction, operation, and maintenance of the transmission lines. FPL nonetheless has voluntarily agreed to comply with certain stipulated conditions of certification proposed by the local governments who are parties to these proceedings, which conditions may or may not have had as their genesis local comprehensive plans or LDRs. Those conditions are set forth in Attachment 1 to this Recommended Order. FPL's agreement does not change the conclusion of law that there are no local government comprehensive plans, zoning regulations, or LDRs, including zoning regulations, applicable to transmission lines.

3. Criteria for Certification: Transmission Lines

a. General Considerations

837. In determining whether an application for certification pursuant to chapter 403 should be approved in whole, approved with modifications or conditions, or denied, the Siting Board shall consider whether, and the extent to which, the location, construction, operation, and maintenance of the

electrical power plant will: (a) provide reasonable assurance that operational safeguards are technically sufficient for the public welfare and protection; (b) comply with applicable non-procedural requirements of agencies; (c) be consistent with applicable local government comprehensive plans and LDRs; (d) meet the electrical energy needs of the state in an orderly, reliable, and timely fashion; (e) effect a reasonable balance between the need for the facility and the impacts upon air and water quality, fish and wildlife, water resources, and other natural resources of the state; (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; and (g) serve and protect the broad interests of the public. See § 403.509(3), Fla. Stat.

838. To the extent more than one transmission line corridor is proper for certification under section 403.503(11) and meets the certification criteria, the Siting Board is to certify the transmission line corridor that has the least adverse impacts regarding the criteria in subsection (3), including costs. § 403.509(4)(a), Fla. Stat. If the Siting Board finds that two or more of the corridors that comply with subsection (3) have the least adverse impacts regarding the criteria in section 403.509(3), including costs, and that the

corridors are substantially equal in adverse impacts regarding the criteria in section 403.509(3), including costs, the Siting Board shall certify the corridor preferred by the applicant if the corridor is one proper for certification under section 403.503(11). See § 403.509(4)(c), Fla. Stat.

839. The PPSA requires the reasonable balancing of the statutory criteria to assess the extent to which the criteria have been met. In re: Gainesville Renewable Energy Center, LLC.

840. Section 403.503(11) defines the word "corridor" to mean:

the proposed area within which an associated linear facility right-of-way is to be located. The width of the corridor proposed for certification as an associated facility, at the option of the applicant, may be the width of the right-of-way or a wider boundary, not to exceed a width of one mile. The area within the corridor in which a right-of-way may be located may be further restricted by a condition of certification. After all property interests required for the right-of-way have been acquired by the licensee, the boundaries of the area certified shall narrow to only that land within the boundaries of the right-of-way. The corridors proper for certification shall be those addressed in the application, in amendments to the application filed under s. 403.5064, and in notices of acceptance of proposed alternate corridors filed by an applicant and the department pursuant to s. 403.5271 as incorporated by reference in s. 403.5064(1)(b) for which the required information for the preparation of agency supplemental reports was filed.

i. Eastern Transmission Lines

841. The FPL East Preferred Corridor and PAC are corridors proper for certification under section 403.503(11).

842. Based upon the accepted evidence presented at the hearing, the proposed eastern transmission lines in the FPL East Preferred Corridor or the PAC meet the criteria for certification set forth in section 403.509(3).

843. Having determined that both the FPL East Preferred Corridor and the PAC are proper for certification under section 403.503(11), and meet the criteria for certification under section 403.509(3), the corridor with the "least adverse impact" considering the criteria in section 403.509(3), including costs, should be certified. § 403.509(4), Fla. Stat. Of the two eastern corridors proper for certification, it is concluded that the FPL East Preferred Corridor has the least adverse impact considering the criteria of section 403.509(3), including costs.

ii. Western Transmission Lines

844. For the western transmission line corridors, the FPL West Preferred, West Consensus Corridor, MDLPA No. 1, MDLPA No. 2, MDLPA No. 3, and NPCA Corridor are corridors proper for certification under section 403.503(11).

845. Based upon the accepted evidence presented at the hearing, the proposed western transmission lines in the FPL West Preferred Corridor, the West Consensus Corridor/MDLPA No. 2,

MDLPA No. 1, MDLPA No. 3, or NPCA Corridor meet the criteria for certification set forth in section 403.509(3).

846. Having determined that all of the western corridors are proper for certification under section 403.503(11) and meet the criteria for certification under section 403.509(3), the corridor with the "least adverse impact," considering the criteria in section 403.509(3), including costs, should be certified. § 403.504(4), Fla. Stat.

847. Of the five western corridors proper for certification, it is concluded that the West Consensus Corridor/MDLPA No. 2 has the least adverse impact considering the criteria in section 403.509(3), including costs, only if a ROW within that corridor can be acquired in a timely manner and at reasonable cost. If a ROW within the West Consensus Corridor/MDLPA No. 2 cannot be secured in a timely manner and at a reasonable cost, then the FPL West Preferred Corridor has the least adverse impact considering the criteria in section 403.509(3), including costs.

b. Undergrounding (Eastern Transmission Line)

848. As discussed above, the municipalities cannot require FPL to underground the proposed Davis-Miami 230-kV transmission line based upon application of their local comprehensive plans or LDRs or their independent home rule authority. The Legislature has explicitly preempted these local governments'

regulatory authority over the transmission line pursuant to chapter 163 and their independent home rule authority in favor of the PSC and the Siting Board. Permitting the County and municipalities to require FPL to underground its proposed transmission line at the cost of FPL and its customers would violate the Florida Supreme Court's long-standing prohibition on such actions. See Seminole County, 579 So. 2d at 107-08 (rejecting a charter county and municipality's attempts to require undergrounding at the utility's cost, reasoning that if the utility "has to expend large sums of money in converting its overhead power lines to underground, these expenditures [would] necessarily be reflected in the rates of its customers" and thus would "clearly run contrary to the legislative intent that the [PSC] have regulatory authority over this subject").

849. The PSC has consistently relied upon the Florida Supreme Court guidance on this point. See, e.g., In re: Petition by City of Parker, in which the PSC declared that its jurisdiction preempted a municipality's local land use regulations, and recognized the principle enunciated in Seminole County that "the city and county are the cost causers in this case, and their position contravenes our policy that cost causers pay the direct costs of undergrounding."

850. Undergrounding of the Davis-Miami 230 kV transmission line would impose far greater costs on FPL and its ratepayers

throughout Florida than the planned overhead construction of the line. Therefore, consistent with the PSC's policy, the cost causers in this case - the County and municipalities - should be responsible for any costs associated with undergrounding the transmission line, not FPL and its ratepayers. Only the PSC can decide this issue. See Seminole County, 579 So. 2d at 107-108.

851. Finally, the incremental costs of undergrounding transmission lines, where overhead transmission lines are feasible but undergrounding has been requested for aesthetic reasons, is typically absorbed by the requesting entity. See § 366.03 Fla. Stat. ("No public utility shall make or give any undue or unreasonable preference or advantage to any person or locality, or subject the same to any undue or unreasonable prejudice or disadvantage in any respect."); Seminole County, 579 So. 2d at 108 ("Permitting cities or counties to unilaterally mandate the conversion of overhead lines to underground would clearly run contrary to the legislative intent that the [PSC] have regulatory authority over this subject."). No local government in this proceeding has agreed to undertake this financial responsibility.

c. Wetlands Impacts (Western Transmission Lines)

852. The County and municipalities cannot require FPL to avoid all siting of a corridor based solely on wetland impacts

or proximity of the Everglades National Park for at least two reasons.

853. First, as already discussed above, the County and municipalities cannot require FPL to avoid the Everglades National Park based upon application of their local comprehensive plans or local zoning regulations or their independent home rule authority. The Legislature has explicitly preempted these local governments' regulatory authority over the transmission lines pursuant to chapter 163 and their independent home rule authority in favor of the PSC and the Siting Board.

854. Second, the existence of federal or international laws governing the Everglades National Park or funding restoration plans to improve it does not outweigh other factors identified in section 403.509(3). As the record shows, the express language of section 403.509(3) requires a reasonable and balanced weighing of all the statutory factors when determining which corridor has the least adverse impacts, including costs.

855. The fact that one corridor may require more wetland impacts than another corridor is not dispositive. Other factors, such as land use considerations, including proximity to residences and other structures, engineering constraints, and costs must also be balanced.

856. Ultimately, where several alternate corridors all represent the least adverse impacts, including costs, the

statute requires certification of the corridor preferred by the applicant.

857. In this case, the evidence demonstrated that, on balance, including costs, the FPL West Preferred and West Consensus Corridor/MDLPA No. 2 represent the corridors with the least adverse impacts, including costs. FPL has recommended certification of both corridors, first utilizing the West Consensus Corridor/MDLPA No. 2 if an adequate ROW can be secured in a timely manner and at reasonable cost and, if not, utilizing the FPL West Preferred Corridor. Since the impacts of these two corridors are equivalent and, on balance, less than the impacts associated with the other corridors, both of these corridors should be certified.

4. Sufficient Safeguards to Protect the Public Welfare (section 403.509(3)(a))

858. In accordance with section 403.509(3)(a), FPL has provided reasonable assurances that the location, construction, operation, and maintenance of the proposed transmission lines in any of the corridors proper for certification will comply with agreed-upon conditions of certification and will have sufficient safeguards to protect the public welfare.

5. Compliance with Applicable Non-Procedural Requirements  
(section 403.509(3)(b))

859. In accordance with section 403.509(3)(b), FPL has provided reasonable assurances that the location, construction, operation, and maintenance of the proposed transmission lines in any of the corridors proper for certification will comply with all applicable Department, SFWMD, FWC, DOT, DHR, DACS, County, Doral, Florida City, City of Miami, Coral Gables, South Miami, Pinecrest, Palmetto Bay, and Medley non-procedural requirements.

860. FPL has provided reasonable assurances that the location, construction, operation, and maintenance of the transmission lines in any of the corridors proper for certification, in compliance with the attached conditions of certification, is not inconsistent with the CERP and will be consistent and in compliance with all applicable non-procedural requirements related to surface and groundwater quality, including applicable surface water and groundwater quality standards; storage and treatment of stormwater; flood protection; water conservation; wetland protection and mitigation; disposal of construction debris; air quality; air space; EMF; open burning; noise; lighting; protection of historic and archaeological resources; traffic impacts; protection of fish and wildlife, including avian and threatened and endangered species; protection of native trees and plants

(including listed plants and their preservation); maintenance of vegetation in proximity to electric facilities; protection of natural forest communities; and the objectives of CERP.

861. FPL has provided reasonable assurances that the location, construction, operation, and maintenance of the transmission lines in any of the corridors proper for certification, in compliance with the attached conditions of certification, will be consistent and in compliance with all applicable non-procedural pre-construction, construction, operation, and maintenance requirements of the Department, SFWMD, and other agencies, including the use and occupancy of public ROW requirements.

862. The Project has been determined by the PSC to be required for the protection of the health and safety of the public, when the PSC issued its need determination for the Project. The need determination also found that the Project was the most cost-effective alternative for providing needed electric generating capacity to FPL's customers. Thus, the Project is in the public interest, and there is a "public necessity" for the Project as that term is defined in rule 18-18.004(22), and the Project benefits the public within the meaning of applicable Board of Trustee rules.

863. FPL has also provided reasonable assurance that the location, construction, operation, and maintenance of culverts

needed for access roads, structure pads, or other infrastructure associated with any of the transmission lines will not impede the flow of surface water or sheet flow in wetlands and will not cause any adverse flooding, erosion, scouring, or sedimentation.

864. Some parties have argued that the proposed Davis-Miami 230-kV transmission line violates local government requirements because it uses higher or wider poles than currently exist in those local governments today. However, the evidence establishes that the proposed transmission line pole heights and widths are in accordance with FPL's customary practice for transmission lines within its service territory, including the County, and will be consistent with transmission lines currently in existence in other parts of its service area.

865. If constructed within the East Preferred Corridor or the PAC, the proposed transmission lines will comply with the applicable non-procedural requirements of the local governments in which they will be located. FPL's customary practice with respect to transmission line pole heights and designs are not frozen at the time of adoption of these local government requirements, but rather allow the adaptation and use of new and improved technologies as appropriate to fulfill the public utility's purpose of supplying electrical service through safe, reliable facilities. See Fla. Power Corp. v. Silver Lake Homeowners Ass'n, 727 So. 2d 1149, 1150-51 (Fla. 5th DCA 1999)

(agreement with utility for transmission line construction included modern inventions and improvements); Nerbonne, N.V. v. Fla. Power Corp., 692 So. 2d 928, 929 (Fla. 5th DCA 1997) (agreement with utility for public road purposes was not limited to particular methods of construction, but allows new and improved methods, whether or not those new and improved methods were contemplated by both parties when the agreement was finalized); Brevard Cnty. v. Fla. Power & Light Co., 693 So. 2d 77, 80 (Fla. 5th DCA 1997) (it was an impairment of FPL's contract rights in the franchise agreement for Brevard County to enact an ordinance that restricts transmission line construction for any reason other than interference with traffic, including on aesthetic or property devaluation grounds; the County's police powers did not give the County the right to impair FPL's contract rights, because the purposes of the County ordinance -- to prevent aesthetic blight and property devaluation caused by construction of overhead transmission lines as proposed -- did not justify the impairment, in light of the existing agreement between the parties).

6. Consistency with Applicable Local Government Comprehensive Plans and LDRs (section 403.509(3)(c))

i. Transmission Lines

866. For the reasons set forth above, there are no local government comprehensive plans and LDRs applicable to the

transmission lines, other than those with which FPL may have agreed to comply in the Conditions of Certification.

ii. Levee and Clear Sky Substations

867. Zoning "unusual use" approvals have already been obtained from the County for the construction of the Clear Sky substation (as part of the current zoning approval for the Site) and expansion of the Levee substation.

7. Meet Energy Needs in Orderly, Reliable, and Timely Fashion (section 403.509(3)(d))

868. Pursuant to section 403.509(3)(d), and as determined by the PSC, FPL has provided reasonable assurances that the location, construction, operation, and maintenance of the transmission lines in any of the corridors proper for certification will help the Project meet the electrical needs of the state in an orderly, reliable, and timely fashion.

i. Eastern Transmission Line

869. As previously found, FPL has provided reasonable assurances that the location, construction, operation, and maintenance of the Davis-Miami 230 kV line in the FPL East Preferred Corridor will better meet the electrical needs of the state by allowing for more orderly and less expensive construction of the transmission line with few constructability issues.

ii. Western Transmission Lines

870. As previously found, FPL has provided reasonable assurances that the location, construction, operation, and maintenance of the western transmission lines in the West Consensus Corridor/MDLPA No. 2, if a ROW can be obtained in a timely manner at a reasonable cost, or the FPL West Preferred Corridor, if a ROW within the West Consensus Corridor/MDLPA No. 2 cannot be so obtained, will better meet the electrical needs of the state by allowing for more orderly, timely, and less expensive construction of the transmission line, as compared to the other western alternate corridors.

8. Effect a Reasonable Balance Between Need and Ecological Impacts (section 403.509(3)(e))

871. Pursuant to section 403.509(3)(e), FPL has provided reasonable assurances that the location, construction, operation, and maintenance of the transmission lines as proposed in any of the corridors proper for certification effects a reasonable balance between the need for the facilities as established pursuant to section 403.519, and the impacts upon air and water quality, fish and wildlife, water resources, and other natural resources of the state resulting from construction and operation of the facility.

i. Eastern Transmission Lines

872. Based on the evidence, FPL has provided reasonable assurances that the location, construction, operation, and maintenance of the transmission lines in the FPL East Preferred Corridor effects a more reasonable balance between the need for the facilities as established pursuant to section 403.519, and the impacts upon air and water quality, fish and wildlife, water resources, and other natural resources of the state resulting from such location, construction, operation, and maintenance of the facilities than the PAC. While the environmental impacts of the corridors are virtually identical, the engineering constraints and costs associated with the PAC make location, construction, operation, and maintenance in the FPL East Preferred Corridor a more reasonable accommodation of the need for the facilities than the PAC.

ii. Western Transmission Lines

873. Based on the evidence, FPL has provided reasonable assurances that the location, construction, operation, and maintenance of the western transmission lines in the West Consensus Corridor/MDLPA No. 2, if a ROW can be secured in a timely manner at a reasonable cost, or the FPL West Preferred Corridor, if a ROW within the West Consensus Corridor/MDLPA No. 2 cannot be so obtained, has the fewest adverse impacts relative to air and water quality, fish and wildlife, water resources,

and other natural resources of the state, and both represent a reasonable balance between the need for the facilities as established pursuant to section 403.519 and the impacts upon air and water quality, fish and wildlife, water resources, and other natural resources of the state resulting from construction and operation of the facility. Provided a ROW within the West Consensus Corridor/MDLPA No. 2 can be timely obtained at a reasonable cost, it would have slightly fewer impacts to natural resources than would construction in the FPL West Preferred Corridor, given its substantial lesser proximity to wetlands west of the L-31N levee and greater minimization of impacts to the Pennsuco Wetlands. Both the West Consensus Corridor/MDLPA No. 2 and FPL West Preferred Corridor lie predominantly on a seam between land uses. The West Consensus Corridor/MDLPA No. 2 is wide enough to allow FPL to further minimize potential impacts by the potential placement of facilities on lands owned by limerock mining interests.

9. Minimize Adverse Effects on Human Health, the Environment, and Ecology (section 403.509(3)(f))

874. Pursuant to section 403.509(3)(f), FPL has provided reasonable assurances that the proposed transmission lines can be constructed, operated, and maintained in any of the corridors proper for certification so as to 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. There is no credible evidence of risk to public health from transmission lines.

875. Collocation of the transmission line corridors within or adjacent to existing linear features provides the opportunity to reduce the amount of new access road construction, impacts to wildlife habitat and existing and future development patterns, and other impacts. See, e.g., In Re: Tampa Electric Willow Oak-Wheeler-Davis Transmission Line Siting Application No. TA07-15, Case No. 07-4745TL, 2008 Fla. ENV LEXIS 115 (Fla. DOAH May 13, 2008), 2008 Fla. ENV LEXIS 114 at \*6-7 (Fla. Siting Bd. Aug. 1, 2008). Also, collocation of transmission lines enables construction of lines in a more timely and efficient manner, minimizes the need for new access roads, structure pads, and new clearing, and minimizes intrusions into surrounding areas. See, e.g., In re: Progress Energy Fla. Levy Nuclear Project Units 1 and 2, 2009 Fla. ENV LEXIS 151 at \*96-97.

10. Serve and Protect the Broad Interests of the Public (section 403.509(3)(g))

876. Pursuant to section 403.509(3)(g), FPL has provided reasonable assurances that the proposed transmission lines can be constructed, operated, located, and maintained in any of the

corridors proper for certification, and will serve and protect the broad interests of the public.

i. Eastern Transmission Lines

877. FPL has provided reasonable assurances that construction of the Davis-Miami 230-kV line in the FPL East Preferred Corridor will better serve and protect the broad interests of the public than construction in the PAC, given the fewer residences, schools, and other buildings in close proximity to the transmission line in the FPL East Preferred Corridor, the difficulty of constructing the line in the narrow ROWs along the residential roads of the PAC, and the cost of construction in the PAC compared to the FPL East Preferred Corridor.

ii. Western Transmission Lines

878. FPL has provided reasonable assurances that construction of the western transmission lines in either the West Consensus/MDLPA No. 2 or the FPL West Preferred Corridor will better serve and protect the broad interests of the public than construction in the MDLPA No. 1, MDLPA No. 3, or the NPCA Corridor. The location, construction, operation, and maintenance of the western transmission lines in the West Consensus Corridor/MDLPA No. 2, if a ROW can be secured in a timely manner at a reasonable cost, or the FPL West Preferred Corridor, if a ROW within the West Consensus Corridor/MDLPA No.

2 cannot be obtained, effects a more reasonable balance between the need for the Project, impacts on natural resources, impacts on more developed urban areas, and costs, compared to the other western alternate corridors.

11. Corridor with Least Adverse Impacts, Including Costs (section 403.509(4))

i. Eastern Transmission Lines

879. For the reasons set forth above, FPL has provided reasonable assurances that the location, construction, operation, and maintenance of the eastern transmission lines within the FPL East Preferred Corridor constitutes the eastern corridor with the least adverse impacts, including costs, considering the factors set forth in section 403.509(3)(e).

ii. Western Transmission Lines

880. FPL has provided reasonable assurances that the West Consensus Corridor/MDLPA No. 2 constitutes the western corridor with the least adverse impacts, including costs, considering the factors set forth in section 403.509(e) if it can be timely obtained at a reasonable cost. If the West Consensus Corridor/MDLPA No. 2 cannot be so obtained, FPL has provided reasonable assurances that the location, construction, operation, and maintenance of the western transmission lines within the FPL West Preferred Corridor constitutes the western corridor with the least adverse impacts, including costs,

considering the factors set forth in section 403.509(3). In light of the directives of section 403.509(4), given FPL's preferences, both the West Consensus Corridor/MDLPA No. 2 and the FPL West Preferred Corridor should be certified, with the West Consensus Corridor/MDLPA No. 2 to be utilized if it can be timely secured for a reasonable cost, and the FPL West Preferred Corridor to be certified as a back-up corridor to be utilized if the West Consensus Corridor/MDLPA No. 2 cannot be so obtained.

12. Disputed Conditions of Certification -- Transmission Lines

881. The County has not shown that requested General Conditions 6, 26, 30, and 31, East Condition 20, West Conditions 4, 5, and 9, and the unnumbered conditions on page 59 of its Exhibit 9 are supported by the County's applicable non-procedural requirements. Therefore, these proposed conditions are rejected.

882. The City of Miami has not shown that Conditions 5.2, 5.4, 5.5, 5.6, and 5.10 for the FPL East Preferred Corridor and Conditions 5.2, 5.4, 5.5, and 5.6 for the PAC are supported by the City's applicable non-procedural requirements. Therefore, these conditions are rejected.

883. The City of Coral Gables has not shown that Conditions A.1, A.2, A.3, A.4, A.6, B, C.2, and Q are supported

by its applicable non-procedural requirements. Therefore, these proposed conditions are rejected.

884. The Village of Pinecrest has not shown that Conditions B.2, C.1, C.2, D.1, D.3, D.4, and D.7 are supported by its applicable non-procedural requirements. Therefore, the proposed conditions are rejected.

885. The Cities of Doral and South Miami have not shown that their requested conditions, other than those included in Attachment 1, are supported by their respective applicable non-procedural requirements. Therefore, these proposed conditions are rejected.

D. Entire Project: Easement Over State-Owned Lands and Road Right-of-Way Dedications

886. The requested easement for the radial collector well laterals over sovereignty submerged lands within Biscayne Bay and the Biscayne Bay Aquatic Preserve meets all applicable Board of Trustee requirements reflected in section 258.397 and chapters 18-18 and 18-21.

887. The requested easement for the transmission line crossing of the Miami River within the boundaries of the Biscayne Bay Aquatic Preserve meets all applicable Board of Trustees requirements reflected in section 258.397 and chapters 18-18 and 18-21.

888. The requested upland easement in the western corridors meets all applicable Board of Trustees requirements reflected in subsections 253.02(2)(b) and (c) and chapter 18-2.

889. FPL has demonstrated entitlement to the three requested easements across state-owned lands. These include the requested easements over submerged lands beneath Biscayne Bay for the radial collector well system, over submerged lands for the transmission line crossing of the Miami River, and over state-owned uplands for the transmission line crossing. For purposes of the requested easements within the Biscayne Bay Aquatic Preserve for the radial collector wells and the crossing of the Miami River, "extreme hardship," as used and defined in section 258.397 and rules 18-18.004(11) and 18-18.006(3)(b), and is inherent in the Project because it is a "public project" and also a "public necessity." The Project is a "public project" because it is being undertaken by FPL, a public utility. The Project has been determined by the PSC to be required for the protection of the health and safety of the public, when the PSC issued its need determination for the Project. The need determination also found that the Project was the most cost-effective alternative for providing needed electrical generating capacity to serve FPL's customers, who are citizens of Florida. Thus, the Project is in the public interest, and there is a "public necessity" for the Project as that term is defined in

rule 18-18.004(22). The Miami River crossing and proposed radial collector wells are "structures required for the installation or expansion of public utilities" and "reasonable improvement[s] for public utility expansion," and are therefore specifically allowed by the Act that created the Biscayne Bay Aquatic Preserve. See § 258.397, Fla. Stat.

890. The potential environmental costs of the Project are only potential, de minimis, or hypothetical costs, as opposed to demonstrable costs, as contemplated by rules 18-21.003(51), 18-2.017(49), and 18-18.004(20), or will be fully mitigated. The environmental benefits, on the other hand, are demonstrable and significant. For these reasons, the demonstrable environmental benefits of the Project outweigh the demonstrable environmental costs.

891. Development of the Project has multiple social benefits and no demonstrable social costs. The demonstrable social benefits of the Project outweigh its demonstrable social costs.

892. Development of the Project has economic benefits accruing to the public at large, and no demonstrable economic costs accruing to the public at large.

893. The environmental, social, and economic benefits accruing to the public at large from the development of the Project outweigh the environmental, social, and economic costs

of developing the Project. The Project is, therefore, in the public interest, as defined in rules 21.003(51) and 18-18.004(20), and qualifies for the issuance of a public easement for the laterals associated with the proposed radial collector wells and the crossing of the Miami River, pursuant to rule 18-18.006(3)(b)(ii).

894. Neither the development of the Project nor any of the three requested easements will have any unacceptable adverse cumulative impact on the Biscayne Bay Aquatic Preserve or on state-owned uplands.

895. The County has not shown that either the requested conditions of certification for road ROW dedications or the list of 131 specific locations for such dedications are supported by applicable non-procedural requirements. Section 33-46, MDC, only requires FPL to dedicate land owned by FPL for public road ROWs. The County has not identified where FPL owns land in fee that would be subject to this requirement, and it acknowledges that FPL does not own the land at some of these locations. The County also seeks some dedications for purposes other than for use as public roads, such as environmental restoration and other reasons which are beyond the purposes of sections 33-46 and 33-133. Therefore the County's list of 131 locations for dedications is not appropriate for inclusion in any final condition of certification.

896. Further, under section 380.04(3)(b), electrical transmission lines and pipelines constructed by electric utilities within established ROWs are excluded from the definition of "development" that is subject to local comprehensive plans and LDRs, including zoning regulations. The only regulatory bases the County cites to support the dedications of road ROWs are found in its zoning code and its adopted comprehensive plan. As discussed above, zoning code requirements and CDMP policies do not apply to the creation of electrical transmission lines or activities within "established rights of way." Where the County's requested dedications of public road ROWs are within an established ROW to be used or created for the electrical transmission lines or for the water pipelines, the County's dedication requirements do not apply to those facilities within established ROW. However, the County also did not identify where such locations for dedications are outside of an established ROW that is subject to section 380.04(3)(b). Thus, many of these 131 locations may occur in areas where the zoning code, including section 33-46, and the CDMP are not applicable to the Project's linear facilities. Given the inapplicability of the County's dedication ordinance and the uncertainty of the purposes and uses of some of the County's requested dedications, there is no legal basis to impose the County's condition on ROW dedications or to include a

list of locations for such road dedications. For these reasons, the County's proposed conditions of certification regarding road ROW dedications should not be imposed in this proceeding.

E. Other Contentions of the Parties

897. All other arguments not specifically addressed by this Recommended Order have been considered and found to be without merit.

RECOMMENDATION

Based upon the foregoing Findings of Fact and Conclusions of Law, it is

RECOMMENDED that the Siting Board grant final certification to Florida Power & Light Company under chapter 403 for the location, construction, and operation of the Turkey Point Units 6 and 7 Project, representing a 2,200 MW nuclear generating facility, and including associated electrical transmission lines and other associated linear facilities, as described in the Site Certification Application and in the evidence presented at the certification hearing, and subject to the Conditions of Certification appended hereto. It is further

RECOMMENDED that the Siting Board certify one of the corridors proper for certification for the eastern transmission lines and the western transmission lines. It is further

RECOMMENDED that the Siting Board certify the following transmission line corridors pursuant to section 403.509:

East Preferred Corridor;

West Consensus Corridor/MDLPA No. 2; and

West Preferred Corridor as a back-up if an adequate right-of-way within the West Consensus Corridor/MDLPA No. 2 cannot be secured in a timely manner and at a reasonable cost. It is further

RECOMMENDED that the Siting Board grant Florida Power & Light Company a variance from section 24-43.1(6), MDC, to allow use of the on-site package sanitary treatment plant and other on-site cooling water and wastewater treatment and disposal in lieu of connecting the Project to a public sanitary sewer line for treatment and disposal of these waters by the County. It is further

RECOMMENDED that the Siting Board direct the Board of Trustees to grant to Florida Power & Light Company three separate easements over state-owned lands, including: (1) submerged lands owned by the State of Florida located within Biscayne Bay for the installation of the laterals associated with a radial collector well system to supply back-up cooling water; (2) submerged lands owned by the State of Florida located within the Miami River for the installation of a subaqueous 230-kV electrical transmission line; and (3) an approximate four-acre parcel of state-owned uplands along the western certified

corridor to allow the construction of a 230-kV electrical transmission line.

DONE AND ENTERED this 5th day of December, 2013, in Tallahassee, Leon County, Florida.



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NOTICE OF RIGHT TO SUBMIT EXCEPTIONS

All parties have the right to submit written exceptions within 15 days of the date of this Recommended Order. Any exceptions to this Recommended Order should be filed with the agency that will render a final order in this matter.

**STATE OF FLORIDA  
DEPARTMENT  
OF  
ENVIRONMENTAL PROTECTION**



**Proposed  
Conditions of Certification**

**Florida Power & Light Company  
Turkey Point Plant Units 6 & 7**

**PA 03-45A3**

**November 4, 2013**