

Application No. 6

Land Use Plan Map and Traffic Circulation Subelement Amendment

APPLICATION SUMMARY

Applicant/Representative:	Florida Power & Light Company / Jeffrey Bercow, Esq., Michael A. Gil, Esq.
Location:	Between SW 328 Street and theoretical SW 360 Street and from SW 137 Avenue eastward to the FPL's Turkey Point Power Plant on the County's east coastline (theoretical SW 87 Avenue).
Requested CDMP Text and Land Use Plan Map Changes:	<ol style="list-style-type: none">1. Amend the County's Adopted 2015 and 2025 Land Use Plan map of the Comprehensive Development Master Plan (CDMP) to show certain roadways outside the County's Urban Development Boundary as Major Roads (3 or more lanes).2. Amend the CDMP Traffic Circulation Subelement Figure 1, Planned Year 2025 Roadway Network, to depict certain roads as 4-lane roads.3. Include a new Figure 3.1 titled "Roadway and Associated Facilities Required in Connection with Expansion of Nuclear Power Plant," into the CDMP Traffic Circulation Subelement maps series.4. Amend the CDMP Traffic Circulation Subelement text by adding language on page II-17 addressing temporary roads.5. Include within the CDMP Land Use Element table "Restrictions Accepted by Board of County Commissioners in Association with Land Use Plan Amendments" a covenant if accepted by the Board of County Commissioners with adoption of application.
Amendment Type:	Standard Amendment

RECOMMENDATIONS

Staff:	DENY AND TRANSMIT (August 25, 2009), changed on October 28, 2009 to TRANSMIT two proposed access options (see the October 28, 2009 supplement to the Initial Recommendations Report)
Community Councils:	ADOPT AND TRANSMIT (September 24, 2009)
Planning Advisory Board (PAB) acting as Local Planning Agency:	ADOPT AND TRANSMIT (October 5, 2009)
Board of County Commissioners:	ADOPT AND TRANSMIT request No. 4 of application, as amended by applicant's letter dated October 23, 2009, and TRANSMIT WITH NO RECOMMENDATION the remainder of the application and the two alternative road configuration maps submitted by letter dated October 23, 2009 (November 4, 2009)

Final Recommendation of PAB acting as Local Planning Agency: **TO BE DETERMINED**

Final Action of Board of County Commissioners: **TO BE DETERMINED**

STAFF RECOMMENDATION

Staff recommends to **DENY AND TRANSMIT**: Staff's recommendation to transmit the application is based on staff's understanding that the Applicant will, prior to public hearings, modify the application and provide supporting data and analyses that demonstrate the need for the proposed road improvements and address various environmental issues, as summarized below in the Reasons for Recommendations.

The Applicant's requests are provided first followed by the Staff's Reasons for Recommendation addressing the Applicant's specific request(s). Requests 1 and 2 are addressed together.

Request 1

The Applicant requests an amendment to the CDMP's LUP map in order to indicate the following roadway segments as Major Roadways (three or more lanes):

- a. SW 328 Street from SW 137 Avenue to SW 117 Avenue (*proposed to be widen from 2 to 4 lanes*);
- b. SW 117 Avenue from SW 328 Street to SW 344 Street (*proposed to be widen from 2 to 4 lanes*);
- c. Theoretical SW 117 Avenue from SW 344 Street to theoretical SW 359 Street (*proposed new 4-lane road*);
- d. Theoretical SW 359 Street from theoretical SW 137 Avenue to theoretical SW 117 Avenue (*proposed new 3-lane road*);
- e. Theoretical SW 359 Street from theoretical SW 117 Avenue to the Turkey Point plant site (*proposed new 4-lane road*);
- f. Theoretical SW 137 Avenue from SW 344 Street to theoretical SW 352 Street (*proposed new 3-lane road*);
- g. Theoretical SW 137 Avenue from theoretical SW 352 Street to theoretical SW 359 Street (*proposed new 3-lane road*); and
- h. SW 344 Street from SW 137 Avenue West to theoretical SW 137 Avenue East (*proposed to be widen from 2 to 4 lanes*).

Request 2

The Applicant requests an amendment to the CDMP's Traffic Circulation Subelement of the Transportation Element, Figure One, Planned Year 2025 Roadway Network, in order to indicate the following roadway segments as four lanes:

- a. SW 328th Street (from SW 137th Avenue to SW 117th Avenue);
- b. SW 117th Avenue (from SW 328th Street to SW 344th Street);
- c. SW 117th Avenue (from SW 344th Street to SW 359th Street)

- d. SW 359th Street (from SW 137th Avenue to SW 117th Avenue);
- e. SW 359th Street (from SW 117th Avenue to the Turkey Point plant site);
- f. SW 137th Avenue (from SW 344th Street to SW 352nd Street)
- g. SW 137th Avenue (from SW 352nd Street to SW 359th Street); and
- h. SW 344th Street (from SW 137th Avenue West to SW 137th Avenue East).

Reasons for Recommendation:

1. Florida Power & Light Company (FPL) has filed a Site Certification Application (SCA) with the Florida Department of Environmental Protection (DEP) seeking certification for the construction and operation of two new nuclear power generating units (Units 6 and 7) at the Turkey Point Power Plant in Miami-Dade County, pursuant to the Florida Electrical Power Plant Siting Act, Section 403.501, F.S., and Section 62-17.051, F.A.C. The project for which FPL is seeking certification includes, in addition to the new nuclear Units 6 and 7, new transmission lines, access roads and bridges, and other off-site facilities.

As a result of the Site Certification Application, FPL has identified a need to improve certain existing roadways and construct new ones to provide safe and efficient access during the construction of Turkey Point Units 6 and 7. The proposed roadway improvements, which are listed in Request Change No. 1 above, are to accommodate traffic during the construction of Units 6 and 7. FPL has indicated that these roadway improvements will not be required to accommodate the projected traffic after the construction of the project - construction is estimated to last approximately nine years (2011 through 2020). The applicant has also indicated its willingness to work with County staff to affect a permanent set of improvements on those roadways appropriate for the projected level of service following the construction of Units 6 and 7.

The applicant submitted along with its Site Certification Application two traffic studies, *Turkey Point Power Plant Peak Construction Analysis (June 2009)* and *Turkey Point Plant Operations Analysis (June 2009)*. Traf Tech Engineering, Inc. of Tamarac, Florida, prepared both traffic studies. Copies of these traffic studies are contained in Appendix C: Applicant's Traffic Study.

According to the Instructions Report for the April 2009 CDMP Cycle of applications, the applicant(s) are to submit for Standard CDMP Amendment applications, a traffic study report addressing existing traffic conditions, concurrency level-of-service conditions, and future traffic conditions without and with the impacts of the amendment application. FPL submitted in support of the CDMP amendment application the same traffic studies submitted with the Site Certification Application. County staff reviewed the *Peak Construction Analysis* and *Operations Analysis* studies and concluded that the information, data, assumptions and analyses provided are insufficient and/or inconsistent with the requirements for traffic studies to be submitted in support of CDMP Standard amendment applications. Therefore, the applicant has not demonstrated the need for the proposed roadway improvements and the proposed CDMP amendments.

2. The *Turkey Point Power Plant Peak Construction Analysis (June 2009)*, addresses traffic impacts for the construction of Units 6 and 7 for peak workforce conditions. Construction activities are expected to begin in the third quarter of 2011 and construction employment to peak in 2016. This study assumes that approximately

3,650 construction workers, operation staff and management will access the plant's construction site from theoretical SW 328 Street, SW 117 Avenue and SW 359 Street, and a very conservative vehicle occupancy rate of 1.0 worker per vehicle. However, the analysis did not consider access from existing SW 344 Street nor the implementation of transportation demand management (TDM) programs such as van pooling, car pooling and parking management to reduce overall peak-hour demand and use of single occupant vehicles (SOV). A traffic analysis should be performed for the peak construction year (2016) with projected background traffic to the year 2016 or 2020. Moreover, the area of influence (Study Area) should be enlarged to include such regional corridors as Krome Avenue/SW 177 Avenue, US-1/South Dixie Highway, and the Homestead Extension of the Florida Turnpike (HEFT). For these reasons, the results of the applicant's analysis and its recommendations do not demonstrate the need for the proposed intersection and roadway improvements.

3. The *Turkey Point Plant Operations Analysis (June 2009)* addresses traffic impact in connection with the operation of Units 6 and 7 after construction is completed in 2020. This study assumes the current 1,467 employees and the estimated 806 new employees associated with Units 6 and 7 will access the Turkey Point Power plant from SW 344 Street. However, the analysis did not consider the impact of the new workforce on a larger study area. The applicant and County staff should determine the area of influence for impact analysis, the analysis year, methodology, type of analysis, background traffic, growth factor, trip generation, proper automobile occupancy factors, trip distribution and assignment, impacts, and mitigation strategies. For these reasons, the results of the traffic analysis and its recommendations do not demonstrate the need for the proposed intersection and roadway improvements.
4. The roadway improvements proposed for the segments of SW 137 and SW 117 Avenues and SW 359 Street south of SW 344 Street would impact land Identified in the CDMP Land Use Element and by DERM as high quality wetlands that is also habitat to federal and state endangered and threatened species. This area is also designated on the Adopted 2015 and 2025 Land Use Plan (LUP) map of the CDMP as "Environmental Protection". Significant filling of the wetlands would be required to facilitate elevated road beds in the construction of the multilane roadways as proposed by the applicant, which would disconnect ecological corridors and impede surface water flow (sheetflow). Impeded surface water flow would alter the area's hydrology important to the maintenance of the wetlands and would contribute to its degradation. The applicant has not demonstrated that an effort was made to avoid impacts to the wetlands in this area, and as discussed above, the applicant has not demonstrated the need for roadways in this environmentally sensitive area south of SW 344 Street.

The CDMP Land Use Element Policy LU-3B requires the protection of natural resources and systems. The CDMP Conservation, Aquifer Recharge and Drainage Element Policy CON-7A limits the degradation or destruction of wetlands to activities that "...1) are necessary to prevent or eliminate a threat to public health, safety or welfare; or 2) are water dependent, clearly in the public interest and no other reasonable alternative exists; or 3) are carried out in accordance with an approved basin management plan; or 4) are in areas that have been highly disturbed or degraded...Habitats critical to endangered or threatened species shall not be destroyed." The applicant has not demonstrated with data and analysis that the road

improvements proposed for the area south of SW 344 Street provide the only reasonable means of access to the Turkey Point Power Plant or that they would eliminate a threat to public health, safety or welfare. Therefore, the proposed roadway improvements south of SW 344 Street are inconsistent with Policies LU-3B and CON-7A and the County's intent on preserving wetlands and habitats critical to endangered or threatened species.

5. The wetlands south of SW 344 Street provide habitat to federal and state endangered and threatened species, as mentioned above and discussed in the Environmental Conditions section of this report. These species include, but are not limited to, the Florida panther, the American crocodile, the wood stork, the indigo snake, and several state listed species of wading birds. As proposed, the roadway improvements would not only degrade the wetlands but also diminish the wetlands' habitat value. As mentioned above, CDMP Policy CON-7A provides that habitats critical to endangered or threatened species shall not be destroyed, and outlines criteria for activities that could cause degradation or destruction of wetlands. According to Coastal Management Element Policies CM-4A and CM-4C, travel corridors, nesting areas, feeding or congregation areas of endangered and threatened species shall be protected from alteration and human activities. Furthermore, there are three documented vehicle strikes of Florida panthers in this region including two road kills in the recent past. The roadway improvements proposed by the applicant could significantly alter the wetlands habitat, would significantly increase the risk of road kills, and be detrimental to wildlife in the area, including the endangered or threatened species. Therefore, the proposed roadway improvements south of SW 344 Street are in direct conflict with Policies CON-7A, CM-4A and CM-4C and the County's intent on preserving wetlands and habitats critical to endangered or threatened species.
6. The proposed road improvements south of SW 344 Street would open the wetlands area and DERM managed Environmentally Endangered Lands (EEL) sites to additional illegal dumping, unauthorized all-terrain vehicle (ATV) riding, poaching, and other activities that could be detrimental to the wetlands, and endangered and threatened species. These activities would compromise the ability of DERM and other agencies to appropriately manage the public owned wetlands and EEL sites. It is also unclear from the information provided in the application how the proposed roadway improvements would impact DERM's ability to access and manage EEL sites. Furthermore, the applicant has not demonstrated that an effort was made to avoid impacts to the wetlands and EEL properties in this area.
7. The land adjacent to the proposed roadway improvements is primarily within the Comprehensive Everglades Restoration Plan (CERP) Biscayne Bay Coastal Wetlands project. One feature of CERP's Biscayne Bay Coastal Wetlands project is Alternative O, which proposes a pump station on the Florida City Canal (along SW 344 Street) at SW 137 Avenue and a north-south spreader canal along SW 137 Avenue. The objective of Alternative O is to transfer water into the Model Lands area generally south of SW 360 Street. The applicant has not provided sufficient data to demonstrate that proposed roadway improvements would not negatively impact the CERP Biscayne Bay Coastal Wetlands project and the planned hydrological improvements to the Model Lands area.

Request 3

The Applicant requests an amendment to the CDMP's Traffic Circulation Subelement of the Transportation Element, "Future Traffic Circulation Map Series", to include a new Figure 3.1 to be entitled "Roadway and Associated Facilities Required in Connection with Expansion of Nuclear Power Plant," a copy of which is attached hereto.

Reasons for Recommendation:

1. The proposed new Figure 3.1, as described in Request 4 below, shows those roadway improvements identified by FPL that may be required on a temporary basis during the construction of Turkey Point Units 6 and 7. These roadway improvements involve widening of existing roads (SW 328 Street, SW 344 Street, and SW 117 Avenue) and construction of new roads (SW 359 Street, SW 117 and SW 137 Avenues from SW 344 Street to SW 359 Street). In addition, intersection improvements at six locations are proposed to accommodate peak construction traffic. Approximately ten miles of roadway improvements are proposed.

FPL has indicated that the roadway improvements are uniquely required to support the safe and efficient construction of Units 6 and 7, are not necessary post construction, but some of the roadway improvements should be maintained for operations. Section R9.0, Roadway Improvements, of the Site Certification Application (SCA), indicates that FPL will be responsible for maintaining the roadway improvements on FPL property (SW 359 Street), and the County will maintain the other roadways - SW 117 between SW 328 Street and SW 359 Street, SW 137 Avenues between SW 344 Street and SW 359 Street, SW 328 Street between SW 137 Avenue and SW 117 Avenue, and SW 344 Street from SW 137 Avenue East to SW 137 Avenue West. Moreover, FPL proposes to retain the access provided by SW 137 Avenue from SW 344 Street to SW 359 Street, SW 117 Avenue from SW 344 Street to SW 359 Street, and SW 359 Street between SW 137 Avenue and the FPL site as private access road. If this is case, then all these new roadways will become permanent roads and should not be included in Figure 3.1.

With regard to the proposed widening of SW 328 Street between SW 137 Avenue and SW 117 Avenue and SW 117 Avenue from SW 328 Street to SW 344 Street, the transportation impact analysis evaluating potential impacts on the operation of Units 6 and 7 and contained in Appendix C, indicates that the roadway improvements recommended for safe and efficient access during construction of the FPL project are not required for operation Units 6 and 7. Therefore, there is no need to add the proposed Figure 3.1 to the "Future Traffic Circulation Map Series" within the CDMP Traffic Circulation Subelement of the CDMP.

However, FPL has indicated that some of the roadway improvements should be maintained as indicated above. County staff reviewed the transportation impact analyses provided in the Site Certification Application and has determined that more analyses are required, including one which must consider the widening of SW 344 Street between SW 137 Avenue and the entrance to the FPL site as an alternate corridor to the proposed SW 359 Street.

2. Once additional data and the traffic impact analyses are provided addressing Request 1 and 2, which demonstrate the need for temporary roads during the construction of Units 6 and 7 and which roadway improvements should be permanent to accommodate the projected traffic after the construction of the project, then amendments to the 2015 and 2025 LUP Map and Traffic Circulation Subelement Figure 1, Planned Year 2025 Roadway Network, could be clearly articulated and recommended.

Request 4

The Applicant requests an amendment to the CDMP's Traffic Circulation Subelement of the Transportation Element in order to add the following text on page II-17 immediately before the description of Figure 4.

A critical element of any community's infrastructure is its electrical power supply. Florida Power & Light Company (FPL) provides electrical power to most of Miami-Dade County. FPL's service area consists of some of the fastest-growing communities in the nation. The Board of County Commissioners has determined that the increased power generation capacity that will be provided by Turkey Point Units 6 & 7 is necessary to protect the public health and safety. Figure 3.1, Roadway and Associated Facilities Required in Connection with Expansion of Nuclear Power Plan, indicates those roadways and associated facilities that may be required on a temporary basis during the construction of Turkey Points Units 6 & 7. For purposes of this paragraph and Figure 3.1, a temporary roadway is one that satisfies the following criteria:

1. The roadway serves to accommodate traffic during the construction of Turkey Point Units 6 & 7;
2. The roadway is constructed to a width necessary to support construction activities associated with Turkey Point Units 6 & 7.
3. The roadway provides a level of service that is not expected to be long term or permanent;
4. The roadway is designed in a manner that provides safe and secure access to the construction site; and,
5. The roadways will be redesigned, reduced in width and/or dedicated to Miami-Dade County once Turkey Point Units 6 & 7 become operational. FPL will work with Miami-Dade County to affect a permanent set of improvements on these roadways appropriate for the projected level of service following the construction of Turkey Point Units 6 & 7.

Any roadway designated as a temporary roadway on Figure 3.1 need not be indicated as a Minor Roadway or Major Roadway on the LUP map.

Reasons for Recommendations

1. The construction of temporary roadway capacity improvements may be necessary to accommodate traffic safety concerns during the construction of Turkey Point Units 6 & 7 (2011 to 2020). Data presented on construction employment information in the Site Certification Application, indicates that some modifications to existing roadways and construction of new ones may be necessary to meet safety concerns during the construction of the project. However, sufficient data and analyses have not been provided that demonstrate which roadways improvements are necessary to

accommodate the anticipated construction traffic. (See Department Comments for Requests 1 & 2). Until demonstration of need is provided, the proposed additional text in the CDMP may be unwarranted.

2. As stated in the Department's response to Request 3, Figure 3.1 does not identify which proposed roadway improvements are temporary or permanent. Permanent roadways may be included on either the Adopted 2015 and 2025 Land Use Plan map or the Future Traffic Circulation Map Series in the Traffic Circulation Subelement of the CDMP. Any proposed text would be only to address temporary roadways. Since the application has not adequately identified which, if any, roadway improvements would be temporary, then no additional text in the CDMP is warranted.

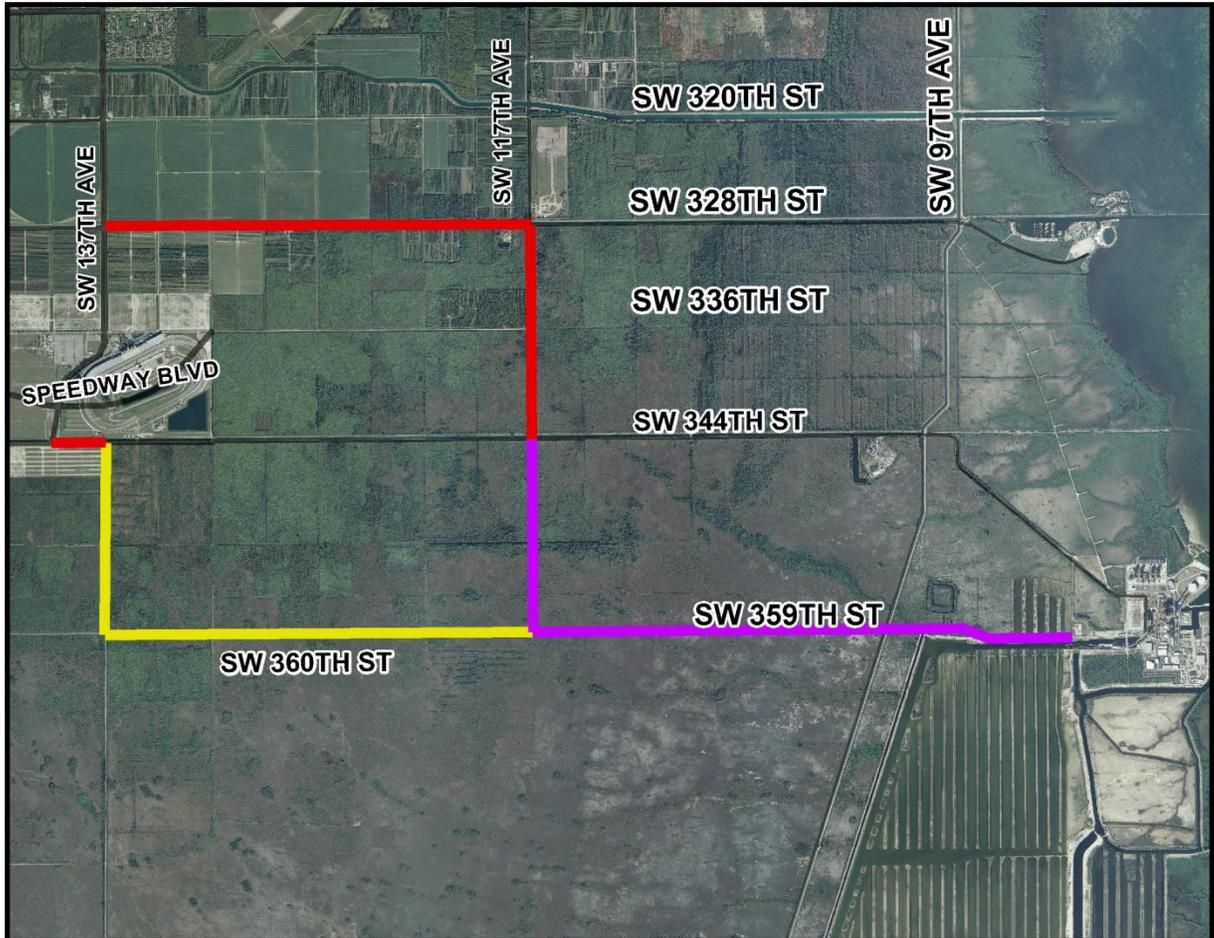
Request 5

If the CDMP amendment application is adopted by the Board of County Commissioners, and a proffered covenant is accepted as a condition of such approval, then the Applicant requests that the covenant be added to the text of the CDMP Land Use Element, specifically to the table contained therein and entitled "Restrictions accepted by Board of County Commissioners in association with Land Use Plan Amendments." The covenant will be submitted to Miami-Dade County in accordance with the timelines adopted by the Department of Planning and Zoning.

Reasons for Recommendation

This request is not necessary since all covenants accepted by the Board of County Commissioners as a condition for approval of CDMP amendment applications are automatically added to the table entitled "Restrictions Accepted by Board of County Commissioners in Association with Land Use Plan Amendments" in the CDMP Land Use Element.

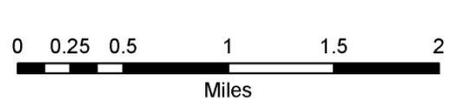
AERIAL PHOTO: APPLICATION NO. 6



LEGEND

PROPOSED ROADWAY IMPROVEMENTS

-  WIDEN 2 TO 4 LANES
-  NEW 3 LANES
-  NEW 4 LANES



SOURCE: MIAMI-DADE COUNTY DEPARTMENT OF PLANNING AND ZONING, AUGUST 2009

STAFF ANALYSIS

Background

The subject application seeks to improve access to the Turkey Point Power Plant to facilitate the proposed expansion of the Power Plant facility, which includes the construction of two (2) new nuclear power plants (Units 6 & 7). The Turkey Point facility currently consists of two (2) nuclear power plant units, two (2) oil and natural gas units, and one (1) natural gas combined cycle unit. At the time of writing this report, the proposed two new nuclear power plants are being considered for approval under the Site Certification Application (SCA) process as prescribed by the Florida Electrical Power Plant Siting Act. This CDMP amendment application seeks to establish consistency of the proposed access roads to the new nuclear power plants with the provisions of the Miami-Dade County's Comprehensive Development Master Plan (CDMP).

Application Area

Application No. 6 proposes to build new roadways and widen certain existing roadways as outlined in the applicant's request No. 1 in the Staff Recommendations section of this report, that total approximately 9.85 miles of roadway through primarily wetlands, agricultural and vacant land in the southern portion of the County. The proposed improvements are generally located between SW 328 and theoretical SW 360 Streets and from SW 137 Avenue/Tallahassee Road eastward to the Florida Power & Light Company's (FPL) Turkey Point power plant on the County's east coastline (generally at theoretical SW 360 Street and theoretical SW 87 Avenue). The area between SW 137 and SW 132 Avenues and between SW 328 and SW 352 Streets is located within the City of Homestead and the remaining area is within unincorporated Miami-Dade County. (See Appendix A: Map Series.)

Land Use and Zoning

The area within the City of Homestead is partially developed with the Homestead Miami Speedway and parking facilities generally between SW 336 and SW 344 Streets, is in agriculture use (typically row crops) along SW 328 Street, and a wetland mitigation area generally south of SW 344 Street. The area within unincorporated Miami-Dade County is primarily wetlands, some agricultural uses and a single-family residence along SW 328 Street, and vacant land. SW 328 Street and SW 344 Street, east of SW 137 Avenue, are 2-lane undivided roadways on the south side of and a 1-lane dirt road on the north side of the North Canal and the Florida City Canal, respectively. SW 117 Avenue between SW 328 and SW 344 Streets is a 2-lane undivided roadway that abuts two canals, one on either side of the road, and is a dirt road south of SW 344 Street seemingly wide enough to accommodate only one vehicle. There is a metal gate across the alignment of SW 117 Avenue on the south side of SW 344 Street. SW 137 Avenue south of SW 344 Street is a dirt road wide enough to accommodate two-directional travel. SW 359 Street is also a dirt road wide enough to accommodate single direction travel.

The area within the City of Homestead is zoned PUD (Planned Unit Development) which allows a mix of residential and compatible commercial and industrial uses. The area within unincorporated Miami-Dade County is zoned AU (Agriculture), GU (Interim), BU-1 (Neighborhood Business) on approximately 1.8 acres of a larger FPL owned tract

(approximately 105 acres) located on the southeast corner of SW 344 Street and theoretical SW 102 Avenue, and IU-3 at the Turkey Point power plant site. AU allows agricultural uses and residences at a maximum density of 1 residential unit on 5 gross acres; GU uses depend on the character of the neighborhood, otherwise the EU-2 zoning district standards apply; BU-1 allows neighborhood type business; and IU-3 allows the full range of industrial uses.

The County's Adopted 2015 and 2025 Land Use Plan (LUP) map of the CDMP shows the area west of SW 132 Avenue between SW 336 and SW 352 Streets within the 2015 Urban Development Boundary (UDB), and the remaining area outside the UDB. The LUP map also depicts the 2025 Urban Expansion Area beginning at SW 352 Street and SW 132 Avenue arcing northeastward to SW 344 Street then northwestward beyond SW 328 Street. The LUP map designates the area within the UDB between SW 336 and SW 344 Streets as "Business and Office" (Homestead Miami Raceway site) and the area south of SW 344 Street as "Environmentally Protected Parks" (wetland mitigation site). These areas are within the City of Homestead and are shown on the City's Future Land Use map as Planned Regional Activity Center. The LUP map designates the area outside the UDB south of SW 344 Street as "Environmental Protection" except for the southwest corner of SW 344 Street and SW 127 Avenue, which is designated as "Open Land", and the FPL's Turkey Point power plant site designated as "Institutions, Utilities and Communications". The area north of SW 344 Street between the Levee 31E and SW 102 Avenue is also designated "Environmental Protection". The areas north of SW 344 Street and west of SW 127 Avenue is designated "Agriculture", as well as the southeast corner of SW 328 Street and SW 127 Avenue, and the area north of SW 328 Street west of SW 112 Avenue. The remaining area is designated "Open Land". (See Appendix A: Map Series.)

The "Environmental Protection" areas south of SW 344 Street are further defined in the CDMP Land Use Element text, page I-68, as Environmental Protection Subarea E (Southeast Wetlands) and Environmental Protection Subarea F (Coastal Wetlands and Hammocks). These Environmental Protection Subareas are also depicted on Land Use Element Figure 7, Environmental Protection Subareas. Environmental Protection Subarea E is located west of the Levee-31E and Environmental Protection Subarea F is east of the Levee-31E.

The "Open Land" areas within the vicinity of the proposed roadway improvements are further defined in the CDMP Land Use Element text, page I-64, as Open Land Subarea 5 (South Miami-Dade) and identified on Land Use Element Figure 6, Open Land Subareas map.

Land Use Element Figure 14, Future Wetlands and CERP Water Management Areas, depict the area impacted by the FPL's proposed roadway improvements as a future Future Wetlands and CERP Water Management Area. Additionally, Land Use Element Figure 17 depicts the area south of SW 344 Street as the Everglades, Buffer, Aquifer, and Recharge Area.

The LUP map depicts SW 328 Street as a Minor Roadway (2 lanes); SW 344 Street between SW 137 and SW 132 Avenues as a Major Roadway (3 or more lanes), and east of SW 132 Avenue as a Minor Roadway; SW 137 Avenue between SW 344 and SW 352 Streets as a Major Roadway; SW 117 Avenue between SW 312 and SW 344 Streets as

a Minor Roadway. However, SW 359 Street, SW 137 Avenue south of SW 352 street, and SW 117 Avenue south of SW 344 Street are not depicted on the LUP map.

Similarly, the CDMP Traffic Circulation Subelement Figure 1, Planned Year 2025 Roadway Network depicts SW 328 Street as a 2-lane roadway; SW 344 Street between SW 137 and SW 132 Avenues as a 4-lane roadway, and east of SW 132 Avenue as a 2-lane roadway; SW 117 Avenue between SW 312 and SW 344 Streets as a 2-lane roadway. However, SW 359 Street, SW 137 Avenue south of SW 344 street, and SW 117 Avenue south of SW 344 Street are not depicted on Figure 1, Planned Year 2025 Roadway Network.

Traffic Circulation Subelement Figure 3, Roadway Functional Classification – 2025, depicts SW 344 Street east of SW 137 Avenue, SW 328 Street, and SW 117 Avenue between SW 344 and SW 328 Streets all as Collectors. SW 137 Avenue between SW 344 and SW 328 Streets is depicted as a County Minor Arterial. However, SW 359 Street, SW 137 Avenue south of SW 344 Street, and SW 117 Avenue south of SW 344 Street are not depicted on Figure 3, Roadway Functional Classification – 2025.

Land Use and Zoning History

The following presents a chronology of zoning and future land uses changes to the FPL Turkey Point Power Plant site and lands adjacent to the FPL's proposed access roads.

June 1964: The Metropolitan Dade County Zoning Appeals Board adopted Resolution 2ZAB-345-64 that approved the South Dade Farms, Inc.'s Unusual Use request to permit an electric power plant facility with all necessary equipment and facilities and canal excavations, and variance from airport height restrictions. The subject property located west of theoretical SW 97 Avenue to Biscayne Bay and between theoretical SW 344 and SW 376 Streets.

February 1967: Dade Board of County Commissioners adopted Resolution Z-43-67 that approved Florida Power & Light Co. zoning district boundary change on a site at Turkey Point from GU (Interim) to IU-3 (Industrial – Unlimited Manufacturing). Resolution Z-44-67 also approved the special exception to permit nuclear power generating units (atomic reactors); unusual use permits for conventional power generating units and lake excavation, and variance from airport height restrictions.

November 1971: The Metropolitan Dade County Zoning Appeals Board adopted Resolution 4ZAB-559-71 that approved the FPL's Unusual Use request to excavate a Circulator Water Canal Cooling System at the Turkey Point Power Plant site.

January 1983: The Metropolitan Dade County Zoning Appeals Board adopted Resolution 4ZAB-41-83 that approved the FPL's Unusual Use request for a radio communications tower at the Turkey Point Power Plant site.

October 1983: Dade Board of County Commissioners adopted Resolution Z-199-83 that approved Curtis Poland's request for zoning district boundary change from AU to BU-1 on an approximately 2-acre site generally at the southeast corner of SW 344 Street and theoretical SW 102 Avenue.

June 1988: The Metropolitan Dade County Zoning Appeals Board adopted Resolution 4ZAB-270-88 that approved Curtis Poland's request for zoning district boundary change from AU to BU-1 on an approximately 2-acre site generally at the southeast corner of SW 344 Street and theoretical SW 102 Avenue.

July 1992: The Metropolitan Dade County Zoning Appeals Board adopted Resolution 4ZAB-254-92 that modified conditions of the previously approved Resolution Z-199-83, and approved FPL's unusual use request to permit a pistol range at the southeast corner of SW 344 Street and theoretical SW 102 Avenue.

May 1993: The Metropolitan Dade County Zoning Appeals Board adopted Resolution 4ZAB-135-93 that approved the FPL's Unusual Use request for a day nursery and kindergarten on property at the southeast corner of SW 344 Street and SW 102 Avenue.

October 1996: Miami-Dade Board of County Commissioners adopted Ordinance No. 96-157 that changed the LUP map designation on land south of SW 344 Street outside the UDB and on land north of SW 344 Street between the L-31E Canal/Levee and SW 102 Avenue from "Open Land" to "Environmentally Protected Parks". Ordinance No. 96-157 also change land use designation on land inside the UDB west of SW 132 Avenue between SW 336 and SW 344 Streets from "Low-Medium Density Residential" and "Business and Office" to "Business and Office" (Homestead Miami Raceway site); and south of SW 344 Street west of SW 132 Avenue from "Low Density Residential" and "Low-Medium Density Residential" to "Environmentally Protected Parks" (wetland mitigation site).

September 1999: Community Zoning Appeals Board # 15 adopted Resolution CZAB-15-11-99 that allowed FPL to present plans illustrating the spoil banks (excavated materials) that were removed or were to be removed from the Turkey Point cooling canals site.

December 2007: Miami-Dade Board of County Commissioners adopted Resolution Z-56-07 that approved, with conditions, Unusual Use to permit a nuclear power plant (atomic reactors) with ancillary structures and equipment, waive certain zoned right-of-way requirements, and modified certain conditions of the 1971 and 1999 approvals, discussed above. The power plant comprises two new nuclear reactors on the existing Turkey Point site.

Roadways

FPL is proposing roadway improvements associated with the proposed expansion of the Turkey Point Power Plant facility, in order to accommodate peak construction traffic and provide access to the planned Units 6 and 7, the nuclear administration building, training building, and parking area.

Description of Requested Changes

On April 30, 2009, FPL filed a Standard Amendment Application to amend the CDMP's 2015 and 2025 Land Use Plan Map (LUP) and the Traffic Circulation Subelement of the Transportation Element requesting the changes listed in the Staff Recommendation section of this report and contained in Appendix B: Amendment Application of this report.

Need For the Proposed Roadway Facilities

On June 29, 2009, FPL submitted to the State of Florida Department of Environmental Protection (DEP) its Site Certification Application (SCA) for the Turkey Point Units 6 and 7 Project and associated facilities, pursuant to the Florida Electrical Power Plant Siting Act, Section 403.501, et seq., Florida Statutes (F.S.) and Section 62-17.051, Florida Administrative Code (F.A.C.).

FPL has indicated that the proposed roadway improvements are needed to accommodate peak construction traffic and provide access to Units 6 and 7. Access to the application site for the construction and operation of the two new nuclear reactors is proposed through improvements to the existing segments of SW 328 and SW 344 Street and SW 117 Avenue; and construction of new three roads, SW 137 and SW 117 Avenues between SW 344 Street and theoretical SW 339 Street and theoretical SW 359 Street from SW 137 Avenue to construction site. The roadways, according to FPL, are uniquely required to support the safe and efficient construction of the project, but are not necessary post-construction. Appendix 10.7.4.1 of the Site Certification Application (SCA) presents the *Turkey Point Power Plant Peak Construction Analysis (June 2009)* and the *Turkey Point Plant Operations Analysis (June 2009)* submitted by FPL to the DEP in support of its Site Certification Application. Copies of these traffic analyses are presented in Appendix C of this report.

Need For CDMP Amendment

In an effort to assist FPL with the SCA process, DP&Z staff advised FP&L that if improvement of existing roadways and construction of new ones will be needed during the construction of Units 6 and 7 and after the construction of the units for their normal operation, a CDMP amendment application will be required to give FPL a time-limited exception allowing the construction of temporary access roads to accommodate the traffic for the construction of Units 6 and 7. FPL has indicated that some of the roadway improvements may be needed for another access to the plant. Any new permanent public roads will require amendments to the Adopted 1015 and 2025 LUP map and Traffic Circulation Subelement Figure 1, Planned Year 2025 Roadway Network, of the CDMP.

However, the proposed roadway improvements (widening of existing roadways and construction of new roads) will impact wetlands, as well as land designated Agriculture,

Open Land, Environmentally Protected Parks, and Environmental Protection on the LUP map. Moreover, the proposed new roadways south of SW 344 Street will impact Environmentally Endangered Lands (EEL), Natural Forest Communities, and state and federally protected species. Each of these points is important and has a bearing on whether the roads are consistent with the County's CDMP and raises important potential consistency issues with the Comprehensive Plan. Therefore, the widening of existing roadways and construction of new ones will require careful consideration which may lead the County to determine whether or not a particular proposed alignment is inconsistent with its CDMP. The County's CDMP addresses the construction of roads outside the Urban Development Boundary (UDB). Land Use Element Policy LU-2B and Traffic Circulation Subelement Policy TC-4C note that "...Transportation improvements which encourage development in Agriculture and Open Land areas shall be avoided, except for those improvements which are necessary for public safety and which serve the localized needs of these non-urban areas. Areas designated Environmental Protection shall be particularly avoided."

Traffic Impact Analysis

The "Instructions For Preparing Applications Requesting Amendments to the Miami-Dade County Comprehensive Development Master Plan" provides for standard applications, that the applicant(s) shall submit a traffic study report in support of the application. The traffic impact analysis should include the following transportation information: an existing conditions analysis of the roadways adjacent to the application site and within an area of influence (study area); a short term analysis which should be performed using the latest concurrency LOS tables generated by Miami-Dade County Public Works Department; a future conditions analysis to be performed for the build out year of the proposed development or any of the two planning horizons of the CDMP; and a mitigation analysis -mitigation can be in the form of increased capacity, or reduced demand. Mitigation measures may include widening of existing facilities, construction of new facilities, implementing transportation system management strategies, access management strategies, transit, travel demand management strategies, site plan or land use changes.

FPL indicated that the Peak Construction and Operations Analyses provided in Appendix 10.7.4 of the Site Certification Application are the traffic study analyses submitted in support of the CDMP Amendment application.

Traf Tech Engineering, Inc., was retained by Golder Associates, Inc. to perform the traffic impact studies, *Turkey Point Power Plant Peak Construction Analysis (June 2009)* and *Turkey Point Plant Operations Analysis (June 2009)*, in connection with the construction and operation of Units 6 and 7. The studies contain specific traffic analysis information pertinent to the proposed access roads. Copies of the traffic studies are attached in Appendix C.

The *Turkey Point Power Plant Peak Construction Analysis* addresses traffic concurrency conditions on the roadway network in the vicinity of the project site for peak construction work-force conditions. For this analysis, the widening from 2 to 4 lanes of SW 328 Street between SW 137 and SW 117 Avenues and SW 117 Avenue from SW 328 Street and SW 344 Street, the extensions of SW 117 Avenue and SW 137 Avenue from SW 344 Street to SW 359 Street, and the construction of SW 359 Street from the extension of SW 137 Avenue to the construction site were assumed to be the needed improvements

without consideration of the widening of SW 344 Street, currently a two-lane facility, which provides access to the Turkey Point Power Plant. A summary of the report's assumptions and findings follows:

Traffic Concurrency Evaluation

As stated above, a concurrency analysis was performed to evaluate the near-term impacts of the project on the roadways currently monitored by the county. Based on the assumptions and forgoing analysis, the new trips generated during the peak construction period of Units 6 and 7 were combined with the traffic concurrency information. The resulting concurrency conditions analysis presented in the *Turkey Point Power Plant Peak Construction Analysis (June 2009)* attached in Appendix C.

The traffic analysis concludes that during the peak construction period of Units 6 & 7, approximately 2,627 (including 72 trucks) new AM peak hour trips and approximately 3,175 (including 72 trucks) new PM peak hour trips are anticipated at the Turkey Point Plant. Also, the traffic analysis indicates the need for the following intersection and roadway segment improvements to manage the additional demand that will be generated by the project during the peak construction period:

Intersection Improvements

SW 328 Street (North Canal Drive) and SW 137 Avenue (Tallahassee Road)

- Signalization or Police Control
- Construct one additional southbound left-turn lane
- Construct one additional westbound through lane and two westbound right-turn lanes

SW 328 Street (North Canal Drive) and SW 117 Avenue

- Signalization or Police Control
- Construct two northbound left-turn lanes
- Construct one eastbound right-turn lane
- Re-stripe the eastbound through lane to a shared through/right-turn lane

SW 344 Street (Palm Drive) and SW 137 Avenue/Tallahassee Road (West)

- Signalization or Police Control (PM Peak Hour Only)
- Construct one separate eastbound through lane
- Construct one additional westbound left-turn lane

SW 344 Street and SW 137 Avenue (East) – New Intersection.

- Signalization or Police Control (PM Peak Hour Only)
- Construct two eastbound right-turn lanes
- Construct two northbound approach lanes (one striped as an exclusive left-turn lane and the other as a shared left-turn/right-turn lane)

SW 344 Street (Palm Drive) and SW 117 Avenue

- Signalization or Police Control
- Construct one eastbound left-turn lane and one eastbound right-turn lane
- Construct one westbound right-turn lane
- Construct one northbound left-turn lane and two northbound through lanes (outside lane will function as a shared through/right-turn lane)

- Construct one southbound left-turn lane and one southbound through lane (outside lane will function as a shared through/right-turn lane)

SW 359 Street and SW 117 Avenue – New Intersection

- Signalization or Police Control
- Construct two eastbound approach lanes (prohibit eastbound left-turns)
- Construct one westbound through lane and one westbound right-turn lane
- Construct two southbound approach lanes (one striped as an exclusive left-turn lane and the other as a shared left-turn/right-turn lane)
- Construct a Curve linking SW 137 Avenue with SW 359 Street

In addition to the intersection improvements, the following roadway improvements were identified as needed to provide acceptable operating conditions:

Roadway Improvements

The widening from two to four lanes of:

- Widen 2 to 4 lanes, SW 328 Street from SW 137 Avenue to SW 117 Avenue
- Widen 2 to 4 lanes, SW 344 Street from SW 137 Avenue(W) to SW 137 Avenue (E)
- Widen 2 to 4 lanes, SW 117 Avenue from SW 328 Street to SW 344 Street
- New three lanes (2 eastbound and 1 westbound, SW 359 Street from SW 137 Avenue to SW 117 Avenue)
- New four lanes, SW 359 Street from SW 117 Avenue to FPL Construction Site
- New three lanes (2 southbound and 1 northbound, SW 137 Avenue from SW 344 Street to SW 359 Street)
- New four lanes, SW 117 Avenue from SW 344 Street to SW 359 Street

The *Turkey Point Power Plant Peak Operations Analysis* addresses traffic concurrency and future operating conditions of the roadway network in the vicinity of the project site for two scenarios. Scenario 1 evaluates traffic conditions during normal operation of Units 6 and 7. Scenario 2 analyzes the traffic impacts created during outages of both units. For both scenarios, only one access roadway (SW 344 Street) was considered for the traffic evaluation.

Scenario 1 (Normal Operation)

The analysis concludes that the traffic concurrency stations currently monitored by the county show sufficient peak hour capacity to accommodate the additional trips that will be generated by the operation of Units 6 and 7.

The new trips associated with Units 6 and 7 were combined with the traffic concurrency information to develop future conditions analysis. The resulting future conditions analysis indicates that the new trips generated by Units 6 and 7 during normal operations will meet Miami-Dade County's Traffic Concurrency standards.

The traffic consultant evaluated two intersections (SW 344 Street /SW 117 Avenue and SW 328 Street/SW 117 Avenue) for the normal operation of Units 6 and 7. The intersection analyses were performed using the capacity/level of service procedures outlined in the Highway Capacity Manual. Traffic consultant concludes that the two most impacted intersections will continue to operate adequately with the additional traffic generated by Units 6 and 7 during normal operation. It should be noted that the

intersection analyses assume the intersection improvements identified as part of the Peak Construction Traffic Analysis to be in place for normal operations. The intersection improvements for these two intersections are described below:

SW 328th Street (North Canal Drive) and SW 117th Avenue

- All-way stop control (no need for signalization or police control)¹
- One separate northbound left-turn lane (no need for dual lefts)²
- Construct one eastbound right-turn lane³

SW 344th Street (Palm Drive) and SW 117th Avenue⁴

- All-way stopped control (no need for signalization or police control)⁵
- Construct one eastbound left-turn lane
- Construct one westbound right-turn lane
- Construct one southbound left-turn lane

Scenario 2 (Outages on Units 6 and 7)

During outages, where operational staff is combined with contractors associated with refueling/maintenance activities for Units 3 and 4, the workforce has historically exceeded 2,000 employees per day. Outages associated with Units 6 and 7 will add up to 2,000 new personnel, in addition to the 806 new workers estimated to work at the plant.

A current LOS analysis performed for the outage condition indicates that the roadway network in the vicinity of the project site has sufficient capacity to absorb the traffic impacts generated by outages on Units 6 and 7. The outage analysis further concludes that the additional trips generated by the outages associated with proposed Units 6 and 7 of the Turkey Point Plant meets Miami-Dade County's traffic concurrency standards. Also, the traffic consultant performed intersection analyses on two of the most critical intersections, SW 117 Avenue/SW 344 Street and SW 117 Avenue/SW 328 Street for outages on Units 6 and 7. The capacity analysis indicates that the intersections are projected to operate at acceptable levels of service. However, it is recommended that both intersections be controlled by traffic signals during outages in order for the intersections to function adequately.

It should be pointed out that the intersection analysis takes into consideration the roadway improvements proposed as part of the Peak Construction activities associated with Units 6 and 7. However, for normal operation, the following intersection improvements should be maintained:

¹ If traffic signals were installed for peak construction period, the signals should operate on "flashing" mode during normal operation.

² One of dual left-turn lanes should be striped-out.

³ The eastbound center lane should be designated as through-only lane, (the shared right-turn arrow required for peak construction activities should be eliminated).

⁴ All peak construction improvements associated with the extension of SW 117 Avenue, south of SW 344 Street, are not required for normal operations.

⁵ If traffic signals were installed for peak construction period, the signals should operate on "flashing" mode during normal operation.

SW 328 Street/North Canal Drive and SW 117 Avenue

- All-way stopped control (no need for signalization or police control)⁶
- One separate northbound left-turn lane (no need for dual lefts)⁷
- Construct one eastbound right-turn lane⁸

SW 344 Street/Palm Drive and SW 117^h Avenue⁹

- All-way stopped control (no need for signalization or police control)¹⁰
- Construct one eastbound left-turn lane
- Construct one westbound right-turn lane
- Construct one southbound left-turn lane

County Staff's Review of Traffic Analysis and Comments

County staff reviewed the two traffic impact analyses, *Turkey Point Power Plant Peak Construction Analysis* and the *Turkey Point Plant Operations Analysis* submitted by FPL to the Florida Department of Environmental Protection (DEP) in support of its Site Certification Application and CDMP Amendment Application and has concerns the following concerns regarding the assumptions and methodology used in the traffic analyses; the lack of consideration of the impacts that the construction workforce and the operation personnel of Units 6 and 7 will have on regional corridors, such as SW 137 Avenue, US 1 and the HEFT; the lack of an area of influence; and the lack of consideration of improvement of SW 344 Street as an alternative to the construction of new roads such as SW 359 Street in the *Peak Construction Analysis*.

If the project causes the existing roadway network adjacent to and in the vicinity of the application site to fall below the adopted LOS standards, the applicant must recommend mitigation through physical or operational improvements, travel demand management strategies, or a combination of these or other strategies. For a more complete list of all the comments provided by Public Works Department and the Department of Planning and Zoning on the two traffic impact analyses, see Appendix D: Comments on FPL's Site Certification Application Access Roads Component.

County staff acknowledges the need for some roadways capacity improvements to accommodate the demand that will be generated by the construction workers during the construction of Units 6 and 7. However, the additional capacity can be provided by improving (widening) the following existing roadways: SW 328 Street, SW 344 Street and SW 117 Avenue. These roadways are currently 2-lane Section Line roads with dedicated rights-of-way ranging from 70 ft. to 105 ft. Section 33-133 of the Miami-Dade County Code requires that the minimum right-of-way width on all Section Line roads shall be 80 ft. The FPL Proposed Roadway Improvements & Existing and Zoned Rights-of-Way Table below shows the number of lanes of the existing roadways, FPL's

⁶ If traffic signals were installed for peak construction period and are still operational, the signals should be activated to "normal" mode during outages period.

⁷ One of the dual left-turn lanes should be striped-out.

⁸ The eastbound center lane should be designated as a through-only lane (the shared right-turn arrow required for peak construction activities should be eliminated).

⁹ All peak construction improvements associated with the extension of SW 117 Avenue, south of SW 344 Street/Palm Drive, are not required for normal operations.

¹⁰ If traffic signals were installed for peak construction period and are still operational, the signals should be activated to "normal" mode during outages period.

proposed widening of existing roads and construction of new ones, the currently dedicated zoned (minimum width) rights-of-way.

County staff will continue to work with the applicant and its transportation consultant to appropriately address the issues raised above. Once the traffic impact analyses are revised to the satisfaction of County staff and the determination is made on the roadway improvements needed to accommodate the construction traffic impact and which roadway improvements will be needed for the operations of Units 6 and 7, then the 2015 and 2025 LUP Map and Traffic Circulation Subelement Figure 1, Planned Year 2025 Roadway Network, will be recommended for changes accordingly.

In addition to the comments provided by PWD and DP&Z staff, the Department of Environmental Protection (DERM) offered the following comments and concerns regarding the construction of new roadways south of SW 344 Street:

Environmental Concerns

As discussed in the Land Use and Zoning History Section of this report, the Board of County Commissioners passed and adopted Resolution Z-56-07 approving FPL's request to build two new nuclear power plants at the Turkey Point site. DERM highlights that one condition of the approval requires FPL to provide a mitigation plan, before any additional land use approvals are granted. DERM has indicated that it has not been able to determine if the conditions of the unusual use approval and the provisions of Chapter 24 of the Miami-Dade County Code have been satisfied. In the absence of this plan, DERM has documented threshold conditions pursuant to Section 24-2(25) of the Code including adverse environmental impacts that would be generated by the proposed roadway improvements. Based on these issues, DERM recommends that the applicant provide a more complete environmental assessment or a full Environmental Impact Statement prior to the County taking any action on this application. For more details regarding DERM comments on this application see Appendix E attached.

FPL Proposed Roadway Improvements and Existing Zoned Rights of Way April 2009 CDMP Amendment Application No. 6						
Roadway Segment	Existing Facility		New Facility	ROW Ownership	Dedicated ROW in Ft.	Zoned ROW in Ft.
	Current No. Of Lanes	FPL Proposed No. Of Lanes	FPL Proposed No. Of Lanes			
SW 328 Street (South of Canal)						
SW 137 Ave. to SW 117 Ave.	2 UD	4 DV		Public	100	80
SW 117 Ave. to SW 97 Ave.	2 UD			Public	100	80
SW 117 Ave.						
SW 328 Street to SW 344 Street	2 UD	4 DV		Public	70	80
SW 344 Street to SW 359 Street	Unimproved		4 DV	Public	60	80
SW 344 Street (south of FC canal)						
SW 137 Ave. (E) to SW 137 Ave. (W)	2 UD	4 DV		Public	90	80
SW 137 Ave. to SW 117 Ave.	2 UD				90	80
SW 117 Ave. to SW 107 Ave.	2 UD				100 -105	80
SW 107 Ave. to SW 97 Ave.	2 UD				*50 - 90	80
SW 344 Street (north of FC canal)						
SW 137 Ave. (E) to SW 137 Ave. (W)	Unimproved			Public	50	
SW 137 Ave. to SW 117 Ave.	Unimproved			Public	50	
SW 117 Ave. to SW 107 Ave.	Unimproved			Public	50	
SW 107 Ave. to SW 97 Ave.	Unimproved			Public	50	
SW 137 Ave.						
SW 344 Street to SW 359 Street	Unimproved		3 Lanes	Public	70	80
SW 359 Street (FPL right-of-way)						
SW 137 Avenue to SW 117 Avenue	Unimproved		3 Lanes	Private	330**	None
SW 117 Avenue to FPL Const. Site	Unimproved		4 DV	Private	330**	None

Source: April 2009 CDMP Amendment Application No. 6, April 30, 2009.

Notes: * Two lots immediately west of SW 97 Ave. dedicated only 50 ft.

** Existing FPL Easement

ROW means right-of-way; UD means undivided; DV means divided

FC canal means Florida City Canal

Wetlands

The Southeast Wetlands and Coastal Wetlands and Hammocks, discussed above, are identified by DERM as the South Dade Wetlands. These wetlands are predominantly high quality wetlands that contain the largest and most important wetland system in the southern portion of the County, and are strategically located between the Everglades and Biscayne National Parks. The wetland system is important due to the significant habitat it provides to endangered and threatened species, including the Florida panther and other animal species identified below in the Endangered and Threatened Species discussion. The wetland system is also of significant importance within the watersheds of Biscayne Bay, Florida Bay, Card Sound, and Barnes Sound. Therefore, the area is targeted for acquisition by several public agencies, including DERM.

It is likely that the proposed roadway improvements would have significant impact on the wetlands adjacent to these roadways. Construction of multilane roadways as proposed by the applicant would require significant filling of the wetlands. Significant filling of the wetlands would be required to facilitate elevated road beds in the construction of the multilane roadways as proposed by the applicant, which would disconnect ecological corridors and impede surface water flow (sheetflow). Impeded surface water flow would alter the hydrology important to the maintenance of the wetlands and contribute to its degradation. The road improvements south of SW 344 Street would also open the wetlands area up to additional illegal dumping, unauthorized all-terrain vehicle (ATV) riding, poaching, and other activities that could be detrimental to the wetlands, endangered and threatened species and compromise the ability of DERM and other agencies to appropriately manage the public owned wetlands. The applicant has not demonstrated that an effort was made to avoid impacts to the wetlands in this area.

The CDMP Land Use Element Policy LU-3B requires the protection of natural resources and systems. The CDMP Conservation, Aquifer Recharge and Drainage Element Policy CON-7A limits the degradation or destruction of wetlands to activities that "1) are necessary to prevent or eliminate a threat to public health, safety or welfare; or 2) are water dependent, clearly in the public interest and no other reasonable alternative exists; or 3) are carried out in accordance with an approved basin management plan; or 4) are in areas that have been highly disturbed or degraded...Habitats critical to endangered or threatened species shall not be destroyed." CDMP Coastal Management Element Policy CM-1B requires the County to restore and maintain surface water flow through coastal wetlands systems. Policy CM-1E requires the creation, restoration, maintenance monitoring of wetlands of equal or greater habitat value where a coastal wetland is degraded or destroyed pursuant to Uniform Mitigation Assessment methodology, Section 373.414(18), Florida Statutes. The fact that the area particularly south of SW 344 Street is high quality wetlands providing significant habitat value to endangered and threatened species, raises concern that the may not be able to meet the provisions of Policy CM-1E and Chapter 24 of the Miami-Dade County Code.

Environmentally Endangered Lands

All the land adjacent to the proposed roadway improvements is included on DERM's South Dade Wetlands Environmentally Endangered Lands (EEL) program acquisition list and is eligible for acquisition. Additionally, a substantial portion of the wetlands in the area are owned and managed by the EEL program. The South Dade Wetlands contain the largest and most important wetland system in the southern portion of the County, is

strategically located between the Everglades and Biscayne National Parks, provides a significant habitat to endangered and threatened species, and is important to the watersheds of Biscayne Bay, Florida Bay, Card Sound, and Barnes Sound. Therefore, the area is targeted for acquisition by several public agencies, including DERM as discussed above. EEL properties are managed as natural preserves pursuant to Section 24-50 of Miami-Dade County Code to restore and maintain habitat structure and function to maximize native biotic diversity and preserve natural resource values. DERM has been acquiring properties within the South Dade Wetlands EEL acquisition area since 1994. Some parcels acquired were in partnership with the South Florida Water Management District (SFWMD) and other entities.

It is unclear from the information provided in the application how the proposed roadway improvements would impact DERM's ability to access EEL sites. Additionally, the proposed road improvements south of SW 344 Street would open the wetlands area up to additional illegal dumping, unauthorized all-terrain vehicle (ATV) riding, poaching, and other activities that could be detrimental to the wetlands, endangered and threatened species and compromise the ability of DERM and other agencies to appropriately manage the public owned wetlands and EEL sites. The applicant has not demonstrated that an effort was made to avoid impacts to the wetlands and EEL properties in this area.

DERM states that development associated with the construction of infrastructure, storage of construction materials and equipment, final grade, drainage erosion, alterations to hydrology and other such activities should avoid adverse impacts to parcels near potential EEL properties.

Endangered and Threatened Species

DERM reports that the wetlands adjacent to the proposed roadway improvements are predominantly high quality wetlands that provide habitat for a variety of federal and state endangered and threatened species. These species include, but are not limited to, the Florida panther, the American crocodile, the wood stork, the indigo snake, and several state listed species of wading birds, including the Cape Sable seaside sparrow, the white-crowned pigeon, the swallow-tailed kite, the southern bald eagle, and the roseate spoonbill. DERM also points out that there are recent agency reports of additional animals in the area including a pair of panther cubs.

It should be noted that there are three documented vehicle strikes of Florida panthers in this region including two road kills in the recent past. The increase in vehicular traffic volume and speed that would result from the proposed roadway improvements, if built, is of particular concern for the wetlands and endangered and threatened species habitat south of SW 344 Street. As discussed in the preceding 'Land Use and Zoning' section of this report the roadways south of SW 344 Street (SW 137 and SW 117 Avenue, and SW 359 Street) are dirt roads. These roads south of SW 344 Street, if improved and utilized as proposed by the applicant, would introduce significant traffic to these environmental preservation areas resulting in the spread of exotic vegetation throughout the area and additional wildlife road kill. The road improvements would also open the wetlands area up to additional illegal dumping, unauthorized all-terrain vehicle (ATV) riding, poaching, and other activities that could be detrimental to the wetlands, endangered and threatened species and compromise the ability of DERM and other agencies to appropriately manage the public owned wetlands. The applicant has not demonstrated that an effort was made to avoid impacts to the wetlands in this area.

The CDMP Conservation, Aquifer Recharge and Drainage Element Policies Con-9A, Con 9-B, and Coastal Management Element Objective CM-4, Policies CM-4A, CM-4C among others provide for the protection of habitat including feeding, nesting areas and travel corridors of endangered and threatened species. The proposed roadway improvements, particularly those south of SW 344 Street are indirect conflict with these objectives and policies.

Drainage and Flood Protection

The roadway improvements proposed in the application would traverse Flood Zone AE, where the base flood elevation is 4.0 feet, NGVD; and Flood Zone A, where the base flood elevation is undetermined per the Federal Flood Insurance Rate Maps (FIRM) for Miami-Dade County. The Florida City Canal and the North Canal provide drainage for the area.

According to the Miami-Dade County Department of Environmental Resources Management (DERM), a retention/detention system adequately designed to contain on-site the run-off generated by a 5-year storm event would be required for the proposed roadway improvements. A Class II permit would be required if the retention system is designed with an emergency overflow into adjacent water bodies (including the Florida City and North canals). A Class III permit may be for work within a canal right-of-way and a Class V Permit for any temporary dewatering work during construction of the proposed road improvements. A Surface Water Management Permit would be required from the South Florida Water Management District (SFMWD) for the proposed roadway improvements. Other permits by the Environmental Resource Regulation Division may also be required.

Water and Sewer

Miami-Dade County Water and Sewer Department (WASD) plans to locate water mains to supply the FPL's Turkey Point nuclear power plant along SW 328 Street, SW 117 Avenue and SW 359 Streets along the sections of the FPL proposed roadway improvements. WASD requires coordination with FPL to ensure installation of the water mains in conjunction with the road improvements with the. No water and sewer service impacts would be generated by this application.

Parks

Miami-Dade County Parks and Recreation Department (PARD) indicates that the proposed application would not impact its level of service. However, PARD recommends that developments as a result of the FPL roadway improvements be coordinated with the Biscayne-Everglades Greenway and the goals and principles of the County's Open Space System Master Plan. Particularly the preferred corridors for the Biscayne Trail Segment D and a portion of the Biscayne-Everglades Greenway located along the north side of SW 328 Street/North Canal Drive; and the preferred corridors for the Biscayne Trail north-south leg along SW 137 Avenue and the southeastern leg along the L-31E canal both from SW 328 Street to Card Sound Road.

Consistency with CDMP Goals, Objectives, Policies, Concepts and Guidelines

The following CDMP goals, objectives, policies, concepts, and guidelines will be impeded if the proposed designation is approved:

- Objective LU-3: Upon the adoption of the CDMP, the location, design and management practices of development and redevelopment in Miami-Dade County shall ensure the protection of natural resources and systems by recognizing, and sensitively responding to constraints posed by soil conditions, topography, water table level, vegetation type, wildlife habitat, and hurricane and other flood hazards, and by reflecting the management policies contained in resource planning and management plans prepared pursuant to Chapter 380, Florida Statutes, and approved by the Governor and Cabinet, or included in the Comprehensive Everglades Restoration Plan approved by Congress through the Water Resources Development Act of 2000.
- Policy LU-3A. Development orders in Miami-Dade County shall be consistent with the goals, objectives and policies contained in the Conservation, Aquifer Recharge and Drainage and Coastal Management Elements of this Plan, and with all applicable environmental regulations, as well as all other elements of the CDMP.
- Policy LU-3B: All significant natural resources and systems shall be protected from incompatible land use including Biscayne Bay, future coastal and inland wetlands, future potable water-supply wellfield areas identified in the Land Use Element or in adopted wellfield protection plans, and forested portions of Environmentally Sensitive Natural Forest Communities as identified in the Natural Forest Inventory, as may be amended from time to time.
- Major concepts in the text of the “Urban Development Boundary” section (p. I-57): “The Urban Development Boundary (UDB) is included on the LUP map to distinguish the area where urban development may occur through the year 2015 from areas where it should not occur... Accordingly, public expenditures for urban service and infrastructure improvements shall be focused on the area within the UDB, and urban infrastructure is discouraged outside the UDB.”
- Concepts in the section “Water Resource Summary” on page I-84: “The Aquifer Recharge Areas depicted include the Everglades, Everglades buffer areas and other areas which are poorly drained by the canal system and which provide prolonged recharge of the Biscayne Aquifer after rainfall events. The Extent of Saltwater Intrusion into the Biscayne Aquifer is shown by a line near the coast as a reminder that it is essential to maintain water table elevations in the Biscayne Aquifer that are high enough to prevent further contamination by encroachment of denser saltwater.”
- Policy TC-4C: Miami-Dade County's priority in construction, maintenance, and reconstruction of roadways, and the allocation of financial resources, shall be given first to serve the area within the Urban Development Boundary of the Land Use Plan map. Second priority in transportation allocations shall support the staged development of the urbanizing portions of the County within the Urban Expansion Area. Transportation improvements which encourage development in

Agriculture and Open Land areas shall be avoided, except for those improvements which are necessary for public safety and which serve the localized needs of these non-urban areas. Areas designated Environmental Protection shall be particularly avoided.

- Objective TC-6: Plan and develop a transportation system that preserves environmentally sensitive areas, conserves energy and natural resources and promotes community aesthetic values.
- Policy TC-6A: The County shall avoid transportation improvements, which encourage or subsidize increased development in coastal high hazard areas or environmentally sensitive areas identified in the Coastal Management and Conservation Elements.
- Policy TC-6C: If no feasible alternative exists, needed transportation facilities may traverse environmental protection or conservation areas, however such access should be limited and design techniques should be used to minimize the negative impact upon the natural systems.
- Objective CON-4: The aquifer recharge and water storage capacity of the presently undeveloped areas in western and southern Miami-Dade County shall be maintained or increased.
- Policy CON-4A: The aquifer-recharge values of wetland areas shall be maintained and, where feasible, enhanced or restored. There shall be no further positive drainage of wetlands to accommodate urban development or agricultural uses.
- Objective CON-7: Miami-Dade County shall protect and preserve the biological and hydrological functions of the Future Wetlands identified in the Land Use Element. Future impacts to the biological functions of publicly and privately owned wetlands shall be mitigated. All privately owned wetlands identified by the South Florida Regional Planning Council as Natural Resources of Regional Significance and wetlands on Federal, State, or County land acquisition lists shall be supported as a high priority for public acquisition. Publicly acquired wetlands shall be restored and managed for their natural resource, habitat and hydrologic values.
- Policy CON-7C: Miami-Dade County shall continue to promote the restoration and maintenance of the natural, surface water flow regimes into, and through wetland systems such as the Shark River Slough, Everglades National Park and the saline wetlands of southeastern Miami-Dade County.
- Policy CON-7H: Miami-Dade County shall provide dedicated funding sources for the long-term management and maintenance of Environmentally Endangered Lands and publicly owned Natural Forest Communities by 2015.
- Policy CON-7J: In evaluating applications that will result in alterations to wetlands, Miami-Dade County shall consider the applications' consistency with Comprehensive Everglades Restoration Program (CERP) objectives.

Applications that are found to be inconsistent with CERP objectives may be denied.

- Policy CON-9A: All activities that adversely affect habitat that is critical to federal or State designated, endangered or threatened species shall be prohibited unless such activity(ies) are a public necessity and there are no possible alternative sites where the activity(ies) can occur.
- Policy CON-9B: All nesting, roosting and feeding habitats used by federal or State designated endangered or threatened species, shall be protected and buffered from surrounding development or activities, where necessary.
- Policy CM-1B: Natural surface water flow regimes into and through coastal wetland systems will be restored and maintained to the maximum extent possible.
- Policy CM-1E: Wherever a coastal wetland is degraded or destroyed, a wetland with an equal or greater amount of habitat value shall be created, enhanced or restored, maintained and monitored as required pursuant to Uniform Mitigation Assessment Methodology, Section 373.414(18), Florida Statutes. Created habitats and restored habitats shall be perpetually maintained free of invasive exotic vegetation. Habitats of endangered or threatened species shall not be degraded or destroyed.
- Objective CM-4: Miami-Dade County shall increase the acreage of benthic, coastal wetland and coastal hammock habitat that is publicly owned by 100 acres by the year 2010. Endangered and threatened animal species shall be protected and coastal habitats restored and managed to improve wildlife values.
- Policy CM-4A: Areas that are used for nesting, feeding or congregation by endangered and threatened species shall be protected from alteration and human activities that would further imperil those species.
- Policy CM-4C: Travel corridors used by endangered or threatened species shall be protected to the extent possible from alteration and human activities that would further imperil those species.