Appendix III Agency Reports

A. Public Service Commission
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Appendix III–A: Public Service Commission

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition to determine need for Turkey Point Nuclear Units 6 and 7 electrical power plant, by Florida Power & Light Company.	DOCKET NO. 070650-EI ORDER NO. PSC-08-0237-FOF-EI ISSUED: April 11, 2008

The following Commissioners participated in the disposition of this matter:

MATTHEW M. CARTER II, Chairman
LISA POLAK EDGAR
KATRINA J. McMURRIAN
NANCY ARGENZIANO
NATHAN A. SKOP

APPEARANCES:

R. WADE LITCHFIELD, MITCHELL S. ROSS, JOHN T. BUTLER, BRYAN S. ANDERSON, ANTONIO FERNANDEZ, JESSICA A. CANO, ESQUIRES, 700 Universe Boulevard, Juno Beach, Florida 33408-0420; STEPHEN HUNTOON, ESQUIRE, 801 Pennsylvania Avenue, Suite 220, Washington, D.C. 20004; and KENNETH A. HOFFMAN, ESQUIRE, Rutledge, Ecenia, Purnell & Hoffman, P.A., 215 South Monroe Street, Suite 420, P.O. Box 551, Tallahassee, Florida 32302-0551
On behalf of Florida Power & Light Company (FPL).

BOB and JAN M. KRASOWSKI, 1086 Michigan Avenue, Naples, Florida 34103-3857
Appearing pro se (Krasowski).

FREDERICK M. BRYANT and DANIEL B. O'HAGAN, ESQUIRES, 2061-2 Delta Way (32303), P.O. Box 3209, Tallahassee, Florida 32315-3209
On behalf of Florida Municipal Electric Association and Florida Municipal Power Agency (FMEA and FMPA).

BRUCE PAGE, ESQUIRE, 117 West Duval Street, Suite 480, Jacksonville, Florida 32202 and SUZANNE S. BROWNLESS, ESQUIRE, 1975 Buford Blvd., Tallahassee, Florida 32308
On behalf of JEA.

ROY C. YOUNG, ESQUIRE, Young van Assenderp, P.A., 225 South Adams Street, Suite 200, Tallahassee, Florida 32301 and ZOILA PUIG EASTERLING, ESQUIRE, Orlando Utilities Commission, 500 South Orange Avenue, Orlando, Florida 32802
On behalf of Orlando Utilities Commission (OUC).

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VICKI GORDON KAUFMAN, ESQUIRE, Anchors Smith Grimsley, 118 North Gadsden Street, Tallahassee, Florida 32301 and WILLIAM T. MILLER, ESQUIRE, Miller, Balis & O'Neil, P.C., Suite 700, 1140 19th Street N.W., Washington, D.C. 20036
On behalf of Seminole Electric Cooperative, Inc. (Seminole).

CHARLIE BECK, ESQUIRE, Deputy Public Counsel, c/o The Florida Legislature, 111 W. Madison Street, Room 812, Tallahassee, Florida 32399-1400
On behalf of the Citizens of the State of Florida (OPC).

KATHERINE E. FLEMING, JENNIFER S. BRUBAKER, and CAROLINE KLANCKE, ESQUIRES, Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850
On behalf of the Florida Public Service Commission (Staff).

FINAL ORDER GRANTING PETITION FOR DETERMINATION OF NEED FOR PROPOSED NUCLEAR POWER PLANTS

BY THE COMMISSION:

BACKGROUND

On October 16, 2007, Florida Power & Light Company (FPL) filed a petition for a determination of need for Turkey Point Nuclear Units 6 and 7 (Turkey Point 6 and 7), pursuant to Section 403.519, Florida Statutes (F.S.), and Rule 25-22.080, Florida Administrative Code (F.A.C.). FPL's proposal consists of two nuclear-fueled generating units with in-service dates of 2018 and 2020. FPL is considering two different design alternatives for the nuclear units: the Westinghouse AP1000 (Westinghouse) and the General Electric Economic Simplified Boiling Water Reactor (GE). The Westinghouse design has a nominal output of approximately 1,100 mega-watts (MW) per unit, while the GE design has a nominal output of 1,520 MW per unit. Depending on the technology selected, the proposed unit additions will contribute between 2,200 and 3,040 MW of new generation to FPL's system.

Intervention was granted to the following parties: (1) Office of Public Counsel (OPC),[1] (2) Florida Municipal Electric Association (FMEA),[2] (3) Florida Municipal Power Agency (FMPA),[3] (4) JEA,[4] (5) Orlando Utilities Commission (OUC),[5] (6) Seminole Electric Cooperative, Inc. (Seminole),[6] and (7) Bob and Jan Krasowski (Krasowski).[7]

[1] Order No. PSC-07-0965-PCO-EI, issued December 4, 2007.
[2] Order No. PSC-08-0059-PCO-EI, issued January 28, 2008.
[3] Order No. PSC-08-0060-PCO-EI, issued January 28, 2008.
[4] Order No. PSC-08-0062-PCO-EI, issued January 28, 2008.
[5] Order No. PSC-08-0058-PCO-EI, issued January 28, 2008.
[6] Order No. PSC-08-0057-PCO-EI, issued January 28, 2008.
[7] Order No. PSC-07-1019-PCO-EI, issued December 28, 2007.

Public Testimony

In addition to the prefiled testimony submitted by the applicants, we received mailed comments and heard live testimony from public witnesses. Public testimony was first heard at a service hearing in Miami on January 9, 2008. In addition, the public was provided the opportunity to provide testimony preceding the formal administrative hearing in Tallahassee on January 30, 2008. A number of topics of interest voiced in the public testimony portion of the hearing are addressed elsewhere in this order. These topics include system reliability and integrity; fuel diversity; environmental compliance costs; conservation, demand side management (DSM), and renewables; and cost-effectiveness.

Other areas of interest that were discussed during the public testimony phase of the hearing focused on subjects beyond the scope of this proceeding as established by Section 403.519, F.S., or this Commission's jurisdiction under its authorizing statutes. The concerns voiced by the public about the environment, [8] health, [9] safety, [10] and economic development[11] were all outside the Commission's jurisdiction.

Section 403.519, F.S., authorizes us to examine FPL's projected costs for environmental controls necessary to meet current state and federal environmental requirements. The public testimony regarding environmental concerns and health issues falls under the Department of Environmental Protection's (DEP) jurisdiction, and to a limited extent the Department of Health.

While our ability to address all issues raised in the public testimony is limited by the scope of Section 403.519, F.S., and other statutes which establish our jurisdiction, these other concerns may be relevant in the certification proceedings before DEP, the Division of Administrative Hearings, and the Governor and Cabinet, sitting as the Siting Board.

Stipulation

A formal administrative hearing was held on January 30 through February 1, 2008. During the hearing, we discussed and approved a stipulation to Issue 7, stated below, between FPL and FMEA, FMPA, JEA, OUC, and Seminole.

> FPL has had initial discussions with FMEA, FMPA, and OUC regarding any mutual benefits that may accrue from joint participation in Turkey Point Units 6 & 7. No later than July 1, 2009, FPL will continue its good faith discussions with FMEA, FMPA, and OUC, and will also commence good faith discussions of joint participation in Turkey Point Units 6 & 7 with JEA and Seminole. FPL will report the status of such ongoing status discussions to the FPSC every quarter thereafter. The results of these ongoing status discussions shall be reported to the FPSC as part of a docket which will be opened by the FPSC pursuant to its

[8] Witnesses Lee, Shirreffs, Oncavage, Roff, Smith, Rock, Ehat, Gilbert, Messer, Showen, Parsons, and Draper.
[9] Witnesses Olsen, Smith, Wilansky, Gilbert, Showen, Parsons.
[10] Lee, Olsen, Sipp, Roff, Smith, McGonigle, Wilansky, Johnson, Rice, Showen, Flint, Parsons.
[11] Rodriguez, Knowles, Griemsman, Johnson, Jacobs, and Redlich.

> authority under the Grid Bill as codified in the Florida Statutes, in order to provide the parties with such rights and remedies as may exist to the extent of the FPSC's jurisdiction thereunder. FPL, FMPA, FMEA, JEA, OUC and Seminole each agree that such docket to be opened by the Commission pursuant to its Grid Bill authority is the sole forum for raising issues concerning joint participation in Turkey Point 6 and 7. FMPA, FMEA, JEA, OUC and Seminole each agree not to intervene or otherwise participate directly or indirectly in section 366.93, Florida Statutes, cost recovery proceedings for the purpose of addressing joint participation in Turkey Point 6 and 7. Nothing in this stipulation is intended to imply that ongoing status discussions necessarily will lead to an agreement among any of the parties for joint participation in Turkey Point 6 and 7 or that any party is obligated to enter into any such agreements.

As a result of the stipulation, FMEA, FMPA, JEA, OUC, and Seminole were excused from the hearing. On February 15, 2008, post-hearing briefs were filed by FPL, OPC, the Krasowskis, JEA, and Seminole. Briefs were not filed by FMPA, FMEA, or OUC. We note that OPC and the Krasowskis were not parties to this stipulation; thus, it remained a viable issue as to those parties, and is addressed subsequently in this Order.

Factors for Consideration

Pursuant to Section 403.519(4), F.S., the Commission is the sole forum for the determination of need for new nuclear power plants. In making our determination, we must take 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 proposed plant is the most cost-effective alternative available. We must also expressly consider whether renewable energy sources or conservation measures taken by or reasonably available to the utility might mitigate the need for the proposed plant.

This Order reflects our decision and serves as our report under the Power Plant Siting Act, as required by Section 403.507(4)(a), F.S.

FINDINGS

Need for Electric System Reliability and Integrity

There is a need for Turkey Point 6 and 7, taking into account the need for electric system reliability and integrity, as this criterion is used in Section 403.519(4), F.S.

FPL argues that there is a need for Turkey Point 6 and 7 because overall system demand is expected to grow by 40%. FPL further contends that without Turkey Point 6 and 7, the reserve margin would fall below 20% and FPL would have to rely more heavily on DSM, which would render FPL's system less reliable. In addition, FPL asserts that even if FPL's forecasted customer growth was lower than anticipated, the growth rate would only slightly reduce the amount of generation that will be needed in addition to Turkey Point 6 and 7. Finally, FPL

argues that by adding Turkey Point 6 and 7, the reliability of the system will be enhanced due to the fuel diversity benefits that will be realized by adding nuclear generation to its system.

OPC did not file a brief with respect to this issue. JEA and Seminole contend that there is a need for the proposed Turkey Point 6 and 7, taking into consideration the need for electric system reliability and integrity. JEA further argues that FPL has projected a need for either 6,156 MW of new capacity or approximately 5,130 MW of new DSM to meet its 20% reserve margin requirement by 2020. Furthermore, JEA maintains Turkey Point 6 and 7 will supply 2,200 to 3,040 MW of the needed capacity.

The Krasowskis contend that the use of more renewable technologies and generous net metering/distributive energy programs along with the investments in ocean current technologies offer a greater potential for realizing reliability and integrity for energy supply. The Krasowskis also argue that the current and future power needs of FPL customers can be met with the use of more efficient hardware; thus, there is not a need for Turkey Point 6 and 7.

We reviewed FPL's forecast assumptions, regression models, and the projected system peak demands, and find that they are appropriate for use in this docket. The forecast assumptions were drawn from independent sources which we have relied upon in prior cases. The regression models used to calculate the projected peak demands conform to accepted economic and statistical practices. Finally, the projected peak demands produced by the models appear to be a reasonable extension of historical trends.

After the load forecast was established, the utility determined the timing of needed generation based upon established reliability criteria. FPL uses dual reliability criteria for generation expansion planning: loss of load probability (LOLP) and a summer reserve margin. Each criterion targets different aspects of the electric system. The reserve margin criterion examines the peak hour of each year, while the LOLP value takes into account daily peak hours of the year. If either criterion is exceeded, this situation would indicate that additional generation is needed at that particular time. For many years, FPL's reliability requirements have been driven by the reserve margin criterion. The same scenario existed in FPL's 2006-2007 reliability assessment of its projected resource needs.

During the hearing, the Krasowskis raised several questions with regard to the issue of reliability. The Krasowskis posed a question on the reliability of water, specifically nuclear's dependency on the uninterrupted hour-by-hour delivery of water. Witness Silva testified that water is definitely an issue with every form of generation; however, to his knowledge, water has never been an issue that affected the reliable operation of any of FPL's plants, including its existing nuclear plants. In addition, the Krasowskis questioned how FPL could project 8,350 MW of need for the period 2011-2020, even with Florida's population growth rate slowing. Witness Silva testified that FPL studied the average growth over several cycles of growth, and its forecast of 8,350 MW for the 2011-2020 period is an adequate forecast. Witness Green testified that Florida is experiencing a slow-down in customer and population growth; however, this change reflects a cycle of increases and decreases in growth since the 1990s. In addition, witness Green testified that if there were a slow-down in population growth, there would still be a need

for energy, although maybe not at the same magnitude. As such, even with the population growth decreasing, the evidence shows that a need still exists for Turkey Point 6 and 7.

Our staff performed its own analysis of customer growth to examine sensitivities of variations in growth rate, then discussed the results with witness Green. In the most extreme case, a customer growth rate of zero was assumed for the next five years (2008-2012), followed by one year of growth at 50% of the forecasted growth. The years 2014 to 2020 remained at 100% of the forecasted growth. Witness Green agreed with our staff's assessment that under such a scenario, although very unlikely, FPL would have a reserve margin of only 13.9% and still need 1,395 MW of additional capacity to achieve a 20% reserve margin by the year 2018.

The record shows from the period 2011 through 2020, FPL projects a need for 8,350 MW. Much of this need is driven by continued customer growth (6,740 MW) and the expiration of some existing purchased power agreements (1,610 MW). FPL's plans to satisfy this need are comprised of new DSM (1,899 MW), nuclear uprates (414 MW), renewable generation (287 MW), Turkey Point 6 and 7 (2,200-3,040 MW), and natural gas combined cycle capacity (2,710-3,550 MW). Before the Turkey Point units come online in 2018 and 2020, FPL intends to meet its need through uncertified new natural gas fueled generation in 2011, 2015, 2016, and 2017.

Even if customer growth was assumed to be 0% for five years, the evidence indicates that FPL would be able to avoid the new natural gas generation, but would still have a reliability need for additional generation capacity by the year 2016. The table below summarizes the projected reserve margins for each of these scenarios:

Estimated Impact on FPL's Summer Reserve Margin

Year	Reserve Margin w/ TP 6 and 7[12]	Reserve Margin w/o TP 6 and 7[14]	Reserve Margin No Growth in 2008-2012[13]
2015	23.6%	23.6%	28.3%
2016	20.6%	20.6%	19.3%
2017	21.2%	21.2%	16.5%
2018	22.9%	18.6%	13.9%
2019	20.4%	16.2%	11.4%
2020	21.9%	13.7%	8.8%

Based on the foregoing, we find that FPL's capacity need projections are reasonable. We note that no party took issue with the load forecast.

FPL's need was determined after taking into account 1,899 MW of additional DSM, all other currently committed supply projects, 414 MW of recently approved nuclear capacity

[12] Includes previously certified nuclear uprates in 2012 and 2013 as well as new uncertified gas CC units in 2011, 2015, 2016, and 2017.
[13] Includes previously certified nuclear uprates in 2012 and 2013, but no new gas units.

uprates,[14] and 287 MW of renewable generation, although none are yet contracted, from 2 biomass projects and 3 municipal waste-to-energy projects. FPL's need for additional capacity to meet rising electricity demands cannot be satisfied with additional purchased power from renewable generation. Additional DSM programs and renewables are not capable of deferring the need for additional capacity.

In conclusion, the evidence shows that FPL has a need for 8,350 MW of additional capacity beginning in the 2011 through 2020 period. Turkey Point 6 and 7 will provide only a portion of FPL's need for capacity. New nuclear capacity has a long lead time before in-service due to lengthy regulation and construction timelines. Because of the long lead times associated with a new nuclear plant, many details of the project may be unknown at the time a utility files for a determination of need. As such, FPL has filed its determination of need over one year prior to filing for certification with DEP. Because Turkey Point 6 and 7 will not be in-service until the years 2018 and 2020, FPL has planned several natural gas combined cycle plants (2011, 2015, 2016, and 2017) to fulfill a portion of its need for capacity until the nuclear units come online. If FPL's load forecast dramatically declines or the amount of DSM or renewable generation available substantially increases, the most likely result will be the cancellation of some gas-fired combined cycle plants that have not yet been certified. Based on this record, FPL has shown that it has a reliability need for either the 1,100 MW or 1,520 MW units in 2018 and 2020.

Need for Fuel Diversity

There is a need for the Turkey Point nuclear power plants, taking into account the need for fuel diversity, as this criterion is used in Section 403.519(4), F.S.

FPL argues that the addition of Turkey Point 6 and 7 will significantly enhance fuel diversity and reduced reliance on natural gas in the state of Florida. FPL contends that by adding nuclear generation to its system, it will provide better system reliability and reduced price volatility. With the addition of Turkey Point 6 and 7, FPL asserts that it will be able to avoid continued and increased reliance on natural gas and reduce fuel price volatility for the benefit of its customers.

OPC did not file a brief with respect to this issue. JEA and Seminole contend that there is a need for Turkey Point 6 and 7 taking into consideration the need for fuel diversity. JEA further argues that with the addition of Turkey Point 6 and 7, it is projected that FPL's system will supply approximately 27% of its energy with nuclear, 65% with natural gas, and 7% with coal/petroleum coke. Furthermore, JEA maintains that if natural gas is used to meet FPL's 2018-2020 capacity needs, the percentage of natural gas on FPL's system will increase to approximately 75% in 2021 and nuclear fuel will decrease to approximately 16%.

[14] Order No. PSC-08-0021-FOF-EI, issued January 7, 2008 in Docket No. 070602-EI, In Re: Petition for determination of need for expansion of Turkey Point and St. Lucie nuclear power plants, for exemption from Bid Rule 25-22.082, F.A.C., and for cost recovery through the Commission's Nuclear Power Plant Cost Recovery Rule, Rule 25-6.0423, F.A.C.

The Krasowskis argue that there is no need for Turkey Point 6 and 7 because the generation of thermal and photovoltaic solar with solar gas capture are alternative methods for establishing fuel diversity.

In September 2005, a significant number of natural gas production facilities in the Gulf of Mexico were shut down as a result of Hurricanes Katrina and Rita. FPL incurred approximately $88 million in costs to replace a portion of the firm gas that was curtailed as a result of the storms. If FPL continues its heavy reliance on natural gas, FPL ratepayers may experience higher rates in the future with the majority of costs to be recovered through FPL's fuel adjustment charge. Pursuing nuclear generation will help FPL maintain a balanced fuel supply which will result in less volatile total fuel costs over time.

We have considered the need for fuel diversity in our evaluation of utility generation expansion plans as part of our annual Ten-Year Site Plan review process. In 2006, the Florida Legislature amended Section 403.519, F.S., to require us to specifically consider the need for fuel diversity on a utility's system when evaluating a petition for need. In addition, as part of the Florida Energy Act of 2006, the Florida Legislature made changes to the siting process for a nuclear-fueled power plant in order to facilitate the construction of new nuclear generation in the state. The legislation included specific provisions to provide greater assurances pertaining to cost-recovery and adapting the Nuclear Cost Recovery Clause (NCRC). Finally, Governor Charlie Crist signed Executive Order No. 07-127, which targets reductions in the level of greenhouse gas emissions.

The primary benefits of a more balanced fuel mix provided by the addition of Turkey Point 6 and 7 are better system reliability and reduced price volatility. The evidence shows that Turkey Point 6 and 7 are the only available non-carbon emitting alternatives that could lead to fuel diversity. During 2006, approximately 21% of the energy produced by FPL was generated using nuclear fuel. Without Turkey Point 6 and 7, the percentage of nuclear-fueled generation would decrease to approximately 16% by 2021. In contrast, adding nuclear capacity via Turkey Point 6 and 7 would contribute to FPL's system by supplying 27% of its energy with nuclear fuel by 2021. Likewise, with the new nuclear plants, FPL's natural gas mix would increase from 50% to 65%. Replacing Turkey Point 6 and 7's capacity with equivalent combined-cycle units would result in a supply of energy of approximately 16% nuclear, about 75% natural gas, and about 7% coal/petroleum coke. By the year 2021, regardless of the addition of Turkey Point 6 and 7 or natural gas, FPL's generation from coal would drop to approximately 7% generation reliance due to the replacement of a purchased power contract with Southern Company (165 MW of coal capacity) and a purchased power agreement with JEA for power from the St. John's River Power Park (381 MW of coal capacity).

FPL witness Silva testified that an electric system that relies on a single fuel and a single technology to generate all the electricity needed to meet its customers' demand, all else equal, is less reliable than a system that uses a more balanced, fuel-diverse generation portfolio. In addition, witness Silva testified that greater fuel diversity mitigates the impact of wide or sudden swings in the price of one fuel. Moreover, when multiple fuels are used to produce electricity, the impact of price increases in any one fuel is lessened when that particular fuel does not make

up a significant percentage of the total fuel mix. Thus, a more balanced fuel portfolio will result in less volatile total fuel costs over time. FPL asserts that pursuing new nuclear capacity will provide fuel diversity which will result in lower greenhouse gas emissions.

Two main components of retail rates are base rates and fuel costs. Base rates are relatively stable. Fuel costs are passed through to retail customers through FPL's fuel adjustment clause. Since fuel costs are more volatile, they are adjusted annually to reflect actual costs. The table below highlights FPL's retail rates compared to the percentage of generation from natural gas.

Comparison of FPL's Retail Rate to % Generation by Gas					
	1998	2000	2002	2004	2006
Total Retail Rate ¢/kW	7.16	6.89	7.36	8.42	11.22
Base Rate %	59.4%	55.6%	49.3%	42.2%	31.2%
Fuel Costs %	26.5%	30.7%	36.5%	44.4%	54.9%
Generation by Gas %	24.2%	24.6%	32.7%	37.0%	49.4%

If FPL continues its heavy reliance on natural gas, FPL ratepayers may experience higher rates in the future with the majority of costs to be recovered through FPL's fuel adjustment charge; consequently, having a more diverse fuel mix could serve as a hedge against fuel price volatility.

In conclusion, the addition of nuclear generation will maintain FPL's fuel diversity and security. In 2006, FPL generated approximately 50% of its power from natural gas, approximately 21% from nuclear power, and 18% from coal. Without the addition of Turkey Point 6 and 7, FPL's fuel mix is projected to climb to approximately 75% from natural gas while the amount of nuclear generation would drop to approximately 16%. The addition of 2,200 to 3,040 MW of capacity associated with Turkey Point 6 and 7 would increase nuclear generation to approximately 26% and natural gas to 65% by the year 2021, the first full year of operation for both units. With or without Turkey Point 6 and 7, FPL's generation from coal would drop to approximately 7% due mostly from the replacement of a purchased power contract with the Southern Company (165 MW of coal capacity) and a purchased power agreement with the JEA for power from the St. John's River Power Park (381 MW of coal capacity).

Need for Base-load Generating Capacity

There is a need for Turkey Point 6 and 7, taking into account the need for base-load generating capacity, as this criterion is used in Section 403.519(4), F.S.

FPL asserts that Turkey Point 6 and 7 will help meet its growing needs for additional base-load capacity. FPL argues that most renewable generation resources cannot provide base-load capacity; thus, nuclear generation, such as Turkey Point 6 and 7, is an option which is needed in order to keep up with increasing demand. FPL further argues that Turkey Point 6 and 7 is needed not only for system reliability and integrity, but also to enable FPL to take advantage of more renewable energy sources that are not always available. Finally, FPL contends that because Turkey Point 6 and 7 will provide base-load capacity that will operate at very high capacity levels, and FPL's least efficient generating units that emit CO_2 will, therefore, be able to operate less, Turkey Point 6 and 7 will significantly reduce CO_2 emissions on FPL's system.

OPC did not file a brief with respect to this issue. JEA and Seminole contend that there is a need for Turkey Point 6 and 7 taking into account the need for base-load capacity. JEA further argues that Turkey Point 6 and 7 are base-load units designed to be available continuously.

The Krasowskis argue that there is no need for Turkey Point 6 and 7 because sufficient base-load already exists. Furthermore, the Krasowskis contend that future base-load and current base-load can be provided incrementally and replaced by efficiency and cleaner renewable alternatives. The evidence in this proceeding supports that efficient and renewable technologies currently available cannot satisfy FPL's demand for base-load capacity.

While natural gas-fired generation may still be required in the future, the addition of nuclear power provides a non-carbon emitting source of base-load power to satisfy the continued growth of FPL's energy needs. Nuclear generation will help FPL maintain a balanced fuel supply which will result in less volatile total fuel costs over time. By 2010, FPL will have approximately 15,235 MW of existing or certified base-load generation capacity which consists of coal (902 MW), gas-fired combined cycle (10,979 MW), and nuclear generation facilities (3,354 MW). As previously discussed, FPL's peak load is expected to increase by over 6,000 MW by the year 2020. FPL's base-load needs are also projected to increase by approximately the same amount. Even with the addition of Turkey Point 6 and 7, FPL's base-load needs will continue to be met primarily with natural gas-fired combined cycle generators. As discussed previously, if load forecasts were to dramatically drop or the amount of DSM or renewable generation available were to substantially increase, the likely result would be the deferral or avoidance of some natural gas-fired power plants which have not been certified to date, rather than the deferral or avoidance of new nuclear base-load generation.

The evidence reflects that the high capacity factor of FPL's nuclear units means that these units would represent a substantial amount of base-load capacity on its system. In addition, new nuclear base-load capacity provided by Turkey Point 6 and 7 is needed to maintain system reliability and provide fuel diversity at a reasonable cost for its customers. FPL asserts that there is no cost-effective alternative to Turkey Point 6 and 7 that would provide the reliable base-load capacity to meet its customers' future resource needs. Turkey Point 6 and 7 will add between 2,200-3,040 MW of nuclear-fueled base-load generating capacity which is needed to keep pace with the increasing demand for reliable power and steady population growth in Florida. Some renewable generation resources available today such as wind and solar cannot provide base-load

capacity. Florida has limited capacity for wind power. With respect to using solar energy, price and availability are impediments that cause this form of generation to be a less reliable source of base-load capacity. At best, solar is only available twelve hours per day and weather can cause the power produced by solar energy to be intermittent. The record indicates that renewable generation available today or in the near future cannot provide enough base-load capacity to avoid the need that would be met by the addition of Turkey Point 6 and 7.

During the hearing, the Krasowskis questioned whether FPL has ever investigated medium-sized solar plants as a means of providing base-load capacity. Witness Silva testified that FPL has investigated solar in various forms and has not been convinced that the capability exists to make solar a base-load type of generation. FPL has taken on a solar initiative that will result in the installation of up to 300 MW of solar energy. This amount would not be sufficient to displace the need for Turkey Point 6 and 7.

In conclusion, by 2010 FPL will have approximately 15,235 MW of existing or certified base-load generation capacity which consists of coal (902 MW), gas-fired combined cycle (10,979 MW), and nuclear generation facilities (3,354 MW). As mentioned previously, FPL's peak load is expected to increase by over 6,000 MW by the year 2020. FPL's base-load needs are also projected to increase by approximately the same amount. Even with the addition of Turkey Point 6 and 7, FPL's base-load needs will continue to be met primarily with natural gas-fired combined cycle generators. If load forecasts were to dramatically drop or the amount of DSM or renewable generation available were to substantially increase, the likely result would be the deferral or avoidance of some natural gas-fired power plants, which have not been certified to date but that are currently planned for the 2011-2016 time frame.

Need for Adequate Electricity at a Reasonable Cost

There is a need for Turkey Point 6 and 7, taking into account the need for adequate electricity at a reasonable cost, as this criterion is used in Section 403.519(4), F.S.

FPL asserts that Turkey Point 6 and 7 will provide adequate electricity at a reasonable cost due to the significant fuel savings and environmental compliance cost savings that will be realized by its customers. FPL contends that nuclear fuel costs are projected to be lower than fossil fuel costs and that the use of nuclear fuel will mitigate against fuel price volatility. FPL further contends that the use of nuclear technology will minimize the uncertainty and the amount of potential future environmental compliance costs associated with CO_2 emissions. Finally, FPL argues that even in the unlikely case that there is no future compliance cost associated with CO_2 emissions, significant fuel savings would still be realized by FPL's customers.

OPC did not file a brief with respect to this issue. JEA and Seminole contend that there is a need for Turkey Point 6 and 7, taking into account adequate electricity at a reasonable cost. JEA further argues that FPL adequately evaluated alternative technologies under a variety of fuel price and air emission compliance cost scenarios.

The Krasowskis argue that adequate electricity already exists. The Krasowskis further contend that reasonable costs have not been established based on efficiencies and conservation programs. In addition, the Krasowskis argue that water costs, including the cost of waste storage, are still questionable. Finally, the Krasowskis argue that the economic cost of an unforeseen event has not been considered by FPL. Our analysis with respect to the water and nuclear waste storage costs is addressed below.

FPL's analysis assumed overall costs of capital of 8.40% for generation-related capital costs and 8.30% for all other capital costs. These rates of return are based on a capital structure consisting of 55.8% equity at a cost rate of 11.75% and 44.2% debt at a cost rate of 6.43%. A different discount rate was used for generation-related capital costs because the application of the federal production tax credit for new generation units results in a different effective tax rate for generation-related capital costs compared to other capital costs. FPL used the same financial and economic assumptions for Turkey Point 6 and 7, such as the escalation rates, cost of capital, and allowance for funds used during construction (AFUDC) rates, that were used in FPL's need determination filing for capacity uprates at its four existing nuclear units approved in Order No. PSC-08-0021-FOF-EI.[15] There was no evidence presented in the record that disputed the reasonableness of FPL's financial assumptions. Based on this review, we find that the financial assumptions used for this evaluation are reasonable.

When comparing site-specific conditions, Turkey Point 6 and 7 are projected to have higher in-service capital and lower operating costs than comparable CC and IGCC units. In addition, the emission rates for Turkey Point 6 and 7 are zero compared to comparable CC and IGCC units. FPL sets variable Operation and Maintenance (O&M) costs for nuclear as zero because nuclear fuel costs are generally characterized as fixed O&M costs or capital replacement costs, and are not analyzed on a variable basis as one would look at certain consumable costs that are common with IGCC or CC technology.

Capital Cost Estimates

Turkey Point 6 and 7 will increase the amount of FPL's nuclear-fueled generation, eventually displacing large amounts of higher cost fossil fuel and purchased power generation with associated fuel savings for its customers. In addition, Turkey Point 6 and 7 are considered "non-emitting" technologies for greenhouse gas (GHG) emissions, which will result in reduced environmental compliance costs. The process for creating a new nuclear project cost estimate differs from fossil or renewable generation projects due to a lack of a similar level of relevant market-based information and recent experience base.

To evaluate the cost-effectiveness of the proposed units, FPL developed a non-binding cost estimate range. The primary source of this non-binding cost estimate range is an

[15] Order No. PSC-08-0021-FOF-EI, issued January 7, 2008, in Docket No. 070602-EI, In re: Petition for determination of need for expansion of Turkey Point and St. Lucie nuclear power plants, for exemption from Bid Rule 25-22.082, F.A.C., and for cost recovery through the Commission's Nuclear Power Plant Cost Recovery Rule, Rule 25-6.0423, F.A.C.

interagency study conducted by an industry consortium led by the Tennessee Valley Authority (TVA) in coordination with the U.S. Department of Energy (DOE), published in August of 2005 (the TVA Study). FPL determined a capital cost range of $3,108/kw-$4,540/kw to be reasonable for Turkey Point 6 and 7. No evidence was presented in the record to dispute the reasonableness of FPL's financial assumptions.

When compared to the combined cycle alternative, nuclear generation has higher capital cost; however, this cost is offset by nuclear's low fuel and environmental costs. When compared to the IGCC alternative, economic benefits of nuclear increase because IGCC would still have some emissions, while nuclear has none. We find that FPL's capital cost estimates are reasonable. No evidence was presented that challenged the cost estimates.

Transmission Costs

Construction of any electrical generation plant requires additional transmission infrastructure to connect the new generation source to the state's electric grid. A primary consideration is the capacity to be added. The transmission system must be capable of sustaining the loss of the single largest generator without violating reliability standards. FPL's preliminary studies determined that a new generation plant with capacity under 1,200 MW would not adversely impact the grid. If the 1,520 MW units were chosen, transmission interconnection and integration would require more detailed studies to determine the specific impacts and mitigation alternatives.

In conducting its cost analysis, FPL's estimate of transmission interconnection and integration costs ranged from $664 to $959 per kW, or $1.5 billion to $2.1 billion for two 1,100 MW units. The estimate range for two 1,520 MW units was $2.0 billion to $2.9 billion. These costs were included in FPL's cost estimate. An estimate of $500 million for transmission costs was used for both the CC or IGCC alternatives.

We find that FPL's transmission cost estimates are reasonable. No evidence was presented that challenged FPL's transmission cost estimates.

Environmental Costs

In assessing the environmental compliance costs associated with FPL's petition for need, we considered whether FPL included a reasonable level of environmental compliance costs associated with the proposed nuclear generation units and whether FPL's cost-effectiveness analysis of the selected generation alternative vis-a-vis other generating alternatives (CC and IGCC) include reasonable levels of environmental compliance costs.

FPL witness Kosky testified that FPL has identified a variety of environmental controls and associated costs for the proposed nuclear unit. FPL further asserted that its environmental compliance strategy for these units will meet, or exceed, the applicable environmental requirements.

FPL maintains that its cost-effectiveness analysis of the selected generation alternative vis-a-vis other generating alternatives (CC and IGCC) include reasonable levels of environmental compliance costs. Each of FPL's three alternative resource plans has different pollutant emission profiles resulting from the utilization of different fuels. In this need determination petition, the environmental compliance costs of four pollutants are considered: sulfur dioxide (SO_2), nitrogen oxides (NO_x), carbon dioxide (CO_2), and mercury (Hg). In order to incorporate the range of uncertainty in its environmental cost estimates regarding future environmental requirements, FPL and its consultants analyzed the possible future environmental compliance costs based upon a report prepared by ICF International titled "U.S. Emission and Fuel Markets Outlook, 2006 edition" (2006 ICF Report). FPL relied upon this report as the starting point of its environmental compliance costs forecasts.

In its report, ICF International reviewed the U.S. Congress bills and the international market trends regarding GHG emission regulations. ICF then analyzed the emission allowance markets for all four pollutants and presented a set of allowance pricing projections for 2006 through 2030. Each projection corresponds to a specific bill or the international market trend. ICF also provided a reference case, which was a weighted summation of all the other projections. FPL adopted three ICF projections as a framework to form FPL's environmental forecasts: ENV I (mild case, based on ICF Bingaman projection), ENV II (medium case, based on ICF reference case), and ENV III (stringent case, based on ICF McCain projection). FPL extrapolated ICF's projections through 2060. To address the potential for higher CO_2 costs, FPL developed an additional forecast, ENV IV, in which the annual CO_2 values were 130% of the corresponding costs appearing in ENV III. These environmental forecasts are presented in Appendix F of the Need Study.

In its evaluation of resource options in this case, FPL combined its three fuel cost forecasts (high, medium, and low) with its four environmental compliance cost forecasts to form a matrix of twelve initial scenarios. After further analysis, nine scenarios were selected and utilized in performing both the economic and non-economic analyses to evaluate FPL's three resource plans. FPL eliminated three scenarios (Low Gas Cost ENV II, Low Gas Cost ENV III, and Low Gas Cost ENV IV) because FPL believes that an assumption of medium-to-high environmental compliance costs for CO_2 is incompatible with an assumption of low natural gas prices. In support of this determination, FPL witness Yupp notes that one of the drivers for oil and gas prices is "the impact upon worldwide energy consumption of various factors including worldwide environmental legislation and politics." Witness Yupp also indicates that FPL's fuel price forecasts do not reflect a constant difference in coal and gas prices due to potential environmental legislation. In addition, he indicates that medium to high environmental compliance costs are incompatible with the assumption of low natural gas prices. He also testified that, if future environmental regulations were to impose high compliance costs on carbon emissions, the demand for natural gas would most likely increase. Moreover, Yupp testified that it is a reasonable assumption that, if environmental compliance costs are higher, gas prices will go up.

FPL claims that the selection of nuclear technology is the best available alternative for base-load generation from an environmental perspective consistent with maintaining fuel

diversity. Using nuclear generating technology will help FPL reduce the total CO_2 emissions from its system. The estimated amount of emissions that will be avoided by the proposed nuclear units over a 40-year period of operation are 14,200 to 75,400 tons of SO_2, 21,300 to 49,200 tons of NO_x, and 266 million to 700 million tons of CO_2. The estimated cumulative 40-year CO_2 compliance costs for alternative generation could range from $6 billion to $28 billion or more for CC generation, and $17 to $73 billion or more for IGCC generation. The cumulative 40-year compliance costs of the other three emissions would likely be on the order of $120 million to $150 million for CC and $0.8 billion to $1.2 billion for IGCC.

During the week prior to the hearing in this docket, FPL witness Kosky received an updated ICF report titled "U.S. Emission and Fuel Markets Outlook 2007, Volume II, Emission Markets, Winter 2007/2008" (Updated ICF Report). In this report, the projections of CO_2 pricing were increased to reflect new GHG legislation proposals. At the hearing, OPC requested that FPL recalculate its CO_2 compliance costs using the updated report. Witness Kosky testified that upon reviewing the resulting updated values, he concluded that the updated CO_2 compliance costs data provides further evidence that the range of CO_2 compliance costs that FPL had presented and relied upon in its economic studies were reasonable. FPL stated that if future CO_2 costs are higher than the level of costs it estimated in its resource plans (as the new ICF data indicates), due to recently proposed or future legislation, such additional costs would favor the selection of nuclear generating capacity over other generating resource options.

During the hearing, our staff requested a late-filed exhibit that contained updated environmental compliance costs data for the remaining three emissions appearing in FPL's Appendix F of its need petition, SO_2, NO_x, and Hg, with the forecasts ending at 2030, the same projection horizon as used in the updated ICF report. FPL filed an updated Appendix F, identified as Exhibit 103, based on the updated ICF Report. FPL agreed that as CO_2 allowance prices increase above FPL's forecasted future CO_2 allowance price levels, the allowance prices for other pollutants could decrease. However, FPL argued that decreases in other pollutants' compliance costs would not have much of an effect on overall environmental compliance costs. Thus, as CO_2 allowance prices increase, overall environmental costs would be expected to increase above FPL's current projections.

We believe FPL has appropriately identified the requisite environmental controls and associated costs for the proposed nuclear units in its need petition. It appears that FPL's environmental compliance strategy for these units will meet or exceed the applicable environmental requirements, given existing and potential future environmental legislation.

We believe that adding new nuclear units to FPL's base-load generation would significantly reduce GHG as well as other emissions on FPL's system, compared with adopting alternative base-load units (CC or IGCC). Nuclear generation is considered a "non-emitting" technology for GHG emissions. FPL has provided persuasive evidence that FPL's selection of nuclear generation will avoid significant environmental compliance costs associated with other generating alternatives' pollutant emissions. We believe FPL has substantiated this point by quantifying the expected cost impacts of CO_2 emission regulations, the existing SO_2 regulations, Phase II Clean Air Interstate Rule (CAIR) NO_x regulations, Clean Air Mercury Rule (CAMR)

Hg regulations. Based on the environmental compliance costs shown in Appendix F of Exhibit 96 and Exhibit 103 for CC and IGCC, the emission displacement associated with the nuclear generating option should provide significant savings to FPL and its ratepayers.

We reviewed the 2006 ICF Report and the Updated ICF Report and note that the emission allowance pricing projections developed by ICF are based upon a detailed study of the compliance cost markets for all four pollutants, nationally and internationally, and careful review of various existing or proposed emission regulations proposed by national and worldwide legislative bodies. We believe the methodology and the underlying data used by FPL for preparing its environmental compliance cost forecasts are reasonable. We find that FPL has included a reasonable level of environmental compliance costs in its resource plans for the purpose of evaluating the suitability of adding the nuclear units.

We considered whether FPL's decision to eliminate three scenarios from further use in its economic analysis in this need case is appropriate. It is reasonable to conclude that medium to high environmental compliance costs are incompatible with the assumption of low natural gas prices. Therefore, we find that it was reasonable for FPL to eliminate from its cost-effectiveness analysis the three scenarios in question.

We find it appropriate to give greater weight to the analysis outcomes resulting in the Medium Gas Cost ENV II scenario for three reasons. First, FPL's basic fossil fuel forecasts were the medium price forecasts. FPL developed one fuel price forecast for distillate and residual fuel oil, solid fuel, and natural gas which is the medium price forecast. To develop the high and low forecasts for distillate and residual fuel oil, solid fuel, and natural gas, FPL did not separately conduct high price and low price forecasts but, instead, derived the high and low forecasts by applying factors (137% and 69%) to the medium price forecast. Therefore, among FPL's three fuel forecasts the basic fossil fuel forecasts are its medium fuel price forecasts. Second, the pollutants' emission cost projections of ENV II were developed and designated as the expected case by the well-known independent consulting firm ICF International. ICF formed its environmental compliance cost projections based upon extensive market studies and reviewing the emission regulation-related legislation as discussed above. The expected case was further created by means of weighted summation, corresponding to forecasting time, of various projections. In view of these, we find that the expected case (i.e. ENV II) represents a more reasonable prediction compared with its forecast counterparts. Third, the same scenario was presented in the Glades Power Park case, and it compared well with the middle scenario for emissions costs presented in that case.[16] Consequently, it is reasonable to place greater weight on the outcomes derived from the Medium Gas ENV II scenario when evaluating the overall economic analysis results. We agree with FPL, however, in its decision to not apply specific probabilities to the scenarios it developed for analyzing resource options. FPL is correct in its conclusion that there are too many uncertainties with regard to future environmental compliance costs and fuel costs as well as in the interaction between them to assign probabilities to specific forecasts.

[16] Order No. PSC-07-0557-FOF-EI, issued July 2, 2007, in Docket No. 070098-EI, In re: Petition for determination of need for Glades Power Park Plants Units 1 and 2 electrical power plants in Glades County, by Florida Power and Light Company.

We calculated the incremental environmental compliance costs associated with the Medium Gas Cost ENV II scenario based on the Updated ICF Report's allowance prices and a static level of FPL's system emissions data for the three generation options. We performed this analysis to determine whether the updated compliance cost forecast improved the economics of the nuclear generation option. The emissions compliance costs were calculated for a period from 2018, when the first proposed nuclear unit would be placed in service, through 2030, the final year of ICF's updated forecast. The results of this analysis are shown below, in Table 1, Incremental Change in FPL System's Environmental Compliance Costs Based on the Updated ICF Forecast, 2018 to 2030. As shown, the revised SO_2 and Hg compliance costs decrease to a certain extent, due to the interaction between the markets of different emission compliance allowances, but the amount of reduction in SO_2 and Hg compliance costs does not nearly offset the incremental increase of the CO_2 and NO_x compliance costs. Given the more recent environmental cost data contained in the updated ICF report, the environmental costs associated with alternatives to the proposed nuclear units (CC and IGCC) would be higher than the costs reflected in FPL's need petition, while the cost of nuclear generation would remain unchanged.

Table 1
Incremental Change in FPL System's Environmental Compliance Costs Based on the Updated ICF Forecast, 2018 to 2030
(Medium Gas, ENV II scenario - nominal $)

	CC	IGCC	Nuclear
Incremental CO_2 costs:	$312,306,000	$790,497,000	$0
Incremental SO_2 costs:	-$652,271	-$12,339,000	$0
Incremental NO_x costs:	$1,651,936	$120,901,442	$0
Incremental Hg costs:	0	-$24,291,320	$0
Sum of Incremental Compliance Costs	$313,957,284	$874,768,122	$0

During the hearing, the Krasowskis presented their concerns regarding the amount of life cycle emissions of Turkey Point 6 and 7 compared to oil, gas, and coal alternative fuels. The evidence shows that the amount of the life-cycle GHG emissions associated with a nuclear plant is less than that associated with an oil plant or a coal plant: 30 lb CO_2 equivalent/MWH for nuclear compared with 110 lb CO_2 equivalent/MWH for CC. The evidence presented in this case shows that the nuclear generation option bears the lowest amount of life-cycle emissions compared to other generating technology available in Florida. Moreover, life-cycle emissions for nuclear generation are low compared to non-emitting renewables and are equivalent to wind generation and are three times lower than solar generation.

In conclusion, FPL has included an appropriate level of environmental compliance costs in its estimated costs for Turkey Point 6 and 7. We find that FPL's forecasted costs of environmental compliance between the nuclear generation alternative compared to competing options (CC and IGCC generation technologies) are reasonable. No evidence was presented that challenged the environmental cost estimates.

Water Costs

Steam based plants (including nuclear technology) require more cooling water than combined cycle technology. FPL estimates that a range of 60 million to 90 million gallons of water per day would be required for the operation of the proposed Turkey Point 6 and 7. FPL included capital costs of approximately $250 million to $300 million for cooling water.

FPL conducted a preliminary screening to determine the availability and feasibility of water resources capable of providing cooling water to the proposed Turkey Point 6 and 7. FPL claims that multiple viable alternatives of cooling water supply are available and will be fully investigated to determine which source or sources meet technical, environmental, and economic objectives. Five supply sources are currently under review by FPL: reclaimed water from the Miami-Dade Water and Sewer Department, groundwater from the lower Floridian aquifer, groundwater from the boulder zone, marine water taken from the surface through a remnant canal intake system, and a marine source that would be taken subsurface through a rainy well system. A final decision regarding the site certification application process to develop the alternatives as well as identify which is the best option for the facility is targeted for March 2009.

FPL contends that it has included an appropriate allocation for water supply in its cost estimate range based on FPL's significant experience in this area. In response to OPC's concern whether the use of reclaimed water would cost more or less than the use of groundwater, witness Scroggs testified that the cost for the reclaimed water option would be approximately the same as the groundwater option based on FPL's discussions with the Miami-Dade Water and Sewer Department. FPL also indicated that its cost estimates include the capital costs to build the infrastructure necessary to deliver the water as well as the cost of pumping the water.

FPL's witness Scroggs testified that the source of the water to be used has not yet been determined. However, FPL believes that its cost estimate range would be sufficient to cover costs reasonably expected for any of the alternatives based on FPL's extensive knowledge of different opportunities. Witness Scroggs also testified that there is a significant margin above the current cost estimate range that could be tapped to support water supply projects while maintaining the cost-effectiveness of Turkey Point 6 and 7.

In conclusion, we believe that FPL's costs for cooling water supply were appropriately included in the economic analyses of the three resource plans and represent a range of potential costs outcomes based upon its selection of a water supply for Turkey Point 6 and 7. We believe that the various water supply options available to FPL are readily available for the life of the proposed nuclear units.

Fuel Storage Costs

Additional costs related to spent fuel storage are exclusive to nuclear generation. Witness Villard testified that new nuclear plant designs have a spent fuel storage capacity of over ten years. The Department of Energy (DOE) is statutorily and contractually obligated to dispose of nuclear fuel. Further, DOE assesses FPL one mill per kilowatt hour as payment for the disposal

of nuclear fuel. FPL included such costs in its economic evaluation for this need determination. Witness Villard further testified that dry cask storage is a proven safe and environmentally sound on-site storage option.

DOE has had problems commencing operation of the Yucca Mountain nuclear waste repository, and Yucca Mountain is currently the only option; however, witness Villard testified that the industry will solve the problem of long-term storage of spent nuclear fuel within the next 20 years. He contends that the problem is not a technical one. Further, witness Villard testified that he believes that the costs of dry cask storage are included in the economic evaluation for this need determination. In the United States, the policy for disposal of spent nuclear fuel is final disposal as opposed to reprocessing.

In conclusion, we believe the cost estimate information presented in the record is appropriate. Accordingly, we find that construction of Turkey Point 6 and 7 will not only provide adequate electricity, but also ensure the most reasonable costs to ratepayers.

No Mitigating Renewable Energy Sources and Technologies or Conservation Measures

There are no renewable energy sources and technologies or conservation measures taken by or reasonably available to FPL which might mitigate the need for Turkey Point 6 and 7.

FPL argues that neither renewable resources nor conservation and DSM can mitigate the need for Turkey Point 6 and 7. FPL asserts that its projected resource need already takes into account all reasonably achievable, cost-effective DSM and renewable energy resources known to FPL. FPL asserts that because DSM and renewable energy resources represent resource options so inherently different from Turkey Point 6 and 7 (in terms of base-load capacity, contribution to fuel diversity, and ability to reduce system-wide CO_2 emissions), they cannot be seen as true alternatives. FPL contends that it continues to aggressively pursue DSM opportunities, as well as the purchase and development of substantial amounts of energy from renewable resources. As a result, although FPL asserts that additional DSM, renewable energy resources, and new nuclear generation should all be pursued because each resource is needed, it is evident that DSM and renewable energy cannot mitigate the need for Turkey Point 6 and 7.

OPC did not file a brief with respect to this issue. JEA and Seminole contend that there are no additional renewable energy sources and technologies and conservation measures available that could mitigate the need for Turkey Point 6 and 7. JEA further argues even if renewable resources and conservation were achieved at levels greater than projected, FPL would still need Turkey Point 6 and 7. Seminole contends it is not aware of any such sources, technologies, or measures currently available.

The Krasowskis argue that there are renewable energy sources and technologies and conservation measures available that could mitigate the need for Turkey Point 6 and 7. In addition, the Krasowskis contend there are enormous opportunities for efficiency and conservation measures. Moreover, the Krasowskis assert that only a fraction of energy efficiencies available through DSM are realized and would become available by raising Florida's

minimal standards. The Krasowskis did not provide any specific conservation measures or renewable technologies that would mitigate the need for Turkey Point 6 and 7. The Krasowskis argue that additional conservation could be achieved through mandatory participation in utility conservation programs; however, such a mandate would require legislation or amendments to the building code.

According to witness Brandt, FPL used a multi-step process to develop its current DSM goals. FPL identified a total of 329 DSM measures for screening. All selected measures were screened for cost-effectiveness utilizing the Rate Impact Measure (RIM) test with the assumption of no incentives. The assumption of no incentives gives each measure the highest probability of passing the RIM test. Each measure that passed the RIM test was then tested using the Participant test. For those measures that were found to be cost-effective as determined by both the RIM and Participant tests, annual market acceptance rates, and the achievable potential were identified. The results of this analysis produced the most cost-effective DSM portfolio for FPL's customers. The energy savings from these programs were added to FPL's integrated resource planning (IRP) process. FPL's current DSM plan to meet its 2005-2014 goals was approved in Order Nos. PSC-05-0162-PAA-EG[17] and PSC-06-0025-FOF-EG.[18]

From 1980 through 2006, FPL has implemented approximately 3,659 MW of savings from its DSM programs. During this same time period FPL has completed over 2,360,000 energy audits of customers' homes and businesses. In 2004, FPL received Commission approval of DSM goals that will add 802 MW (at the generator) of additional DSM from 2006 through 2014. FPL plans to achieve additional demand reduction beyond the current DSM goals time frame such that an additional summer demand reduction of 1,899 MW at the generator will be achieved by 2020.

Despite FPL's efforts, an additional 5,130 MW of cost-effective, incremental DSM would be needed to meet FPL's demand needs. FPL witness Sim stated that it is unrealistic to assume the existence of this amount of cost-effective, incremental DSM. We agree, in part, because the availability of cost-effective DSM measures has been declining. FPL witness Brandt identified several areas where DSM-related technologies are reaching market saturation, which directly impact FPL's ability to increase participation in many of its DSM programs. For example, in 1982 the Florida Energy Code was changed to require all new homes to have at least R-19 levels of ceiling insulation. As a consequence, the eligible market has shrunk as more pre-1982-built homes participate in the program. In 2006, the minimum efficiency standards for Heating Ventilation and Air Conditioning (HVAC) equipment were increased. For example, the minimum standards for residential type air conditioners were increased significantly from a minimum season energy efficiency rating (SEER) of 10 to 13. FPL's load forecast includes a 1,256 MW reduction to account for the effect of the new energy efficiency standards mandated by the 2005 Energy Policy Act. When building code or appliance efficiency levels become the same as the utility's program, then the impact of the utility program is greatly diminished

[17] Order No. PSC-05-0162-PAA-EG, issued February 9, 2005, in Docket No. 040029-EG, In re: Petition for approval of numeric conservation goals by Florida Power & Light Company.
[18] Order No. PSC-06-0025-FOF-EG, issued January 10, 2006, in Docket No. 040660-EG, In re: Petition for approval of modifications to BuildSmart Program by Florida Power & Light Company.

because the baseline energy efficiency level is raised. Furthermore, FPL has projected that the amount of annual load management capability is close to the maximum usable amount.

In addition to DSM, FPL's load forecast assumes successful contracting for and delivery of 144 MW of renewable firm capacity bid in response to its 2007 request for proposals for renewable energy, and successful extension of 143 MW of renewable firm capacity from three expiring municipal waste-to-energy contracts.

Most renewable resource options are unable to meet base-load generating needs, but are better positioned as intermediate and peaking resources that enable a utility to replace its gas and oil-fired generation. Even with a greater emphasis on the development of renewable resources in Florida, the realities of land use economics, a relatively low level of renewable resources available, and the incompatibility of renewables that involve combustion or incineration with GHG reduction targets, make it very unlikely that the state can count on renewables to meet the bulk of its incremental power supply needs or be the principal means of providing significant reductions in GHG levels over the next ten to twenty years.

In closing, witness Sim testified that a reduction in peak load demand or an increase in renewable generation would likely result in the deferral of uncertified natural gas units. The more immediate effect of such a change would be that the capacity need and, therefore, the capacity options that FPL would select to meet that need in the years prior to 2018 would change.

Based on the record, we find that there are no additional cost-effective conservation measures available that might mitigate FPL's need for Turkey Point 6 and 7. FPL has identified an incremental increase of 1,899 MW of DSM summer peak demand reduction by the year 2020, as well as over 280 MW of renewable energy from purchased power contracts. As previously discussed, FPL has demonstrated a reliability need in excess of these values for the years 2018 through 2020. A reduction in peak demand or an increase in renewable generation would likely result in the deferral of uncertified natural gas units. In addition, it is unrealistic to assume that FPL could achieve the amount of energy savings through DSM in ten years, that took 26 years to accomplish. As such, we find that there are no additional renewable energy sources or conservation measures which could effectively mitigate FPL's need for Turkey Point 6 and 7.

Most Cost-Effective Source of Power

Turkey Point 6 and 7 will provide the most cost-effective source of power, as this criterion is used in Section 403.519(4), F.S.

In a more traditional need determination proceeding for a fossil-fuel generating unit, cost-effectiveness would be measured by comparing various present value revenue requirement scenarios with and without the proposed generating unit. The revenue requirements would include the capital costs of the proposed generating plant as well as the system fuel costs. The difference between competing alternatives would indicate which generation alternative was the most cost-effective.

As previously discussed, FPL prepared a capital cost estimate for new nuclear generation of $3,108/kw-$4,540/kw. However, due to the lack of recent cost information for nuclear power plant construction, FPL departed from a traditional revenue requirement analysis and performed a break-even analysis. For analysis purposes, FPL compared a present value revenue stream assuming no capital costs for the nuclear units to a traditional present value revenue stream which includes capital and system fuel costs for a CC or IGCC as a replacement for the nuclear units. The results of this analysis show the highest capital costs at which nuclear generation would still be cost-effective compared to CC and IGCC alternatives.

As with prior need determination filings, FPL performed this analysis under a wide range of scenarios which combined varying fuel forecasts (low, medium, and high) and environmental compliance cost projections, ENV I-IV. ENV I represents a low compliance cost scenario while ENV IV represents a much higher compliance cost scenario. Nine different fuel/environmental scenarios were analyzed for each alternative to Turkey Point 6 and 7, resulting in a total of 18 scenarios. The projected present value savings over the study period for each scenario was then used to calculate a break-even capital cost estimate of what the nuclear units could cost and still produce net savings over the study period when compared to either CC (Table 6-1) or an IGCC (Table 6-2). Each break-even value was then compared to the capital cost range of $3,108/kw-$4,540/kw to determine the likelihood of the nuclear project producing a net savings over the study period. If the break-even values are higher than the current capital cost-estimates, then the nuclear plants would provide net savings over the life of the units compared to alternative base-load units. We believe that FPL's approach in performing this analysis is reasonable.

Tables 6-1 and 6-2 illustrate that all but one of the break-even capital costs produced from FPL's analysis is above the current cost estimate range of $3,108/kw-$4,540/kw. These results indicate that Turkey Point 6 and 7 are projected to produce savings in 17 of the 18 scenarios. In addition, Table 6-1 shows that the only scenario which does fall between the cost estimate range is the ENV I/Low Gas scenario. However, if this scenario were to occur, the overall cost of electricity to FPL's customers would be the lowest due to the significant amount of existing natural gas-fired generation on FPL's system.

Table 6-1

Breakeven Nuclear Capital Costs Compared to Gas Combined-Cycle
($/kw in 2007$)

		High Gas Cost	Medium Gas Cost	Low Gas Cost
Environmental Compliance Cost Forecasts	Env I	6,157	4,543	3,206
	Env II	6,701	5,065	
	Env III	6,949	5,327	
	Env IV	7,281	5,680	

FPL capital cost estimates $3,108/kw-$4,540/kw

Table 6-2

Breakeven Nuclear Capital Costs Compared to Coal IGCC
($/kw in 2007$)

		High Gas Cost	Medium Gas Cost	Low Gas Cost
Environmental Compliance Cost Forecasts	Env I	6,725	6,212	5,921
	Env II	7,996	7,487	
	Env III	8,630	8,123	
	Env IV	9,450	8,956	

FPL capital cost estimates $3,108/kw-$4,540/kw

The high initial capital costs of Turkey Point 6 and 7 are offset by the relatively low operational costs of the proposed plants. During cross examination, witness Sim testified that Turkey Point 6 and 7 will produce fuel savings of over $1 billion dollars in 2021 when compared to a combined cycle alternative. Witness Sim further testified that this value increases over time resulting in a savings of about $94 billion over the life of the units. These statements were made using FPL's medium gas cost projections. Overall savings can be seen as early as 2024 when compared to a combined cycle alternative. The evidence shows that because nuclear fuel costs are low, the Turkey Point 6 and 7 would still produce considerable savings with or without CO_2 legislation. As shown in Tables 6-1 and 6-2, as environmental compliance costs increase, the break-even capital cost for Turkey Point 6 and 7 increases. Nuclear generation is considered a "non-emitting" technology for GHG emissions; therefore, the higher the environmental compliance costs, the greater the benefits associated with Turkey Point 6 and 7. Nuclear power plants have an initial licensed operating life of 40 years with the potential to renew the operating license for another 20 years. Thus, the fuel and environmental benefits of Turkey Point 6 and 7 could continue beyond the analysis presented in this proceeding.

No nuclear power plants have been constructed in Florida since FPL placed St. Lucie 2 in service in 1983. The state as a whole relied on the construction and purchase of coal-fired generation through the 1980s, turning to low cost natural gas fired generation throughout the 1990s up until the present. Much has been done at the federal and state level to promote the development of new nuclear generation. The Energy Policy Act of 2005 provided three programs to benefit new nuclear plant development. If the nuclear project meets specific

development and construction milestones, the utility may be eligible for a form of "risk insurance" to cover some construction delays, a loan guarantee program to reduce lending costs, and production tax credits that would become effective upon commercial operation. The licensing process at the Nuclear Regulatory Commission (NRC) has been streamlined to consider standardized designs and combined the approval of a construction and operating license. Even with the streamlined procedure, the NRC process can take up to five years to complete and costs in excess of $150 million. In an effort to mitigate the economic risks associated with the long lead time and high capital costs associated with nuclear power plants, the Florida Legislature enacted Sections 366.93 and 403.519(4), F.S., during the 2006 legislative session. Section 366.93(2), F.S., requires this Commission to establish alternative cost recovery mechanisms for the recovery of costs incurred in the siting, design, licensing, and construction of a nuclear power plant. Such cost recovery mechanisms should promote utility investment in nuclear power plants and allow for the recovery in rates of all prudently incurred costs. Sections 366.93(3) and (5), F.S., allow a utility to request recovery of costs after a need determination has been granted and requires annual cost information to be filed with this Commission. Finally, if a utility elects not to continue with the construction of a new nuclear plant, Section 366.93(6), F.S., allows the utility to recover costs incurred up to the date of termination.

FPL contends that Turkey Point 6 and 7 are projected to provide the most cost-effective source of power, taking into account all the factors listed in Section 403.519(4), F.S. FPL asserts that its cost estimate range for Turkey Point 6 and 7 includes a reasonable range for all costs, including costs associated with water supply and treatment, as well as spent fuel storage and handling. FPL maintains that it developed its cost estimate range by combining information provided by an interagency study, conducted by an industry consortium in coordination with the DOE, as well as with FPL's own extensive construction experience in Florida. The non-binding cost estimate range for Turkey Point 6 and 7 in 2007 dollars is $3,108 to $4,540 per kilowatt.

OPC asserts that although uncertainty exists about future fuel prices and emissions costs, this Commission must still make judgments about future prices and costs in order to determine the cost-effectiveness of Turkey Point 6 and 7. In addition, OPC maintains that the medium forecast is FPL's best estimate of future fuel prices and believes we should give the greatest weight to the medium fuel and environmental price forecasts when considering cost-effectiveness of the proposed plants.

JEA and Seminole contend that Turkey Point 6 and 7 will provide the most cost-effective source of power. Furthermore, JEA argues that FPL adequately evaluated alternative technologies under a variety of fuel price and air emission compliance cost scenarios and determined that Turkey Point 6 and 7 is the most cost-effective alternative available to meet its identified capacity needs for the 2018-2020 period.

The Krasowskis argue that Turkey Point 6 and 7 will not provide the most cost-effective source of power. In addition, the Krasowskis contend that the cost of Turkey Point 6 and 7 should be compared with an equal amount of analysis to a renewable/efficiency option. Furthermore, the Krasowskis believe that the Turkey Point 6 and 7 timeline extends over a period that would allow monies dedicated to the project to be used to provide energy needs

through efficiency programs, elevated standards of power usage, and investments in clean energy technologies, without the costly issues related to toxic waste management.

FPL's projected future costs of compliance with CO_2 regulations, as well as the potential future compliance costs for other air emissions currently regulated under the Clean Air Act (i.e., SO_2, NO_X, and Hg), were developed using projected costs from ICF International's report, "U.S. Emission & Fuel Markets Outlook, 2006 edition." FPL adopted three ICF projections as a framework to form FPL's environmental forecasts: ENV I (mild case, based on ICF Bingaman projection), ENV II (medium case, based on ICF reference case), and ENV III (stringent case, based on ICF McCain projection). The ICF report provided the projected air emissions compliance costs through 2030. Beyond 2030, the ICF compliance costs for all air emissions were projected forward by FPL, based on a review of recent assessments related to the growing interest in CO_2 regulation and expected compliance costs. To address higher potential CO_2 costs, FPL further developed another forecast ENV IV in which the annual CO_2 values were 130% of the corresponding numbers in ENV III. OPC contends that the emission costs derived from ENV II are the most likely scenario.

Given FPL's estimated CO_2 compliance costs, the 40-year compliance costs could range from $6 billion to $28 billion or more for combined cycle generation, and $17 billion to $73 billion for IGCC generation. The 40-year compliance costs for SO_2, NO_X, and mercury would be much less, due to the quantity (tonnage) of pollutants emitted, than the compliance costs for CO_2 and would likely be in the order of $120 million to $150 million for a natural gas combined cycle generation and $0.8 billion to $1.2 billion for IGCC. We find that FPL's environmental compliance cost forecasts are reasonable for purposes of evaluating Turkey Point 6 and 7.

Recently, FPL received the 2007 edition ICF Internationals report, in which the projections of CO_2 pricing were updated to reflect new GHG legislation proposals. FPL filed an updated Appendix F, for years 2008-2030, based on the newly released ICF report. FPL witness Sim noted that the break-even analysis utilizing the updated Appendix F values would increase the cost-effectiveness of Turkey Point 6 and 7. No party contested the results of the updated CO_2 compliance costs.

The development of FPL's forecasted natural gas, residual fuel oil, solid fuel (coal and petcoke), and distillate fuel oil prices used in the economic evaluation of Turkey Point 6 and 7 were supported by FPL witness Yupp. These forecasts, along with the nuclear fuel price forecast, appear in the Appendix E of the Need Study. Witness Yupp notes that the differential between fuel prices is a key driver in the overall economic outcome of each expansion plan. It is the differential in fuel prices that results in the $1 billion dollar annual savings in the first year of operation of Turkey Point 6 and 7.

FPL used a medium gas forecast methodology. The natural gas and oil price forecasts through 2020 are based on the forward curve for commodity prices and projections from PIRA Energy Group. After 2020, the prices are escalated based on real price changes from the Energy Information Administration (EIA). Transportation costs are added to the commodity prices. For solid fuel, FPL used commodity price forecasts from JD Energy and added marine and rail

transportation and terminal charges. All prices are converted to nominal dollars using the 2.5% annual escalation rate.

For residual fuel oil, natural gas, and solid fuel, FPL developed high and low price forecasts based on its experience with these commodities during January 2000 to April 2007. Witness Yupp testified that this method accounts for the uncertainty in fuel price forecasts and ensures that the evaluation of the resource plans is reasonable.

FPL witness Villard forecasted the price of nuclear fuel. He identified four steps in fabricating nuclear fuel: uranium mining, conversion, enrichment, and fabrication. For each step, FPL forecasted the price based on inputs from nuclear fuel market experts. In general, FPL expects the demand for nuclear fuel to increase with the planned construction of new nuclear units. FPL projects that nuclear fuel supply will be adequate based on the shorter lead time for construction of new nuclear fuel mining and fabrication capacity compared to the time for constructing a nuclear plant. Unlike the forecasts for fossil fuel, only a single nuclear fuel forecast was used to evaluate FPL's expansion plans. The record reflects that the historical and anticipated price variability is small compared to the variability of fossil fuel prices and that no reasonable change in nuclear fuel prices would affect the fact that the units are expected to operate at full availability.

As previously discussed, OPC contends that this Commission should give the greatest weight to the medium fuel price forecasts when considering cost-effectiveness of the proposed plants. We believe that FPL's fuel price forecasts are reasonable for the purpose of evaluating Turkey Point 6 and 7. Although FPL did not compare its fuel forecasts to published forecasts, the evidence supports that its forecasts are based on recognized, independent sources of forecast information. FPL used an escalation rate, 1.14%, from the EIA forecast to forecast long term natural gas prices. In addition, forecasted fuel prices beyond the year 2030 are not available. As such, we find that FPL used reasonable assumptions for its fuel price forecasts because the banded approach of high, low, and medium price forecasts presented a reasonable range of price scenarios.

Much has been done at the federal and state level to promote the development of new nuclear generation. In an effort to mitigate the economic risks associated with the long lead time and high capital costs associated with nuclear power plants, the Florida Legislature enacted Sections 366.93 and 403.519(4), F.S. to promote utility investment in nuclear power plants and allow for the recovery in rates of all prudently incurred costs.

The results of FPL's break-even analysis indicate that Turkey Point 6 and 7 are projected to produce savings in 17 of the 18 scenarios considered. Such results indicate a high likelihood of FPL's ratepayers realizing net benefits over the life of the project. Turkey Point 6 and 7 are projected to produce annual fuel savings of over $1 billion dollars starting in 2021 and about $94 billion over the life of the units when compared to a combined cycle alternative. As environmental compliance costs increase, so do the benefits associated with Turkey Point 6 and 7 because nuclear generation is considered a "non-emitting" technology for GHG emissions. Nuclear power plants have an initial licensed operating life of 40 years with the potential to

renew the operating license for another 20 years. Therefore, the fuel and environmental benefits of Turkey Point 6 and 7 could continue beyond the analysis presented in this proceeding.

FPL shall provide a long-term feasibility analysis as part of its annual cost recovery process which, in this case, shall also include updated fuel forecasts, environmental forecasts, break-even costs, and capital cost estimates. In addition, FPL should account for sunk costs. Providing this information on an annual basis will allow us to monitor the feasibility regarding the continued construction of Turkey Point 6 and 7.

Compliance with Section 403.519(4)(a)5, F.S., and Rule 25-22.081, F.A.C.

We find that FPL has complied with the requirements of Section 403.519(4)(a)5, F.S., and Rule 25-22.081, F.A.C.

Section 403.519(4)(a)5, F.S., provides that an applicant's petition shall include:

> [i]nformation on whether there were any discussions with any electric utilities regarding ownership of a portion of the nuclear or integrated gasification combined cycle power plant by such electric utilities.

Furthermore, Rule 25-22.081(2)(d), F.A.C., specifies that an applicant's petition shall contain, "[a] summary of any discussions with other electric utilities regarding ownership of a portion of the plant by such electric utilities."

We approved a stipulation, as previously discussed, on this issue between FPL, FMEA, FMPA, JEA, OUC, and Seminole. As a result of the stipulation, FMEA, FMPA, JEA, OUC, and Seminole were excused from the remainder of the hearing. OPC and the Krasowskis were not parties to the stipulation; thus, this issue remained viable as to those parties.

In its petition, FPL states that the company has held preliminary discussions regarding potential ownership with several Florida utilities who have expressed interest in the plant. FPL argues that its petition, as well as witness Scroggs' testimony, address the ownership discussions that have taken place; thus, on its face, the requirements of 403.519, F.S., and Rule 25-22.081, F.A.C., have been met.

OPC did not file a brief with respect to this issue. The Krasowskis assert that the petition does not contain a summary of discussions regarding ownership. In addition, the Krasowskis contend that others and ratepayers from other Florida utilities may have wanted to participate in this docket but were not given adequate information about discussions concerning joint ownership.

We find that FPL met the requirements of Section 403.519(4)(a)5, F.S., and Rule 25-22.081, F.A.C. Witness Scroggs testified that FPL has discussed the potential for ownership participation with utilities who have expressed an interest. FPL has held discussions with FMPA and OUC and received an expression of interest from Seminole subsequent to this filing. No evidence was presented to the contrary. Based on the stipulation of this issue between FPL and

the parties mentioned previously, FPL will continue negotiations with interested parties as deemed appropriate.

Conclusion and Additional Requirements

FPL argues that the record shows that Turkey Point 6 and 7 is the best available base-load option to enhance fuel diversity and help FPL achieve reductions in CO_2 emissions. FPL contends that the evidence demonstrates that Turkey Point 6 and 7 is the preferred alternative in nearly all future fuel cost and environmental compliance cost scenarios. Accordingly, FPL argues that based on the record evidence, the Commission should grant its petition to determine the need for Turkey Point 6 and 7.

OPC did not file a brief with respect to this issue. JEA and Seminole contend that the Commission should grant FPL's petition to determine the need for Turkey Point 6 and 7 based on the resolution of the foregoing issues.

The Krasowskis argue that FPL's petition should not be granted. Instead, the Krasowskis contend that they expect the Commission will continue to pursue innovative energy efficiency and conservation strategies, and develop programs to increase the use of clean renewable generating options.

We hereby approve FPL's petition for determination of need for Turkey Point 6 and 7 for the following reasons:

First, FPL demonstrated a need for additional capacity by 2018. Turkey Point 6 and 7 will add 2,200-3,040 MW of nuclear fueled base-load generating capacity which is needed to keep pace with the increasing demand for reliable power and the steady population growth in the State of Florida.

Next, Turkey Point 6 and 7 represents a critical component in FPL's efforts to develop fuel diversity and reduce dependence on natural gas. A more balanced fuel portfolio will result in less volatile total fuel costs over time.

In addition, relatively stable nuclear fuel costs will shield ratepayers against volatile price fluctuations. Similarly, the lack of emissions during operation will guard against future environmental compliance costs.

The evidence shows that despite FPL's proposed incremental increase of an additional 1,899 MW, more than 5,000 MW of cost-effective incremental DSM would still be needed to meet FPL's demand needs.

Lastly, FPL's analysis illustrates a high probability of customer savings during the life of Turkey Point 6 and 7. Additional analyses requested by our staff illustrated reasonable probability of customer savings within 20 years of commercial operation of Turkey Point 6 and

7. Therefore, the fuel and environmental benefits of Turkey Point 6 and 7 could continue beyond the analysis presented in this proceeding.

Based on the foregoing, we find that FPL has demonstrated a need for Turkey Point 6 and 7. FPL shall provide a long-term feasibility analysis as part of its annual cost recovery process which, in this case, shall also include updated fuel forecasts, environmental forecasts, break-even costs, and capital cost estimates. In addition, FPL should account for sunk costs. Providing this information on an annual basis will allow us to monitor the feasibility regarding the continued construction of Turkey Point 6 and 7.

Advance Forging Reservation Payments

FPL seeks concurrence from this Commission that it should proceed with making advance forging reservation payments to Japan Steel Works, either directly or indirectly, prior to the completion of the Rule 25-6.0423, F.A.C., cost recovery proceeding in 2008. According to FPL, in this proceeding, we should acknowledge the necessity for FPL to make such payments in order to mitigate the risks associated with the overall project schedule. FPL proposes that the prudence of the commercial arrangement itself, i.e. contractual terms, including price terms, portability, or other compensatory aspects should be determined in the ordinary course of the annual cost recovery proceeding. FPL further clarifies that the effect of our decision would prevent further review and consideration of whether that commitment should have been made in the time frame contemplated. Finally, FPL witness Olivera stated that FPL is seeking our approval for FPL to engage in such payment commitments in order to meet the timeline of the project. FPL also states that it is not seeking a determination of the prudence of the commercial arrangements, including the contractual terms, including price terms, portability, or other compensatory aspects as part of this proceeding.

Advance forging reservation payments must be made years in advance of producing the ultra-heavy forgings for nuclear reactor plant components. FPL asserts that it would have to make the forging reservation payments in June 2008, after reactor design selection is complete, in order to maintain the proposed 2018 and 2020 in-service dates. Japan Steel Works holds an effective monopoly for such forgings. FPL witness Scroggs stated that the commercial arrangements for the advance forging reservations are still being negotiated. It is unclear whether payments will be remitted to a reactor designer, either Westinghouse or General Electric, or directly to Japan Steel Works. Westinghouse's current negotiations with Japan Steel Works, conducted on behalf of FPL, indicate that FPL's reservation payments for the forgings for two AP1000 reactors would be $8 to $12 million, in 2007 dollars. FPL estimates the forging reservation payments for Turkey Point 6 and 7 would be $16 million. The estimate is based on the addition of $3 million to the $12 million estimate, as determined by FPL witness Scroggs, to account for uncertainties in both the underlying estimate and the ultimate reactor design chosen, and an additional $1 million due to price escalation and rounding.

Forging reservation payments could possibly be tradable. Forging reservation payments have been made in the past by FPL for other power plant forgings, but the forging reservation

payments considered in this instance require significantly longer lead times and higher payment amounts.

FPL witness Scroggs stated that it is possible, but a very low probability, that FPL would make an advance forging reservation payment to Westinghouse, but then later opt for the General Electric reactor design, thereby causing FPL to have to make another advance forging reservation payment to General Electric, essentially doubling the payment from $16 million to $32 million. Witness Scroggs stated that if FPL were to make a final technology decision and then determined to make the advance forging reservation payment to a particular vendor, FPL would be very certain to remain with that project. Witness Scroggs also indicated that for a double payment event to occur, there would have to be no remarket value for the payment made to Westinghouse and the forging reservation contract would have to exclude terms allowing for the application of the Westinghouse reservation payment to the General Electric forgings in the unlikely event that FPL found it necessary to switch its choice of reactor designer to General Electric.

FPL witness Scroggs indicated that FPL makes its request for a prudence determination of FPL's decision to enter into advance forging reservation payments in this proceeding because FPL's decision must take place in advance of the cost recovery process established in Rule 25-6.0423, F.A.C. He noted that formal Commission decisions on nuclear power plant cost recovery will not be rendered until as late as October 1, 2008, but the decision to make the payments must be rendered by June 2008.

The Krasowskis assert that the matter should be addressed as provided in Rule 25-6.0423, F.A.C., in general, and Rule 25-6.0423(5), F.A.C., specifically, rather than addressed in this docket. The Krasowskis argue that FPL does not require a determination in this docket to act on making a reservation for its place in line for the forging work.

OPC contends that it is appropriate for FPL to make a commitment of approximately $8 million to $16 million either directly to Japan Steel Works or through intermediaries Westinghouse or General Electric for an advance forging reservation to preserve the potential for 2018-2020 in service dates; however, the prudence of all aspects of the commercial arrangement itself should be determined in the ordinary course of the annual cost recovery proceeding.

OPC argues that, if we grant FPL's petition to determine the need for this proposal, the high level of costs associated with the construction of the proposed power plants will be funded by the state's consumers of electricity. OPC contends that delays which will inflate these costs should be avoided. Thus, it is appropriate for FPL to take into account advance payments for long lead procurement items to preserve the potential for 2018-2020 in-service dates.

Nuclear power plant construction is an essential component of meeting the state's long term electric reliability requirements, as reflected in Section 366.93, F.S. FPL should take all reasonable steps to meet the proposed in-service dates. We agree with FPL and OPC that careful scheduling of the construction of the components of a nuclear power plant is essential in order to maximize the potential for achieving the proposed in-service dates of the units. A critical part of

the scheduling is to secure large forgings manufacturing space, which FPL has shown requires advance reservation payments to be made, either directly or indirectly, to the sole supplier of such forgings, Japan Steel Works.

During the hearing, concerns were raised that it was premature for the Commission to address this issue in the need determination process. FPL witness Scroggs was asked several questions regarding the necessity for approval of FPL's decision to enter into the advanced forgings reservation payments at this time. Witness Scroggs responded that the expenditure will fall out of the sequence of the normal prescribed cost recovery process (the NCRC proceeding). It was also noted that there are other expenses that will be incurred prior to the NCRC proceeding which the utility will deem to be reasonable and necessary, but FPL has not asked for pre-approval of those expenses. Additional questions arose as to why it was necessary for the Commission to approve or direct the reservation payments if there is remarket value associated with the reservations. Additionally, further concerns were expressed about the possibility of double payments for advanced forging reservation payments which may be required under certain circumstances.

We believe that there is a substantial basis for concluding that the advanced forging reservation payments for the proposed nuclear power plant may be considered during the NCRC proceeding. Witness Scroggs indicated that the lead times for forging reservation payments for the proposed nuclear units were significantly longer than the lead times for similar reservation payments which had been paid by FPL in the past for conventional plant steam turbines and generators. The reservation payments are also unique in that there is only one supplier, Japan Steel Works, with the capability to manufacture the ultra-heavy forgings required for the proposed nuclear units. While reservation payments may hold remarket value, and thus mitigate to some extent the risks of making such payments, it is uncertain whether FPL would be capable of trading the forging reservation payments. Additionally, FPL has shown that it is necessary to enter the queue for forging reservations as early as possible due to the growing worldwide demand competing for limited supply of manufacturing space for large forgings. Furthermore, we expect FPL to take all reasonable actions to meet the proposed in-service dates, which may include committing to other expenditures critical to the construction process prior to the conclusion of the NCRC proceeding.

While the issues related to the costs associated with a nuclear power plant would normally be addressed in the context of the NCRC proceedings, in this instance, FPL's decision to engage in the payments is reasonable, subject to the review of detailed contract provisions in NCRC proceedings. The unusually long lead times associated with the reservation payments prior to the actual manufacture of the forgings, and the criticality of the reservations to the overall project, differentiate this commitment from other more traditional contractual commitments.

No nuclear power plants have been constructed in Florida since FPL placed the St. Lucie 2 nuclear generating unit into service in 1983. The state as a whole relied on the construction and purchase of coal-fired generation through the 1980s turning to low cost natural gas fired generation throughout the 1990s up until the present. Much has been done at the federal and

state level to promote the development of new nuclear generation. Because of the high risk nature of construction of a nuclear power plant, it is imperative that FPL take all necessary steps to maintain the planned project schedule, including advance forging reservation payments. FPL is seeking some measure of certainty regarding the construction of its next nuclear power plant. We believe it is reasonable for FPL to seek assurances for the first nuclear power plant it has built in several decades.

We are in agreement with both FPL and OPC that all specific contractual terms, including price, portability, and other compensating aspects of such payments shall remain subject to our full prudence review in future NCRC proceedings. While the evidence in the record indicates that advance forging reservation payments ultimately required for Turkey Point 6 and 7 may range between $8 million to $16 million based on current negotiations, we will weigh all evidence available at the time of the NCRC proceedings in determining the overall prudence of the price paid for the reservations rather than selecting an acceptable range of payment at this time.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that Florida Power & Light Company's petition for determination of need for Turkey Point Nuclear Units 6 and 7 is granted. It is further

ORDERED that this docket shall be closed if no appeal is filed within the time permitted for filing an appeal of this Order.

By ORDER of the Florida Public Service Commission this 11th day of April, 2008.

ANN COLE
Commission Clerk

(SEAL)

KEF

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request: 1) reconsideration of the decision by filing a motion for reconsideration with the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, within five (5) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water and/or wastewater utility by filing a notice of appeal with the Office of Commission Clerk, and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

Appendix III-B: Department of Transportation

Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

ANANTH PRASAD
SECRETARY

Office of General Counsel
Mail Station 58
850/414-5265

May 16, 2011

DEPARTMENT OF
ENVIRONMENTAL PROTECTION

MAY 20 2011

SITING COORDINATION

Mr. Mike Halpin, Program Administrator
Florida Energy and Siting Coordination Office
Department of Environmental Protection
2600 Blair Stone Road, MS 48
Tallahassee, Florida 32399-2400

RE: Florida Power & Light Company Turkey Point Units 6 & 7
Power Plant Siting Application No. PA 03-45A3
DOAH Case No. 09-3575EPP
DEP OGC Case No. 09-3107

Dear Mr. Halpin:

Enclosed is the Florida Department of Transportation's Agency Report for the transmission line portion of the Florida Power and Light Turkey Point Units 6 & 7 Power Plant Application PA 03-45A3.

If you have any questions, please call me at 414-5294 or Connie Mitchell, Siting Coordinator, at 414-4572. Thank you.

Sincerely,

Kimberly C. Menchion
Assistant General Counsel

KCM/cm

cc: All Parties of Record
Connie Mitchell

FLORIDA DEPARTMENT OF TRANSPORTATION
FLORIDA POWER AND LIGHT (FPL)
TURKEY POINT UNITS 6 & 7 TRANSMISSION LINES
PREFERRED EAST/WEST CORRIDORS
APRIL 2011

SECTION I. CORRIDOR LOCATION ISSUES

No outstanding issues.

SECTION II. OUTSTANDING SUFFICIENCY ISSUES

No outstanding issues.

SECTION III. VARIANCES TO STANDARDS

No variances requested.

SECTION IV. SPECIAL USE PERMISSIONS

No special use permissions requested.

SECTION V. RECOMMENDATION FOR CERTIFICATION

The Florida Department of Transportation recommends the certification of the proposed transmission line. This recommendation is made contingent upon the conditions of Section VI and VII being addressed/met.

SECTION VI. PROPOSED CONDITIONS OF CERTIFICATION

6.1 REQUEST FOR RESTRICTED AREAS

No requests for restricted areas are necessary.

6.2 POST CERTIFICATION REVIEW ITEMS

Access Management to the State Highway System: Any access to the State Highway System will be subject to the requirements of Rule Chapters 14-96, State Highway System Connection Permits, and 14-97, Access Management Classification System and Standards, Florida Administrative Code.

Overweight or Overdimensional Loads: Operation of overweight or overdimensional loads by the applicant on State transportation facilities during construction and operation of the utility

facility will be subject to safety and permitting requirements of Chapter 316, Florida Statutes, and Rule Chapter 14-26, Safety Regulations and Permit Fees for Overweight and Overdimensional Vehicles, Florida Administrative Code.

Use of State of Florida Right of Way or Transportation Facilities: All usage and crossing of State of Florida right of way or transportation facilities will be subject to: Rule Chapter 14-46, Utilities Installation or Adjustment; Florida Administrative Code; Florida Department of Transportation's Utility Accommodation Manual (Document 710-020-001); Design Standards for Design, Construction, Maintenance and Utility Operation on the State Highway System; Plans Preparation Manual; Standard Specifications for Road and Bridge Construction; and pertinent sections of the Florida Department of Transportation's Project Development and Environment Manual.

The proposed FPL corridors will intersect and/or be co-located adjacent to facilities identified as part of the Florida Intrastate Highway System (FIHS), Strategic Intermodal System's (SIS), and State Highway System (SHS) facilities. US 1 in Miami-Dade County, south of the Florida Turnpike's Florida City interchange, has been identified as a Florida Intrastate Highway System (FIHS) and Strategic Intermodal System (SIS) facility. The placement of the transmission line and pipeline should take into consideration the planned widening of these facilities as outlined in most recent versions of the FDOT Work Program and Miami-Dade MPO's Long Range Transportation Plan. The cost of relocating or reconstructing the transmission line and pipeline will be borne by the applicant to the extent required by Section 337.403, Florida Statutes, and Rule Chapter 14-46, Florida Administrative Code.

Standards: The Manual on Uniform Traffic Control Devices; Florida Department of Transportation's Design Standards for Design, Construction, Maintenance and Utility Operation on the State Highway System; Florida Department of Transportation's Standard Specifications for Road and Bridge Construction; Florida Department of Transportation's Utility Accommodation Manual (UAM); Florida Department of Transportation's Plans Preparation Manual; and pertinent sections of the Department of Transportation's Project Development and Environment Manual will be adhered to in all circumstances involving the State Highway System and other transportation facilities.

Drainage: Any drainage onto State of Florida right of way and transportation facilities will be subject to the requirements of Rule Chapter 14-86, Drainage Connections, Florida Administrative Code.

Use of Air Space: Any newly proposed structure or alteration of an existing structure will be subject to the requirements of Chapter 333, F.S., and Rule 14-60.009, Airspace Protection, F.A.C. Additionally, notification to the Federal Aviation Administration (FAA) is required prior to beginning construction, if the structure exceeds notification requirements of 14 CFR Part 77, Objects Affecting Navigable Airspace, Subpart B, Notice of Construction or Alteration. Notification will be provided to FAA Southern Region Headquarters using FAA Form 7460-1, Notice of Proposed Construction or Alteration in accordance with instructions therein. A subsequent Determination by the FAA stating that the structure exceeds any federal obstruction standard of 14 CFR Part 77, Subpart C, for any structure that is located within a 10-nautical-mile radius of the geographical center of a public-use airport or military airfield in Florida will be

required to submit information for an Airspace Obstruction Permit from the Florida Department of Transportation or variance from local government depending on the entity with jurisdictional authority over the site of the proposed structure. The FAA Determination regarding the structure serves only as a review of its impact on federal airspace and is not an authorization to proceed with any construction. However, FAA recommendations for marking and/or lighting of the proposed structure are made mandatory by Florida law. For a site under Florida Department of Transportation jurisdiction, application will be made by submitting Florida Department Transportation Form 725-040-11, Airspace Obstruction Permit Application, in accordance with the instructions therein.

Level of Service on State Roadway Facilities: All traffic impacts to State roadway facilities on the FIHS or the SIS, or funded by Section 339.2819, Florida Statutes, will be subject to the requirements of the level of service standards adopted by local governments pursuant to Rule Chapter 14-94, Statewide Minimum Level of Service Standards, Florida Administrative Code, in accordance with Section 163.3180(10), Florida Statutes. All traffic impacts to State roadway facilities not on the FIHS, the SIS, or funded by Section 339.2819, Florida Statutes, will be subject to adequate level of service standards established by the local governments.

Additional Review Items: The following items are included as conditions for certification:

1. All work, materials, and equipment shall be subject to inspection and approval by FDOT.

2. A project schedule shall be provided prior to beginning construction of the project and updates shall be provided on a routine basis. Notification shall be provided to FDOT 48 hours prior to the beginning of all construction events within FDOT right of-way.

3. The construction and maintenance of the project shall not interfere with the property and rights of a prior FDOT Permittee.

4. All review/approval is for permissive use only and shall not operate to create or vest any property right in FPL.

5. In the event an FDOT project requires adjustment of the facilities installed as part of the project and the work is scheduled to be done simultaneously with the FDOT's construction work, FPL will coordinate with the FDOT before proceeding and shall cooperate with the FDOT's contractor to arrange the sequence of work so as not to delay the work of the FDOT's contractor, defend any legal claims of the FDOT's contractor due to delays caused by FPL's failure to comply with the approved schedule, and shall comply with all provisions of the law and the FDOT's current UAM. FPL shall not be responsible for delay beyond its control.

6. The rights and privileges herein set out are granted only to the extent of the State's right, title and interest in the land to be entered upon and used by FPL, and FPL will, at all times, and to the extent permitted by law, assume all risk of and indemnify, defend, and save harmless the State of Florida and the FDOT from and against any and all loss, damage, cost or expense arising in any manner on account of the exercise or attempted exercises by FPL of the aforesaid rights and privileges.

7. During construction, all safety regulations of the FDOT shall be observed and FPL must take measures, including placing and the display of safety devices that may be necessary in order to safely conduct the public through the project area in accordance with the Federal MUTCD, as amended by the UAM.

8. Should FPL be desirous of keeping its utilities in place and out of service, FPL acknowledges its present and continuing ownership of its utilities located between and within the FDOT's right of way as set forth above. Whenever FPL removes its facilities, it shall be at FPL's sole cost and expense. FPL, at its sole expense, shall promptly remove said out of service utilities whenever the FDOT determines said removal is in the public interest.

9. In the event contaminated soil is encountered by FPL or anyone within the construction limits, FPL shall immediately cease work and notify the FDOT. The FDOT shall notify FPL of any suspension of work to allow contamination assessment and remediation. Said suspension or revocation shall remain in effect until otherwise notified by FDOT.

10. For any excavation, construction, maintenance, or support activities performed by or on behalf of the FDOT, within its right of way, FPL may be required by the FDOT or its agents to perform the following activities with respect to FPL facilities: physically expose or direct exposure of underground facilities, provide any necessary support to facilities and/or cover, de-energize or alter aerial facilities as deemed necessary for protection and safety.

11. Pursuant to Section 337.401(2), Florida Statutes, FPL shall be responsible for damage resulting from the construction. The FDOT may initiate injunctive proceedings as provided in s. 120.69, F.S., to enforce provisions of this subsection or any rule or order issued or entered into pursuant thereto.

12. Pursuant to Section 337.402, Florida Statutes, when any public road or publicly owned rail corridor is damaged or impaired in any way because of the installation, inspection, or repair of a utility located on such road or publicly owned rail corridor, the owner of the utility shall, at his or her own expense, restore the road or publicly owned rail corridor to its original condition before such damage. If the owner fails to make such

restoration, the authority is authorized to do so and charge the cost thereof against the owner under the provisions of Section 337.404.

13. FPL shall comply with all provisions of Chapter 556, Florida Statutes, Underground Facilities Damage Prevention and Safety Act.

SECTION VII. BEST MANAGEMENT PRACTICES

It is recommended that the applicant encourage transportation demand management techniques by doing the following:

- Placing a bulletin board on site for carpooling advertisements.
- Requiring that heavy construction vehicles remain onsite for the duration of construction to the extent practicable.
- A temporary traffic control plan for handling construction related traffic is needed subject to the requirements and standards. The plan will need to be approved by Florida Department of Transportation prior to construction.

Appendix III-C: Department of Economic Opportunity

STATE OF FLORIDA

DEPARTMENT OF COMMUNITY AFFAIRS

"Dedicated to making Florida a better place to call home"

RICK SCOTT
Governor

BILLY BUZZETT
Secretary

DEPARTMENT OF
ENVIRONMENTAL PROTECTION
JUN 16 2011
SITING COORDINATION

June 15, 2011

Mr. Mike Halpin, Program Administrator
Siting Coordination Office
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399

Re: Agency Report for Florida Power & Light, Turkey Point Units 6 & 7 Site Certification Application, Transmission Line Corridors portion

Dear Mr. Halpin:

This letter serves as the Agency Report by the Department of Community Affairs in response to the application for certification of Turkey Point Units 6 & 7, filed by Florida Power and Light. This report addresses only the associated transmission line corridors for this facility, which are shown on the attached map.

The proposed project includes the additional construction and operation of Turkey Point Units 6 & 7 on an approximately 300 acre site that is entirely within the existing Turkey Point plant property of approximately 11,000 acres in unincorporated southeast Miami-Dade County. In addition, certification is being sought for construction of new transmission lines and other off-site associated linear and non-linear facilities.

Pursuant to section 403.507, Florida Statutes, (F.S.), the transmission line corridors have been reviewed for consistency with the state comprehensive plan and emergency management applicable provisions of Chapter 252, Part I, F.S. In accordance with section 403.507(3), F.S., the Department does not require the applicant to seek any variations, exceptions, forms of relief or to satisfy other requirements with respect to conditions of certification and recommends that the proposed transmission line corridors be approved.

2555 SHUMARD OAK BOULEVARD ♦ TALLAHASSEE, FL 32399-2100
850-488-8466 (p) ♦ 850-921-0781 (f) ♦ Website: www.dca.state.fl.us
♦ COMMUNITY PLANNING 850-488-2356 (p) 850-488-3309 (f) ♦ FLORIDA COMMUNITIES TRUST 850-922-2207 (p) 850-921-1747 (f) ♦
♦ HOUSING AND COMMUNITY DEVELOPMENT 850-488-7956 (p) 850-922-5623 (f) ♦

Thank you for the opportunity to comment. If you have any questions, please contact Robert Arredondo at (850) 922-1770, or email robert.arredondo@dca.state.fl.us.

Sincerely,

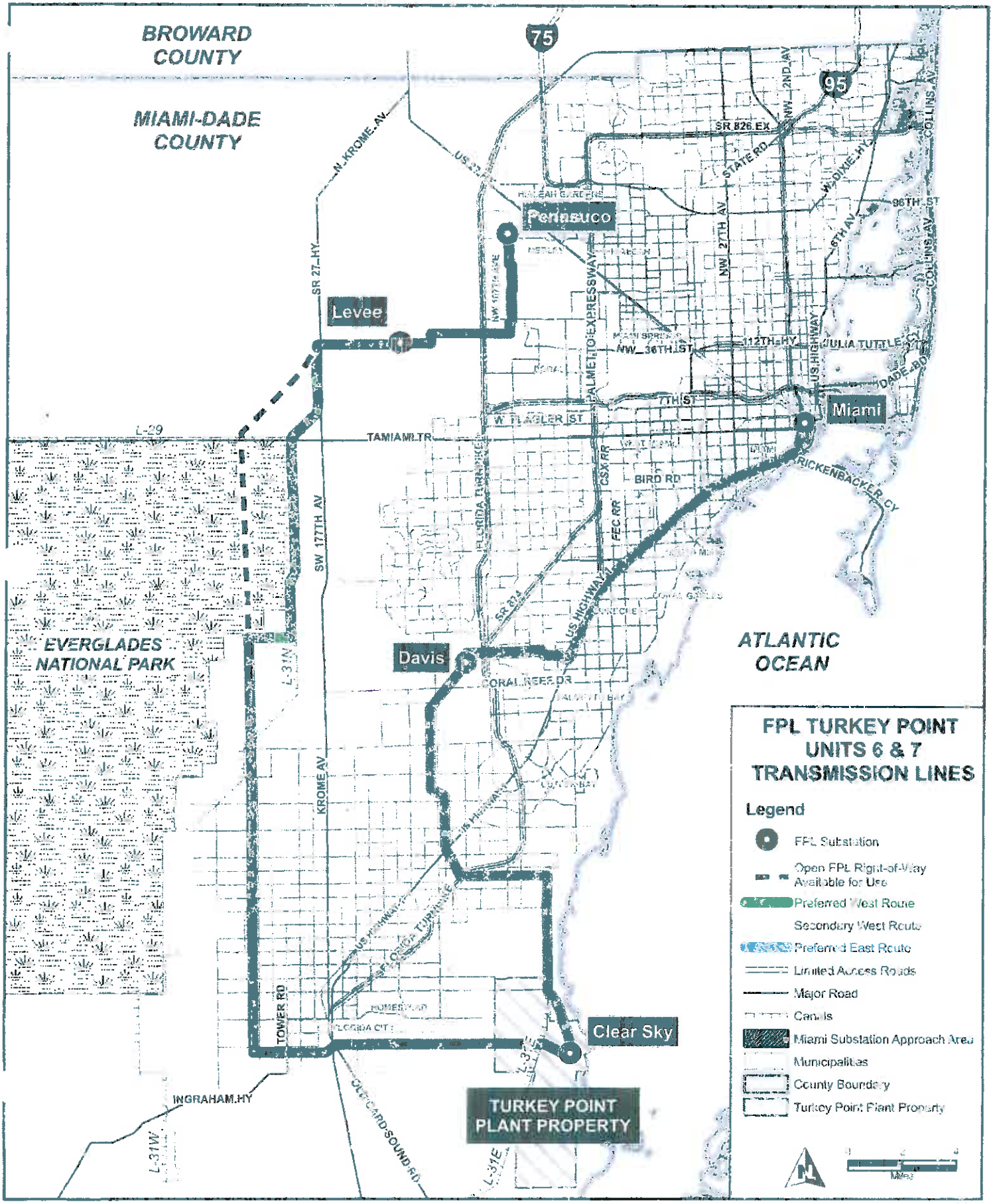
J. Thomas Beck, AICP
Director, Division of Community Planning

TB/ra

Attachment: Transmission Line Corridor Map

Attachment COG-29-6

PROPOSED PREFERRED ROUTES



Appendix III-D: Florida Fish and Wildlife Commission

Florida Fish and Wildlife Conservation Commission

Commissioners
Kathy Barco
Chairwoman
Jacksonville

Kenneth W. Wright
Vice Chairman
Winter Park

Rodney Barreto
Miami

Ronald M. Bergeron
Fort Lauderdale

Richard A. Corbett
Tampa

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Tallahassee

Executive Staff
Nick Wiley
Executive Director

Greg Holder
Assistant Executive Director

Karen Ventimiglia
Deputy Chief of Staff

Division of Habitat and Species Conservation
Timothy A. Breault
Director
(850)488-3831
(850)921-7793 FAX

Managing fish and wildlife resources for their long-term well-being and the benefit of people.

620 South Meridian Street
Tallahassee, Florida
32399-1600
Voice: (850) 488-4676

Hearing/speech-impaired:
(800) 955-8771 (T)
(800) 955-8770 (V)

MyFWC.com

June 13, 2011

DEPARTMENT OF
ENVIRONMENTAL PROTECTION
JUN 20 2011
SITING COORDINATION

Ms. Cindy Mulkey, Administrator
Siting Coordination Office
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 48
Tallahassee, FL 32399

Re: Site Certification Application, Florida Power and Light, Turkey Point Nuclear Units 6 and 7, Miami-Dade County, Florida; PA03-45A3, Agency Report, Transmission Line Portion

Dear Ms. Mulkey:

The Division of Habitat and Species Conservation, Habitat Conservation Scientific Services Section of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated our agency's review of the Site Certification Application, Transmission Line Corridor and Associated Linear Facilities, for the Florida Power and Light Company(FPL) Turkey Point Nuclear Plant Units 6 and 7 project and provides the enclosed Agency Report and Recommendations for Conditions to be included in the Transmission Line Corridor Certification in accordance with 403.526(2)(a)4, Florida Statutes.

FPL will need to comply with the State of Florida's listed species requirements found in Chapter 68-27A, Florida Administrative Code (F.A.C.), prior to construction of the Transmission Line Facilities. This also includes requirements specified in the Bald Eagle Management Plan.

We recommend approval of the FPL Turkey Point Nuclear Plant Unit 6 and 7 Transmission Line Corridor with the inclusion of recommended conditions related to listed species and their habitat; biological survey and monitoring (pre- and post-construction); and mitigation for impacts. If you or your staff would like to coordinate further on this proposal, please contact me at 850-413-6966 or by email at joe.walsh@myfwc.com, and I will be glad to make the necessary arrangements. If there are any specific questions regarding our comments, I encourage you to contact Jennifer Goff at 561-625-5122 or by email at jennifer.goff@myfwc.com.

Sincerely,

Joseph Walsh, Ph.D.
Sub-section Leader
Habitat Conservation Scientific Services Section

jw\jdg
ENV 2-11-7/3
Turkey Point_1241_061011
Enclosures
cc: Ken Proctor, FPL
700 Universe Blvd.
Juno Beach, FL 33408

Agency Report and Recommendations for Conditions to be Included in the State Certification

Project Description

Florida Power and Light Company (FPL) proposes to build and operate two new nuclear generating units (Units 6 & 7), each with an approximate electrical output of 1,100 megawatts; and supporting buildings, facilities, and equipment at a site within the existing Turkey Point plant property boundaries. Associated linear facilities include transmission facilities to connect the new generation to the transmission grid. The East Preferred Corridor would accommodate one 230-kilovolt (kV) transmission line connecting the proposed Clear Sky substation to the existing Davis substation and then to the existing Miami substation. The West Preferred or Secondary Corridor would accommodate two 500-kV single-circuit lines connecting the Clear Sky substation to the existing Levee substation and one 230-kV single-circuit line connecting the Clear sky substation to the existing Pennsuco substation. There will be two access corridors associated with the West Corridor.

Affected Resources

Effects on State-Listed Species

The Turkey Point Nuclear Power Plant associated linear facilities, including transmission lines, access roads, and pipelines, will likely impact federally and state-listed species, as described in the application. A listing of all the state- and federally listed species potentially impacted by the proposal and their listing status is included in the proposed conditions.

There are a number of listed species either observed along the Western Corridor or with a moderate to high likelihood of occurring along the corridor including eastern indigo snake, Florida bonneted (mastiff) bat, Everglades mink, snail kite, bald eagle, sandhill crane, woodstork, and several listed wading bird species. There are four known woodstork colonies within the vicinity of the proposed corridors. Gopher tortoise habitat is also found within the corridor. Tortoises and their burrows will need to be avoided or permitted in accordance with the FWC Gopher Tortoise Management Plan.

On a case-by-case basis, either a relocation or incidental take permit may be required for each impacted species. If there is evidence that any individuals of these species are present, then the applicant must report the findings to the FWC. If impacts to these species cannot be avoided, then the applicant must contact the FWC before taking any action that might result in an impact to those species.

Recommended Conditions

The FWC recommends the following conditions be included in the special conditions as part of the certification process to address specific wildlife species, biological survey and monitoring, and mitigation.

FPL TURKEY POINT UNITS 6 & 7 TRANSMISSION LINE PROJECT
PRELIMINARY CONDITIONS OF CERTIFICATION

XXVII. FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION TRANSMISSION LINE CORRIDOR SPECIFIC CONDITIONS

A. Listed-Species Conditions

The following table contains state and federally listed species that occur in the State of Florida and are likely to occur within the transmission line corridor and associated facilities. The table contains species that are potentially impacted by the activities proposed within the corridor. Therefore, these conditions of certification apply to the species listed in this table that are found within the certified area.

Listed Species Occurring or Potentially Occurring in the Project Area as of June 2011†

Common Name	Scientific Name	Fl- status	Fed status
American alligator	*Alligator mississippiensis*	SSC	T*
American crocodile	*Crocodylus acutus*	E	T
American oystercatcher	*Haematopus palliatus*	SSC	
Bald eagle	*Haliaeetus leucocephalus*	***	***
Black skimmer	*Rhynchops niger*	SSC	
Brown pelican	*Pelecanus occidentalis carolinensis*	SSC	
Burrowing owl	*Athene cunicularia*	SSC	
Cape Sable seaside sparrow	*Ammodramus maritimus mirabilis*	E	E
Eastern indigo snake	*Drymarchon couperi*	T	T
Everglades mink	*Mustela vison evergladensis*	T	
Florida bonneted (mastiff) bat	*Eumops glaucinus floridanus*	E	
Florida black bear	*Ursus americanus floridanus*	T**	
Florida mouse	*Podomys floridanus*	SSC	
Florida panther	*Puma concolor coryi*	E	E
Florida pine snake	*Pituophis melanoleucus mugitus*	SSC	
Florida sandhill crane	*Grus canadensis pratensis*	T	
Gopher frog	*Lithobates capito*	SSC	
Gopher tortoise	*Gopherus polyphemus*	T	
Least tern	*Sterna antillarum*	T	
Little blue heron	*Egretta caerulea*	SSC	
Limpkin	*Aramus guarauna*	SSC	
Piping plover	*Charadrius melodus*	T	T
Reddish egret	*Egretta rufescens*	SSC	
Rim rock crown snake	*Tantilla ooliticus*	T	

Roseate spoonbill	*Platalea ajaja*	SSC	
Everglades snail kite	*Rostrhamus sociabilis plumbeus*	E	E
Snowy egret	*Egretta thula*	SSC	
Southeastern American kestrel	*Falco sparverius paulus*	T	
Tricolored heron	*Egretta tricolor*	SSC	
West Indian manatee	*Trichechus manatus latirostris*	E	E
White-crowned pigeon	*Patagioenas leucocephala*	T	
White ibis	*Eudocimus albus*	SSC	
Wood stork	*Mycteria americana*	E	E

SSC = Species of Special Concern; E = Endangered; T = Threatened

†Species' legal statuses are subject to change. Recent changes to 68A-27, Florida Administrative Code (F.A.C.) make it likely that statuses of species listed may change before the Licensee commences work. The Licensee shall refer to the law in effect at the time it begins an activity subject to being affected by listed species regulations.
* Due to similarity to another federally threatened species
** Except in Baker and Columbia counties or in Apalachicola National Forest
*** While the bald eagle has been both state and federally delisted, it is still governed by the state bald eagle management plan and the federal Bald and Golden Eagle Protection Act.

[Chapter 68A-27, Florida Administrative Code (F.A.C.).]

B. General Listed Species Survey

1. The Licensee shall coordinate with the Florida Fish and Wildlife Conservation Commission (FWC) to obtain and follow the current survey protocols for all listed species that may occur within the transmission line rights-of-way, and accessible appropriate buffers as defined by the listed species' survey protocols, prior to conducting detailed surveys.

2. Surveys shall be conducted prior to clearing and construction in accordance with the survey protocols. The results of those detailed surveys shall be provided to FWC in a report, and coordination shall occur with the FWC on appropriate impact mitigation methodologies.

[Article IV, Sec. 9, Fla. Constitution; Section 379.2291, Florida Statutes (F.S.), Sections 403.507 and 403.5113(2), F.S., and Chapter 68A-27, Florida Administrative Code (F.A.C.).]

C. Specific Listed Species Surveys

Before land clearing and construction activities within a transmission line right-of-way occur, the Licensee shall conduct an assessment for listed species which shall note all

habitat, occurrence or evidence of listed species. Listed species to be included in this survey shall include the bald eagle and those species listed as endangered, threatened, or of special concern by the FWC or those listed as endangered or threatened by U.S. Fish and Wildlife Service (USFWS). Wildlife surveys shall be conducted in the reproductive or "active" season for each species that falls before the projected clearing activity schedule unless otherwise approved by the FWC or USFWS. For species that are difficult to detect, the Licensee may make the assumption that the species is present and plan appropriate avoidance/mitigation measures after consultation and approval from the FWC.

1. This survey shall be conducted in accordance with USFWS/FWC guidelines and methodologies by a person or firm that is knowledgeable and experienced in conducting flora and fauna surveys for each potentially occurring listed species.

2. This survey shall identify any wading bird colonies within the project that may be affected.

3. This survey shall identify locations of breeding sites, nests, and burrows for listed wildlife species. Nests and burrows may be recorded with GPS coordinates, identified on an aerial photograph, and submitted with the final listed species report. Although nests and burrows may be recorded individually with GPS, the FWC prefers that any applicable protection radii surrounding groups of nest sites and burrows be included, rather than around individual nests and burrows, and be physically marked so that clearing and construction shall avoid impacting them.

4. This survey shall include an estimate of the acreage and percent cover of each existing vegetation community (Florida Land Use, Cover and Forms Classification System, or FLUCFCS, at the third degree of detail) including a wildlife-based habitat classification scheme such as the Comprehensive Wildlife Conservation Strategy (FWC 2005), Descriptions of Vegetation and Land Cover Types (FWC 2004), or Natural Communities Guide (FNAI 1990) of each community that is contained within the transmission line right-of-way prior to land clearing and construction activities using GIS.

[*Article IV, Sec. 9, Fla. Constitution; Sections 379.2291, 403.526 and 403.5317, Florida Statutes (F.S.); and Chapters 68A-27, 68A-4, 68A-16, F.A.C.*]

D. Listed Species Locations

Where any suitable habitat or evidence is found of the presence of listed species within the right-of-way, the Licensee shall report those locations to, and confer with, the appropriate regulatory agencies for possible additional pre-clearing surveys, including those specified in E-M below, and to identify potential mitigation, or avoidance recommendations. If pre-clearing surveys are required, they shall be timed to be

reasonably compatible with the construction schedule, considering the anticipated date for the start of construction within a certified transmission corridor. The Licensee shall not construct in areas where evidence of listed species was identified during the initial survey until the particular listed species issues have been resolved as follows:

1. *Listed Wildlife Species*: If listed wildlife species are found, their presence shall be reported to the DEP Siting Coordination Office, the appropriate DEP District Office(s), the FWC, the appropriate WMD, the appropriate local government(s), the USFWS, and the National Park Service as appropriate.

2. *Species Management Plan:* If avoidance of state-listed wildlife species is not feasible, the Licensee shall consult with the FWC to determine the steps appropriate for the species involved to avoid, minimize, mitigate, or otherwise appropriately address potential impacts. For wildlife species, these steps shall be memorialized in a Wildlife Management Plan and submitted to the FWC.

[Article IV, Sec. 9, Fla. Constitution; Sections 379.2291, 403.526 and 403.5113(2), F.S.; and Chapter 68A-27, F.A.C.]

E. Gopher Tortoise

1. The Licensee shall conduct surveys for gopher tortoises (*Gopherus polyphemus*), in accordance with the FWC-approved Gopher Tortoise Management Plan (adopted in 2007) and the FWC-approved Gopher Tortoise Permitting Guidelines, or subsequent FWC-approved versions of the Plan or Guidelines. A burrow survey covering a minimum of 15% of the potential gopher tortoise habitat to be impacted by development is required in order to apply for a relocation permit. Immediately prior to capturing tortoises for relocation, a 100% survey is required to effectively locate and mark all potentially occupied tortoise burrows and to subsequently remove the tortoises. Burrow survey methods are outlined in Appendix 4 of the Gopher Tortoise Permitting Guidelines, "Methods for Locating Gopher Tortoise Burrows on Sites Slated for Development". Surveys must be conducted within 90 days prior to a post-certification submittal of the online gopher tortoise relocation permit application (Temporary Exclusion Permit) to the FWC, as described in E.3 below. Surveys shall not be conducted within 30 days of any ground disturbance or clearing activities on the donor site. All surveys completed by authorized agents or other licensees are subject to field verification by the FWC. The results of the gopher tortoise surveys shall be provided to the appropriate land management state agency for portions of the transmission lines that cross state-owned lands, for informational purposes.

2. FWC is not required to provide a monitoring compliance assessment for activities that occur more than 25 feet from a gopher tortoise burrow entrance, provided that such activities do not harm gopher tortoises or violate rules protecting gopher tortoises. Examples of such violations noted in the past by the FWC include, but are not limited to, killing or injuring a tortoise more than 25 feet away from its burrow; harassing a tortoise by blocking access to its burrow, and altering gopher tortoise habitat to such an extent that resident tortoises are taken.

3. The Licensee shall coordinate with and provide the FWC detailed gopher tortoise relocation permit application (as required by a Temporary Exclusion Permit) in accordance with the FWC-approved Gopher Tortoise Management Plan and Gopher Tortoise Permitting Guidelines as a post-certification submittal. This permit application shall provide details on the location for on-site recipient areas and any off-site FWC-approved temporary contiguous habitat, as well as appropriate mitigation contributions per tortoise, as outlined in the Gopher Tortoise Permitting Guidelines.

4. Any commensal species observed during the burrow excavations that are listed by the FWC shall be relocated in accordance with the applicable guidelines for that species.

5. To the maximum extent practicable or feasible, all staging and storage areas shall be sited to avoid impacts to gopher tortoise burrows and habitat.

[Article IV, Sec. 9, Fla. Const.; Section 403.526, F.S., and Rule 62-17.660, F.A.C.; Section 379.2291, F.S.; Chapter 68A-27, F.A.C.]

F. Avian Protection Plan

The Licensee shall coordinate with the FWC in the development of an Avian Protection Plan that delineates a program designed to reduce the operational and avian risks that result from avian interactions with transmission lines associated with the project with the goal of reducing avian mortality. Guidelines for the Avian Protection Plan can be found on the USFWS website.

http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/APP/AVIAN%20PROTECTION%20PLAN%20FINAL%204%2019%2005.pdf

[Article IV, Sec. 9, Fla. Const.; Section 403.526 and F.S., Rule 62-17.660, F.A.C.; Section 379.2291, F.S.; Chapter 68A-27, F.A.C,. and Rule 68A-16.001, F.A.C.]

G. Wood Stork/Wading Bird Colonies

In order to identify the baseline conditions which may indicate the potential for impacts to wood storks and other wading birds, and to help quantify potential mitigation for such impacts, FPL will perform the following pre- and post-construction studies:

1. Pre-construction follow flight surveys shall be conducted during nesting for the currently known wood stork colonies along Tamiami Trail (East 1, East 2, and West) and the 3B Mud East Colony using fixed wing aircraft. The follow flight surveys shall be conducted both prior to and during the fledging period. The surveys would ascertain flight line corridors for the wood storks in terms of direction, numbers of birds, and altitudes. These data would be compared to existing data for the Tamiami Trail and 3B-Mud East colonies collected to date. The survey design shall be submitted to FWC for review prior to implementation.

2. A post-certification, pre-clearing aerial survey shall be conducted via fixed wing or rotary wing aircraft, between the months of December and May, once it is confirmed by FWC, USFWS or SFWMD that wading birds are nesting in the area of the proposed transmission line right-of-way. The surveys shall employ a series of two transects, along each side of the right-of-way. To minimize disturbance to the colonies, the flight(s) shall be conducted at altitudes no less than 300 feet.

    a. This survey shall identify any wood stork/wading bird colonies in addition to any found from agency records that may be affected within one-half mile of the project ROW.

    b. Center locations of all wood stork and wading bird colonies shall be delineated with a Wide Area Augmentation System (WAAS) enabled Global Positioning System (GPS) unit.

    c. All wood stork and wading bird colonies shall be ground inspected, as aerial identification of intermediate-sized and dark-plumaged wading birds (little blue heron, tricolored heron, glossy ibis) is difficult at best and because they tend to nest below the vegetation canopy, making species identification all but impossible. To avoid flushing birds from their nests, identification of species shall be made using binoculars and surveys shall follow the protocols in Rodgers and Smith (1995).

        Rodgers, J.A., and H.T. Smith. 1995. Set-back distances to protect nesting bird colonies from human disturbance in Florida. *Conservation Biology* 9:89-99.

3. For the currently known wood stork colonies along Tamiami Trail (East 1, East 2, and West) and the 3B Mud East Colony, and for any newly identified wood stork colonies within one-half mile from the corridor as a result of the above-referenced, post-certification pre-clearing survey, FPL shall implement the following measures:

a. Flight Diverters - FPL will install spiral/corkscrew design bird flight diverters (or other mutually agreeable design flight diverters) on the Overhead Ground Wires (OGW) of each transmission line from a point one-half mile south of the Tamiami Trail colonies to a point one-half mile north of the 3B Mud East Colony, and between points one-half mile in either direction from any newly identified colonies. The point one-half mile shall be identified from the actual colony boundary to adhere to the USFWS Wood Stork Guidelines for activities within the primary boundary. Flight diverters have been shown to reduce mortality and will be installed according to the manufacturers' instructions.

b. FPL will also install perch discouragers at transmission structure pole tops and arms to address risks from nest building and streamers (defecation) and reduce the exposure and potential risk of electrocutions.

c. Mitigation Effectiveness Study - FPL will fund a monitoring study during the first wood stork nesting season after construction along the marked stretch of the transmission lines near the currently known wood stork colonies, similar to the study performed by Frederick and Deng (1997) on the FPL Levee-Midway Transmission Line. The results will be used to determine effectiveness of wood storks (and other wading birds) in avoiding the new transmission line facilities, and especially if effectiveness of marked sections of lines is significantly different from unmarked lines.

Frederick, P. and Deng, J. 1997. Bird-Strike Mortality on the Everglades Section of the Levee-Midway Powerline. Florida Power & Light Co. 27 pp.

The surveys shall generally be performed as follows:

(1) Specific study protocols including mortality monitoring and sampling biases protocols will be developed in conjunction with FWC, USFWS, and SFWMD biologists using Avian Power Line Interaction Commmittee (APLIC) guidelines for mitigating bird collisions with power lines.

(2) Surveys will be conducted on a regular frequency sufficient to detect mortality, such as every other day, in the mornings and in the evenings.

(3) Any dead or injured birds found will be identified, located with GPS, and collected for necropsy (if dead).

(4) Surveys will be conducted along the marked stretch of transmission line right-of-way in 100m transects, with each transect separated by 100m. Transects shall be centered on any

observed flight lines as identified in the pre-construction follow-flight surveys. Transect width shall include the right-of-way width and any visible dimension on either side.

(5) Observations of flight behavior of any birds crossing the lines will also be recorded. A protocol for visual observations similar to the Frederick and Deng studies will be developed.

d. Post-survey Review - After the Mitigation Effectiveness Study has been conducted, the results will be presented to FWC. If mortality to wood storks reasonably related to collisions with the transmission lines is documented to impact the wood stork population and as determined by the USFWS Biological Opinion, FPL and the Study Investigator will meet with FWC to discuss the results of the Mitigation Effectiveness Study. The populations considered in determining impacts will be the four colonies (Tamiami East 1, East 2, and West, and the 3B Mud East) and other colonies formed within one-half mile of the transmission right-of-way, based on the SFWMD's annual wading bird survey that year. If in the judgment of the FWC the wood stork population of the four colonies that year was not within "ten-year average" ranges, FPL may be required to resurvey the right-of-way in that vicinity during an additional nesting season. If the post-survey review shows that mortality to wood storks within the colonies due to collision with the transmission lines exceeds that portion of the colonies' population that is allowed by the USFWS Biological Opinion, additional mitigation measures such as, but not limited to, different configurations or greater density of flight diverters, or additional monitoring, or a combination may be required by FWC.

[Article IV, Sec. 9, Fla. Const.; Section 403.526 and F.S., Rule 62-17.660, F.A.C.; Section 379.2291, F.S.; Chapter 68A-27, F.A.C,. and Rule 68A-16.001, F.A.C.]

H. Everglades Snail Kite

1. A survey (USFWS South Florida Ecological Services Office Draft Snail Kite Survey Protocol, May 18, 2004) is necessary when the project site is within the snail kite consultation area and suitable habitat is present. The following criteria can be used to judge the adequacy of the habitat for snail kites.

   - Appropriate foraging habitat present [paspalidum (*Paspalidium geminatum*), spikerushes (*Eleocharis spp.), pan*icum(*Panicum* spp.*), or beak*rushes (*Rhynchospora sp*p.)].
   - Perching and/or *nesting substr*ate present, i.e., [willows (*Salix caroliniana*), melaleuca (*Melaleuca quinquenervia*), or pond cypress (*Taxodium ascendens*)]; or [sawgrass (*Cladium jamaicense*), cattail

(*Typha* spp.), giant bulrush (*Scirpus validus*), or reed (*Phragmites australis*)], respectively.

- Appropriate water depth (0.2-1.3 m deep) under nesting substrate.
- Nesting substrate an adequate distance (>150 m) from upland.
- Proximity of nearest wading bird colony.

2. If suitable habitat is present or snail kites are reported on the transmission line right-of-way, the following survey procedures shall be used to document their occurrence. To maximize the chances of finding snail kites the survey shall be conducted in January to May during the breeding season. A visual survey of suitable habitat shall be made for birds and nests. A boat may be needed for the survey as the best nesting habitat may be a considerable distance (>150 m) from uplands. Check small trees, such as, willow, melaleuca, and pond cypress along the open water edge for nests or perching birds. If snail kites are observed, then nests can be located through the bird's behavior. When flushed from a nest the adult tends to circle upward, whereas non-nesting birds that are flushed fly more horizontally away from the disturbance (Bennetts et al. 1988). Nests also can be found by following kites carrying sticks, adults carrying apple snails, aerial courtship displays, vocalizations of adults or begging calls of the young, and through a thorough search of areas where adults are repeatedly observed (Bennetts et al. 1988).

3. In the event that surveys determine that a project transmission line has the potential to impact snail kites, the following measures shall be used to minimize and mitigate for these impacts.

    - FPL and FWC will meet to discuss the specific issues and mitigation alternatives.

    - FPL will then provide a detailed mitigation plan to address the specific impacts, which must be reviewed and approved by FWC, and be consistent with all other COCs or federal permit conditions.

    - FPL will provide a monitoring report after a designated period to document effectiveness of the mitigation plan.

    - Corrective action alternatives will be determined and implemented if necessary.

Bennetts, R.E., M.W. Collopy, and S.R. Beissinger. 1988. Nesting ecology of Snail Kites in Water Conservation Area 3A. Department of Wildlife and Range Science, University of Florida, Gainesville. Florida Cooperative Fish and Wildlife Research Unit, Technical Report No. 31, 174 p.

[Article IV, Sec. 9, Fla. Const., Section 403.526, F.S., Rule 62-17.660, F.A.C., Section 379.2291, F.S., and Chapter 68A-27 F.A.C.]

I. Bald Eagle

1. The Licensee shall avoid impacts to bald eagle (*Haliaeetus leucocephalus*) nests where possible. If construction activities cannot be avoided within a 660-foot nest buffer zone, construction activities shall be conducted consistent with the FWC Eagle Management Guidelines, outlined in the FWC-approved Bald Eagle Management Plan, dated April 9, 2008, or any subsequent FWC-approved versions. In areas where bald eagle nests are present, efforts shall be made to avoid construction activities during the nesting season (October 1 - May 15, or when eagles are present before October 1 or after May 15).
2. In accordance with the FWC Eagle Management Guidelines, for construction areas that fall within 330 feet of an active or alternate bald eagle nest, construction activities shall be conducted only during the non-nesting season (May 16 - September 30). Any construction activities that fall within 660 feet of the nest during the nesting season shall be conducted following USFWS-approved Bald Eagle Monitoring Guidelines, dated 2007, or subsequent USFWS-approved versions.
3. In areas where adverse impacts to nests cannot be avoided, resulting in nest disturbance, the information required for an FWC Eagle Permit shall be obtained from the FWC, as authorized by Section 372.072, F.S., and Rule 68A-16.002, F.A.C, and minimization, and conservation measures outlined in the FWC Bald Eagle Management Plan shall be followed, as applicable.

[Article IV, Sec. 9, Fla. Const.; Section 403.526, F.S., and Rule 62-17.191, F.A.C.; Chapter 68A-27, F.A.C., and Rule 68A-16.002, F.A.C.]

J. Southeastern American Kestrels

The Licensee shall coordinate with the FWC prior to conducting surveys for Southeastern American kestrels (*Falco sparverius paulus*) to ensure that surveys are in accordance with the FWC-approved protocol.

1. The Licensee shall provide the FWC with the Southeastern American kestrel survey results and identify where impacts to kestrels cannot be avoided.
2. The Licensee shall mitigate loss of kestrel nest trees by placing approved nest boxes in appropriate habitat along the transmission line right-of-way where feasible, practical, and where landowner consent can be obtained, and shall follow the FWC-approved protocol for construction and installation of nest boxes.
3. The Licensee shall coordinate all nest box installation with the FWC.

[Article IV, Sec. 9, Fla. Const., Section 403.526, F.S., Rule 62-17.660, F.A.C., Section 379.2291, F.S., and Chapter 68A-27 F.A.C.]

K. Florida Panther

The Licensee shall take proper precautions during clearing and construction to protect panthers from accidental injury due to conditions on the transmission right-of-way during construction.

1. Construction policies and practices identified by the FWC to protect panthers shall be used whenever feasible. These include:

    - Limit speeds on transmission patrol roads to 45 mph or less and adjust transmission patrol road trucking activities and material delivery schedule within the panther consultation area to reduce speeds in wooded zones, at dawn and dusk.

    - Conduct frequent and unannounced site inspections to monitor for compliance with the above.

2. FPL shall report any panther observations (dead or alive) by employees or contractors within 24 hours to the FWC after verification by a qualified expert.

[Article IV, Sec. 9, Fla. Const.; Section 403.526 and F.S., Rule 62-17.660, F.A.C.; Chapter 68A-27, F.A.C.]

L. Florida Black Bear

The Licensee shall take proper precautions during clearing and construction to protect black bears from accidental injury due to conditions on site during construction.

1. If there is any chance that food waste will be stored on or near the site at any time, bear-resistant garbage containers or dumpsters shall be used.

2. Additional construction policies and practices to protect bears shall be used whenever feasible. These include:

    - Prohibit clearing, blasting and burning of forested habitat during the December-March denning season for bears while in a primary or secondary bear range.

    - Require clean construction sites with wildlife-resistant containers for workers to use for food-related and other wildlife attractant

refuse; require frequent trash removal and the use of proper food storage and removal on work sites.

- Adjust trucking activities and material delivery schedule to mandate slower speed in wooded zones, at dawn and dusk, and during the June and July breeding season for bears.

- Conduct frequent and unannounced site inspections to monitor for compliance with the above.

FPL personnel or contractors will also report any black bear observations (dead or alive) within 24 hours to the FWC.

[Article IV, Sec. 9, Fla. Const.; Section 403.526, F.S., Section 403.5317, F.S., and Rule 62-17.660, F.A.C.; Section 379.2291, F.S.; Chapter 68A-27, F.A.C.]

M. Everglades Mink

1. A survey by an experienced biologist (individual or firm with documented experience with this species or with mustelids) shall be conducted in areas where suitable potential habitat exists in the transmission line right-of-way, prior to the initiation of construction activity, to help determine whether any mink are present in the right-of-way, and if any den areas may be present. To the extent practicable, the survey shall be done during the mink mating season, which extends from September through November. Although chalk-dusted trackboards and anal scent attractant has proven effective in detecting the Everglades mink (Humphrey and Zinn 1982), camera traps are another option, and are currently being tested as an alternate survey method in the Fakahatchee Strand (David Shindle, The Conservancy of Southwest Florida, pers. comm.)

   Humphrey, S.R. and T.I. Zinn. 1982. Seasonal habitat use by river otters and Everglades mink in Florida. *Journal of Wildlife Management* 46:375-381.

2. In the event that surveys determine that a project transmission line has the potential to impact Everglades Mink on the transmission line right-of-way, the following measures shall be used to minimize and mitigate for these impacts.

   - FPL and FWC will meet to discuss the specific issues and mitigation alternatives.

   - FPL will then provide a detailed mitigation plan to address the specific impacts, which must be reviewed and approved by FWC, and be consistent with all other COCs or federal permit conditions.

- FPL will provide a monitoring report after a designated period to document effectiveness of the mitigation plan.

- Corrective action alternatives will be determined and implemented if necessary.

[Article IV, Sec. 9, Fla. Const.; Section 403.526, F.S., Section 403.5317, F.S., and Rule 62-17.660, F.A.C.; Section 379.2291, F.S.; Chapter 68A-27, F.A.C.]

N. Florida Manatee

With respect to construction, maintenance and operation of the project transmission lines:

1. The Standard Manatee Conditions for In-Water Work (revision 2009) shall be followed for all in-water activity located where waters are accessible to manatees. These are listed in Attachment 1. Blasting as a dredge method shall be prohibited in or adjacent to waters accessible to manatees. If no other alternative exists, a modification of these conservation measures can be requested. An adequate Blast and Protected Species Watch Plan must be submitted to and approved by the Imperiled Species Management Section of the FWC prior to these methodologies being used.

2. At least 60 days prior to the beginning of in-water construction located where waters are accessible to manatees, the Licensee shall contact the FWC to determine whether observers shall be required, how many observers will be needed and who those observers will be. If observers are recommended, manatee observers must 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. Movement of a work barge, other associated vessels, or any in-water work associated with construction or demolition activities shall not be performed after sunset. Following project completion, a report summarizing manatee sightings, collisions or injuries shall be prepared by FPL and this report shall be submitted within 30 days following project completion to the FWC's Imperiled Species Management Section at: imperiledspecies@myfwc.com.

3. If a cofferdam is used during in-water construction to minimize release of sediment, the area inside (behind) the cofferdam must be checked for the presence of manatees during and after installation of the barrier before further work occurs to determine that manatees have not been entrapped.

[Article IV, Sec. 9, Fla. Const.; Section 403.526, F.S., Section 403.5317, F.S., and Rule 62-17.660, F.A.C.; Sections 379.2291 and 379.2431, F.S.; and Chapter 68A-27, F.A.C.]

Attachment 1

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK
2009

The Licensee shall comply with the following conditions intended to protect manatees from direct project effects:

a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The Licensee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels shall follow routes of deep water whenever possible.

c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement. It may or may not be appropriate to exlude manatees from a construction area depending on site location and type of construction, therefore, appropriate exclusion sites and methods will be determined on an individual basis as determined in consultation with the Licensee, the Florida Fish and Wildlife Conservation Commission and the Department of Environmental Protection.

d. All on-site project personnel associated with in-water work are responsible for reporting any observed presence of manatee(s) during water-related activities to any dedicated manatee observer required by other permit conditions, or the construction manager. All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities shall not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

e. Any collision with or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida.

f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the Licensee upon completion of the project. Awareness signs that have already been approved for this use by the FWC must be used (see MyFWC.com). One sign which reads

Caution: Boaters must be posted. A second sign measuring at least 8 1/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations when manatees are observed within 50 feet of work must be posted in a location prominently visible to all personnel engaged in water-related activities.

Appendix III-E: South Florida Water Management District

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

December 16, 2011

DEPARTMENT OF
ENVIRONMENTAL PROTECTION

DEC 20 2011

SITING COORDINATION

Cindy Mulkey, Administrator
Siting Coordination Office
Florida Department of Environmental Protection
3900 Commonwealth Boulevard, MS 48
Tallahassee, FL 32399-3000

Dear Ms. Mulkey:

Subject: FPL Turkey Point Units 6 & 7, PA 03-45SA3

Enclosed is the South Florida Water Management District's (SFWMD's) agency report on the electric transmission line corridors proposed by the Florida Power and Light Company (FPL) for the above subject project, as required by Section 403.526(2)(a)2, F.S., and Chapter 62-17.590, F.A.C. The report was approved by the SFWMD Governing Board for transmittal to the Florida Department of Environmental Protection at their December 15, 2011 meeting (see enclosed Resolution).

The SFWMD recommends approval of the corridors proposed by FPL and conditions of certification applicable to all or individual corridors as appropriate.

If you have any questions concerning the above, please do not hesitate to contact me at (561) 682-6952.

Sincerely,

Terrie Bates
Director, Water Resources Division

TB/ss
Enclosures: Agency Report
Resolution

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
RESOLUTION NO. 2011- 1210

A RESOLUTION OF THE GOVERNING BOARD OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD) TRANSMITTING THE SFWMD IMPACT ASSESSMENT REPORT ON FLORIDA POWER & LIGHT COMPANY'S TURKEY POINT UNITS 6 & 7 ELECTRIC TRANSMISSION LINE CORRIDORS ON MATTERS WITHIN ITS JURISDICTION, IN ACCORDANCE WITH CHAPTER 403.507(2)(a)2, FLORIDA STATUTES; PROVIDING AN EFFECTIVE DATE.

WHEREAS, Florida Power and Light Company (FPL) submitted a Site Certification Application to the Florida Department of Environment Protection (DEP) in June 2009 to expand its Turkey Point Power Plant in Miami-Dade County to include two additional nuclear units (Units 6 & 7);

WHEREAS the Site Certification Application also contains proposed electric transmission corridors to deliver the generated power to existing FPL infrastructure in Miami-Dade County;

WHEREAS the South Florida Water Management District is required to prepare an agency report as to the impact of the proposed transmission lines on water resources and other matters within its jurisdiction as required, recommend conditions of certification, and recommend approval or denial of each transmission line or corridor pursuant to Section 403.526(2)(a)2., Florida Statutes;

WHEREAS the Division of Administrative Hearings has set a deadline of December 16, 2011 for South Florida Water Management District to submit its agency report to DEP;

WHEREAS, the Governing Board has determined that the draft agency report prepared by District staff is appropriate and authorizes staff to submit the agency report to DEP,

NOW THEREFORE, BE IT RESOLVED by the Governing Board of the South Florida Water Management District:

Section 1. The Governing Board of the South Florida Water Management District hereby approves transmittal of the agency report to DEP,

Section 2. A copy of the agency report is attached hereto and made a part hereof (Attachment A);

Section 3. District staff is authorized and directed to transmit the agency report to DEP and is authorized to continue to work with FPL and DEP to reach agreement on a final set of certification conditions.

Section 4. This Resolution shall take effect immediately upon adoption.

PASSED and **ADOPTED** this 15th day of December, 2011.

ATTEST:

By: _____
District Clerk/Secretary
SOUTH FLORIDA WATER MANAGEMENT DISTRICT, BY ITS GOVERNING BOARD

(Corporate Seal)

By: _____
Joe Collins, Chairman
Approved as to form:

By: _____
Office of Counsel

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
IMPACT ASSESSMENT REPORT
ON
FLORIDA POWER & LIGHT COMPANY
TURKEY POINT UNITS 6 & 7
ELECTRIC TRANSMISSION LINE CORRIDORS

PA 03-45A3

DECEMBER 15, 2011



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APPENDICES

APPENDIX A: Cooperative and License Agreement between the Central and Southern Florida Flood Control District and the Game and Fresh Water Fish Commission for Water Conservation Areas 2 and 3 (1953) and Permit Agreement by and between Central and Southern Florida Flood Control District and Florida Power & Light Company (1971).

APPENDIX B: Cooperation Agreement By and Between Florida Power and Light Company and the South Florida Water Management District Regarding Licensee's Utility Corridor within the Everglades National Park Expansion Area, dated August 21, 2008 (Resolution No. 2008-640).

APPENDIX C: Wading Bird Supporting Documentation

APPENDIX D: Confidentiality Agreement

ACRONYMS AND ABBREVIATIONS USED IN THIS REPORT

ALJ	Administrative Law Judge
C&SF	Central and Southern Florida
CERP	Comprehensive Everglades Restoration Plan
CFA	Core Foraging Area
CLBSA	Central Lake Belt Storage Area
DC	Direct Current
Decomp	Decompartmentalization
DEP	Department of Environmental Protection
DOAH	Division of Administrative Hearings
EIS	Environmental Impact Statement
ENP	Everglades National Park
ERP	Environmental Resource Permit
F.A.C.	Florida Administrative Code
FDOT	Florida Department of Transportation
FPL	Florida Power & Light Company
F.S.	Florida Statute
FWC	Florida Fish and Wildlife Conservation Commission
GDM	General Design Memorandum
IDS	Integrated Delivery Schedule
IP	Internet Protocol
IT	Information Technology
kV	kilovolt
MAP	Monitoring and Assessment Plan
Modwaters	Modified Water Deliveries to Everglades National Park
MOT	Maintenance of Traffic
MOU	Memorandum of Understanding
MW	megawatts
NAVD88	North American Vertical Datum of 1988
NEPA	National Environmental Policy Act
NGVD29	National Geodetic Vertical Datum 1929
NNR	North New River
O&M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
PDT	Project Delivery Team
PIR	Project Implementation Report
PRMA	Pennsuco Regional Mitigation Area
RECOVER	Restoration Coordination and Verification
RTU	Remote Terminal Unit
SCADA	Supervisory Control and Data Acquisition
SFWMD	South Florida Water Management District
SMP	Seepage Management Project
SMPP	Seepage Management Pilot Project
SOR	Save Our Rivers
SRF	Systematic Reconnaissance Flight
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
WCA	Water Conservation Area
WMDCSF	Water Management District Communication Systems and Facilities
WPAC	Water Preserve Area Conveyance
WRDA	Water Resources Development Act

1 OVERVIEW AND SUMMARY

1.1 Introduction

The South Florida Water Management District (SFWMD, District) Impact Assessment Report on the Florida Power & Light Company (FPL; Licensee) Turkey Point Units 6 and 7 Electric Transmission Line Corridors has been prepared in response to FPL's Site Certification Application to the Florida Department of Environmental Protection (DEP) for two new nuclear power generating units (Units 6 and 7) and associated transmission lines for its Turkey Point power plant facilities. This report addresses only the proposed electric transmission lines as lines and encompassing corridors are being reviewed sooner than the proposed plant facilities. SFWMD will issue a separate impact assessment report to DEP at a future date on the proposed electrical power plant and associated non-transmission facilities.

1.2 Statutory Basis

Chapter 403, Part II, Electrical Power Plant and Transmission Line Siting, Sections 403.501-403-539, Florida Statutes (F.S.), consists of two components: The Florida Electrical Power Plant Siting Act and The Florida Electric Transmission Line Siting Act. Both components are collectively referred to herein as "The Siting Act." FPL is also referred to as "Licensee" in this report as issuance of the certification constitutes a license under the Siting Act.

According to Sections 403.502 and 403.521, F.S., the purpose of the Siting Act, is to certify the location, construction, operation, and maintenance of electrical power plant sites and electric transmission lines, including associated facilities, through a centralized and coordinated planning and licensing process administered by DEP. Authority to issue the Certification Order is assigned to the Governor and Cabinet acting as the State Siting Board or the DEP Secretary after issuance of a Recommended Order by an Administrative Law Judge (ALJ). The legislative intent of the Siting Act is to provide an efficient, simplified, centrally coordinated, and "one-stop" licensing process. The Siting Act preempts all other existing state, regional, and local permits normally required, including SFWMD Right-of-Way Occupancy, Consumptive Use and Environmental Resource Permit (ERP) review processes[1]. More importantly, it is the only opportunity that SFWMD will have to review and recommend conditions for the proposed project prior to Certification that will be in effect for the life of the transmission lines.

The Siting Act sets forth a list of agencies that must participate in the review process and may participate as formal "Parties" in the certification hearing. Those listed agencies [Florida Department of Community Affairs (now Florida Department of Economic Opportunity) water management district(s), affected local government(s), Florida Fish and Wildlife Conservation Commission, affected regional planning council(s), Florida Department of Transportation, and Public Service Commission] are referred to as "affected agencies." After the ALJ is appointed and the Division of Administrative Hearings (DOAH) proceedings commence, outside third parties may also become formal parties to the ongoing DOAH proceedings. SFWMD is an affected agency with a multitude of proprietary land interests and one of several formal parties to the current DOAH administrative proceedings.

Affected agencies have several statutory requirements as part of their respective roles in the certification review process. SFWMD submission of this agency report to DEP is one of the associated statutory requirements.

1.3 Agency Report Responsibilities

Sections 403.507 and 403.526 of the Siting Act direct water management districts to prepare a report as to the potential impacts of the proposed project on matters within their jurisdiction including, but not limited to, impacts on water resources, regional water supply planning, and on lands and works owned by water

[1] Under an Operating Agreement concerning the division of responsibilities between DEP and SFWMD for management and storage of surface waters regulation and wetland resource regulation under Chapter 373, Part IV, F.S., DEP is responsible for conducting the ERP-related review and final agency action for power plants, electric distribution and transmission lines, and other facilities related to production, transmission, and distribution of electricity.

management districts. In addition, SFWMD has broad responsibilities regarding water resources under Chapter 373, F.S.

Through the agency report review process, SFWMD must comment on the project's compliance with SFWMD technical (non-procedural) criteria and recommend approval or denial of the corridors proposed in the application. The conditions of certification included in this report are the means by which SFWMD recommends to DEP all applicable SFWMD criteria that would have otherwise been required for a non-Siting Act project's design, construction, operation, and maintenance are duly considered by DEP (and Siting Board if necessary) for inclusion as conditions in the certification.

The impact evaluation and the recommended conditions in this report address the proposed corridors, each of which may be as wide as one mile, and the transmission lines and facilities within those corridors as proposed by the Licensee. To the extent that the future construction, operation and maintenance of the electric transmission lines and facilities potentially impact those matters within SFWMD jurisdiction, this report must: a) provide evaluations of those potential impacts; b) recommend conditions of FPL's certification to ensure compatibility with SFWMD technical criteria; and c) recommend either approval or denial of each proposed corridor based on these considerations.

1.3.1 Matters within SFWMD Jurisdiction

SFWMD is a regional governmental agency that oversees the water resources in the southern half of Florida, including all or part of 16 counties from Orlando to the Florida Keys with a population of more than 7.5 million. SFWMD is the oldest and largest of the state's five water management districts. SFWMD's mission is to manage water and related resources for the benefit of the public and in keeping with the needs of the region. The key elements of SFWMD mission are: environmental protection and enhancement, water supply, flood protection, and water quality protection.

1.3.2 Central and Southern Florida Project

SFWMD operates and maintains, as non-federal sponsor, the Central and Southern Florida (C&SF) Project, one of the world's largest water management systems. The C&SF Project includes 1,978 miles of canals, 2,873 miles of levees, and 573 water control structures. In Miami-Dade County alone, where the proposed project is located, there are 390.6 miles of canals and 77 water control structures, including many that SFWMD built and are operated and maintained by SFWMD.

SFWMD works (canals, levees, structures, water bodies. and other associated facilities) were constructed as part of the C&SF Project on lands within SFWMD rights-of-way acquired for the purpose of providing drainage and flood protection. SFWMD holds proprietary interest with respect to these lands and is responsible for its land holdings and its obligations to the U.S. Army Corps of Engineers (USACE) to operate and maintain the C&SF Flood Control Project as local sponsor of the federal project as required under federal law. Due to the critical importance of works and lands of SFWMD in providing flood protection and other benefits, it is essential that SFWMD retain complete control over the use of such works and lands.

1.3.3 SFWMD Real Property Interests

SFWMD has proprietary interests in real property for drainage, flood protection, conservation, ecosystem restoration, mitigation banking, and management of recreational areas. SFWMD rights-of-way, Works of the District and any property interest evidenced by being recorded in the public records are collectively referred to as "SFWMD real property interests" in this report.

1.3.4 Ecosystem Restoration Projects

SFWMD is non-federal sponsor of and full partner with USACE in the initiative to restore America's Everglades through the Comprehensive Everglades Restoration Plan (CERP), the largest environmental restoration project in North America. It includes more than 60 elements and will take more than 30 years to construct. The State

of Florida and SFWMD have committed $2.4 billion through the current fiscal year toward CERP implementation and construction.

Section 601(b) of the Water Resources Development Act of 2000 (WRDA 2000), Public Law 106-541, approved the CERP that is contained in the Final Integrated Feasibility Report and Programmatic Environmental Impact Statement dated April 1, 1999, as modified by the WRDA of 2000. As part of the State Water Resource Plan, Section 373.026(8)(b) requires collaboration between SFWMD and the DEP in CERP implementation. The legislature found the implementation of CERP to be in the public interest, and necessary for restoring, preserving, and protecting the South Florida ecosystem, amongst other purposes, pursuant to Section 373.1502(2)(a), F.S. Section 373.4592, F.S., contains the Everglades Forever Act. Section 373.470, F.S., contains the Everglades Restoration Investment Act. In accordance with Section 373.470(3)(a), the Florida legislature intends to establish a full and equal partnership for CERP implementation between the state and federal governments. SFWMD is authorized to act as the local sponsor for CERP projects, pursuant to Section 373.1501(4)(d), F.S.

A major goal of CERP is to capture fresh water that is lost to tide. CERP is designed to capture, store, and redistribute fresh water lost to tide and to regulate the quality, quantity, timing, and distribution of water flows. The majority of the water will be devoted to ecosystem restoration. The remaining water will benefit municipal and agricultural water users by enhancing water supplies for the South Florida economy.

The major components of CERP are:

- Surface Water Storage Reservoirs
- Water Preserve Areas
- Improved Water Deliveries to the Estuaries
- Underground Water Storage
- Treatment Wetlands
- Management of Lake Okeechobee as an Ecological Reservoir
- Improved Water Deliveries to the Everglades
- Removal of Barriers to Sheetflow
- Storage of Water in Existing Quarries
- Reuse of Wastewater
- Pilot Projects
- Improved Water Conservation
- Additional Feasibility Studies

In addition to its role in CERP, SFWMD is also the leader and/or a participant in other ecosystem restoration projects, some of which are designed to complement CERP projects.

1.4 Project Description

1.4.1 Existing Facilities

The FPL Turkey Point power plant is an existing power plant facility located on a ±11,000 acre site in unincorporated southeast Miami-Dade County, east of Florida City and the City of Homestead (see Exhibit 1). The power plant site is located in the area of 344th Street, approximately nine miles east of U.S. Highway 1, and is bordered on the north by Biscayne National Park, on the east by Biscayne Bay, and on the south and southwest by FPL's ±13,000 acre Everglades Mitigation Bank. Existing features on the power plant site include fossil fuel and nuclear generating units (Units 1 through 5), a 5,900 acre cooling canal system (which is also a permitted industrial wastewater facility), a network of electrical transmission lines and natural gas pipelines, and undeveloped lands.

1.4.2 Proposed Project

New transmission lines will be located in corridors within Miami-Dade County leading both west and north from the Turkey Point facility where Units 6 and 7 will be constructed and are referred to as the West and East corridors, respectively. FPL has proposed two alternative West corridors as part of its Site Certification Application. They are named the West Preferred Corridor and the West Secondary Corridor.

This report evaluates only the FPL corridors as currently proposed. The Siting Act allows for other Parties to formally propose alternate corridors. Reviewing agencies evaluate all alternate corridor proposals filed by other Parties and accepted by both FPL and DEP and must also submit a separate but similar impact analysis report

to DEP in accordance with the review schedule issued by the ALJ. On May 2, 2011, four alternate corridor proposals were filed by other Parties; two for the East Corridor and two for the West Corridor. DEP and FPL accepted all four proposals on May 9, 2011, for agency review and consideration. Two of these proposals have been subsequently withdrawn. Therefore, SFWMD will be issuing a separate report to DEP on the two remaining alternate corridor proposals, filed by the Miami-Dade Limestone Product Association (West Corridor) and the Village of Pinecrest and City of Coral Gables (East Corridor).

The proposed ±300 acre site for the new nuclear generating units (Units 6 and 7) is south of the existing nuclear generating units (Units 3 and 4) and lies within the boundaries of the existing industrial wastewater facility (see Exhibit 2). A new substation is proposed adjacent to Units 6 and 7 that will connect the two new nuclear generating units with FPL's existing electrical transmission line network via new electrical transmission line facilities. According to FPL, the new transmission line facilities will deliver approximately 2,200 megawatts (MW) of new generation from Units 6 and 7 to the state's electric grid. Unit 6 is scheduled for operation in 2022. Unit 7 is scheduled for operation in 2023. The proposed transmission lines are scheduled to be constructed and in operation prior to the proposed power plant units, with construction commencing several years in advance of the operational in-service of those power plant units.

FPL is further proposing to construct new 500 kilovolt (kV) and 230 kV transmission lines that will connect its proposed substation (referred to as Clear Sky) to various other substations in Miami-Dade County (see Exhibit 3). Approximately 88.7 miles of transmission line corridors are being proposed (52 miles for the West Preferred Corridor, 51 miles for the West Secondary Corridor, and 36.7 miles for the East Corridor). As part of the West Corridor, FPL is proposing to certify an expansion of its existing Levee Substation in northern Miami-Dade County and two access-only corridor laterals (total of 5.25 miles) that will be used solely for access to the new transmission lines. The two access corridors are referred to as the Tamiami Trail Access Corridor and the Krome Avenue Access Corridor.

The West Corridor (see Exhibit 4) will include both 230 kV and 500 kV transmission lines that will connect the proposed Clear Sky Substation with the existing Pennsuco and Levee substations. The proposed 230 kV transmission line (52 miles long) will connect the proposed Clear Sky Substation with the existing Pennsuco Substation, bypassing the Levee Substation. The proposed 500 kV transmission lines (43.6 miles long) will connect the proposed Clear Sky Substation with the Levee Substation. The proposed transmission lines will be located primarily within existing FPL rights-of-way acquired in the 1960s/1970s, either in fee or in easement. A 7.4 mile portion of the 43.6 mile long Clear Sky Substation to Levee Substation transmission line corridor crosses the 1989 expansion area for Everglades National Park (ENP). Smaller portions cross the 8.5 Square Mile Seepage Management Area south of ENP and Water Conservation Area 3B (WCA-3B) north of ENP. FPL is proposing to relocate a 12 mile portion of the transmission line right-of-way that crosses these three areas in cooperation with a number of agencies, including the National Park Service, USACE, and SFWMD. This 12-mile portion of the existing FPL right-of-way is the West Secondary Corridor. The proposed relocation of this portion of the existing FPL right-of-way is included as part of the West Preferred Corridor.

The East Corridor (see Exhibit 5) will include a 230 kV transmission line that will connect the proposed Clear Sky Substation with the existing Miami Substation by way of the existing Davis Substation. The Clear Sky Substation to Davis Substation portion of the proposed transmission line (19 miles long) will be located within an existing FPL right-of-way. The Davis Substation to Miami Substation portion of the proposed transmission line (17.7 miles long) will require new right-of-way along the U.S. 1 corridor.

FPL is also seeking to certify a short (0.4 mile long) 230 kV transmission line segment that will connect the proposed Clear Sky Substation with the existing Turkey Point Substation within the existing power plant site. This short segment of transmission line will be constructed within the boundaries of the East Preferred Corridor.

2 TRANSMISSION LINE CORRIDOR ASSESSMENTS

2.1 East Corridor

2.1.1 Central and Southern Florida Project

2.1.1.1 SFWMD Communication System and Facilities

SFWMD operates the extensive water management system described in Section 1.3.2 to protect public health and safety by providing flood protection, water supply deliveries and other core functions. The successful operation of the system is heavily dependent on the South Florida Water Management District Communication System and Facilities (WMDCSF), which provides for on-command and reliable remote operation of water control structures based on real-time hydro-meteorological data, as well as instant communications during hurricanes and other storm events. More than 5 million people in Southeast Florida depend on SFWMD operation of the regional water management system to respond in real-time to tropical weather systems and the extreme climatic events that occur throughout the year. The SFWMD communication infrastructure consists of microwave towers, sensors, transmitters, receivers, two-way radios, and many other types of equipment for security and surveillance, voice radio, and telephone and computer networking between SFWMD sites and structures. The SFWMD telemetry system is designed to provide an extremely high level of continuous and uninterrupted performance to execute flood control operations that protect life and property.

SFWMD has interests related to the proximity of the proposed transmission lines to SFWMD-owned communications facilities and the potential for interference that would degrade or diminish the function and reliability of those facilities. A large portion of SFWMD-recommended conditions of certification regarding communications systems consist of a protocol that would be followed by SFWMD and the Licensee to eliminate and reduce adverse impacts to SFWMD communication systems during the design and construction of the Licensee's facilities and to provide for rapid identification, response, and resolution of communications systems problems should they arise. The proposed protocol is extensive and reflects that reliable operation of the flood control system is the paramount core function of the SFWMD.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.1.1.2 Use and Occupancy of SFWMD Rights-Of-Way

Based on SFWMD review of the Site Certification Application, the Licensee is proposing aerial electrical transmission line crossings over the following SFWMD canals: C-100, C-100A, C-100C, C-102, C-102N, C-103, C-1W, C-1N, C-2, C-3, C-6, L-31E, and Military Canal. FPL must meet SFWMD minimum clearance requirements for aerial transmission line facilities, as established in the Criteria Manual for Use and Occupancy of Works of the District or equivalent manual in effect at the time of project design. "Works of the District" means the canals, levees, structures, lands, water bodies (including lakes and water conservation areas), and other associated facilities that have been adopted as such by the SFWMD Governing Board.

FPL must also comply with U.S. Department of Occupational Safety and Health Administration (OSHA) standards and safe clearance requirements, including vertical height and swing clearances, and any other health- and safety-related governmental requirements or industry standards that may be in effect at the time of project design. These standards are presently incorporated in the Criteria Manual.

There are certain areas within the proposed corridor where SFWMD has existing operational and maintenance constraints that could be exacerbated by new transmission line facilities and other areas where placement of new transmission line facilities could impose operational and maintenance constraints or interfere with future planned improvements to the C&SF Project. There are also certain areas where the proposed corridor overlaps SFWMD rights-of-way and there is a potential for transmission line facilities to be placed parallel to and within SFWMD rights-of-way. The Licensee's proposed use and occupancy of SFWMD rights-of-way must not interfere with SFWMD existing use and currently proposed future use of its rights-of-way, known at the time of FPL's project design.

For all instances identified during review of the Site Certification Application where FPL's proposed use and occupancy of SFWMD right-of-way would require a waiver of SFWMD right-of-way permitting criteria, SFWMD is recommending conditions of certification that 1) reflect the applicable right-of-way permitting criteria and 2) constitute a waiver in situations where FPL cannot meet the right-of-way permitting criteria (see Section 4 of this report). SFWMD and FPL have agreed to a process by which, when such instances arise post-certification, SFWMD would consider and authorize FPL's proposed use and occupancy of SFWMD's right-of-way if it otherwise complies with the non-procedural requirements of SFWMD right-of-way permitting criteria and SFWMD conditions of certification. This process would be in lieu of the process by which a waiver is typically obtained and would not require a modification to the certification.

Under SFWMD right-of-way occupancy permitting criteria, any proposed crossings over SFWMD water control structures are typically prohibited. In addition, placement of above-ground permanent or semi-permanent structures within 40 feet of the top of the canal bank or within SFWMD designated 100 foot-long equipment staging areas located at all bridges and pile-supported utility crossings is typically prohibited. This typical prohibition is to provide adequate areas to set up and operate equipment, particularly for the purposes of removing and temporarily stockpiling storm debris that accumulate on pilings. These staging areas are located on the upstream and downstream sides of all bridge and utility crossings. Aerial transmission lines and support structures are typically prohibited in these areas because they could interfere with SFWMD operation and maintenance activities, as well as emergency operations during major storm events.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.1.2 Ecosystem Restoration

2.1.2.1 Biscayne Bay Coastal Wetlands Project (Phase I)

The purposes of this CERP project are to:

- Reestablish productive nursery habitat along the shoreline
- Redistribute freshwater flow to minimize point source discharges to improve fresh water and estuarine habitat
- Restore and improve quantity, quality, timing, and distribution of freshwater to Biscayne Bay, including Biscayne National Park
- Preserve and restore the spatial extent of natural coastal glades habitat
- Reestablish connectivity between Biscayne Bay coastal wetlands, the C-111 Basin, the Model Lands Basin, and adjacent basins
- Restore nearshore and saltwater wetland salinity regimes

The Draft Project Implementation Report/Environmental Impact Statement (PIR/EIS) for Phase I was published in March 2010. The Final PIR/EIS has been drafted. Publication is pending resolution of a policy issue.

Project construction activities along the L-31E Canal were completed in June 2010. Deering Estate construction activities are projected to be completed in March 2012. The award for construction of the Cutler Flow-way Project is contingent upon SFWMD Governing Board approval of funding. Construction will take approximately 18 months. SFWMD is anticipated to take the lead in the construction of the above Phase I project activities. It is anticipated that USACE will be awarding contracts for completion of the CERP features in January 2015.

The East Preferred Corridor coincides with the Licensee's existing transmission line right-of-way along the western boundary of SFWMD L-31E Canal, from just south of S.W. 328th Street to just north of S.W. 261st Street, in the vicinity of the recently installed culverts on the east side of the L-31E Canal right-of-way.

No specific impacts to the Biscayne Bay Coastal Wetlands Project were identified during the Site Certification review process. However, SFWMD will be able to conduct a more detailed review to identify potential impacts

during the post-certification review process when the Licensee submits detailed design plans and the final right-of-way location.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.1.2.2 Biscayne Bay Coastal Wetlands Project (Phase II)

Although a National Environmental Policy Act (NEPA) scoping meeting for preparation of the Draft PIR/EIS has not yet been scheduled, it is anticipated that the objectives for Phase II will be similar to those for Phase I. The anticipated objectives for this CERP project are:

- Reestablish productive nursery habitat along the shoreline
- Redistribute freshwater flow to minimize point source discharges to improve freshwater and estuarine habitat
- Restore and improve quantity, quality, timing, and distribution of fresh water to Biscayne Bay, including Biscayne National Park
- Preserve and restore the spatial extent of natural coastal glades habitat
- Reestablish connectivity between Biscayne Bay coastal wetlands, the C-111 Basin, the Model Lands Basin, and adjacent basins
- Restore nearshore and saltwater wetland salinity regimes

This project is not currently shown on the Integrated Delivery Schedule (IDS). The IDS is the South Florida Ecosystem Task Force's schedule of major ecosystem restoration initiatives based on project priorities, benefits, costs, and funding. Since this project is not currently shown on the IDS, project construction may not commence until sometime after 2020.

The proposed temporary and permanent improvements to the existing electrical transmission line corridor and access road west of the power plant site along 359th Street (i.e., for temporary power plant construction activities and permanent electrical transmission line maintenance activities) would appear to eliminate wetlands that could otherwise be restored by the proposed CERP project. It appears that temporary improvements to the existing access road could likely further compartmentalize the Biscayne Bay Coastal Wetlands study area from both an ecological and hydrologic perspective. These potential adverse impacts could be minimized if the new access road is properly designed and constructed in accordance with the applicable environmental standards and recommended certification conditions.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.1.2.3 Western C-111 Spreader Canal (Phase II)

Although a NEPA scoping meeting for preparation of the Draft PIR/EIS has not yet been scheduled, it is anticipated that the objectives will likely be similar to those identified in CERP.

The anticipated objectives include the following:

- Reduce wet season flows in C-111
- Improve water deliveries to Model Lands Basin and Southern Glades
- Decrease potential flood risk in the southernmost portion of Miami-Dade County

The project supplements the Western C-111 Spreader Phase I Project and is intended to expand the ecological benefits associated with that project.

The project is not currently shown on the IDS. The IDS is the South Florida Ecosystem Task Force's schedule of major ecosystem restoration initiatives based on project priorities, project benefits, costs, and funding.

Considering that this project is not currently shown on the IDS, project construction may not commence until sometime after 2020.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.2 West Preferred Corridor

2.2.1 Central and Southern Florida Project

2.2.1.1 SFWMD Communication Systems

The text for this section of the report is the same as that for the East Preferred Corridor (see Section 2.1.1.1 of this report).

2.2.1.2 Use and Occupancy of SFWMD Right-Of-Way

Based on SFWMD review of the Site Certification Application, the Licensee is proposing aerial electrical transmission line crossings over the following SFWMD canals: C-1W, C-102, C-103, C-113, C-4, L-29, L-30, L-31N, and L-31E. The Licensee must meet SFWMD requirements as described in Section 2.1.1.2 of this report.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.2.1.3 L-29 / L-30 / L-31N Cooperation Agreement

In June 2008, the SFWMD Governing Board approved Resolution No. 2008-640 (see Appendix B) authorizing a Cooperation Agreement with FPL for a replacement corridor for FPL's existing unimproved transmission line corridor that bisects a portion of the ENP expansion area and WCA-3B. Presently there are no electric transmission lines located in either corridor. The Cooperation Agreement authorizes SFWMD to issue easements to FPL for the following uses of SFWMD right-of-way, in addition to easements to be issued to the Licensee on certain lands to be conveyed by the National Park Service or the USACE to SFWMD. Below is a brief summary of the Cooperation Agreement. Refer to the Cooperation Agreement (Appendix B) for the actual terms that are controlling.

South of Tamiami Trail: Use of the western L-31N levee road to access the new transmission line corridor for construction, operation, and maintenance purposes and construction of permanent access roads/ramps down from the western L-31N levee road to the new structures in the West Preferred Corridor within ENP. In the vicinity of SW 120th Street , an easement for the construction, placement, operation, and maintenance of utility lines and appurtenant facilities including communication facilities, together with the right of ingress and egress to such facilities.

North of Tamiami Trail: Use of that portion of the L-30 right-of-way lying west of the canal for construction of and access to transmission lines and appurtenant facilities, including communication facilities for FPL's sole use and an easement to manage non-native vegetation that poses a potential fire hazard.

However, the FPL's West Preferred Corridor includes additional SFWMD rights-of-way on the east side of the L-30 and L-31N canals, which is outside the terms of the Cooperation Agreement. In its Third Completeness Responses, the FPL states "permanent transmission structures, poles, towers, and overhead wires for the Clear Sky-Levee #1 and #2 500 kV transmission lines and the Clear Sky-Pennsuco 230 kV transmission line will not be located within the east side of SFWMD L-31N and L-30 canal rights-of-way except for the certified transmission overhead wires that will cross the L-31N Canal right-of-way in the area of the intersection of the Krome Avenue (SR 27) Access Corridor and the West Preferred Transmission Corridor."

Any further use of the eastern portion of the SFWMD rights-of-way in this area would require mutual agreement between FPL and SFWMD. Such further use could interfere with SFWMD legally mandated responsibilities for flood protection and other routine access, maintenance and emergency uses.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.2.1.4 L-30 / L-31N Levee Roads

The Licensee's proposed corridors include the option of potentially using SFWMD L-30 and L-31N canal levees for construction and maintenance of the proposed transmission lines. Portions of the levees have not been designed to accommodate the heavy equipment proposed to be used by the Licensee. Therefore, portions of the levees may need to be enhanced and widened. SFWMD has advised the Licensee that any proposed levee enhancements will need to meet USACE design specifications, including compaction and side slope stabilization (grass/sod) requirements and will require USACE approval prior to implementation. Licensee may be required to obtain a Section 408 permit (33 US Code of Federal Regulations) from USACE. SFWMD has also discussed with the Licensee the possibility of using the berm portion of the levee right-of-way west of the western levee road, between the toe of the levee and the right-of-way line (i.e., the landward side of the levee). In its Second Completeness Responses, the Licensee states that they "will meet applicable design standards" and they are "willing to evaluate alternatives for access, including using the berm portion of the levee, enhancing and widening the levee, or constructing a seepage management berm parallel to the levee."

There is a longer-term potential that portions of the L-31N levee south of the Krome Avenue detention facility may be removed to create a new flow-way into ENP. This option is being proposed by the Department of the Interior; however, there is no specific implementation date. Access to the Licensee's facilities in this area could be impacted and may require alternative means of access.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.2.1.5 Use of SFWMD Bridges

Within the Tamiami Trail Access Corridor and SFWMD L-29 and L-30 canal rights-of-way, the Licensee's proposed transmission corridors include the option of using the existing service bridges for the S-334 and S-335 structures that are currently being used by SFWMD and the USACE for operation and maintenance activities. The Licensee's proposed transmission corridors include the option of using these bridges for construction of the proposed transmission line and potentially for the Licensee's future operation and maintenance activities. SFWMD has advised the Licensee that SFWMD is concerned about potential damage to the S-334 and S-335 structures and that the design load capacity of the bridge and the turning radius on the north side of the bridge may not be adequate to accommodate the large vehicles that would be used by the Licensee to deliver and install the proposed transmission line poles and other facilities. Additional fill in WCA-3B would be needed to provide an adequate turning radius, resulting in additional wetland impacts and mitigation requirements.

SFWMD does not allow its construction contractors to use SFWMD service bridges for access to a SFWMD project site due to the concerns noted above. However, SFWMD does allow its contractors to use SFWMD rights-of-way, including installation of temporary bridges in SFWMD canals for access, as long as it does not interfere with SFWMD's ability to complete its operation and maintenance responsibilities, including conveyance of flows, and SFWMD access to its structures and facilities. The Licensee shall only be permitted to use the Ratner Bridge, S-334 service bridge, and S-335 service bridge if the technical concerns noted above are adequately addressed.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.2.1.6 Other Right-Of-Way Occupancy Issues

Any potential interference between the proposed project and existing authorized facilities within SFWMD right-of-way must be resolved when the final transmission line right-of-way and the location of the proposed transmission line facilities are submitted for SFWMD review during the post-certification review process.

Licensee does not anticipate installation of fencing or landscaping within SFWMD right-of-way for this project. If it is the Licensee's desire to install fencing or landscaping within SFWMD right-of-way, the Licensee is advised that SFWMD right-of-way permitting criteria are established in the Criteria Manual for Use and Occupancy of Works of the District. The Criteria Manual prohibits the installation of fencing and/or landscaping within 40 feet of the top of the canal bank and/or within SFWMD designated 100 foot-long equipment staging areas located at all bridges and pile-supported utility crossings. Where landscaping is allowed, the proposed species must meet SFWMD criteria. The details of any proposed fencing or landscaping must be submitted to SFWMD for review during the post-certification review process. Temporary uses of SFWMD staging areas are acceptable so long as they do not interfere with SFWMD operation and maintenance activities.

The Licensee indicates in the Site Certification Application that any proposed culverts within SFWMD right-of-way will meet SFWMD right-of-way permitting criteria. This issue will require further evaluation during the post-certification review process.

For those areas where the Licensee proposes use of SFWMD right-of-way for construction or other vehicular access, the details of the proposed activities must be submitted for SFWMD review and monitoring for compliance during the post-certification review process.

For certain portions of SFWMD right-of-way and lands, SFWMD has an easement rather than fee title. Consequently, to use those lands, the Licensee will need to obtain permission from the underlying fee owners.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.2.2 Land Ownership / Management

2.2.2.1 Model Lands Basin

The lands within the Model Lands Basin are managed by SFWMD and Miami-Dade County, pursuant to a Memorandum of Understanding (MOU) that was originally entered into in 2005. The Model Lands Basin project site consists of a combination of fresh- and saltwater wetlands, with portions of the land heavily infested with exotic vegetation. Although more than 15,500 acres of the 54,458-acre project area are in public ownership, there is no public use program due to lack of legal access and contiguous ownership. Major management activities have included treating exotic vegetation and restricting detrimental activities, including, but not limited to off-road vehicle use, poaching, and dumping. The primary management focus for SFWMD and Miami-Dade County is the treatment of exotic species. The Interim Management Plan (Exhibit B of the 2010 Memorandum of Understanding modification) acknowledges FPL's Units 6 and 7 project: "FPL operates several electrical power plants immediately adjacent to the South Dade Wetlands portion of the project, and recently applied to expand power-generating facilities in the area".

The proposed improvements to the existing transmission line access road along S.W. 359th Street may provide the opportunity for additional access to public lands, including SFWMD-owned lands within the Model Lands Basin. This could result in an increase in detrimental activities.

The proposed transmission line access road (and temporary construction haul road) should be designed to prevent illegal access to the extent practicable.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.2.2.2 Southern Glades

Within the 34,093-acre Southern Glades project area, SFWMD ownership includes approximately 31,333 acres (fee simple and easements). The lands are cooperatively managed by the Florida Fish and Wildlife Conservation Commission (FWC) under a lease agreement as the Southern Glades Wildlife and Environmental Area. The project area is open to hiking, wildlife viewing, fishing, hunting, air boating, bicycling, and horseback riding. Treatment of exotic species is a primary management focus.

West of U.S. Highway 1, the West Preferred Corridor crosses SFWMD Southern Glades Save Our Rivers (SOR) property (Parcel #GR701-025). Any potential adverse impacts could be minimized if the proposed transmission line access road is designed in accordance with applicable environmental standards and recommended certification conditions, to maintain existing surface water flows in this area.

Although the proposed transmission line will not interfere with public recreational uses on SFWMD lands, it could provide additional access to SFWMD SOR lands and this could result in an increase in off-road vehicle use, poaching, dumping, and other activities that could result in environmental degradation. The proposed transmission line access road should be designed to prevent illegal access to the extent practicable.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.2.2.3 Pennsuco Regional Mitigation Area

The Pennsuco Regional Mitigation Area (PRMA) is part of the Pennsuco Wetlands or Cell 26 of the East Coast Buffer and covers an area of approximately 13,000 acres. SFWMD began using the Pennsuco wetlands as a regional off-site mitigation area in 1995, allowing permit applicants to make mitigation contributions for the acquisition, enhancement, and long term management of Pennsuco lands as compensation for permitted wetland impacts. Although the developer's mitigation obligation was met in July 2002 and Pennsuco is no longer available as a mitigation option for developers proposing wetland impacts, Pennsuco acquisition, restoration, and long-term management continues as a mitigation option for Lake Belt miners, pursuant to Section 373.4149(1), F.S. Pennsuco emphasizes the enhancement of a degraded ecosystem that would otherwise continue to decline and impact nearby natural areas without efforts to reduce the spread of exotics. The enhancement of Pennsuco has the potential to yield regional ecological benefits and contribute to the goals of Everglades restoration.

The proposed transmission line improvements along the SFWMD L-30 Canal may provide the opportunity for additional access to public lands, including SFWMD-owned lands in the PRMA. This could result in an increase in off-road vehicle use, poaching, dumping, and other activities that could result in environmental degradation. The proposed transmission line access road should be designed to prevent illegal access to the extent practicable.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.2.3 Ecosystem Restoration

2.2.3.1 Biscayne Bay Coastal Wetlands Project (Phase II)

A description of this project and related issues is provided in Section 2.1.2.2 of this report.

2.2.3.2 Western C-111 Spreader Canal (Phase II)

A description of this project and related issues is provided in Section 2.1.2.3 of this report.

2.2.3.3 South Dade C-111 Project

The project objective is to increase timely water deliveries into the southern portion (Taylor Slough) of ENP through a series of structural modifications and water control projects within the C&SF Flood Control Project. This project includes construction of pumps, control structures, and levees along the eastern boundaries of ENP south of the 8.5 Square Mile Area and filling the L-31W Canal.

Design and construction of the Northern, Southern, and Frog Pond detention areas and ENP Seepage Management (L-31W backfill) projects are related projects in the vicinity of the South Dade C-111 project.

Due to the large scope of the South Dade C-111 project, individual project components are in varying stages of completeness, ranging from planning to completion. The Frog Pond Detention Area construction is substantially complete. The Southern Detention Area features have been constructed, but are not fully operational. Neither the Northern Detention Area nor the ENP Seepage Management project has been constructed.

The project is currently undergoing modifications to the operational plan to adjust operations of the overall project to address design and functional changes brought about during the detailed design process. Some implementation of portions of the project is anticipated in 2014, after the operational plans and permitting have been completed.

The proposed transmission line construction activities cannot compromise levee function, minimum elevation, and structural integrity. During construction, access will need to be maintained for SFWMD operations and flood control activities along the entire length of the levee. Water levels in the vicinity of the corridor south of the 8.5 Square Mile Area and north of the L-31N Canal may be somewhat higher as a result of project implementation. Consequently, the Licensee should design the project to accommodate the projected higher water levels, known at the time of transmission line design.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.2.3.4 Modified Water Deliveries to Everglades National Park

The Modified Water Deliveries to Everglades National Park project ("Modwaters") is considered to be a foundation project for restoration of the Everglades and a precursor to CERP approved in 1999. The original intent of Modwaters, authorized in 1989, was to reconnect the watersheds of WCA-3A and WCA-3B with ENP by redirecting water flow to the historic flow channels in Shark River Slough and establishing natural hydrologic conditions.

The final 1992 General Design Memorandum (GDM) Report, Part 1, Supplement 54, and the June 1992 Environmental Impact Statement for Modified Water Deliveries to Everglades National Park, Section H, Recommended Project (page 52), defines the measures for which restoring the natural hydrologic conditions to the extent practicable would be met. The goal of restoring natural hydrologic conditions will be met in terms of all three of its dimensions:

- Location – The historic path of Shark River Slough will be restored by bringing WCA-3A/3B and Northeast Shark River Slough back into the flow-way between WCA-3A and ENP.
- Timing – Water flows through the restored Shark River Slough will reflect natural local meteorological conditions, including the extremes of natural droughts and floods, and variations in the annual seasonal and long-term cycles.
- Volume – The volume of water delivered will reflect the naturally available supplies based on local meteorological conditions, except in cases where operations of the Central and South Florida Project for other authorized project purposes necessitate increased or decreased deliveries. Natural hydroperiods will be restored.

Components of the Modwaters plan include flood mitigation for the 8.5 Square Mile Area, an agricultural area that could be impacted by higher seepage resulting from the restored hydrology of Shark River Slough, water conveyance structures allowing movement of water from WCA-3A and WCA-3B into ENP, and seepage control for the L-31N Canal to provide protection for southwestern Miami-Dade County.

A significant number of CERP and other federal projects were conceptually designed assuming the Modwaters project components would be completed in advance of the CERP projects. Projects impacted by Modwaters include the following:

- Water Conservation Area 3A/3B Decompartmentalization
- Broward County Water Preserve Area
- Central Lake Belt
- Everglades National Park Seepage Management Project
- Flows to Northwest and Central Water Conservation Area 3A
- South Dade C-111 Project

Since authorization in 1989, the Modwaters project has been significantly delayed due to uncertainties regarding the means and methods to restore natural flow conditions, funding issues, and legal challenges. Portions of the project have been constructed to facilitate the flow of water. New outflow structures have been completed on the L-29 levee (S-355A/B) to discharge water from WCA-3B into the Tamiami Trail borrow canal and then under Tamiami Trail through culverts into ENP. USACE is currently constructing a one-mile bridge to replace some of these culverts and establish a continuous marsh connection between the borrow canal and ENP. This connection will facilitate more uniform movement of water reestablishing the natural hydrology and providing a greater connection for wildlife. Water control structures connecting WCA-3A and WCA-3B have been delayed due to lack of funding. A seepage control pump station on the L-31N Canal has also been completed; however, an operating permit has not been issued due to concerns over potential water quality impacts to ENP. The seepage protection for the 8.5 Square Mile Area has been completed with the construction of a protective levee, seepage collection canal, and pump station to divert increased seepage away from the developed portions of the area.

The planning process for Modwaters was completed with the release of the 1992 GDM describing the project components. Since then, additional details have been refined for the 8.5 Square Mile Area and the Tamiami Trail Bridge through supplemental planning documents describing construction designs. An overall operating plan integrating the components of Modwaters and the structural flow of water to achieve the desired restoration of ENP has not been developed. A preliminary operating plan called the Combined Structure Operating Plan was developed through a public and interagency effort from 2007-2009; however, it was not adopted by the USACE. A revised operating plan is expected to be completed by 2013, coincident with the completion of the Tamiami Trail Bridge construction and expected operation.

Future plans could result in the removal of the L-31N levee between the Krome Avenue Detention Facility and the southern limits of the existing operating rock mines. The Department of Interior and ENP have expressed a desire to create a flow-way utilizing the land and borrow lakes in this region to generate a new overland flow route into ENP. The intent is to route water from the Central Lake Belt and/or WCA-3B projects into this area as new sources of water become available. This will necessitate the removal of or substantial modifications to the L-31N levee. As a result, water depths in this area will increase substantially above the existing conditions for prolonged periods. Consequently, any construction, operation, and maintenance of transmission line facilities and access roads in this area must take into consideration this future condition, known at the time of transmission line design. In addition, placement of transmission line support structure pads and access roads along the remaining L-31N levee could create obstructions to uniform flow of water in these areas that could create local differences in hydrology on the downstream side of the support structure pads and access roads.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.2.3.5 Water Preserve Area Conveyance

The purpose of the Water Preserve Area Conveyance (WPAC) projects are to reduce seepage losses to the east from the Pennsuco Wetlands and the southern portion of WCA-3B, enhance hydroperiods in the Pennsuco Wetlands, and provide recharge to Miami-Dade County's Northwest Wellfield. The project includes water control structures and modifications to the Dade-Broward Levee and associated conveyance systems located in Miami-Dade County.

The following is a list of related projects in the vicinity:

- WCA 3A/3B Seepage Management Area
- Bird Drive Recharge Area
- WCA 3A/3B Decompartmentalization
- Central Lake Belt Storage Area

Implementation of these projects will follow the standard CERP process of federal authorization and appropriation through a PIR. The construction schedule for these projects has not been identified on the South Florida Ecosystem IDS.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.2.3.6 L-31N (L-30) Seepage Management Pilot Project

The purpose of the L-31N (L-30) Seepage Management Pilot Project (L-31N SMPP) is to determine the appropriate technology needed to control seepage via a level cutoff wall from ENP and to quantify the amount of wet season groundwater flow that will minimize potential impacts to Miami-Dade County's West Wellfield, and Biscayne Bay. The project is located along a 1.25-mile segment of the L-30 Canal between the S-335 and S-336 structures.

Several CERP projects are located in the vicinity of and related to this project, which is one of three components of the Everglades National Park Seepage Management Project (ENP SMP). The other two components of the ENP SMP are the S-356 Pump Station relocation project and the Bird Drive Recharge Area.

This project is currently on hold due to budgetary constraints. SFWMD is continuing to monitor the groundwater network in the area and is participating in a similar project being conducted as part of a mitigation plan proposed by the rock miners in the Lake Belt region of Miami-Dade County. The rock miners' seepage management project is anticipated to take place over the next two years. The results of the rock miners' project will be integrated with the groundwater monitoring evaluation to reformulate the L-31N SMPP.

SFWMD anticipates that the seepage cutoff wall will be built within the footprint of the L-30 levee and right-of-way. Consequently, construction of the proposed transmission line facilities must not interfere with cutoff wall construction and potential blasting activities. During transmission line construction activities, access will need to be maintained for SFWMD operations and flood control activities along the entire length of the levee. SFWMD and Licensee will coordinate any blasting activities in the vicinity of Licensee's transmission facilities.

Depending on the results of the groundwater monitoring evaluation and the rock miners' seepage management project, the seepage barrier may be expanded and constructed seven miles further to the south and three miles further to the north.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.2.3.7 ENP Seepage Management

The purpose of the ENP SMP is to improve water deliveries to northeast Shark River Slough by controlling seepage via a level cutoff wall from ENP toward the Miami-Dade County urban area. The northern limit of the project is approximately three miles north of structure S-335 on the L-30 borrow canal and extends primarily along the L-31N and L-30 levees south to the G-211 structure and the C-1W Canal.

Several CERP projects are located in the vicinity of and related to this project, including the Bird Drive Recharge Area, the S-356 Pump Station relocation, and the L-31N Seepage Management Pilot Project.

This project is currently on hold, pending the results of the L-31N SMPP. SFWMD staff has been directed to monitor the groundwater network in the area and participate in a seepage management project conducted by the rock miners in the Lake Belt region of Miami-Dade County, as part of a mitigation plan proposed by the rock miners. The rock miners' seepage management project is anticipated to take place over the next two years. The results of the rock miners' project will be integrated with the groundwater monitoring evaluation to reformulate the L-31N SMPP.

Upon determination of an appropriate seepage management control feature, the ENP SMPP will be restarted and a PIR will be prepared. It is anticipated that the project will not resume for at least another five years and that construction is not likely to commence until at least 2020.

It is anticipated that the seepage cutoff wall will be built within the footprint of the L-30 and L-31N levees and right-of-ways. During construction, access will need to be maintained for operations and flood control activities along the entire length of the levee. The Licensee's proposed access road must not impede existing hydrologic flows or design flows that are known at the time of transmission line design or result in the creation of artificial impoundments. Close coordination among Licensee, USACE, and SFWMD will be necessary to avoid any potential conflicts. Water levels in the vicinity of the corridor may be higher as a result of project implementation. Consequently, the Licensee should design the project to accommodate the projected higher water levels, known at the time of transmission line design.

At this time, the technology for installing a large subsurface seepage management control feature has not been determined. The construction contractors that are capable of performing this work are limited to a small group. The corridor width for construction of this feature could be highly variable, depending on which contractor is selected.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.2.3.8 Central Lake Belt Storage Area

The purpose of the Central Lake Belt Storage Area (CLBSA) project is to store excess water from WCA-2 and WCA-3 and to provide environmental water supply deliveries to northeast Shark River Slough, WCA-3B, and Biscayne Bay, in that order, if available. It is assumed that water diverted from WCA-2 and WCA-3 is of adequate quality to return to the Everglades Protection Area and Biscayne Bay. Final configurations and treatment requirements were to come from a Water Preserve Areas Feasibility Study. Although drafted, the study scope became too large, so projects are being revisited separately. A pilot project was started to assess feasibility and cost of the Lake Belt Storage Area projects; however, that project is currently on hold.

The following related projects are in the vicinity:

- WCA-2 Flows to CLBSA
- WCA-3 Flows to CLBSA
- North Lake Belt Storage Area

The project will be constructed in two phases. Phase 1 will be implemented from 2025 to 2030. Phase 2 will be implemented from 2035 to 2040. The PIR has not yet been prepared and a construction schedule does not yet exist.

The West Preferred Corridor runs along the west perimeter of the project. The existing FPL Levee-Midway 500 kV transmission line bisects the west half of the CLBSA project. The conceptual project design anticipates providing storage in the mines to the east of the existing 500 kV line and treatment, if and as necessary, to the west of the existing 500 kV transmission line. A future channel is proposed to convey water from storage to treatment areas. The Licensee's proposed project should be designed to not interfere with the proposed conveyance feature.

Due to the many uncertainties regarding the constructability and cost of the Lake Belt project, the design will remain conceptual until the pilot project is undertaken and successfully completed.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.2.3.9 Protection of Everglades Habitat Associated with CERP Restoration

Background

Associated with the CERP goal of enhancing ecological values are objectives to increase the spatial extent of natural areas, improve habitat and functional quality, and improve native plant and animal species abundance and diversity. An important goal of CERP is the restoration of nesting populations of wading birds. The number of nests of some species have declined considerably since the 1930s (Crozier & Gawlik 2003) due to loss of wetland habitat and hydrologic modifications to the Everglades. Several system-wide performance measures and targets were established for five wading bird species, including the wood stork (*Mycteria americana*), by the CERP Restoration Coordination, and Verification (RECOVER) group. SFWMD focuses its assessment on the wood stork for the following reasons:

- Important wood stork nesting and foraging habitat occurs in the vicinity of the proposed transmission lines.
- Avian populations that are already reduced below a certain threshold population level are less able to compensate for anthropogenic-related mortality than species with healthy populations. The wood stork is a federal- and state-listed endangered species whose nesting population in South Florida has declined by about 78 percent since the 1930s (Crozier & Gawlik 2003). Therefore, any impact of the proposed transmission lines on the wood stork may be relatively greater than on other, more abundant, wading bird species.
- The biological and ecological attributes of the wood stork (e.g., its relatively long nesting season and the poor flight ability of fledgling birds) suggest SFWMD take a close look at the species in relation to the proposed project.
- It is the key wading bird indicator species for hydrological restoration of the Everglades.

Resolving issues related to the wood stork will similarly resolve potential issues associated with other wading birds in the area.

Additional background information and supporting documentation pertaining to SFWMD responsibilities with respect to restoration of healthy wading bird populations and relevant biological information on the wood stork are provided in Appendix C.

Locations of Wading Bird Colonies and Federal Guidelines

Data from the annual South Florida Wading Bird Report were used to locate and assess CERP wading bird nesting colonies and foraging areas that have the potential to be negatively impacted by the proposed transmission line corridors. Maps were generated to show colony locations and foraging zones in relation to the West Preferred and West Secondary transmission line corridors.

The West Preferred and West Secondary corridors are close to a cluster of four wading bird colonies. Three colonies are adjacent to Tamiami Trail in ENP: Tamiami West, Tamiami East 1, and Tamiami East 2. Another

colony is further north in WCA-3B: 3B-Mud East. This cluster of colonies is a primary nesting area for all five CERP wading bird species. It is also currently one of the most important nesting sites in the Everglades for the wood stork, often supporting approximately half of all annual wood stork nests in the Everglades, as outlined in Table 1.

Due to the importance of protecting nesting and foraging habitat for this species, the U.S. Fish and Wildlife Service (USFWS) developed a series of permitting criteria guidelines. These criteria are found in *Habitat Management Guidelines for the Wood Stork in the Southeast Region* (Ogden 1990, USFWS 2006), and are summarized in Appendix C. SFWMD used these guidelines to formulate a preliminary assessment of the potential effects of the proposed corridors on the colony cluster.

These documents identify two protective management zones and provide guidelines on human activities and development in the vicinity of nesting bird colonies. The primary zone (up to 1,500 feet from the colony boundary) is the critical area needed to protect the survival of the colony (i.e., the nests, young, and nesting adults). The secondary zone (up to 2,500 feet from the colony boundary) is used by wood storks for collecting nest material, roosting, and feeding, particularly for juveniles and recently fledged young. These management zone boundaries were delineated for each of the four colonies in the cluster (see Exhibit 6, which depicts two of the four management zones due to overlapping geographic areas). SFWMD understands that site-specific management zone boundaries will be developed by the USFWS during development of their Biological Opinion on the wood stork as part of their review of this project.

In addition, and more recently, the USFWS developed a wood stork foraging assessment model that must be implemented for any project within the core foraging area of an active wood stork colony. The core foraging area (CFA) for a wood stork colony is defined by the USFWS as the area within an 18.6 mile (30 km) radius of that colony. Refer to Exhibit 6 for the CFAs of Tamiami West and 3B-Mud East colonies. The CFAs of the Tamiami East and Tamiami East 2 colonies are not shown because they substantially overlap the Tamiami West CFA at the scale used in Exhibit 6. Both the West Preferred and West Secondary transmission line corridors pass through the core foraging area of the colony cluster. Adult birds from the colony cluster are known to forage in all available wetlands within the CFAs of each colony including the Pennsuco Wetlands east of Krome Avenue (see annual *South Florida Wading Bird Report*).

Wood storks in the Everglades generally feed within 12.4 miles (20 km) of the nesting colony and, therefore, may forage in close proximity to the proposed transmission line corridors (see Exhibit 6). A large population of non-nesting, over-wintering birds from northern states and Canada also forage throughout the Everglades, including areas close to the proposed project. An important foraging area for both nesting and non-nesting birds is Shark River Slough, located to the south of the Tamiami colony cluster in ENP. Systematic Reconnaissance Flights (SRFs; see Portier & Smith 1984, Hoffman et al. 1994 for details) reveal that very large numbers of wading birds forage within this area; for example, during the 2010 breeding season there was, at any given time, an average of 29,081 birds foraging in a 12 square mile area in the northeastern region of Shark Slough (for details see Cook & Kobza 2010).

The federal guidelines (Ogden 1990, USFWS 2006) that are relevant to the proposed transmission line corridors are discussed below in relation to the nesting and foraging attributes of the colony cluster.

<u>West Preferred Corridor (Nesting Attributes)</u>

Ogden (1990) and the USFWS (2006) recommend that power lines should not be placed within 1 mile of a colony. The West Preferred corridor is within one mile of the colony boundary of two colonies: Tamiami East 1 (1,232 feet) and 3B-Mud East (1,985 feet). It passes within the primary zone of Tamiami East 1 and within the secondary zone of 3B-Mud East (see table below and Exhibit 5).

<u>West Secondary Corridor (Nesting Attributes)</u>

The West Secondary Corridor is within one mile of the colony boundary of three colonies: Tamiami East 2 (80 feet), Tamiami West (3,986 feet), and 3B-Mud East (669 feet). It passes within the primary zones of Tamiami East 2 and 3B Mud East (see table below and Appendix C).

Ogden (1990) and the USFWS (2006) recommend no human intrusion within 328 feet (100 m) of the colony during the nesting period. Maintenance activities involving human (rather than vehicular) presence at Tamiami East 2 and 3B Mud East colonies may disturb nesting wood storks.

Table 1 outlines distances (measured in feet) of colony boundaries from the Western corridors. Distances of colonies within 1 mile (5,280 feet) are highlighted in bold print.

Table 1. Distance (ft.) of Colony Boundaries from West Corridors.

	West Preferred Corridor	West Secondary Corridor
Tamiami West	13,550	**3,986**
Tamiami East 1	**1,232**	5,321
Tamiami East 2	7,116	**80**
3B-Mud East	**1,985**	**669**

West Preferred Corridor (Foraging Attributes)

Ogden (1990) and the USFWS (2006) recommend that power lines should not be placed within one mile of a major feeding site. The West Preferred Corridor passes through the core foraging area of all four colonies and is within one mile of known foraging areas.

Ogden (1990) and the USFWS (2006) recommend that foraging sites should not be subject to activities that alter their normal hydrology. Pad and road construction (wetland fill) may affect wetland hydrology and hence wood stork foraging conditions. Consideration of how the proposed project will influence historic or future hydrologic flows associated with implementation of CERP is important.

West Secondary Corridor (Foraging Attributes)

The west secondary corridor passes through the core foraging area of all four colonies and is within one mile of known foraging areas.

Pad and road construction (wetland fill) may affect wetland hydrology and hence wood stork foraging conditions. Consideration of how the proposed project will influence historic or future hydrologic flows associated with implementation of CERP is important.

Literature Review

To ascertain the potential effects of the West Preferred and West Secondary Corridors on the colony cluster, SFWMD conducted a comprehensive review of the published and gray literature regarding the effects of power lines on birds, and related this to relevant biological and ecological information of the wood stork. This review revealed two potential areas of concern for wood storks and other wading bird species: collisions with the transmission lines and habitat loss. A summary of the concerns related to this review is provided below (see Appendix C for details of the review and associated cited literature).

Collisions

- Specific characteristics of an avian species such as its morphology and behavior determine collision risk. According to these characteristics wading birds are classified as a relatively high risk group.
- Collisions appear to increase in open habitats, and birds in open wetland habitats appear to suffer relatively elevated rates of collision-related mortality.
- Mortality risk is greatest when lines cross nesting, feeding, and roosting areas, particularly those that support a large abundance and diversity of birds. The proposed corridors cross important wading bird nesting and foraging areas in the Shark River Slough and WCA-3B regions of the Everglades.

- The behavioral characteristics and purpose of a flight affect the probability of collision. This is because they affect the form and altitude of the flight, the distance traveled, the frequency and duration of the flight, and ultimately the likelihood of encountering and hitting a tall structure such as a power line or communication tower. Adult wood storks associated with a colony use flight for multiple reasons. Some flights are relatively short in distance (restricted to within the colony management zones), low in elevation (<200 ft), and employ flapping flight, such as courtship, antagonistic, and nest material collection flights. Others, such as foraging flights involve longer distances (>10 km), higher elevations (>1,000 ft) and employ more maneuverable gliding and soaring flight.

- Life history stage and age of the bird determine collision risk. Younger birds are less experienced and exhibit reduced flight ability relative to older birds. Several authors (Crivelli et al. 1988, McNeil et al. 1985, Schaub and Pradel 2004) have shown that juveniles and recently fledged wading birds appear to be more prone than adults to collisions. Juvenile wood storks (birds that are independent of the nest but still reliant on parental feeding) are poor fliers, travel each day between 100 meters to 1 km from the colony, are learning to forage in the local marshes, and frequently return to the nest or a nearby site to be fed by parents.

- Time of day and weather patterns influence collision risk since they affect visibility and the birds' flight ability. Wood storks are known to feed nocturnally and fly during reduced light conditions. Weather conditions such as high winds or fog, which are not uncommon during wood stork nesting, may affect the ability of birds to detect or avoid power lines.

- The size of the population is important to the overall impact of any collision-related mortality on a population. Avian populations can normally compensate for additional mortality deriving from anthropogenic causes but they may decline if the population is already reduced below a certain threshold level. The South Florida CERP population of the wood stork has suffered relatively large declines in nesting population size.

- Relatively few studies have examined the effects of transmission lines on wading birds and of these none have examined the particular issue of a transmission line in close proximity to a colony. Those few studies that did examine wading birds suggest that this group may be sensitive to collision risk. Very little information is available on the wood stork.

Habitat Loss

- Direct loss of wetland foraging habitat may occur due to the construction of pads and access roads.

- Pad and road construction might also incur indirect loss or reduction in the quality of foraging habitat by altering the hydrology of the region.

- FPL will provide SFWMD a calculation of wood stork foraging habitat loss based on application of the USFWS foraging model developed specifically for South Florida.

Assessment of Risk

In response to the avian concerns identified by SFWMD during the completeness review process, FPL submitted an assessment entitled *Ecological Risk Assessment of Potential Impacts of Turkey Point Units 6 & 7 West Corridor Transmission Lines on Wood Storks*, dated July 2010, and a subsequent September 23, 2010 Addendum to this document addressed many SFWMD concerns after SFWMD review of the initial document. While SFWMD recommended that the responses be deemed complete, SFWMD suggests that additional concerns and information be considered when assessing the ecological risk of the wood stork. These remaining areas of concerns are detailed in Appendix C and summarized below.

Transmission lines potentially pose the greatest risk to wading birds when placed close to the nesting colonies, yet SFWMD is not aware of any transmission lines, 230 kV or greater, placed in an open wetland within one mile of an active wading bird colony. Therefore, quantitative predictions of collision risk associated with the West Preferred and West Secondary Corridors are difficult to determine. A major difficulty with assessing the

risk of wood stork collisions with transmission line corridors is the lack of studies on the subject. SFWMD's primary concern is the lack of information on the potential collision risk to adult, fledgling, and post-fledgling wood storks from nearby colonies with transmission lines, as these flights occur within the separation distances between the colonies and the proposed West Preferred and West Secondary Corridors. SFWMD suggest that additional information is needed on:

- Short distance flight behaviors in relation to the proposed corridors (these include the learning flights of fledgling birds and the courtship and nest material collection flights of adult birds)

- Longer distance foraging flight behaviors in relation to the proposed corridors (the approximate number of foraging flights in and out of the colony, when combined with information on the nesting period, the number of birds in the colony, and flight directions, can provide a useful estimate of the exposure of wood storks from the focal colony to the proposed transmission lines over the course of the breeding season)

- The impact of any additional mortality on this relatively small wood stork population and its ramifications for CERP wood stork restoration goals

Based on the above information, SFWMD estimated the collision risk for wood storks according to the method outlined in the Licensee's Risk Assessment but further categorizes risk of collision according to age-class (adult & juvenile) and purpose of the flight (flight within or without the colony). This is detailed for both proposed corridors in tables 2 and 3. In summary, there is a potential risk of collision for both proposed corridors but a considerably higher risk associated with the West Secondary Corridor.

Table 2. Assessment of Collision Risk, West Preferred Corridor.

Age of bird & flight activity	Location of flight relative to Corridor	Flight height	Colony affected	Relative # birds	Duration	Daily Freq of flights	Relative Risk
Juvenile; within colony flight	1 zone -1 mile	low	Tam E1 3B Mud	low	3-4 weeks	high	moderate
Adult; within colony flight	1 & 2 zone	low	Tam E1 3B-Mud	low	nesting period	low	low
Adult; Foraging flight	1 zone -1 mile	variable	All	moderate	nesting period	Low-high	low
Adult from elsewhere; Foraging flight	Entire length	variable	N/A	high	dry season	Unknown	very low

Table 3. Assessment of Collision Risk, West Secondary Corridor.

Age of bird & flight activity	Location of flight relative to Corridor	Flight height	Colony affected	Relative # birds	Duration	Daily Freq of flights	Relative Risk
Juvenile; within colony flight	1 zone -1 mile	low	Tam W Tam E2 3B Mud	moderate	3-4 weeks	high	high
Adult; within colony flight	1 & 2 zone	low	Tam E2 3B-Mud	moderate	nesting period	low	moderate
Adult; Foraging flight	1 zone -1 mile	variable	All	moderate	nesting period	Low-high	moderate
Adult from elsewhere; Foraging flight	Entire length	variable	N/A	very high	dry season	Unknown	low

2.3 West Secondary Corridor

2.3.1 Land Ownership/Management

2.3.1.1 Water Conservation Area 3B

SFWMD also has concerns related to the potential impacts that the construction, operation, and maintenance of the proposed transmission lines would have on SFWMD legally mandated responsibilities for managing its lands within WCA-3B. These lands were specifically acquired for water management related purposes (i.e., flood control, water supply, conservation, reclamation, and allied purposes) and are managed by SFWMD and the Florida Fish and Wildlife Conservation Commission (formerly known as the Florida Game and Fresh Water Fish Commission) through a Cooperative License Agreement (see Appendix A). This land includes an existing easement for FPL transmission line right-of-way. Not only must SFWMD consider its responsibilities for operation and maintenance of the existing project system and lands, but also any future needs or uses that may be precluded or limited by a proposed use. Under this Cooperative License Agreement, FWC is authorized to manage the lands within WCA-3B for the preservation, protection, and propagation of wildlife and fish and the promotion of recreational features in connection therewith, to the extent that it is not inconsistent with the primary purposes of the WCA lands.

According to terms of the 1971 Permit Agreement executed by SFWMD and FPL, SFWMD granted FPL permission to construct, operate and maintain one or more transmission lines within a 330-foot wide strip of land in WCA-3B. The Agreement states:

> [SFWMD] will endeavor to plan, construct or alter its water control facilities in such a manner as to require minimum alterations by [FPL], but both parties understand that the determination of location, method, time, type and other factors relevant to construction of water control facilities is solely a [SFWMD] determination.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.3.2 Ecosystem Restoration

2.3.2.1 Modified Water Deliveries to Everglades National Park

A summary of this project is provided in Section 2.2.3.4 of this report.

Any transmission line facilities placed in the marsh could reduce the effective area of marsh connectivity and the potential movement of wildlife. Presence of transmission line facilities could reduce water velocities through the marsh resulting from the Modwaters project and render portions of the marsh hydraulically isolated. Over time, these marsh areas could develop an ecological response and experience hydropatterns different from other restored areas. Such maintenance activities could also contribute to soil and peat erosion that could alter adjacent slough hydrology and impact normal fire patterns. Hazardous materials or petroleum products resulting from maintenance activities could be transported and dispersed over significant distances within the marsh. This could alter habitat quality for both aquatic and terrestrial wildlife.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.3.2.2 WCA-3A/3B Decompartmentalization

The WCA-3A/3B Decompartmentalization (Decomp) project is a component of CERP. The purpose of the Decomp Project is to restore natural landscape patterns and native flora and fauna in WCA-3A and WCA-3B and eventually ENP.

The project includes construction of pumps, control structures, spreader canals, canal backfilling, and levee degrading within and along the boundaries of WCA-3A and WCA-3B. The project is currently in the planning phase. A series of PIRs will be conducted to investigate the anticipated impacts from constructing various components comprising the overall project.

Concurrently, the USACE, in cooperation with SFWMD (its non-federal sponsor) and the CERP Decompartmentalization Interagency Project Delivery Team (PDT), proposes to build and conduct a field-scale test, also known as a Physical Model. The purpose of the Physical Model is to determine how best to design and formulate plans for future decompartmentalization of WCA-3A and WCA-3B, as visualized under CERP. The Physical Model was designed by the Science Sub-Team of the PDT and is believed to encompass the minimum replication necessary to address the hypotheses it is designed to test. The Decomp Physical Model has been designed and has been submitted for permit approval; construction is scheduled for 2012.

The first PIR will contain a conceptual proposal for the balance of the project (i.e., the Yellow Book Plan) showing in a broad sense how the first increment of the project fits into the overall plan for the project. The follow-up PIRs will draw upon the finding and recommendations of the first PIR and complete the planning process for the region by addressing the remaining features of the overall conceptual plan and any outstanding problems and concerns of the ecosystem in that region.

The first PIR will focus on the Miami Canal and potential improvements to the North New River (NNR) Canal as required to maintain conveyance capacity and to provide water of comparable quantity and quality for natural and other water supply needs. The Miami Canal constitutes a major disruption to sheetflow within WCA-3A and drains the conservation area. Water that historically moved slowly south in a sheetflow manner through the marsh over a large expanse of land or through seepage is now obstructed by berms. This disruption to natural flow was recognized in the Yellow Book and by Congress by placing the Miami Canal within the first part of Decomp that received contingent authorization rather than requiring a return to Congress for approval and authorization for construction. The potential impacts to WCA-3B and ensuing concerns about possible seepage issues along portions of the Dade-Broward levee may be minimized by truncating alteration of the Miami Canal at the northern junction with the L-67A Canal (near structure 151) for the first PIR. Whether the remaining southern portion of the Miami Canal will be backfilled or modified will be addressed under a subsequent PIR.

Water levels in the vicinity of the West Secondary Corridor north of Tamiami Trail/U.S. 41 within WCA-3B may be altered as a result of implementation of the Decomp project. Construction of the proposed transmission lines should not impede access to SFWMD facilities, compromise levee function, or compromise minimum levee elevation and structural integrity. Transmission line access roads cannot impede existing surface water flows north of Tamiami Trail.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.3.2.3 Central Lake Belt Storage Area

A summary of this project is provided in Section 2.2.3.8 of this report.

2.3.2.4 Protection of Everglades Habitat Associated with CERP Restoration

Section 2.2.3.9 of this report addresses the potential impacts from the West Secondary Corridor on wading bird habitat. SFWMD believes that the potential habitat impacts associated with construction of transmission facilities within the West Secondary Corridor are greater than those associated with the West Preferred Corridor.

2.4 General

2.4.1 Construction Dewatering

According to the Site Certification Application, the only water use associated with construction of the proposed transmission lines may be dewatering of holes prior to installation of transmission line support structures; however, FPL has indicated that such dewatering activities are normally not necessary.

SFWMD is recommending conditions of certification to address the issues outlined above (see Section 4 of this report).

2.4.2 Wetland Mitigation

Certain FPL mitigation proposals involve SFWMD lands/projects. Under the current Operating Agreement between DEP and SFWMD concerning the division of responsibility for management and storage of surface waters regulation and wetland resource regulation under Chapter 373, Part IV, F.S., DEP is responsible for conducting the project's ERP-related review and final agency action for power plants, electrical distribution and transmission lines, and other facilities related to production, transmission, and distribution of electricity, including FPL's wetland mitigation proposals. SFWMD will work with DEP and the other jurisdictional reviewing agencies in the review and approval of FPL's wetland mitigation proposals during the post-certification review process.

3 CORRIDOR CERTIFICATION RECOMMENDATIONS

This section of the report contains SFWMD conclusions and recommendations to DEP concerning certification of the proposed transmission line corridors, pursuant to Sections 403.526(2)(a)2 and 403.526(2)(b)2, F.S., and Rule 62-17.590(3)(c), Florida Administrative Code (F.A.C.).

3.1 East Preferred Corridor

SFWMD recommends certification of the East Preferred Corridor subject to the recommended certification conditions in Section 4 of this report.

3.2 West Preferred Corridor

SFWMD recommends certification of the West Preferred Corridor subject to the recommended certification conditions in Section 4 of this report.

3.3 West Secondary Corridor

SFWMD recommends certification of the West Secondary Corridor subject to the recommended certification conditions in Section 4 of this report. However, SFWMD prefers the West Preferred Corridor over the West Secondary Corridor. This preference is reflected in SFWMD recommended certification conditions associated with each western corridor and is explained below.

The West Secondary Corridor contains significantly more wetlands and wildlife habitat in WCA-3B and Shark River Slough within ENP. WCA-3B and Shark River Slough are part of the Everglades Protection Area, as defined in the Everglades Forever Act, and are targets for restoration as part of CERP. Impacts to wildlife and habitat from construction, operation, and maintenance of the proposed transmission lines through these areas could be significant and unavoidable.

Currently, there are no existing access roads in WCA-3B and ENP where the West Secondary Corridor is proposed, except for those associated with a few facilities immediately adjacent to the Tamiami Trail (U.S. 41). Construction of new access (fill) roads in this area, as proposed by FPL, could result in long-term impacts to wetlands and wildlife habitat; disrupt hydrologic flows, and impact water quality. New road construction could

potentially conflict with future CERP restoration goals, objectives, and projects. Vehicles moving over the wetlands (without roads) could also result in major disturbance to existing wetlands by compacting soils, disrupting hydrologic flows, and impacting habitat for species identified in the CERP RECOVER goals and objectives. Furthermore, any access/maintenance roads constructed within the West Secondary Corridor could provide the opportunity for unauthorized access. This could lead to an increase in illegal activities, such as garbage disposal, use of off-road vehicles, and other activities that could result in environmental degradation.

Tree islands are a salient feature of the Everglades wildlife habitat landscape and are abundant within that portion of the West Secondary Corridor that is located in WCA-3B and ENP. In addition, tree islands often host important wading bird colonies, as evidenced by the four nesting colonies within or near the proposed West Secondary Corridor. Given that restoration of the wood stork population, along with other Everglades wading bird populations, is a primary CERP objective, the construction and presence of electrical transmission lines that could impact these tree islands and their fauna should be avoided.

SFWMD also has concerns related to the potential impacts that the construction, operation, and maintenance of the proposed transmission lines would have on SFWMD legally mandated responsibilities for managing its lands within WCA-3B. These lands were specifically acquired for water management related purposes (i.e., flood control, water supply, conservation, reclamation, and allied purposes) and are managed by SFWMD and the FWC through a Cooperative License Agreement (see Appendix A). Not only must SFWMD consider its responsibilities for operation and maintenance of the existing project system and lands, but also any future needs or uses which may be precluded or limited by a proposed use. Under this Cooperative License Agreement, the FWC is authorized to manage the lands within WCA-3B for the preservation, protection, and propagation of wildlife and fish and the promotion of recreational features in connection therewith, to the extent that it is not inconsistent with the primary purposes of the WCA lands, and to the extent not inconsistent with valid easements or rights-of-way.

Appendix A also includes a copy of a 1971 Permit Agreement executed by SFWMD and FPL in which SFWMD granted FPL permission to construct, operate and maintain one or more transmission lines within a 330-foot wide strip of land in WCA 3B. The Agreement states:

> [SFWMD] will endeavor to plan, construct or alter its water control facilities in such a manner as to require minimum alterations by [FPL], but both parties understand that the determination of location, method, time, type and other factors relevant to construction of water control facilities is solely a [SFWMD] determination.

Due in part to the concerns outlined above, the SFWMD Governing Board approved Resolution No. 2008-640 (June 2008) that authorized a Cooperation Agreement with FPL for a replacement corridor for the Licensee's existing unimproved transmission line corridor (West Secondary Corridor) that bisects a portion of the Everglades National Park expansion area and Water Conservation Area 3B. The Cooperation Agreement authorizes SFWMD to issue easements to the Licensee for certain specific uses of SFWMD rights-of-way, in addition to easements to be issued to FPL on certain lands to be conveyed by the National Park Service or USACE to SFWMD in exchange for FPL's release of land proposed as the West Secondary Corridor. Additional details concerning the Cooperation Agreement are provided elsewhere in this report.

4 RECOMMENDED CONDITIONS OF CERTIFICATION

4.1 Overview

It is the recommendation of SFWMD that DEP incorporate the following conditions into the Recommended Conditions of Certification for the FPL Turkey Point Units 6 and 7 project. SFWMD staff will work with DEP, the Licensee, and the other parties to reach agreement on a final set of recommended certification conditions. In addition, if the Licensee submits any of the supplemental information required by certain of the recommended certification conditions prior to the Certification hearing on this project (or issuance of a Final Certification Order by the Secretary of DEP or the Siting Board), and SFWMD staff is able to review the submittal for compliance

with the appropriate SFWMD rules, SFWMD staff will provide DEP with a revised set of Recommended Certification Conditions that reflect the results of SFWMD review of the additional information.

4.2 General Conditions

4.2.1 Legal / Administrative

1. General

For purposes of these conditions of certification, "SFWMD real property interests" is defined as SFWMD rights-of-way, Works of the District, and any property interest evidenced by being recorded in the public records.

a. "Licensee" as used herein includes Licensee's employees, contractors, subcontractors, invitees, authorized representatives, affiliates, parent, subsidiaries, and/or anyone acting on Licensee's behalf.

b. If this Certification is transferred from the Licensee to another party, the Licensee from whom the Certification is transferred shall remain liable for corrective actions that may be required as a result of any violations that occurred prior to the transfer. Reference: Sections 373.044, 373.085, 373.223, 373.342, and 373.413, F.S.; Rules 40E-2.091, 40E-2.301, 40E-2.38l, 40E-3.101(1), and 40E-6.351, F.A.C.

c. This project must be constructed, operated, and maintained in compliance with and meet all non-procedural requirements and criteria set forth in Chapter 373, F.S., and Chapters 40E-2 (Consumptive Use), 40E-6 (Works or Lands of the District), and 40E-20 (General Water Use Permits), F.A.C.

d. It is the responsibility of the Licensee to avoid or minimize and mitigate any impacts to the water resources during the construction, operation, and maintenance of the project in accordance with these conditions of certification. Reference: Chapter 373, F.S.; Rules 40E-2.09l, 40E-2.38l, and 40E-6, F.A.C.

e. The Licensee shall be responsible for the construction, operation, and maintenance of all facilities installed for the proposed project. Reference: Sections 373.309, 373.413, and 373.416, F.S.; Rule 40E-6.381, F.A.C.

f. Information submitted to SFWMD subsequent to Certification, in compliance with these Conditions of Certification, shall be for the purpose of SFWMD determining the Licensee's compliance with the non-procedural criteria contained in Chapter 373, F.S., Chapters 40E-2, 40E-6, and 40E-20, F.A.C., as applicable prior to the commencement of the subject construction, operation, and/or maintenance activity covered by these Conditions of Certification. Reference: Rule 62-17.191, F.A.C.

g. SFWMD may confer with DEP to request that DEP take any and all lawful actions that are necessary to enforce any condition of this Certification based on the authorizing statutes and rules of SFWMD. Reference: Sections 373.223, 373.319, and 373.603, F.S.; Rules 40E-2.091, 40E-2.301, 40E-2.381, 40E-6.501, F.A.C.; Section 403.514, F.S.

h. It is understood that the Licensee and SFWMD shall strive to resolve disputes by mutual agreement. However, SFWMD retains its right to seek any and all available relief under Florida law for the protection of the health, safety, and welfare of persons and property within its jurisdictional boundaries. Reference: Sections 373.044, 373.085, 373.113, 373.129, 373.413 and 373.429, F.S.; Rules 40E-1.601, 40E-4.331, 40E-6.331, and 40E-6.341, F.A.C.

i. With concurrence from DEP, SFWMD and the Licensee may jointly agree to vary the informational requirements. Reference: Sections 373.085 and 373.229, F.S.; Rules 40E-2.101(1) and 40E-6.101(1), F.A.C.

j. Licensee shall maintain the status (exempt from public disclosure) of in a confidential manner any documents received from SFWMD, including communications systems and building plans, blueprints, schematic drawings, and diagrams, in preliminary draft and final formats, which depict the internal layout and structural elements of a building or water structure, or other SFWMD facility, owned and operated by SFWMD, which are exempt from the Public Records law, unless required to disclose such documents pursuant to Section 119.071(3)(b)3., F.S., as also agreed to in an executed Confidentiality Agreement, the form of which shall be the same as Appendix D. All such documents exempt from public disclosure shall be listed as an exhibit to the Confidentiality Agreement and clearly marked as "EXEMPT" by SFWMD before delivery to Licensee.

k. Indemnification / Insurance
Sections 373.016, 373.085, and 373.1391, F.S. Licensee shall also be responsible for the following:

i. For good and valuable consideration received, and to the fullest extent permitted by law, Licensee agrees to defend, indemnify, and hold harmless SFWMD, its Board members, Directors, employees, and agents (collectively, the "Indemnified Parties") from and against any and all claims, suits, loss, including, but not limited to, bodily injury, death, and property damage and all other damage, including reasonable attorneys' fees and costs, sustained by the SFWMD Entities to the extent caused by or arising from Licensee's and its agents' (which includes Licensee's officers, employees, contractors, subcontractors, agents, representatives, and invitees) planning, engineering, design, construction, alteration, operation, maintenance, removal, abandonment of facilities on, activities upon and access over SFWMD real property interests or activities undertaken under this Certification (including post certification reviews, amendments or modifications, collectively the "Certification") unless Licensee can establish that the damages were attributable solely to the negligent or willful actions of one or more Indemnified Parties or third parties other than Licensee and its agents. SFWMD shall have the right to approve, in SFWMD's reasonable discretion, Licensee's legal counsel in connection with this indemnity.

ii. Licensee shall obtain and maintain in full force through self-insurance and independent insurance as further set forth herein during the period that the Licensee or its agents access SFWMD real property interests, undertake activities under this Certification, and six months thereafter. Such coverage shall include but not be less than:

(a) Licensee shall certify to SFWMD initially, and in subsequent years, in the form of an affidavit or letter (Exhibit 7) that Licensee is self-insured up to $3,000,000 for commercial general liability insurance coverage as set forth in subsection (ii) below, and shall provide an additional $7,000,000 in commercial general liability insurance coverage as set forth in subsection (ii) below by independent insurance for a total of $10,000,000 coverage per occurrence and in the aggregate, and worker's compensation insurance coverage as set forth in subsection (iii) below. Licensee shall submit to SFWMD an audited financial statement to support its affidavit or letter of self-insurance and certificate as evidence of Licensee's financial ability to comply with the conditions stated herein. In the event that audited financial statement discloses Licensee's financial inability to comply with such conditions, SFWMD may require independent insurance coverage in lieu of the coverage described herein.

(b) Commercial General Liability Insurance against claims for bodily injury, death, or property damage arising out of or in any way related to or resulting from Licensee or its agents (including, but not limited to, its contractors, subcontractors, agents, representatives, and invitees) access over or adjacent to SFWMD right-of-way, Works of the District or real property interests recorded in the public records, interference with SFWMD communication systems, or activities undertaken under this Certification, including planning, engineering, design, construction, operation, and maintenance of facilities, endorsed to include premises-operations, completed operations-products, independent contractors, pollution, explosion, collapse and underground property damage hazards, liability imposed under the terms and conditions of this Certification (including covering Licensee's indemnity obligations), broad

form property damage, and fire liability coverage with a combined single limit of $10,000,000 per occurrence and $10,000,000 in the aggregate. Licensee may self-insure the first $3,000,000 of coverage, provided that Licensee assumes the defense obligations of the insurer providing insurance pursuant to this paragraph for all lawsuits or claims against SFWMD. This obligation to defend SFWMD and its agents shall begin immediately upon the filing of any lawsuit or claim that would be defended by the insurance required hereunder and continue until such time as the self-insured retention has been met or the insurance required hereunder provides a defense to SFWMD and its agents.

(c) Workers compensation insurance covering all persons employed by Licensee or its contractors in accordance with statutory benefits. Licensee may self-insure the coverage as it is a qualified self-insurer in the state of Florida in accordance with applicable law.

iii. Independent insurance shall be written by companies reasonably acceptable to SFWMD. The Commercial General Liability Policy shall name SFWMD and its agents as additional insureds and shall include a waiver of subrogation in favor of SFWMD and its agents. All insurance, including self-insurance, shall be primary to any liability or property insurance or self-insurance carried by the SFWMD or its agents and shall also provide that any loss otherwise payable shall be payable not withstanding any act or omission of SFWMD or its agents which might, absent such provision, result in a forfeiture of all or a part of such insurance payment. Licensee shall furnish to SFWMD Certificates of Insurance (or certified copies of all insurance coverage, if requested) prior to Licensee entry upon SFWMD real property interests.

iv. All insurance coverage required by or provided to Licensee by its agents engaged by Licensee under this Certification shall be extended to the SFWMD and its agents with the same protection and insurance coverages required by and afforded to Licensee. Licensee shall require that its agents include SFWMD and its agents as additional insureds on all such insurance. Licensee shall furnish to SFWMD Certificates of Insurance (or certified copies of all insurance coverage, if requested) of its agents prior to Licensee's agents entry upon SFWMD real property interests.

v. Any insurance provided by Licensee and its agents naming SFWMD and its agents as an additional insured, including self-insurance, shall respond first and defend and indemnify SFWMD and its agents with respect to any and all claims or suits arising out of Licensee's or its agents access over or adjacent to SFWMD right-of-way, Works of the District or real property interests recorded in the public records, interference with SFWMD communication systems, or activities undertaken under this Certification, including design, construction, operation, and maintenance of facilities. If and only if such insurance does not apply or is otherwise not available with respect to a particular matter, the indemnity provisions in the first paragraph of this section will apply.

vi. It is expressly agreed that this Section shall survive the termination or expiration of this Certification.

l. Consistency with SFWMD Existing and Planned Projects

i. During the planning and design of the certified transmission lines and prior to the final design of the transmission lines right-of-way to be located on SFWMD real property interests, Licensee shall coordinate with SFWMD to obtain SFWMD's plans including detailed design plans and specifications for any existing SFWMD project and the latest detailed information available for planned projects, including but not limited to ecosystem restoration projects, and shall coordinate all Licensee's project activities with SFWMD in such a manner as to avoid inconsistencies with SFWMD existing or planned projects. "Planned project" shall mean any project or facility of SFWMD for which SFWMD is authorized to be a non-federal sponsor that is 1) in the construction phase, 2) in the final construction design phase with approved funding for design, or 3) is a CERP project component as defined in Sec. 373.1501(1)(g), F.S., and as listed in Exhibit 8. Exhibit 8 can be amended by SFWMD, to the extent that any new planned projects meet the definition in 4.2.1 1. l. i. 1) and 2), upon consultation with Licensee.

No later than thirty (30) days after receipt of Licensee's post-certification submittal of the proposed transmission line right-of-way location as required by DEP Condition XIX, SFWMD will submit to Licensee any SFWMD plans for existing or planned projects.

ii. To the extent practicable, Licensee will undertake its preliminary design of the certified transmission facilities to accommodate and avoid inconsistencies with SFWMD existing and planned projects.

iii. At the time of design of the certified transmission facilities, Licensee shall submit to SFWMD a preliminary design demonstrating compliance with paragraph 2) above, so that SFWMD can review this information. SFWMD must review Licensee's preliminary design within ninety (90) days following SFWMD receipt of Licensee's preliminary design. If SFWMD does not respond within ninety (90) days, Licensee can proceed with final design consistent with the submitted preliminary design. If SFWMD's review indicates an inconsistency exists, the parties will strive to achieve an agreeable solution in accordance with Section 4.2.1 1: h. of these conditions of certification. Agreeable solutions may include Licensee's modification of Licensee facilities or if no practicable design alternatives can be identified, SFWMD may agree that its facilities can be modified. If SFWMD modifies its facilities as the agreeable solution, Licensee shall reimburse SFWMD for any and all costs, including direct and indirect (including overhead costs), incurred by SFWMD.

iv. At least ninety (90) days prior to construction, Licensee shall submit to SFWMD a final design demonstrating compliance with its preliminary design and any agreeable solutions for design modifications identified pursuant to paragraph 3), so that SFWMD can review this information for consistency with SFWMD identified existing and planned projects. SFWMD must review Licensee's final design within ninety (90) days following SFWMD receipt of Licensee's final design. If SFWMD does not respond within ninety (90) days, Licensee can proceed with construction consistent with the submitted final design. If SFWMD's review indicates an inconsistency exists, the parties will strive to achieve an agreeable solution in accordance with Section 4.2.1(1)(h) of these conditions of certification. Agreeable solutions may include Licensee's modification of Licensee facilities or if no practicable design alternatives can be identified, SFWMD may agree that its facilities can be modified. If SFWMD modifies its facilities as the agreeable solution, Licensee shall reimburse SFWMD for any and all costs, including direct and indirect (including overhead costs), incurred by SFWMD.

v. If two (2) years elapse after Licensee submittal of its final design demonstrating compliance with paragraph 2) above without commencement of construction of Licensee's project, Licensee shall request a list of new or updated planned project information. If SFWMD provides a list of new or updated planned project information within thirty (30) days of Licensee's request, Licensee shall incorporate this new or updated information to achieve compliance with paragraph 2) above. In the event that new or updated information is provided by SFWMD to Licensee, the coordination process as described in paragraph 3) above shall be followed.

vi. For the purpose of this condition, "inconsistency" shall mean any significant incompatibility, encroachment, or obstruction that hinders, compromises, or detrimentally affects SFWMD projects, scheduling, costs, goals, benefits, functions, operation, maintenance, repair, replacement, rehabilitation, performance, or life expectancy.

m. Reimbursements and Costs
In addition to any requirements specified elsewhere in these conditions, the Licensee shall also be responsible for the following:

i. Modifications to Licensee Project Facilities
Where the certified transmission line(s) will cross or use lands where SFWMD holds a real property interest, Licensee shall design any future modifications to its transmission line(s),

including its structures and access roads, to avoid inconsistency with any SFWMD existing or planned project utilizing the process described in condition 4.2.1(1)(l) above. Licensee shall undertake at its own expense any necessary alterations to Licensee's project as a result of such inconsistencies as defined in condition 4.2.1(1)(l)(vi).

ii. Payment Timeliness and Other Remedies
Licensee shall make reimbursements within sixty (60) days following receipt of invoices submitted by SFWMD. Each invoice must be accompanied by an itemization of the time and expenses incurred in accordance with state auditing procedures. In the event a dispute arises as to the appropriateness of the request for reimbursement of one or more cost items, the dispute may be resolved pursuant to the dispute resolution process specified in General Condition X. However, this provision is not intended to be an exclusive remedy and does not preclude the exercise of any other rights and remedies available under law or equity. Reimbursement of a disputed cost shall be held in abeyance until the dispute is resolved.

n. Licensee Access to SFWMD Areas of Real Property Interest

i. For informational purposes and to the extent practicable, and subject to any easements or other agreements between Licensee and SFWMD, Licensee shall meet with SFWMD representatives no less than six (6) months prior to construction to identify all of Licensee's major construction activities on SFWMD real property interests. For the purpose of this condition, "major construction activities" shall mean mobilization, earthwork, construction, erection, installation or maintenance involving construction related to Licensee's project. Licensee shall also meet with SFWMD representatives no less than one (1) month prior to commencement of construction to coordinate with SFWMD Licensee's construction schedule and non-major activities on SFWMD real property interests. Licensee is encouraged to discuss coordination with SFWMD any minor activities that arise unexpectedly.

ii. Licensee shall be responsible for any mitigation or permitting arising from impacts to any state or federally listed threatened or endangered species where SFWMD holds a real property interest occurring from the construction, operation, or maintenance of the proposed transmission line facilities, in accordance with the terms and conditions of any local, state, or federal approvals, and all applicable regulatory laws, including, but not limited to the conditions in this Certification. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

iii. Licensee, its agents, employees, contractors and subcontractors shall be prohibited from removing any items of historical, architectural, archaeological, or cultural significance on lands where SFWMD holds a real property interest. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

iv. For purposes of this Certification, "Pollutant" shall mean any hazardous or toxic substance, material, or waste of any kind or any contaminant, pollutant as defined by Rule 62-150 F.A.C., and 42 USC 9601 paragraph 4, in addition to petroleum, petroleum product, or petroleum by-product. "Release" shall mean the release, storage, use, handling, discharge or disposal of such Pollutants. Any release of Pollutants, whether caused by the Licensee or any other third party, shall be reported to the SFWMD within twenty-four (24) hours upon the knowledge thereof by the Licensee. The Licensee shall be solely responsible for the entire cost of cleanup of any release of Pollutants resulting from the activities of the Licensee, its contractors, subcontractors, agents, and/or assigns discovered in or on canals or lands where SFWMD holds a real property interest. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

v. SFWMD does not waive sovereign immunity in any respect.

vi. No vehicular maintenance or repair activities or substances or parts associated with the repair or maintenance of vehicles or equipment will take place, be used, stored or discarded within lands where SFWMD holds a real property interest nor shall these lands be used for storage or parking

of equipment, associated machinery, or construction trailers unless specifically authorized by these Conditions of Certification.

vii. Licensee shall not stockpile excavated material in the canal or within lands where SFWMD has a real property interest, except as specifically authorized by SFWMD. Licensee shall be responsible for the removal of all construction materials and debris from SFWMD canal and right-of-way; and, for the repair, replacement, and restoration of any sections of SFWMD right-of-way damaged or disturbed resulting from the authorized activity. Repair, replacement and restoration shall be to pre-existing conditions or better using current SFWMD engineering standards provided by SFWMD as guidance (i.e., for backfill material, density/compaction, stabilization and maintainability). Site-specific engineering considerations and decisions shall be undertaken by the Professional Engineer in charge. Furthermore, such restoration, when required, shall include grading/re-shaping, seeding, re-sodding with bahia, Argentine, or other species recognized by SFWMD as a drought tolerant species. Licensee is also responsible for removal of all excess project-related material from SFWMD rights-of-way, unless otherwise authorized in these conditions of certification.

viii. Licensee shall comply with the following concerning removal of exotic vegetation as listed in Table 4 below.

(a) Licensee shall remove all exotic vegetation throughout the limits of the transmission line right-of-way from lands where SFWMD holds a real property interest and keep these lands free of said exotic vegetation throughout the life of the project.

(b) Licensee is put on notice that successful removal of the exotic vegetation may require the application of a suitable herbicide on cut stumps, etc. by following manufacturer's label instructions.

(c) Licensee shall take all precautions to not damage or destroy existing native (indigenous) vegetation located within the SFWMD rights-of-way throughout the project limits.

(d) Licensee shall not remove, or treat with herbicide applications any mangrove or other native shoreline vegetation.

(e) Licensee shall maintain the project area on a regular cycle basis and keep Licensee's rights-of-way free of excessive weeds and exotic vegetation.

Table 4. Exotic Vegetation to be Removed by Licensee.

Scientific Name	Common Name
Schinus terebinthifolius	Brazilian Pepper
Melaleuca quinquenervia	Melaleuca
Casuarina cunninghamiana	Australian Pine
Lygodium microphyllum	Old World Climbing Fern
Ardesia crenata	Ardesia
Psidium guajava	Guava

o. SFWMD Approval Limitations
No right of review, inspection, or approval by SFWMD under this Certification: 1) shall be deemed a waiver of any of SFWMD rights under the Certification or at law or in equity; 2) shall be deemed to be an assumption of such responsibility by SFWMD for any defect, error, omission; or 3) shall relieve Licensee of its responsibility for the performance of its obligations under the Certification and the accuracy, competency, adequacy, fitness, suitability, or coordination of its post-certification responsibilities and deliverables under this Certification. Approval by any governmental or other regulatory agency or other governing body, including DEP, shall not relieve Licensee of responsibility for the strict performance of its obligations under this Certification. Licensee expressly accepts the risk that defects in its performance, if any, may not be discovered until after completion of the transmission

line project for Turkey Point Units 6 and 7. Licensee's post-certification submittal may be submitted in segments and/or on a line-by-line basis. SFWMD's failure to timely object to a particular post-certification submittal for any particular segment or line does not waive SFWMD's right to object to the same information for another post-certification submittal.

4.2.2 Central and Southern Florida Project

4.2.2.1 Communication Systems

1. Licensee's project, as described in the Site Certification Application and in post-certification submittals, shall not result in harmful interference or other adverse impacts to the South Florida Water Management District Communication System and Facilities (WMDCSF). WMDCSF refers to the SFWMD Information Technology (IT) Systems and Supervisory Control and Data Acquisition (SCADA) systems necessary for the operations and maintenance of the SFWMD and C&SF Flood Control Project. The IT Systems are the collection of microwave sites, communications towers, antenna sub-systems, microwave radios, SCADA base stations, mobile radio base stations, multiplex electronics, data internet protocol (IP) electronics, direct current (DC) power systems, standby power systems, and shelters. The SCADA systems are the collection of base radios, remote terminal unit (RTU) radios, antenna sub-systems, antenna support pole, RTUs, data loggers, wireline communications, enclosures, sensors, and instrumentation. The SCADA systems include the central software applications that monitor, control, collect, and store data.

2. Prior to initiation of detailed design, Licensee shall request an updated list of WMDCSF identifying existing and planned communication facilities within 2,000 feet of the certified transmission line corridor. "Planned communication facilities" are those facilities that are either in the construction phase or in the final construction design phase with approved funding for design.

3. Licensee shall take the WMDCSF into consideration during its design to avoid harmful interference, as defined by the FCC, or adverse impacts to WMDCSF. Adverse impacts to WMDCSF shall be defined as any manifestation of performance degradation, misinterpretation, or loss of information beyond the range of normal variation in signal strength that would not otherwise happen in the absence of unwanted energy or physical obstructions.

4. The Consulting Engineer shall take the following WMDCSF technical specifications into consideration in the proposed transmission line design. Any proposed alternatives to these specifications shall be documented in the Preliminary Evaluation Report.

a. For maintenance of microwave communications performance and reliability purposes, the design for the electrical transmission lines shall be such that:

   i. Electrical transmission line towers are not located within the 0.3F1 at K=2/3 and 1.0F1 at K=4/3 of a SFWMD microwave path (GTE Lenkurt Inc., "Engineering Considerations for Microwave Systems", Section 7, "Clearance Criteria").

   ii. Electrical transmission line conductors are not located within the first Fresnel zone of a SFWMD microwave path when the conductors are located within 2 kilometers of a microwave site (Seizawa, Y., Takeshita, K. Takeshita, S., "Influence of Microwave Scattering by Power Transmission Lines on Digital Radio Communications", IEEE Transactions on Electromagnetic Compatibility, Volume 31, No.4, pp 346-352, November 1989).

b. For maintenance of land mobile radio voice communications base station and area coverage performance and reliability purposes, the design for the electrical transmission lines shall be such that the RF noise floor, in either clear or rainy conditions, attributable to the electrical transmission lines, is not sufficient to cause harmful interference or other harmful impacts to WMDCSF.

c. For maintenance of SCADA telemetry communications performance and reliability purposes, the design for the electrical transmission lines shall be such that the RF noise floor, in either clear or rainy

conditions, is increased to an amount that reduces the fade margin for SCADA base station and RTU fade margin to less than 30 dB for the primary communications path and 20 dB for the secondary communications path (SFWMD Design Standard). For SCADA systems that have fade margins less than the SFWMD Design Standard any reduction in fade margin shall be eliminated or mitigated.

5. Licensee, in consultation with SFWMD, shall identify and retain an independent Consulting Engineer(s) with demonstrated knowledge of and/or experience with RF and SCADA communications systems such as the WMDCSF for the purpose of conducting the evaluations, including modeling and measurements, required by these SFWMD Communications Conditions (collectively referred to as the "Evaluation Program"). Licensee shall be responsible for payment of fees charged by the Consulting Engineer(s).

6. The Consulting Engineer, in consultation with Licensee and SFWMD, shall develop a scope of work and schedule to accomplish the Evaluation Program. Licensee shall submit the proposed scope of work and schedule for the Evaluation Program, together with any revisions proposed by Licensee, to SFWMD as a post-certification submittal for review pursuant to DEP General Condition XIX. At a minimum, the scope shall include:

a. Identification of the location and characteristics of all existing and planned WMDCSF within 2,000 feet of the certified transmission line corridors that have the potential to experience harmful interference or other adverse impacts from the certified transmission facilities.

b. Identification of the appropriate evaluation methodology to assess whether harmful interference or any other adverse impact to WMDCSF will occur due to Licensee's facilities.

c. The Preliminary Evaluation, shall include:

   i. Based on Licensee's preliminary design of its transmission line facilities, a modeling and analysis effort to determine the potential for transmission line harmful interference or adverse impacts to operation of the WMDCSF.

   ii. Field measurements, and review of SFWMD maintenance and performance records for the WMDCSF, to establish environmental baseline operability of the WMDCSF where the modeling and analysis in paragraph (i) above show a potential for harmful interference or adverse impacts to operation of the WMDCSF, and ambient or preexisting electromagnetic and radio-interference conditions in the vicinity of the WMDCSF. The Baseline Testing shall be conducted during the wet season or during other times as agreed upon by SFWMD and Licensee for a period sufficient to capture significant weather events and establish signal strength profiles.

d. A report that will communicate the findings of the Preliminary Evaluation, and identify specific potential interference issues that should be addressed in Licensee's final design of the transmission line facilities to avoid harmful interference or adverse impacts to WMDCSF.

e. Review of Final Transmission Line Design. The Consulting Engineer shall advise the Licensee and SFWMD of any potential harmful interference or adverse impact issues identified in the Preliminary Evaluation report that do not appear to have been addressed in the final transmission line design.

f. Construction Acceptance Test Program shall include:

   i. If construction is commenced more than two (2) years following field measurements under paragraph 6.c.ii. above, verification of baseline conditions and WMDCSF operability during the wet season immediately prior to initiation of construction.

   ii. Measurement of post-construction conditions and WMDCSF operability immediately following transmission line energization and load condition during the next wet season or during other times as agreed upon by SFWMD and Licensee.

g. Provision of methodology for collection of all test data.

h. Provision of a report from the Consulting Engineer to Licensee analyzing the pre- and post-transmission line construction testing data and communicate the findings of the Construction Acceptance Test Program, and identify any specific harmful interference or adverse impacts to the WMDCSF that Licensee must address through avoidance (i.e., redesign) or mitigation or determine that no harmful interference or adverse impacts are created by Licensee's project.

7. Sixty (60) days prior to any planned testing or invasive measurements of WMDCSF, Licensee shall submit a calendar schedule to allow for District coordination of access, water management operation change control, District observation of testing, and staff support.

8. Licensee shall submit its preliminary design of transmission facilities necessary for the evaluation in paragraph 6.c. above to the Consulting Engineer, with an informational copy to SFWMD.

9. Licensee shall submit the Preliminary Evaluation Report as a post-certification submittal for review pursuant to DEP General Condition XIX.

10. If the results of the Evaluation Program indicate that harmful interference or adverse impacts are likely to occur or are occurring, Licensee shall avoid or mitigate for such harmful interference or adverse impacts. Licensee shall either revise the design of the transmission facilities, or work with SFWMD to develop a mitigation plan for enhancement of the WMDCSF or other remedial redesign of affected WMDCSF. Should the mitigation plan involve service-affecting operations, Licensee shall develop a Cutover Plan that details the timeframes WMDCSF service will be affected and coordinate with SFWMD on scheduling activities. The Cutover Plan shall be included in the mitigation plan submitted as a post-certification submittal for review pursuant to General Condition XIX. All mitigation costs attributable to Licensee-created harmful interference or adverse impacts shall be the responsibility of Licensee. Such mitigation will be implemented on a mutually agreeable schedule upon determination that the transmission facilities will produce or are producing harmful interference or adverse impacts to WMDCSF. Design and mitigation solutions to offset adverse impacts to existing and planned WMDCSF shall be submitted to SFWMD as a post-certification submittal pursuant to DEP General Condition XIX and may include, but are not limited to:

a. Redesign of Licensee's transmission facilities, such as upgrades to the phase-conductor design to lower the corona-produced radio frequency interference generated by the transmission lines, relocation of poles, and changing height of phase conductors.

b. Enhancements to SFWMD's system, such as larger antennas; raising, lowering, adjusting or relocating SFWMD's antennas, antenna-mounting structures, poles, or transmitters; a dedicated fiber optic circuit or communications link to be deployed during and/or after Licensee's construction activities; temporary facilities and systems to maintain operations during construction; relocating or hardening of SCADA monitoring stations; working with SFWMD to enhance the communication system signal strength or coverage areas near the transmission facilities.

c. An implementation schedule.

11. Licensee shall submit its final transmission line design to SFWMD as a post-certification submittal pursuant to DEP General Condition XIX and to the Consulting Engineer at least ninety (90) days prior to commencement of construction, identifying design features that have been incorporated to address all potential harmful interference issues or adverse impacts identified in the Consulting Engineer's report under paragraph 6.d. above.

12. Licensee shall submit the report of the Construction Acceptance Test Program, together with any Licensee comments, to SFWMD as a post-certification submittal for review pursuant to DEP General Condition XIX.

13. Licensee shall immediately investigate all complaints of harmful interference or other adverse impacts disrupting communications through any portion of WMDCSF in proximity to Licensee's certified transmission facilities. If such investigation indicates the harmful interference or other adverse impacts are caused by Licensee's transmission lines, Licensee shall implement appropriate mitigation.

4.2.2.2 Operations & Maintenance / Right-of-Way

The term "SFWMD right(s)-of-way" when used in this report is intended to mean those lands acquired by SFWMD in fee, easement, or other type of grant, for the purpose of operations and maintenance of SFWMD's canal and levee system, spoil areas, and access and other easements. Reference: Chapter 40E-6, F.A.C.

1. General Conditions

   a. At least ninety (90) days prior to the commencement of construction of any portion of the transmission lines on SFWMD right-of-way; Licensee shall provide SFWMD with the final right-of-way location within the certified corridor. Reference: Sections 373.085(1) and 373.413(2), F.S.

   b. At least ninety (90) days prior to the commencement of construction of any portion of the transmission lines over, across, or using any SFWMD canal or levee right-of-way to facilitate the construction or maintenance of the transmission line, Licensee shall submit complete scaled or fully-dimensioned 8½" x 11" drawings to SFWMD showing the proposed facilities for SFWMD review for compliance with the non-procedural requirements of Chapter 40E-6, F.A.C. The drawings shall depict the proposed electrical transmission line crossings along with the adjacent towers or support structures, in both plan and profile views, and shall show, at a minimum, information consistent with Appendix E-1A and E-2 of the Criteria Manual for Use and Occupancy of Works of the District. Reference Sections 373.085, 373.086, and 373.413(2), F.S.

   c. Prior to use of SFWMD right-of-way for construction access, the Licensee shall provide a time schedule for use of the right-of-way, including a plan identifying the proposed route, type, and number of vehicles and the frequency of such use. Reference: Section 373.085 and 373.086, F.S.; Rules 40E-6.091(1) and 40E-6.201(1)(j), F.A.C.

   d. The Licensee shall maintain the area of SFWMD right-of-way utilized for access or occupied by Licensee's facilities at all times in a condition as good or better than the condition existing prior to Licensee's use. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

   e. If deemed necessary to accommodate unimpeded continuous access by SFWMD vehicles and equipment, the Licensee shall construct vehicle turn-around/passing areas to meet SFWMD requirements or coordinate with SFWMD when construction activities that may impede access are scheduled to occur. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

   f. Vertical clearances for any aerial crossings over SFWMD canals and rights-of-way shall meet SFWMD non-procedural criteria and requirements in effect at the time of Licensee's submittal of drawings in sub-paragraph (b) above, as set forth in Chapter 40E-6, F.A.C. Reference: Sections 373.085(1) and 373.086(1), F.S.; Rule 40E-6.091, F.A.C.; and Criteria Manual for Use and Occupancy of Works of the District.

   g. Subsequent to Certification, any requests for use of SFWMD right-of-way that would otherwise require a waiver to SFWMD Right Of Way Occupancy Permit Criteria, as set forth in Rule 40E-6, F.A.C., if deemed acceptable by SFWMD in writing shall not require an amendment or modification to this Certification. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

   h. The Licensee is responsible for identifying potential conflicts with existing facilities owned by third parties permitted by SFWMD and for coordinating relocation of previously permitted facilities, as required, including obtaining the necessary right-of-way occupancy permit modifications for those previously permitted facilities. Similarly, if during the course of future permit application reviews,

SFWMD notices a proposed facility that potentially interferes with the transmission lines, SFWMD will require the applicant to coordinate with Licensee to resolve potential conflicts. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

i. The Licensee shall only have the right to utilize SFWMD right-of-way for those activities, uses, and purposes specifically authorized in this Certification for the purpose of construction, operation, and maintenance of the certified transmission facilities unless otherwise agreed to by SFWMD and Licensee in writing. All other activities, uses, and purposes on SFWMD right-of-way by Licensee not specifically authorized in this Certification are prohibited. Furthermore, the Licensee shall not have the right to authorize any other person or entity to utilize SFWMD right-of-way for any activity, use, or purpose without the prior written consent of SFWMD. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

j. SFWMD reserves the right of priority access in order to perform its regional water management missions and the Licensee shall not interfere with that access, particularly during emergencies. Uninterrupted SFWMD access shall be maintained at all times. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, and Rule 40E-6.381, F.A.C.

k. The Licensee does not have any authority to incur liens for labor or materials on SFWMD rights-of-way. All persons contracting with the Licensee, all material, men, contractors, mechanics, and laborers are hereby charged with notice they must look to the Licensee, and to the Licensee only, to secure the payment of any bill for work done or any materials furnished during the term of this Certification. Pursuant to Sections 713.01(26), F. S., SFWMD right-of-way shall not be subject to liens for improvements and such liability is expressly prohibited. This paragraph shall be included in all contracts with the Licensee for materials or services involving SFWMD right-of-way. In the event that the Licensee does not, within thirty (30) days following Licensee's notice the imposition of any such lien, cause the same to be released of record by payment or posting of a bond or other means acceptable to SFWMD, SFWMD shall have, in addition to all other remedies provided herein and by law, the right, but not the obligation, to cause the same to be released by such means as it shall deem proper, including payment of the claim giving rise to such lien. All such sums paid by SFWMD, including, but not limited to reasonable attorney's fees and expenses incurred by it in connection therewith, together with interest at the maximum rate allowed by law, shall be payable to SFWMD by the Licensee on demand. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

l. SFWMD, its Governing Board members, employees, contractors, and subcontractors, are not responsible or liable for any claims by the Licensee, or any partner, parent, affiliate, or subsidiary, for damages (including special and consequential), loss, expense, or costs with respect to the Licensee's project or other property or improvements arising directly, indirectly, or proximately from water level fluctuations, water flows, or operations of water control structures, if operated in compliance with the USACE Master Water Control Manual for the C&SF Project and the Operations and Maintenance (O&M) Manual for the C&SF Project. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

m. Licensee shall be responsible for the increased cost that SFWMD incurs in the event of canal improvements including, but not limited to, widening, installing, repairing, or replacing culverts, levees or other SFWMD facilities within the SFWMD right-of-way. as may be necessary in the future to implement public health, safety and welfare related modifications associated with operation and maintenance of the Central and Southern Florida Flood Control Project, due to Licensee's facilities or uses being located within the SFWMD right-of-way The increased cost shall be determined by SFWMD requiring its contractor (selected as the lowest responsive and responsible bidder) to provide the following information: an estimate based on work being performed assuming no facilities in place, and the accepted bid based on the work being performed with the facilities in place. The difference between the estimate and the bid constitutes SFWMD's increased cost. The Licensee shall pay SFWMD's increased cost no later than thirty (30) days after receipt of written notice from SFWMD of the amount of the increased cost, the amount of the estimate, the bid submitted by the Contractor, and the name of the contractor submitting the bid. SFWMD shall provide the Licensee notice if its intent to solicit the

aforementioned bids at least sixty (60) days prior to requesting proposals from contractors. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

n. The Licensee shall only use the access points and gates authorized by SFWMD. Upon payment of applicable key deposit fees and submission of complete key permit applications, SFWMD agrees to issue, as a ministerial act, Licensee the necessary key permits allowing access to SFWMD roads to support the construction, operation, and maintenance needs of the Licensee. The Licensee shall take all necessary measures practicable to preclude the general public from accessing those portions of the right-of-way under construction such as posting of designated construction zones. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

o. Licensee shall not utilize SFWMD right-of-way for the general servicing or maintenance of its vehicles or construction equipment or for the storage of any contaminant, hazardous substance, fuel, or other petroleum products unless agreed to by SFWMD in writing. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

p. To the extent practicable, Licensee shall expedite the preparation and implementation of any repair, remediation, mitigation, and/or related plans required to address damages and/or any other adverse impacts to SFWMD facilities or systems caused by the Licensee during the design, construction, operation, and/or maintenance of the certified facilities. The time frames specified in these conditions shall be considered maximum allowable time frames, unless adjusted by mutual agreement between SFWMD and Licensee. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

2. Standard Limiting Conditions
Reference: Sections 373.044, 373.113, 373.085(1), 373.086, 373.103, 373.129, and 373.603, F.S.; Rule 40E-6.381, F.A.C.

a. All structures on SFWMD works or lands constructed by Licensee shall remain the property of Licensee, who shall be solely responsible for ensuring that such structures and other uses remain in good and safe condition. The Licensee is advised that other federal, state, and local safety standards may govern the occupancy and use of SFWMD lands or works. SFWMD assumes no duty with regard to ensuring that such uses are so maintained and assumes no liability with regard to injuries caused to others by any such failure. Reference: Rule 40E-6.381(1), F.A.C.

b. Licensee solely acknowledges and accepts the duty and all associated responsibilities to incorporate safety features that meet applicable engineering practice and accepted industry standards into the design, construction, operation, and continued maintenance of the authorized facilities/use. This duty shall include, but not be limited to, the Licensee's consideration of SFWMD regulation and potential fluctuation, without notice, of water levels in canals and works, if operated in compliance with the USACE Master Water Control Manual for the C&SF Project and the Operations and Maintenance (O&M) Manual for the C&SF Project as well as the Licensee's consideration of upgrades and modifications to the authorized facilities/use that may be necessary to meet any future changes to applicable engineering practice and accepted industry standards. The Licensee acknowledges that SFWMD review of this project including, but not limited to, any post-certification reviews and field inspections performed by SFWMD, does not in any way consider or ensure that the authorized use/facilities are planned, designed, engineered, constructed, or will be operated, maintained or modified so as to meet applicable engineering practice and accepted industry standards, or otherwise provide any safety protections. The Licensee further acknowledges that any inquiries, discussions, or representations, whether verbal or written, by or with any SFWMD staff or representative during the post-certification review process, including, but not limited to, any field inspections, shall not in any way be relied upon by Licensee as SFWMD assumption of any duty to incorporate safety features, as set forth above, and shall also not be relied upon by the Licensee in order to meet Licensee's duty to incorporate safety features, as set forth above. Reference: Rule 40E-6.381(2), F.A.C.

c. The Licensee shall not engage in any activity regarding the authorized use that interferes with the construction, alteration, maintenance, or operation of the works of the SFWMD, including:

i. discharge of debris or aquatic weeds into the works of the SFWMD;

ii. causing erosion or shoaling within the works of the SFWMD;

iii. planting trees or shrubs or erecting structures that limit or prohibit access by SFWMD equipment and vehicles, except as may be authorized by this Certification.

iv. leaving construction or other debris on SFWMD right-of-way or waterway;

v. damaging SFWMD berms and levees; removal of SFWMD-owned spoil material; removal of or damage to SFWMD locks, gates, and fencing; opening of SFWMD rights-of-way to unauthorized vehicular access; or running or allowing livestock on SFWMD rights-of-way.

Licensee shall be responsible for any costs incurred by the SFWMD resulting from any such interference, as set forth in i through v above. Reference: Rule 40E-6.381(8), F.A.C.

Should the authorized activities or placement of the authorized facilities within SFWMD right-of-way or maintenance of same contribute to sloughing, erosion, or wash-outs of SFWMD right-of-way, berm, or side slope of the canal, it is the Licensee's sole responsibility and expense to, upon notification from SFWMD, immediately take appropriate steps to restore the right-of-way to pre-existing conditions or better using current SFWMD engineering standards provided by SFWMD as guidance. Site-specific engineering considerations and decisions shall be undertaken by the Professional Engineer in charge (i.e., for backfill material, density/compaction, stabilization, and maintainability).

d. SFWMD is not responsible for any personal injury or property damage that may directly or indirectly result from the use of water from SFWMD's canal or any activities that may include use or contact with water from the SFWMD canal, since SFWMD periodically sprays its canals for aquatic weed control purposes and uses substances that may be harmful to human health or plant life. Reference: Rule 40E-6.381(9). F.A.C.

e. SFWMD has the right to change, regulate, limit, schedule, or suspend discharges into, or withdrawals from, works of the SFWMD in accordance with criteria established by SFWMD or USACE for the works of the SFWMD. Reference: Rule 40E-6.381(13), F.A.C.

f. Licensee shall be responsible for the repair or replacement of any existing facilities located within SFWMD right-of-way that are damaged as a result of Licensee's installation or maintenance of the authorized facilities. Reference: Rule 40E-6.381(19). F.A.C.

g. It is the responsibility of the Licensee to make prospective bidders on construction contracts for the certified facilities aware of the pertinent terms and conditions of this Certification. Reference: Rule 40E-6.381(21). F.A.C.

3. Special Conditions
Reference: Sections 373.044, 373.113, 373.085(1), 373.086, 373.103, 373.129, and 373.603, F.S.; Rule 40E-6, F.A.C.

a. A copy of the Certification application, Certification order, and SFWMD post-certification submittals will be available for review by SFWMD upon request.

b. At no time shall Licensee place permanent or semi-permanent above-ground encroachments or facilities within the 40-foot-wide strip of land lying parallel to any SFWMD canal as measured from the top of the existing canal bank landward, unless otherwise authorized in this Certification or agreed to by SFWMD in writing.

c. At no time shall Licensee place facilities crossing over SFWMD structures or project culverts, unless otherwise authorized in this Certification or agreed to by SFWMD in writing.

d. At no time shall Licensee place permanent or semi-permanent above-ground structures within SFWMD one-hundred (100) foot-long equipment staging areas defined as being immediately upstream and downstream of all bridges and pile-supported utility crossings of SFWMD canals, unless otherwise authorized in this Certification, or agreed to by SFWMD in writing. Temporary placement of equipment or materials is allowable as long as the equipment or materials can be removed by Licensee within forty-eight (48) hours of notice given by SFWMD that a tropical storm watch has been declared for Miami-Dade County or at times when post-storm debris removal activities must be undertaken by SFWMD.

e. Within thirty (30) days of completion of the authorized work, the Licensee shall contact the SFWMD field representative at the Miami or Homestead Field Station to schedule a final inspection for compliance with right-of-way conditions of certification.

f. For culvert connections to SFWMD works, the Licensee shall comply with the following:

   i. The crown of the authorized connection shall be set at a minimum of one-half foot below the design water surface elevation or lower.

   ii. The top of the rip-rap headwall must match the elevation of the existing ground.

   iii. The Licensee shall construct the endwall/headwall to include adequate returns to prevent erosion.

   iv. The Licensee shall take all feasible measures acceptable to SFWMD to prevent the discharge of debris or aquatic weeds into SFWMD works by the authorized use.

   v. All culverts 36 inches in diameter or larger that serve to connect to works of the SFWMD must be equipped with a skimmer or baffle that effectively precludes the discharge of aquatic weeds into SFWMD works by the authorized use.

   vi. Licensee is solely responsible for maintenance of the skimmer or baffle.

   vii. Licensee shall adequately identify all culvert connections with a permanent type, aboveground marker placed within SFWMD right-of-way at location(s) specified by the SFWMD field representative.

   viii. Culverts to be installed in association with structure pads and pad access ramps connecting to SFWMD levee access roads shall be of adequate design to prevent adverse impacts to wetlands or weakening of the levee due to impoundment of water.

g. Licensee shall comply with the following requirements during use of SFWMD right-of-way for construction maintenance, and operation activities:

   i. Prior to commencement of construction or utilization of SFWMD right-of-way, the Licensee is required to contact the SFWMD field representative at the Miami or Homestead Field Station to schedule a pre-construction meeting. The Licensee shall prepare and present the following at the pre-construction meeting:
      (a) A list of 24-hour contact personnel. The list shall include the contractor and alternate contact, their titles, and telephone numbers for 24-hour contact.

      (b) A written inventory of the type of vehicles, construction equipment, other machinery, and materials that will be located within SFWMD right-of-way.

      (c) Written procedures for the clearing of all construction materials, machinery, equipment, and

vehicles from the canal and the area immediately adjacent to the canal within 24 hours notice from SFWMD.

(d) A list of the names and contact numbers of the designee and alternate contact responsible for the various operations involved in the clearing procedures.

ii. This authorization is for the use of the Licensee and the Licensee's contractor(s)/sub-contractor(s) only.

iii. The Licensee shall be responsible for locking SFWMD access gates upon entering and leaving SFWMD right-of-way. The Licensee shall take all necessary measures to preclude the general public from accessing the right-of-way with motorized vehicles.

iv. The Licensee is responsible for posting a watchman at any SFWMD vehicular access gates unlocked by Licensee during any working hours that the gate remains unlocked. At no time shall a SFWMD gate unlocked by Licensee be left unlocked and unattended by Licensee.

v. The Licensee is responsible for providing and utilizing acceptable dust control measures during the duration of the proposed work.

h. The Licensee shall comply with the following concerning storm event notifications and requirements during construction activities:

i. If storm, hurricane, or emergency circumstances are developing, SFWMD will attempt to provide a 48-hour notice. The Licensee will be contacted by telephone or a visit to the construction site wherein the Licensee will be informed of the emergency situation. The Licensee is put on notice that the 48-hour notice is a warning that SFWMD may or may not be able to provide the Licensee.

ii. If storm, hurricane, or emergency circumstances have developed, SFWMD will contact the Licensee by telephone or visit the site to place the Licensee on 24-hour alert. At this time, the Licensee and the Licensee's contractor(s) and sub-contractor(s) must begin securing the project site in accordance with Special Condition g.i.(c) of this subsection.

iii. The Licensee is advised that SFWMD's hurricane, storm event, and/or emergency alert may differ from the National Hurricane Center or the local news and weather. SFWMD takes into consideration the numerous factors concerning construction within the canal rights-of-way. As such, upon SFWMD notification to the Licensee of a pending emergency, storm event, or hurricane, the Licensee has 24 hours or less to comply with SFWMD orders.

i. In the event of floods or other natural or civil disaster or emergencies affecting SFWMD or SFWMD right-of-way, the Licensee shall cooperate with SFWMD to facilitate mitigation of the impact of such emergencies. The Licensee shall immediately notify SFWMD of any emergency situation observed on SFWMD right-of way.

j. Licensee shall be responsible for obtaining any and all other necessary federal, state, local, special district, private, and underlying owner authorizations in connection with its activities conducted under this Certification. In the event the Licensee does not obtain such authorizations from the underlying owner, the Licensee shall acquire or otherwise satisfy any interest or claims made by such underlying owners with respect to this Certification.

k. If required by the Florida Department of Transportation (FDOT) to prepare a Maintenance of Traffic (MOT) Plan that involves SFWMD property, the Licensee shall provide SFWMD with a copy of the MOT Plan upon submittal to FDOT. The Licensee shall provide SFWMD with a copy of the Final MOT Plan reviewed by the FDOT.

l. Licensee shall be required to install facilities in accordance with minimum clearance requirements specified in SFWMD Criteria Manual for Use or Occupancy of Works of the District, Including Section XIV, Appendix E-1, in effect at the time of design of the certified transmission lines for crossing Works of the District, unless otherwise agreed in writing.

m. Licensee acknowledges that Licensee's proposed activities contemplated under this Certification may be subject to USACE 33 U.S. Code Section 408 approval requirements. Licensee further acknowledges and agrees, that in the event of future USACE projects or modification of existing USACE projects, it shall be the responsibility of the Licensee to implement any and all necessary modifications to Licensee's facilities including, but not limited to, relocations thereof required by the USACE at Licensee's sole cost and expense.

4.2.3 Land Management / Ecosystem Restoration

1. The Licensee shall avoid impacting wetlands to the extent practicable. When necessary and feasible, the location of the span between power poles shall be maximized or varied to eliminate or reduce wetland impacts. Reference: Section 373.1391, F.S.; Rules 40E-4.301 and 40E-4.302, F.A.C; Basis of Review for Environmental Resource Permits, Section 4.0.

2. On SFWMD lands, the Licensee shall employ at-grade roads, geoswales that would not extend above existing wetland grades, elevated roadways to bridge slough features, or other appropriate construction methods or techniques to maintain historical drainage patterns and sheetflow, to the extent practicable. For those areas where wetland impacts will occur, wetland control elevations shall be established to maintain or improve pre-construction hydroperiods within all affected areas. Reference: Section 373.1391, F.S.; Rules 40E-4.301 and 40E-4.302, F.A.C.; Basis of Review for Environmental Resource Permits, Section 4.2.3.3.

3. The Licensee shall, to the extent practicable, use adjacent existing public roads for access to the right-of-way for construction, operation, and/or maintenance purposes before using non-public roads or building new roads. Reference: Section 373.1391, F.S.

4. At new access points created by Licensee's transmission facilities, transmission line access roads shall be designed to include locked gates, or other appropriate methods or techniques to prevent illegal access to SFWMD-owned lands including but not limited to lands within Model Lands, Southern Glades, and Pennsuco Wetlands. Licensee shall maintain these access points by repairing illegal breaches within thirty (30) days of being notified of or discovering such breaches. Reference: Section 373.1391, F.S.

5. Upon request by Licensee prior to final design of the certified transmission facilities, SFWMD shall provide Licensee with a list of SFWMD lands that are subject to planned burns. SFWMD shall provide advance notice to Licensee of any planned burns in the vicinity of the certified transmission rights-of-way. Reference: Section 373.1391, F.S.; Rule 40E-6.311, F.A.C.

6. Licensee shall provide SFWMD with final construction drawings of all Licensee's facilities that encroach or cross SFWMD lands, works, or projects. Reference: Sections 373.085(1)(b) and 373.1391, F.S

4.2.4 Water Use

1. Prior to the commencement of construction of those portions of the project that involve dewatering activities, unless the proposed dewatering activity meets the "no notice" criteria of Rule 40E-20.302 (3), F.A.C. and Section 2.5.1 of the Basis of Review for Water Use Permits, the Licensee shall submit a detailed plan for the proposed dewatering activities to SFWMD for an assessment of consistency with the non-procedural requirements of Chapters 40E-2, 40E-3 and 40E-20, F.A.C., in effect at the time of submittal and impact monitoring if necessary (Rule 62-17.133, F.A.C.). The following information, referenced to North American Vertical Datum of 1988 (NAVD88) where appropriate, shall be submitted:

a. A detailed site plan that shows the location(s) for each proposed dewatering area

c. The maximum depth for each dewatering operation
d. The location and specifications for all proposed wells and/or pumps associated with each dewatering operation
e. The duration of each dewatering operation
f. The discharge method, route, and location of receiving waters generated by each dewatering operation, including the measures (Best Management Practices) that will be taken to prevent water quality problems in the receiving water(s)
g. An analysis of the impacts of the proposed dewatering operations on any existing on and/or off-site legal users, wetlands, or existing groundwater contamination plumes
h. The location of any infiltration trenches and/or recharge barriers

All plans must be signed and sealed by a Professional Engineer or a Professional Geologist registered in the state of Florida

4.3 Corridor-Specific Conditions

4.3.1 East Preferred Corridor

4.3.1.1 Central and Southern Florida Project

Licensee has proposed to cross SFWMD C-2 (Snapper Creek) Canal with its transmission facilities just west of SW 70th Avenue or in the vicinity of U.S. Highway 1. Conditions 1 and 2 below apply to these locations, respectively.

1. Licensee may install the electrical transmission line support structures parallel to and within the SFWMD C-2 Canal right-of-way north of the Dadeland Mall only between the Palmetto Expressway and 70th Avenue, provided that: 1) conductors shall not overhang any part of the Canal; 2) Licensee's placement of permanent or semi-permanent structures within SFWMD staging areas must comply with paragraph 4.2.2.2 3) d) above; and 3), Licensee's placement of electrical transmission line support structures shall not impair the integrity of the C-2 canal bank or side slope or reduce the conveyance capacity of the C-2 canal. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

2. Licensee may install transmission facilities that cross the C-2 Canal on the east side of U.S. Highway 1. However, due to existing SFWMD C-2 Canal and right-of-way access and maintenance constraints in the vicinity of U.S. Highway 1 Licensee shall consult with and obtain written concurrence from SFWMD for transmission facilities to be installed on the west side of U.S. Highway 1. Reference: Sections 373.085 and 373.086, F.S.; Chapter 40E-6, F.A.C.

4.3.2 West Preferred Corridor

4.3.2.1 Protection of Everglades Habitat Associated with CERP Restoration

1. Aerial Surveys. SFWMD adopts and incorporates by reference Florida Fish and Wildlife Conservation Commission (FWC) condition G, "Wood Stork and Wading Bird Colonies", in its entirety.

2. Ground Surveys. In conjunction with FWC Condition G, Licensee shall conduct ground surveys of wood storks during nesting for currently-known colonies along Tamiami Trail (East 1, East 2, and West) and the 3B Mud East colony. The ground surveys shall be conducted prior to and during fledging of juvenile wood storks.

3. Licensee shall consult with SFWMD prior to finalizing design of aerial and ground surveys.

4. Licensee shall provide SFWMD copies of all post-certification submittals, including the ground and aerial surveys referenced in Conditions 1 and 2 herein, in accordance with time frames set forth in DEP General Condition XIX.

5. Licensee shall provide SFWMD a calculation of wood stork foraging habitat loss based on application of the United States Fish and Wildlife Service (USFWS) Habitat Assessment Foraging Model developed specifically for South Florida and a mitigation plan. Licensee shall consult with SFWMD prior to the plan being finalized.

4.3.2.2 Central and Southern Florida Project

1. L-29 / L-30 / L-31N Levee Procedures / Requirements

   a. Pre-Construction Surveys / Inspections

      i. Within thirty (30) days of written request from the Licensee, SFWMD shall provide the Licensee with a copy of the most recent levee inspection reports for the levees within SFWMD right-of-way that the Licensee is proposing to access for construction and/or maintenance activities.

      ii. In areas where the transmission line access will be located on SFWMD levee(s), the Licensee shall conduct surveys, including a level survey at the toe and crest of the levee and cross-section surveys every 500 feet (including both toes of the levee) and at locations agreed between SFWMD and Licensee as potential problem areas. Potential problem areas will be identified by visual inspection or where there are significant changes proposed to the levee. Upon completion of the surveys, Licensee shall submit certified, signed, and sealed copies of the surveys to SFWMD. The surveys will be used to establish a baseline of the pre-construction topographic features of the levee(s) including, but not limited to, top-of-levee width and elevation and side slopes in NAVD88. If any post-certification submittals are provided prior to 2014, the Licensee shall consult with SFWMD concerning the need to include National Geodetic Vertical Datum of 1929 (NGVD29) measurements in addition to NAVD88 measurements. The surveys shall document the condition of the levee(s) with respect to the most recent East Coast Protection Levee Evaluation Report at the time of the surveys. As an alternative, the Licensee can use surveys conducted by SFWMD, if the studies were completed less than three (3) years prior to the Licensee's anticipated construction commencement date.

      iii. In addition to surveys, the Licensee shall also perform a visual inspection of the levee(s), documented by videotape or photographs, to assess the structural integrity of the levee(s). Where video or photographic documentation is used, station markers and GPS coordinates should be installed or used so that exact locations can be determined for reference.

      iv. If Licensee surveys, visual inspection, or other assessment methods indicate, that further investigation is needed to accurately assess the integrity of the levee(s), Licensee shall conduct additional investigations in consultation with SFWMD. Further investigations may include, but shall not be limited to, soil borings, piezometer installations/monitoring, laboratory tests, modeling, etc. The Licensee shall provide its written findings, conclusions, and recommendations, certified by a Florida-registered Professional Engineer, to SFWMD. Licensee shall conduct additional investigations or assessments, as necessary, to satisfy SFWMD non-procedural requirements, prior to any construction activities on SFWMD levees.

   b. Pre-Construction Safety, Maintenance, and Construction Plans

      i. Prior to construction of the certified electrical transmission line facilities, the Licensee shall provide SFWMD with a Levee Safety and Maintenance Plan that addresses steps the Licensee will take to maintain the integrity of the levee(s), including any improvements proposed by the Licensee. The Plan shall be reviewed by SFWMD for compliance with the applicable SFWMD non-procedural requirements.

      ii. Prior to construction of the certified electrical transmission line facilities, the Licensee shall provide SFWMD with a Levee Construction Plan that addresses the steps the Licensee will take in constructing the certified transmission line facilities. The Plan shall be reviewed by SFWMD for compliance with the applicable SFWMD non-procedural requirements.

c. Pre-Construction Levee Improvement Standards/Requirements

i. Any improvements made by the Licensee within SFWMD L-29, L-30, and L-31N Canal rights-of-way shall be performed such that the structural integrity of the levee(s) shall be maintained to a level as good as or better than the conditions in existence immediately prior the Licensee's commencement of work activities, as documented pursuant to Section 4.3.2.2. 1 (General Conditions). For construction of any proposed improvements, Licensee may be required to first obtain approval from USACE, as set forth in 33 U.S. Code, Section 408 and pursuant to Section 4.2.2.2, 3 (Special Conditions), j.

ii. Licensee shall not commence construction activities on SFWMD rights-of-way without prior post-certification review by SFWMD of Licensee Levee Safety and Maintenance Plan and Levee Construction Plan. In the event that SFWMD identifies any non-compliance with SFWMD applicable non-procedural requirements in these plans, SFWMD shall within ninety (90) days identify any applicable requirements that SFWMD believes the Licensee's improvements do not satisfy.

d. Monitoring and Structural Integrity During Construction

i. Pre-existing or latent defects related to the structural integrity of the levee(s), identified by Licensee's investigations, shall be remedied by SFWMD through its routine maintenance schedules, if deemed necessary by SFWMD. If not deemed necessary by SFWMD, any pre-existing or latent defects shall be remedied by the Licensee, if deemed necessary by the Licensee. If not deemed necessary by the Licensee, any pre-existing or latent defects shall be monitored by the Licensee throughout construction of the certified electrical transmission line facilities in the vicinity of the levee(s). Any further deterioration or changes to the levee(s) found as a result of Licensee's monitoring of the levee(s) conditions that could be detrimental to the integrity of the levee(s) shall be immediately communicated in writing to SFWMD. If the further deterioration or changes are caused by the Licensee's construction activities, the further deterioration or changes shall be remedied by the Licensee to pre-construction conditions or better as documented in Section 4.3.2.2, 1 (General Conditions) of this subsection.

ii. SFWMD reserves the right to halt any and all construction activities due to concerns related to the structural integrity of the levee(s). If SFWMD requires a halt to construction activities, SFWMD shall provide the Licensee with a description of its concerns regarding the structural integrity of the levee(s) within forty-eight (48) hours of the halt, including the alleged causes of concern and potential remedies for the Licensee to consider. Following the halt of construction activities, the Licensee shall provide SFWMD with a proposed Remedial Construction Plan that addresses SFWMD concerns within three (3) working days or such longer time as agreeable to both SFWMD and Licensee. SFWMD failure to respond to Licensee within five (5) working days after Licensee's submittal of the Remedial Construction Plan shall constitute SFWMD confirmation that Licensee's Remedial Construction Plan complies with SFWMD applicable non-procedural requirements.

e. Damages During Construction

i. The Licensee shall be responsible for the repair or replacement of SFWMD L-29, L-30, or L-31N levees damaged as a result of Licensee's construction, operation, or maintenance of the certified electrical transmission line facilities, including SFWMD access to the levees. Repair of damages to the levee(s) that occurs during the Licensee's construction activities in location(s) not identified by the Licensee's pre-construction investigation as having pre-existing or latent defects shall be the responsibility of the Licensee and the Licensee shall commence repair work promptly.

f. Inspections During and After Construction

i. SFWMD personnel shall have access and the opportunity to inspect improvements to the L-29, L-

30, and L-31N Canal levees during construction or operation at all times. Licensee shall engage a third-party inspector to conduct SFWMD post-construction inspection, jointly selected by SFWMD and Licensee. The purpose of the post-construction inspection will be to confirm that Licensee has maintained or returned the L-29, L-30 and L-31N levees to as good as or better than pre-construction conditions as documented in Section 4.3.2.2, 1 (General Conditions). If any SFWMD inspections will interfere with Licensee construction activities, advance notification of such inspections should be given.

g. Post-Construction

i. Licensee shall provide as-built drawings showing all levee improvements within the L-29, L-30, and L-31N canal rights-of-way within ninety (90) days of completion of each phase of construction. The as-built drawings shall be signed and sealed by a Florida-registered Professional Engineer and shall be referenced to NAVD88. Licensee and SFWMD may use the drawings as a reference for maintenance or improvements of ingress and egress areas to the levees that are utilized by the Licensee for ongoing operation of the adjacent electrical transmission line facilities, or until modified/utilized by other parties.

ii. If Licensee's improvements within SFWMD canal rights-of-way are modified / utilized by parties other than the Licensee, the Licensee shall not be responsible for any impacts to the levee(s) caused by such third party use. The third party user and/or SFWMD shall be responsible for approval of any changes to the as-built drawings to reflect said third party use of the Licensee's improvements.

2. Licensee's use or occupancy of SFWMD real property interests subject to the "Cooperation Agreement By and Between Florida Power and Light Company and the South Florida Water Management District Regarding Licensee's Utility Corridor Within the Everglades National Park Expansion Area", dated August 21, 2008 (Resolution No. 2008-640), referred to hereinafter as "the 2008 Agreement", is contingent upon Licensee reaching separate binding agreements with the third parties referenced in the 2008 Agreement. Regardless of whether the 2008 Agreement is ultimately binding, Licensee shall be limited to the terms and conditions as set forth in the 2008 Agreement or as mutually agreed in writing between Licensee and SFWMD.

3. Unless authorized in this certification or mutually agreed in writing between Licensee and SFWMD authorized representative, electrical transmission line support structures and overhead wires shall not be placed on the east sides of the L-30 and L-31N canal rights-of-way between S.W. 120th Street and the southern boundary of the Krome Avenue access corridor, with the exception of aerial wire crossings for the Clear Sky-Levee #1 and #2 500 kV transmission lines and the Clear-Sky Pennsuco 230 kV transmission line over the east side of the L-30 Canal, immediately south of and adjacent to the southern boundary of the Krome Avenue Access Corridor.

4. Unless authorized in this certification or mutually agreed in writing between Licensee and SFWMD authorized representative, within the West Preferred Corridor, access shall be restricted to the west sides of the L-30 and L-31N canals. Longitudinal access on the east sides of the L-30 and L-31N Canals is prohibited, except for Krome Avenue.

5. The Licensee shall comply with the following conditions concerning use of the Ratner Bridge, S-334 service bridge, and S-335 service bridge:

a. The Licensee's proposed use is secondary to SFWMD and USACE proposed use and shall not interfere with SFWMD proposed use.

b. The Licensee shall inspect the bridges prior to and after construction activities in accordance with FDOT standards.

c. Prior to construction, the Licensee shall provide load rating calculations for specific high frequency and special vehicles that will need to use the bridges.

d. Maximum load criteria shall not be exceeded.

e. Prior to construction, the Licensee shall provide SFWMD with videos and/or photographs documenting the condition of the bridges.

f. The Licensee shall be responsible for paying the cost of any necessary bridge improvements required to accommodate Licensee's activities.

g. The Licensee shall be responsible for repairing or paying the cost of repairing any damage to the bridge as a result of Licensee's activities. Within thirty (30) days of completion of construction activities, the bridge and its immediate surroundings shall be restored to its original condition prior to construction, including, but not limited to, concrete/asphalt repairs, canal bank repairs, gravel, and sod.

h. The Licensee shall provide SFWMD with uninterrupted access acceptable to SFWMD for the duration of any necessary repair work.

i. The Licensee shall obtain consent from the underlying fee owners for use of lands adjacent to the Ratner Bridge and related access road and shall submit a copy of said documentation to SFWMD prior to use.

j. Prior to Licensee's use of the S-334 and S-335 service bridges, Licensee shall submit to SFWMD a Bypass Pumping Plan. The Plan shall address, to SFWMD's satisfaction, bypass pumping, in the event water control structures S-334 or S-335 are damaged as a result of Licensee's use thereof, such that the conveyance capability of water control structures S-334 or S-335 is impacted. The Bypass Pumping Plan must contemplate on-site facilities in order to effectuate immediate implementation in the event of damage to the S-334 or S-335 water control structures.

6. Transmission line support structures (poles) shall be placed a minimum of forty (40) feet from the toe of the water conservation area side of the levee.

4.3.2.3 Land Management / Ecosystem Restoration

1. At least thirty (30) days prior to construction of the transmission line segments that are along SFWMD L-29, L-30, or L-31N levees, Licensee shall submit a construction schedule and a coordination plan to SFWMD for review and post-certification compliance. The coordination plan will be for the purpose of coordinating Licensee and SFWMD construction activities in areas where both entities will have ongoing simultaneous construction activities. Reference: Sections 373.1391, 373.1501(4)(d), 373.1502(2)(a), and 373.4592, F.S.

2. Prior to final design of the certified transmission facilities, Licensee shall consult with SFWMD regarding design and placement of transmission line support structures and access roads between the Krome Avenue Detention Center and the southern limits of the existing rock mines owned by Kendall Properties and Investment within Licensee's West Preferred Corridor. Reference: Sections 373.1501(4)(d), 373.1502(2)(a) and 373.4592, F.S.

4.3.3 West Secondary Corridor

4.3.3.1 Protection of Everglades Habitat Associated with CERP Restoration

Conditions 1-5 in section 4.3.2.1 also apply to the West Secondary Corridor.

4.3.3.2 Land Management / Ecosystem Restoration

1. Within Water Conservation Area 3B, in order to maintain historical drainage patterns and sheetflow, to the extent practicable, Licensee shall employ appropriate construction methods or techniques such as at-grade roads, geoswales that would not extend above existing wetland grades and / or elevated roadways to bridge slough features. Reference: Sections 373.1501(4)(d), 373.1502(2)(a), and 373.4592, F.S.

2. Design and construction of transmission line facilities in that portion of the West Secondary Corridor in WCA-3B is subject to the following restrictions and limitations:

   a. In order to maintain historical drainage patterns and sheetflow, transmission line support structures shall be placed on topographical ridges within the marsh and excluded from sloughs, to the extent practicable.

   b. Support structure pads shall be constructed to sustain water levels no greater than 10.5 feet NGVD29 for significant periods, unless additional hydrologic modeling and/or information is available at the time of post-certification review that demonstrates that a different elevation is required or acceptable. Reference: Sections 373.1501(4)(d), 373.1502(2)(a), and 373.4592, F.S.

Literature Cited

Cook, M.I. and Kobza, R.M. 2010. South Florida Wading Bird Report, Volume 16 (eds M.I. Cook & R.M. Kobza), South Florida Water Management District, West Palm Beach, FL.

Crivelli, A.J., H. Jerrentrup, and T. Mitchev. 1988. Electric power lines: a cause of mortality in Pelecanus crispus Bruch (Dalmation Pelican), a world endangered bird species, in Porto Lago, Greece. Colonial Waterbirds 11(2): 301-305.

Crozier, G.E. and Gawlik, D.E. 2003. Wading bird nesting effort as an index of wetland ecosystem integrity. Waterbirds, 26, 303–324.

Hoffman, W., G. T. Bancroft and R. J. Sawicki. 1994. Foraging habitat of wading birds in the Water Conservation Areas of the Everglades. Pages 585-614 in Everglades: the ecosystem and its restoration (S. M. Davis and J. C. Ogden, Eds.). St. Lucie Press, Delray Beach, Florida.

McNeil, R., J.R. Rodriguez and H. Oullet. 1985. Bird mortality at a power transmission line in northeastern Venezuela. Biological Conservation 31: 153-165.

Ogden, J.C. 1990. Habitat Management Guidelines for the Wood Stork in the Southeast Region. Prepared for the U.S. Fish and Wildlife Service; Atlanta, Georgia.

Portier, K. M., and A. R. C. Smith. 1984. Evaluation of sampling methodology-systematic flight / pilot wading bird survey, technical report. Everglades National Park, Homestead, Florida.

Schaub, M. and R. Pradel. 2004. Assessing the relative importance of different sources of mortality from recoveries of marked animals. Ecology 85: 930-938.

U.S. Fish and Wildlife Service (2006) Habitat management guidelines for the wood stork in the southeastern United States (Draft first revision) U.S. Fish and Wildlife Service, Vero Beach, FL.

EXHIBIT 1. Location of Turkey Point Plant.

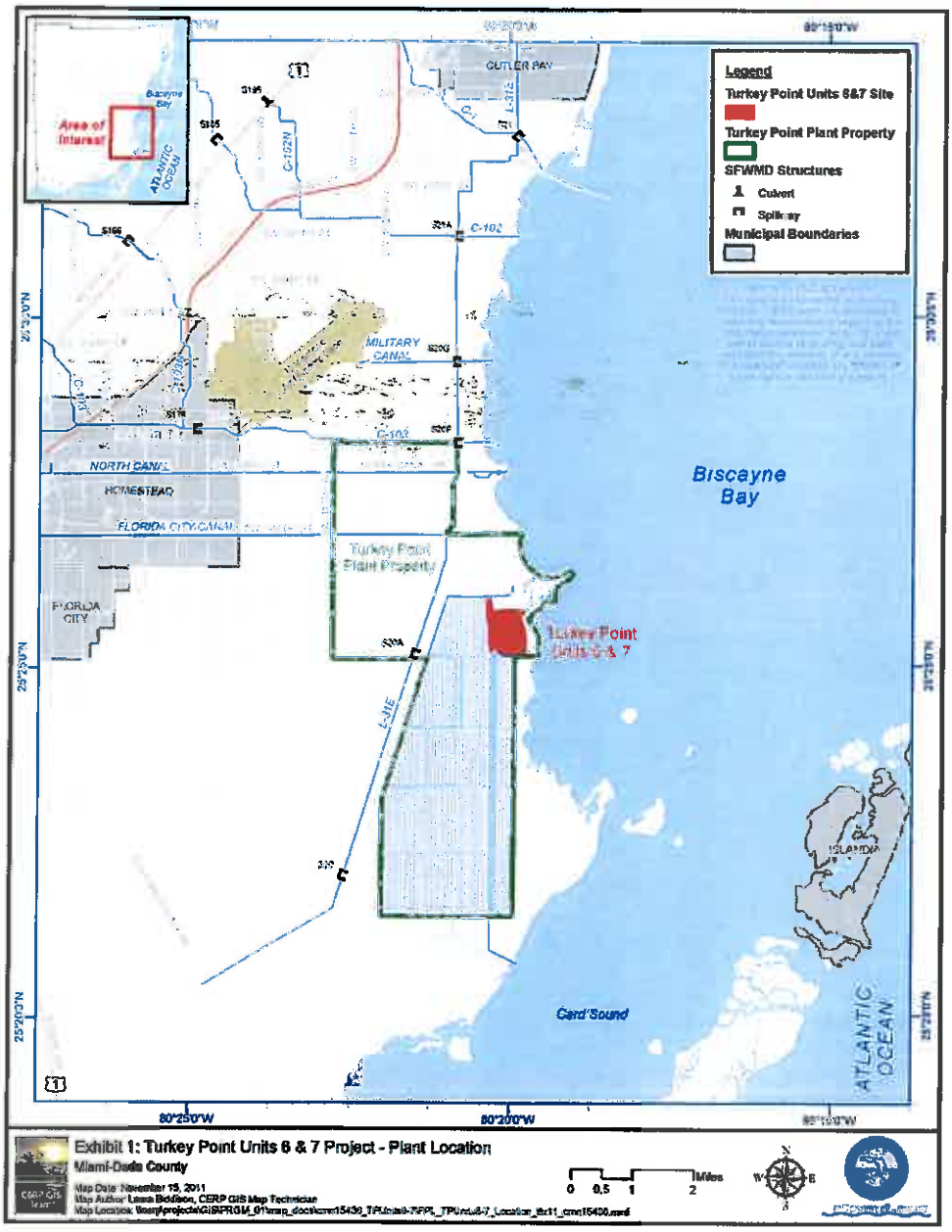


EXHIBIT 2. Turkey Point Plant Site and Associated Non-Transmission Facilities.

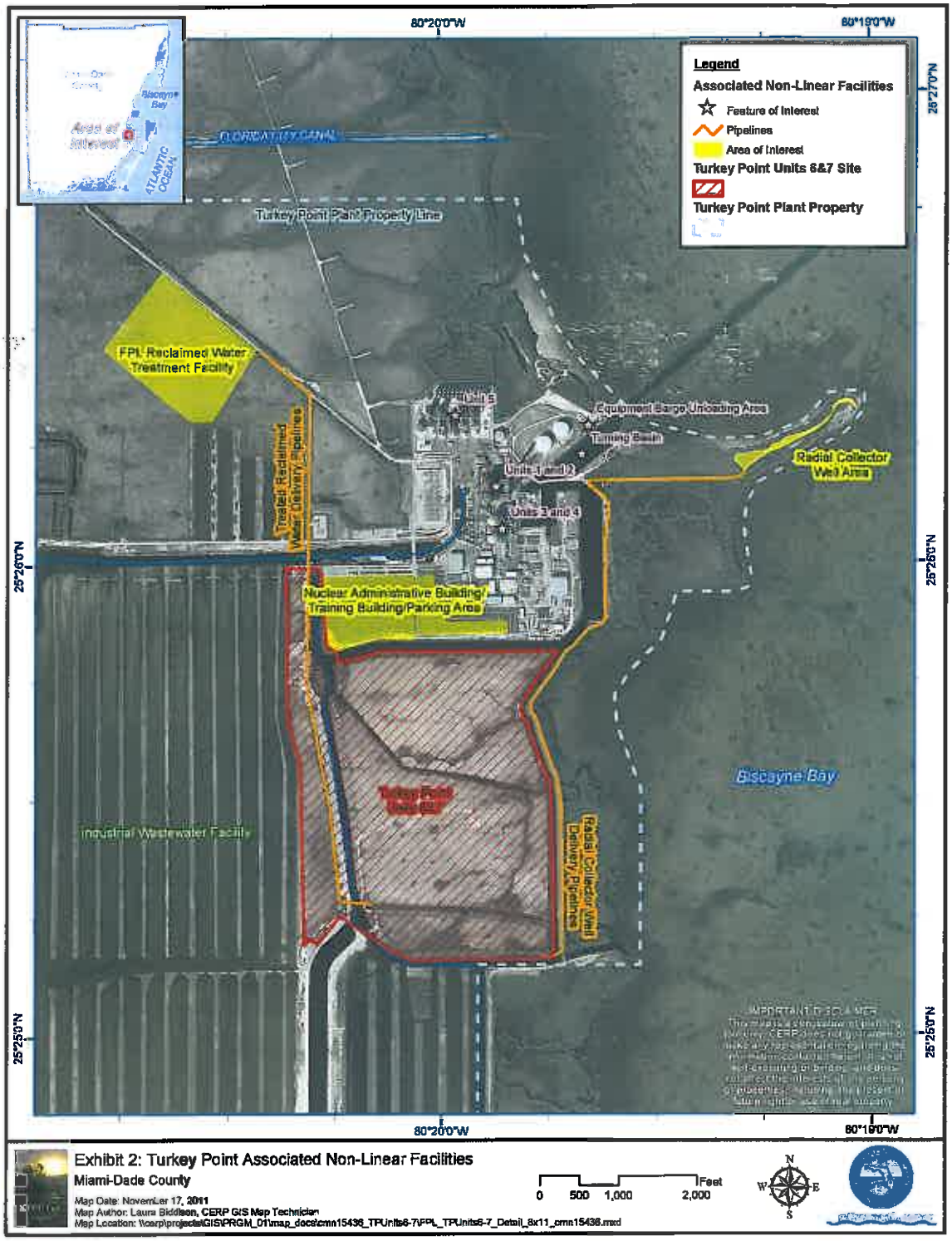


EXHIBIT 3. FPL Proposed Transmission Line Corridors.

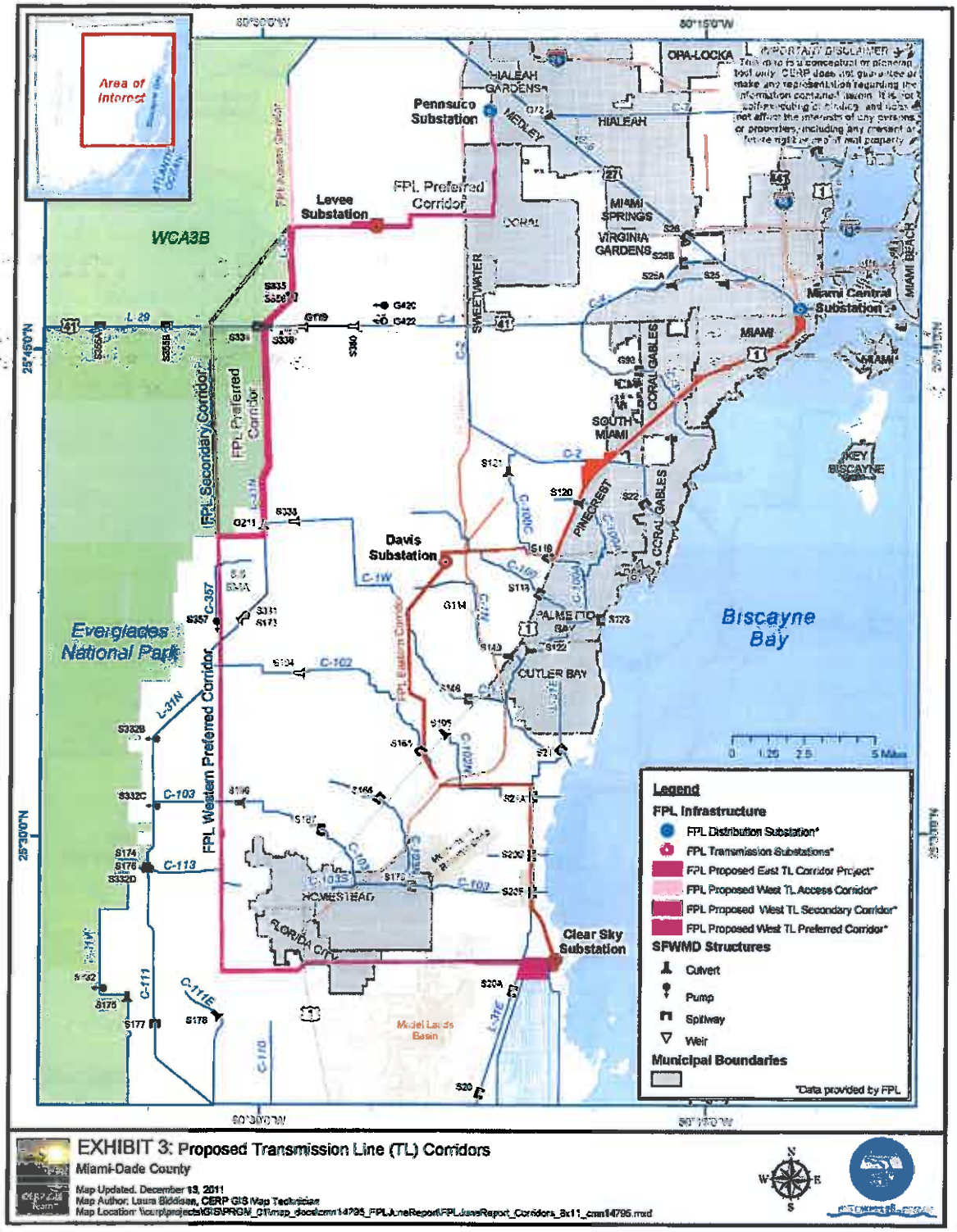


EXHIBIT 4. FPL Proposed Eastern Transmission Line Corridor.

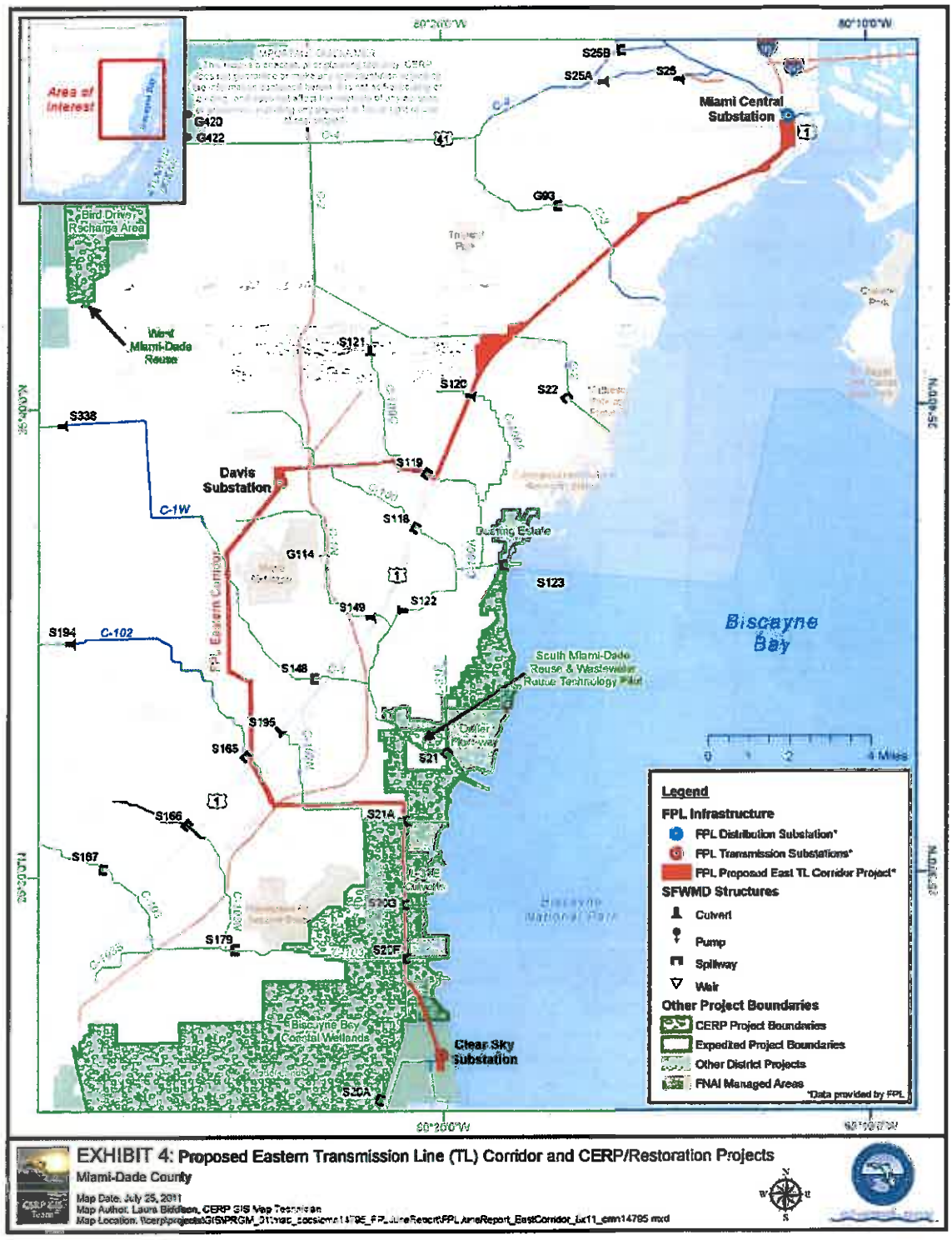


EXHIBIT 5. FPL Proposed Western Transmission Line Corridors.

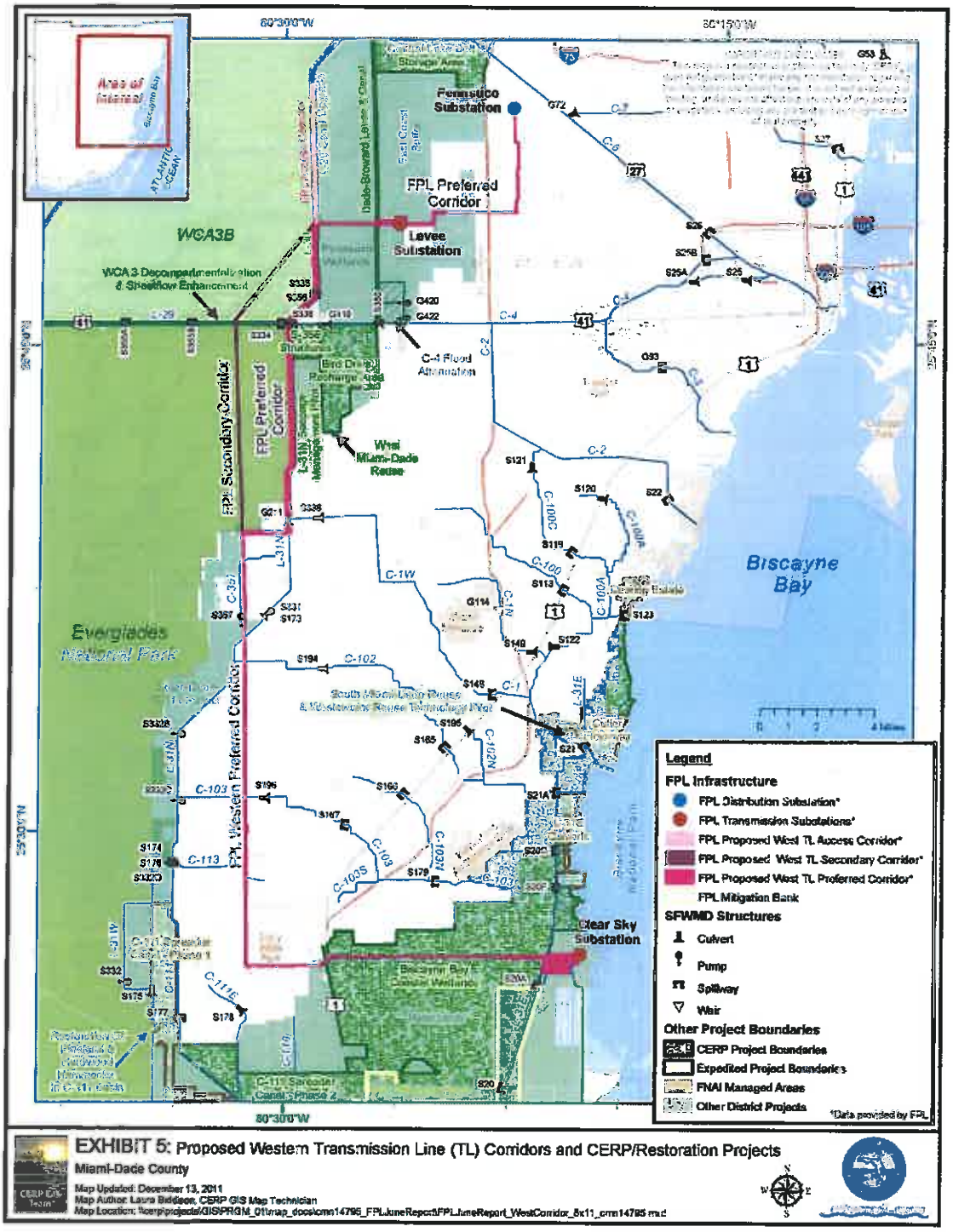


EXHIBIT 6. USFWS Wood Stork Colonies with CERP and Other Restoration Projects.

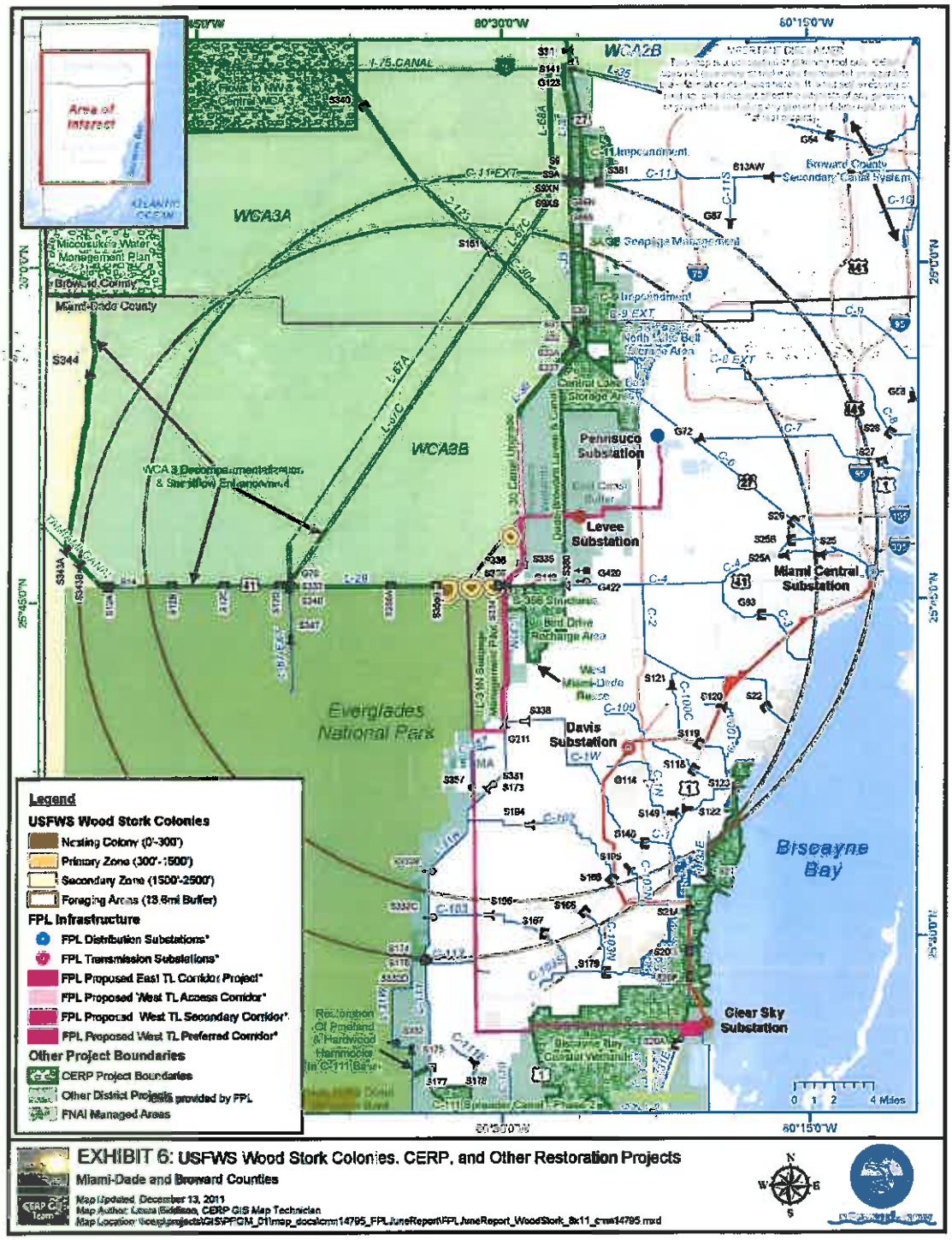


EXHIBIT 7. Example Certificate of FPL Self-Insurance.

Certificate of FPL Self-Insurance

November 3, 2011

South Florida Water Management District
3301 Gun Club Road,
West Palm Beach, FL, 33416-4680

RE: Florida Power & Light ("FPL") Self-Insured Retention / Self-Insurance
Turkey Point 6&7 Project and associated transmission line Power Plant Siting Act application

To Whom it May Concern:

This letter confirms FPL's self-insured retention / self-insurance (together, the "self-insurance") as required in the Right of Way Consent Agreement between FPL and the South Florida Water Management District ("District"), in regards to the transmission portion of the Turkey Point 6&7 Project (the "Project"). Specific to, and for the duration of, the Project, FPL will maintain self-insurance for the following insurance coverages:

Workers' Compensation: Workers' compensation statutory limits as required by law.

General Liability: Commercial General Liability Insurance on an "Occurrence Basis," with limits of liability not less than $ 3,000,000 per occurrence and/or aggregate combined single limit, bodily injury, death, or property damage with coverages as set forth in the Right of Way Consent Agreement.

For the duration of the FPL's use of the District's right-of-way, Works of the District or real property interests recorded in the public records, FPL will be self-insured to the limits above for injury and/or damage to persons and property caused by any act or omission of FPL, its agents, employees, and/or its contractor's relating to the FPL's use of the District's right-of-way, Works of the District or real property interests recorded in the public records.

For a copy of NextEra Energy, Inc.'s latest audited annual report as evidence of FPL financial ability to self-insure, please copy and paste the following link into your web browser: http://www.nexteraenergy.com/investors/index.shtml.

If you would like to contact me to discuss this letter or other matters, my direct phone number is (561) 691-3032. Thank you.

Sincerely,

Grace Costantino
Risk Management Analyst

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EXHIBIT 8. SFWMD Planned Projects.

Project	Type
Biscayne Bay Coastal Wetlands	CERP
Phase I	CERP
Phase II	CERP
Western C-111 Spreader Canal Phase II	CERP
South Dade C-111	Non-CERP
Modified Water Deliveries	Non-CERP
Water Preserve Area Conveyance	CERP
L-31N (L-30) Seepage Management Pilot	CERP
Everglades National Park Seepage Management	CERP
Bird Drive Recharge Area	CERP
S-356 Pump Station Relocation	CERP
Water Conservation Area 2 Flows to Central Lake Belt Storage Area	CERP
Water Conservation Area 3 Flows to Central Lake Belt Storage Area	CERP
North Lake Belt Storage Area	CERP
WCA 3A/3B Decompartmentalization	CERP
Central Lake Belt Storage Area	CERP

The list of projects in this Exhibit will be updated by SFWMD and relevant information about each project will be provided to FPL in accordance with the conditions of certification.

APPENDIX A. Cooperative and License Agreement between the Central and Southern Florida Flood Control District and the Game and Fresh Water Fish Commission for Water Conservation Areas 2 and 3 (1953) and Permit Agreement by and between Central and Southern Florida Flood Control District and Florida Power & Light Company (1971).

Separate document due to file size.

COOPERATIVE AND LICENSE AGREEMENT

BETWEEN

THE CENTRAL AND SOUTHERN FLORIDA FLOOD CONTROL DISTRICT

AND THE

GAME AND FRESH WATER FISH COMMISSION

* *

THIS AGREEMENT, Made and entered into between the Central and Southern Florida Flood Control District, (hereinafter referred to as the District), pursuant to Chapters 25,209 and 25,214, Laws of Florida, Acts of 1949, and the Game and Fresh Water Fish Commission, (hereinafter referred to as the Commission), pursuant to Chapter 21,945, Laws of Florida, Acts of 1943, and Section 30, Article VI of the Constitution of Florida.

WITNESSETH:

The parties hereto, for themselves and their respective successors and assigns, in consideration of benefits to both parties, do hereby mutually covenant and agree as follows:

1. The District hereby grants a license upon, and makes available to the Commission for the purposes and subject to the terms and conditions hereinafter set forth, all those portions of the real property acquired or to be acquired by the District in the areas designated as Conservation Areas Number Two and Number Three, a part of the Central and Southern Florida Flood Control District in Palm Beach, Broward and Dade Counties, Florida, extending from Hillsboro Canal to Tamiami Canal.

2. The Commission shall use said property for the purpose of game and fresh water fish management practices directed to attain the basic objectives of preservation, protection and propagation of wildlife and fish, and promoting the recreational features in connection therewith.

The basic objectives are to be attained through the following management practices covering the wildlife and recreational phases of land use represented by this area:

(a) Wildlife:

Adequate provision shall be made to maintain and improve the wildlife resources through:

(1) Maintaining as closed areas for breeding and feeding grounds so much of the unit as will ensure maximum stocks of game, fish and furbearers and thus permit the harvesting of surpluses.

(2) Maintenance and development of wildlife environments and habitat where such use is not inconsistent with the use of

(3) Planting of cultivated crops and natural wildlife foods to increase the carrying capacity of the area for wildlife.

(4) Construction, maintenance and operation of channels, ditches, pools and subimpoundments for the purposes of creating conditions suitable for wildlife species using the area. Provided, that such construction, operation and maintenance shall be consistent with the objectives of flood control and other allied purposes in the area.

(5) Opening by regulation of the Commission of portions of the area to controlled public hunting, fishing and trapping of game, fish and furbearers.

(b) Recreation:

Recreational facilities existing, or to be developed, shall be operated, maintained, and administered according to the following principles and objectives:

(1) The recreational facilities shall be available for the use and benefit of the general public. No fees shall be charged other than fees for licenses required by State law, or by regulation of the Commission.

(2) All recreational facilities which may be developed in the future shall be located where their use will not interfere with the use of the land for flood control and water retention purposes.

3. The Commission shall submit, not later than one year after the effective date of this license and agreement, a general plan of operation and development, setting forth the measures to be taken by the Commission to effectuate the purposes of this license and agreement. Such plan of operation and development shall be subject to the approval of the District and of the Corps of Engineers as to the conformance of the plan to the requirements of flood control and other allied purposes in the area.

4. The term of this license and agreement shall be twenty-five (25) years beginning on March 1, 1952, and ending on March 1, 1977, and shall automatically be renewed for three (3) successive terms of fifteen (15) years unless written notice to the contrary is given by either party to the other not less than ninety (90) days prior to the termination of this instrument, or any renewal thereof, and each renewal shall be subject to all of the terms and conditions of this license and agreement. Provided, however, that this license and agreement may be cancelled at any time by either of the parties hereto for sufficient cause, upon written notice of the one to the other; or by notice of one party to the other that State or Federal laws placed in force and effect subsequent to the date of this agreement prevent the fulfillment of the provisions of the agreement.

The failure of the District to insist upon the strict performance of any of the terms, covenants, agreements and conditions, herein contained shall not constitute a waiver or relinquishment of the right of the District to require enforcement of such terms, covenants, agreements, or conditions, but the same shall continue in full force and effect.

5. The use of the said rights in the property by the Commission shall at all times be entirely subject to the unrestricted requirements and uses by the Corps of

Engineers and the District for flood control and other allied purposes and the Commission shall not be obligated in any manner for costs, charges, expenses, or other obligations as are properly chargeable to the maintenance and development of the flood control activities. The use of said property shall be further subject to all valid easements, rights-of-way, licenses, and outstanding interests in, upon, across, or through said property now existing or which may be deemed necessary and created in the future in furtherance of the primary purpose of flood control and allied purposes.

6. The District reserves all right not vested in private persons, corporations or other public agencies, to the oil, gas, coal and other mineral ores whatsoever, upon, in or under said property, together with the using mineral rights, powers and privileges, including the right of access to the use of such parts of the surface of the premises as may be necessary for mining and saving said minerals. The Commission, however, shall have the right to use stone, marl, sand or peat and similar substances from said property, provided such materials are used for construction purposes upon or in connection with said property. The license herein granted to the Commission is subject to the rights of the District and to the rights heretofore vested in private persons and public agencies, as the same appear of record, to mine, explore for and develop, any mineral in, under or upon said lands, including oil and gas, and including the right of ingress and egress on, upon or across such lands as may be necessary for the purposes stated.

7. The Commission shall not use or permit to be used, and shall take such measures as may be necessary to prevent the use or occupancy of said property, or any portion thereof, for any purpose which is inconsistent or incompatible with the purposes set forth in Section 2 above; nor shall the Commission, except with the written consent of the District, assign any of its rights or obligations under this license and agreement, or any renewal thereof, or grant or create any rights in favor of third persons with reference to said property. This provision shall not be construed to apply to such employees of the Commission as are engaged in the administration of said property during the period they are actually so engaged.

The Commission shall, through its agents and employees, cooperate to prevent unauthorized grazing, cutting, burning, damage to flood control works, or other trespass on said lands, and will promptly report to the District all known trespass. However, subject to the regulations of the Commission, persons holding permit or license, or exempt therefrom by law, may enter and leave the lands, in the use of the lands for hunting, fishing, trapping or recreational purposes, at such place or places as may be determined and provided by mutual agreement between the parties hereto.

8. The Commission shall not, except with the written consent of the District, authorize or permit third persons, including employees of the Commission engaged in the administration of the area, to erect structures or dwellings on the property, whether such authorization or permission creates any rights in such third persons or not. This provision shall not be construed as requiring a permit from the Commission to mine, explore or develop the minerals, including oil and gas, as provided in Section 6. The Commission shall permit at all times, any duly authorized representative or representatives of the District to enter upon and inspect said property.

9. The Commission shall assume and defray all costs, charges, expenses, and other obligations except as otherwise provided for under Section 5, incident to the use of said property for the purposes provided herein, shall maintain said property in good condition and repair, making all repairs and replacements necessary caused by deterioration, damage, use negligence, or any other cause whatsoever, and shall not remove any improvements, or alter any major improvements without the written consent of the District.

10. The District agrees to hold and save the Commission harmless from any damages which it might suffer because of the lack of authority in the District to have granted this license and agreement. The Commission agrees to hold and save the District free from damages due to operations under the terms of this license and agreement.

11. Upon the expiration or termination of this license and agreement or any renewal thereof, the Commission shall quietly and peaceably vacate said property and surrender possession thereof, and the District may immediately, or at any time thereafter, re-enter and take possession of the property and remove all persons therefrom.

12. Any notice, consent, or other action to be given or done by the District under this license and agreement or any renewal thereof, shall be valid only if in writing and executed by the Chairman of the Governing Board of the Central and Southern Florida Flood Control District, or his duly authorized representative, or in the case of a successor to the rights of the Central and Southern Florida Flood Control District, by the chief administrative officer of such successor, or his duly authorized representative. All notices to be given by the District under this license and agreement, or any renewal thereof, shall be delivered or forwarded by mail to the Game and Fresh Water Fish Commission of the State of Florida, Tallahassee, Florida, or its successor hereunder.

Any notice, consent, or other action to be given by the Commission under this license and agreement, or any renewal thereof, shall be valid only if in writing and executed or performed by the Chairman of the Game and Fresh Water Fish Commission, or his duly authorized representative, or in the case of a successor to the rights of the Game and Fresh Water Fish Commission, by the chief administrative officer of such successor or his duly authorized representative. All notices to be given by the Commission under this license and agreement, or any renewal thereof, shall be delivered or forwarded by mail, addressed to the Central and Southern Florida Flood Control District, West Palm Beach, Florida, or its successor hereunder.

13. This license and agreement shall become effective when duly executed by all parties indicated below, but possession of the said property shall not be granted until March 1, 1952, the beginning of the 25-year primary term provided for in Section 4 hereof.

14. It is understood and agreed that in the operation and management of the Conservation Area lands for the primary purpose of flood control and other allied purposes, the lands and waters will be managed and operated in the manner most consistent with Section 2 hereof, so far as it is not inconsistent with the said primary purpose.

15. This agreement is executed in two counterparts, each of which shall for all purposes be considered and deemed an original.

16. The invalidity of any provision of this instrument, or any part thereof, shall not affect the validity of the remaining provisions or the rights and obligations of the parties thereunder.

IN WITNESS WHEREOF, the parties hereto by due authority given, have caused

AMENDMENT TO COOPERATIVE LICENSE AGREEMENT BETWEEN THE
CENTRAL AND SOUTHERN FLORIDA FLOOD CONTROL DISTRICT
AND
GAME AND FRESH WATER FISH COMMISSION

WHEREAS, a cooperative license agreement was entered into between Central and Southern Florida Flood Control District and the Game and Fresh Water Fish Commission of the State of Florida pertaining to Conservation Areas Nos. 2 and 3 and which among other things, provided for the northerly and northeasterly boundary of Conservation Area No. 2 described therein to be generally the southwesterly canal bank of the Hillsboro Canal in Palm Beach County, Florida, and

WHEREAS, it is desirable to establish the northerly and northeasterly boundary of said Conservation Area No. 2 as described in said agreement, as the centerline of Levee L-39 to be hereafter constructed along the southerly and southwesterly side of said Hillsboro Canal, and

WHEREAS, such a boundary line for said conservation area will conform to the boundary line between Conservation Area No. 1 and Conservation Area No. 2 as provided in the flood control project document, namely, House Document No. 643, 80th Congress, 2d Session.

NOW, THEREFORE, in consideration of the premises, and the mutual covenants and agreements hereinafter set forth, the parties hereto for themselves and their respective successors and assigns, do hereby amend the said cooperative license agreement to provide therein that the northerly and northeasterly boundary of Conservation Area No. 2 as described in said agreement shall henceforth be the centerline of Levee L-39 to be constructed along the southerly and southeasterly side of the Hillsboro Canal and that except for the establishment of the new northerly and northeasterly boundary line for said Conservation Area No. 2, as provided for herein, all of the terms, provisions, conditions and covenants contained in said cooperative and license agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have hereunto subscribed their names as of the dates indicated.

CENTRAL AND SOUTHERN FLORIDA
FLOOD CONTROL DISTRICT, BY ITS
GOVERNING BOARD

By _____
Chairman

Date September 11, 1953

ATTEST

_____
Secretary

GAME AND FRESH WATER FISH COMMISSION

By _____
Chairman

Date August 21, 1953

ATTEST

_____
Director

OR 7343 PG 940 71 AUG 24 AM 11:30

71R168223

CA-3/ajb

71-129552

PERMIT AGREEMENT

STATE OF FLORIDA DOCUMENTARY STAMP TAX DEPT. OF REVENUE $0.30

THIS AGREEMENT, made and entered into this 10th day of August, A. D., 1971, by and between CENTRAL AND SOUTHERN FLORIDA FLOOD CONTROL DISTRICT, party of the first part, hereinafter referred to as "DISTRICT" and FLORIDA POWER & LIGHT COMPANY, party of the second part, hereinafter referred to as "COMPANY." Miami, Florida

WITNESSETH:

WHEREAS, "DISTRICT" has under construction and partially completed a program of water control in central and southern Florida, and

WHEREAS, an integral part of the water control program of "DISTRICT" involves large storage or reservoir areas for storage of fresh water, and

WHEREAS, one of the water storage areas of "DISTRICT" is located in Broward County and is known as Conservation Area No. 3A, and the other water storage area is known as Conservation Area No. 3B, located in Dade County, and

WHEREAS, "DISTRICT" has acquired land rights to all the lands in said Conservation Areas, which rights consist of:

(1) Easements for flowage and storage of water and construction of water control facilities; or

(2) fee simple title; and

WHEREAS, the water control program of "DISTRICT" is not completed and will require additional construction, changes in existing construction and revisions of planning and construction in said Conservation Areas and other facilities of "DISTRICT," and

WHEREAS, "COMPANY" is in the business of power development, transmission and distribution,

NOW THEREFORE, IT IS AGREED:

1. Each of the parties recognizes that the "DISTRICT" is an agency of the State of Florida, and the "COMPANY" is a corporation organized for public works purposes; that this Permit Agreement is consistent with the use of the property by the "DISTRICT"; and that the parties are able to agree to the nature and extent of the use of the property by the "COMPANY."

2. "DISTRICT" hereby, to the extent possible under the law, gives permission (a Permit) to "COMPANY" upon the terms and conditions hereinafter set forth in lettered paragraphs, to use certain strips of land for the con-

struction, operation and maintenance of one or more electric transmission lines, including wires, poles, "H" frame structures, towers, anchors, guys and appurtenant equipment in, over, upon and across the following described lands, held in either fee title or easement by "DISTRICT" and situated in the Counties of Broward and Dade and State of Florida, and more particularly described in the attached Exhibit "A", (which is made a part hereof by reference), together with the right and privilege to reconstruct, inspect, alter, improve, remove or relocate such transmission lines within said strips of land; together with ingress and egress over other "DISTRICT" lands in locations to be subsequently approved in writing by "DISTRICT;" together with the right to perform such other activities within the said strips of land as are necessary for use for the purposes set forth.

(a) Under this permit, "COMPANY" shall not distribute power within said Conservation Areas, without approval in writing from "DISTRICT".

(b) This Permit does not allow "COMPANY" to use the said strips of land for any other purposes, by way of example -- telephone and telegraph lines without approval in writing from "DISTRICT."

(c) At such times as changes are made in existing water control facilities, in, over, upon or bordering said Conservation Areas, including the said strips of land hereinbefore described, or additional water control facilities are constructed in, over, upon or bordering said Conservation Areas, including said strips of land "COMPANY" agrees to make any alterations required by "DISTRICT" of the "COMPANY'S" facilities constructed within the said strips of land. The alterations will be at no cost to "DISTRICT," and will be made promptly upon written request of "DISTRICT." "DISTRICT" will endeavor to plan, construct or alter its water control facilities in such a manner as to require minimum alterations by "COMPANY," but both parties understand that the determination of location, method, time, type and other factors relevant to construction of water control facilities is solely a "DISTRICT" determination. ("DISTRICT" agrees that no buildings will be placed by it on said strips of land and "COMPANY" agrees that no buildings will be placed by it on said strips

STATE OF FLORIDA DOCUMENTARY STAMP TAX DEPT. OF REVENUE 0.30

92709

RECORDED 1991 PG 1630

-2-

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of land.) There may be instances in which "DISTRICT" can modify construction procedures on "DISTRICT" work or utilize special equipment on said work which would eliminate the necessity of alteration of "COMPANY" facilities. Should such an occasion arise and "COMPANY" requests "DISTRICT" to modify construction procedures or utilize special equipment in lieu of modification of "COMPANY" facilities, then "COMPANY" shall bear all additional costs associated with such alternative including, but not limited to, modifications of standard construction methods or procedures and use of specialized construction equipment.

(d) "DISTRICT" retains the right to use all of said Conservation Areas, including the said strips of land above described, for the purposes of water flowage and storage and construction of water control facilities in accordance with the provisions and subject to the terms of Paragraph (c), in any manner deemed necessary by "DISTRICT" in the operation of its water control program.

The public shall continue to have the right of free access across the said strips of land heretofore described.

This Agreement and Permit is subject to the effect, if any, of the provisions of that certain Cooperative and License Agreement between "DISTRICT" and Game and Fresh Water Fish Commission, dated January 18, 1952, a copy of which has been furnished to the "COMPANY" in conjunction with this Permit Agreement.

(e) "COMPANY" agrees to provide "DISTRICT" for its approval prior to commencement of any construction, its construction plans or layout which describes and illustrates the details and procedures to be undertaken for construction; It is understood that the "COMPANY'S" facilities must be constructed and operated to comply with the provisions of the National Electric Safety Code. Any changes or modifications in construction plans after approval is made by "DISTRICT" likewise will be submitted to "DISTRICT" for its approval. So as to avoid unnecessary conflict, "COMPANY" will submit to "DISTRICT" for its approval, at or about the time it submits construction plans, the "COMPANY'S" plans and procedures for maintaining its facilities. It is understood that

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[illegible]

"DISTRICT" approval of both construction plans (or layout) and plans and procedures for maintenance of facilities must be obtained by "COMPANY" before work of any kind may be undertaken by "COMPANY" on the lands listed in Exhibit "A". "COMPANY" understands that it will not be allowed to construct roads for its construction or maintenance or for any other purpose in said Conservation Areas except as otherwise provided in "COMPANY'S" construction plans to be submitted to the "DISTRICT" for its approval. Where "COMPANY" facilities cross "DISTRICT" canals, levees, borrow canals or other facilities in existence at the time of construction, then in addition to this general permit, "COMPANY" will apply for and receive a standard "DISTRICT" Permit for crossing of said "DISTRICT" facilities. It is understood that work areas within the lands listed in Exhibit "A" must be clearly defined and limited.

(f) Any time "COMPANY" desires to abandon or discontinue use of the said strips of land hereinbefore described, it may do so as long as it notifies "DISTRICT" in writing of its intention to do so and as long as it removes all of its above surface facilities excluding fill, foundations and pads from the area within six (6) months from the date of notification. In the event of abandonment before or after completion "COMPANY" shall remove all of its above surface facilities excluding fill, foundations and pads so as not to leave any obstruction in the Conservation Areas.

(g) After approval as required under Paragraph 2 (e), "COMPANY" will give "DISTRICT" forty-five (45) days notice in writing before commencing construction of any facilities within said strips of land. The "COMPANY" shall commence construction of one power line within a part of said strip within two (2) years from date hereof and shall use reasonable diligence to complete construction of the line. The times set forth in this subsection (g) shall be extended by any delays caused by acts of God, strikes, lockouts, or other industrial disturbances, acts of the public enemy, wars, blockades, riots, acts of armed forces, epidemics, delays by carriers, inability to obtain materials on reasonable terms, acts of public authorities, or any other causes.

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23076 FCD OR 943

whether or not of the same kind as enumerated herein, not within the control of "COMPANY" and which by the exercise of due diligence "COMPANY" is unable to overcome.

(h) "COMPANY" agrees to hold and save "DISTRICT" harmless against all claims, demands or judgments as a result of "COMPANY'S" use of the said strips of land above described.

(i) "DISTRICT" may cancel and terminate this Permit if "COMPANY" violates this Agreement and fails to correct such violation within ninety (90) days after delivery of written notice of such violations to "COMPANY'S" General Office in Miami, Florida. Failure to exercise this right of cancellation and termination shall not constitute a waiver of such right as to future violations of the same or different terms of this Permit. It is understood that "COMPANY" shall have six (6) months to complete any alteration described in subsection (c) hereof.

(j) It is understood by "DISTRICT" that the overhead wires to be installed on the property covered by this Permit are conductors of high voltage electricity and that no person or object in contact with a person may touch or be brought in close proximity to such wires or the fixtures without endangering the life or property of parties so doing.

IN WITNESS WHEREOF, the parties have caused these presents to be executed the day and year first above written.

SEAL

(Corporate Seal)

GENERAL AND SOUTHERN FLORIDA FLOOD CONTROL DISTRICT, BY ITS GOVERNING BOARD

By _____
Chairman

Executed in the presence of:

_____

_____

As to "DISTRICT"

ATTEST:

_____
Assistant Secretary
Acting in absence of Secretary

(Corporate Seal)

FLORIDA POWER & LIGHT COMPANY

By _____
Vice President

Executed in the presence of:

_____

_____

As to "COMPANY"

ATTEST:

_____
Secretary

RECORDED 1601 PG 033

PLEASE RETURN TO
A. F. CROWLEY

STATE OF FLORIDA

COUNTY OF PALM BEACH

I HEREBY CERTIFY that on this the 2nd day of August A. D., 19 71, before me the undersigned authority, personally appeared R. W. Bedford and W. D. Mabry, Chairman Assistant and Secretary, respectively, of the Governing Board of CENTRAL AND SOUTHERN FLORIDA FLOOD CONTROL DISTRICT, a public corporation created by the Acts of the Florida Legislature of 1949, to me known to be the persons who signed the foregoing instrument as such officers, and acknowledged the execution thereof to be their free act and deed as such officers for the purposes and uses therein mentioned, and that they affixed thereto the official seal of the Governing Board of Central and Southern Florida Flood Control District, and that the said instrument is the act and deed of said Central and Southern Florida Flood Control District and the Governing Board thereof.

WITNESS my signature and official seal at West Palm Beach, said County and State the day and year last aforesaid.

Notary Public, State of Florida at Large

My Commission expires:

Notary Public, State of Florida at Large
My Commission Expires March 6, 1974
Bonded by Fidelity Fire & Casualty Co.

STATE OF FLORIDA

COUNTY OF DADE

I HEREBY CERTIFY that before me, personally appeared _____ Ben H. Dupps and W. F. Blanford, respectfully, Vice President and _____ Secretary of Florida Power & Light Company, a Corporation organized under the Laws of the State of Florida, to me known to be the persons described in and who executed the foregoing instrument, and severally acknowledged the execution thereof to be their free act and deed as such officers, for the uses and purposes therein mentioned; and that they affixed thereto the official seal of said corporation and that said instrument is the act and deed of said corporation.

WITNESS my hand and official seal in said County and State this 2nd day of August, 19 71.

Notary Public, State of Florida at Large

My Commission expires:

Notary Public, State of Florida at Large
My Commission Expires Sept. 28, 1973

PLEASE RETURN TO
A. P. CROWLEY
P. O. BOX 6248 (PAM CO.)
FT. LAUDERDALE, FLA.

FEE 4.00

91-129552 7343 PG 940

CONSERVATION AREA 3A, SITUATE IN BROWARD COUNTY, FLORIDA

A strip of land approximately 660 feet in width running through Sections 28, 21, 16, 9, 4 and 5, Township 49 South, Range 39 East; and Sections 32, 29, 20, 19 and 18, Township 48 South, Range 39 East; and Sections 13, 12, 11, 1 and 2, Township 48 South, Range 38 East; and Sections 35, 26, 27 and 28, Township 47 South, Range 38 East situate in Broward County, Florida; together with adjacent lands in said sections necessary for the construction of angle structures; all of the aforesaid lands lying within the boundaries of the electric transmission line route as illustrated, and shown on Florida Power & Light Company Drawing No. E-57569, Marked Exhibit B attached hereto and made a part hereof.

AND:

Including the following described lands:

A part of Tracts 11 thru 16 incl, less the South 130 feet of the East 244.16 feet and less the North 200 feet of said Tract 16, of Section 33, Township 49 South, Range 39 East, of Florida Fruit Land Company's Subdivision, Plat No. 1, as recorded in Plat Book 2, Page 17 of the public records of Dade County, Florida more particularly described as follows:

Commence at the NE corner of NE¼ of said Section 33, thence S 89°56'40" W, along the North line of said NE¼ for 1761.51 feet to the P.O.B. From said P.O.B. continue S 89°56'40" W, along said North line, for 673.10 feet; thence run S 11°22'36" E for 955.45 feet to the Northerly R/W line of C&SFFCD Levee L-37; thence continue S 11°22'36" E, across L-37 R/W for 1055.72 feet to the Easterly R/W line of L-37; thence continue S 11°22'36" E, along the Easterly R/W line of L-37 for 682.85 feet, more or less, to the South line of the NE¼ of said Section 33; thence run Easterly, along said South line, for 673.02 feet; thence run N 11°22'36" W, along a line 660 feet East of and parallel to the Easterly R/W line of L-37, for 1681.86 feet to the Southerly R/W line of L-37; thence continue N 11°22'36" W, across L-37 R/W, for 848.68 feet to the Northerly R/W line of L-37; thence continue N 11°22'36" W for 163.06 feet to P.O.B.

AND:

That part of Tract 58 in the SE¼ of Section 33, Township 49 South, Range 39 East, of Florida Fruit Land Company's Subdivision, Plat No. 1, as recorded in Plat Book 2 at Page 17 of the public records of Dade County, Florida, lying East of and adjacent to the East Right-of-Way line of C&SFFCD Levee L-37.

AND:

Begin at the SE corner of Section 21, Township 47 South, Range 38 East, Palm Beach County, Florida, thence run S 89°34'57" W along the South line of said Section 21 for a distance of 607.41 feet, thence run N 54°58'32" E along N line of C&SFFCD R/W for L-3 for a distance of 553.37 feet, thence run S 35°02'10" E to the East line of said Section 21, thence run South along the East line of said Section 21 to the P.O.B.

AND:

The North 1/2 of Tract 18 Everglades Land Co.'s Sub. of Section 34, T50S, R39E as recorded in P.B. 2, Pl situate in Broward County, Florida.

EXHIBIT "A"
Sheet 1 of 2

PLEASE RETURN TO
A. F. CROWLEY
P.O. BOX 8245 (FEA. CO.)
FT. LAUDERDALE, FLA.

OFFICIAL RECORDS

1. CONSERVATION AREA 3B, SITUATE IN DADE COUNTY, FLORIDA

A strip of land 330 feet in width, being 165 feet on each side of a centerline, running through Section 3, Township 54 South, Range 38 East, Excess Government Lots 3 and 2 between Townships 53 and 54 South, Range 38 East and Sections 35, 36, 25 and 24, Township 53 South, Range 38 East, all of Dade County, Florida, said centerline being described as follows:

Begin at a point on the South line of said Section 3, 205.13 feet East of the Southwest corner of said Section 3; thence run N 2°16'30" W, along a line 205 feet East of and parallel to the Northerly extension of the West line of Section 10, Township 54 South, Range 38 East, for a distance of 790.00 feet to a point, this point to be known as POINT "A" and having coordinates of X-655,043.47 and Y-519,777.40; thence run N 38°58'55" E for a distance of 23,070.42 feet to a point, this point to be known as POINT "B" and having coordinates of X-669,556.51 and Y-537,711.06; thence run S 89°48'43" E for a distance of 772.49 feet to the East line of said Section 24, this point being 205 feet North of the Southeast corner of said Section 24 and being the end of said centerline.

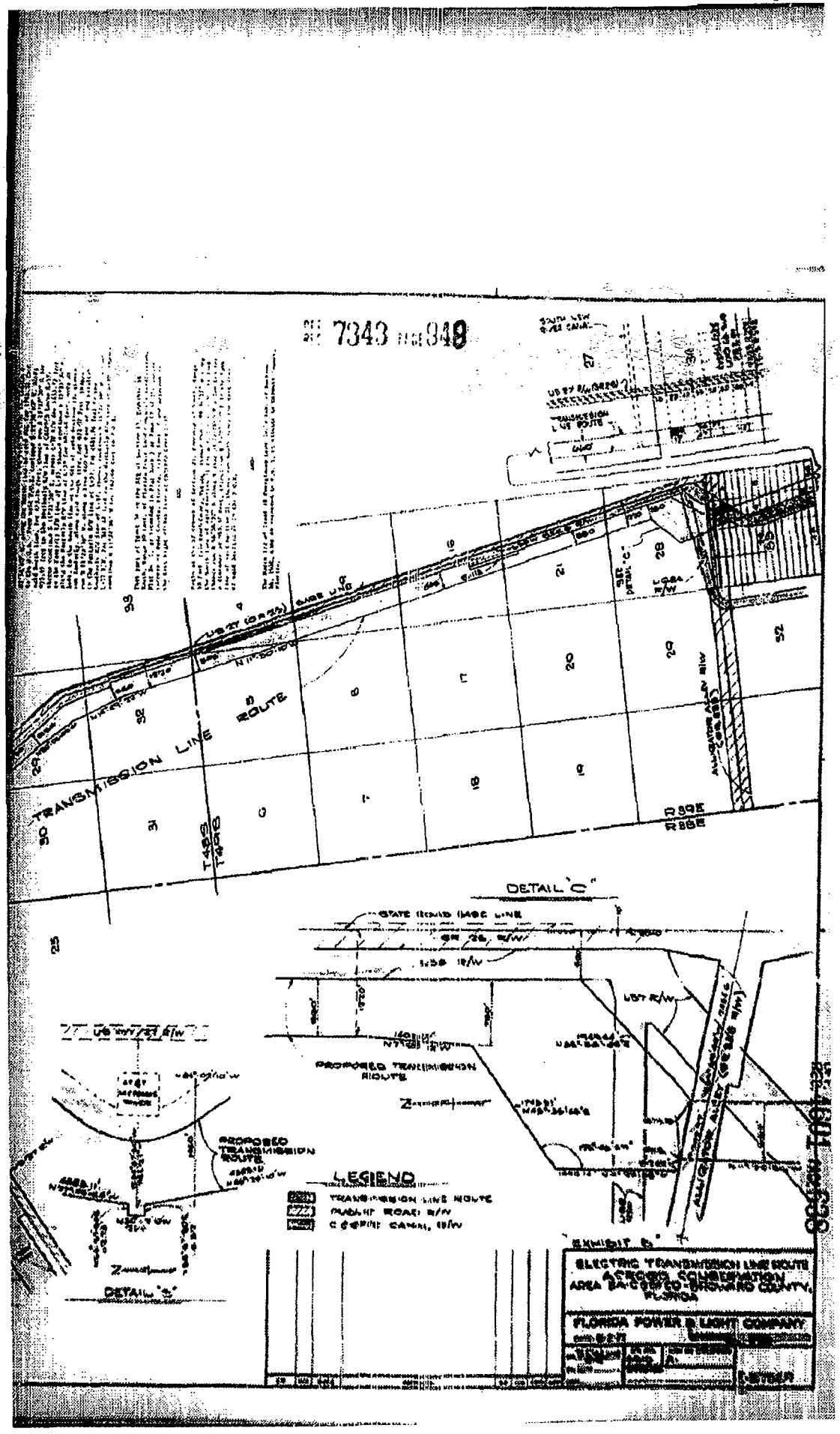
Together with the following described parcels: PARCEL "A": Commence at above described Point "A", thence run N 71°38'48" W for a distance of 176.30 feet to Point of Beginning: From said P.O.B., thence run N 38°58'55" E for 131.18 feet; thence run N 51°01'05" W for 50.00 feet; S 38°58'55" W for 150.00 feet; thence run S 2°16'30" E for 150.00 feet; thence run N 87°43'30" E for 50.00 feet; thence run N 2°16'30" W for 131.18 feet to P.O.B. PARCEL "B": Commence at above described Point "B", thence run N 25°24'54"W for a distance of 182.97 feet to Point of Beginning: From said P.O.B., thence run S 89°48'43" E for 126.04 feet; thence run N 0°11'17" E for 50.00 feet; thence run N 89°48'43" W for 150.00 feet; thence run S 38°58'55" W for 150.00 feet; thence run S 51°01'05" E for 50.00 feet; thence run N 38°58'55" E for 126.04 feet to P.O.B.

Illustrated and shown on Florida Power & Light Company Drawing No. E-57362 marked "Exhibit C", attached hereto and made a part hereof.

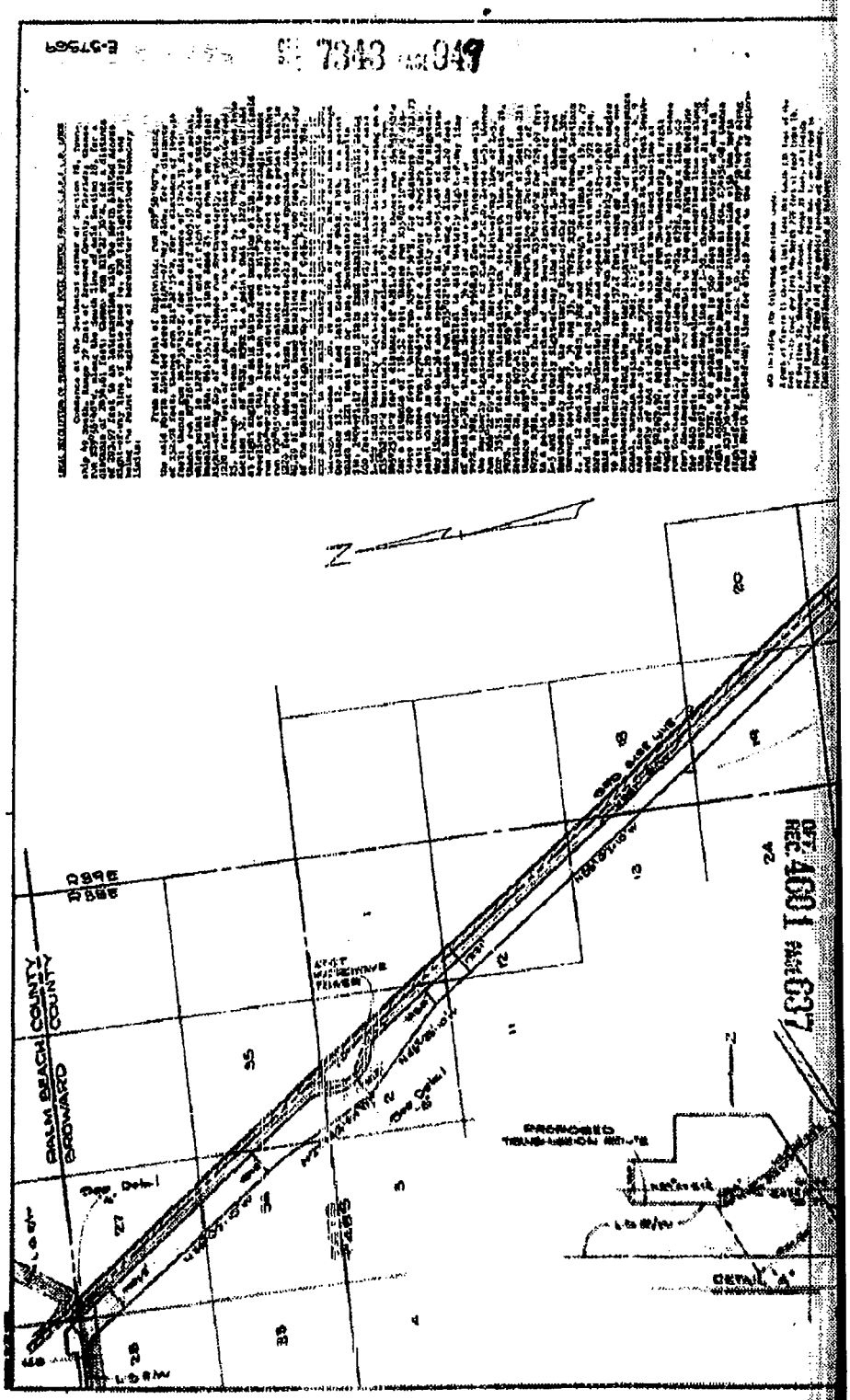
EXHIBIT "A"
Sheet 2 of 2

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A. I. [illegible] WLEY
P. O. BOX [illegible] (FP&L CO.)
FT. LAUDERDALE, FLA.

REC 4601 PG 836

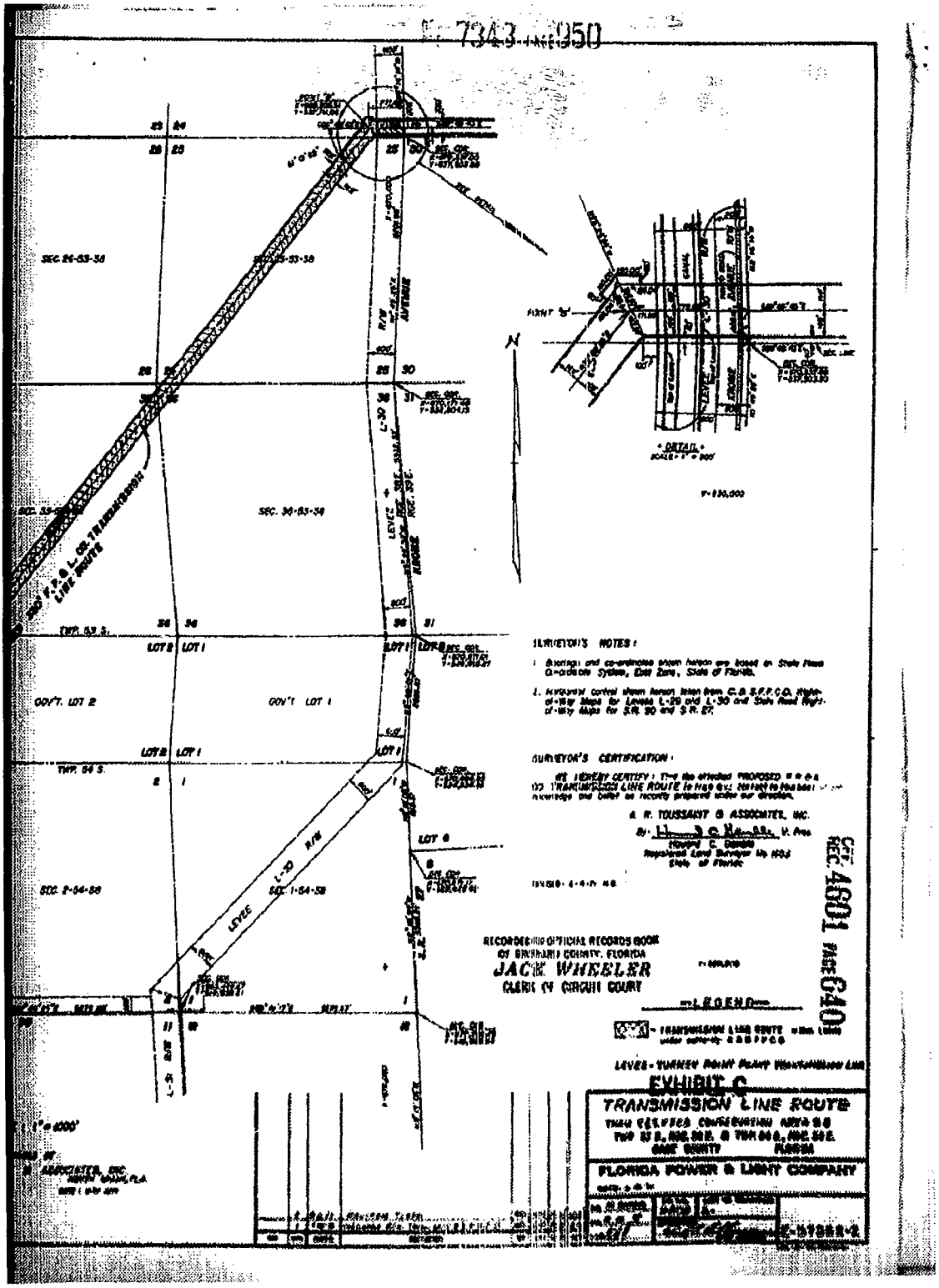

OR 7343 PG 848
TRANSMISSION LINE ROUTE
T48S
R38E
DETAIL "C"
DETAIL "B"
PROPOSED TRANSMISSION ROUTE
LEGEND
EXHIBIT B
ELECTRIC TRANSMISSION LINE ROUTE ACROSS CONSERVATION AREA 3A-C-23 CO-BROWARD COUNTY, FLORIDA
FLORIDA POWER & LIGHT COMPANY

E-37569 OR 7343 PG 0949



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A. F. CROWLEY
P. O. BOX 6508 (FINAL COD)
FT. LAUDERDALE, FLA.

OR 4001 PG 0637


7343 PAGE 950
SEC. 26-53-38
SEC. 35-53-38
SEC. 36-53-38
SEC. 2-54-38
SEC. 1-54-38
GOV'T. LOT 2
GOV'T. LOT 1
LOT 2
LOT 1
TWP. 53 S.
TWP. 54 S.
LEVEE L-30
LEVEE L-31E
R/W
DETAIL
SURVEYOR'S NOTES:
SURVEYOR'S CERTIFICATION:
RECORDED IN OFFICIAL RECORDS BOOK
OF BROWARD COUNTY, FLORIDA
JACK WHEELER
CLERK OF CIRCUIT COURT
LEGEND
EXHIBIT C
TRANSMISSION LINE ROUTE
FLORIDA POWER & LIGHT COMPANY
CFE 460 PAGE 040

OR 7343 PG 951

E-57962

PROPOSED F.P.& L. CO. TRANSMISSION LINE ROUTE THRU FLOOD CONTROL DISTRICT LANDS IN CONSERVATION AREA NO 3B

All of Central and Southern Florida Flood Control District's rights, title and interest in those lands lying within Conservation Area No. 3B and being within the following described Boundary Limits:

A strip of land 330 feet in width, being 165 feet on each side of a centerline, running through Section 3, Township 54 South, Range 38 East, Excess Government Lots 3 and 6 thereof, Township 53 and 54 South, Range 39 East and Sections 35, 36, 25 and 24, Township 53 South, Range 38 East, all of Dade County, Florida, said centerline being described as follows:

Begin at a point on the South line of said Section 3, 1705.25 feet East of the Southwest corner of said Section 3, thence run N13°16'30"W, along a line 205 feet East of and parallel to the Northerly extension of the West line of Section 10, Township 54 South, Range 38 East, for a distance of 1901.20 feet to a point, this point to be known as POINT "A" and having coordinates of X-838,043.87 and Y-819,277.40; thence run N38°18'55"E for a distance of 33,070.43 feet to a point, this point to be known as POINT "B" and having coordinates of X=(N.U.S.EAGLE) and Y=837,711.06; thence run S89°48'43"E for a distance of 772.69 feet to the East line of said Section 24, this point being 205 feet North of the Southeast corner of said Section 24 and being the end of said centerline.

Together with the following described parcels: PARCEL "A": Commence at above described Point "A"; thence run N13°16'30"W, for a distance of 170.30 feet to Point of Beginning; from said P.O.B., thence run N38°08'55"E for 150.00 feet; thence run N51°51'05"W for 50.00 feet; thence run S38°08'55"W for 150.00 feet; thence run S51°51'05"E for 50.00 feet to P.O.B. PARCEL "B": Commence at above described POINT "B"; thence run N51°51'05"W for 50.00 feet; thence run N38°08'55"E for 131.16 feet to P.O.B. PARCEL "B"; thence run N38°08'55"E for 150.00 feet; thence run N51°51'05"W for 50.00 feet; thence run S38°08'55"W for 150.00 feet; thence run S51°51'05"E for 50.00 feet to P.O.B.

SUBJECT to the common right-of-ways of Levees L-29 and L-30, and Krome Avenue (S.R. 27) which lie within the above described boundary limits.

SEC 34-53-38

GOV'T. LOT 3

LOT 4 LOT 3

LOT 2 LOT 1

SEC 3-54-38

POINT "A"

POINT "B"

LEVEE L-30

LEVEE L-29

TAMIAMI TRAIL

DETAIL

RECORDED IN OFFICIAL RECORDS BOOK OF DADE COUNTY, FLORIDA.
HARVEY RUVIN
CLERK CIRCUIT COURT
BY: D.C.

PLEASE RETURN TO:
A. F. CROWLEY
P. O. BOX 029100 (FPL CO.)
FT. LAUDERDALE, FLA

OR 4601 PG 639

APPENDIX B. Cooperation Agreement By and Between Florida Power and Light Company and the South Florida Water Management District Regarding Licensee's Utility Corridor Within the Everglades National Park Expansion Area, dated August 21, 2008 (Resolution No. 2008-640)

Separate document due to file size.

COOPERATION AGREEMENT BY AND BETWEEN FLORIDA POWER & LIGHT COMPANY AND SOUTH FLORIDA WATER MANAGEMENT DISTRICT REGARDING FPL'S UTILITY CORRIDOR WITHIN THE EVERGLADES NATIONAL PARK EXPANSION AREA.

The SOUTH FLORIDA WATER MANAGEMENT DISTRICT ("***SFWMD***") AND FLORIDA POWER & LIGHT COMPANY ("***FPL***") enter into this Cooperation Agreement ("***Agreement***") as of this 21st day of August, 2008, for the purpose of facilitating the Modified Waters Delivery Project, the Comprehensive Everglades Restoration Program ("***CERP***") and other water delivery projects of SFWMD, including the related grant of easements to the United States Army Corps of Engineers ("***ACOE***") for the Tamiami Trail bridge and channel, and grant of easements to FPL for the purpose of relocating a portion of FPL's existing utility corridor presently within the Everglades National Park Expansion Area to areas on and adjacent to SFWMD's L29/30 and L-31N canal rights-of way. FPL and SFWMD are sometimes collectively referred to herein as the "***parties***" and individually as a "***party***".

I. Recitals

1.1 The Everglades National Park Protection and Expansion Act of 1989, 16 U.S.C. Section 410r-5 *et seq.* expanded the boundaries of the Everglades National Park to include approximately 109,600 acres south of the Tamiami Trail, and through that Act and additional legislation authorized the Department of Interior, National Park Service ("***NPS***") and ACOE to acquire lands within the designated area ("***ENP Expansion Area***"). The purposes of the expansion of Everglades National Park include the preservation of the outstanding natural features of the park, enhancement and restoration of the ecological values, natural hydrologic conditions, and public enjoyment of such area by adding the area commonly known as the Northeast Shark River Slough and the East Everglades, assurance that the park can maintain the natural abundance, diversity, and ecological integrity of the ecosystem. NPS and ACOE are further authorized by 16 U.S.C. Section 410r-8 to acquire lands in addition to the designated 109,600 acres for the purposes of the construction of Modified Water Deliveries to the Everglades National Park.

1.2 SFWMD is a public corporation of the State of Florida, created by the Florida Legislature and given those powers and responsibilities set forth in Chapter 373, Florida Statutes.

1.3 FPL is a utility in the State of Florida and responsible for supplying safe, reliable electrical power to the citizens of Florida.

1.4 FPL owns, and has owned since the 1960's and early 1970's, a 330 feet to 370 feet wide corridor of property through what has become the ENP Expansion Area, (collectively, the "***FPL Property***").

1.5 FPL asserts that the FPL Property is a vital portion of a contiguous forty (40) mile corridor essential for the placement of critical infrastructure necessary for the supply of electrical power for the benefit of the citizens of South Florida.

1.6 NPS asserts that utilization of the FPL Property for a utility corridor, which would bisect a portion of the ENP Expansion Area, is contrary to the intended purposes of the ENP Expansion Area.

1.7 SFWMD, NPS, ACOE, the Trustees of the Internal Improvement Trust Fund of the State of Florida ("***TIITF***") and FPL have identified property at the eastern and southern edges of the ENP Expansion Area, and on and adjacent to the SFWMD L-29/30 and L-31N canal rights-of-way (all as more particularly described in **Appendix 2** to this Agreement) for the relocation of FPL's utility corridor, where use as a utility corridor may have substantially less impact on the Everglades National Park, including the ENP Expansion Area, the Modified Waters Delivery Project and CERP.

1.8 FPL asserts that it is not opposed to such a relocation of its property interests, and is willing to work with SFWMD, ACOE, TIITF and NPS towards this end, and to engineer its utility facilities to fit within this proposed replacement corridor. It is intended that, in addition to this Agreement, FPL will enter into separate agreements with ACOE, TIITF and NPS regarding the relocation of FPL's utility corridor and that these complimentary transactions, when coupled with this transaction, will maintain the viability of FPL's property as a contiguous corridor. **Time is, however, of the essence to FPL so that it may confirm the viability of this proposed relocation and begin state and federal approval processes**.

II. Undertakings of the Parties

1.9 SFWMD, ACOE, NPS, TIITF and FPL propose to effectuate the relocation of the FPL Property interests to the properties more particularly described in **Appendix 2** to this Agreement by the following instruments: with only the exchanges between SFWMD and FPL identified in subparagraphs 1.9 (a),(c), (d),(e), (f), (g), (h), (i), (j) and (m) (the latter being as to SFWMD only under this Agreement) being addressed by virtue of this Agreement and SFWMD makes no representation as to the acceptability of the remaining subparagraphs in this Paragraph 1.9, which do not apply to SFWMD:

a. That the **United States, through the NPS,** convey in fee simple to FPL, property located in the ENP Expansion Area in a corridor being a minimum 330 feet in width as shown in **Appendix 2**, made a part hereof, free and clear of all liens, encumbrances and restrictions, other than those agreed to in writing by FPL, including but not limited to restrictions on use, and SFWMD will consent to the grant. SFWMD has declared this land as surplus to the needs of the SFWMD, including conservation purposes. The SFWMD consent will be in substantially the form of the subordination and

non-disturbance agreement attached hereto as **Exhibit E,** made a part hereof.

b. That the **United States, through the NPS,** convey to FPL a perpetual easement for the management of non-native vegetation that has the potential to be a fire hazard to transmission facilities that is approximately 90 feet in width as shown in **Appendix 2,** made a part hereof.

c. That the **United States, through the ACOE ,** convey to FPL, and SFWMD will consent to the grant of, a perpetual easement for the construction, placement, operation and maintenance of utility facilities, including transmission lines, appurtenant facilities, communications facilities and pipelines over properties acquired by the ACOE as more particularly shown in **Appendix 2,** together with the right of ingress and egress for personnel and equipment of FPL, its employees, contractors, agents, successors or assigns over these lands, for the purpose of exercising and enjoying the rights granted by this easement and any or all of the rights granted thereunder, free and clear of all liens, encumbrances and restrictions, other than those agreed to in writing by FPL, including but not limited to restrictions on use. Upon conveyance of the lands underlying these easements from the United States through the ACOE to SFWMD, **SFWMD** shall convey, at no additional cost to FPL, a perpetual easement(s) to FPL for the purposes described in the United States/ACOE easement grants to FPL. The easement(s) granted by SFWMD to FPL over such lands shall be in substantially the form of the attached **Exhibit A** made a part hereof. SFWMD has declared the easement as surplus to the needs of the SFWMD, including conservation purposes. FPL acknowledges and agrees that SFWMD is not and will not be bound to acquire any land to provide such easements. The SFWMD consent will be in substantially the form of the subordination and non-disturbance agreement attached hereto as **Exhibit E.**

d. That the **United States,** through the **ACOE,** convey to FPL a perpetual easement for the management of non-native vegetation that has the potential to be a fire hazard to transmission facilities that is approximately 90 feet in width as shown in **Appendix 2.** Upon conveyance of the lands underlying these easements from the United States through the ACOE to SFWMD, **SFWMD** shall convey, at no additional cost to FPL, a perpetual easement(s) to FPL for the purposes described herein. The easement(s) granted by SFWMD to FPL over such lands shall be in substantially the form of the attached **Exhibit C** made a part hereof. FPL acknowledges and agrees that SFWMD is not and will not be bound to acquire any land to provide such easements.

e. That **SFWMD** convey to FPL north of SW 8th Street (Tamiami Trail) a perpetual easement being a minimum 330 feet in width, but no greater than 450 feet in width (in the area of corners and turns), for the construction, placement, operation and maintenance of transmission lines and appurtenant facilities together with communication facilities for FPL's sole use, on and adjacent to the L-29/30 canal right-of-way, as shown in **Appendix 2**, together with the right of ingress and egress for personnel and equipment of FPL, its employees, contractors, agents, successors or assigns over the easement area, for the purpose of exercising and enjoying the rights granted by this easement. FPL acknowledges and agrees that SFWMD is not and will not be bound to acquire any land to provide such easements. The easement will be in substantially the form of attached **Exhibit A,** made a part hereof. SFWMD has declared the easement as surplus to the needs of the SFWMD, including conservation purposes.

f. That **SFWMD** convey to FPL south of SW 8th Street (Tamiami Trail), and north of NW 41st Street, a perpetual easement for access to and from FPL's facilities on foot and by motor vehicle including but not limited to trucks, trailers, cranes and other heavy equipment and with materials, that is located adjacent to the L-31N canal right-of-way, said access easement being over the western side of the L-31N canal right-of-way, for finger roads to be installed off the levee and across the right of way connecting to structure pads, and north of NW 41st Street over the western side of the L-30 canal Right of Way to the first bridge over the L-30 canal Right of Way located at Section 36 Township 52 South Range 38 East, all as shown in **Appendix 2**. SFWMD has declared the easement as surplus to the needs of the SFWMD, including conservation purposes. FPL acknowledges and agrees that SFWMD is not and will not be bound to acquire any land to provide such easements. The easement will be in substantially the form of attached **Exhibit D,** made a part hereof.

g. That **SFWMD** convey to FPL a perpetual easement being a minimum 330 feet in width, but no greater than 450 feet in width (in the area of corner and turns), for the construction, placement, operation and maintenance of utility facilities, including transmission lines and appurtenant facilities, pipelines and communication facilities in the vicinity of SW 120th Street, or SW 112th Street, Miami, Florida, depending upon the FPL route selected, as shown in **Appendix 2**, together with the right of ingress and egress for personnel and equipment of FPL, its employees, contractors, agents, successors or assigns over the easement area, for the purpose of exercising and enjoying the rights granted by this easement. FPL acknowledges and agrees that SFWMD is not and will not be bound to acquire any land to provide

such easements. The easement shall be in substantially the same form as **Exhibit A.** SFWMD has declared the easement as surplus to the needs of the SFWMD, including conservation purposes.

h. That **SFWMD,** convey to FPL north of SW 8th Street (Tamiami Trail) a perpetual easement for the management of non-native vegetation that has the potential to be a fire hazard to transmission facilities that is approximately 90 feet in width as shown in **Appendix 2**. The easement will be in substantially the form of attached **Exhibit C,** made a part hereof. SFWMD has declared the easement as surplus to the needs of the SFWMD, including conservation purposes.

i. That SFWMD will consent to the grant of easements to FPL over private land located within the replacement corridor identified on **Appendix 2** to this Agreement. SFWMD has declared the easements as surplus to the needs of the SFWMD including conservation purposes. The SFWMD consent will be in substantially the form of the subordination and non-disturbance agreement attached hereto as **Exhibit E** made a part hereof.

j. That **TIITF** grant to FPL, and SFWMD will consent to the grant to FPL of, a perpetual easement for the construction, placement, operation and maintenance of transmission lines and appurtenant facilities and communications facilities, at the location of the L-29/30 N canal right of way being a minimum 330 feet in width between SW 8th Street , Miami, Florida and NW 41st Street, Miami, Florida, as shown in **Appendix 2**, together the right of ingress and egress for personnel and equipment of FPL, its employees, contractors, agents, successors or assigns over these lands, for the purpose of exercising and enjoying the rights granted by this easement and any or all of the rights granted thereunder. The granting of the easement by TIITF is subject to the review by the Acquisition and Restoration Council and approval by the Board of Trustees of the Internal Improvement Trust Fund.
SFWMD has declared the easement as surplus to the needs of the SFWMD, including conservation purposes. The SFWMD consent will be in substantially the form of the subordination and non-disturbance agreement attached hereto as **Exhibit E,** made a part hereof.

k. That **TIITF** grant to FPL a perpetual easement for the management of non-native vegetation that has the potential to be a fire hazard to transmission facilities that is approximately 90 feet in width as shown in **Appendix 2**. The granting of the easement by TIITF is subject to the review by the Acquisition and Restoration Council

and approval by the Board of Trustees of the Internal Improvement Trust Fund.

l. That **FPL**, in keeping with the terms and conditions of the Contingent Agreement by and between FPL and the United States, convey to the United States all of its right, title and interest in the lands described in **Appendix 1**, made a part hereof (except as otherwise noted therein).

m. That **FPL** will release to SFWMD and TIITF all of its right, title and interest in the right of way described in **Appendix 3**, made a part hereof. See **Appendix 2-B** for an approximation of the underlying fee ownerships. The release will be in substantially the form of the Partial Release of Permit Agreement attached hereto as **Exhibit B**, made a part hereof.

n. That, upon FPL's receipt of: i) a fully executed FPL/NPS Contingent Agreement relating to the exchange of the FPL Property for a replacement corridor identified in the attached **Appendix 2**; ii) this Cooperation Agreement executed by the SFWMD; iii) a fully executed Bilateral Agreement with TIITF/DEP and evidence of formal approval of that agreement by the TIITF Board; iv) fully executed Bilateral Agreement with the ACOE, FPL will deliver to the ACOE an executed, perpetual bridge/road and channel easement, a five (5) year flowage easement and an executed temporary construction easement over the FPL Property in the vicinity of the Tamiami Trail as negotiated with the ACOE.

o. That **TIITF** grant to FPL north of NW 41st Street, Miami, Florida a perpetual easement for access to and from FPL's facilities located adjacent to the L-30 and L-31 canal Right of Way, on foot and by motor vehicle including but not limited to trucks, trailers, cranes and other heavy equipment and materials, said access easement being over the western side of the L-30 canal Right-of-Way to the first bridge over the L-30 canal Right of Way located at Section 36 Township 52 South Range 38 East, all as shown in **Appendix 2**.

p. That **FPL** enters into an agreement with SFWMD under which FPL will pay the cost of the design and construction by ACOE of a betterment to the proposed bridge necessary to provide for relocation of FPL's existing, east-west utility line once said bridge is constructed. The betterment will incorporate improvements during bridge design and construction to accommodate relocation of FPL's existing east-west utility line along the L-29 right of way onto the bridge. FPL understands that the cost of design and construction is roughly estimated at $160,000. FPL further understands that the permission of or a utility easement from the Florida Department of Transportation will be required to relocate the line.

For the purpose of this Agreement, FPL is agreeable to paying the final cost of such betterment provided, however, that FPL has the ability to review such costs and determine, in FPL's sole opinion, that the costs are not excessive, prior to entering into the Agreement with SFWMD.

The parties recognize and agree that the documents attached to **Appendix 2** to this Agreement are preliminary documents that, subject to the approval of the parties, will be replaced with a final **Appendix 2-1** following completion of title searches, surveys and engineering design.

1.10 SFWMD and FPL further agree to move forward with due diligence and in good faith to draft and execute a mutually acceptable Global Agreement regarding the following SFWMD/FPL projects:

a. EAA STA Compartment B
b. EAA STA Compartment C
c. Lakeside Ranch STA
d. C-111 Spreader Canal
e. EAA Reservoir
f. Picayune Strand
g. C-43 Water Quality and Testing Facility
h. Biscayne Bay Costal Wetlands
i. C-43 Reservoir
j. C-44 Reservoir/STA
k. Fran Reich Preserve (Site 1)
l. Broward County WPA
m. C-23/24 STA
n. C-23/24 Reservoir

1.11 The use of the terms "corridor", "utility corridor" and "replacement corridor" in this Agreement is not an admission or acknowledgment by SFWMD, that the use of the FPL Property as a utility corridor is permissible or suitable as FPL has not begun the permitting process.

2.0 The parties to this Agreement have determined that the public interest would be served by the exchanges identified herein.

2.1 Additional tasks to be undertaken related to this Agreement are as follows:

a. FPL will provide funding for all appraisals and survey work necessary to effectuate the FPL/SFWMD land exchange contemplated by Paragraph 1.9 of this Agreement.

b. FPL will ensure the timely completion of appraisals, surveys and engineering planning required to effectuate the FPL/SFWMD land exchange contemplated by Paragraph 1.9 of this Agreement.

2.2 Following the enactment of federal legislation ratifying the Contingent Agreement between NPS and FPL and simultaneously with the NPS-FPL land exchange closing identified in Paragraph 1.9 (a) and (b) of this Agreement, the parties agree to effectuate the exchanges described in Paragraph 1.9 of this Agreement, including executing all the necessary instruments to effectuate the SFWMD-FPL exchanges identified in Paragraphs 1.9 (g), (h), (i), (j), (k) and (n) (as to the SFWMD Permit only) and (d) if the conveyance from the United States to SFWMD has occurred.

2.3 The parties recognize that this Agreement, upon execution by SFWMD and FPL, is a legally binding agreement.

2.4 This Agreement may be executed by the parties on separate counterpart signature pages (including by telecopy) and all such counterpart signature pages taken together with the body of this Agreement shall be deemed to constitute one and the same instrument.

2.5 If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other governmental authority: (1) such portion or provision shall be deemed separate and independent, (2) the parties shall negotiate in good faith to restore insofar as practicable the benefits to each party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

2.6 This Agreement shall be governed by the law of the State of Florida.

2.7 Each party represents and warrants that the execution of this Agreement has been duly authorized by it and that this Agreement, upon execution by the other party, is binding on and enforceable against such party in accordance with the terms of this Agreement. No consent to such execution is required from any person, judicial or administrative body, governmental authority or any other person other than any such consent which already has been unconditionally given. Each party hereto represents and warrants that there is no pending litigation, or to the best of their knowledge, threatened litigation that would affect its obligations to perform hereunder.

2.8 Notwithstanding any other provision of this Agreement, if the Congress enacts authorizing, ratifying or confirming legislation which amends or alters any of the terms of the FPL/NPS Contingent Agreement in the absence of specific written concurrence of FPL to such amendment or alteration, FPL shall have the right, within ninety (90) days of the enactment of such legislation, to terminate this Agreement without any further obligation hereunder by written notice delivered to SFWMD, and neither Party shall have any further obligations to the other under this Agreement.

2.9 In the event that federal legislation approving, ratifying and confirming the FPL/NPS Contingent Agreement is not enacted into law, this Agreement shall be null and void in all respects and the Parties shall return to their status and rights prior to the execution of this Agreement.

IN WITNESS WHEREOF, and intending to be legally bound hereby, this Agreement has been executed by the parties on the dates shown below:
[Counterpart signature pages to follow.]

Date:_____

FLORIDA POWER & LIGHT COMPANY,
a Florida Corporation

By:_____
Terry L. Hicks
Vice President of Corporate Real Estate

Date:_____

SOUTH FLORIDA WATER MANAGEMENT DISTRICT BY ITS GOVERNING BOARD, a political subdivision of the State of Florida

By:_____
Eric Buerrman, Chair

LEGAL FORM APPROVED
SFWMD OFFICE OF COUNSEL
BY _____ DATE 8/21/2008

Appendix 1
FPL Property which is authorized for acquisition by the United States and affected by this Agreement in Concept

Property owned by Florida Power and Light Company located in the East Everglades Acquisition Area, between SW 8th Street and SW 120th Street, Miami, FL:

The West 1/2 of the West 1/2 of the East ½ of the West 1/2 of Section 3, Township. 55 South, Range 38 East.
And
The West ½ of the West ½ of the East ½ of the West 1/2 of Section 10, Township 55 South, Range 38 East, less and except the South 660 feet thereof which is owned by Florida Power and Light Company; subject to a reserved easement for non-native vegetation management in favor of Florida Power and Light Company over the North 82.45 feet of the South 742.45 feet of said Section 10; and over which the U. S. Army Corps of Engineers has an easement, as described in a Declaration of Taking as recorded in Official Records Book ORB 18927, page 2948 of the Public Records of Miami-Dade County, Florida.
And
The West 370 feet of Sections 10, 15, 22, 27 and 34, in Township 54 South, Range 38 East. All of the above in Miami-Dade County, Florida.

Subject to the exceptions noted in title commitments dated 3/15/07 and 3/12/07;

And

FPL easements over Government Lot 3:

i) As recorded in ORB 7237 Page 947 and more particularly described as follows:

Commence at the Northwest corner of Government Lot 3 which lies between Township 54 South and Township 55 South, Range 38 East, of Dade County, Florida; thence run North 89 degrees, 39 minutes, 28 seconds East, along the north line of said Government Lot 3 for a distance of 40.22 feet to the point of beginning of the parcel of land to be hereinafter described: ***From said point of beginning***, run South 4 degrees 22 minutes 17 seconds East for a distance of 75.19 feet; thence run North 89 degrees, 39 minutes, 28 seconds East, along a line 75 feet south of and parallel to the north line of said Government Lot 3 for a distance of 330.19 feet; thence run North 4 degrees, 22 minutes 03 seconds West for a distance of 75.19 feet; thence run South 89 degrees, 39 minutes 28 seconds West, along the north line of said Government Lot 3, for a distance of 330.19 feet to the point of beginning.

ii) As described in that certain Order Taking filed to No. 72-14266 in the Circuit Court of the 11th Judicial Circuit in and for Dade County, Florida dated September 25, 1972, as Parcel 92, containing approximately **19.60 acres, more or less:**

Commence at the Southwest corner of Government Lot 3 between Township 54 South and Township 55 South of Range 38 East of Dade County, Florida; thence run N89 degrees 31 minutes 10 seconds East, along the south line of said Government Lot 3, for a distance of 1319.79 feet to the Northeast corner of the West 2 of the NW1/4 of Section 3, Township 55 South, Range 38 East, ***being the Point of Beginning of the parcel hereinafter described***: From said Point of Beginning, thence run North 4 degrees 22 minutes 17 seconds West for a distance of 2666.81 feet to a point of intersection with the North line of said Government Lot 3, point of Intersection being 40.02 feet East of the NW corner of said Government Lot 3 as measured along the North line of said Lot 3; thence run N 89 degrees 39 minutes 28 seconds East, along the North line of said Lot 3, for a distance of 330.19 feet; thence run South 4 degrees 22 minutes 03 seconds East for a distance of 2665.99 feet to a point of intersection with the South line of said Lot 3; thence run South 89 degrees 31 minutes 10 seconds West along the South line of said Lot 3, for a distance of 329.95 feet to the Point of Beginning; ***LESS*** the North 75 feet thereof. Containing 19.60 acres of land, more or less.

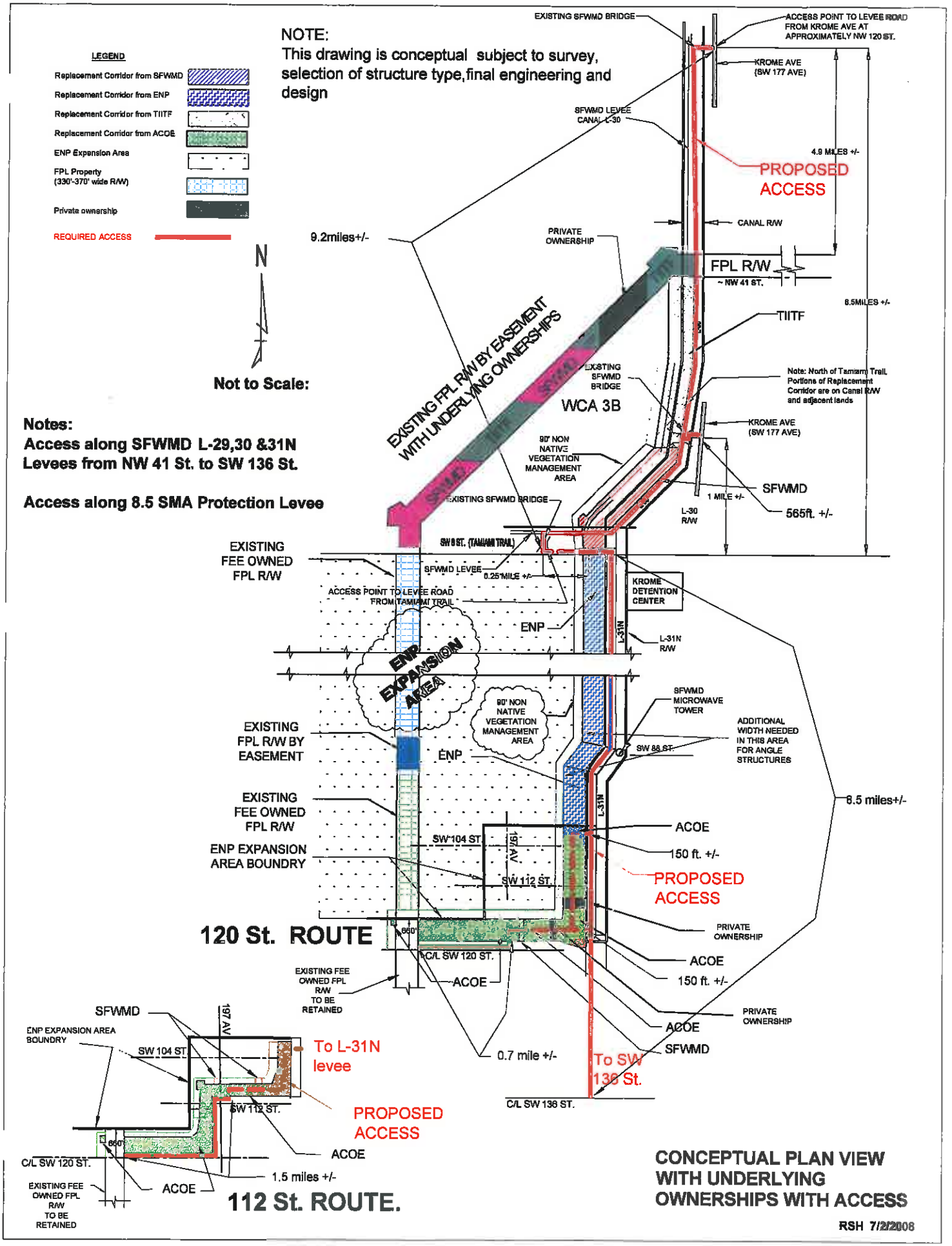
Appendix 1-A is the location map showing the existing FPL property interests.

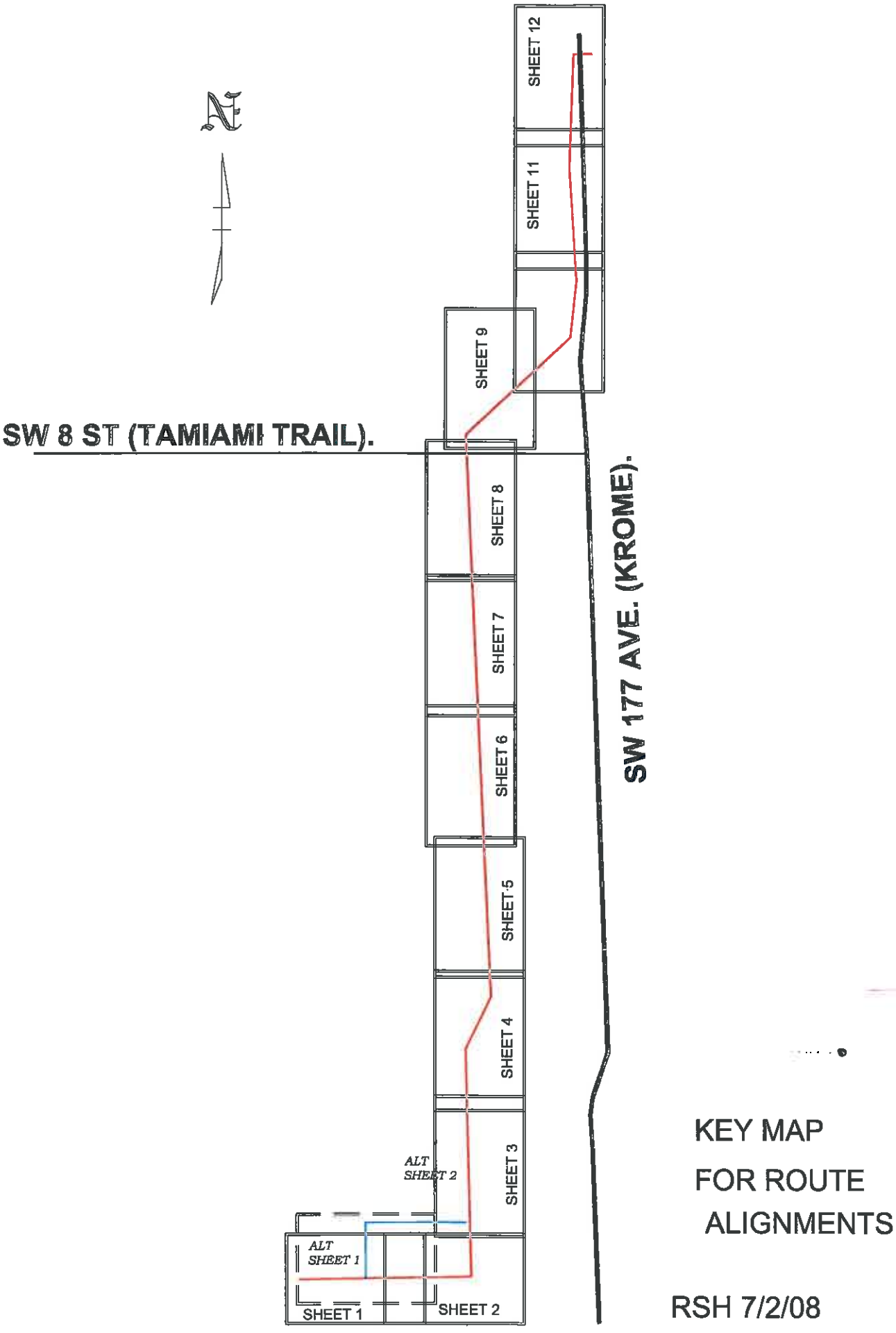
Appendix 2

Proposed Relocation of FPL Utility Corridor on Lands proposed to be conveyed in Fee Simple from the US (ENP/National Park Service) and Easements from the SFWMD, ACOE and TIITF

See attached:

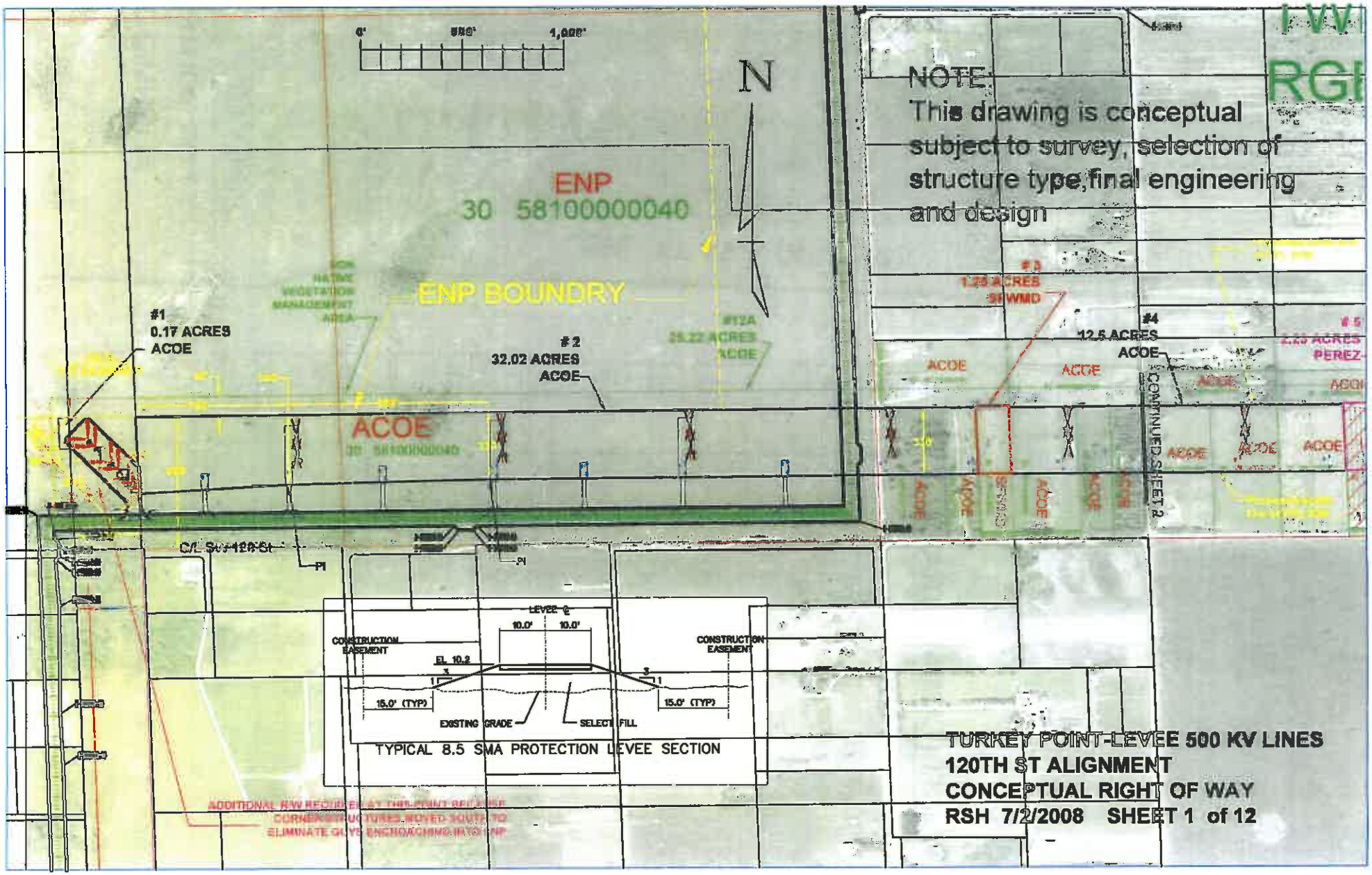
1) Conceptual Plan View with Underlying Ownerships with Access, dated July 2, 2008, 1 sheet, (Not to Scale) (Appendix 2-A)
2) Key Map for Route Alignments, 1 sheet dated July 2, 2008, (Appendix 2-B)
3) Turkey Point Levee 500 kV Lines, 120th Street Alignment, Conceptual Right of Way, Sheets 1 through 12, dated July 2, 2008, (Appendix 2-C); and
4) Turkey Point Levee 500 kV Lines, 112th Street Alignment, Conceptual Right of Way, Sheets 1 and 2 dated July 2, 2008, (Appendix 2-D);
5) Right of Way Relocation, Anticipated Access Rights to Relocated Right of Way, dated July 2, 2008 (Appendix 2-E)
6) Conceptual Configuration of Proposed Relocated FPL R/W Along ENP, dated July 20, 2007, (Appendix 2-F)

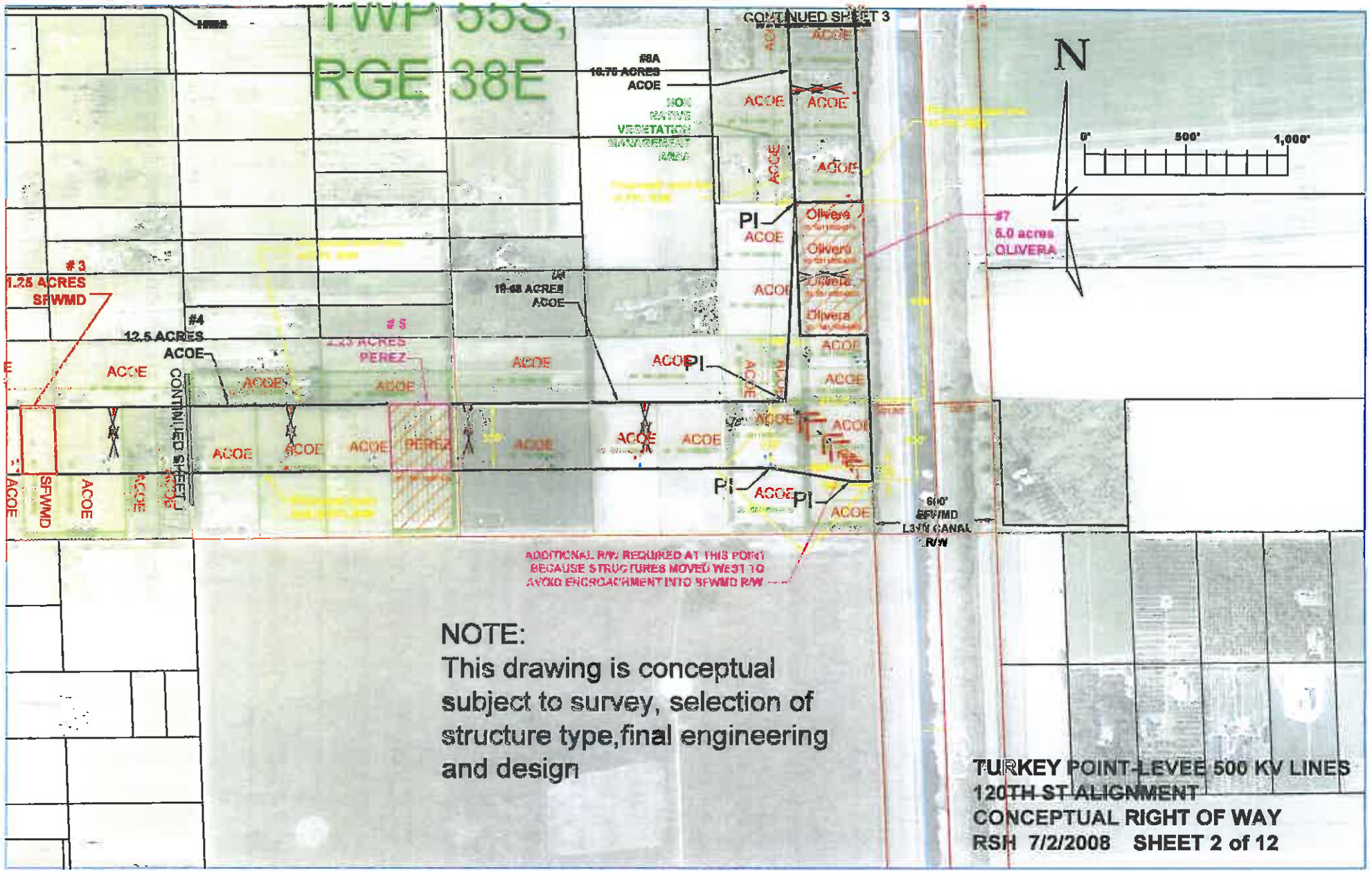

LEGEND
Replacement Corridor from SFWMD
Replacement Corridor from ENP
Replacement Corridor from TIITF
Replacement Corridor from ACOE
ENP Expansion Area
FPL Property (330'-370' wide R/W)
Private ownership
REQUIRED ACCESS
NOTE:
This drawing is conceptual subject to survey, selection of structure type,final engineering and design
N
Not to Scale:
Notes:
Access along SFWMD L-29,30 &31N Levees from NW 41 St. to SW 136 St.
Access along 8.5 SMA Protection Levee
EXISTING SFWMD BRIDGE
ACCESS POINT TO LEVEE ROAD FROM KROME AVE AT APPROXIMATELY NW 120 ST.
KROME AVE (SW 177 AVE)
SFWMD LEVEE CANAL L-30
4.9 MILES +/-
PROPOSED ACCESS
CANAL R/W
9.2miles+/-
PRIVATE OWNERSHIP
FPL R/W
~ NW 41 ST.
8.5MILES +/-
TIITF
EXISTING FPL R/W BY EASEMENT WITH UNDERLYING OWNERSHIPS
EXISTING SFWMD BRIDGE
WCA 3B
Note: North of Tamiami Trail Portions of Replacement Corridor are on Canal R/W and adjacent lands
KROME AVE (SW 177 AVE)
90' NON NATIVE VEGETATION MANAGEMENT AREA
SFWMD
1 MILE +/-
565ft. +/-
L-30 R/W
EXISTING SFWMD BRIDGE
SW 8 ST. (TAMIAMI TRAIL)
EXISTING FEE OWNED FPL R/W
SFWMD LEVEE
0.25 MILE +/-
ACCESS POINT TO LEVEE ROAD FROM TAMIAMI TRAIL
KROME DETENTION CENTER
ENP
L-31N
L-31N R/W
ENP EXPANSION AREA
SFWMD MICROWAVE TOWER
90' NON NATIVE VEGETATION MANAGEMENT AREA
ADDITIONAL WIDTH NEEDED IN THIS AREA FOR ANGLE STRUCTURES
EXISTING FPL R/W BY EASEMENT
ENP
SW 88 ST.
EXISTING FEE OWNED FPL R/W
ENP EXPANSION AREA BOUNDRY
8.5 miles+/-
ACOE
SW 104 ST.
197 AV
150 ft. +/-
SW 112 ST.
PROPOSED ACCESS
120 St. ROUTE
660'
C/L SW 120 ST.
PRIVATE OWNERSHIP
ACOE
EXISTING FEE OWNED FPL R/W TO BE RETAINED
ACOE
150 ft. +/-
PRIVATE OWNERSHIP
ACOE
SFWMD
0.7 mile +/-
To SW 136 St.
C/L SW 136 ST.
SFWMD
ENP EXPANSION AREA BOUNDRY
197 AV
SW 104 ST.
To L-31N levee
SW 112 ST.
PROPOSED ACCESS
660'
ACOE
C/L SW 120 ST.
1.5 miles +/-
EXISTING FEE OWNED FPL R/W TO BE RETAINED
ACOE
112 St. ROUTE.
CONCEPTUAL PLAN VIEW WITH UNDERLYING OWNERSHIPS WITH ACCESS
RSH 7/2/2008

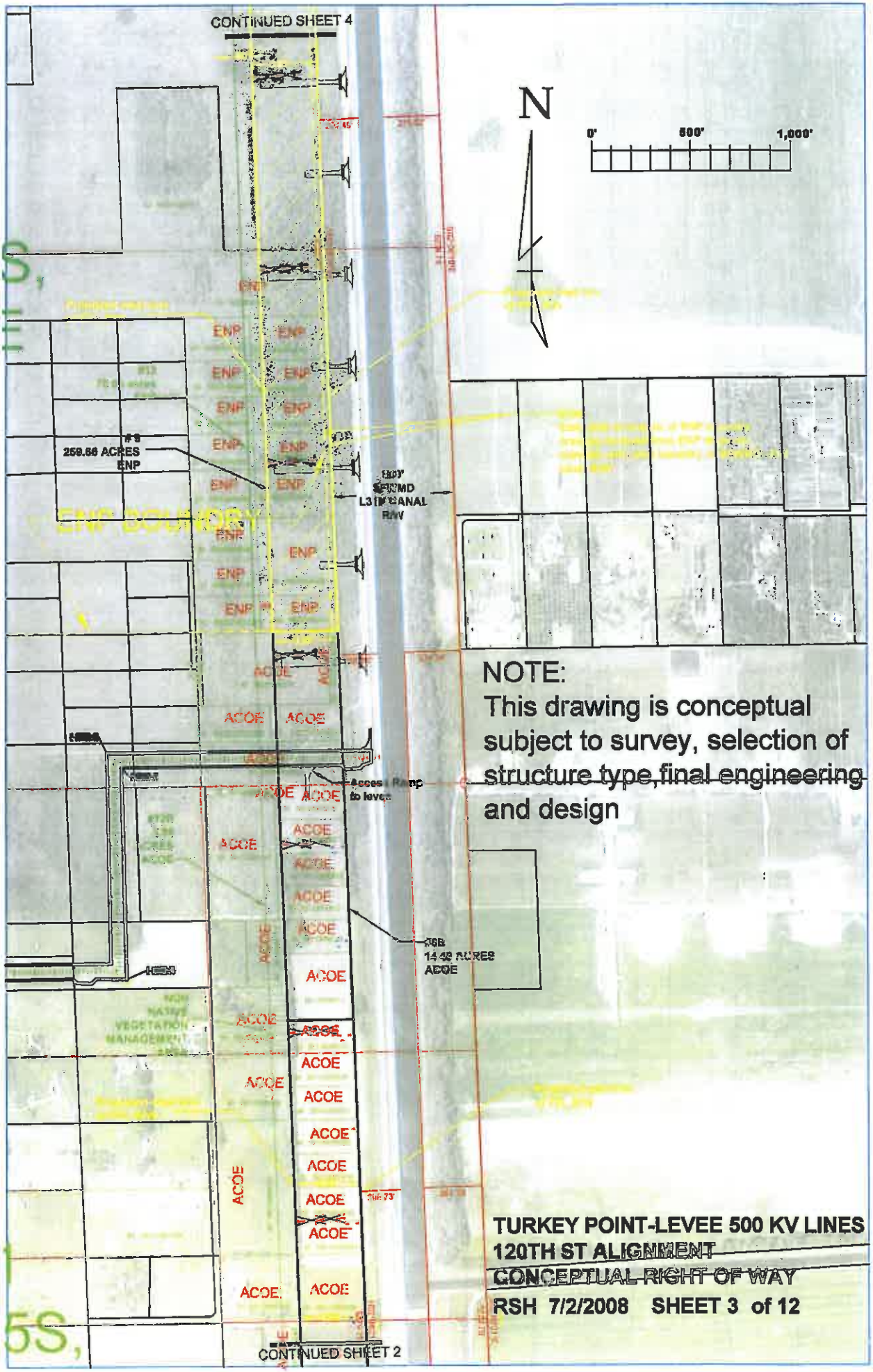


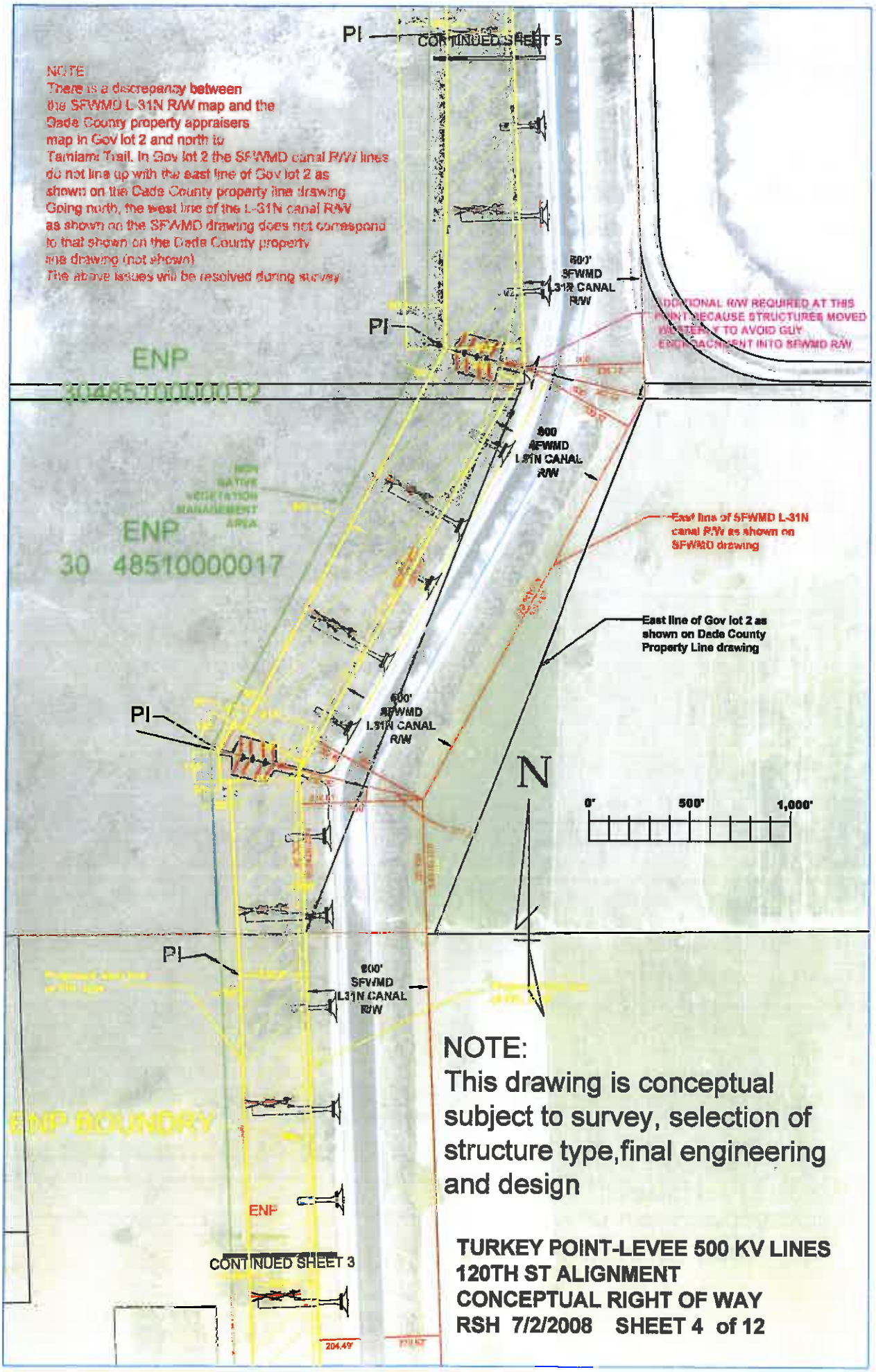
KEY MAP
FOR ROUTE
ALIGNMENTS

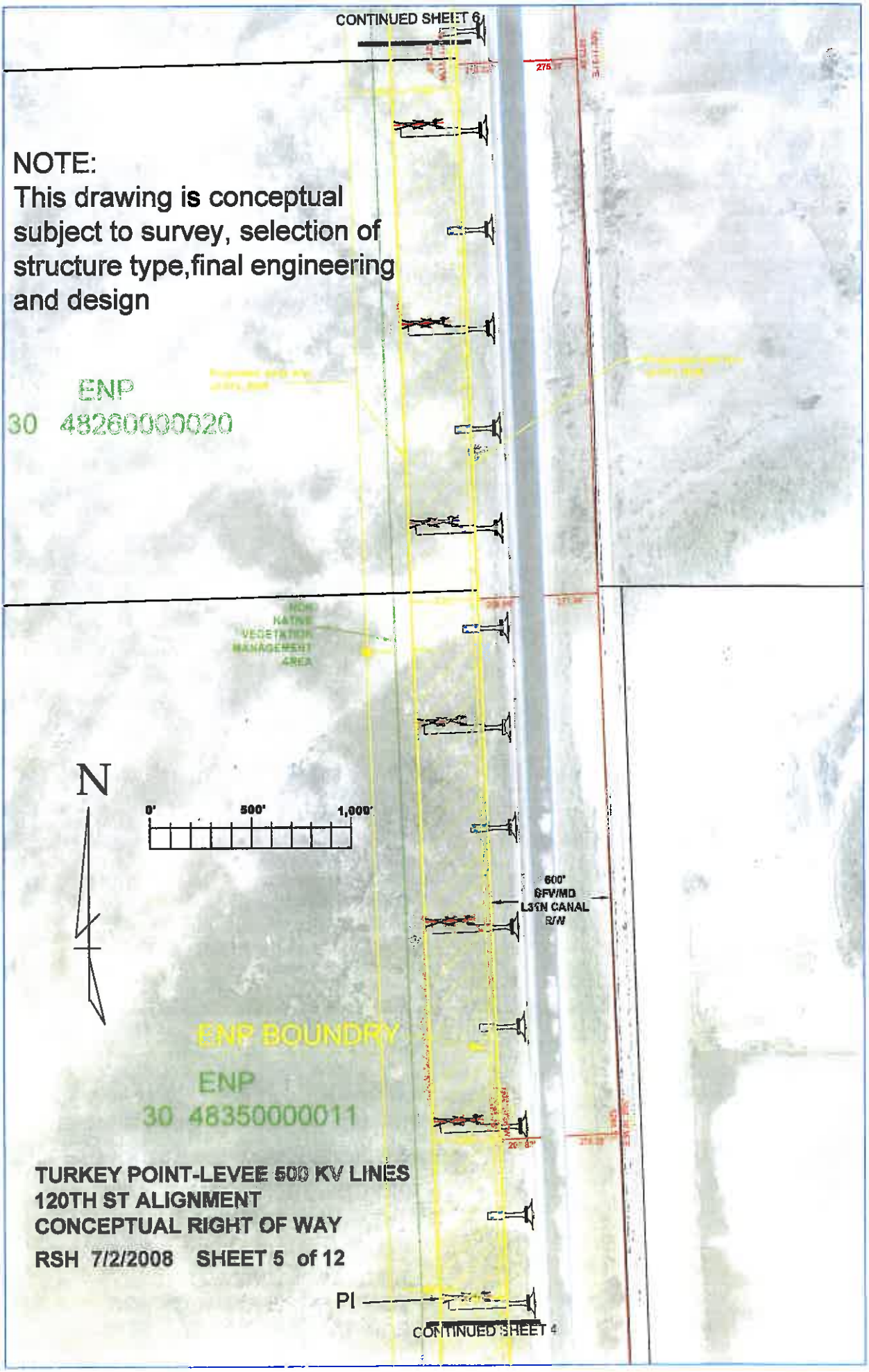
RSH 7/2/08

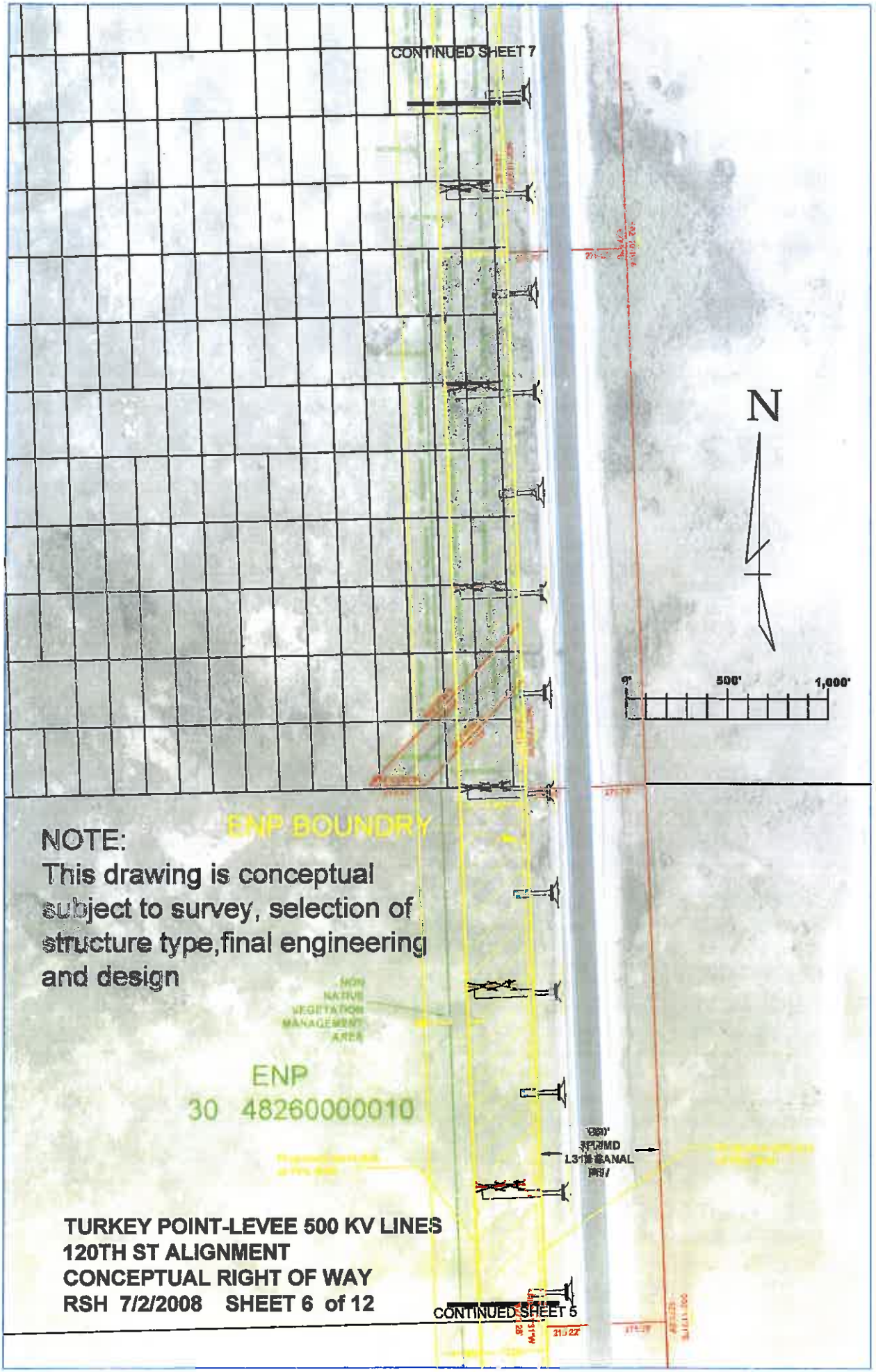

0'
500'
1,000'
N
NOTE:
This drawing is conceptual subject to survey, selection of structure type, final engineering and design
ENP
30 58100000040
ENP BOUNDRY
#1
0.17 ACRES
ACOE
#2
32.02 ACRES
ACOE
#3
1.25 ACRES
SFWMD
#4
12.5 ACRES
ACOE
#5
2.25 ACRES
PEREZ
#12A
25.22 ACRES
ACOE
ACOE
CONTINUED SHEET 2
C/L Sta 128+61
PI
LEVEE ℄
10.0'
10.0'
CONSTRUCTION EASEMENT
CONSTRUCTION EASEMENT
EL. 10.2
3
1
1
3
15.0' (TYP)
15.0' (TYP)
EXISTING GRADE
SELECT FILL
TYPICAL 8.5 SMA PROTECTION LEVEE SECTION
TURKEY POINT-LEVEE 500 KV LINES
120TH ST ALIGNMENT
CONCEPTUAL RIGHT OF WAY
RSH 7/2/2008 SHEET 1 of 12


TWP 55S,
RGE 38E
CONTINUED SHEET 3
#8A
10.75 ACRES
ACOE
NON NATIVE VEGETATION MANAGEMENT AREA
ACOE
PI
Olivera
#7
5.0 acres
OLIVERA
N
0'
500'
1,000'
#3
1.25 ACRES
SFWMD
#4
12.5 ACRES
ACOE
#5
2.25 ACRES
PEREZ
10.48 ACRES
ACOE
CONTINUED SHEET 1
SFWMD
600'
SFWMD
L31N CANAL
R/W
ADDITIONAL R/W REQUIRED AT THIS POINT
BECAUSE STRUCTURES MOVED WEST TO
AVOID ENCROACHMENT INTO SFWMD R/W
NOTE:
This drawing is conceptual subject to survey, selection of structure type,final engineering and design
TURKEY POINT-LEVEE 500 KV LINES
120TH ST ALIGNMENT
CONCEPTUAL RIGHT OF WAY
RSH 7/2/2008 SHEET 2 of 12

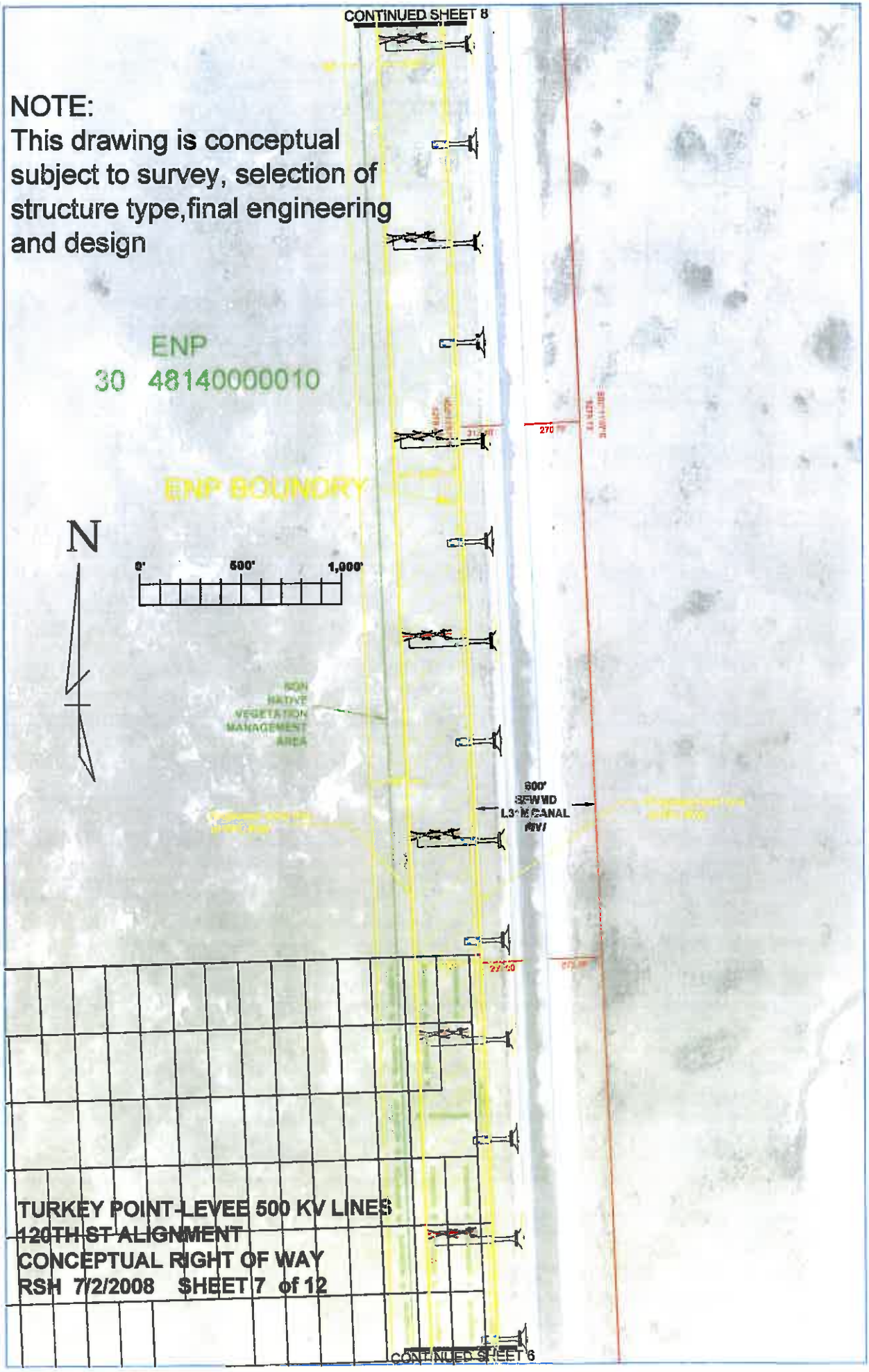

CONTINUED SHEET 4
N
0'
500'
1,000'
#9
259.66 ACRES
ENP
ENP
ACOE
ACOE
ACOE

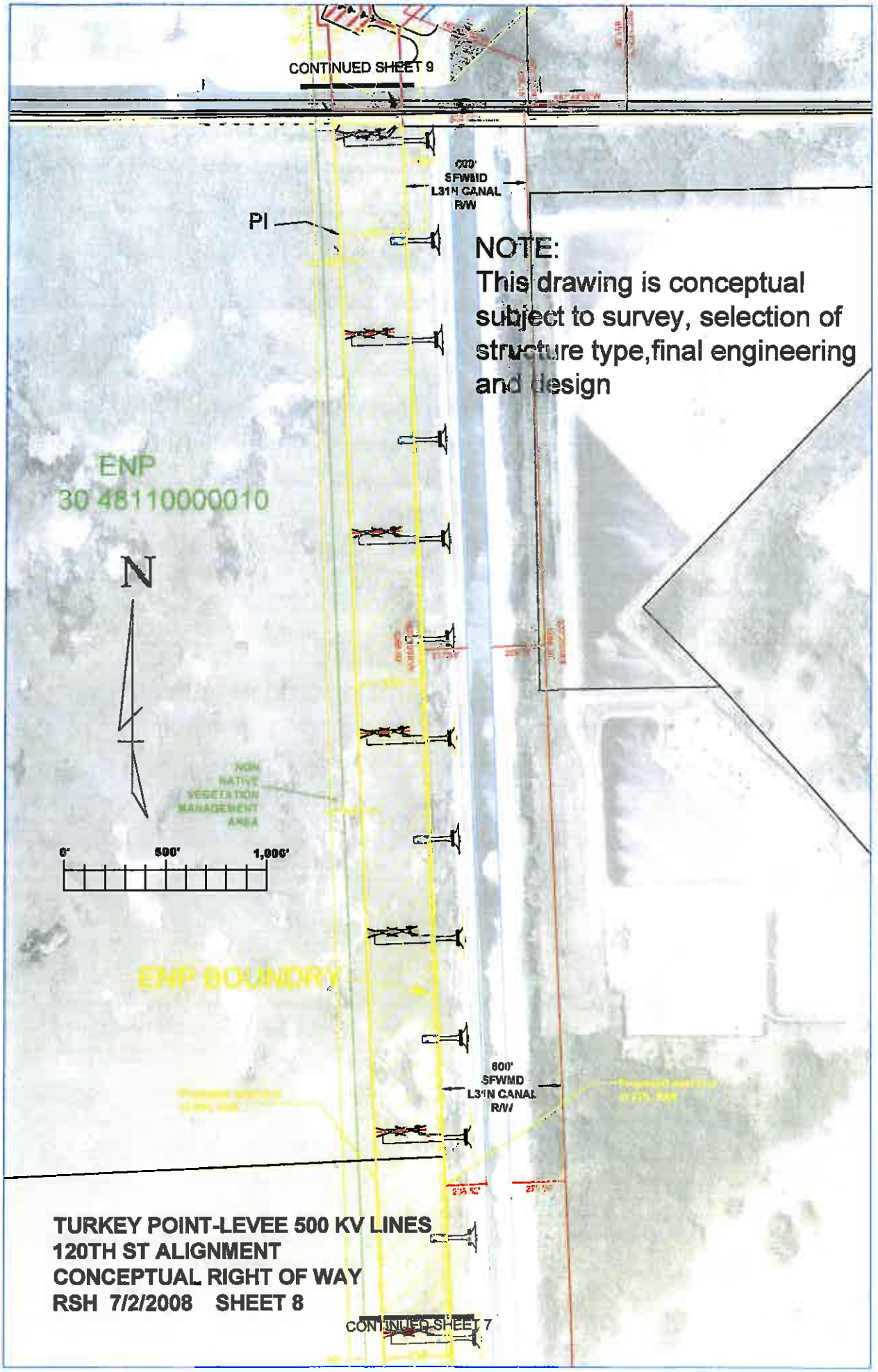

PI
CONTINUED SHEET 5
NOTE
There is a discrepancy between
the SFWMD L 31N R/W map and the
Dade County property appraisers
map in Gov lot 2 and north to
Tamiami Trail. In Gov lot 2 the SFWMD canal R/W lines
do not line up with the east line of Gov lot 2 as
shown on the Dade County property line drawing
Going north, the west line of the L-31N canal R/W
as shown on the SFWMD drawing does not correspond
to that shown on the Dade County property
line drawing (not shown)
The above issues will be resolved during survey
50'
SFWMD
L31N CANAL
R/W
ADDITIONAL R/W REQUIRED AT THIS
POINT BECAUSE STRUCTURES MOVED
EASTERLY TO AVOID GUY
ENCROACHMENT INTO SFWMD R/W
PI
ENP
300
SFWMD
L-31N CANAL
R/W
East line of SFWMD L-31N
canal R/W as shown on
SFWMD drawing
ENP
30 48510000017
East line of Gov lot 2 as
shown on Dade County
Property Line drawing
PI
600'
SFWMD
L31N CANAL
R/W
N
0'
500'
1,000'
PI
600'
SFWMD
L31N CANAL
R/W
ENP BOUNDRY
ENP
CONTINUED SHEET 3
204.49'
NOTE:
This drawing is conceptual
subject to survey, selection of
structure type,final engineering
and design
TURKEY POINT-LEVEE 500 KV LINES
120TH ST ALIGNMENT
CONCEPTUAL RIGHT OF WAY
RSH 7/2/2008 SHEET 4 of 12

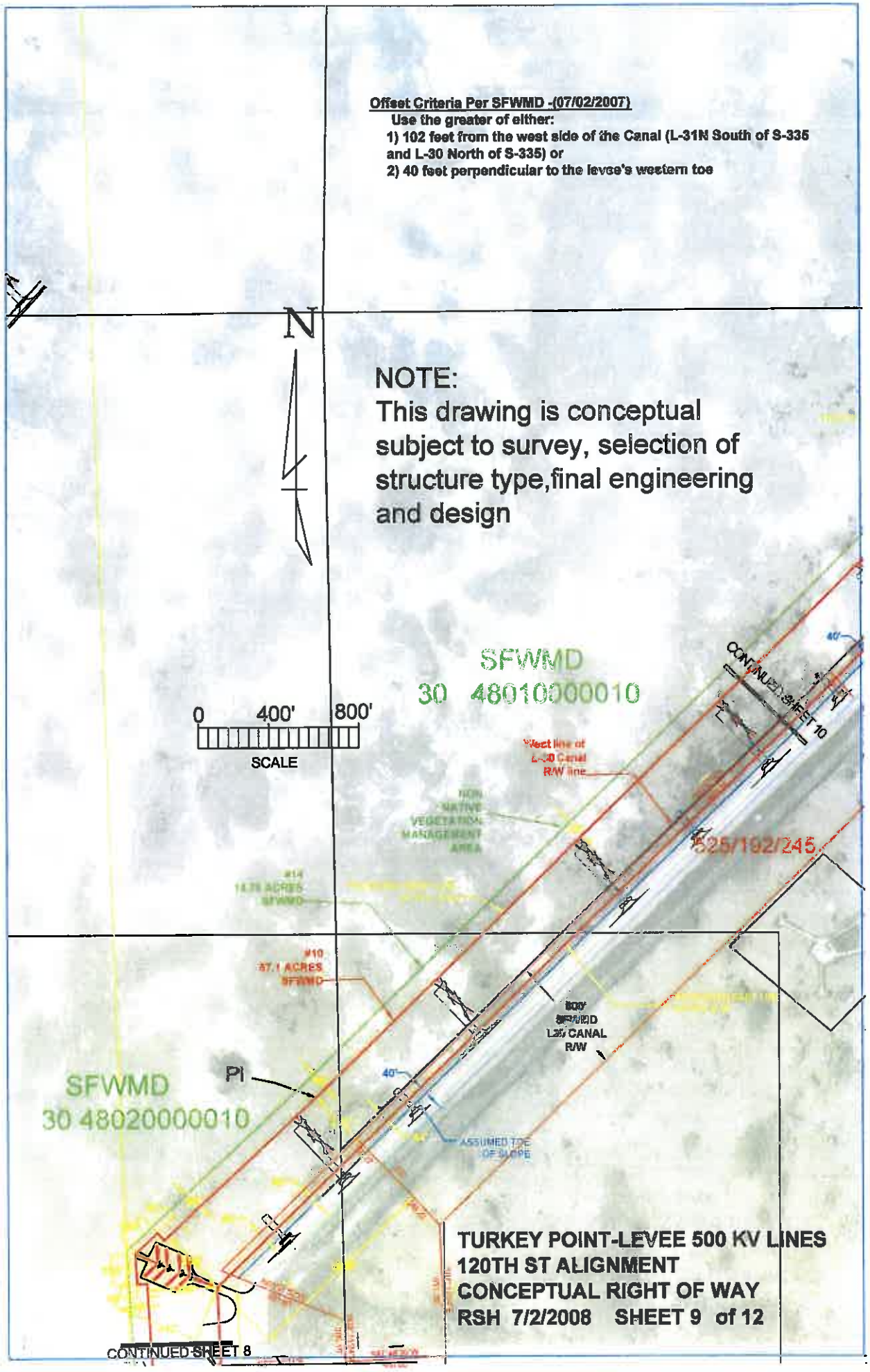

CONTINUED SHEET 6
NOTE:
This drawing is conceptual subject to survey, selection of structure type,final engineering and design
ENP
30 48260000020
NON NATIVE VEGETATION MANAGEMENT AREA
N
0'
500'
1,000'
600' SFWMD L31N CANAL R/W
ENP BOUNDRY
ENP
30 48350000011
TURKEY POINT-LEVEE 500 KV LINES
120TH ST ALIGNMENT
CONCEPTUAL RIGHT OF WAY
RSH 7/2/2008 SHEET 5 of 12
PI
CONTINUED SHEET 4

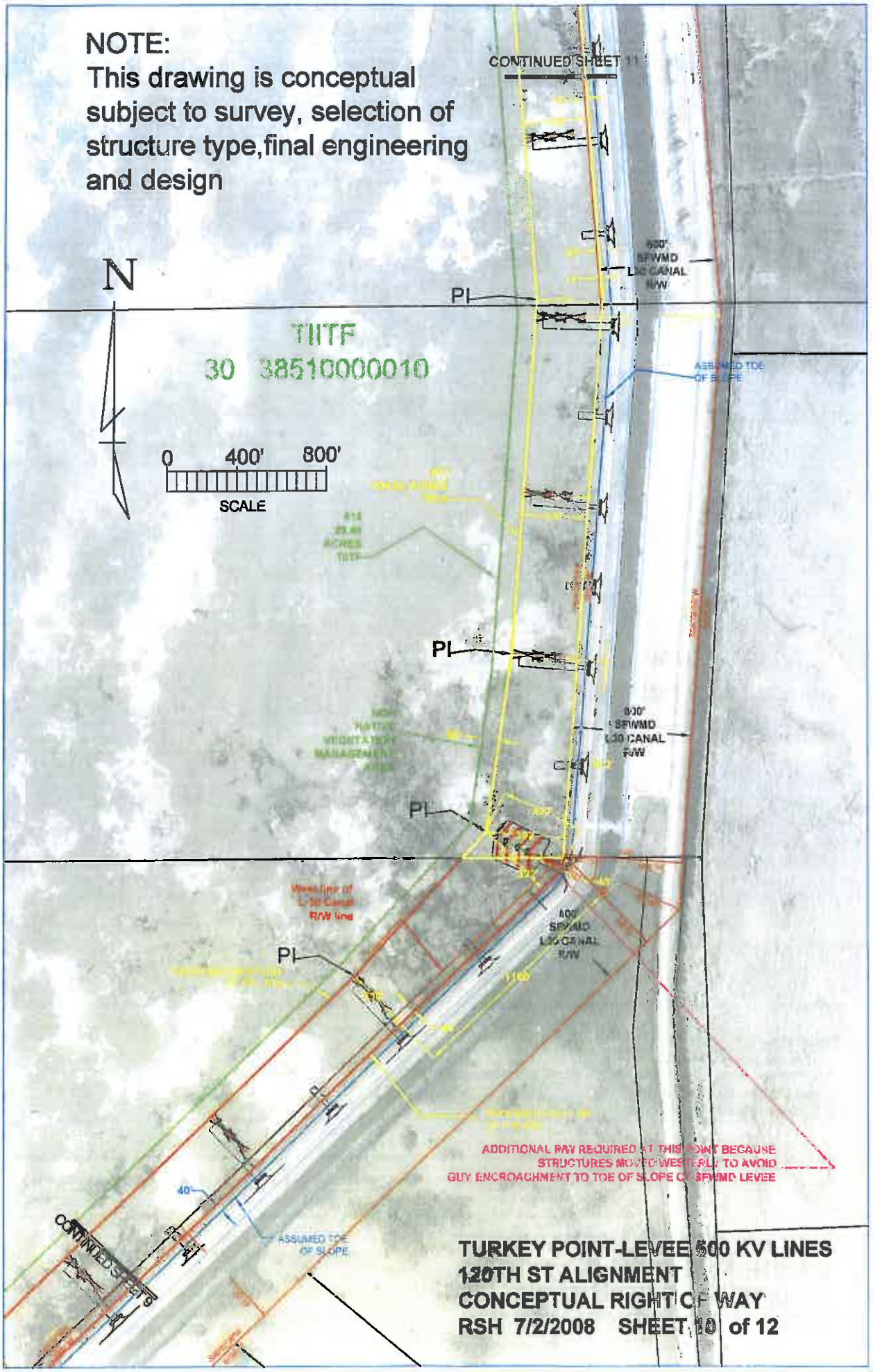


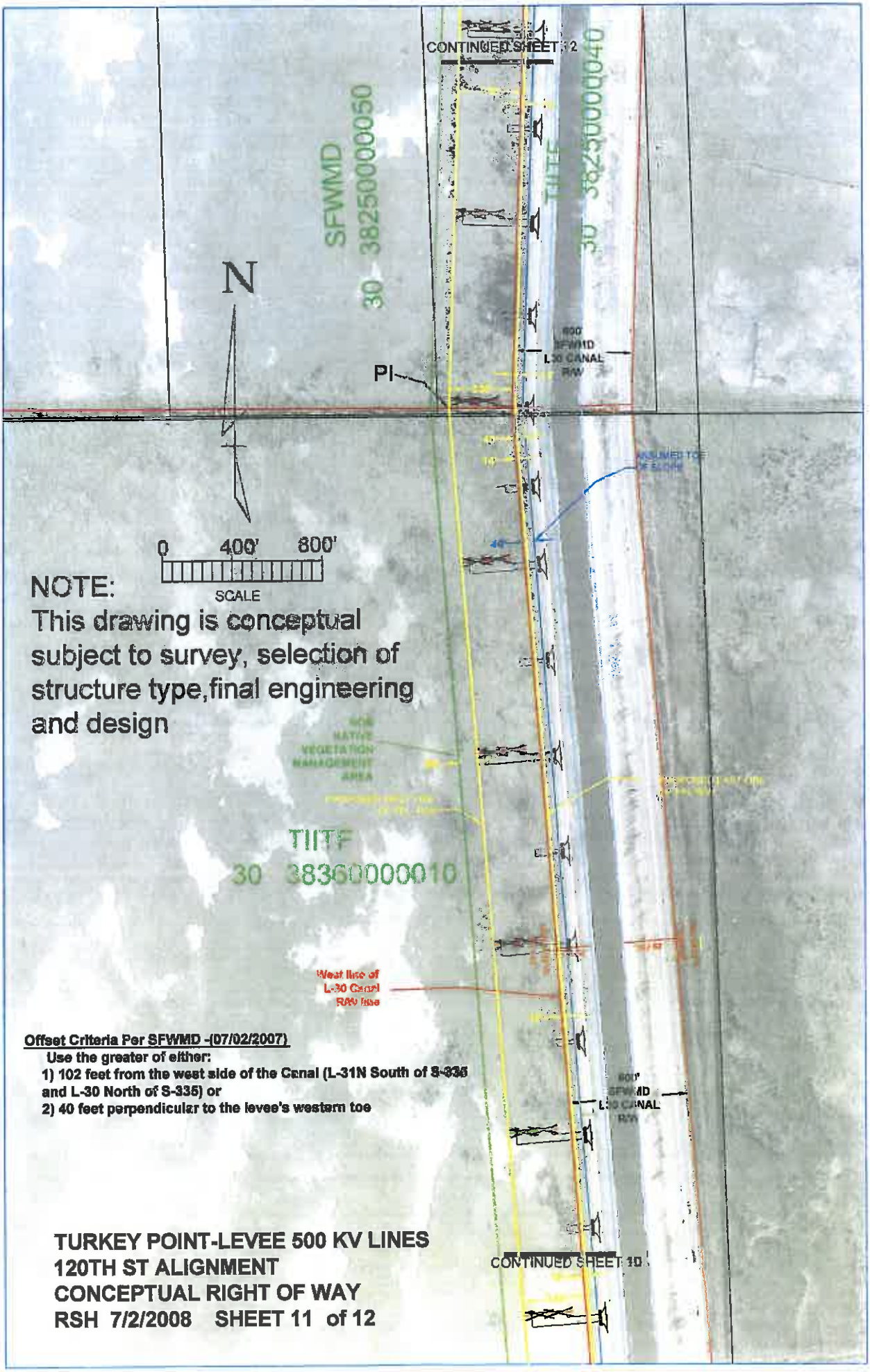
TURKEY POINT-LEVEE 500 KV LINES
120TH ST ALIGNMENT
CONCEPTUAL RIGHT OF WAY
RSH 7/2/2008 SHEET 6 of 12


CONTINUED SHEET 8
NOTE:
This drawing is conceptual subject to survey, selection of structure type,final engineering and design
ENP
30 48140000010
ENP BOUNDRY
N
0'
500'
1,000'
NON NATIVE VEGETATION MANAGEMENT AREA
600' SFWMD L31 N CANAL R/W
270'
TURKEY POINT-LEVEE 500 KV LINES
120TH ST ALIGNMENT
CONCEPTUAL RIGHT OF WAY
RSH 7/2/2008 SHEET 7 of 12
CONTINUED SHEET 6


CONTINUED SHEET 9
600'
SFWMD
L31N CANAL
R/W
PI
NOTE:
This drawing is conceptual subject to survey, selection of structure type,final engineering and design
ENP
30 48110000010
N
NON
NATIVE
VEGETATION
MANAGEMENT
AREA
0'
500'
1,000'
ENP BOUNDRY
600'
SFWMD
L31N CANAL
R/W
TURKEY POINT-LEVEE 500 KV LINES
120TH ST ALIGNMENT
CONCEPTUAL RIGHT OF WAY
RSH 7/2/2008 SHEET 8
CONTINUED SHEET 7


Offset Criteria Per SFWMD -(07/02/2007)
Use the greater of either:
1) 102 feet from the west side of the Canal (L-31N South of S-335 and L-30 North of S-335) or
2) 40 feet perpendicular to the levee's western toe
N
NOTE:
This drawing is conceptual subject to survey, selection of structure type,final engineering and design
SFWMD
30 48010000010
0
400'
800'
SCALE
CONTINUED SHEET 10
525/192/245
SFWMD
30 48020000010
PI
CONTINUED SHEET 8
TURKEY POINT-LEVEE 500 KV LINES
120TH ST ALIGNMENT
CONCEPTUAL RIGHT OF WAY
RSH 7/2/2008 SHEET 9 of 12


NOTE:
This drawing is conceptual subject to survey, selection of structure type,final engineering and design
CONTINUED SHEET 11
N
PI
TIITF
30 38510000010
0 400' 800'
SCALE
PI
PI
PI
ADDITIONAL R/W REQUIRED AT THIS POINT BECAUSE STRUCTURES MOVED WESTERLY TO AVOID GUY ENCROACHMENT TO TOE OF SLOPE OF SFWMD LEVEE
40'
ASSUMED TOE OF SLOPE
CONTINUED SHEET 9
TURKEY POINT-LEVEE 500 KV LINES
120TH ST ALIGNMENT
CONCEPTUAL RIGHT OF WAY
RSH 7/2/2008 SHEET 10 of 12



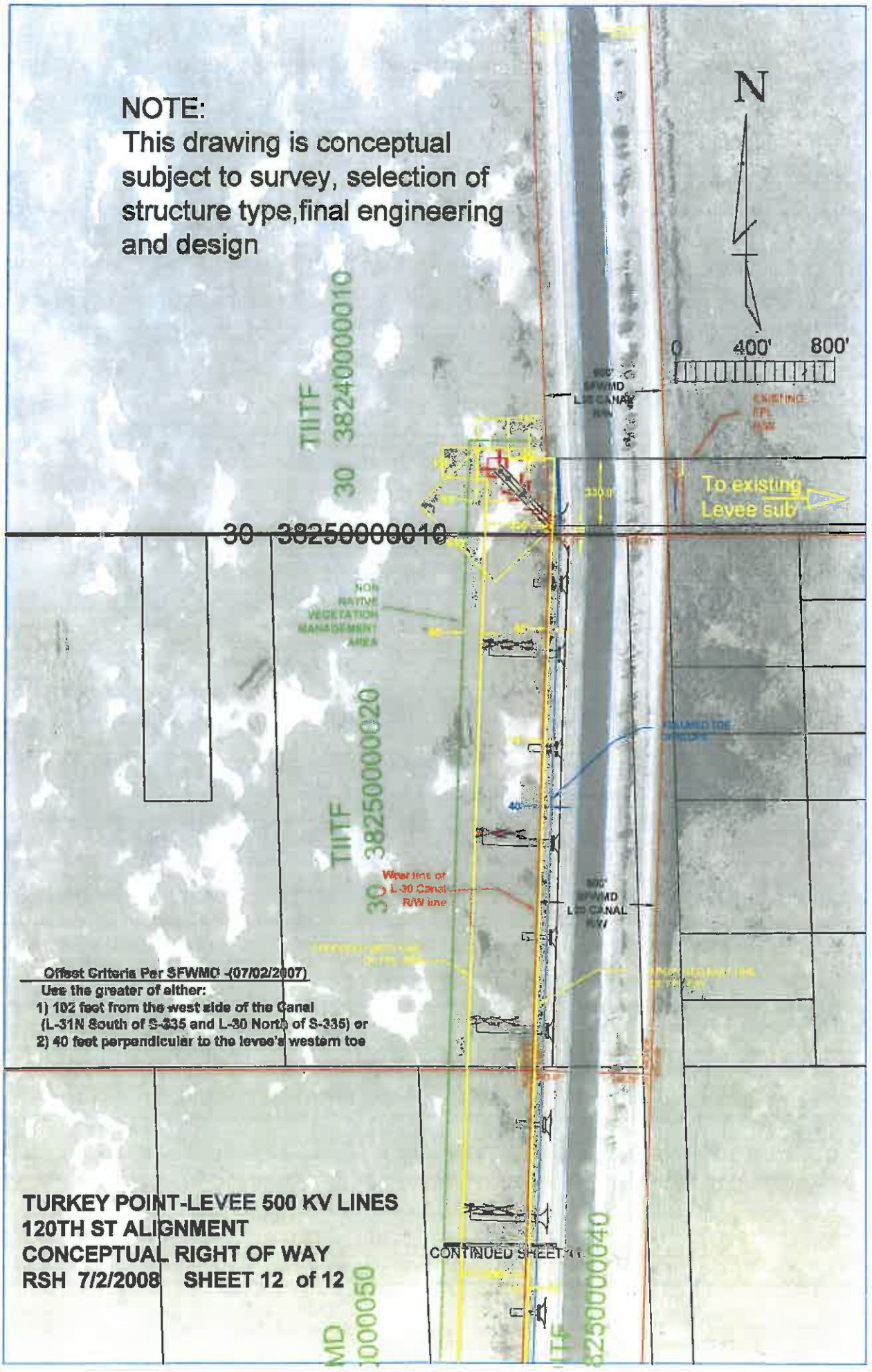
Offset Criteria Per SFWMD -(07/02/2007)

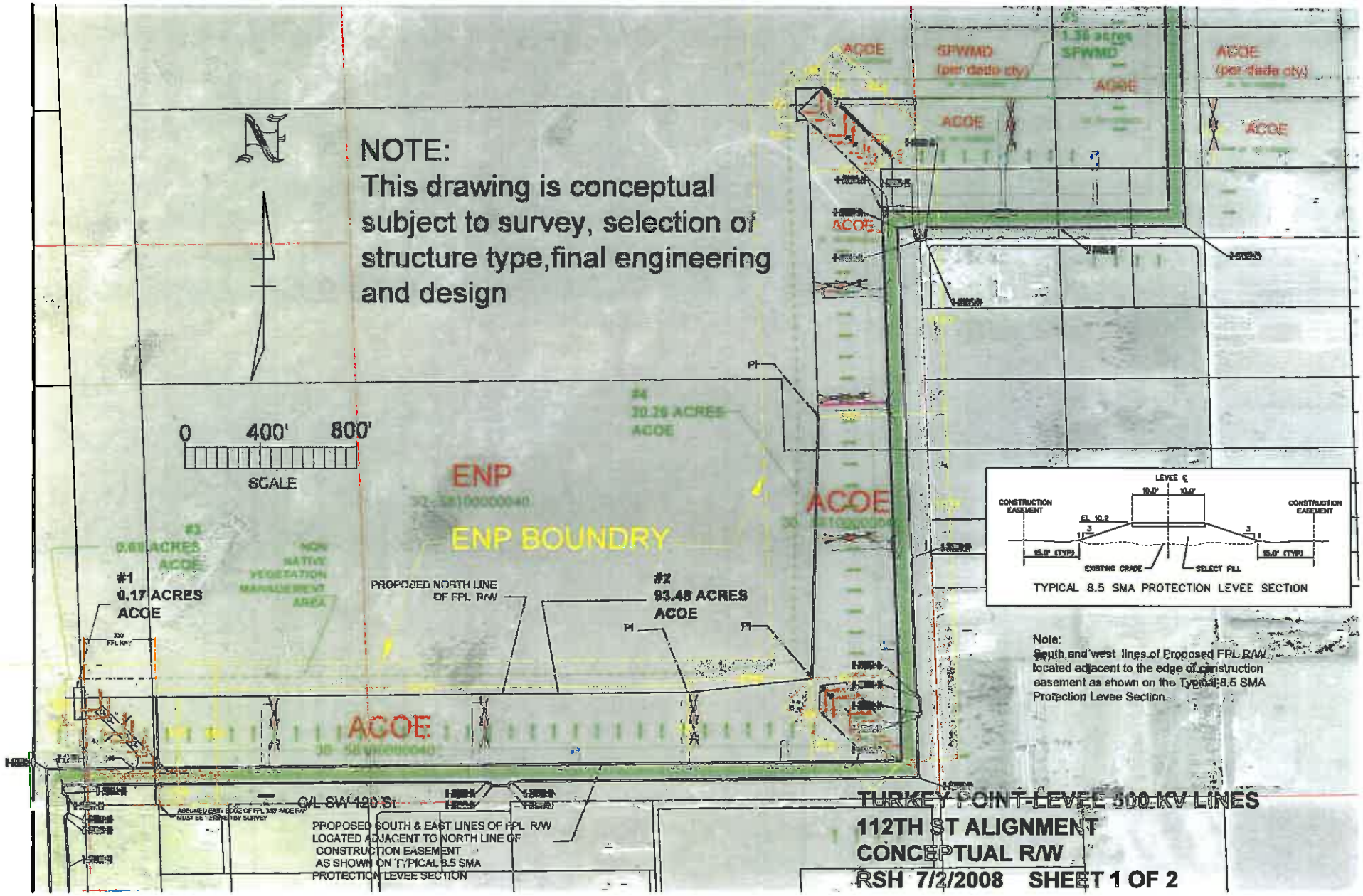
Use the greater of either:

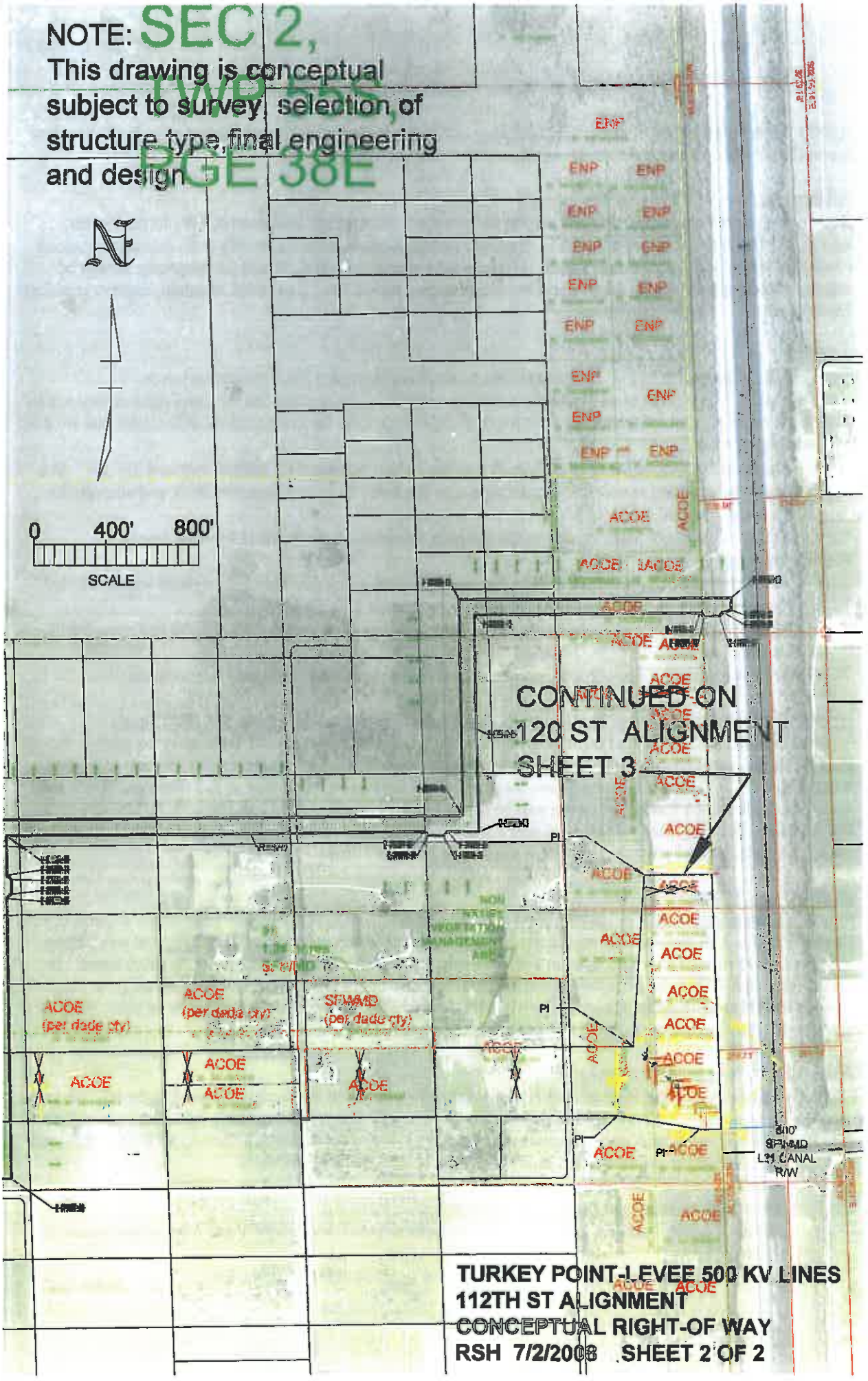
1) 102 feet from the west side of the Canal (L-31N South of S-335 and L-30 North of S-335) or

2) 40 feet perpendicular to the levee's western toe

TURKEY POINT-LEVEE 500 KV LINES
120TH ST ALIGNMENT
CONCEPTUAL RIGHT OF WAY
RSH 7/2/2008 SHEET 11 of 12


NOTE:
This drawing is conceptual subject to survey, selection of structure type,final engineering and design
N
0
400'
800'
TIITF 30 38240000010
30 38250000010
To existing Levee sub
NON NATIVE VEGETATION MANAGEMENT AREA
TIITF 30 38250000020
Offset Criteria Per SFWMD -(07/02/2007)
Use the greater of either:
1) 102 feet from the west side of the Canal (L-31N South of S-335 and L-30 North of S-335) or
2) 40 feet perpendicular to the levee's western toe
TURKEY POINT-LEVEE 500 KV LINES
120TH ST ALIGNMENT
CONCEPTUAL RIGHT OF WAY
RSH 7/2/2008 SHEET 12 of 12
CONTINUED SHEET 11


NOTE:
This drawing is conceptual subject to survey, selection of structure type,final engineering and design
N
0 400' 800'
SCALE
ENP
ENP BOUNDRY
ACOE
SFWMD
(per dade cty)
#1
0.17 ACRES
ACOE
#2
93.48 ACRES
ACOE
#3
0.61 ACRES
ACOE
#4
30.26 ACRES
ACOE
NON NATIVE VEGETATION MANAGEMENT AREA
PROPOSED NORTH LINE OF FPL R/W
PROPOSED SOUTH & EAST LINES OF FPL R/W LOCATED ADJACENT TO NORTH LINE OF CONSTRUCTION EASEMENT AS SHOWN ON TYPICAL 8.5 SMA PROTECTION LEVEE SECTION
C/L SW 120 St
LEVEE ℄
CONSTRUCTION EASEMENT
EL. 10.2
EXISTING GRADE
SELECT FILL
TYPICAL 8.5 SMA PROTECTION LEVEE SECTION
Note:
South and west lines of Proposed FPL R/W located adjacent to the edge of construction easement as shown on the Typical 8.5 SMA Protection Levee Section.
TURKEY POINT-LEVEE 500 KV LINES
112TH ST ALIGNMENT
CONCEPTUAL R/W
RSH 7/2/2008 SHEET 1 OF 2


NOTE:
This drawing is conceptual subject to survey, selection of structure type, final engineering and design
SEC 2,
TWP 55S,
RGE 38E
N
0
400'
800'
SCALE
CONTINUED ON
120 ST ALIGNMENT
SHEET 3
ENP
ACOE
SFWMD
(per dade cty)
PI
TURKEY POINT-LEVEE 500 KV LINES
112TH ST ALIGNMENT
CONCEPTUAL RIGHT-OF WAY
RSH 7/2/2008 SHEET 2 OF 2

Right of Way Relocation
Anticipated Access Rights to Relocated Right of Way

Access rights necessary for constructing, operating and maintaining transmission lines and other facilities on the Levee-Turkey Point relocated right of way from SW 120 St. to NW 41 St.

All Sections:
Right of ingress and egress (on, over and across) for personnel, material and equipment of FPL, its contractors, agents, successors or assigns over the lands. Rights to install, maintain, improve, modify or tie-into existing access roads to allow for safe access for personnel, vehicles, material and equipment. Rights for temporary storage of materials or equipment during the construction/maintenance period. Rights to install, maintain, improve or modify fencing/gates.

ACOE

From FPL R/W just north of SW 120th Street East to exit from inside 8.5 SMA Protection Levee
Use SFWMD 8.5 SMA Protection Levee for access to facilities. The access to the relocated right of way will be from the levee along and outside of the relocated right of way (except for those sections of the levee that cross the relocated right of way).

- Access and use of the levee (8.5 SMA Protection Levee) between FPL right of way and SW 197th Ave
- Ability to construct access roads and ramps onto the levee for access from FPL R/W and other public access, if required.
- Ability to construct finger roads, ramps and pads for access to the facilities from the levee.

For alternate route along 112th Street.

- Access and use of the levee (8.5 SMA Protection Levee) going east from FPL right of way to SW 197th Ave, then north slightly past SW 112th Street, than east to SW 194th Ave
- Ability to construct access roads and ramps onto the levee for access from FPL R/W and other public access, if required
- Ability to construct finger roads, ramps and pads for access to the facilities from the levee

From 8.5 SMA Protection Levee East to L-31N, then north to ENP Boundary (near SW 100th Street)
A patrol road will be used within the transmission right of way along this section. Depending on surface and soil conditions, the patrol road may require simple clearing up to installation of compacted fill. Access to the R/W will be from the 8.5 SMA Protection Levee (or other public access) on south end and L-31N on east/north end. Access to the 8.5 SMA Protection Levee will be from FPL R/W or SW 197th Ave. Access to L-31N will be from SW 8th Street, 8.5 SMA Protection Levee near SW100th Street, from relocated right of way near SW 120th Street (new access ramp to L-31N to be installed if needed) or SW 136th Street.

SFWMD and TIITF

From ENP Boundary (near SW 100th Street) to SW 8th Street.
Use SFWMD L-31N right of way on the west side of the canal for access to the relocated right of way. Entry onto the L-31N right of way will be from SW 8th Street, 8.5 SMA Protection Levee near SW100th Street(new access ramp to L-31N to be installed if needed), from relocated right of way near SW 120th Street (new access ramp to L-31N to be installed if needed) or SW 136th Street. (Note: Other public roads may be used, but it appears that they are being vacated to the government owners of adjacent lots)

From SW 8th Street to NW 41st Street
Use SFWMD L-29/30 levee/right of way on the north and west side of the canals for access to the relocated right of way. Entry onto the L-29/30 right of way will be from SW 8th Street approximately 1.3 miles west of Krome Ave (SFWMD S356), from Krome Avenue approximately 1.1 mile north of SW 8th Street (SFWMD S335) and from Krome Avenue approximately 8.5 miles north of 8th Street (SFWMD bridge).

For these segments, easement must also grant rights to

- Construct access roads and ramps onto the levee for access from FPL R/W and other public access, if required.
- Construct finger roads, ramps and pads for access to the facilities from the levee.

CONCEPTUAL CONFIGURATION OF PROPOSED RELOCATED FPL R/W ALONG ENP

2-SINGLE POLE SINGLE CIRCUIT 500 KV LINES

1-SINGLE POLE DOUBLE CIRCUIT AND 1 SINGLE POLE SINGLE CIRCUIT 230 KV LINES

500 KV LINES
3 BUNDLED 1272 ACSR/AW CONDUCTORS
2-7 #8 AW OHGW's
1050' +/- SPANS, OR DISTANCE BETWEEN POLES

230 KV LINES
1431 ACSR/AW & 7#8 AW OHGW's
500' +/- SPANS

The east edge of the relocated FPL R/W was determined utilizing the following criteria provided by the SFWMD:

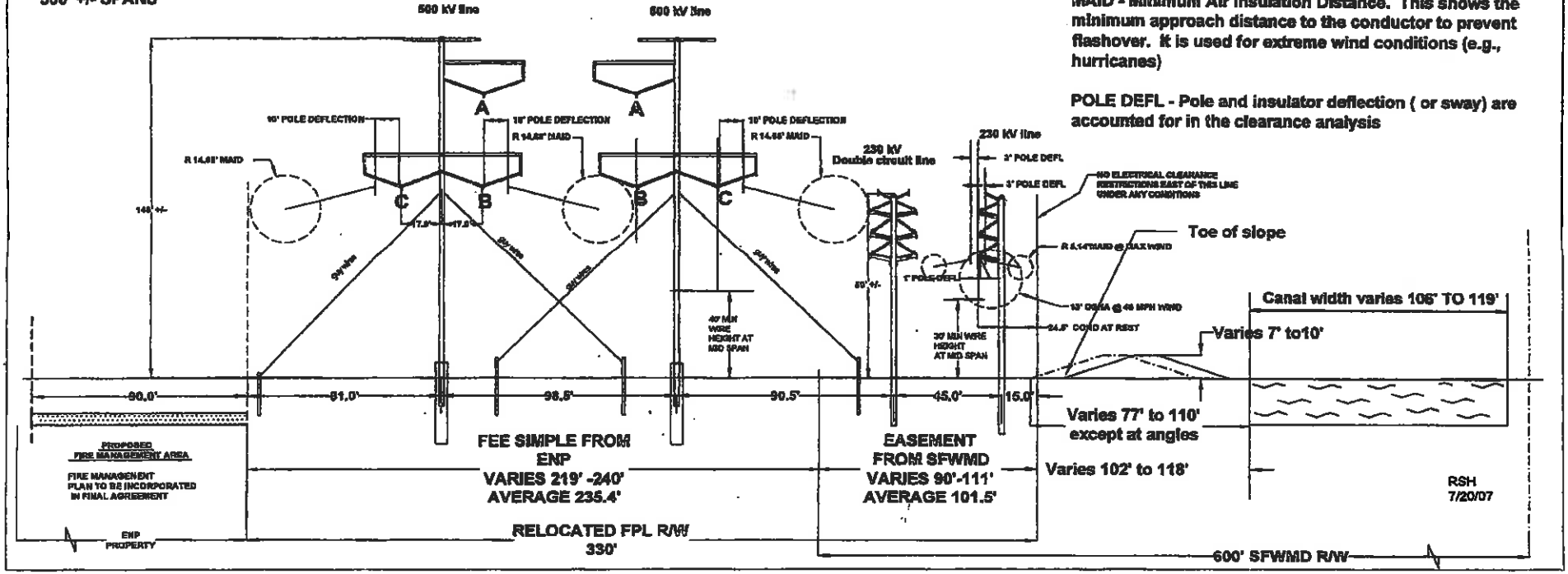
1) **No closer than 102' to the western edge of the SFWMD L-31 canal.**

2) **The lesser of the distances to the western edge of the SFWMD L-31 canal from the following:**

   a. **A point 14' west of the west toe of slope of the existing levee.**
   OR
   b. **110' to the west edge of the canal.**

In some cases in order to eliminate angles in the transmission line, the R/W line is located between points a and b or further west.

LOOKING NORTH



NOTES:

1) Cross sections are based on Georeferenced aerials and drawings supplied by SFWMD, no survey work has been performed to verify this data at this time.

2) Cross sections depict tangent design only. Areas requiring angle structures will require wider Right of Way

3) All dimensions are approximate pending survey and design

DEFINITIONS:

OSHA - Occupational Safety and Health Administration. This circle shows the minimum approach distance to be maintained. It is developed for a 6psf wind (~48 mph). Normal work is stopped at 35 mph winds.

MAID - Minimum Air Insulation Distance. This shows the minimum approach distance to the conductor to prevent flashover. It is used for extreme wind conditions (e.g., hurricanes)

POLE DEFL - Pole and insulator deflection (or sway) are accounted for in the clearance analysis

Appendix 3

LANDS NORTH OF TAMIAMI TRAIL TO BE RELEASED BY FPL TO SFWMD AND TIITF

A strip of land 330 feet in width, being 165 feet on each side of a centerline, running through Section 3, Township 54 South, Range 38 East, Excess Government Lots 3 and 2 between Townships 53 and 54 South, Range 38 East and Sections 35, 36, 25 and 24, Township 53 South, Range 38 East, all of Dade County, Florida, said centerline being described as follows:

Begin at a point on the South line of said Section 3, 205.13 feet East of the Southwest corner of said Section 3; thence run North 2 degrees 16 seconds 30 minutes W, along a line 205 feet East of and parallel to the Northerly extension of the West line of Section 10,. Township 54 South, Range 38 East, for a distance of 790.00 feet to a point, this point to be known as Point "A" and having coordinates of X-655,043.47 and Y-519,777.40; thence run N 38 degrees 58 minutes 55 seconds E for a distance of 23,070.42 feet to a point, this point to be known as Point "B" and having coordinates of X-699,556.51 and Y-537,711.06; thence run S 89 degrees 48 minutes 43 seconds E for a distance of 772.49 feet to the East line of said Section 24, this point being 205 feet North of the Southeast corner of said Section 24 and being the end of said centerline.

Together with the following described parcels: Parcel "A": Commence at above described Point "A", thence run N71 degrees 38 minutes 48 seconds W for a distance of 176.30 feet to Point of Beginning: From said P.O.B., thence run N38 degrees 58 minutes 55 seconds E for 131.18 feet; thence run N 51 degrees 01 minutes 05 seconds W for 50.00 feet; S 38 degrees 58 minutes 55 seconds W for 150.00 feet; thence run S 2 degrees 16 minutes 30 seconds E for 150.00 feet; thence run N 87 degrees 43 minutes 30 seconds E for 50 feet; thence run N 2 degrees 16 minutes 30 seconds W for 131.18 feet to P.O.B. Parcel "B": Commence at above described Point "B", thence run N 25 degrees 24 minutes 54 seconds W for a distance of 182.97 feet to Point of beginning: From said P.O.B., thence run S 89 degrees 48 minutes 43 seconds E for 126.04 feet; thence run N 0degrees 11 minutes 17 seconds E for 50.00 feet; thence run N 89 degrees 48 minutes 43 seconds W for 150.00 feet; thence run S 38 degrees 58 minutes 55 seconds W for 150.00 feet; thence run S 51 degrees 01 minutes 05 seconds E for 50.00 feet; thence run N 38 degrees 58 minutes 55 seconds E for 126.04 feet to P.O.B.

Subject to the common right-of-ways of Levees L-29 and L-30, and Krome Avenue (S.R. 27) which line within the above described boundary limits.

EXHIBIT A

Utility Easement
by and between FPL and SFWMD

Prepared by and Return to Following Recording:
Patricia Lakhia, Esq (Law/JB)
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, FL 33408-0420

UTILITY EASEMENT

KNOW ALL MEN BY THESE PRESENTS that the SOUTH FLORIDA WATER MANAGEMENT DISTRICT, a public corporation of the State of Florida ("**Grantor**") with an address of 3301 Gun Club Road, West Palm Beach, Florida 33406 in consideration of the sum of Ten Dollars ($10.00) and other valuable considerations, receipt and sufficiency of which is hereby acknowledged, does hereby grant to the FLORIDA POWER & LIGHT COMPANY, a corporation organized and existing under the laws of the State of Florida ("**Grantee**"), whose address is P.O. Box 14000, Juno Beach, Florida 33408-0420, and to its successors and assigns, an easement forever for a utility corridor being a minimum 330 feet in width, but no greater than 450 feet in width (in the area of corners and turns), to be used for the construction, operation and maintenance of overhead and underground electric transmission and distribution lines, including but not limited to, wires, poles, transmission structures, towers, cables, conduits, anchors, guys, roads, pads, trails and equipment associated therewith, attachments and appurtenant equipment for communication facilities for Grantee's sole use, (all of the foregoing hereinafter referred to collectively as "**facilities**") over, under, in, on, upon, through and across the lands of the Grantor situated in the Miami-Dade, County, Florida and being more particularly described on **Exhibit "A-1"**, attached hereto and made a part hereof, and for those lands acquired by Grantor from the United States Army Corps of Engineers and for lands owned by Grantor in the vicinity of SW 120th Street, Miami, Florida Grantor hereby grants Grantee the right to an easement forever for a utility corridor being a minimum 330 feet in width, but no greater than 584 feet in width (in the area of corners and turns), to be used for the construction, operation and maintenance of overhead and underground electric transmission and distribution lines, including but not limited to, wires, poles, transmission structures, towers, cables, conduits, anchors, guys, roads, pads, trails and equipment associated therewith, attachments and appurtenant equipment for communication facilities, and the right to construct, operate and maintain one or more pipelines and appurtenant equipment for the transmission of substances (all of the foregoing hereinafter referred to collectively as "**facilities**") over, under, in, on, upon, through and across the lands of the Grantor situated in the Miami-Dade, County, Florida and being more particularly described on **Exhibit "A-2"**, attached hereto and made

a part hereof, (the lands described in Exhibit "A-1" and Exhibit "A-2" collectively being the "**Easement Area**") together with the right and privilege from time to time to reconstruct, inspect, alter, improve, replace and remove such facilities, upon, across, over, under and or through the Easement Area with all rights and privileges necessary or convenient for the full enjoyment or the use thereof for the herein described purposes, including, but not limited to, the right to cut and keep clear all trees, undergrowth and other obstructions within the Easement Area that may interfere with the proper construction, operation and maintenance of such facilities or any part of them, the right to mark the location of any underground facilities by above ground and other suitable markers, and the right of ingress and egress for personnel and equipment of Grantee, its contractors, agents, successors or assigns for the purpose of exercising and enjoying the rights granted by this easement and any or all of the rights granted hereunder, but not the right to add additional circuits beyond that shown in **Appendix 2-3**, or increase the voltage of such facilities or change the nature of such facilities without Grantor's prior written approval which approval shall not be unreasonably withheld, conditioned or delayed.

Grantor, however, reserves the right and privilege to use the Easement Area for such other purposes, except as herein granted, or as might interfere or be inconsistent with the use, occupation, maintenance or enjoyment thereof by Grantee or its successors or assigns, or as might cause a hazardous condition; provided, however, and by the execution and delivery hereof Grantor so expressly agrees, that no portion of the Easement Area shall be excavated, altered, obstructed, improved, or surfaced. Grantor and Grantee agree that the Easement Area may be flooded by Grantor provided that no portion of Grantee's facilities is flooded above 10.5 feet NGVD 1929 elevation. Grantor further agrees that no portion of the Easement Area shall be paved and no building, well, irrigation system, structure, obstruction or improvement (including any improvements for flood control purposes) shall be located, constructed, maintained or operated over, under, upon, through or across the Easement Area by the Grantor, or the successors or, assigns of Grantor without the prior written approval of the Grantee, or its successors or assigns, which may not be unreasonably withheld, conditioned or delayed. Grantor and Grantee also agree that the Easement Area may be flooded by Grantor provided that no portion of Grantee's facilities constructed adjacent to the L-31 levee shall be flooded above 10.5 feet NGVD 1929 elevation. The above-limitations on water elevations undertaken by Grantor does not create a contractual obligation for Grantor to otherwise provide flood control or protection to FPL as a result of rainfall or weather events.

Grantee must repair any damage to the Easement Area resulting from Grantee's use thereof under this Easement. If Grantee fails to repair the Easement Area resulting from Grantee's use within thirty (30) days following Grantor's written notice to Grantee of such damage (or within such time as agreed upon in writing by Grantor and Grantee), Grantor may, at Grantor's sole option, repair the Easement Area at Grantee's sole cost and expense. In the event Grantor exercises its rights of repair, Grantor shall submit a written demand for such costs and expenses to Grantee, and Grantee shall pay the indicated cost of any such repair or maintenance within forty-five (45) days of the date of demand of the same from Grantor. If Grantee fails to pay such costs in the time frame provided in this Paragraph, then any such unpaid amounts shall bear interest at the highest rate permitted by applicable law (the "**Default Rate**").

All notices which are required or permitted hereunder must be in writing and shall be deemed to have been given, delivered or made, as the case may be (notwithstanding lack of actual receipt by the addressee) (i) three (3) business days after having been deposited in the United States mail, certified or registered, return receipt requested, sufficient postage affixed and prepaid, (ii) one (1) business day after having been deposited with an expedited, overnight courier service addressed to the party to whom notice is intended to be given at the address set forth below :

To Grantor:

Director, Land Acquisition
South Florida Water Management
3301 Gun Club Road
West Palm Beach, Florida 33406
Telephone: (561) ___-____

To Grantee:

Vice President of Corporate Real Estate
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, FL 33408-0420
Telephone: (561) 691-2123

with a copy to:

Law Department
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, FL 33408-0420
Telephone: 561-304-5261

As a condition precedent to entry within the Easement Area by any Grantee contactor, subcontractor, agent, representative, licensee, or invitee, Grantee shall require such contactor, subcontractor, agent, representative, licensee, and invitee to provide to the Grantor insurance with the same protection and insurance coverages required by and afforded to the Grantee. Grantee shall also require that the Grantor be named as an additional insured on all such insurance and said liability insurance shall be primary to any liability or property insurance carried by the Grantor.

Grantee agrees to secure any and all applicable federal, state, and local permits required in connection with Grantee's use of the Easement Area; and at all times, to comply with all requirements of all federal, state, and local laws, ordinances, rules and regulations applicable or pertaining to the use of the Easement Area by Grantee.

Grantee agrees that no hazardous substance, as the term is defined in Section 101 (14) of the Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") (42 USC Section 9601 [14]), petroleum products, liquids or flammables shall be stored on the Easement Area. Grantee agrees further that in the event it should create a hazardous condition on the Easement Area, then upon notification by Grantor, Grantee shall, within seventy-two (72) hours, at its sole cost and expense, correct such condition or situation.

Grantor makes no representation or warranty with respect to the title to or the condition of the Easement Area and that Grantee hereby accepts the Easement Area in its "AS-IS", "WHERE-IS" and "WITH ALL FAULTS" condition, including with respect to the environmental condition of the property and possible disposal of hazardous waste, substances, or pollutants as defined or regulated under applicable law.

IN WITNESS WHEREOF, the Grantor has executed this Agreement this _____ day of _____, 2008.

Signed, sealed and delivered
presence of:

_____
Signature
Print Name: _____

_____
Signature:
Print Name: _____

SOUTH FLORIDA WATER
MANAGEMENT DISTRICT

By: _____
Its: _____
Print Name: _____

Signed, sealed and delivered
presence of:

_____
Signature
Print Name: _____

_____
Signature:
Print Name: _____

FLORIDA POWER & LIGHT
COMPANY

By: _____
Terry L. Hicks
Vice President of Corporate Real Estate

ACKNOWLEDGMENT

STATE OF FLORIDA)
)ss:
COUNTY OF _____)

On this _____ day of _____, 2008 before me, the undersigned notary public, personally appeared _____, _____(title) of the SOUTH FLORIDA WATER MANAGEMENT DISTRICT, a public corporation of the State of Florida, personally known to me to be the persons who subscribed to the foregoing instrument or who produced _____ as identification, and acknowledged that ____executed the same on behalf of SOUTH FLORIDA WATER MANAGEMENT DISTRICT and acknowledged that ___he was duly authorized so to do.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

_____

NOTARY PUBLIC

Print name: _____

Commission No.: _____

My Commission Expires: _____

ACKNOWLEDGMENT

STATE OF FLORIDA)
)ss:
COUNTY OF PALM BEACH)

On this _____ day of _____, 2008 before me, the undersigned notary public, personally appeared Terry L. Hicks, Vice President of Corporate Real Estate of the FLORIDA POWER & LIGHT COMPANY, a Florida corporation, personally known to me to be the person who subscribed to the foregoing instrument and acknowledged that he executed the same on behalf of FLORIDA POWER & LIGHT COMPANY and acknowledged that he was duly authorized so to do.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

_____

NOTARY PUBLIC

Print name: _____

Commission No.: _____

My Commission Expires: _____

EXHIBIT B

Prepared By and Return to Following Recording:
Patricia Lakhia, Esquire
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, Florida 33408-0420
Folio No._____

PARTIAL RELEASE OF PERMIT AGREEMENT

FLORIDA POWER AND LIGHT COMPANY, a Florida corporation, whose mailing address is P.O. Box 14000, 700 Universe Boulevard, Juno Beach, FL 33408-0420 (the "***FPL***"), the owner and holder of that certain Permit Agreement recorded in the public records of Miami-Dade County Florida recorded in Official Record Book 7343 at page 940 (the "***Permit***"), for and in consideration of certain benefits accruing to it, does hereby release unto the SOUTH FLORIDA WATER MANAGEMENT DISTRICT ("***SFWMD***") so much of said Permit and any other right, title, or interest as lies within the property described on the attached Exhibit "A" which is incorporated herein by reference ("***Property***"), but excluding FPL's easements over private land and land owned by the Trustees of the Internal Improvement Trust Fund of the State of Florida except to the extent that SFWMD has an easement or reserved rights over the Property, including the right to flow water or construct certain flood and water control related improvements, in which case FPL releases SFWMD's easement from such Permit rights and any other right, title, or interest of FPL.

And hereby agrees that from and after the date hereof the Property shall be freed of said Permit and the rights and privileges granted therein and any other right, title or interest of FPL in the Property, excluding FPL's easements over private land and land owned by the Trustees of the Internal Improvement Trust Fund of the State of Florida, which easements and rights thereunder are expressly retained as provided above. **This release applies only to the Property and in no way affects other lands covered by the Permit.**

IN WITNESS WHEREOF, the said FLORIDA POWER & LIGHT COMPANY has caused this Partial Release of Permit to be signed in its name by its proper officers and its corporate seal to be affixed, this _____ day of _____, 2008.

Signed, Sealed & Delivered in
The Presence of:

_____
Print Name:_____

_____
Print Name:_____

FPL:
FLORIDA POWER AND LIGHT COMPANY

BY:_____
Terry L. Hicks
Vice President of Corporate Real Estate

ACKNOWLEDGMENT

STATE OF FLORIDA)
)ss.
COUNTY OF PALM BEACH)

The foregoing instrument was acknowledged before me this ___day of _____, 2008, by Terry L. Hicks, Vice President of Corporate Real Estate of Florida Power & Light Company, a Florida corporation, on behalf of the corporation, being duly authorized to do so, and who is personally known to me.

_____
Notary Public

_____
Print
My Commission Expires: _____

EXHIBIT C

Non-Native Vegetation Management Easement from the South Florida Water Management District to FPL

Prepared by and Following Recording Return to:

Patricia Lakhia, Esquire
Florida Power& Light Company
700 Universe Boulevard
Juno Beach, FL 33404-0420

NON-NATIVE VEGETATION AND FIRE MANAGEMENT EASEMENT

Sec._____, Twp___, Rge___
Parcel I.D. _____

The SOUTH FLORIDA WATER MANAGEMENT DISTRICT, a public corporation of the State of Florida with an address of 3301 Gun Club Road, West Palm Beach, Florida 33406 ("**SFWMD**") , in consideration of the payment of Ten Dollars ($10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, grants and gives to FLORIDA POWER & LIGHT COMPANY, a Florida corporation with an address of 700 Universe Boulevard, Juno Beach, Florida 33408, its employees, licensees, contractors, sub-contractors, agents, successors, and assigns (collectively, "**FPL**"), an easement forever for the purpose of removing fire prone exotics including but not limited to Melaleuca and Australian pine, within the following easements or parcels of land, each being ninety (90) feet in width, and more particularly described on the attached Exhibit "A" which is incorporated herein by reference ("**Easement Area**").

FPL understands that herbicides applied within the Easement Area shall only be those registered by the U.S. Environmental Protection Agency and which have state approval. Herbicide application rates and concentrations will be in accordance with label directions and will be carried out by a licensed applicator, meeting all federal, state and local regulations. Herbicide applications shall be selectively applied to targeted vegetation. Broadcast application of herbicide shall not be used within the Easement Area unless the effects on non-targeted vegetation are minimized.

FPL agrees to secure any and all applicable federal, state, and local permits required in connection with FPL's use of the Easement Area; and at all times, to comply with all requirements of all federal, state, and local laws, ordinances, rules and regulations applicable or pertaining to the use of the Easement Area by FPL.

SFWMD reserves the right to maintain, construct or alter roads which are located on the Easement Area and are necessary to SFWMD's operations, and in doing so, agrees that it shall not temporarily or permanently impede FPL's access over the Easement Area.

FPL agrees that it will not use the Easement Area in any manner which will interfere with SFWMD's use of the Easement Area or cause a hazardous condition to exist. FPL agrees that no hazardous substance, as the term is defined in Section 101 (14) of the Comprehensive Environmental Response Compensation and Liability Act ("**CERCLA**") (42 USC Section 9601 [14]), petroleum products, liquids or flammables shall be stored on the Easement Area. FPL agrees further that in the event it should create a hazardous condition on the Lands, then upon notification by SFWMD, FPL shall, within seventy-two (72) hours, at its sole cost and expense, correct such condition or situation.

FPL must repair any damage to the Easement Area resulting from FPL's use thereof under this Easement. If FPL fails to repair the Easement Area resulting from FPL's use within thirty (30) days from the date of SFWMD's written notice to FPL of such damage (or within such time as agreed upon in writing by SFWMD and FPL), SFWMD may, at its sole option, repair the Easement at FPL's sole cost and expense. In the event that SFWMD exercises its rights of repair, SFWMD shall submit a written demand for such costs and expenses to FPL, and FPL shall pay the indicated cost of any such repair or maintenance within forty-five (45) days of the date of demand of the same from SFWMD. If FPL fails to pay such costs in the time frame provided in this Section 3, then any such unpaid amounts shall bear interest at the highest rate permitted by applicable law (the "**Default Rate**").

All notices which are required or permitted hereunder must be in writing and shall be deemed to have been given, delivered or made, as the case may be (notwithstanding lack of actual receipt by the addressee) (i) three (3) business days after having been deposited in the United States mail, certified or registered, return receipt requested, sufficient postage affixed and prepaid, (ii) one (1) business day after having been deposited with an expedited, overnight courier service addressed to the party to whom notice is intended to be given at the address set forth below:

To SFWMD:

Director, Land Acquisition
South Florida Water Management
3301 Gun Club Road
West Palm Beach, Florida
Telephone: (561) ___-____

To FPL:

Vice President of Corporate Real Estate
Florida Power & Light Company

700 Universe Boulevard
Juno Beach, FL 33408-0420
Telephone: (561) 691-2123

with a copy to:

Law Department
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, FL 334084-0420
Telephone: 561-304-5261

As a condition precedent to entry within the Easement Area by FPL or its contactor, subcontractor, agent, representative, licensee, or invitee, FPL shall require such FPL contactor, subcontractor, agent, representative, licensee, and invitee to provide to the SFWMD insurance with the same protection and insurance coverages required by and afforded to the FPL. FPL shall also require that the SFWMD be named as an additional insured on all such insurance and said liability insurance shall be primary to any liability or property insurance carried by SFWMD.

SFWMD makes no representation or warranty with respect to the title to or the condition of the Easement Area and that FPL hereby accepts the Easement Area in its "AS-IS", "WHERE-IS" and "WITH ALL FAULTS" condition, including with respect to the environmental condition of the property and possible disposal of hazardous waste, substances, or pollutants as defined or regulated under applicable law.

[Remainder of page intentionally blank; Signature pages follow]

IN WITNESS WHEREOF, the undersigned has caused this Easement to be executed as of the date first set forth above.

Signed, Sealed & Delivered in
The Presence of:

SOUTH FLORIDA WATER
MANAGEMENT DISTRICT,

A public corporation of the State of Florida

_____
Signature:
Print Name: _____

by:_____
Print Name: _____
Address: _____

_____
Signature:
Print Name: _____

ACKNOWLEDGMENT

STATE OF FLORIDA)
)ss:
COUNTY OF _____)

On this _____ day of _____, 2008 before me, the undersigned notary public, personally appeared _____, _____of the SOUTH FLORIDA WATER MANAGEMENT DISTRICT, personally known to me to be the person who subscribed to the foregoing instrument or who has produced _____ as identification, and acknowledged that he/she/they executed the same on behalf of said entity and was duly authorized to do so.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

_____

NOTARY PUBLIC, STATE OF FLORIDA
Name (Print):_____
Commission No.: _____
My Commission Expires:_____

IN WITNESS WHEREOF, the undersigned has caused this Easement to be executed as of the date first set forth above.

Executed in the presence of:

GRANTEE:
FLORIDA POWER & LIGHT COMPANY

_____
Print Name:_____

By: _____
Terry L. Hicks
Vice President of Corporate Real Estate

_____
Print Name:_____

ACKNOWLEDGMENT

STATE OF FLORIDA)
)ss:
COUNTY OF PALM BEACH)

On this _____ day of _____, 2008, before me, the undersigned notary public, personally appeared, Terry L. Hicks, Vice President of Corporate Real Estate of Florida Power & Light Company, a Florida corporation, personally known to me to be the person who subscribed to the foregoing instrument and acknowledged that he executed the same on behalf of said corporation and that he was duly authorized so to do.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

_____
NOTARY PUBLIC, STATE OF FLORIDA
Name (Print):_____
Commission No.: _____
My Commission Expires:_____

EXHIBIT D

Access Easement
from South Florida Water Management District to FPL

This Instrument Prepared by and Return to:
Patricia Lakhia, Esq.
Florida Power & Light Company
700 Universe Blvd – Law Dept.
Juno Beach, Florida 33408

ACCESS EASEMENT

THIS ACCESS EASEMENT ("Easement") is made and entered into as of this _____ day of _____, 2008, by and between the **SOUTH FLORIDA WATER MANAGEMENT DISTTRICT**, an public corporation of the State of Florida, with an address of 3301 Gun Club Road, West Palm Beach, Florida 33406 ("**Grantor**") and **FLORIDA POWER & LIGHT COMPANY**, a Florida corporation, having its principal office and place of business at 700 Universe Boulevard, Juno Beach, Florida 33408, ("**FPL**", also referred to herein as "**Grantee**").

1. Grant of Easement. Grantor, for and in consideration of $10.00 and other valuable consideration, receipt of which is hereby acknowledged, does hereby grant to FPL, its agents, employees, contractors, sub-contractors, invitees, successors and assigns, a non-exclusive access easement in favor of FPL, in, on, over, under and across the property more particularly identified on the attached **Exhibit "A"** to this Easement (the "**Easement Property**"), which Exhibit is made a part hereof, for ingress and egress by FPL and its agents, employees, contractors, sub-contractors, invitees, successors and assigns, on foot and by motor vehicle, including trucks and heavy equipment and with materials, to and from FPL's facilities located on adjacent lands and more particularly described in the attached **Exhibit "B"** attached hereto and made a part hereof, and for the construction and maintenance of finger roads and pads to serve such FPL facilities. This easement is granted with all rights necessary and convenient for the full use and enjoyment of the Easement Property for the purposes described herein, including without limitation the right of FPL to use any existing or future road on the Easement Property, and the right of FPL to install, maintain, improve or modify fences/gates (with FPL promptly providing Grantor with keys to all such fences/gates), ramps, roads and bridges to allow for safe access for personnel, vehicles, materials and equipment, subject to SFWMD's advance review and written approval, which may not be unreasonably withheld, conditioned or delayed, of any FPL proposal to install, improve, or modify fences/gates, ramps, roads, or bridges.

2. Term of Easement. This Easement shall be perpetual.

3. Compliance With Laws. FPL shall at all times observe in its use of the Easement Property all applicable municipal, county, state and federal laws, ordinances, codes, statutes, rules and regulations.

4. Successors and Assigns. This Easement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

5. Miscellaneous.

(a) All of the Exhibits attached to this Easement are incorporated in, and made a part of, this Easement.

(b) Grantor hereby reserves the right to use the Easement Property for all uses not interfering or inconsistent with the Easement permitted herein in any material respect. At no time will the Easement Property be obstructed by Grantor or Grantee or by any object which would prohibit or impair access, ingress or egress to and from the Easement Property or any lands owned, controlled or used by Grantor or Grantee. Grantee shall also keep the Easement Property free of rubbish or other hazards as a result of Grantee's use.

(c) Grantee has the right but not the obligation to maintain the Easement Property but must repair any damage to the Easement Property resulting from Grantee's use thereof under this Easement. If Grantee fails to repair the Easement Property resulting from Grantee's use within thirty (30) days following Grantor's written notice to Grantee of such damage (or within such time as agreed upon in writing by Grantor and Grantee), Grantor may, at Grantor's sole option, repair the damage to the Easement Property at Grantee's sole cost and expense. In the event Grantor exercises its rights of repair, Grantor shall submit a written demand for such costs and expenses to Grantee, and Grantee shall pay the indicated cost of any such repair or maintenance within forty-five (45) days of the date of demand of the same from Grantor. If Grantee fails to pay such costs in the time frame provided, then any such unpaid amounts shall bear interest at the highest rate permitted by applicable law (the "**Default Rate**").

(d) All notices which are required or permitted hereunder must be in writing and shall be deemed to have been given, delivered or made, as the case may be (notwithstanding lack of actual receipt by the addressee) (i) three (3) business days after having been deposited in the United States mail, certified or registered, return receipt requested, sufficient postage affixed and prepaid, (ii) one (1) business day after having been deposited with an expedited, overnight courier service addressed to the party to whom notice is intended to be given at the address set forth below:

To Grantor:

Director, Land Acquisition
South Florida Water Management
3301 Gun Club Road
West Palm Beach, Florida 33406
Telephone: (561) ___-____

To Grantee:

Vice President of Corporate Real Estate

Florida Power & Light Company
700 Universe Boulevard
Juno Beach, FL 33408-0420
Telephone: (561) 691-2123

with a copy to:

Law Department
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, FL 33408-0420
Telephone: 561-304-5261

(e) As a condition precedent to entry within the Easement Property by Grantee or its contactor, subcontractor, agent, representative, licensee, or invitee, Grantee shall require such contactor, subcontractor, agent, representative, licensee, and invitee to provide to the Grantor insurance with the same protection and insurance coverages required by and afforded to the Grantee. Grantee shall also require that the Grantor be named as an additional insured on all such insurance and said liability insurance shall be primary to any liability or property insurance carried by the Grantor.

(f) Grantee shall secure any and all applicable federal, state, and local permits required in connection with Grantee's use of the Easement Area; and at all times, to comply with all requirements of all federal, state, and local laws, ordinances, rules and regulations applicable or pertaining to the use of the Easement Area by FPL.

(g) Grantee agrees that no hazardous substance, as the term is defined in Section 101 (14) of the Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") (42 USC Section 9601 [14]), petroleum products, liquids or flammables shall be stored on the Easement Property. Grantee agrees further that in the event Grantee should create a hazardous condition on the Easement Property, then upon notification by Grantor, Grantee shall, within seventy-two (72) hours, at its sole cost and expense, correct such condition or situation.

(h) Grantor makes no representation or warranty with respect to the title to or the condition of the Easement Property and that Grantee hereby accepts the Easement Property in its "AS-IS", "WHERE-IS" and "WITH ALL FAULTS" condition, including with respect to the environmental condition of the property and possible disposal of hazardous waste, substances, or pollutants as defined or regulated under applicable law.

6. Amendments. This Easement may not be amended, modified or terminated except by written agreement executed by the parties hereto, or their successors and/or assigns. Further, no modification or amendment shall be effective unless in writing and recorded in the Public Records of Miami-Dade County, Florida.

EXECUTED as of the date and year first above written.

ACCESS EASEMENT
[Signature page]

SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF:

SOUTH FLORIDA
WATER MANAGEMENT DISTICT,
A public corporation of the State of Florida

_____
Name:_____

By:_____
Print
Name_____
Title:_____

_____
Name:_____

STATE OF FLORIDA)
)ss.
COUNTY OF_____)

THE FOREGOING instrument was acknowledged before me this _____ day _____, 2008, by _____, _____of South Florida Water Management District, a public corporation of the State of Florida, personally known to me or who has produced _____ as identification and acknowledged that ___he executed same on behalf of said entity and was duly authorized to do so.

_____
Notary Public, State of Florida

My Commission No:
My Commission Expires

ACCESS EASEMENT
[Signature page]

SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF:

FLORIDA POWER & LIGHT COMPANY,
a Florida corporation

_____
Name: _____

By:_____
Terry L. Hicks
Vice President of Corporate Real Estate

_____
Name:_____

STATE OF FLORIDA)
)ss.
COUNTY OF PALM BEACH)

THE FOREGOING instrument was acknowledged before me this _____ day _____, 2008, by Terry L. Hicks, Vice President of Corporate Real Estate of Florida Power & Light Company, a Florida corporation, personally known to me and acknowledged that he executed same on behalf of said corporation and was duly authorized to do so.

_____
Notary Public, State of Florida

My Commission No:
My Commission Expires

Exhibit E

Prepared By and Return To:

Patricia Lakhia, Esq.
Florida Power & Light Company
700 Universe Blvd. (LAW/JB)
Juno Beach, FL 33408-0420

(This space reserved for recording information)

SUBORDINATION AND NON-DISTURBANCE AGREEMENT

THIS SUBORDINATION AND NON-DISTURBANCE AGREEMENT ("***Agreement***") is executed this ___ day of _____, 2008 by and between the SOUTH FLORIDA WATER MANAGEMENT DISTRICT, a public corporation of the State of Florida, 3301 Gun Club Road, West Palm Beach, FL 33406 ("***SFWMD***") and FLORIDA POWER & LIGHT COMPANY, a Florida corporation, 700 Universe Boulevard, Juno Beach, FL 33408 ("***FPL***"). SFWMD and FPL are sometimes individually referred to herein as a "party" and collectively as the "parties".

RECITALS:

WHEREAS, FPL has acquired certain land interests encumbering real property located in Miami-Dade County, Florida and more particularly described on **Exhibit A** attached hereto and made a part hereof ("***Property***");

WHEREAS, SFWMD (or SFWMD through its predecessor entity, the Central and Southern Florida Flood Control District or Everglades Drainage District) is the beneficiary of certain easements and reserved rights over the Property including but not limited to those described in the Public Records of Miami-Dade County, Florida in Official Records Book ("ORB") 3344 at page 22, ORB 8066 at page 814, ORB 3236 at page 582, ORB 3364 at page 248, ORB 2633 at page 850 , ORB 3296 at page 459, ORB 3292 at page 385 and ORB 3356 at page 394, which include the right to construct certain flood and water control related improvements on the Property, which easement rights burden all or a portion of the Property (the "***SFWMD Easements***"); and

WHEREAS, FPL's land interests on the Property include but are not limited to the right to construct transmission lines and appurtenant facilities on the Property, and access to and from such facilities, all of which burden the Property or a portion thereof (collectively, the "***FPL Easements***"); and

WHEREAS, the parties desire to enter into this Agreement to assure FPL and SFWMD of the benefits of their respective Easements.

AGREEMENTS:

In consideration of the foregoing recitals and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. **Subordination.** SFWMD agrees, if the FPL transmission pads are constructed upon a minimum 10.5 feet NGVD elevation, that SFWMD's rights under the SFWMD Easements to construct improvements within the area encumbered by the FPL Easements, shall be and are hereby declared to be, and at all times hereafter shall be and remain, subject and subordinate in all respects to the FPL Easements and to all modifications and restatements thereof, with the same force and effect as if the FPL Easements had been executed and delivered prior to the execution and delivery of the SFWMD Easements, and without regard to the priority of recording of the SFWMD Easements and FPL Easements. SFWMD and FPL agree that such subordination does not include a subordination of SFWMD's rights to flood or flow the land as set forth in the SFWMD Easements, however, that SFWMD agrees that neither temporary nor permanent flood elevations on the FPL Easements will exceed 10.5 feet NGVD 1929 elevation. The above-limitation on water elevations undertaken by Grantor does not create a contractual obligation for Grantor to otherwise provide flood control or protection to FPL as a result of rainfall or weather events.

2. **Non-Disturbance.** SFWMD agrees, if the FPL transmission pads are constructed upon a minimum 10 feet NGVD elevation, that in the exercise of SFWMD's rights under the SFWMD Easements, as the same may be amended from time to time, SFWMD shall not interfere with, interrupt or impair, in any way: (i) FPL's use and enjoyment of the FPL Easements, in accordance with the terms and provisions of this Agreement and/or the FPL Easements or (ii) FPL's exercise of any other rights under the FPL Easements.

3. **Binding Effect.** This Agreement shall be binding upon and inure to the benefit of the undersigned and their respective successors and assigns.

4. **Counterparts.** This Agreement may be executed and delivered in counterparts, each of which shall be deemed an original document, but all of which shall constitute a single document.

5. **Amendment.** This Agreement may only be amended by an instrument in writing executed by all parties hereto.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first set forth above.

SFWMD:
SOUTH FLORIDA WATER
MANAGEMENT DISTRICT,
a public corporation of the State of Florida

LEGAL FORM APPROVED
SFWMD OFFICE OF COUNSEL
BY Alan Cooper DATE 8/18/2008

By:_____
Print Name:_____
Title:_____

FPL:
FLORIDA POWER & LIGHT COMPANY,
A Florida corporation

By:_____
Terry L. Hicks
Vice President of Corporate Real Estate

ACKNOWLEDGMENT

STATE OF FLORIDA)
)ss.
COUNTY OF PALM BEACH)

The foregoing instrument was duly acknowledged before me this _____ day of _____, 2008, by _____, _____ of SOUTH FLORIDA WATER MANAGEMENT DISTICT a public corporation of the State of Florida, who subscribed to the foregoing instrument and acknowledged that he executed the same on behalf of said limited liability company and that he was duly authorized to do so.

_____
Notary Public, State of Florida

_____
Notary Printed Name

_____
My Commission Expires:

ACKNOWLEDGMENT

STATE OF FLORIDA)
)ss.
COUNTY OF PALM BEACH)

The foregoing instrument was duly acknowledged before me this _____ day of _____, 2008, by Terry L. Hicks, Vice President of Corporate Real Estate of FLORIDA POWER & LIGHT COMPANY, a Florida corporation, who subscribed to the foregoing instrument and acknowledged that he executed the same on behalf of said limited liability company and that he was duly authorized to do so.

_____
Notary Public, State of Florida

_____
Notary Printed Name

_____
My Commission Expires:

APPENDIX C. Wading Bird Supporting Documentation

SFWMD Responsibilities Relating to Wading Birds

Wildlife populations are highly visible components of the Everglades and as such, have played a major role in the management and restoration of this ecosystem. Much of the controversy and litigation surrounding the effects of water management on wildlife populations stemmed from a poor understanding of the hydrologic needs of key species. This oversight was first addressed in the Everglades Forever Act (EFA), which mandated that the South Florida Water Management District (SFWMD or District) shall conduct research to understand the hydrologic and ecological needs of the Everglades. As a consequence of this, and because wading birds can be used as an indicator of environmental health, the research and monitoring pertaining to wading bird populations is directly linked to SFWMD operations.

The District's responsibilities with regard to understanding the needs of key wildlife species were expanded as part of the Comprehensive Everglades Restoration Plan (CERP). As a major stakeholder in CERP, the District is obligated to investigate the past, current, and future of the ridge/slough landscape for its formation and maintenance mechanisms to establish appropriate goals for restoration and criteria of restoration success. Provisions within the Water Resources Development Act of 2000 (WRDA) provide for specific authorization for an adaptive assessment and monitoring program. The Restoration Coordination and Verification (RECOVER) program was devised to ensure that a system-wide focus is maintained throughout the ongoing planning and implementation of CERP. It is designed to organize and provide the highest quality scientific and technical support during the implementation of the plan. The restoration plan is science-based, and it is the role of RECOVER to ensure that science continues to guide implementation of the plan. RECOVER provides an ongoing process of assessment and refinement of the Comprehensive Plan.

RECOVER developed the Monitoring and Assessment Plan (MAP) as the primary tool to assess the system-wide performance of CERP. It uses wildlife populations as a basis for setting hydrologic targets and as performance measures for restoration success. In addition, CERP requires updated ecological information to fine tune those targets and to identify hydrologic needs of aquatic fauna. Restoration planners and scientists associated with the implementation of RECOVER have established the restoration of healthy wading bird populations in the greater Everglades ecosystem as a primary goal of CERP. Moreover, wading birds function as one of the best indicators of restoration success (Frederick et al. 2009). The RECOVER metrics are the official metrics that have been adopted by agencies. The metrics described in Frederick et al 2009 were developed as suggestions as part of the adaptive management process but as yet remain as suggestions.

The importance of documenting and tracking the status and trends in wading bird nesting patterns has recently become elevated in the context of restoration programs because of a new requirement from the U.S. Congress that Interim Goals be set for the natural system goals of CERP. The logic of this requirement is that the funding sources (the federal and state governments) do not wish to wait until the implementation of CERP is completed in approximately 2035 to determine if it is meeting its goals. The Interim Goals are expectations of the level of performance by key CERP indicators for five-year increments throughout the plan's implementation. Reports on how well CERP is meeting the Interim Goals will go to Congress at five-year intervals (and annually to the National Academy of Sciences, which also reports to Congress on how well CERP is meeting its natural system goals). Wading bird indicators are a fundamental and highly visible component of the periodic Interim Goals reports produced by the multiagency RECOVER team.

CERP Targets and Interim Goals for Wading Birds

The goal is to have a common set of wading bird indicators and performance measures applicable at system-wide scales that can support all restoration planning, assessment, and reporting needs and requirements. These comprehensive wading bird performance measures, while not regulatory requirements, are used to support (1) RECOVER's program of CERP assessments, including the System Status Reports and Interim Goals Reports to Congress, (2) the reports by the Science Coordination Group to the South Florida Ecosystem Restoration Task Force on overall progress in restoration, and (3) reports to the public in the form of restoration report cards and the annual *South Florida Wading Bird Report* (SFWBR). The SFWBR, edited by SFWMD, was the first effort to evaluate Everglades restoration activities, and the compiled nesting data from this report is currently used by CERP MAP as an index of wading bird nesting effort.

Performance Measure Targets

Specific restoration targets for mainland nesting patterns by the general population of wading birds were first proposed by Ogden, Bancroft and Frederick (1997) and for wood storks by Ogden et al. (1997). These include the following:

1. Increase and maintain the total number of pairs of nesting birds in mainland colonies to at least 4,000 pairs of great egrets, 10,000 to 20,000 combined pairs of snowy egrets and tricolored herons, 10,000 to 25,000 pairs of white ibis, and 1,500 to 2,500/3,000 pairs of wood storks.

2. Shift the timing of nesting in mainland colonies to more closely match pre-project conditions. Specific recovery objectives would be for storks to initiate nesting no later than January in most years (as early as December in some years), and for ibis, egrets, and herons to initiate nesting in February–March in most years (especially in ecotone colony locations).

3. The return of major wood stork, great egret and ibis/small egrets and herons nesting colonies from the Everglades to the coastal areas and the headwaters ecotone of the mangrove estuary of Florida Bay and the Gulf of Mexico.

4. The reestablishment of historical distribution patterns of wood stork nesting colonies in the Big Cypress Basin (including Corkscrew Swamp) and in the region of mainland mangrove forests downstream from the Shark Slough and Taylor Slough basins. Increase the proportion of birds that nest in the southern ridge and slough marsh-mangrove ecotone (headwaters) to greater than 50 percent of the total for the entire Everglades basin.

5. For storks, an annual reproductive productivity for all colonies combined of greater than 1.5 chicks per active nest

In addition, Ogden (1994) and Frederick and Ogden (2001) have shown the pattern of periodic super colonies that once occurred in the Everglades. A restoration expectation is the recovery of these large nesting events as follows:

An increase in the return, frequency, and size of wading bird super colonies consisting primarily of white ibis in response to interannual variation in rainfall in the tributary headwaters of Shark River Slough and other Gulf of Mexico mangrove estuaries at a frequency of 1 to 2 events per decade (the specific locations of the above tributary and coastal nesting colonies will be controlled by sea level and estuarine geomorphology in addition to the functionality of food webs).

Summary of Federal Guidelines Pertaining To Wood Stork Nesting and Foraging Locations

The U.S. Fish and Wildlife Service (USFWS) developed a series of permitting criteria guidelines for the federally endangered wood stork. These criteria are found in *Habitat Management Guidelines for the Wood Stork in the South East Region* (Ogden 1990; USFWS 2006), and are summarized below.

Colony (Nesting) Sites

a. Do not place power lines and other towers (< 200 feet in height) within 1 mile of the colony.
b. Maintain natural hydroperiods (water levels) in nesting sites throughout the breeding season to provide 2–5 feet of water under the nest trees during breeding activity.
c. Colony site longevity – Many stork colonies experience periods of inactivity, primarily due to natural and anthropogenic changes in hydrology that result in conditions unfavorable for nesting (e.g., extended drought, wetland drainage, etc.). Stork colonies have become active again after as long as 10 years of inactivity, although shorter periods (1–2 years) of inactivity are more common. The USFWS recommends a 10-year period post-abandonment prior to releasing the colony site from regulatory restrictions.
d. Year-round restrictions include vegetation removal, unauthorized changes in hydroperiod, and construction of buildings, roadways, towers, power lines or canals within 700–1,300 feet of a wading bird colony.
e. No human intrusion within 100 m during the active nesting period.

Foraging Sites

a. Foraging sites during the breeding season are of particular concern due to their impacts on breeding success/nestling production. Efforts should be made not to impact these sites. For South Florida (south of Lake Okeechobee), this includes wetlands found within a 30-km (18.6 mile) radius of each colony. However, wetland sites outside of these ranges that are known to be foraged by breeding birds should not be impacted. If foraging sites are negatively impacted, they should be replaced relative to wetland type (i.e., replace short hydroperiod wetland with another short hydroperiod wetland, etc.).
b. Do not construct tall towers (with guy wires) and/or power lines within 1 mile of major feeding sites.
c. Foraging sites should not be subject to activities that alter their normal hydrology, including seasonal drying patterns as these can negatively impact densities and occurrences of prey.
d. Human intrusion into the feeding sites should be restricted, with no human activity within 330 feet (100 m) of the site if a vegetative barrier is present, 660 feet if no barrier is present.

Relevant Wood Stork Information

Population Status and Importance of the Tamiami Colony Cluster

The wetlands of the southern Everglades and Big Cypress historically supported the core reproductive habitat for the wood stork, to the extent that over 75 percent of the U.S. population bred in this area (Coulter et al. 1999). The breeding population in the Everglades has declined by over 80 percent since the 1930s and by at least 50 percent since the 1960s (Crozier & Gawlik 2003). Storks also began nesting in more northerly locations in north and central Florida, Georgia, and South Carolina from the 1970s (Ogden et al. 1987). These dramatic changes in the characteristics of storks nesting in South Florida have been related to radically altered distributions and timing of surface water in the Everglades (Ogden 1994). In consideration of these changes, the wood stork was listed as endangered at both the federal and state level in 1984. Coulter et al. (1999) argue that restoration of the Everglades will be crucial for the recovery of this stork.

While the focal cluster of colonies proximate to the proposed transmission line corridors is only one of a number of wood stork breeding areas in South Florida, its management and restoration is critical for wood storks both at the regional and national levels. The cluster typically supports approximately half of all annual stork nests in the Everglades (see annual SFWBRs; e.g., Cook & Kobza 2010), and thus in terms of population size it is one of the most important CERP nesting areas in south Florida.

Biology and Ecology

The wood stork is a large wading bird standing 85–115 cm tall and with a wingspan ranging between 150 and 165 cm (Coulter et al. 1999). It nests colonially and forages locally in shallow wetlands. It feeds by tactilocation and requires high densities of fish prey in relatively shallow, open water to feed efficiently (Kahl 1964). Wood storks are relatively long-lived birds (surviving 30 or more years in captivity; Hancock et al. 1992). They exhibit a strong degree of colony-site fidelity, generally returning each year to a specific breeding colony (Frederick & Ogden 1997).

Wood storks have a relatively lengthy nesting period that spans approximately 110–150 days from nest construction to fledgling independence (Kahl 1964). Successful reproduction in South Florida wetlands requires the initiation of nesting early in the dry season to allow young to fledge prior to the onset of the summer rains and the resulting reduction in prey availability. Historically storks in the Everglades initiated nesting in November/December and fledged their young in April, which provided appropriate foraging conditions for the fledglings for a few months prior to the rainy season; currently storks start nesting from January to March (Frederick et al. 2010), and young often attempt to fledge after the rains have started (e.g., Cook and Kobza 2009).

Stork nests are relatively large, flat platforms built from sticks collected from within a few thousand feet of the colony (Coulter et al 1999). (This collection area is approximately equivalent to the USFWS's primary and secondary zones; see Section 2.2.3.9. for more details.) Nest construction takes about 2 to 3 days to complete, but new material is collected and added to the nest throughout the nesting period (Coulter et al 1999).

Storks lay between 1 and 5 eggs at intervals of 1 to 2 days with incubation lasting 27 to 32 days (Kahl 1964). After hatching parents feed the nestlings up to 15 times per day, with the number of foraging trips increasing in proportion to the number and age of the nestlings (Coulter et al. 1999).

By age 50–60 days, juvenile birds leave the nest, travelling each day between 100–1,000 m from the colony (Coulter et al 1999) (i.e., within the USFWS secondary zone and beyond). At this time birds are learning to fly and to forage efficiently, but they return frequently to the nest to be fed by the parents. Birds are not fully developed at this age and their flights are relatively uncoordinated (Kahl 1972). These preliminary excursions continue for about four weeks until the nestlings gain independence from their parents at approximately 70–80 days old. Large numbers of these inexperienced birds can be found around the colonies. In 2009 approximately 500 juvenile storks were observed dispersed within a one mile radius of Tamiami West colony (Mark Cook, personal observation).

At independence, juvenile birds remain and feed in the Everglades for many weeks if foraging conditions are suitable (Borkhataria 2009, Kahl 1964, Rodgers 1987) but will leave the Everglades in search of better habitat if conditions are too dry or too wet. This period of post-fledging foraging in the Everglades appears to be critical for the future survival of the fledglings (Borkhataria 2009).

Wood storks use two general forms of aerial travel: flapping flight and soaring/gliding flight. For long-distance flights they tend to use thermals to soar to altitudes over 1,000 m and then glide several kilometers to the next thermal to cover horizontal distance. Thermals generally form from mid-morning until late afternoon and are generally limited to warm, windless days with limited cloud cover. Wood storks often use flapping flight: for example, when leaving the colony to find a thermal, when thermals are not available (e.g., during cool/cloudy conditions and during nocturnal flights), and for short distance flights such as those within and around colonies (Bryan et al. 1995). Flapping flight tends to occur at relatively low elevations and birds appear less maneuverable than during soaring flight. Adult storks exhibit a number of behaviors within the colony that involve flapping flight such as aerial clattering threat flights, mating flying-around behavior (Coulter 1999), and nesting material collection flights.

Avian Interactions with Power Lines: A Literature Review

The following provides a succinct summary of the major published or peer-reviewed literature on avian interactions with power lines, and relates this work to the pertinent biology and ecology of the wood stork. Three areas of avian interactions were considered: collision risk, electrocution risk, and avian habitat loss.

A. Collision Risk

Power lines appear to constitute a collision hazard for birds. It is estimated that between 130 and 175 million birds are killed annually in the United States by collisions with power lines (Erickson et al. 2005, Manville 2005), and this may be a conservative estimate given minimal monitoring efforts over large spatial scales (Erickson et al. 2005, Manville 2005). Collision risk varies greatly among species, and a number of interrelated factors concerning the biology of the bird, its environment, and characteristics of the power line affect the likelihood of collision (Bevanger 1994, Hunting 2002).

The habitat in which a transmission line corridor is placed can have a strong influence on collision risk for the local bird community. Collisions appear to increase in open habitats, and birds in open wetland habitats appear to incur proportionally high rates of collision related mortality relative to other habitats (Faanes 1987, McNeil et al. 1985, Malcolm 1982). Accordingly, a number of experts recommend that transmission line corridors should not be

placed in open wetlands (Faanes 1987, McNeil et al. 1985) such as those in the central Everglades (Shark River Slough region of Everglades National Park and Water Conservation Area 3B).

The particular location of the power line within a habitat also has an influence on collision risk. Reports of avian mortality are often greater when lines cross nesting, feeding and roosting areas, particularly those that support a large abundance and diversity of birds (Crivelli et al. 1988; Malcolm 1982; McNeil et al. 1985). In one example, 4,000 dead birds were found along a short 2.8-mile section of a transmission line in a large Montana wetland over a16-month period, with peak collisions occurring during the nesting season. A subsequent botulism epidemic caused by the large number of dead bodies killed an additional 63,000 birds (Malcom 1982). Both proposed transmission line corridors cross important wading bird nesting and foraging areas in the Everglades.

There is general consensus on the typical characteristics that define a collision-prone species (Jenkins et al. 2010). A species' morphology, visual acuity, and behavior are the key determinants of collision risk (Bevanger 1998, Jaans 2000, Martin & Shaw 2010). In short, the probability of collision is centered on a bird's likelihood of flying at a power line at the appropriate height and trajectory, and its ability to detect and avoid the line in sufficient time to prevent an imminent collision.

Of particular relevance is how physical characteristics affect the flight ability of a bird. In general, highly maneuverable species (long wings and low body mass) are at lower risk of collision with power lines than less agile species (short wings and high mass). Bevanger (1998) and Jaans (2000) employed multivariate statistical approaches to categorize the probability of collision risk by avian family using body mass, wing structure, body length, and tail length. Groups of birds with large broad wings and decreased wing loading such as wading birds were considered relatively poor fliers and classified as "having highest susceptibility" (Jenkins et al. 2010). This has been verified by a number of studies that have reported relatively high levels of collision-related mortality among wading birds (e.g., Saverno & Haig 1996, Rusz et al. 1986, Garrido & Fernandez-Cruz 2003).

Collision risk is also a function of a bird's behavior. Clearly, highly aerial species with a tendency to fly within the height range of power lines are at a greater risk than more terrestrial species that rarely encounter power lines (Bevenger 1994). Risk is further increased by regular direct flights between a fixed point and a resource such as between a colony or roost site and a foraging area, and further increased if travel involves flocks of birds, which can result in reduced vision for birds at the rear of a flock (Bevanger 1994, Hunting 2002). Wood storks do not generally fly in large flocks but often leave a colony in groups.

Other characteristics such as the form of the flight, the distance traveled, and the frequency and duration of the flight, can also affect the likelihood of a bird encountering and hitting a transmission line. Storks associated with a colony use flight for multiple reasons. Some flights are relatively short (within a few thousand feet of the colony boundary) and include courtship, antagonistic, and nest material collection flights of adults (Coulter 1999) and the uncoordinated learning flights of juveniles. These are of the low-elevation flapping type (Bryan et al. 1995) flown at a height range similar to that of the proposed transmission lines (between 30 ft and 150 ft). The risk of collision for these flights may be independent of the visibility of the lines if an adult bird is distracted with antagonistic flights or with the pressure to deliver food to hungry nestlings (e.g., Henderson et al. 1996), or if a young bird is naive to a transmission line corridor or unable to negotiate it effectively. Other flights may be much longer in distance and duration

and include the foraging trips of adult birds to and from distant wetland feeding areas. These tend to involve energy-efficient, high-altitude soaring flights, but are reliant on warm and sunny conditions for producing thermals. Birds not associated with the colony such as those foraging in the vicinity of the transmission line corridors from distant colonies and roosts will also tend to use soaring flight.

The direction of a flight is also an important component of collision risk, particularly for longer-distance flights. At the colony cluster, adult storks fly in all directions from the colonies to forage in local marshes including Everglades National Park to the south and west, Water Conservation Areas 3A and 3B to the north and northwest, and the Pennsuco Wetlands to the east and northeast (Herring & Gawlik 2007, R. Borkhateria pers. comm.). Foraging locations and the directions of travel vary through the nesting season as prey availability responds to seasonal changes in hydrologic conditions. Hence, birds will likely need to negotiate a proximate transmission line corridor as they enter and leave their nest site at least at some stage during nesting regardless of the relative position of the colony to the transmission line corridor.

Also important for understanding collision risk is the frequency at which both adult and juvenile birds encounter the transmission line corridor over the course of the breeding period (e.g., Malcolm 1982). For wood storks, this is a function of the number of individuals in a colony, as well as the frequency of a particular type of flight behavior and its duration during the nesting season. For example, a moderate number of juveniles fly back and forth to the nest many times per day but only for a short three- to four-week period, while a similar number of their parents fly back and forth to the nest at a comparable frequency but for the entire duration of the nesting period (see Coulter et al. 1999). Given the potential for large numbers of birds in a colony (e.g., Cook & Kobza 2009) and the considerable duration of the nesting period, this can amount to millions of individual flights over the course of a nesting season. Determining the proportion of these flights that have the potential to interact with transmission lines is important for understanding collision risk.

Life history stage and age of a bird affect collision risk. Younger birds are less experienced and exhibit reduced flight ability relative to older birds. Several authors have stressed that juveniles and recently fledged waterbirds may be particularly prone to collisions (Crivelli et al. 1988, McNeil et al. 1985, Schaub and Pradel 2004, Spalding and Forrester 1991). In this respect, juvenile storks in the weeks prior to their full independence may be most at risk of collision related mortality. Their limited flight capacity and maneuverability, incomplete development, general naivety, and the large number of flights they undertake in and around the colony may make them relatively susceptible to collisions.

Time of day and weather patterns also affect collision risk (Renssen et al. 1975; APLIC, 2006). Avian collisions with transmission lines occur more often at dawn and dusk when visibility is relatively low (McNeil et al. 1985, Crivelli et al. 1988). The wood stork is a crepuscular forager and often flies during low light conditions. The potential for collision is likely greatest when birds are foraging nocturnally and during inclement weather conditions such as foggy and windy conditions (Deng and Frederick 2001). Inclement weather is not uncommon during the nesting season in South Florida.

In addition to collision risk, it is also important to understand that the relative impact of any collision-related mortality can be related to the size of the population. Avian populations can normally compensate for additional mortality deriving from unusual causes such as collisions with transmission lines, but they may be more seriously affected if the population is already reduced below a certain threshold level (Janss & Ferrer 1998, Faanes 1987, Bevanger 1995).

Power lines have had significant demographic effects on threatened European white stork and blue crane populations (Garrido & Fernandez-Cruz 2003, Schaub & Pradel 2004, Shaw et al. 2010). Given that the CERP population of nesting wood storks is already significantly reduced (Crozier & Gawlik 2003) and that a large proportion of this population nests in close proximity to the proposed corridors (see annual SFWBRs), potential impacts on CERP wood stork goals and targets should be an important consideration of the risk assessment.

The review of the literature revealed that relatively few studies examined the effects of power lines on wading birds, and of those that did, none examined the particular issue of a transmission line corridor in close proximity to a colony. Nonetheless, sufficient information is available to suggest that wading birds as a group are sensitive to collision risk (e.g., Saverno et al. 1996, Rusz et al 1986, Garrido & Fernandez-Cruz 2003). Studies pertaining to Florida are likewise very limited. Spalding and Forrester (1991) studied factors affecting mortality of birds from 61 wading bird colonies in Florida. They concluded that collisions with power lines can be an important cause of mortality for adult and juvenile wading birds, including wood storks. Deng (1998) studied wading bird collisions along the Levee-Midway line in the Everglades and reported a wading bird collision rate of only 0.005 percent from 41,000 bird crossings. However, these results are not fully relevant to the current FPL application. First, this study examined collisions at transmission line corridors placed considerable distances (> 5 miles) from the nearest colonies; thus, while it has some relevance for considering collision risk on foraging birds, it is not appropriate for ascertaining the particular risks associated with birds at a nearby colony, which is the SFWMD's primary concern. Second, the physical characteristics of the Levee-Midway transmission line corridor are different from the current proposal; for example, the Levee-Midway line is a single 500-kV line H-frame with no guy wires or fill pads. Finally, the Deng study conceded that the detectability of collisions was lowest during poor visibility conditions and at night when collision risk to birds was greatest (Deng and Frederick 2001). Therefore collision risk may have been underestimated in this study. Indeed, Deng (1998) did report that seven wading birds were found dead/injured under the lines, including two wood storks, despite the lack of systematic searches. Deng (1998) also states that the Florida Fish and Wildlife Commission (FWC) reported finding 170 dead birds (mainly great blue herons and wood storks) under the Miami Canal distribution line. Additional evidence for wading bird mortality on distribution and transmission lines in the Everglades is provided in a letter to SFWMD by wading bird expert Peter Frederick from the University of Florida. The letter appears at the end of this appendix.

B. Electrocution Risk

Wading birds, including storks, have been known to suffer high rates of electrocution (Bevanger 1998, Jaans 2000). However, modern transmission line designs, such as those included in the current proposal, have limited these risks, and SFWMD considers the risk of electrocutions to wood storks and other wading bird species to be minimal.

C. Habitat Loss

Habitat loss through construction of the proposed transmission line corridors may occur directly or indirectly. Direct loss of habitat would result from the construction of the large pads every 500 feet for the 230 kV line and every 1,000 feet for the 500 kV lines, as well as from the access roads along the entire lengths of the transmission line corridors. While this would amount to a small area of wetland habitat relative to the total habitat within a core foraging area (see Section 2.2.3.9 for details), one should also consider the relative ecological value of the habitat. The region through which the proposed transmission line corridors pass, the headwaters of Shark

River Slough, is one of the primary foraging regions for storks and other wading birds in the Everglades, often supporting tens of thousands of foraging birds, and is one of the primary focal regions for CERP hydrologic restoration. This habitat, in terms of the total number of foraging birds, is considerably more important for foraging than other regions within the local core foraging areas such as the ponded areas in WCA-3A that are generally too deep for foraging or the northern regions of WCA-3B that are frequently too dry.

Although FPL proposes adding culverts to maintain hydrologic conditions, the primary objective of the Decompartmentalization (Decomp) component of CERP is to remove physical structures and their associated culverts since it is generally agreed that they impede historic hydrologic flow patterns. Although FPL proposes adding culverts to maintain hydrologic conditions, the primary objective of the Decomp component of CERP is to remove physical structures and their associated culverts since it is generally agreed that they impede historic hydrologic flow patterns. While large pads and access roads in Everglades wetlands do not appear to be consistent with CERP goals, as long as FPL is in compliance with the conditions of certification. FPL's project is not likely to be inconsistent with CERP.

The transmission line corridors may also impact a number of local tree islands. A primary goal of CERP is to increase nesting populations of the wood stork in the area and these islands are considered important for future expansion of the local wood stork colonies.

FPL Wood Stork Ecological Risk Assessment

In response to the avian concerns identified by SFWMD during the completeness review process, FPL submitted an assessment entitled Ecological Risk Assessment of Potential Impacts of Turkey Point Units 6 & 7 West Corridor Transmission Lines on Wood Storks, dated July 2010, and a subsequent September 23, 2010 Addendum to this document that addressed many of SFWMD concerns after SFWMD review of the initial document. While SFWMD recommended that the responses be deemed complete, SFWMD suggests that the following concerns and additional information be considered when assessing the ecological risk to the wood stork. These issues are grouped into the three categories listed below.

Collision Risk within Colonies

SFWMD's primary concern is the collision risk to adult, fledgling, and post-fledgling wood storks from nearby colonies with transmission lines.

Short Distance Flight Behaviors within a Colony

Additional information is needed on important short-distance flight behaviors within a colony for adults and fledgling birds, as these flights occur within the separation distances between the colonies and the proposed West Preferred and West Secondary Corridors. These short distance flight behaviors may affect the potential number and type of wood stork interactions with the transmission lines. The specific information to be considered is identified by SFWMD below:

- The general form of flight behavior for short-distance flights within and around the colony will affect flight speed and maneuverability and thus affect collision risk. Storks exhibit three general forms of flight: flapping, soaring and gliding, with activities involving flapping flight likely to be most prone to collision risk. Flapping flight is favored when traveling to local sites, is less maneuverable than soaring and gliding, and generally occurs at a height comparable to the proposed transmission line wires (Bryan et al.

1995). This is in contrast to the much higher elevation soaring flight which is favored when traveling long distances to and from foraging sites and the primary flight type examined in the Deng and Frederick 2001 study. From a stationary position, it often takes a stork thousands of horizontal feet of flapping before a thermal is found for long-distance soaring and gliding flights (Coulter et al. 1999).

- The courtship flights (i.e., "flying around" behaviors; Coulter et al. 1999), and nest material collection flights by adult birds, which both occur largely within or around the colony, are an important consideration for assessing collision risk. The courtship flights are of interest because animals are often highly distracted during courtship rituals and the risk of collision during these flights may be independent of the behavioral avoidance and visibility issues. Nest construction requires a considerable number of trips between the nest and the collection sites from the courtship stage through to the young nestling period (Coulter et al. 1999).

- SFWMD is particularly concerned about the collision risk to fledgling birds (birds that are independent of the nest but still reliant on parental feeding). These birds travel each day for short distances up to 1 km from the colony, learning to forage in the local marshes, and frequently return to the nest or a nearby site to be fed by parents (see Coulter et al 1999, Mark Cook personal observation). Given their limited flight capacity and maneuverability, incomplete mental and physical development, and general naivety to structures such as transmission line corridors, these 'learning' flights may increase the exposure of these immature birds.

Flights In and Out of a Colony

Observation of flights by adults in and out of the colony (e.g., when travelling back and forth from foraging sites) would be useful in estimating the exposure (e.g., number, direction, and altitude of flights across the West Preferred and West Secondary Corridors). Knowing the approximate number of flights in and out of the colony, when combined with information on the nesting period, the number of birds in the colony, and flight directions, can provide a very useful estimate of the exposure of wood storks from the focal colony to the proposed transmission lines over the course of the breeding season.

Other Information

Understanding the relative importance of the colony cluster with respect to the overall CERP population of nesting wood storks is an important consideration for SFWMD. The four colonies proximate to the West Preferred and West Secondary Corridors currently represent a large proportion of the CERP wood stork population (up to half of all nests in the Everglades). Although given this, the small population size of the wood stork, and that a small increase in mortality may compromise CERP restoration goals pertaining to the wood stork, so long as FPL is in compliance with the conditions of certification, FPL's project is not likely to be inconsistent with CERP.

The three-year average numbers of nests in the FPL Risk Assessment, Table 3-4 (page 26) report average number of nests per colony per year whereas the methods employed by RECOVER (see Ogden et al. 1997 for details of approach, and page 41–42 in Cook & Kobza 2010) use average number of nests of multiple colonies (a system-wide approach) per year. This was deemed most appropriate by RECOVER because of the extreme variability among the colonies in a given year. This is the same rationale for using a three-year average due to the

extreme variability of nests within a given colony from year to year. The approach employed by FPL's Risk Assessment results in four times lower three-year averages than that employed by RECOVER because the FPL Risk Assessment Approach reports average number of nests per colony per year whereas the RECOVER method reports average number of nests per colony cluster per year.

Determination of Collision Risk

The specific concerns identified by SFWMD in the Risk Assessment are listed below.

- SFWMD considers the key spatial exposure condition to be the distance between the colony and the transmission lines, rather than tower height, span length, etc (page 45 of the Risk Assessment). Consideration of the area up to approximately 2,000 feet beyond the colony boundary (i.e., where the trees end and the marsh begins) where birds engage in a number of key nesting activities is important.

- The frequency of exposure for the different groups of birds is important. Foraging birds and migratory birds that are not associated with the colonies will have a relatively low frequency of encountering the West Preferred and West Secondary Corridors during the breeding season (i.e., they will encounter the corridors only when crossing them to reach foraging sites). Birds in the colonies will have a much greater encounter rate with the corridors; however, the encounter rate and risk of collision will depend on the stage of nesting, life history stage. and current behavior. For example, when parent birds are collecting nesting material they may cross or encounter the corridor at a heightened frequency, typically only for a week or so, but when they are provisioning their nestlings they can enter and leave the colony between 3 and 10 times per adult per day for many weeks (USFWS 1996). Fledgling birds may be exposed to a very high frequency of encounters for the two to three weeks after they first leave the nest and learn to fly.

- Regarding behavioral exposure (pages 47-49), the Deng and Frederick (2001) study quoted in the Risk Assessment is useful to understand exposure for foraging birds. However, this study did not examine the risk to nesting birds (the nearest colony was approximately 5 miles away) and is not directly relevant to nesting birds within these colonies.

- A major difficulty with assessing the risk of wood stork collisions with transmission line corridors is the lack of studies on the subject. Little is known about the risk to birds in nesting colonies or how the design element of various structures (e.g., transmission lines, distribution lines, radio towers) differentially affect the risk of collision.

- While data on the collision risk to wood storks and other wading birds in Florida is limited, evidence is available to suggest power lines can be a risk. For example, although the Deng (1998) study referenced in the FPL Risk Assessment reported a low level of observed avian collisions (only two non-fatal collisions during daytime observations of birds crossing the Levee-Midway transmission line in the spring and early summer of 1996 and 1997), seven dead or injured wading birds, including two wood storks, were found in 1996 during occasional (non-systematic) searches for dead birds beneath the transmission lines. The observers conceded that they possibly failed to detect collisions during poor visibility conditions when collision risk was greatest (Deng & Frederick 2001). Deng (1998) also reported wood stork mortality at a

distribution line in WCA-3A, while Spalding and Forrester (1991) reported wading bird mortality under power lines in Florida.

- Behavioral avoidance of collisions, as demonstrated in the quoted Deng & Frederick (2001) study, may not be as relevant to nesting birds as they are to foraging birds. As previously stated, intra-colony flight behaviors are often very different from those of foraging birds. Specifically:

  - Flight behaviors are different (flapping) to those of foraging birds (soaring)
  - Flights include those by inexperienced fledgling birds
  - Adults undertake non-foraging behaviors such as mating flights
  - Flight heights are more comparable to the height of the West Preferred and West Secondary Corridors, while foraging flights across the marsh are generally higher
  - There is a greater opportunity for birds to interact with the thousands of other birds in the colony and therefore, being affected by the poor visibility and increased collision risks associated with flocking behavior
  - The birds may be forced to cross the transmission lines to leave/enter the colony if their foraging location is on the other side of the transmission line
  - Bird interactions with a proximate transmission line may occur with greater frequency than when foraging

  Thus the risk of collision for birds in a colony may be independent of visibility or avoidance issues, and higher than those for foraging birds. Ultimately, the 'behavioral avoidance' and 'visibility of the proposed transmission lines' quoted in the Risk Assessment may have only limited relevance to collision risk.

- FPL's Risk Assessment suggests that wood storks acclimate to the presence of transmission lines (page 48). However, out of 11 selected wood stork colonies in FPL's Risk Assessment, only 2 have transmission lines located within the Secondary Management Zone (or closer), one of these colonies has been inactive since 1986 and the transmission lines do not cross open wetlands. While wood storks in these colonies may have 'acclimated' to the proximate transmission line, the associated wading birds may be susceptible to collision risk. No studies have been conducted in these colonies to examine collision risk with transmission lines.

- SFWMD does not consider the number of reported wood stork collisions to be an appropriate method for addressing wood stork collision risk (page 55 of the Risk Assessment). Wood stork colonies and associated foraging areas are generally located in areas that are not frequented by people and in fact mainly in wetlands. Therefore, limited reports of collisions are to be expected. A number of authors note (quoted in Bevenger 1998) that because a majority of power lines are located in remote areas, reported losses must be considered as a superficial measure of collision occurrence.

- To understand collision risk for a given group of birds it is often useful to consider the risk in relation to other groups of birds. For example, figure 4.9 (page 54) from the Licensee's Risk Assessment document suggests that the proportion of recorded wading bird collisions is low relative to other species, such as plovers and gulls. However, it is appropriate when making these comparisons to control for important differences among the species groups, such as the number of species and individuals in each group, which can artificially inflate differences.

Closely-Related Species

Considering that the available information on the effect of transmission lines on nesting wood storks is minimal, SFWMD maintains that information on closely related species is highly relevant to making an assessment of risk. There is a large body of literature indicating that:

- Closely related species have similar biological and morphological attributes, which have been used by various authors to ascertain collision risk (e.g., Bevenger 1998, Janss 2000).
- Birds exhibit relatively higher levels of collision related mortality in wetland habitat versus other habitats and the collision risk increases during the nesting season (Malcolm 1982, McNeil 1983, Faanes 1987).
- Wading birds as a group are at a relatively high risk of collision due to their morphology and flight ability (Bevanger 1998, Janss 2000, Savereno et al. 1996, Rusz et al. 1986).
- It has been documented that some wading bird species have suffered collision-related mortality in Florida (Spalding & Forrester 1991)
- Other wading bird species including storks are prone to collisions and have suffered population level declines due to collisions with power lines (Garrido and Fernández-Cruz 2003, Schaub & Pradel 2004, Shaw et al. 2010).

Collisions of closely related and similar species are not directly equivalent to the wood stork but are relevant. For example, although the European white stork is slightly different in morphology and feeding habits, it is relatively similar to the wood stork in flight ability, visual acuity, size, and most other biological attributes. Hence, its risk of collision is likely to be similar to that of a wood stork. Such comparisons between different stork species can be made.

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JUN 12 1992
EVERGLADES RESEARCH DIV.

6 June, 1992

Mr. Pete David
Environmental Sciences
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida

Dear Pete,

Due to some recent observations, I am becoming increasingly uneasy about the prospect of placing high voltage powerlines near wading bird colonies, particularly with respect to the proposed new route through northeastern Water Conservation Area 3b. The observations are as follows:

1. On 31 May I observed two juvenile Snowy Egrets and one adult Tricolored Heron with broken wings in the midst of a foraging flock of mixed wading bird species, directly underneath the large powerlines along the oil line just north of Alligator Alley and immediately west of route 27. The Tricolored Heron was collected and submitted to Marilyn Spalding, a University of Florida wildlife pathologist, who confirmed that the fractured wing was typical of other powerline collisions she has seen, and that the bird was not otherwise impaired. The fracture was quite recent. I chased the Snowy Egrets enough to tell that one wing on each was clearly dislocated or broken - these were not cases of juveniles having trouble developing flight skills.

2. On 1 June (the next day) I observed two juvenile Tricolored Herons, and two adult Snowy Egrets in the same spot, all unable to fly, with similarly damaged wings. I have not been back to the site until after heavy rains, at which time the foraging groups had dispersed.

3. A Florida Game and Freshwater Fish Commission Wildlife Officer told me that he has seen wading birds hanging from the powerline just west of rte. 27 and north of Alligator Alley on "a half-dozen mornings" in the past six months. There is no way to know how often the officer glances at the powerline during his daily perambulations.

4. At the Tamiami Trail colonies, much lower powerlines (on

telephone poles) are immediately adjacent to the nesting area. I have found four carcasses of adult White Ibises directly beneath the powerlines, in five trips into the colony. I enter the colony by only two trails, both of which cross the powerline at a 90 degree angle. Thus my sampling of the powerline is minimal. Carcasses of adults have not been found elsewhere in the colony.

Taken together, this information suggests that:
a. wading birds are subject to frequent collisions with powerlines when the birds are attracted to the area.
b. the vegetation management underneath the high voltage lines north of Alligator Alley tends to attract wading birds to forage there.
c. powerlines are particularly detrimental to wading birds when placed close to colonies.

These recent observations are far from a controlled study, but the circumstances suggest strongly that the detrimental effects of powerlines should be better understood. Further, they suggest that the construction of a powerline close to the Mud Canal colony in northeastern WCA 3b is a very poor idea, and is likely to lead to mortality of adults and juveniles using that breeding site; the actual extent of the mortality is unknown, and it is similarly unknown whether endangered species will be involved (such as Wood Storks). The Mud Canal colony has been active in all years it has been wet during the last seven years, and cannot be considered as transient. I urge some special consideration for this colony as the powerline is being planned, and strongly urge a monitoring study for the effect of this powerline, and other existing ones in the area.

Sincerely,

Peter Frederick
Adjunct Assistant Professor

APPENDIX D. Confidentiality Agreement

CONFIDENTIALITY AGREEMENT

This Confidentiality Agreement is entered into on this 27th day of May, 2011, between the South Florida Water Management District ("DISTRICT"), a political sub-division of the state of Florida and Florida Power and Light ("FPL"), a Florida Corporation

WHEREAS, FPL desires that the DISTRICT provide data and documents for the Turkey Point Power Plant Expansion Project and associated transmission lines, as well as to assess and demonstrate avoidance or minimization of adverse impacts to District projects facilities and operations (WORK); and

WHEREAS, some of the documents requested by FPL are confidential security documents belonging to the DISTRICT which are exempt from public disclosure under Section 119.071(3), F.S.; and

WHEREAS, the documents that are confidential security documents are the subject of this agreement and will be identified in Exhibit "A" which is hereby incorporated as an integral part of this Agreement; and

WHEREAS, the parties are desirous to work together under the parameters of this Agreement,

NOW, THEREFORE, the DISTRICT will provide the confidential, exempt security records listed on Exhibit "A", (hereinafter referred to as the DOCUMENTS) to FPL subject to the following terms:

1. **LIMITATIONS:**

1.1 FPL's right to use the DOCUMENTS in any form other than as delivered or specified herein is not granted unless the DISTRICT expressly allows such use in writing.

2. **TERM:**

2.1 FPL will use the DOCUMENTS for the sole purpose of performing the WORK as described in the Agreement above. The term of the Agreement is for five (5) years from the date of execution or until completion of the WORK, whichever occurs first, unless otherwise extended in writing by both parties. However, the DISTRICT may terminate this Agreement for cause ten (10) days after notifying FPL of its intent to

terminate, if in the DISTRICT'S reasonable discretion FPL has failed to take corrective action to comply in all respects with the Agreement.

3. **SECURITY AND CONFIDENTIALITY:**

3.1 FPL does hereby acknowledge that the DOCUMENTS are confidential, and are exempt from disclosure pursuant to Section 119.071(3), Florida Statutes. FPL shall not disclose, directly or indirectly, or take any other action, or fail to take action, which would result in the unauthorized disclosure or duplication of any confidential DOCUMENTS whatsoever, which are the subject matter of this Agreement.

3.2 FPL may copy the DOCUMENTS, or parts thereof, as may be necessary to facilitate its WORK and for temporary archival and backup purposes. No third-parties will be permitted by the DISTRICT to have access to, or make copies of, the DOCUMENTS without written permission from the DISTRICT. OTHER THAN CONSULTANTS AND ATTORNEYS RETAINED BY FPL

CONSULTANTS AND ATTORNEYS

3.3 FPL agrees to make all employees who have access to the DOCUMENTS or any portion thereof, aware of this Agreement, the confidential nature of the DOCUMENTS, and the limitations on use contained herein. FPL represents and warrants that all such employees are obligated not to use or disclose confidential information (including the DISTRICT'S) obtained in the course of their employment.

4. **NO WARRANTY:** CONSULTANTS AND ATTORNEYS

4.1 FPL accepts the DOCUMENTS and this Agreement, "as is" with no express or implied warranties including, but not limited to the implied warranties of MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. FPL shall rely solely on its own inspection, sampling, and verification to determine if the DOCUMENTS are sufficiently accurate, fit and suitable for its purposes pursuant to the Agreement, and shall not rely on any alleged DISTRICT warranties or representations. The DISTRICT does not warrant that the DOCUMENTS will satisfy FPL's requirements.

5. **TERMINATION:**

5.1 Upon termination of this Agreement, FPL will immediately return or destroy the DOCUMENTS and all copies thereof which are or have been in its possession to the DISTRICT, and certify that all copies have been returned or destroyed.

For South Florida Water Management District

Title: Executive Director

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406
(561) 682-6109

Dated: 2/14/2011

Office of Counsel
Legal Form Approved

For Florida Power and Light

Title: Transmission Engineering Manager

Florida Power and Light Corporation
700 Universe Boulevard
Juno Beach, FL 33408-0420
(561) 694-4150

Dated: 5/27/2011

Appendix III-F: South Florida Regional Planning Council

South
Florida
Regional
Planning
Council

June 15, 2011

Mr. Michael P. Halpin
Program Administrator
Office of Siting Coordination
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Agency Report for the Turkey Point Nuclear Power Plant Expansion – Transmission Lines Component of the Project Site Certification Application

Dear Mr. Halpin:

Pursuant to Section 403.526, Florida Statute, the South Florida Regional Planning Council (SFRPC) staff has prepared a final agency report pertaining to the Turkey Point Transmission Lines.

INTRODUCTION

Florida Power and Light (FPL) submitted a Site Certification Application to the Florida Department of Environmental Protection (DEP) on June 30, 2009. If approved, the application would allow FPL to expand nuclear energy production at its Turkey Point facility in Miami-Dade County. The proposed project consists of the construction of two new 1,100 megawatt (mW) nuclear reactors, 6 and 7, and supporting facilities, as well as the placement of new transmission lines. Although power plant siting and transmission lines are treated as separate processes in Chapter 403, F.S., they have been combined into one application by the Applicant. The review process will be conducted on separate but parallel tracks. The transmission lines are being reviewed in an earlier timeframe than the power plant, although the transmission lines will only be necessary if the unit 6 and unit 7 installations are approved.

Siting approval is generally made through a Final Order of Certification signed by the Secretary (agency head) of DEP. If the application is contested, Certification Hearings will be held. The presiding Administrative Law Judge (ALJ) issues a Recommended Order that contains findings of fact and conclusion of law about the matters raised at the hearing or in the application, along with the proposed Conditions of Certification, if certification is recommended. The Recommended Order is submitted to DEP for presentation to the Siting Board (Governor and Cabinet). The Board will decide whether to license both the transmission lines and new electrical power plants in one proceeding, pursuant to the State Power Plant Siting Act (PPSA), Chapter 403, Part II, Florida Statutes (F.S.).

Some of the municipalities affected by the proposed application have explored potential alternate locations for transmission line placement. Section 403.5271, F.S., allows any party the opportunity to propose alternate transmission line corridor routes. May 2, 2011 is the deadline to file notice of proposed alternate corridors for transmission lines. The necessary data supporting an alternate route proposal and the appropriate application fee must be submitted by May 31, 2011. The alternate route application fee is $750 per mile for each mile of the alternate corridor located in an existing right-of -way and $1,000 per

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mile if located outside of the existing right-of-way. Final transmission line corridor route approval would be determined by the ALJ during the certification hearing. The Council's review addresses only the transmission corridors proposed by FPL.

The South Florida Regional Planning Council is one of several affected agencies actively involved in the review and comment of the application, as identified in §403.507(2)(a) and §403.526 F.S. This process provides the Council the opportunity to assess the project's consistency with the *Strategic Regional Policy Plan for South Florida* (*SRPP*). The Council's report contains recommendations to address impacts of the proposed project.

PROJECT DESCRIPTION

The two nuclear generating units with supporting buildings, facilities and equipment are proposed to be located due south of the existing Turkey Point units, on a parcel currently within the industrial wastewater /cooling canal system. Associated facilities proposed in or around the new or existing plant units include parking areas; a nuclear administration and training building; a reclaimed water treatment facility and treated reclaimed water delivery pipelines; radial collector wells and delivery pipelines for cooling water backup; and an equipment barge unloading area. A new electrical substation (Clear Sky) will be constructed on the Turkey Point site. A 230-kilovolt (kV) transmission line also will be needed to connect the new substation to the existing substation on the plant property.

The application requests transmission corridors within the following communities: unincorporated Miami-Dade County, Miami, Coral Gables, Doral, Florida City, Medley, Palmetto Bay, Pinecrest, and South Miami. FPL may allocate rights-of-way for transmission corridors up to 6.5 miles in width, to accommodate associated facilities. This approach provides broad latitude for the placement of the transmission lines and other system improvements; within a corridor. Upon completion of the project, the transmission corridors would retain no more than one mile of right-of-way width. The application also requests the creation or expansion of access roads and bridges (between SW 328 Street and SW 359 Street and east of SW 137 Avenue). The Miami-Dade County Comprehensive Development Master Plan Amendments for these proposed access roadway activities were adopted by the County on April 28, 2010.

FPL has indicated that the existing transmission line infrastructure is insufficient to carry the load that will be generated by the new reactors. New 500 and 230 kV electric transmission lines are needed to connect the proposed Clear Sky and existing Turkey Point substations to other existing FPL substations in Miami-Dade County. Because of the load requirements, two separate transmission line corridors have been proposed, totaling approximately 88.7 miles. The East Preferred Corridor is a 36.7 mile long area proposed by FPL to connect the existing Turkey Point substation to the new Clear Sky and existing Davis and Miami substations. The Davis to Miami portion would run through more urbanized sections of U.S. 1 from Palmetto Bay through Downtown Miami; one 230-kV line would be constructed along this 17.7 mile section of the corridor. The West Preferred Corridor would connect the new Clear Sky substation to the existing Levee substation, with two 500-kV lines; the West Preferred Corridor would also connect the new Clear Sky substation to the existing Pennsuco substation, with one 230-kV line. The Levee to Pennsuco portion would run through Doral and Medley. The full West Preferred Corridor is 52 miles in length; it is 43.6 miles from Clear Sky to Levee and 8.4 miles from Levee to Pennsuco. Three transmission lines are proposed to be constructed within a single right-of-way up to the existing Levee substation.

FPL has sufficient right-of-way in the West Secondary Corridor, which traverses the Everglades National Park (ENP). FPL has been working with federal and state agencies on a right-of-way exchange. This exchange (land swap) would relocate the 7.4 mile long section of right-of-way within the ENP to the eastern border of the Park. The West Preferred Corridor assumes the alignment of the exchange.

SFRPC REVIEW AND EVALUATION

Council staff requested additional information regarding the proposed transmission line siting in terms of alternate routes, rights-of-way, cost, construction and quality of life issues during the completeness review. Florida Power and Light (FPL) representatives met with Council staff to address initial agency questions. More specific concerns related to Council staff's original issue areas were raised during the September 2, 2009 Informational Public Meeting, hosted by the SFRPC and Miami-Dade County, at which the applicant was present. Additional public comments were given at the June 7, 2010 SFRPC Council meeting.

The feasibility of the ENP "land swap" is still being evaluated. Although the exchange would relocate the transmission lines to the eastern border of the ENP, concerns about environmental impacts still remain. The process for vetting environmental issues is not within the timeframe of the transmission line application review process.

Council staff has identified issues that merit additional attention because of their potential impacts to the Region, in accordance with Sections 403.5252 and 403.526, F.S., and public comments. After a careful review of the transmission line portion of the site certification application and FPL responses within the scope of completeness requests for additional information, Council staff reviewed how the proposed project would affect the 22 priority issues of the Region that form the *Strategic Regional Policy Plan for South Florida.* The relevant priority areas that may be affected by the proposed project are: **Infrastructure; Natural Resources; Public Health, Safety, and Quality of Life; and Redevelopment and Transportation.**

ISSUE AND IMPACT ANALYSIS

Infrastructure

The *Strategic Regional Policy Plan (SRPP)* was adopted (as Rule 29J-2.009 Florida Administrative Code) through a consensus process and represents a vision for the Southeast. The *SRPP* complements and furthers the Florida's State Comprehensive Plan (Chapter 187, F.S). Local comprehensive plans are consistent with the *SRPP* and provide the blueprint for how communities will grow. While transmission lines are not defined as development, the placement of transmission lines should be compatible with allowed densities, intensities and adjacent uses. Transmission line placement will impact surrounding communities' ability to achieve their comprehensive plan goals. The proposed locations and the scale of transmission poles should be respectful of those visions.

Although the application proposes siting overhead transmission lines, the alternatives of undergrounding and co-locating transmission lines with Metrorail are also being examined. Public investment costs should be equitably shared by all FPL rate holders, no matter what delivery system is ultimately constructed. Proposed transmission lines should be compatible with existing and future land uses in terms of mass, scale and height. The ability to provide services should not hinder the prospect of future economic development. The applicant should consider both monetary and societal costs when making decisions about infrastructure location and technology. Special attention should be given to limiting environmental, health, economic and social impacts to the surrounding communities.

The following Goals and Polices of the *SRPP* should be addressed as part of the application approval process.

Goal 4	**Enhance the economic and environmental sustainability of the Region by ensuring the adequacy of its public facilities and services.**
Policy 4.1	Public facility and service providers should give priority to the construction, maintenance, or reconstruction of public facilities need to so serve existing development most effectively and to the elimination of any infrastructure deficiencies which would impeded redevelopment.
Policy 4.2	Optimize the service area and facility size of public facilities in the Region and direct future development and redevelopment first to areas served by existing infrastructure.
Policy 4.3	Utilize the existing infrastructure capacity of regional facilities to the maximum extent consistent with applicable level of service standards before encouraging the expansion of facilities or the development of new capacity.
Policy 4.9	Ensure that local governments establish as wide a range of financing methods for the provision of public facilities as possible. Where impact fees are assessed, procedures, schedules, and programs for the expenditure of these fees in a timely and equitable manner shall be developed.
Policy 4.10	Encourage the application of resource recovery, recycling, cogeneration, district cooling, water re-use systems, and other appropriate mechanisms where they are cost-effective and environmentally sound as a means of reducing the impacts of new development on existing public facilities and services and decreasing the costs of providing new public facilities and services.
Goal 9	**Develop clean, sustainable, and energy-efficient power generation and transportation systems.**
Policy 9.2	Encourage the development of renewable, clean fuels and energy-efficient enterprises to serve our communities and national markets.
Policy 9.7	Assess the impacts of global climate change and sea-level rise on South Florida's resources and land uses.
Goal 21	**Assume a leadership role to enhance regional cooperation, multi-jurisdictional coordination, and multi-issue regional planning to ensure the balancing of competing needs and long-term sustainability of our natural, developed and human resources.**
Policy 21.1	Implement better coordination of land use, natural resource, and infrastructure planning, with special attention to regional ecosystem management approaches.

<u>Natural Resources, Public Health, Safety, and Quality of Life</u>

This application seeks to place transmission lines and associated access roads in some areas that have high densities and intensities as well as environmentally sensitive areas of regional significance. There is concern about the effects of the transmission lines, access roads, and related expansion activity on salinity, vegetation, wildlife, wetlands, and Environmentally Endangered Lands (EEL). Potential impacts include removal of vegetation, loss of native plants and species, Comprehensive Everglades Restoration

Plan (CERP) and EEL lands; and impacts to systems of regional significance such as the Everglades and Biscayne National Parks.

Some municipalities along the urbanized portions of the proposed transmission corridors are concerned about the impacts of electromagnetic field (EMF) and radiofrequency exposure; noise levels; transmission line signal interference with emergency communication systems and radio and television communications; and health, safety and overall quality of life. Transmission line signals and pole heights have the potential to interfere with 911 emergency services communications and impede the safety operations of communities along U.S. 1. Special attention must be paid to the location and installation of transmission lines to prevent interference with microwave paths and radio frequency.

The following Goals and Polices of the *SRPP* should be addressed as part of the application approval process.

Goal 3	**Promote the health, safety, and welfare of South Florida's residents.**
Policy 3.7	Reduce exposure to environmental contaminants and hazards in the Region's ground, air, and water.
Goal 14	**Preserve, protect, and restore Natural Resources of Regional Significance.**
Policy 14.1	Address environmental issues, including the health of our air, water, habitats, and other natural resources, that affect quality of life and sustainability of our Region.
Policy 14.3	Protect native habitat by first avoiding impacts to wetlands before minimizing or mitigating those impacts. Development proposals should demonstrate how wetland impacts are being avoided and what alternative plans have been considered to achieve that objective.
Goal 15	**Restore and protect the ecological values and functions of the Everglades Ecosystem by increasing habitat area, increasing regional water storage, and restoring water quality.**
Policy 15.1	Encourage land uses and development patterns those are consistent with Everglades Ecosystem restoration and with the protection of Natural Resources of Regional Significance.

Redevelopment and Transportation

The placement of transmission lines along the more urbanized areas of the two proposed corridors will affect future opportunities to provide new transit features, the South Miami-Dade Busway or Metrorail expansion, greenways and pedestrian features, redevelopment projects, and scheduled roadway improvements. Related construction activities and traffic will also negatively impact the surrounding communities.

The associated risks of overhead transmission lines, whether real or perceived, are expected to alter real estate and economic development decisions. The affected municipalities believe businesses and their employees will be less likely to locate near overhead transmission lines. South Florida municipalities will be conducting the Evaluation and Appraisal Report process (pursuant to Chapter 163, Part II, F.S.) between 2010 and 2013. Future opportunities for redevelopment and growth will be identified as they review and analyze their respective Comprehensive Plans. Transmission lines and access road rights-of-

way will affect options for future development activities. The transmission lines as proposed will also impede pedestrian access, alter bus stop locations, and limit development.

The following Goals and Polices of the *SRPP* should be addressed as part of the application approval process.

Goal 8	**Enhance the Region's mobility, efficiency, safety, quality of life, and economic health through improvements to road, port and public transportation infrastructure.**
Policy 8.1	Maintain the Florida Intrastate Highway System, other state roads, local roadways, and public transportation systems to preserve the Region's investment in infrastructure; support daily use and needs; enhance the Region's global competitiveness and economic health; increase safety; ensure emergency access and response; and provide for evacuation purposes.
Goal 11	**Encourage and support the implementation of development proposals that conserve the Region's natural resources, rural and agricultural lands, green infrastructure and:** • **Utilize existing and planned infrastructure where most appropriate in urban areas;** • **Enhance the utilization of regional transportation systems;** • **Incorporate mixed-land-use developments;** • **Recycle existing developed sites; and** • **Provide for the preservation of historic sites.**
Goals 20	**Achieve long-term efficient and sustainable development patterns that protect natural resources and connect diverse housing, transportation, education, and employment opportunities.**
Policy 20.1	Provide for the compatibility of adjacent land uses and assess the impacts of land uses on the surrounding environment in comprehensive plans and development regulations.

CONDITIONS

Approval of the transmission lines is contingent on the approval of the Turkey Point Plant expansion component. If the construction of new units 6 and 7 and associated facilities is approved, the following conditions related to the transmission lines must also be satisfied:

- Use of existing infrastructure right-of-ways whenever possible and feasible.
- Consider placing transmission lines underground or co-locate with Metrorail.
- Identify and consider innovative funding initiatives for undergrounding or co-location of transmission lines.
- Coordinate with affected municipalities to ensure the establishment of rights-of-way and the actual placement of transmission lines does not constrain, impede or otherwise limit future development or expansion as outlined in affected communities' comprehensive plans.
- Coordinate construction, improvement and maintenance activities amongst the applicable agencies and municipalities to minimize bicycle/pedestrian, transit and roadway.
- Coordinate final transmission plans with the affected municipalities, Miami-Dade County, the Miami-Dade Metropolitan Planning Organization and Florida Department of Transportation to ensure transmission line locations will not hinder future transportation planning efforts.

- Impacts of proposed transmission corridors, including alternate routes, should be evaluated and vetted through an Environmental Impact Statement (E.I.S.) and allow for public participation, to the maximum extent feasible.

FINAL RECOMMENDATION

Staff has identified the priority issue areas and analyzed the impacts of the proposed project. Staff is also aware of several affected parties that are engaged in alternative route alignment studies and have sought legal challenges to the proposed U.S. Nuclear Regulatory Commission application. Council staff recognizes that the transmission line facilities are contingent on approval of the proposed power plant in order to be constructed.

While the current application proposes that transmission lines be sited above ground, the undergrounding of transmission lines should be strongly considered. Underground transmission lines would reduce environmental, health, economic and social impacts; better ensure compatibility with allowed densities, intensities and adjacent uses; and be respectful of the development goals and visions of surrounding communities.

Staff recommends that, if the application is approved, the applicant: 1) consider the full impacts of transmission lines and access roads as they relate to rights-of way issues, relocation of facilities and infrastructure, and noise and light pollution concerns, and provide the appropriate mitigation; 2) work closely with affected municipalities and their residents to address impacts and mitigation strategies; 3) minimize the impacts to the natural systems to the greatest extent feasible; 4) determine the extent of sensitive wildlife and vegetative communities in the vicinity of the project and protect habitat and mitigate disturbances; and 5) ensure societal and monetary costs are distributed equally.. This will assist to reduce the cumulative impacts to infrastructure; implement local comprehensive plans; and protect people, animals, native plants and wetlands, consistent with the Goals and Policies of the *Strategic Regional Policy Plan for South Florida (SRPP).*

If you require further information, please contact me or Karen Hamilton at 954-985-4416.

Sincerely,

B. Jack Osterholt
Interim Executive Director

BJO/kal

cc: Sam Goren, Goren, Cherof, Doody & Ezrol, P.A
Michael Cirullo, Goren, Cherof, Doody & Ezrol, P.A
Distribution List (attached)

Appendix III-G: Miami Dade County

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT UNITS 6 & 7
POWER PLANT SITING APP. PA03-45A3

DOAH Case No. 09-03575-EPP
DEP OGC Case No. 09-3107

Miami-Dade County Agency Report and Proposed Conditions for FPL Proposed Transmission Lines for Turkey Point Nuclear Units 6 & 7 January 17, 2012

As required by Section 403.507, Florida Statutes, Miami-Dade County is providing the following report and conditions for the transmission line portions of FPL's Site Certification Application for proposed Turkey Point nuclear units 6 and 7, dated November 28, 2007. The Electrical Power Plant Siting Act applies to associated facilities such as transmission lines. Florida law states that each local government shall prepare a report as to the consistency of the proposed transmission lines (as associated facilities) with all applicable local ordinances, regulations, standards and criteria.

In addition, this report includes information to address Florida Administrative Code Rule 62-17.133 (Rule language summarized below):

(1) An assessment of the facility's expected compliance or non-compliance with applicable agency nonprocedural requirements and an identification of each nonprocedural requirement within the agency's jurisdiction not specifically listed in the application from which a variance, exception, exemption, or other relief is needed in order for the board to certify the project, plus a statement of the agency's position on each variance exception, exemption, or other relief within the agency's jurisdiction needed by the project.

(2) An evaluation of the impacts of the project, along with an assessment of any other matters within an agency's jurisdiction which will be materially affected by the project.

(3) An evaluation of the impacts of the proposed project on any proposed use of, connection to, or crossing over of properties or works of the agency, including the agency's position on the request and conditions that must be satisfied in order for the applicant to use, connect to, or cross over the agency's properties or works.

(4) Conclusions and recommendations regarding certification. If the agency recommends denial of certification, the agency shall provide the reasons for its recommendation of denial and identify any changes in the project which would make the project suitable for certification.

(5) Proposed conditions of certification on matters within the agency's jurisdiction, including:

(a) Any postcertification assessment of consistency with the conditions of certification or impact monitoring which may need to be conducted; and

(b) Conditions that may be necessary in the event the Siting Board or Secretary determines that the project should be certified. All such conditions shall include the statute or rule indicating the agency's authority to require such a condition.

(6) In order to facilitate compliance with Section 403.511(5)(b), F.S., all criteria required by the terms and conditions of the certification which are site-specific shall be identified by the department in the conditions of certification.

In accordance with state law, Miami-Dade County submits the following report on jurisdictional matters related to the proposed transmission lines associated with Turkey Point Nuclear Units 6 and 7.

CONCLUSIONS AND RECOMMENDATIONS REGARDING COMPLIANCE and CERTIFICATION

The transmission line corridors ("Eastern" and "Western") proposed for construction in Miami-Dade County would impact public and private lands, residents, businesses, natural resources, redevelopment opportunities, economic growth, and transit agency projects. Corridor alignments will also impact various municipalities, the Everglades National Park (ENP), the Biscayne National Park, the County's primary multi-modal transportation corridor (US-1), and regionally significant canals and important regional as well as local wetland restoration projects.

Where FPL's proposed new transmission lines would be co-located with existing transmission lines in established FPL rights-of-way, these transmission lines would be allowed in all land use categories. Otherwise, the Miami-Dade County Comprehensive Development Master Plan (CDMP), Land Use Element, states that transmission facilities shall be situated in an area designated as Institutions, Utilities and Communications; Industrial and Office; Business and Office; or Parks and Recreation on the adopted Land Use Plan map. Where FPL's proposed corridors intersect land use categories other than those listed above, compatibility will be based upon reviews of CDMP Objective LU-4, Policy LU-4G, the specific language of each land use category, and other goals, objectives, and policies in the CDMP. In addition, in all locations, impacts of the proposed transmission line corridors have been reviewed for compliance with County regulations including Chapter 24 and Chapter 33 of the Miami-Dade County Code.

EASTERN CORRIDOR

Consistency with the CDMP and County Code is very difficult to determine due to the fact that FPL's Site Certification Application lacks specific details regarding pole locations and utility line routes. Miami-Dade County requested this information numerous times during the seven rounds of completeness review. FPL has indicated their intent to primarily use overhead lines for the Eastern Corridor (except for a subaqueous crossing of the Miami River).

Miami-Dade County does not find this technology type (overhead lines) or the proposed corridor to be in compliance with the County Code and CDMP and recommends denial of certification for the Eastern Corridor as proposed by FPL. Detailed analysis and citations explaining this conclusion are provided in sections below.

Miami-Dade County would recommend approval of certification of the Eastern Corridor, if FPL commits to bury and be responsible for the cost associated with undergrounding the proposed 230 kV transmission line along the Eastern Corridor between the Miami Substation and US1 at SW 136th Street (the C-100A Canal).

> ***As prescribed by Florida Administrative Code Rule 62-17.133(5)(b), and in the event the Siting Board or Secretary of FDEP certifies overhead transmission lines for the Eastern Corridor, despite the County's recommendation of denial, the County recommends the conditions of certification listed below to minimize and mitigate the impacts of the proposed Eastern Corridor.***
>
> ***Section 1 of this report addresses conditions applicable throughout the Eastern and Western corridors, Section 2 includes conditions applicable to specific***

segments of the Eastern Corridor, and Section 3 includes conditions applicable to specific segments of the Western Corridor(s).

General Description of Impacts to Eastern Corridor:
There are various potential impacts associated with the proposed Eastern Corridor. Impacts to residential and commercial areas traversed by Eastern Corridor segments would include aesthetics, character of existing neighborhoods, and the scale of the poles. The proposed transmission lines and utility poles would permanently alter the eastern skyline for Miami-Dade residents and property owners, especially those who live in units above the tree line. The proposed transmission lines and utility poles would also permanently alter the street-level views of pedestrians and motorists at ground level along all urbanized segments of the proposed Eastern Corridor.

The proposed Eastern Corridor would impact the dense urban environment of US1 from the Miami Substation in downtown Miami to the southern end of the Busway near SW 136th Street (C-100A Canal at US1). The Miami-Dade County Aesthetics Master Plan has designated US1 as a Gateway Corridor. Along these Corridors, views and general experiences of travelers define the image of the County and cities, and affect residents' quality of life, the tourist experience, and the economic development opportunities of the surrounding area. Anticipated aesthetic impacts and impacts to trees and vegetation would adversely affect the quality of this corridor. Existing and potential street trees and lower profile vegetation provides shelter for pedestrians and bicyclists from sun, heat, rain, wind, and vehicles. Impacts to this urban vegetation will additionally affect the aesthetics of US1 by removing natural buffers to incompatible land uses and street fixtures.

The US1/ M-Path is a Pedestrian Corridor, and provides for pedestrian and cyclist travel between cities, workplaces and residences; impacts to important design assets, such as mature trees, could be substantial for this Corridor. The proposed Eastern Corridor would also impact pedestrian gateways at US1 and 72nd Avenue and US1 and 88th Street, places where views, appealing architectural elements, and vegetation are important. Pedestrian gateways are additionally considered locations where overhead power lines are recommended for removal and landscaped areas shall be preserved, according to the County's Aesthetics Master Plan.

Overhead lines in segments along US1 would restrict public and private efforts to build high quality development projects designed for pedestrians. Again, as a Gateway Corridor, US1 continues to be a focus for public and private investment in transit-oriented-development and a source of economic activity for all southern Miami-Dade cities.

Removal of trees throughout the Eastern Corridor is likely to impact County initiatives to mitigate greenhouse gas emissions and the urban heat island effect. The removal of shade trees and other vegetation could discourage pedestrian activity and could impact use of transit facilities. In addition, tree removal is regulated pursuant to Section 24-49, Miami-Dade County Code and requires mitigation in the form of replacement tree canopy. *(County Code Landscape Manual, Chapter 18A; Chapter 24; CDMP Policy CON-8A, -8H, -8M, MT-8B, TE-2C)*

The County is concerned about potential long-term human exposure to electric and magnetic fields (EMF), especially to residents and workers in buildings and utilizing the Metrorail, where exposure levels may surpass state standards (which are only designed to protect humans at ground level).

The County anticipates that certain segments of the Eastern Corridor in the vicinity of the Princeton Canal and Homestead Air Reserve Base (in southeastern Miami-Dade County) will impact agricultural land and may impact adjacent agriculture-related businesses. The County encourages agriculture as an economic use and provides protection for agricultural lands. *(CDMP Objective CON-6; Policy LU-8C; Policy LU-1R; Policy LU-1S; Land Use Element Concept #14 on page I-69)*

Construction of Eastern Corridor infrastructure may also impact wetlands and wetland hydrology and sheet flows or fresh water flows to Biscayne National Park, habitat supporting threatened and endangered plant and animal species, the City of Miami Simpson Park (a County designated Natural Forest Community), the County Homestead Bayfront Park, and County owned and managed Environmentally Endangered Land properties adjacent to the transmission lines.

WESTERN CORRIDOR

Miami-Dade County finds some sections of the Western Corridor to be inconsistent with the County Code and CDMP and recommends denial of certification for those sections of the Western Corridor within Everglades National Park as proposed by FPL; detailed impact analysis and citations explaining this conclusion is provided in the section of this report entitled, "*Impacts Associated with Proposed Transmission Line Corridors within and adjacent to the Everglades National Park*" and "*Impacts to Conflict with County Code Section 33B, East Everglades Area of Critical Environmental Concern*". Although Miami-Dade County did not propose an alternate corridor under the Power Plant Siting Act Process, it is recognized that less impacting alternative alignments exist west of the Urban Development Boundary (UDB) (as adopted by the Miami-Dade Board of County Commissioners) that would be more consistent or fully consistent with applicable County Code and CDMP requirements and would entirely avoid the ENP and all Management Areas of the East Everglades Area of Critical Environmental Concern (as defined in the County Code). Miami-Dade County cannot recommend approval of certification for the Western Preferred Corridor unless the project is modified to comply with the following:

a) No transmission line infrastructure is placed within the boundaries of Everglades National Park, and

b) The project is modified to comply with all requirements of Miami-Dade County Code and the CDMP. This includes compliance with all requirements of Chapter 33B, including Section 33B-28 for any work in the East Everglades Area of Critical Environmental Concern, and

c) For construction of all segments of the Western Corridor, FPL commits to all conditions of certification proffered within this report, to minimize the impacts of the proposed Western Corridor and meet substantive Code requirements.

General Description of Impacts to Western Corridor:

Potential impacts associated with the Western Corridor generally include impacts to agricultural land, residential communities (including the City of Doral and residences in the Redland), environmentally protected lands including County designated Natural Forest Communities, and lands within County wellfield protection areas. Additional impacts will affect wetlands, including hydrology and fresh water flows that benefit the Everglades National Park and associated estuaries, habitat supporting threatened and endangered plant and animal species and County owned and managed Environmentally Endangered Land properties adjacent to the transmission lines. Impacts relevant to specific segments of the Western Corridor are described in more detail in relevant subsections of this report below.

CONDITIONS SECTION 1: IMPACTS AND CONDITIONS APPLICABLE TO MULTIPLE SEGMENTS WITHIN EASTERN AND WESTERN CORRIDORS

1. ***General Conditions***
   - **a.** The construction, operation and maintenance of all transmission lines shall be in full compliance with all applicable non-procedural requirements of the Miami-Dade County Code including Chapters 24 and 33 as well as the Miami-Dade County Public Works Manual and Chapters 62-312 and 62-330, F.A.C.
   - **b.** FPL shall comply with Article 7 of the Miami-Dade County Home Rule Charter where applicable for all work associated with the proposed transmission lines including work in: 1) aquatic preserves, 2) lands acquired by the County for preservation, and 3) public parks and parts thereof that are nature preserves, beaches, natural forest areas, historic or archeological areas. For County-owned preserves and parks and applicable municipal parks included under article 7 as well as Miami-Dade County Environmentally Endangered Program lands, a voter referendum approval shall be required for transmission line infrastructure unless the project has no environmental impact to the parcel or *the utility is* undergrounded per Article 7. FPL shall be responsible for the cost associated with undergrounding the transmission line. This condition shall not apply to the construction or maintenance of FPL facilities located within the proposed transmission corridors where the County has already granted an easement to FPL for power lines, provided the work or activity is an enumerated use of the easement and is contained completely within the easement and no impacts will occur within the park outside the easement. This condition shall also not apply to the list of public parks specifically excluded from Article 7.
   - **c.** Construction of the proposed Eastern and Western transmission line corridors and related new infrastructure is contingent on certification and construction of the proposed Turkey Point Nuclear Units 6 & 7. If the proposed power generating units are not certified and constructed, additional transmission lines are prohibited in the Eastern and Western transmission line corridors.
   - **d.** The term "construction", as used in this document and regarding required submittals for Conditions of Certification, is any activity related to development or preparations for development (s. 380.04(1) and (2)) and also includes any activity such as work by any utility and other persons engaged in the distribution or transmission of electricity for the purpose of inspecting, repairing, renewing, or constructing any sewers, mains, pipes, cables, utility tunnels, power lines, towers, poles, tracks, or the like.

2. ***Conditions Regarding Procedures for Post-Certification Submittals***
   - **a. Purpose of Submittals.** Conditions of Certification (COC) which provide for the post-certification submittal of site specific technical data and other information by the Licensee (FPL) to DEP or other agencies, including the County, are for the purpose of determining the Licensee's compliance with the COC. COC which require the Licensee to conduct monitoring of the environmental effects arising from the construction, operation and maintenance of a Certified Facility are for assurances of continued compliance with these COC, without further agency action.

b. **Filings.** All post-certification submittals of information by Licensee are to be filed with the DEP Siting Coordination Office, the DEP District Office(s), and any other agency, including Miami-Dade County, that is entitled to receive a submittal pursuant to these COC. All filings shall be submitted in electronic .pdf format only, unless otherwise requested by Miami-Dade County, if the data pertains to a COC drafted by the County. Each submittal shall clearly identify the Certified Facility name, PA#, and the condition number/s (e.g., Section X, Condition XX.y.(z)) requiring the submittal, as identified in these COC. As required by Section 403.5113(2), F.S., each post-certification submittal will be reviewed by each agency with regulatory authority over the matters addressed in the submittal on an expedited and priority basis.

c. **Completeness.** DEP shall review each post-certification submittal for completeness in accordance with timeframes specified by the Power Plant Siting Act. This review may include consultation with the other agency/ies receiving the post-certification submittal with regulatory jurisdiction over the matter addressed in the submittal. If any portion of a post-certification submittal is found to be incomplete, the Licensee shall be so notified.

d. **Interagency Meetings.** DEP may conduct an interagency meeting with other agencies that received a post-certification submittal. The purpose of such an interagency meeting shall be for the agencies with regulatory jurisdiction over the matters addressed in the post-certification submittal to discuss whether compliance with these COC has been provided. At DEP's request or agency's request, a field inspection shall be conducted with the Licensee and the agency representative in conjunction with the interagency meeting.

e. **Determination of Compliance**. DEP shall give written notification within 90 days to the Licensee and the other agency/ies to which the post-certification information was submitted of DEPs determination whether there is demonstration of compliance with these COC. If it is determined that compliance with these COC has not been provided, the Licensee shall be notified with particularity of the deficiencies and possible corrective measures suggested.

f. **Revisions to Design Previously Reviewed for Compliance.** If revisions to site-specific designs occur after submittal, the Licensee shall submit revised plans prior to construction for review in accordance with the post-certification process specified in this Condition.

g. **Variation to Submittal Requirements**. DEP, in consultation with the appropriate agencies that have regulatory authority over a matter to be addressed in a post-certification submittal, and Licensee may jointly agree to vary any of the post-certification submittal requirements, provided the information submitted is sufficient to provide reasonable assurances of compliance with these COC. *[Section 403.511, F.S.; Rule 62-17.191, F.A.C.]*

h. **Post Certification Submittal Requirements Summary.** Within 90 days after certification and within 90 days after any subsequent modification or certification the Licensee shall provide the DEP and the County a complete summary of those post-certification submittals that are identified in these COC where due-dates for the information required of the Licensee are identified. A summary shall be provided as a

separate document for each Certified Transmission Line Corridor or segment thereof. Such submittals shall include, but are not limited to, monitoring reports, management plans, wildlife surveys, etc. The summary shall be provided to the County, in a sortable spreadsheet, via CD and hard copy. For subsequent modifications and certifications, a Post-Certification Submittal Requirements Summary shall be required for only those resulting in new or altered post-certification requirements. FPL shall work with DEP and Miami-Dade County to complete the Post Certification Summary Table, shown below, for all post-certification submittals herein.

Post Certification Summary Table			
Condition Number	Requirement and timeframe for FPL submittal and agency approval	Due date	Name of agency or agency subunit to whom the submittal is required to be provided

3. ***Access Control for East and West Transmission Corridors***
Installation or improvement of transmission line maintenance roadways can impact Miami-Dade County owned or managed parcels by creating opportunities for unauthorized access. Such unauthorized access can result in adverse impacts to these properties including dumping of solid wastes and impacts from off road and all terrain vehicles. (Miami-Dade County Code Sections 24-7, 24-43, 24-48, 24-49 and 24-50, CDMP Objective LU-3, Policies LU-3A, LU-3B Objective CON-7, Policy CON-7B, and Objective CON-9 Policies CON-9A, CON-9B and CON-9C)

   a. Prior to any construction in either of the proposed East or West Transmission Corridors, FPL shall develop and implement an access control plan for the transmission corridors that accomplishes the following objectives:
      1) FPL shall secure access to the transmission line right of way to prevent uncontrolled access to wellfield protection areas. Uncontrolled access shall be prohibited at all times.
      2) FPL shall secure access to the transmission line right of way to prevent uncontrolled access to public parks and natural areas within and/or adjacent to the transmission right of way.
      3) FPL shall prohibit access by the general public to constructed or improved roadways located within the certified transmission corridors during construction and during operations and maintenance after construction.
      4) FPL shall allow MDC, SFWMD, and State of Florida agency staff reasonable access to all portions of the transmission line corridors and associated access roads for governmental purposes.

   b. The access control plan shall include the following elements:
      1) **Inventory and Condition of Infrastructure.** Within 90 days of transmission corridor certification, FPL shall begin preparation of a report to document condition of existing access control infrastructure in the East and West Transmission Corridors. The report shall be completed within a year of commencement and shall include the following information:

a) Results of FPL inspections for those portions of the East and West Corridors that contain existing infrastructure to identify where vandalism to FPL access control measures has occurred and where unauthorized access is occurring.
b) Recommendations for repair/replacement of existing access control infrastructure and installation of new access control infrastructure where such would restrict unauthorized access. Recommendations shall include consideration of new access control measures needed for new infrastructure to be located within the proposed East and West Corridors, including but not limited to the requirement that FPL shall install locked gates within existing and proposed fencing at any new access location.
c) A plan to minimize unauthorized public access to MDC owned or managed lands that may otherwise occur due to new access provided along the certified transmission corridor. Since MDC staff can provide current information on where impacts to MDC land is occurring due to unauthorized access, FPL shall involve MDC staff in the development of this plan.

FPL shall provide the inventory report to Miami-Dade County's EEL Program and the SFWMD's Bureau of Land Resources for review and input within 30 days after completing the inspection. These agencies shall provide comments within 30 days, and FPL shall incorporate information provided by these agencies and finalize the report within 30 days of receipt of such information.

2) **Authorized Access by MDC Staff.** Upon request of MDC, FPL shall establish access for MDC staff through locked gates (double locks, master keys, etc.) and develop conditions for use of the FPL transmission road and any temporary or permanent roads located within or associated with the East or West Transmission Corridors. FPL shall allow MDC, SFWMD, and State of Florida agency staff reasonable access to all portions of the transmission line corridors and associated access roads for governmental purposes.

3) **Timelines for Access Control Operations/Maintenance.**
a) Within 90 days after finalizing the inspection report, FPL shall repair or replace existing access control infrastructure and shall keep locked all existing gates that provide access to the proposed East and West transmission corridors.
b) With one year of development of the final access control plan, FPL shall develop and implement a schedule for installing new and/or enhanced access control infrastructure, including but not limited to gates, locks, barricades, boulders, and other barriers, at points where there is documentation that addition of access control infrastructure would restrict unauthorized access.

c) FPL shall install new access control measures associated with new infrastructure to be located within the proposed East and West Corridors before construction begins for such transmission infrastructure.

4) **Inspection and Repair of Existing and Future Access Control Infrastructure.** FPL shall establish and implement an inspection and repair program to ensure the integrity of access infrastructure for the East and West transmission corridors as follows:

a) Inspection frequency shall be set according to the level of problems revealed in the inspection report. Areas with existing unauthorized access problems shall be inspected no less often than annually and infrastructure repaired as necessary until and unless repeated inspections indicate that the problem is diminishing.

b) FPL shall establish a process for government agencies to report problems observed when utilizing or passing near any portion of the transmission corridors. FPL shall take appropriate steps to address the reported problem within a week of notification.

5) **Plan Updates**. The provisions of the access plan shall be reviewed and revised as necessary upon request by FPL or the agencies to accommodate changing conditions, including but not limited to land ownership patterns, changing infrastructure, restoration projects, and patterns and/or types of unauthorized use. Modifications to the plan shall require approval by DEP in consultation with the agencies.

4. ***Conditions to Ensure Pedestrian, Bicyclist, and Motorist Safety and Access*** *(33C-8(D)(6), and CDMP Policy TE-2D; For Transit Zones: Code Section 33C-2(C), 33C-8(D)(6))*

a. Transmission line poles and support structures shall not be located within existing or planned sidewalks. If FPL and Miami-Dade County determine that poles cannot be located outside of existing or planned sidewalks, FPL shall relocate the existing or planned sidewalks to locations that are approved by the County. FPL would be responsible for all costs in these instances.

b. In all locations where a new overhead 230kV transmission line is installed along US1 to transmit power, poles shall be sited to ensure clear site lines for motorists at all intersections and along all roadways in the immediate vicinity. FPL shall submit certified engineering drawings to demonstrate compliance with this condition to the County at least six months prior to any construction on the Eastern Corridor.

c. In all locations along US1 or within residential areas where a new overhead 230kV transmission line is installed to transmit power, poles shall be sited to ensure or improve safe and comfortable travel conditions for bicyclists and pedestrians at all intersections and along all roadways in the immediate vicinity. FPL shall submit certified engineering drawings to demonstrate compliance with this condition to the County at least six months prior to any construction on the Eastern Corridor.

d. FPL shall design transmission line and pole placements in accordance with the applicable provisions of the Public Works Manual and minimize interference with the proper use of streets, alleys, and other public ways and places, and with existing access rights.

e. FPL shall design the transmission line to comply with applicable provisions of the Americans with Disabilities Act.

f. FPL shall comply with MDC's noise ordinance in Section 21-28 of the MDC Code in the construction, operation, and maintenance of the proposed transmission lines.

5. ***Electric and Magnetic Field Conditions*** *(CDMP Policy LU-4C)*
   a. FPL shall utilize technology and, where applicable, shall select pole locations to comply with state mandated EMF exposure limits. Throughout the proposed corridors, humans in multi-story buildings, on the Metrorail, and on other raised structures shall be afforded the same protections as humans at ground level (Chapter 62-814, F.A.C.). In areas where transmission lines could generate electric or magnetic fields in excess of Florida standards that would affect existing and planned development, lines shall be buried underground and FPL shall be responsible for the cost associated with undergrounding the transmission lines. Underground utilities shall be designed to protect humans from EMFs in excess of Florida standards.

   b. At least six months prior to construction FPL shall provide certified engineering drawings to the County, from the Miami Substation to the Davis Substation, and for all other spans of the proposed East and West Corridors abutting residential land use categories, demonstrating how State EMF standards will be met for existing and planned redevelopment.

   c. If the federal government or the State of Florida conclude EMFs from proximity to transmission lines can have negative impacts on humans, plants (including the agriculture industry), or animals, FPL will immediately notify all residents and governments within impacted distance of the transmission facilities and will bear all costs associated with retrofitting and if necessary, removal, of the infrastructure. *(CDMP Policy LU-4C).*

   d. At least six months prior to construction, FPL shall provide detailed safety information regarding EMF research related to transmission facilities, published by accredited research institutions, to residents, businesses, and property owners within appropriate distance from the transmission line ROW. At a minimum, FPL shall conduct and publish annual reviews of new research on EMF impacts on humans, plants (including the agriculture industry), and animals. Information may be provided to the public through mailings and meetings in the immediate areas of transmission facilities and shall be provided through the World Wide Web (a maintained website).

6. **Air Quality Conditions** (CDMP Objective CON-1; Miami-Dade County Code Chapter 24-7.6; Section 62-296.320(A)(c), F.A.C.)
   a. FPL and its contractors shall use or promote the use of non-road diesel equipment when possible, conforming to Tier 2 or better standards established by the Environmental Protection Agency (EPA). Visit http://www.epa.gov/nonroad-diesel/regulations.htm#tier1 for guidance on the Federal government's tier standards.

   b. FPL and its contractors shall fuel all diesel vehicles, construction equipment, and generators on site with ultra-low sulfur diesel fuel (ULSD is diesel with sulfur content of 15 ppm or less) or a biodiesel blend approved by the original engine manufacturer.

c. FPL is prohibited from establishing parking and staging areas of diesel equipment and zones to load or unload material within 500 feet of schools, hospitals, daycare facilities, elderly housing, convalescent facilities, residential communities, or public spaces with outdoor activities. FPL or its contractors shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on the general public.

d. FPL and its contractors shall institute a Policy to limit the unnecessary idling of heavy-duty trucks, non-road construction equipment and diesel combustion engines to five consecutive minutes and to be turned off when not in use except:

1) When the vehicle is stopped in traffic or has mechanical difficulties the operator has no control over;

2) To bring the vehicle or equipment to the manufacturer's recommended operating temperature;

3) For the health, safety and comfort of the driver and passenger(s) when there are no auxiliary power sources available to provide heating, ventilation or air conditioning;

4) When necessary to operate auxiliary equipment located in or on the diesel vehicle or construction equipment, to accomplish the intended use of the vehicle or equipment (for example, cranes and cement mixers);

5) When idling is necessary for inspection or repairs.

e. FPL and its contractors shall use low-emissions multi-passenger employee transport vehicles to job-site when possible.

f. FPL and its contractors shall control dust at sites through spraying of a suppressing agent on dust pile (non-hazardous, biodegradable). Contain fugitive dust.

7. ***Aviation Clearance Conditions***

a. Both the eastern and western corridors traverse areas with airport height restrictions. Pole locations and heights will be required for the Miami-Dade County Aviation Department to issue an airspace letter of determination. At least one hundred and eighty (180) days prior to beginning construction, FPL shall submit the required aviation determination applications and fees to Miami-Dade County. Transmission line construction shall not begin until FPL has received Miami-Dade County's written approval of these applications. (Relevant sections of Miami-Dade County Code of Ordinances Article XXXVII- Miami International Airport (Wilcox Field) Zoning, Article XXXIX Homestead General Aviation Airport Zoning, and Article XL Kendall Tamiami Executive Airport Zoning)

b. Pole locations and heights shall not conflict with operations at the Homestead Air Reserve Base (HARB) or with Federal Aviation Administration (FAA) regulations. FPL shall coordinate construction plans with HARB and FAA staff six months prior to

construction of any transmission lines. *(Miami-Dade County Code of Ordinances Section 33-293 through 296)*

8. ***Conditions for Miami-Dade County Environmentally Endangered Lands (EEL)***

a. Construction, operation and maintenance of transmission infrastructure are not allowable uses of Miami-Dade County Environmentally Endangered Lands (EEL) Program owned or managed parcels. As a condition of certification, FPL shall not impact and shall not install or place any infrastructure within Miami-Dade County EEL Program owned or managed parcels. FPL shall fully restore any impacts caused by FPL or their contractors including but not limited to those resulting from the installation or maintenance of the transmission infrastructure to the satisfaction of the Permitting, Environment and Regulatory Affairs Department (PERA) EEL Program in accordance with timeframes required by the property owner. (Miami-Dade County Code Sections 24-48, 24-49 and 24-50, CDMP Objective CON-7, Policy CON-7A, Objective CON-8, Policy CON-8J, Objective CON-9, Policies CON-9A, CON-9B and CON-9C, Objective LU-3, Policies LU-3A and LU-3B, Objective CM-1, Policy CM-1E, Objective CM-4, Policy CM-4A)

b. Prescribed burning is required to maintain Miami-Dade County EEL Program owned or managed parcels. The transmission corridors lie within potential smoke dispersion corridors. Transmission infrastructure may be affected by periodic smoke events from prescribed burns or unexpected wildfires. FPL shall allow periodic burning and FPL shall design and install transmission infrastructure to allow periodic burning, including under and adjacent to transmission lines as necessary. (Miami-Dade County Code Sections 24-48, 24-49 and 24-50 and CDMP Objective CON-8, Policies CON 8-D and CON-8E)

c. FPL shall maintain the transmission rights-of-way free of both prohibited (see Attachment 2) and controlled species of exotic vegetation as listed in the Miami-Dade County Code and CDMP as well as any other species required to be eradicated pursuant to State law/regulations. *(Miami-Dade County Code Chapter 33*, Condition 12 of *Miami-Dade County Resolution No. Z-56-07, CDMP Objective LU-3, Policy LU-3B, Objective CON-4)*

d. Annually, FPL shall provide a report to Miami-Dade County PERA detailing the use of pesticides, including herbicides, applied within and adjacent to transmission rights-of-way located within 1,000 feet of Miami-Dade County EEL Program owned or managed parcels. This report shall include types, actual quantities and locations of application of these substances in the previous year and projected use and locations in the coming year. This report shall also include notification of any spills, non-target damage and any applications inconsistent with label restrictions. *(Miami-Dade County Code Sections 24-48, 24-49 and 24-50)*

9. ***Conditions regarding general vegetation management and exotic species***

a. Portions of the proposed west and east corridors pass through, adjacent to, or near natural areas that require prescribed fire to maintain the essential character of the natural area. Final design of the transmission lines and associated infrastructure must allow for, and not unreasonably interfere with prescribed fire maintenance activities that are critical to preservation of the essential character of these natural areas. (Miami-*Dade*

County Code Sections 24-7 and 24-48 and CDMP Objective LU-3, Policies LU-3A and LU-3B, Objective CON-8, Policy CON-8D)

b. There shall be no planting or propagation of prohibited species (see Attachment 2) as defined by Miami-Dade County Code or listed in the CDMP or Miami-Dade County Landscape Manual within the FPL transmission rights-of-way. In addition, planting or propagation of controlled species as defined by Miami-Dade County Code or listed in the CDMP or Miami-Dade County Landscape Manual shall be prohibited within FPL transmission right-of-way within 500 feet of wetlands as well as other natural areas including but not limited to pine rocklands and hardwood hammocks. (*Miami-Dade County Code* Section 24-49, Section 18B-2 and CDMP Objective CON-8, Policy CON-8I)

c. Scientific literature has indicated that roads provide avenues for introduction of invasive exotic plant species to adjacent properties. Wherever new roads or road improvements are proposed within the transmission corridors FPL shall eliminate all plants listed as Prohibited (see Attachment 2) or Controlled by Miami-Dade County pursuant to the Miami-Dade County Code or CDMP, and perform quarterly maintenance to control exotic vegetation within the transmission right-of-way FPL owned or controlled lands. FPL shall limit the use of herbicide application to exotic and invasive vegetation. *(Miami-Dade County Code Sections 24-7, 24-48 and 24-49, CDMP Objective CON-8, Policy CON-8I)*

d. Mechanical cutting of vegetation as part of transmission line maintenance activities shall include removal of cut vegetation from wetland areas. Cut vegetation shall not be dumped in wetlands but instead transported for disposal to an approved upland facility and all handling and disposal shall be in accordance with solid waste disposal regulations (62-701.300 F.A.C. and Miami-Dade County Code Sections 24-25, 24-27 and 24-48 and Chapter 403.413)

e. FPL shall prepare a decontamination protocol to prevent the spread of invasive exotic species, including but not limited to Lygodium microphyllum (Old World climbing fern), within and between maintenance areas along transmission corridors. This decontamination protocol must be approved by the County at least six months prior to construction, and must be followed before moving from one work area to another. *(Miami-Dade County Code Chapter 24 Sections 24-7 and 24-49, Chapter 33, Condition 12 of Miami-Dade County Resolution No. Z-56-07 and CDMP CON 8I)*

10. ***Conditions on soil and material management and disposal***

a. Within one hundred and eighty (180) days of certification, FPL shall submit to PERA an earthwork and material disposal plan that meets applicable Miami-Dade County Code requirements and that is consistent with condition No. 7 of Miami-Dade County Resolution No. Z-56-07. The required plan shall be reviewed and approved by PERA and the Sustainability, Planning, and Economic Enhancement Department (SPEE) for compliance with the Code of Miami-Dade County before any earthwork commences within the transmission line rights of way. This plan shall include a written description of all the types of earthwork that will be conducted in association with the proposed construction and installation of the transmission line infrastructure within the certified transmission corridors and associated maintenance and access and roads. This plan shall also include a written protocol for the characterization of excavated material

proposed to be disposed of at any offsite locations. Characterization of the excavated material shall be required prior to approval by PERA of the proposed disposal location/s. *(Miami-Dade County Code Chapter 33 and Chapter 24 Sections 24-7 and 24-44, Condition 7 of Miami-Dade County Resolution No. Z-56-07)*

b. Within one hundred and eighty (180) days of certification, FPL shall identify in a map provided to PERA, all areas within and adjacent to the certified transmission line corridors where agricultural or industrial activities exist or may have historically existed and this map shall include property boundaries. FPL shall provide to PERA with this map a list of all potential chemicals of concern associated with the existing or historical agricultural or industrial uses at those sites. *(Miami-Dade County Code Chapter 33 and Chapter 24 Sections 24-7, 24-18 and 24-44 and Condition 7 of Miami-Dade County Resolution No. Z-56-07)*

c. At least 90 days prior to beginning construction of the transmission lines or any associated roadways, FPL shall provide to PERA a written description of how and where it will dispose of the excavated material. The description shall include detailed sketches showing all areas proposed to be excavated, all areas proposed to be used for the temporary stockpiling of excavated material, and all pertinent information related to the proposed sites for disposal of excavated materials. *(Miami-Dade County Code Chapter 33 and Chapter 24 Sections 24-7 and 24-44 and Condition 7 of Miami-Dade County Resolution No. Z-56-07)*

d. At least 90 days prior to beginning construction of the transmission lines or any associated roadways, FPL shall provide to PERA a written description of all the best management practices that will be implemented to prevent the leaching of runoff and erosion of the excavated materials into adjacent wetlands and/or surface water bodies. Plan view and cross section view plans should be included depicting the location where the excavated material is proposed to be placed and the location of any devices and/or barriers proposed to be used for erosion and leachate runoff control. *(Miami-Dade County Code Chapter 33 and Chapter 24 Sections 24-7 and 24-48 and Condition 7 of Miami-Dade County Resolution No. Z-56-07)*

e. Within thirty (30) days of completion of excavated material disposal activities associated with the certified transmission line corridors, FPL shall provide to PERA copies of all excavated material disposal receipts. *(Miami-Dade County Code Chapter 33 and Chapter 24 Section 24-44 and Condition 7 of Miami-Dade County Resolution No. Z-56-07)*

f. For any excavated material proposed to be transported off-site for reuse, FPL shall submit to PERA a "Soil Reuse Proposal" for review and approval at least 90 days prior to beginning construction of the transmission lines or any associated roadways. The aforementioned proposal shall be prepared in accordance with the Soil Reuse Guidance for Miami-Dade County dated March 22, 2004 (www.miamidade.gov/PERA/library/land/rbca_soil_reuse.pdf). The reuse activities must be approved by PERA prior to commencement of excavation. *(Miami-Dade County Code Chapter 33 and Chapter 24 Section 24-44 and Condition 7 of Miami-Dade County Resolution No. Z-56-07)*

11. ***Conditions for Wellfield Protection Areas*** (CDMP Land Use Element text p. I-74, "Wellfield Area", p. I-78, "Future Waterwell and Cones of Influence"; CDMP Conservation Element Objective CON-3, Policy CON-3A, Land Use Element Objective LU-3, Policy LU-3B)

    a. As previously stipulated in the agreement between FPL and Miami-Dade County (dated November 30, 1989 for the Levee Midway Corridor Certification), the use of pesticides, including but not limited to herbicides, is prohibited within all portions of the transmission lines located within wellfield protection areas. (*Miami-Dade County Code Section 24-43*)

    b. FPL, its agents and contractors shall not transport, generate or store hazardous wastes or hazardous materials as defined pursuant to Section 24-45 Miami-Dade County Code within any portion of the transmission lines located within a wellfield protection area in Miami-Dade County. Discharge or disposal of hazardous wastes or hazardous materials along or adjacent to any portion of the transmission lines including outside of wellfield protection areas is also prohibited within Miami-Dade County. (*Miami-Dade County Code Section 24-43*)

12. ***Condition regarding fill within the transmission rights of way***

    a. All fill material proposed to be placed within the certified transmission line corridor shall meet the clean fill/soil criteria, pursuant to the definition of Chapter 24-5 of the Code of Miami-Dade County, or shall be compliant with the Soil Reuse Guidance for Miami-Dade County dated March 22, 2004. (www.miamidade.gov/PERA/library/land/rbca_soil_reuse.pdf). *(Miami-Dade County Code Chapter 33 and Chapter 24 Section 24-48 and Condition 14 of Miami-Dade County Resolution No. Z-56-07)*

13. ***Condition Relating to Co-location of Public Recreation and Other Public Uses Within Transmission Line Rights-of-Way:***

    a. FPL will work with the County to discuss the ability to co-locate public recreational trails and the provision for bicycle and pedestrian access or the allowance of other public uses within the proposed transmission line rights-of-way. *(CDMP Policy LU-1H, Miami-Dade County Parks and Open Space Master Plan)*

14. ***Condition relating to project design and wildlife impacts***

    a. FPL shall conduct a comprehensive study to identify where the certified transmission corridors cross existing wildlife travel corridors, including but not limited to mammalian, avian, reptilian and amphibian travel corridors, with special attention on travel corridors for rare, threatened or endangered fauna. This study, whose methodology must be approved by PERA, must be completed prior to final design of any infrastructure to be constructed in the corridors. FPL shall use the results of the study to inform the final design of infrastructure to be constructed to include appropriate wildlife protection features that may include but not be limited to undergrounding in specific areas, fencing, wildlife underpasses, less impacting power pole design, etc where transmission rights-of-way cross existing wildlife travel corridors. FPL shall be responsible for the cost associated with undergrounding transmission lines. *(Miami-Dade County Code Chapter*

33 and Chapter 24 Sections 24-7 and 24-48, Conditions 9 and 11 of Miami-Dade County Resolution No. Z-56-07, CDMP Objective CON-7 Policy CON-7A, Objective CON-9, Policies CON-9A, CON-9B, CON-9C, and Objective CM-4, Policy CM-4C)

15. ***Conditions relating to project design and general protected species occurrence.*** *(Section 24-7 of the Miami-Dade County Code, Section 24-18(A) of the Miami-Dade County Code, Section 24-48.3-24.48.4 of the Miami-Dade County Code, Condition 11 of Miami-Dade County Resolution No. Z-56-07, CDMP Objectives CON-7 and CON-9, CDMP Policies CON-7A, CON-9A, CON-9B, CON-9C, and CON-9E)*

    a. FPL shall coordinate with PERA and the Florida Fish and Wildlife Conservation Commission (FWC) to obtain and follow the current survey protocols for all listed species, including plant species, that may occur within the transmission line rights-of-way, plus accessible appropriate buffers as defined by the listed species' survey protocols, prior to conducting detailed surveys.

    b. Surveys shall be conducted prior to final design of the transmission infrastructure in accordance with the survey protocols. The results of those detailed surveys shall be provided to PERA and to FWC in a report, and coordination shall occur with PERA and the FWC on appropriate modifications to final design of transmission infrastructure to avoid, to the extent practicable, impacts to listed species or their habitats. Where avoidance is not possible, FPL shall demonstrate to PERA and FWC that final design of transmission infrastructure has minimized impacts to listed species, including but not limited to implementation of wildlife protection features such as undergrounding in specific areas, fencing, wildlife underpasses, less impacting power pole design, etc. (FPL shall be responsible for the cost associated with undergrounding transmission lines.) FPL shall also demonstrate to PERA and FWC that appropriate impact mitigation methodologies have been employed for unavoidable impacts to listed species, including but not limited to relocation or establishment of *ex situ* populations of listed plant species. No construction shall occur within the transmission line rights-of-way until the required surveys have been conducted and required reports have been approved by PERA and FWC, and that appropriate modifications to final design of transmission infrastructure, and appropriate impact mitigation methodologies have been demonstrated by FPL and approved by both PERA and FWC.

16. ***Conditions relating to project design and protected species impacts***
    a. FPL shall conduct an assessment for protected species that shall note all habitat, occurrence or evidence of protected species within one mile of the certified corridor prior to final design of the transmission infrastructure. Protected species to be included in this survey shall include but not be limited to the bald eagle, migratory birds protected by the Migratory Bird Act, those species listed as endangered, threatened, or of special concern by the FWC or those listed as endangered or threatened by U.S. Fish and Wildlife Service (USFWS), and those plant species listed as endangered or threatened by the Florida Department of Agriculture and Consumer Services Division of Plant Industry. Wildlife surveys shall be conducted in the reproductive or "active" seasons for each species unless otherwise approved by Miami-Dade County and the FWC and USFWS. Plant surveys shall be conducted in the reproductive seasons for species that are likely to be found in the available habitats. For species that are difficult to detect, FPL may make the assumption that the species is present and plan appropriate

avoidance/mitigation measures after consultation and approval from Miami-Dade County, the FWC, and, if appropriate, the USFWS.

1) These surveys shall be conducted in accordance with USFWS/FWC guidelines and methodologies by a person or firm that is knowledgeable and experienced in conducting flora and fauna surveys for each potentially occurring listed species.
2) These surveys shall identify any wading bird colonies or other avian rookeries or nesting areas (e.g Everglades snail kite nesting areas) within one mile of the project that may be affected, as per USFWS buffer recommendations.
3) These surveys shall identify locations of breeding sites, nests, and burrows for protected wildlife species. Nests and burrows shall be recorded with GPS coordinates, identified on an aerial photograph, and submitted with the final listed species report. Although nests and burrows may be recorded individually with GPS, Miami-Dade County and the FWC prefer that any applicable protection radii surrounding groups of nest sites and burrows be included, rather than around individual nests and burrows.

b. FPL shall utilize this information to modify the management plan for all federal and state listed endangered or threatened species, as required under Condition 11 of Z-56-07 and shall modify final design of transmission infrastructure to avoid impacts to protected wildlife species to the degree practicable, minimize impacts that are unavoidable, and mitigate for impacts that are unavoidable through wildlife protection measures that must be approved by Miami-Dade PERA. Breeding sites for threatened or endangered species shall not be moved or destroyed.

c. These surveys shall include an estimate of the acreage and percent cover of each existing vegetation community (Florida Land Use, Cover and Forms Classification System, or FLUCFCS, at the third degree of details), include a wildlife-based habitat classification scheme such as the Comprehensive Wildlife Conservation Strategy (FWC 2005), Description of Vegetation and Land Cover Types (FWC 2004), or Natural Communities Guide (FNAI 1990) of each community that is contained within the transmission line right-of-way and shall use GIS to document findings. Electronic copies of all GIS files used to create the survey report(s) shall be submitted to PERA and FWC as part of the reporting requirements, except as specified for listed plant species, below.

d. This survey shall include locations for all plant species that are endangered or threatened at state or federal levels. FPL shall deposit GIS records for listed plant species with a non-governmental organization that is mutually agreeable to both FPL and Miami-Dade County PERA.
(Section 24-7 of the Miami-Dade County Code, Section 24-18(A) of the Miami-Dade County Code, Section 24-48.3-24.48.4 of the Miami-Dade County Code, Condition 11 of Miami-Dade County Resolution No. Z-56-07, CDMP Objectives CON-7 and CON-9, CDMP Policies CON-7A, CON-7J, CON-9A, CON-9B, CON-9C, and CON-9E)

17. *Condition relating to project design and wildlife corridor impacts*

a. FPL shall conduct a comprehensive study to identify where the certified transmission corridors cross existing wildlife travel corridors, including but not limited to mammalian, avian, reptilian and amphibian travel corridors, with special attention on travel corridors for rare, threatened or endangered fauna. This study, whose methodology must be approved by PERA, must be completed prior to final design of any infrastructure to be

constructed in the corridors. FPL shall use the results of the study to inform the final design of infrastructure to be constructed to include appropriate wildlife protection features that may include but not be limited to undergrounding in specific areas, fencing, wildlife underpasses, less impacting power pole design, etc where transmission rights-of-way cross existing wildlife travel corridors. FPL shall be responsible for the cost associated with undergrounding transmission lines. *(Section 24-7 of the Miami-Dade County Code, Section 24-18(A) of the Miami-Dade County Code, Section 24-48.3 of the Miami-Dade County Code, Condition 9 of Miami-Dade County Resolution No. Z-56-07, CDMP Objectives CON-7 and CON-9, CDMP Policies CON-7A, CON-7J, CON-9A, CON-9B, CON-9C, and CON-9E)*

18. *Condition relating to avian nesting, including wood stork/wading bird colonies*

a. In order to identify the baseline conditions which may indicate the potential for impacts to wood storks, other wading birds, and/or other avian species protected by state or federal law, and to help quantify potential mitigation for such impacts, FPL will perform the following studies prior to final design of the transmission corridor:

1) Follow flight surveys should be conducted during nesting seasons where young successfully fledge from colonies, for any identified wood stork colonies within a mile of the proposed transmission corridor, including but not limited to those along Tamiami Trail (East 1, East 2, and West) and the 3B Mud East Colony. A sufficient number of seasons must be surveyed to ensure that the results include at least one nesting season that is considered average and one that is considered exceptionally successful by FWC, USFWS, and SFWMD biologists. Detailed design for the surveys shall be submitted to FWC, USFWS, SFWMD, Miami-Dade County, and, as the landowner for several known colonies, ENP, within 180 days after certification, and shall be subject to review and approval by these same agencies. The surveys shall be conducted beginning at the start of the nesting season, shall continue during the fledging period, and shall ascertain flight line corridors for the wood storks in terms of direction, destination(s), numbers of birds, altitudes, and other parameters as approved by FWC, USFWS, SFWMD, Miami-Dade County, and ENP. These data would be compared to appropriate data for the same colonies, collected to date where available, as approved by the aforementioned agencies.
2) A post-certification, one-time pre-final design aerial survey, whose methodology shall be subject to review and approval by FWC, USFWS, SFWMD, Miami-Dade County, and ENP, shall be conducted via fixed wing or rotary wing aircraft, between the months of December and May, once it is confirmed by FWC, USFWS, SFWMD, Miami-Dade County, or ENP that wading birds are nesting in the area of either the proposed East or West transmission line right-of-way. The surveys should employ a series of two transects, along each side of the right-of-way. To minimize disturbance to the colonies, the flight(s) should be conducted at altitudes no less than 300 feet.
    a) This survey shall identify any wood stork/wading bird colonies in addition to any found from agency records that may be affected within one mile of the project ROW.
    b) Center locations of all wood stork and wading bird colonies should be delineated with a Wide Area Augmentation System (WAAS) enabled Global Positioning System (GPS) unit.

c) Ground inspection of all wood stork and wading bird colonies needs to be made as aerial identification of intermediate-sized and dark-plumaged wading birds (little blue heron, tricolored heron, glossy ibis) is difficult at best and because they tend to nest below the vegetation canopy, making species identification all but impossible. To avoid flushing birds from their nests identification of species should be made using binoculars, and surveys should follow the protocols in Rodgers and Smith (1995). *(Rodgers, J. A, and H. T. Smith. 1995. Set-back distances to protect nesting bird colonies from human disturbance in Florida.* Conservation Biology *9: 89-99.)*

b. A post-certification, one-time pre-final design aerial and ground survey, whose timing and methodology shall be subject to review and approval by FWC, USFWS, SFWMD, Miami-Dade County, and ENP, shall be conducted by FPL via fixed wing or rotary wing aircraft and/or ground crews to identify any other avian species, including state and federally listed threatened or endangered species, that are nesting within a mile of either the proposed East or West transmission line right-of-way.

c. For any nesting activity by state or federally listed threatened or endangered species identified as being located within one mile from the corridor as a result of the above-referenced post-certification pre-final design survey, and for the protection of known foraging habitat, FPL shall implement the following measures:

1) Modify the project to avoid all impacts to nesting activity by state or federally listed threatened or endangered species, including but not limited to undergrounding or at-grade facilities in specific areas, or relocating the corridor to be outside the recommended USFWS buffer for wood stork colonies and/or a suitable distance from any other nesting activity by state or federally listed threatened or endangered species (including but not limited to Everglades snail kites), so as to not disturb, even temporarily, any nesting habitat utilized by state or federally listed threatened or endangered species. FPL shall be responsible for the cost associated with undergrounding transmission lines. In addition, the project shall be modified as necessary to avoid all permanent impacts to foraging habitat for listed avifauna (such as but not limited to Everglades Snail Kites) within the Miami-Dade County designated East Everglades Area of Critical Environmental Concern.
2) Flight Diverters – For any portion of the corridor that is outside the one-mile buffer or which would not disturb any other nesting activity by state or federally listed threatened or endangered species but which crosses one or more avian travel corridors, FPL shall install spiral/corkscrew design bird flight diverters (or other mutually agreeable design flight diverters) on the Overhead Ground Wires (OHGW) of each transmission line wherever the transmission infrastructure crosses a travel corridor. Flight diverters shall be installed according to the manufacturers' instructions, and maintained on a schedule to be approved by FWC and Miami-Dade County.
3) FPL shall also install perch discouragers at transmission structure pole tops and arms to address risks from nest building and streamers (defecation) and reduced the exposure and potential risk of electrocutions.
4) Mitigation Effectiveness Study – At leave six months prior to any construction, FPL shall fund a monitoring study to determine the effectiveness of proposed

avian mitigation measures. The results will be used to determine effectiveness of these measures in the protection of important habitats including assisting wood storks (and other state or federally listed threatened or endangered avian species) in avoiding the new transmission line facilities, and identify whether effectiveness of sections of lines with mitigation features is significantly different from unmarked lines. The design and implementation of this survey is subject to review and approval from FWC, USFWS, SFWMD, Miami-Dade County, and ENP and the agency's approval shall include the timelines required for implementation, completion and review of the survey.

5) Post-survey Review – After the Mitigation Effectiveness Study has been conducted, the results will be presented to FWC, USFWS, SFWMD, Miami-Dade County, and ENP. If mortality to any avian species reasonably related to collisions with the transmission lines is detected, FPL and the Study Investigator shall meet with FWC, USFWS, SFWMD, Miami-Dade County, and ENP to discuss the results of the Mitigation Effectiveness Study to determine what additional mitigation measures, including but not limited to redesign of transmission facilities or modification/relocation of the corridor, or a different configuration or greater density of flight diverters, or additional monitoring, or a combination may be required by the aforementioned agencies.

(Section 24-7 of the Miami-Dade County Code, Section 24-18(A) of the Miami-Dade County Code, Section 24-48.3-24.48.4 of the Miami-Dade County Code, Condition 11 of Miami-Dade County Resolution No. Z-56-07, CDMP Objectives CON-7 and CON-9, CDMP Policies CON-7A, CON-9A, CON-9B, CON-9C, and CON-9E)

19. *Condition relating to a management plan for protected species*

a. FPL shall coordinate with FWC, USFWS, SFWMD, and Miami-Dade County in the development of a management plan for protected species for the transmission corridors, which shall be subject to review and approval by the aforementioned agencies. Protected species to be included in this plan shall include but not be limited to the bald eagle, migratory birds protected by the Migratory Bird Act, those species listed as endangered, threatened, or of special concern by the FWC or those listed as endangered or threatened by U.S. Fish and Wildlife Service (USFWS), and those plant species listed as endangered or threatened by the Florida Department of Agriculture and Consumer Services Division of Plant Industry.

b. This plan shall address management and preservation of protected species found within one mile of the transmission corridors and their habitats, and shall be submitted to FWC, USFWS, SFWMD, and Miami-Dade County prior to final design of the transmission lines and associated infrastructure. The plan shall identify and preserve, to the maximum extent possible, all habitat identified as significant to these species. No construction in the transmission corridors shall occur until the management plan for protected species has been reviewed and found sufficient by FWC, USFWS, SFWMD, and Miami-Dade County and FPL demonstrates that appropriate wildlife and plant protection measures have been implemented in final design and location of the transmission infrastructure.

(Section 24-7 of the Miami-Dade County Code, Section 24-18(A) of the Miami-Dade County Code, Section 24-48.3 of the Miami-Dade County Code, Condition 11 of Miami-Dade County Resolution No. Z-56-07, CDMP Objectives CON-7 and CON-9, CDMP Policies CON-7A, CON-7J, CON-9A, CON-9B, CON-9C, and CON-9E)

20. ***Conditions relating to manatee protection during construction.*** *With respect to construction, maintenance and operation of the proposed project transmission lines:*

a. The Standard Manatee Conditions for In-Water Work (revision 2009) shall be followed for all in-water activity located where waters are accessible to manatees. Blasting as a dredge method shall be prohibited in or adjacent to waters accessible to manatees. If no other alternative exists, a modification of these conservation measures can be requested. An adequate Blast and Protected Species Watch Plan must be submitted to and approved by the Imperiled Species Management Section of the FWC and the Coastal Resources Section of Miami-Dade County PERA at least six months prior to these methodologies being used.

b. At least six months prior to the beginning of in-water construction located where waters are accessible to manatees, FPL shall contact both FWC and Miami-Dade County PERA to determine whether observers shall be required, how many observers will be needed, and who those observers will be. If observers are recommended, manatee observers must 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. Movement of a work barge, other associated vessel, or any in-water work associated with construction or demolition activities shall not be performed after sunset. Following project completion, a report summarizing manatee sightings, collisions or injuries shall be prepared by FPL and this report shall be submitted within 30 days following project completion to the FWC's Imperiled Species Management Section and Miami-Dade County PERA's Coastal Resources Section.

c. If a cofferdam is used during in-water construction to minimize release of sediment, the area inside (behind) the cofferdam must be checked for the presence of manatees during and after installation of the barrier before further work occurs to determine that manatees have not been entrapped.

(Article IV, Sec. 9, Fla. Const., Section 403.507, F.S., Section 403.5113(2), F.S., Rule 62-17.191, F.A.C, Section 3792291, F.S., Section 379.2431, F.S., and Chapter 68A-27, F.A.C.)

21. ***General conditions relating to listed species habitat***

a. Rookeries and nesting sites used by federal or State designated or threatened species shall not be moved or destroyed. (CDMP Objective CON-9, Policies CON-9B and CON-9C)

b. Habitats of endangered or threatened species including but not limited to foraging habitat for snail kites shall not be degraded or destroyed as a result of the project including construction, installation and subsequent maintenance of the proposed

transmission lines and associated infrastructure, including maintenance roads. (CDMP Objective CON-7, Policy CON-7A, and Objective CM-1, Policy CM-1E)

22. ***General wetland conditions*** *(CDMP Land Use Element p. I-75, "Wetland Areas", Objective LU-3, Policy LU-3A, LU-3B, Conservation, Aquifer Recharge and Drainage Element Objective CON-7)*

    a. Impacts shall be avoided and minimized in all wetland areas. No less than 90 days prior to commencement of work within each segment of transmission line right-of-way that is located within or impacts wetlands (including site clearing or other preparation work), FPL shall provide Miami-Dade County PERA with complete and detailed plans, and construction methodology, for all proposed work within the transmission corridor. This information shall be provided as a post certification submittal for review and approval by Miami-Dade County PERA, and shall be of sufficient detail for the County to evaluate the proposed work for conformance with ERP regulations as well as the Miami-Dade County CDMP, Chapter 33B, and **Section 24-48, Miami-Dade County Code**. The proposed work shall demonstrate that all avoidable impacts associated with roads and other infrastructure to be located within and adjacent to the wetland portions of the transmission corridors have been eliminated and that unavoidable impacts have been minimized, and that the project design maximizes preservation of existing natural resources as required pursuant to **Section 24-48.4 Miami-Dade County Code**. The proposed design and construction of the transmission lines shall incorporate features that avoid and minimize impacts to natural resources including but not limited to wetlands, flora, fauna, and rare, threatened and endangered species. This may include but is not limited to selective placement of transmission line infrastructure, varying the transmission line structure span length as appropriate, use of reduced fill pad size, elimination of fill pads for transmission line structures, elimination of access roads where not necessary, construction of access roads at wetland grade, undergrounding of transmission lines, collocation with existing features , and modification of construction techniques to eliminate avoidable impacts and reduce unavoidable impacts. FPL shall be responsible for the cost associated with undergrounding transmission lines. Access roads, culverts and all other structures shall be located to avoid conflict with existing underground utilities including but not limited to water and sewer facilities. In the event temporary fill is used in wetlands to facilitate construction of the transmission line, the temporary fill shall be removed and the wetlands restored after construction to minimize impacts to wetlands. PERA will review the submittal for compliance with the requirements of this condition and the requirements of the Miami-Dade County Code, and FPL shall modify the plan as necessary to comply with these requirements. Work on portions of the transmission lines within wetlands as well as any other portions impacting wetlands shall not commence until PERA has approved the submittal through a determination that it meets the requirements of this condition, the Miami-Dade County Public Works Manual and Chapters 24 and 33B, of the Miami-Dade County Code.

    b. FPL shall execute a permanent flowage easement in favor of the county, state and federal governments across those portions of the transmission corridors located within the Comprehensive Everglades Restoration Plan (CERP) Biscayne Bay Coastal Wetlands (BBCW) Project study area boundaries (CDMP Policy CON-7C). In accordance with Condition 17 of Z-56-07, this flowage easement shall be approved by

MDC PERA based on a coordinated review by the agencies and shall be executed by FPL prior to any clearing or construction within any of the approved transmission corridors. MDC PERA shall record the flowage easement in the public records after acceptance of the finalized language. *(Condition 17 of Miami-Dade County Resolution No. Z-56-07, Miami-Dade County Code Chapter 33 and Chapter 24 Section 24-48, CDMP Objective LU-3, Policies LU-3A and LU-3B, Objective CON-7, Policy CON-7C, and Objective CM-1 Policy CM-1B).*

c. FPL, through its design, construction, maintenance and operation of infrastructure to be located within the transmission corridors, shall actively support, to the greatest extent applicable, the restoration and maintenance of surface water flow through wetland systems of the Shark River Slough, Everglades National Park, and the saline wetlands of southeastern Miami-Dade County. Any work, use, alteration or construction that constrains or prevents the restoration or maintenance of water flow is prohibited. *(Miami-Dade County Code Sections 24-7 and 24-48, CDMP Objective LU-3, Policies LU-3A, LU-3B and LU-3C, Objective CON-7, Policies CON-7C and CON-7J and Objective CM-1, Policy CM-1B).*

23. *Conditions for Wetland Mitigation*

a. A complete and detailed comprehensive wetlands mitigation plan, that addresses permanent and temporary impacts, shall be submitted to the FDEP, SFWMD and Miami-Dade County PERA for review and approval by each of these agencies prior to any work or construction within the transmission corridors and prior to the performance of any of the mitigation. In order to be acceptable to Miami-Dade County, the mitigation plans shall meet all the requirements of Chapter 24 of the Miami-Dade County Code as well as the applicable conditions of Miami-Dade County Resolution No. Z-56-07 as well as applicable state and federal regulations. In addition, because the maintenance of the transmission lines once constructed will require continual impacts to wetlands and other natural areas, the mitigation plan shall fully address these continuing impacts. (*CDMP Objective CON-7, Policy CON-7A, Objective CM-1, Policy CM-1E, and Objective CON-9, Miami-Dade County Code Chapter 33 and Chapter 24 Sections 24-7 and 24-48, Condition 9 of* Miami-Dade County Resolution No. Z-56-07, *Basis of Review Section 4.3.1.2)*

b. FPL shall mitigate for unavoidable wetland impacts (and other impacts as applicable) that occur in parks designated at the federal, state, regional, or local level to the extent possible within the same park in which the impacts occur. Prior to mitigating within mitigation banks located within or adjacent to any such parks, FPL shall perform mitigation according to the hierarchy of Section 24-48 of the Miami-Dade County Code including avoidance and minimization of impacts and in a manner consistent with Everglades Restoration projects including but not limited to CERP and the Modified Water Delivery Project. Mitigation shall not prohibit, delay or otherwise constrain Everglades Restoration projects. FPL shall also mitigate for unavoidable wetland impacts (and other impacts as applicable) that would occur in wetland areas to the extent possible within the same area in which the impacts occur. If there are insufficient mitigation opportunities available in the same park or in the same wetland area in which the impacts occur, FPL may mitigate for unavoidable wetland impacts within adjacent or nearby wetland basins or may purchase credits in a mitigation bank that is considered acceptable by FDEP, the SFWMD and Miami-Dade County PERA. To the extent

possible, FPL shall undertake mitigation projects in the same park or wetland area or in adjacent wetland basins before purchasing or otherwise seeking credits from an appropriate mitigation bank. *(CDMP Objective CON-7, Policy CON-7A, Objective CM-1, Policy CM-1E, and Objective CON-9, Miami-Dade County Code Sections 24-7 and 24-48, Basis of Review Section 4.3.1.2)*

c. If the west secondary corridor is certified, FPL shall execute a permanent flowage easement in favor of the county, state and federal governments across all FPL owned lands and easements held by FPL at the time the corridor is certified and which are located within the boundaries of Everglades National Park. This flowage easement shall be approved by MDC PERA based on a coordinated review by the agencies and shall be executed by FPL and recorded by Miami-Dade County in the public records prior to any clearing or construction within any of the transmission corridors approved under the pending application. MDC PERA shall record the flowage easement in the public records after acceptance of the finalized language. The overarching purpose of this condition is to insure mitigation is performed according to the hierarchy of Section 24-48 of the Miami-Dade County Code including avoidance and minimization of impacts and to insure consistency with Everglades Restoration projects including but not limited to CERP and the Modified Water Delivery project. (*Miami-Dade County Code Sections 24-7 and 24-48, 33B-26 and 33B-28, CDMP Objective LU-3, Policies LU-3A and LU-3C, Objective CON-7, Policy CON-7C)*

d. If the west preferred corridor is certified, all FPL owned lands and easements held by FPL at the time the corridor is certified and located within the current boundaries of Everglades National Park shall be placed under a conservation and flowage easement and included as a preservation component of the required mitigation. FPL shall execute a permanent conservation and flowage easement in favor of the county, state and federal governments across all FPL owned lands and easements held by FPL at the time the corridor is certified and which are located within the boundaries of Everglades National Park. This conservation and flowage easement shall be approved by MDC PERA based on a coordinated review by the agencies and shall be executed by FPL and recorded by Miami-Dade County in the public records prior to any clearing or construction within any of the transmission corridors approved under the pending application. MDC PERA shall record the easement in the public records after acceptance of the finalized language. The overarching purpose of this condition is to insure mitigation is performed according to the hierarchy of Section 24-48 of the Miami-Dade County Code including avoidance and minimization of impacts and to insure consistency with Everglades Restoration projects including but not limited to CERP and the Modified Water Delivery project. (*Miami-Dade County Code Sections 24-7 and 24-48, 33B-26 and 33B-28, CDMP Objective LU-3, Policies LU-3A and LU-3C, Objective CON-7, Policy CON-7C)*

e. Due to the uncertainty of the timing of any mitigation proposed at HID because it is not being proposed "up-front" and because it is not known when the wetland impacts will occur, reasonable assurance must be provided that sufficient area will be available at HID at the time the wetland impacts would be mitigated. Therefore, for any mitigation to be acceptable at the Hole In the Donut (HID) as currently proposed for wetlands impacts associated with the transmission corridor infrastructure, reasonable assurance shall be provided to the agencies demonstrating that adequate credits will be available at HID for

restoration work not yet performed at the time the proposed wetland impacts would begin. Unless the credits and location(s) are permanently reserved at HID by purchase in advance of the work or some equivalent assurance is provided that the mitigation opportunity at HID will continue to exist at the time the mitigation is to be utilized, acceptance of mitigation at HID cannot be pre-approved in advance by Miami-Dade County under applicable regulations including Chapter 24 of the Miami-Dade County Code.. FPL shall, in coordination with Everglades National Park as the HID mitigation bank manager, identify the specific location(s) and boundary(ies) of any mitigation proposed within HID in a post certification submittal to FDEP and MDC PERA. To be acceptable to Miami-Dade County, the submittal shall be sufficient in detail to confirm that the required amount of mitigation would be provided in the form of wetland restoration at HID in an area or area(s) yet to be restored at the time this mitigation commences. The submittal must also demonstrate the bank manager's agreement to reserve the area(s) for FPL until this mitigation is performed. The required mitigation shall be based on the actual amount and locations of wetland impacts and the mitigation ratios required by Miami-Dade County as specified herein below. *(the Basis of Review, the Uniform Mitigation Assessment Methodology and Chapter 24 of the Miami-Dade County Code)*

f. For any mitigation to be acceptable at the HID, ratios required as a condition of certification shall not be less than those required by Miami-Dade County pursuant to its evaluation under the Basis of Review, the Uniform Mitigation Assessment Methodology, the CDMP and Chapter 24 of the Miami-Dade County Code. The minimum required ratios determined by Miami-Dade County vary between and within segments due to the varying quality of the wetlands and are included herein as a component of the agency report (see Attachment 1). These ratios are based on the quality of the wetlands at the time of corridor certification and it is acknowledged that their quality may change in the future before proposed impacts would occur. If wetland quality changes in any segment of an approved transmission corridor prior to the proposed impact to the extent that the ratio may need to be adjusted, FPL or the agencies may request that the required ratio be reevaluated at that time and a new ratio, if appropriate, shall be established for that segment upon approval by the wetland regulatory agencies. *(the Basis of Review, the Uniform Mitigation Assessment Methodology, the CDMP and Chapter 24 of the Miami-Dade County Code)*

g. Impacts to tree islands and other forested wetlands shall not be mitigated at HID. Wetland impacts mitigated at HID shall be in-kind only. *(United States Army Corps of Engineers requirement)*

24. *Conditions regarding power line clearance and work in county canal ROW*

a. Overhead utility crossings, such as telephone and power lines, over a County canal shall be required to have a minimum vertical clearance of forty (40) feet above ground surface, per Section D4.04, Part 2 – Public Works Manual, of the Code of Miami-Dade County. Construction of transmission line structures within county canal reservation, canal maintenance easement, or canal rights-of-way is prohibited without prior approval by the Miami-Dade County PERA and the Public Works and Waste Management Department to determine that the proposed structure will not interfere with the operation and maintenance of the canal.

b. At least one hundred and eighty (180) days prior to the commencement of construction of any portion of the transmission line which will cross over, on, under, or otherwise use a Miami-Dade County canal right-of-way or canal reservation, complete drawings showing the proposed facilities must be submitted to Miami-Dade County PERA for documentation of compliance with Chapters 24 and 33 of the Miami-Dade County Code of Ordinances. DEP and PERA will review the drawings for compliance with Chapters 24 and 33 of the Miami-Dade County Code and FPL shall correct the drawings as necessary to comply with Code requirements based on this review. Work under these drawings shall not commence until DEP and PERA have approved the drawings. These drawings shall depict the proposed crossing in both plan and profile views and shall show, at a minimum:

1) The canal right-of-way lines;
2) The top of the canal bank and its elevation;
3) The centerline of the levee and its elevation
4) The canal maintenance berm and its elevations at its highest point;
5) The location of any poles, towers, and/or access roads located within the County's right-of-way;
6) The location of any anchors, downguys, or spanguys within the County's right-of-way;
7) The elevation of the lowest line, wire, or cable crossing over the County's right-of-way, given at the lowest point of sag in the span within the County's right-of-way;
8) The location and elevation of any buried facilities;
9) The location of the facilities in relation to a section line, major road, or other prominent well-known landmark by which the facilities may be located in the field.
10) Should FPL desire to utilize Miami-Dade County's canal right-of-way for access during construction of the transmission line and/or for inspection and maintenance after construction, FPL shall submit to Miami-Dade County PERA a detailed plan identifying the proposed route, type and number of vehicles to be used, and frequency of such use.

25. *Conditions on Water and Sewer Infrastructure*

a. Access to all water and sewer valves, sanitary sewer manholes, and other control mechanisms shall be maintained throughout construction to ensure the public health and safety in the event of an emergency. Covering valve boxes and manholes is considered unauthorized obstruction of and tampering with Water and Sewer Department (MDWASD) Utilities.

b. FPL's contractors shall locate and proceed with caution when excavating within five (5) feet of Miami-Dade County Water and Sewer Department facilities.

c. No trees or palms should be planted within five (5) feet of any MDWASD facility.

d. FPL's contractors shall comply with Chapter 556 F.S. relating to underground facility damage prevention and safety.
http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&URL=0500-0599/0556/0556.html

26. *Conditions on Roadway Dedications and Other waivers*

a. FPL shall dedicate or otherwise convey to Miami-Dade County land needed for streets, roads, and public ways that are listed in Attachment 3, pursuant to Section 33-133 of the Miami-Dade County Code. Dedication or conveyance documents, as appropriate, shall be executed by FPL prior to any clearing or construction within any of the approved transmission corridors.

27. *Condition regarding pole placement, co-location, and design:*

a. Throughout the east and west corridors, where overhead transmission facilities may be improved or constructed, FPL shall seek to co-locate or bury existing transmission and distribution lines with new transmission lines on new unified pole structures. Throughout the corridors, FPL shall remove extraneous poles, support structures, and other equipment to improve the safety and aesthetics of the corridors, regardless of adjacent land uses. *(CDMP Policy LU-4A, LU-4C, LU-4D)*

28. *Conditions for historic places and structures:* *The proposed overhead transmission line route that runs along the US-1 corridor has the potential to impact several* historic *sites throughout the county. Additionally, the portion of the routes that are west of the turnpike, particularly near Krome Avenue and westward, have the potential to impact several sites of archaeological importance.*

a. Placement of overhead transmission line poles is prohibited within 50 feet of any eligible or designated historic site boundary. Additionally, transmission line poles shall not negatively impact any significant view corridors from a historic site. *(CDMP Land Use Element, Objective LU-6)*

b. FPL shall perform a historic and archaeological survey along all proposed routes prior to final selection of pole placement. Survey results shall be submitted to the Office of Historic and Archaeological Resources for final comments as it relates to pole placement. The Office of Historic and Archaeological Resources may also submit their own comments related to eligible or existing historic and archaeological sites along the proposed routes, as some of the proposed routes may have already been surveyed by this office. *(CDMP Land Use Element, Objective LU-6)*

c. Archaeological monitoring shall be performed during all construction west of Krome Avenue. Should archaeological deposits or resources be discovered during such monitoring, the county archaeologist shall be given adequate time (up to one week per site) to collect artifacts and document the site before construction continues. *(CDMP Land Use Element, Objective LU-6)*

d. Coordination with the appropriate State and regional agencies, including the Miccosukee Tribe of Indians, must be undertaken if an archaeological site is discovered, per CDMP Policy LU-6H.

e. If any impact to a historic or archaeological site cannot be avoided completely, then the applicant must provide mitigation as determined by the Historic Preservation Board. Such mitigation may include additional trees, landscaping, appropriate lighting for the historic site and historic marker placement. *(CDMP Land Use Element, Objective LU-6)*

29. ***Protected tree and vegetation conditions:***

a. Existing specimen trees, native vegetation (including canopy, understory, and ground cover) and Natural Forest Communities shall be preserved to the maximum extent possible. (Miami-Dade County Code Sections 18A-2, 18A-5, 24-48 and 24-49, CDMP Objective CON-8, Policies CON-8C, CON-8D CON-8E and Objective CM-1 policy CM-1A and CM-1D)

b. At least ninety six months prior to commencement of work within each segment of transmission line within uplands on newly established transmission line right-of-way (including site clearing or tree removal), FPL shall submit to Miami-Dade County (and applicable municipalities) for review and approval as a post-certification submittal a tree survey for that segment showing all upland trees that need to be removed, as well as a tree planting plan to compensate for the tree canopy to be removed for that segment as required by Section 24-49 Miami-Dade County Code. Miami-Dade County (and applicable municipalities) will review the survey and the adequacy of the plan for compliance with the requirements of the Miami-Dade County Code and municipal laws, and FPL shall correct the survey as well as modify the plan as necessary to comply with these Code requirements. Work under the tree planting plan shall not commence until Miami-Dade County (and applicable municipalities) have approved the survey and plan through a determination that both meet the requirements of Section 24-49, Miami-Dade County Code, and municipal law. FPL shall perform and complete the tree planting in a timely manner as specified in the approved plan. No trees within a newly established transmission line right-of-way shall be removed, transplanted or damaged by FPL, their agents or contractors until Miami-Dade County (and applicable municipalities) approval has been granted, with the exception of specific prohibited species (see Attachment 2) as defined under Miami-County Code that do not require a tree removal permit pursuant to Section 24-49, Miami-Dade County Code. Removal of trees from botanic gardens or state approved nurseries are not subject to the tree or canopy replacement requirements contained herein. For purposes of this condition, state approved nurseries shall mean those nurseries with a valid certificate of registration from the Division of Plant Industry. Wetland mitigation requirements are described in other conditions of certification and trees located within wetlands are not subject to these tree or canopy replacement requirements.

c. For established and constructed transmission line rights-of-way, FPL shall meet all applicable local and state requirements relating to tree removal and tree trimming and provide Miami-Dade County PERA a minimum of five (5) business days' advance written notice prior to conducting routine vegetation maintenance and tree pruning or trimming activities, as required by Section 163.3209, Florida Statutes (2010).

d. For all tree and vegetation pruning within transmission line rights of way certified in conjunction with Turkey Point units 6 & 7 FPL shall utilize best management practices for tree pruning and utility line tree pruning as described by the Tree Care Industry (companion publications to ANSI A300 Part 1). In addition to maintain safe clearance from lines for workers, FPL shall consider tree health and structure to reduce impacts from storms and aesthetics, especially in urban areas.

e. FPL shall not maintain vegetation on or adjacent to a transmission line right-of-way in a manner that would violate the clearance requirements specified in Table 2 of ANSI

Z133.1-2000 for lines affected by the North American Electric Reliability Council Standard, FAC 003.1 requirement R1.2., or that would violate the National Electrical Safety Code as adopted by the Florida Public Service Commission.

30. ***Condition regarding cost recovery for plan reviews and inspections:***
FPL shall compensate Miami-Dade County for staff time associated with plan and other application reviews and inspections, referenced herein. (Section 403.511(4) and 403.531(4), Florida Statutes)

31. ***Condition regarding Electric Vehicle Charging Stations:***
FPL shall work with Miami-Dade County and the South Florida Regional Planning Council, in accordance with goals determined through the Florida Gold Coast Sustainable Community Planning for Electric Vehicle Charging and Infrastructure Project, to provide electric vehicle charging stations at County parking garages/lots, County rights-of-way and other appropriate locations along the eastern and western transmission line corridors.

32. ***Condition regarding inspection of transmission line facilities:***
FPL shall not begin operation of transmission line facilities until Miami-Dade County has completed inspections of landscaping, poles, and associated construction and determined compliance with the conditions, referenced herein.

CONDITIONS SECTION 2:

EASTERN CORRIDOR SEGMENT DESCRIPTIONS, IMPACTS, AND CONDITIONS

FPL's proposed eastern corridor has been divided into segments to organize the description of impacts and conditions based upon County Code provisions which apply to defined geographic locations and distinct CDMP text, policies, and CDMP land use map categories with different allowed uses. In some cases, conditions apply to multiple segments of the Eastern Corridor. The Figure 1 below depicts relevant CDMP land uses and transmission line segments described in narrative form throughout this section of the report. From north to south the proposed 230kV Eastern Corridor transmission line would extend roughly 36.7 miles according to Site Certification Application materials submitted to the County for this project. The subsections below include conditions designed to address potential impacts relevant to the Eastern Corridor including specific segments of the corridor.

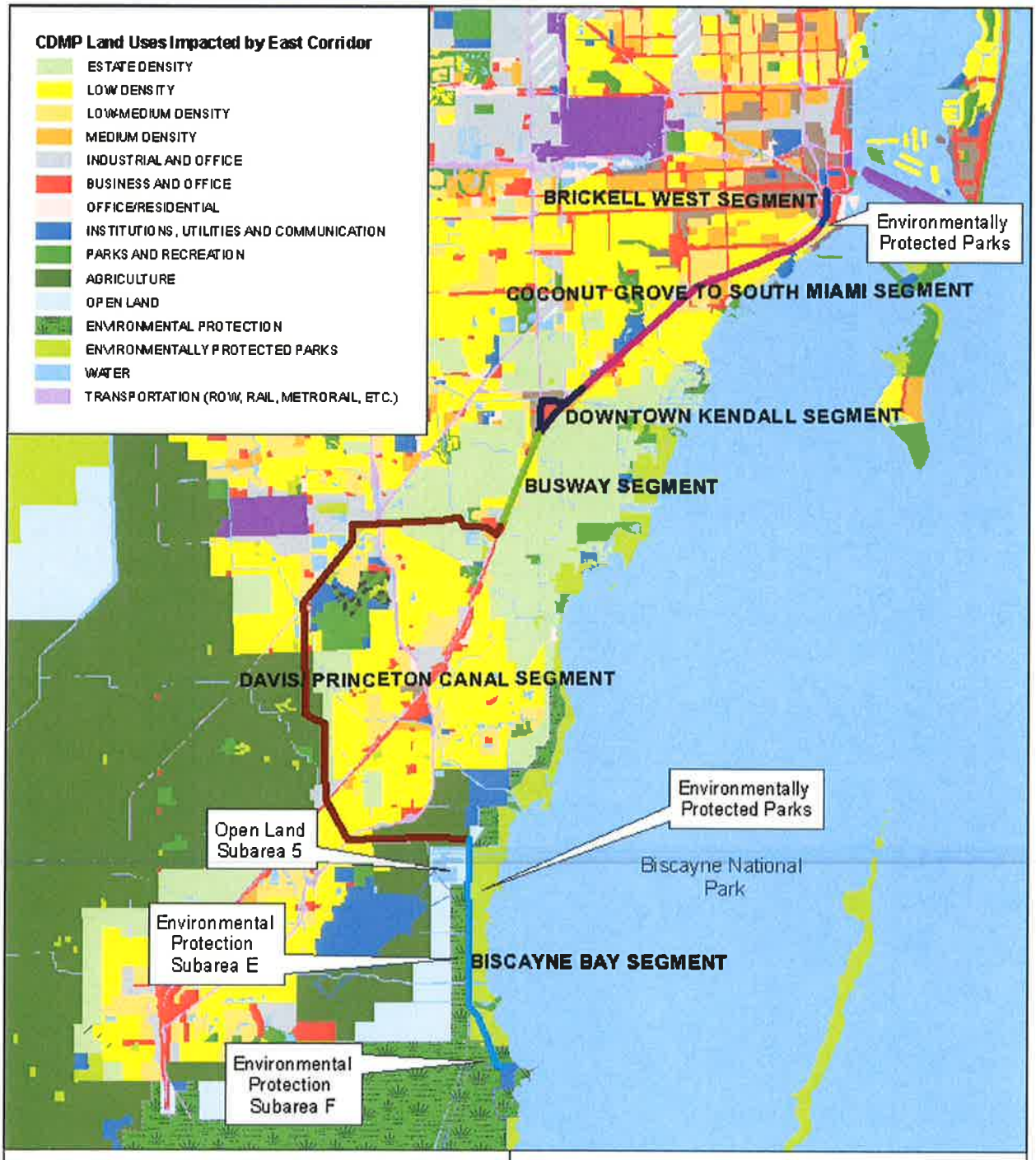


FIGURE 1

CDMP LAND USES INTERSECTED BY FPL PROPOSED EASTERN CORRIDOR SEGMENTS

Brickell West Segment: Miami Substation to SW 19th Road. This segment of downtown Miami and the western Brickell area includes a separated Metrorail and I-95 configuration with major north-south streets including I-95, SW 3rd Avenue, SW 2nd Avenue, SW 1st Avenue and SW 1st Court. A subaqueous crossing of the Miami River is proposed for this segment. The Metrorail transitions from an elevated structure at the north end of this segment to an at-grade alignment near SW 17th Road.

This segment is located within a Metropolitan Urban Center as established by the CDMP and many of the pedestrian-oriented features of this Metropolitan Urban Center may be impacted by the proposed transmission lines within this area. This area shall be characterized by "high quality urban design" *(CDMP p. I-46)*. Design emphasis of all Urban Centers and all of their individual components shall be to create active pedestrian environments through high-quality design of public spaces with "human scale appointments", and connectivity using pedestrian linkages such as sidewalks and bike lanes. Streets shall be designed for pedestrian mobility, interest, safety and comfort as well as vehicular mobility. And, "Emphasis shall be placed on sidewalks, with width and street-edge landscaping increased where necessary to accommodate pedestrian volumes or to enhance safety or comfort of pedestrians on sidewalks along any high-speed roadways." Streets in urban centers shall also provide furnishings such as benches, light fixtures, and bus shelters. *(CDMP pgs I-46 though I-48, Policies TE-2C and TE-2D)*. Proposed poles could impact aforementioned design and mobility features and goals, and the overall quality of the pedestrian environment. Potential impacts to this area also include the City of Miami Simpson Park (a designated Natural Forest Community) and South Side Park.

1. ***Urban and Neighborhood Area Conditions***

   a. For the City of Miami Simpson Park, FPL shall comply with "Conditions regarding Natural Forest Communities", in the section of this report entitled, "Impacts and Conditions Applicable to Multiple Segments Within Eastern and Western Corridors". *(CDMP Policy CON-8C, Code Section 24-49)*

   b. Transmission line poles shall be neutral-colored concrete single-pole pylons directly embedded into the ground; no guy wires, anchors, metal bases, or other support structures will be permitted In East Corridor segments from the Miami Substation to southernmost end of the Busway Segment (SW 132nd Street). Pole designs shall be selected to ensure the smallest feasible pole base diameter. Any deviation from the use of aforementioned materials or design must be reviewed and approved for aesthetic impacts by the County. At least six months prior to construction, all pole specifications, including heights above 117 feet, shall be submitted to the County for review and approval. Pole designs necessitating guide wires or cables or caissons (structures other than single monopoles) are also prohibited in all residential land use categories. *(CDMP Land Use Element, LU-4C, LU-4D, LU-4A, CDMP 'Residential Communities Guidelines for Urban Form', p. I-27 #9)*

   c. Poles supporting transmission lines shall allow for maximum growth of existing canopy trees while maintaining national minimum approach distances for workers (National Electrical Safety Code, ANSI Z133), required clearance from the Metrorail guideway and other infrastructure, and minimum ground clearance for lines. Pole heights shall be minimized by using best available technology to limit sagging of transmission lines and

by maintaining regular pruning schedules. No additional tree clearance area shall be allowed for transmission lines poles other than the ANSI requirements.

d. Pole and transmission line placement shall not inhibit or significantly constrain future site development (including redevelopment and expansion of existing development) along the East Corridor from the Miami Substation to the southernmost end of the Busway Segment (SW 132nd Street), particularly in transit zone areas. *(Sec. 33C-8 Rapid Transit Zone District Regulations for non-Metrorail Development Within the City of Miami (C) Development Parameters and (D) Site Plan Review Standards and Criteria).*

e. Transmission lines shall not be located in the ROW such that future development would cause residential, office or commercial structures to be located within unsafe distances of transmission lines, as established by FDEP EMF regulations. *(Chapter 62-814, F.A.C., Miami-Dade County Code Sec. 33-284.62, 33-284.63, 33-284.55 and Sec. 33C-8(C) and (D), CDMP Objective LU-7 and Policies LU-4C, LU-7A, LU-7B, LU-7D, LU-7E, LU-7H, and LU-7I, CDMP Transportation Element, Policy MT-8B and MT-8C)*

2. *Tree canopy and streetscape beautification for all overhead transmission line alignments between the Miami Substation and the southern end of the Busway (US1 and C-100A Canal):*

(CDMP Land Use Element Objective LU-4, Policies LU-4A, LU-4C, LU-4D; CDMP Residential Communities "Guidelines for Urban Form", p. I-27 #9; CDMP Transportation Element, Policy MT-8B and Policy TE-2C, County Code Sections 18A and 18B)

a. If transmission corridors associated with Turkey Point Units 6 & 7 are certified by the State of Florida, transmission line pole line placement between the Miami Substation and the southern end of the Busway shall be designed to minimize impacts to and removal of street trees, landscaping, and pedestrian amenities including benches and bus shelters. Notwithstanding other conditions, engineering adjustments shall be utilized for the Davis-Miami 230-kV transmission line to minimize impacts to existing street trees and landscaping. Such engineering adjustments may include reduced span lengths or increased pole heights.

b. Licensee shall install vegetation as described herein to enhance the viewscape, comfort, and safety of transit users, motorists, pedestrians and bicyclists, and minimize impacts from transmission lines and poles, as prescribed by the Conceptual US1 Enhancement Plan developed by Miami-Dade County and affected municipalities, in conjunction with FPL. The Conceptual US1 Enhancement Plan must be approved by the County, affected municipalities, and FDOT prior to certification of Turkey Point Units 6 & 7. Licensee is required to comply with zoning Resolution No. Z-56-07, Condition 13, which permits licensee to plant landscaping required by County Code at an off-site location. Plant material required through Condition 13 of zoning approval Z-56-07 may count toward compliance with the Conceptual US1 Enhancement Plan and subsequent detailed landscaping plan.

c. At least six months prior to any construction associated with Turkey Points 6 & 7 project, including associated facilities, or removal of any vegetation between the Miami Substation and the southern end of the Busway, FPL shall submit a Detailed Landscaping Plan for review and approval as a post-certification submittal to Miami-

Dade County, affected municipalities, and FDOT. The Plan shall describe all proposed removals, replacements and relocation of vegetation and other public amenities and shall include proposed maintenance prescription plans for each span of the East Corridor between the Miami Substation and the southern end of the Busway (US1 and C-100A Canal). The Detailed Landscaping Plan shall comply with the Conceptual US1 Enhancement Plan, approved by the County prior to certification of Turkey Point Units 6 & 7. The Detailed Landscaping Plan must be approved by the County, affected municipalities, and FDOT prior to construction of Turkey Point Units 6 & 7. The pre-certification Conceptual US1 Enhancement Plan and the post-certification Detailed Landscaping Plan shall include the following items:

1) **Required planting quantities and types**. Existing street trees planted in public and private rights-of-way or on public and private property and existing lot trees planted on public and private property shall not count towards meeting this condition. Required vegetation applies to the Eastern Corridor between the Miami Substation and the southern end of the Busway (US1 at C-100A Canal).

   a) **Street trees**.
      i. Street trees shall be planted at a maximum average spacing of thirty-five (35) feet on center.
      ii. At time of planting, all street trees shall have a minimum clear trunk of four (4) feet, an overall height of twelve (12) feet and a minimum caliper of two (2) inches.
      iii. All street trees must be canopy trees (no palms) and shall be planted to allow trees to reach full height and form.

   b) **Trees/shrubs**.
      i. At least five (5) "trees/shrubs" shall be planted per newly installed or reconstructed transmission line pole.
      ii. At time of planting, all "trees/shrubs" shall have an overall height of eight (8) feet and a one and a half (1.5) inch caliper.
      iii. "Trees/shrubs" shall be clustered in an informal planting arrangement near to and/or adjoining transmission line poles, where possible, together with "shrubs and shrub-like" and "sub-shrubs and groundcover" vegetation.

   c) **Shrubs and shrub-like.**
      i. Species in the "shrubs and shrub-like" category shall be provided at a minimum ratio of ten (10) per required "trees/shrubs" (50 per pole).
      ii. At time of planting, all "shrubs and shrub-like" plantings shall have a minimum of eighteen (18) inches in height when measured immediately after planting.

   d) **Sub-shrubs and ground cover.**
      i. Species in the "sub-shrubs and groundcover" category shall be provided at a minimum ratio of twenty-five (25) per required "trees/shrubs" (125 per pole).

e) **Species requirements and specifications.**

i. Vegetation shall be selected from categories delineated in the Miami-Dade Landscape Manual. FPL shall select a variety of species from within each category mentioned herein to ensure that plantings are resilient to local climate conditions and achieve design goals of Miami-Dade County and affected municipalities for the US1 corridor and the Busway.

ii. Thirty (30) percent shall be native species; and

iii. Fifty (50) percent shall be low maintenance and drought tolerant; and

iv. Eighty (80) percent shall be listed in the Miami-Dade Landscape Manual, the Miami-Dade Street Tree Master Plan and/or the University of Florida's Low-Maintenance Landscape Plants for South Florida list;

v. Additional planting specifications regarding mulch and plant quality shall comply with relevant sections of the County Landscape Ordinance *(Miami-Dade Code of Ordinances, Section 18A-6(F), (G), (K))*.

2) **Planting locations.** All required vegetation shall be planted in accordance with the Conceptual US1 Enhancement Plan and Detailed Landscaping Plan. If obstructions to planting in public rights-of-way exist in any particular area, as determined by Miami-Dade County, the Florida Department of Transportation (FDOT), and/or the appropriate authority within the municipality, required vegetation shall be planted in medians, on private/public property (with the owners' consent) adjacent to or across from the affected public roadway side, or along adjacent private streets and/or easements. Placement of trees should prioritize shade for pedestrians and bicyclists, and then paved areas and must be planted to maximize aesthetic benefits. If required vegetation cannot be located on private or public land in accordance with this condition, the trees and other required vegetation shall be planted in the immediate vicinity.

3) **Planting design.** Plantings shall be provided to visually buffer transmission line poles from the Miami Substation to the southernmost end of the Busway Segment (SW 136th Street/ the C-100A Canal). Visual buffers shall minimize the vertical and linear impacts of the transmission facilities through informal type plantings and to enhance the urban environment. Earthen berms may be incorporated in the overall design scheme, provided necessary clearances required by the National Electrical Safety Code, ANSI Z133, as may be updated from time to time.

4) **Vegetation maintenance agreement.** The Conceptual US1 Enhancement Plan and the post-certification detailed landscaping plan shall include a vegetation maintenance agreement to state that licensee shall plant, establish, and replace required vegetation to ensure survivorship as long as transmission line infrastructure is in place. Species requirements and quantities shall be described licensee's vegetation maintenance agreement.

a. Where applicable, FPL shall coordinate amongst municipalities, the County, and the FDOT to ensure that any existing maintenance agreements for vegetation in rights-of-way reflect new conditions associated with the certification of the Eastern Corridor.

d. Light fixtures. To help mitigate visual impacts FPL shall install light fixtures adjacent to the Metrorail guideway, the M-Path, sidewalks, or other pedestrian areas and should be "pedestrian scale" in height, design, and candle strength. Fixtures located along the Busway should be of a height, design, and candle strength that complement the urban environment while minimizing light pollution. Planned fixture designs and installation plans, including proposed locations, shall be submitted to Miami-Dade County for review and approval at least six months prior to construction.

3. ***Transit Infrastructure Conditions:***

a. When overhead lines are placed in rights of way adjacent to the Metrorail guideway, poles shall be placed in line with the existing Metrorail guideway concrete pylons (support structures) to minimize aesthetic impacts.

b. When mitigation plantings occur in rights of way adjacent to the Metrorail guideway, FPL shall comply with all County Transit standards to ensure sufficient clearance for existing infrastructure.

c. There shall be no attachment of any kind to any part of the Metrorail guideway structure.

d. All plans and specifications depicting the exact location of the proposed FPL infrastructure (within MDT ROW) must be submitted to MDT 180 days prior to construction. Transmission line construction shall not begin until FPL has received Miami-Dade County's written approval of the plans and specifications.

e. All transmission lines must be installed in strict accordance with the "MDT Adjacent Construction Manual".

f. Minimum clearance between the FPL transmission lines and the Metrorail guideway shall be a minimum of 30' or as required by OSHA/NEC, whichever is greater.

g. License agreement Conditions:

1) FTA and BCC approvals

2) License agreement similar to the existing Brickell lease agreement between FPL and MDT needs to be approved by FTA and BCC 6 months prior to construction.

3) FPL is to comply with all conditions and requirements listed in the license agreement and subject to a fee to be determined at the time the license agreement is executed.

h. The proposed FPL transmission lines plan may be located within the US-1 Busway/Metrorail right of way. Any FPL plan must maintain the vertical and horizontal clearance envelope for future managed lanes (4 lanes elevated) and/or heavy rail service throughout the Busway corridor.

i. Any future plans MDT has for the construction of a Metrorail extension to Homestead may be adversely affected by the proposed transmission lines due to the additional physical constraints these poles will place on the existing corridor. This may increase the cost of constructing the future Metrorail extension. FPL shall reimburse the County for any additional construction cost caused by the proposed transmission line.

j. FPL's transmission lines may cause depreciation of MDT property value, especially at the Metrorail stations where Transit Oriented Developments are desirable. FPL shall reimburse the County for any reduction in real estate value caused by the proposed transmission lines.

k. MDT has concerns that Electro-Magnetic Interference (EMI) from the new infrastructure may interfere with Metrorail's train control system. Lightning strikes attracted by the high poles may also affect Metrorail's systems infrastructure. Any new FPL capital plan must have no net adverse impacts on MDT facilities.

l. MDT will require spotters/flaggers to be assigned to the project site during construction to ensure the safety of our mass transit patrons and system. The cost of this spotter/flagger shall be born by FPL.

m. As this design is conceptual in nature, MDT reserves the right to review further details to this project and comment on those details.

n. Transmission lines shall not obstruct future mass transit developments such as rapid transit lines, express bus lanes or high-occupancy vehicles (HOV) lanes from the Miami Substation to the southernmost end of the Busway Segment (C-100A Canal at US1). *(CDMP Policy MT-7B, Objective TC-2)* FPL shall consult with the County and City of Miami, South Miami, and Pinecrest regarding approved site plans for Metrorail Station areas.

Coconut Grove to South Miami Segment: This segment begins near SW 19th Road and ends at SW 80th Street. The Metrorail guideway transitions from an at-grade alignment to an elevated structure. The I-95 highway terminates into an at-grade ramp to join US1 in this segment and is buffered by vegetation. The northern portion of this segment has residential land uses adjacent to the right-of-way (ROW) and near Vizcaya Station, both sides of the ROW and Station have some mature canopy trees.

Immediately south of the Vizcaya Metrorail Station, the eastern US1 ROW is narrow and confined by a masonry wall. Small to medium street trees and other vegetation exist on both sides of the Metrorail and the western Miami-Dade Transit ROW contains the M-Path. There are street trees and light poles in the median in this area. Institutional and commercial land uses are found south of Vizcaya, then further south residential uses buffer both sides of the US1 ROW. Near Bird Road (SW 40th Street), warehouses are located to the west of the Metrorail, and Coconut Grove businesses are located on the east side of US1.

The Metrorail intersects Bird Road just northeast of the Douglas Road Metrorail Station, in the vicinity of the Merrick Village development/commercial center. Businesses line the ROW throughout this segment. South of Bird Road, businesses are located between US1 and the Metrorail and Ponce de Leon Blvd runs parallel and to the west of the Metrorail.

South of Le Jeune Road (SW 42nd Ave.) to Riviera Drive (and the canal) US1 and the Metrorail continue to be separated by businesses. South of Riviera Drive, US1 runs adjacent to the Metrorail (on the east side) and the University of Miami is located west of the Metrorail guideway. Ponce de Leon Blvd continues parallel to US1 toward Red Road (SW 57th Avenue).

From Red Road (SW 57th Ave.) to SW 80th Street, US1 is separated from the Metrorail only by vegetation (no businesses).

4. ***Rapid Transit Zone Conditions:***
   a. Transmission lines shall be buried underground where located within Rapid Transit Zone districts within the City of Miami (includes Vizcaya Station, Brickell Station, Coconut Grove Station, and Douglas Road Station) and FPL shall be responsible for the cost associated with undergrounding the transmission lines. *(Code Section 33C-8(D)(15))*

5. ***Transit Infrastructure Conditions:***
   a. All transit infrastructure conditions listed above also apply to the Coconut Grove to South Miami Segment.

6. ***Urban and Neighborhood Area Conditions:***
   a. All Urban and Neighborhood Area Conditions listed above also apply to the Coconut Grove to South Miami Segment.

7. ***Tree canopy and streetscape beautification for all overhead transmission line alignments between the Miami Substation and the southern end of the Busway (US1 and C-100A Canal):***
   a. All "Tree canopy and streetscape beautification . . ." conditions listed above also apply to the Coconut Grove to South Miami Segment.

8. ***M-Path Conditions:***
   a. FPL shall maintain a minimum clear zone from the edge of the M-Path as specified by the County. FPL shall submit requests for any alteration of the M-Path to the County for review and approval at least six months prior to any construction on the Eastern Corridor. M-Path alterations shall ensure consistency with the goals of the M-Path Master Plan; FPL would be responsible for all financial burden associated with approved M-Path modifications.

   b. FPL shall include surface enhancements to the M-Path and intersection improvements where the corridor parallels the M-Path. A review of the proposed surface enhancement and intersection improvements shall be provided to Miami-Dade County staff. *(CDMP Land Element Policy LU-1H)*

c. FPL shall provide additional pedestrian scale lighting along the M-Path (also see Brickell West Segment, Condition **2.b.**)

9. ***Transit Developmental Impact Committee Review Condition:***

a. Prior to construction, final utility line pole sites within the South Miami Metrorail Station and the University Metrorail Station must be reviewed and approved by the Rapid Transit Developmental Impact Committee, through the Station Area Design and Development Program process, a joint municipal-County program. *(County Code Sec.33C(2)(D)(9)(d))*

10. ***Condition regarding preferred alignment within the Coconut Grove to South Miami Segment:***

a. Between SW 19th Road and SW 30th Road, and with the intent of minimizing impacts to existing vegetation, any above ground transmission lines and poles shall be located in close proximity to I-95, on the west side of the highway.

11. ***Pedestrian Gateways:*** Improve the pedestrian gateways located at US-1 at 72nd Street (Sunset Drive) and US-1 at 88th Street (Kendall Drive), as follows:

a. Beautification/mitigation concepts: pedestrian shelters or canopies, special pavement treatments at noteworthy locations, signage, removal of high-mast lighting, wider sidewalks, public art, street furnishings for sculptural and focal points, seating areas and pedestrian shelters. *(Miami-Dade County Aesthetics Master Plan)*

b. Allow for context-sensitive design in fixtures and poles where appropriate, in areas such as historic sites. *(Miami-Dade County Aesthetics Master Plan)*

c. Make efforts to remove overhead power lines at major gateways. *(Miami-Dade County Aesthetics Master Plan)*

d. Previously landscaped areas with trees larger than 3" trunk caliper shall be preserved. *(Miami-Dade County Aesthetics Master Plan)*

Downtown Kendall Segment: SW 80th Street to SW 98th Street. At the north end of this segment, only vegetation separates US1 from the Metrorail. At the south end of the segment the ROW between US1 and the Metrorail has widened and businesses are located between the infrastructure. Medium density commercial uses line both sides of the ROW.

12. ***Vehicular Gateways:***

a. Make efforts to remove overhead power lines at major vehicular gateways, such as State Road 826 and US-1. Beautification/mitigation concepts for this area include: public artwork, native plants, solar powered lights, pedestrian shelters or canopies, green buffers between sidewalks and US-1 travel lanes, pedestrian lighting, removal of high-mast lighting. *(Miami-Dade County Aesthetics Master Plan)*

13. ***Downtown Kendall Urban Center Conditions***

a. Transmission lines shall be buried underground where located within the Downtown Kendall Urban Center District which includes the Dadeland North and Dadeland

South Metrorail Stations and FPL shall be responsible for the cost associated with undergrounding the transmission line. (Code Sec. 33-284.62(B)(3)(i))

b. If the State of Florida approves overhead transmission lines within this area, overhead transmission lines shall be restricted to outlying areas as depicted on Figure 2, below.

14. ***Tree canopy and streetscape beautification for all overhead transmission line alignments between the Miami Substation and the southern end of the Busway (US1 and C-100 Canal):***

a. If the State of Florida approves overhead transmission lines within this area, all conditions in the section entitled, "Tree canopy and streetscape beautification for all overhead transmission line alignments between the Miami Substation and the southern end of the Busway (US1 and C-100 Canal) also apply to the Downtown Kendall Segment.

15. ***Urban and Neighborhood Area Conditions:***

a. If the State of Florida approves overhead transmission lines within this area, all "Urban and Neighborhood Area Conditions" listed above also apply to the Downtown Kendall Segment.

16. ***Transit Infrastructure Conditions:***

a. If the State of Florida approves overhead transmission lines along US1 or within the MDT right-of-way, all "Transit Infrastructure Conditions" listed above also apply to the Downtown Kendall Segment.

17. ***M-Path Conditions:***

a. If the State of Florida approves overhead transmission lines along US1 or within the MDT right-of-way, and allows an alignment adjacent to the M-Path, all transit infrastructure conditions listed above also apply to the Downtown Kendall Segment.


The transmission line shall be located to the west and north of Miami-Dade County's Downtown Kendall Urban Center Exclusion Zone shown below.
N
SW 77th Ave
SW 80th St
Snapper Creek Expressway (SR 878)
SR 826 / Palmetto Expressway
SW 85th St
SW 72nd Ave
US-1
Kendall Dr
SW 96th St
SW 72nd Ave
FIGURE 2
LEGEND
East Preferred Corridor
Miami-Dade County's Downtown Kendall Urban Center Exclusion Zone
REFERENCES
Sources: FPL, 2009; Miami-Dade County, 2009, 2011; ECT, 2011
FIGURE
MIAMI-DADE COUNTY'S KENDALL AREA RIGHT-OF-WAY LOCATION PREFERENCE
TURKEY POINT UNITS 6 & 7 PROJECT: TRANSMISSION LINES
FPL

Busway Segment: SW 98th Street to SW 136th Street. This segment extends south from SW 98th Street along US1 and the Busway to approximately SW 136th Street (C-100A Canal at US1), south of The Falls shopping mall. Various land use types are adjacent to the corridor on the west side (including residential) and these properties abut a sidewalk, then the Busway, and then a partially landscaped public right-of-way. The southbound US1 lanes are separated from northbound lanes by a partially landscaped median. Land uses on the east side of US1 are primarily commercial.

17. ***Busway Conditions***

a. Any overhead transmission lines in the vicinity of the Busway (approximately south of SW 98th Street to SW 136th Street) shall be co-located with existing electrical facilities between US1 travel lanes and the Busway lanes. *(CDMP Policy LU-4A and Policy MT-8B)*

b. Within the Busway Segment, any transmission line pole placement shall be restricted to the right-of-way located between the southbound US1 lanes and the Busway. *(CDMP Policy LU-4A and Policy MT-8B)*

c. As noted above, additional conditions apply to this segment, "*Aesthetic and vegetation conditions for all segments between the Miami Substation and the southern end of the Busway Segment (US1 and C-100A Canal)"* and "*Neighborhood and property conditions for proposed transmission lines between the Miami Substation and the southern end of the Busway Segment (US1 and SW 136th Street) and all other portions of the Eastern Corridor where transmission lines intersect residential land use categories as designated by the CDMP Land Use Plan map"* and "*Conditions for all segments adjacent to the Metrorail Guideway". (CDMP Policy LU-4A and Policy MT-8B)*

d. All transit infrastructure conditions listed above also apply to the Busway Segment (some conditions will take effect when the Metrorail is extended south).

Davis/ Princeton Canal Segment: This east-west segment overlays an existing transmission line ROW that departs from US1 just south of The Falls shopping mall and extends west along the C-100C Cutler Drainage Canal to SW 132nd Street and continues west to the Davis Substation. Residential uses line the corridor in this area.

From the Davis Substation this segment then runs south along the CSX Railway and passes immediately to the west of Zoo Miami property. Adjacent land uses south of 184th Street are agricultural. The corridor intersects with US1 (again) near SW 244th Street at the C-102 Princeton Canal. This segment then passes through (or near to) designated Natural Forest Communities. CDMP land use categories intersected in this area include Industrial and Office, Estate Density Residential, Agriculture, Low Density Residential, Office/Residential, and Business and Office.

At the intersection of US1 and SW 244th Street the corridor follows the C-102 Princeton canal southeast until it heads east intermittently along the canal and SW 261st Street. Adjacent land uses include single family residential and agricultural. This segment ends where it meets the L-

31E canal and heads south. CDMP land use categories intersected in this area include Agriculture, Low Density Residential, and Business and Office.

18. ***Conditions for segments traversing land designated Agriculture:***
   a. Where the proposed transmission line corridor intersects land designated Agriculture on the CDMP Land Use Plan map outside of established transmission line rights-of-way, FPL shall minimize impacts to agricultural land and the agriculture industry. FPL shall minimize access road widths and pole placement pads and shall avoid impacts to structures that support the agriculture industry. FPL shall coordinate with property owners to minimize impacts to existing businesses. *(CDMP Objective CON-6; Policy LU-8C; Policy LU-1R; Policy LU-1S; Land Use Element Concept #14 on page I-69)*

   b. Where the transmission line corridor passes through or adjacent to properties with residential uses, *outside of established transmission line rights-of-way*, FPL shall provide vegetation as described in the conditions in section, "***Tree canopy and streetscape beautification for all overhead transmission lines passing through or adjacent to residential properties, outside of established transmission line rights-of-way.***"

   c. Within the Davis/ Princeton Canal Segment, FPL will work with the County to discuss the ability to co-locate public recreational trails and the provision for bicycle and pedestrian access or the allowance of other public uses within the proposed transmission line rights-of-way. A courtesy review of the proposed surface enhancement shall be provided to County staff. *(CDMP Land Use Element, Policy LU-1D, LU-1H, Objective LU-4, Miami-Dade County Open Space Master Plan)*

Biscayne Bay Segment. This segment begins where the corridor heads south at its intersection with the L-31E canal (and SW 97th Avenue). The corridor continues south along the canal, SW 97th Avenue, and the coast of Biscayne Bay and then crosses through Homestead Bayfront Park (a Miami-Dade County park). The corridor then enters FPL property at Turkey Point and ends at the Clear Sky Substation. CDMP land use categories include Open Land Subarea 5 near the northern end, Environmental Protection Subarea F, and Environmentally Protected Parks (Biscayne National Park and Homestead Bayfront Park). This segment also includes designated "Mangrove Protection Areas" *(CDMP Coastal Management Element, Policy CM-1A).*

Impacts are anticipated in Environmental Protection Subarea F, which includes coastal wetlands which should be managed to maintain their important biologic and hydrologic functions. Although necessary electrical generation and transmission facilities are permitted in this Subarea, and FPL has existing electrical facilities in this Subarea, approval of any new uses, and replacements, and expansions of any existing uses will be conditioned upon demonstrated consistency with the CDMP, all prevailing environmental regulations, and compatibility with CERP.

19. ***Conditions for alignments intersecting Environmental Protection Subarea F:***
   a. FPL must design transmission and access road structures for minimal ground coverage and minimal impact on hydrology, ecosystems, and habitats throughout the Subarea. Consistency with all wetlands restoration plans for the general area, including CERP, applicable environmental regulations, and policies of the CDMP will be required through reviews by County staff. Expansions to existing uses must demonstrate through design

and engineering that biologic and hydrologic functions inherent to these areas will be preserved. *(Miami-Dade County Section 24-48, CDMP text, Land Use Element p. I-64, I-65, and I-68, CDMP Objective LU-3, Policies LU-3A and LU-3B, Objective CM-1, Policies CM-1A, CM-1B and CM-1E)*

b. FPL shall construct improvements to sheet flow across all portions of the transmission corridors located within the CERP Biscayne Bay Coastal Wetlands Project Study boundaries where construction or upgrade of transmission infrastructure is necessary. Complete and detailed engineering plans and calculations describing these improvements shall be submitted to PERA (Miami-Dade County) and the SFWMD for review and approval within one year of certification of the transmission corridor(s). FPL shall modify the plans as necessary and in a timely manner in order to obtain PERA and SFWMD approval. All sheet flow improvements shall be constructed in accordance with PERA specified time frames (Condition 17 of Miami-Dade County Resolution No. Z-56-07) once the plans have been approved. *(Miami-Dade County Code Chapter 33, Chapter 24 Section 24-48, Condition 17 of Miami-Dade County Resolution Z-56-07, CDMP Objective LU-3, Policies LU-3A and LU-3B Objective CON-7, Policy CON-7J and Objective CM-1, Policy CM-1B)*

c. FPL shall utilize adjacent existing public roads for access to the ROW for construction, operation, and/or maintenance purposes, wherever possible. *(CDMP Objective LU-3, Policy LU-3B)*

20. ***Conditions related to Biscayne National Park***

a. Impacts to Biscayne National Park by FPL or its contractors, agents, and/or assigns as a result of clearing or any other work including installation of transmission line infrastructure are prohibited within the transmission corridors. National Park approval of any impacts associated with expansion of established transmission line corridors (with recorded easements) within the BNP must be demonstrated to the County at least six months prior to any construction in the National Park. *(CDMP Land Use Element p. I-52, I-52.1, I-52.2)*

b. FPL shall utilize adjacent existing public roads for access to the ROW for construction, operation, and/or maintenance purposes, wherever possible. *(CDMP Objective LU-3, Policy LU-3B)*

Impacts are expected within Homestead Bayfront Park, a County-owned park designated Environmentally Protected Parks on the CDMP Land Use Plan map. FPL has existing electrical lines within the boundary of this park, but all modifications and expansions within the park shall be consistent with Miami-Dade County Home Rule Charter Section 7.02 and the CDMP. *(CDMP Objective LU-3, Policies LU-3A and LU-3B, and Land Use Element, p. I-52 through I-52.2)*

21. ***Conditions for transmission lines within Homestead Bayfront Park:***

a. Access roads, transmission towers and accessory structures within Homestead Bayfront Park shall be located and constructed in a manner that minimizes impacts on adjacent park land.

b. A courtesy review of the proposed vegetation to be impacted or removed within Bayfront Park shall be provided to the County.

c. Conditions in the section entitled, "Conditions regarding inspection of transmission line facilities" also apply to Homestead Bayfront Park.

d. Conditions in the section entitled, "Conditions Regarding General Vegetation Management and Exotic Species" also apply to Homestead Bayfront Park. All potential mitigation measures required shall occur in areas designated by the Miami-Dade County Parks, Recreation, and Open Spaces Department (PROS), the Department of Permitting, Environment and Regulatory Affairs (PERA) and the Sustainability, Planning, and Economic Enhancement Department (SPEE).

e. Conditions in the section entitled, "General Wetland Conditions" also apply to Homestead Bayfront Park.

f. FPL shall utilize adjacent existing public roads for access to the ROW for construction, operation, and/or maintenance purposes, wherever possible. *(CDMP Objective LU-3, Policy LU-3B)*

22. ***Condition to maintain sheet-flow in specific wetland sloughs and within the Biscayne Bay Coastal Wetlands Area***

a. Sheet flow impacts are prohibited to wetland sloughs important to the Everglades and Everglades restoration including Wink-eye slough, Taylor slough, and northeast Shark River slough. In addition, FPL shall not constrain the restoration and maintenance of these natural surface water flows pursuant to the CDMP in any areas where the transmission corridors would cross these natural features. Any construction work including preconstruction earthwork in these slough areas crossed by the FPL transmission line corridor shall maintain an equivalent level of sheet-flow to that which currently exists in these sloughs. FPL shall identify access and maintenance road design and construction techniques such as elevated roadways to bridge the slough features, stabilized at-grade roads or geoswales that would not extend above existing wetland grades in these slough areas, or other design alternatives that will maintain an equivalent level of sheet-flow to that which currently exists in these sloughs. These design and construction techniques shall also be sufficient to accommodate the increased flowage anticipated from planned restoration projects such as the 50-cfs pump proposed to be constructed linking the Florida City Canal with Wink Eye Slough under the CERP BBCW Alternative O project.

For Wink Eye Slough, the engineering design shall be based on the requirement that sheet flow shall not be impacted to within the limits of jurisdictional wetlands in Sections 30 and 31 of Township 57 South, Range 39 East, and Section 36 of Township 57 South, Range 38 East by construction or operation of the transmission roadway or associated infrastructure. Of all potential designs considered by FPL, the most practicable one (given engineering constraints and costs) that would minimize wetland impacts and prevent sheet flow impacts shall be selected for final design, submittal and approval. DEP and Miami-Dade County shall verify that the proposed final design will not impact sheet flow in this slough and shall also verify that the final design is also in full compliance with all other requirements of this condition of certification and other applicable conditions of certification prior to commencement of any work within the transmission corridor including but not limited to clearing, earthwork or site preparation.

(Miami-Dade County Code Chapter 33, Chapter 24 Sections 24-7 and 24-48, Condition 17 of Miami-Dade County Resolution Z-56-07, CDMP Objective LU-3, Policies LU-3A and LU-3B and LU-3C, Objective CM-1, Policy CM-1B, and Objective CON-7, Policies CON-7C and CON-7J)

b. At least ninety (90) days prior to beginning construction of the transmission lines or any associated roadways including but not limited to preconstruction earthwork or clearing, FPL shall provide to Miami-Dade County PERA for review and approval, design details and information demonstrating preservation of sheet-flow in wetland slough areas consistent with the applicable substantive requirements of Miami-Dade County, including requirements of Miami-Dade County Resolution No. Z-56-07, the CDMP and the Miami-Dade County Code. FPL shall not commence work within the transmission line corridors until Miami-Dade County PERA and FDEP have determined that the design as well as construction techniques meet all requirements of this condition. *(Miami-Dade County Code Chapter 33, Condition 7 Miami-Dade County Resolution Z-56-07)*

CONDITIONS SECTION 3:
WESTERN CORRIDOR SEGMENT DESCRIPTIONS, IMPACTS, AND CONDITIONS

FPL's proposed western corridors have been divided into segments to organize the description of impacts and conditions based upon County Code provisions which apply to defined geographic locations and distinct CDMP text, policies, and CDMP land use map categories with different allowed uses. The Figure 3 below depicts relevant CDMP land uses and transmission line segments described in narrative form throughout this section of the report. From north to south the two proposed 500kV Western Preferred Corridor transmission lines would extend roughly 43.6 miles and the proposed 230 kV line would extend roughly 52 miles, according to Site Certification Application materials submitted to the County for this project. The subsections below include conditions designed to address potential impacts relevant to the Western Corridors including specific segments of the corridor.

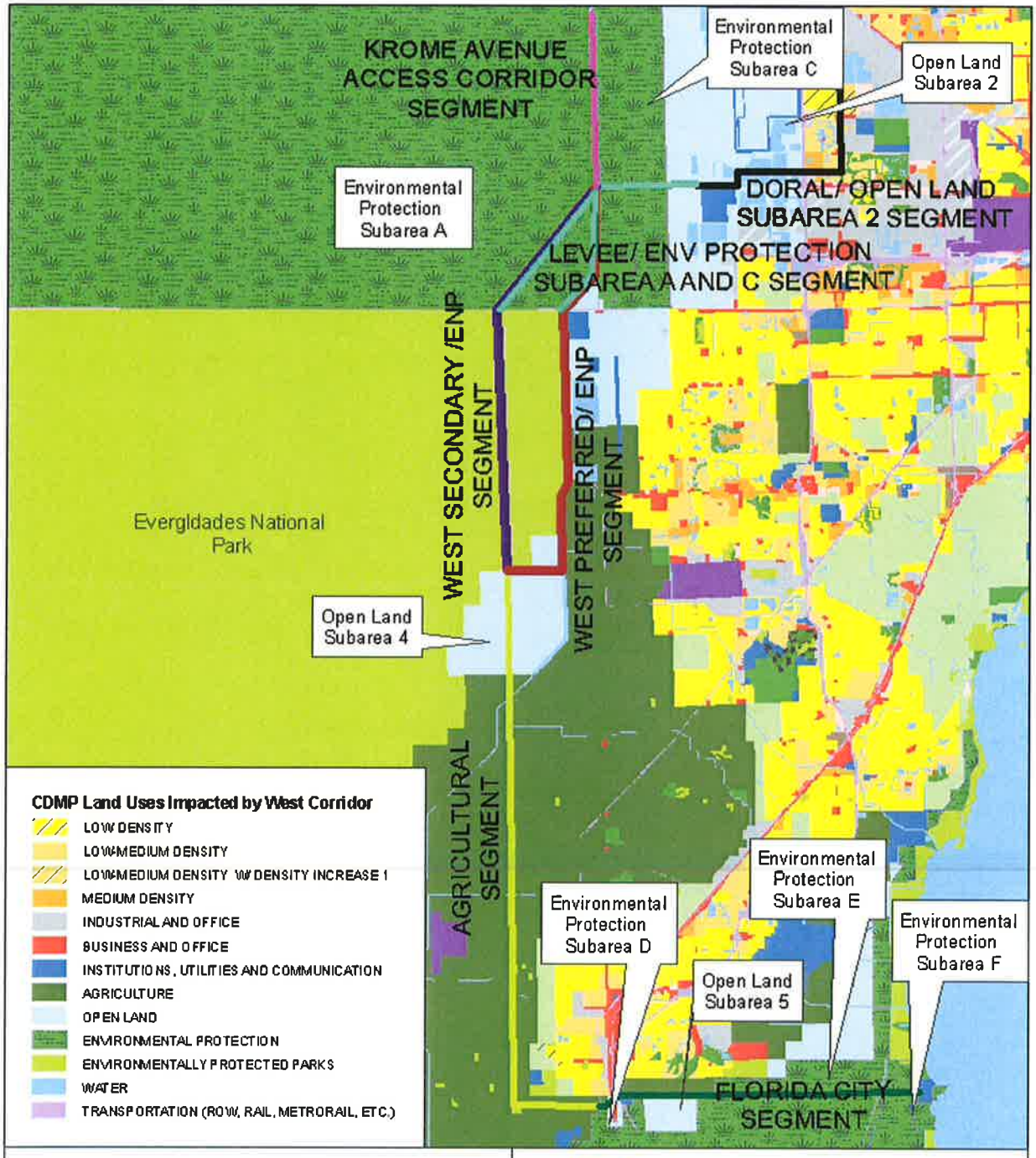


FIGURE 3

CDMP LAND USES INTERSECTED BY FPL PROPOSED WESTERN CORRIDOR SEGMENTS

Doral/ Open Land Subarea 2 Segment. This segment of the corridor originates at the Pennsucco Substation and terminates at the Levee Substation, intersecting unincorporated Miami-Dade County, Medley, and Doral. CDMP land use categories intersected include Industrial and Office, Low Medium Density Residential (with Density Increase), Medium Density Residential, Business and Office, Transportation, Parks and Recreation, and Open Land Subarea 2 (Northwest Wellfield).

The 230 kV line proposed for this segment would negatively impact the residential land use areas it intersects. The scale and height of the lines would impact the character, pedestrian oriented design, and aesthetics of these neighborhoods. Redevelopment opportunities would be affected depending on pole placement and transmission line alignments. The current and future planned pedestrian quality of these areas would also be impacted by the removal of vegetation and proposed maintenance of clearance zones impacting the potential for tree canopy relief for pedestrians and bicyclists, and exacerbating the heat island effect where tree canopies shade paved areas.

1. ***Conditions for residential areas within this segment:***
   a. Pole and transmission line placement shall not inhibit or significantly constrain future site development (including redevelopment and expansion of existing development). FPL shall submit plan and profile drawings for all transmission facilities to County and municipal planning departments at least six months prior to construction of transmission line infrastructure in this area. Aforementioned agencies will review pole and line locations for consistency with land use categories, zoning, and approved site plans for public and private development. *(Chapter 163, F.S., CDMP Land Use Element page I-26, "Residential Communities", Objective LU-4, Policy LU-4A, LU-4D))*

   b. Transmission line poles shall be neutral-colored concrete single-pole pylons directly embedded into the ground; no guy wires, anchors, metal bases, or other support structures will be permitted in residential areas within this segment. Pole designs shall be selected to ensure the smallest feasible pole base diameter. Any deviation from the use of aforementioned materials or design must be reviewed and approved for aesthetic impacts by the County. At least six months prior to construction, all pole specifications, including heights above 117', shall be submitted to the County for review and approval. Pole designs necessitating guide wires or cables or caissons (structures other than single monopoles) are also prohibited in all residential land use categories. *(CDMP Land Use Element, LU-4C, LU-4D, LU-4A, CDMP 'Residential Communities Guidelines for Urban Form', p. I-27 #9)*

   c. Transmission lines shall not be located in the ROW such that future development would cause residential, office or commercial structures to be located within unsafe distances of transmission lines, as established by FDEP EMF regulations. *(Chapter 62-814, F.A.C., CDMP Land Use Element Objective LU-4, Policy LU-4A, LU-4C)*

2. ***Tree canopy and streetscape beautification for all overhead transmission lines passing through or adjacent to residential properties, outside of established transmission line rights-of-way:*** *(CDMP Land Use Element, LU-4C, LU-4D, LU-4A, CDMP 'Residential Communities Guidelines for Urban Form', p. I-27 #9, (CDMP Residential Communities "Guidelines for Urban Form", p. I-27 #9; CDMP Transportation Element, Policy MT-8B and Policy TE-2C, County Code Sections 18A and 18B)*

a. If transmission corridors associated with Turkey Point Units 6 & 7 are certified by the State of Florida, transmission line pole line placement ***adjacent to residential properties, outside of established transmission line rights-of-way*** shall be designed to minimize impacts to and removal of street trees, landscaping, and pedestrian amenities including benches and bus shelters. Notwithstanding other conditions, engineering adjustments shall be utilized to minimize impacts to existing street trees and landscaping. Such engineering adjustments may include reduced span lengths or increased pole heights.

b. Licensee shall install vegetation as described herein to enhance the viewscape, comfort, and safety of transit users, motorists, pedestrians and bicyclists, and minimize impacts from transmission lines and poles, as prescribed by a Conceptual Enhancement Plan for New Transmission Line Corridors Along/Within Residential Properties for developed by Miami-Dade County and affected municipalities, in conjunction with FPL. The Conceptual Enhancement Plan for New Transmission Line Corridors Along/Within Residential Properties must be approved by the County, affected municipalities, and FDOT prior to certification of Turkey Point Units 6 & 7. Licensee is required to comply with zoning Resolution No. Z-56-07, Condition 13, which permits licensee to plant landscaping required by County Code at an off-site location. Plant material required through Condition 13 of zoning approval Z-56-07 may count toward compliance with the Conceptual US1 Enhancement Plan and subsequent detailed landscaping plan.

c. At least six months prior to any construction associated with Turkey Points 6 & 7 project, including associated facilities, or removal of any vegetation ***adjacent to residential properties, outside of established transmission line rights-of-way***, FPL shall submit a Detailed Landscaping Plan for review and approval as a post-certification submittal to Miami-Dade County, affected municipalities, and FDOT. The plan shall describe all proposed removals, replacements and relocation of vegetation and other public amenities and shall include proposed maintenance prescription plans for each span of the transmission line corridors ***adjacent to residential properties, outside of established transmission line rights-of-way***. The detailed landscaping plan shall comply with the Conceptual Enhancement Plan for New Transmission Line Corridors Along/Within Residential Properties, approved by the County prior to certification of Turkey Point Units 6 & 7. The Detailed Landscaping Plan must be approved by the County, affected municipalities, and FDOT prior to construction of Turkey Point Units 6 & 7. The pre-certification Conceptual Enhancement Plan for New Transmission Line Corridors Along/Within Residential Properties and the post-certification Detailed Landscaping Plan shall include the following items:

1) **Required planting quantities and types**. Existing street trees planted in public and private rights-of-way or on public and private property and existing lot trees planted on public and private property shall not *count* towards meeting this condition. Required vegetation applies to the Western Corridor ***adjacent to residential properties, outside of established transmission line rights-of-way***.

a) **Street trees**.

i. Street trees shall be planted at a maximum average spacing of thirty-five (35) feet on center.

ii. At time of planting, all street trees shall have a minimum clear trunk of four (4) feet, an overall height of twelve (12) feet and a minimum caliper of two (2) inches.

iii. All street trees must be canopy trees (no palms) and shall be planted to allow trees to reach full height and form.

b) **Trees/shrubs**.

i. At least five (5) "trees/shrubs" shall be planted per newly installed or reconstructed transmission line pole.

ii. At time of planting, all "trees/shrubs" shall have an overall height of eight (8) feet and a one and a half (1.5) inch caliper.

iii. "Trees/shrubs" shall be clustered in an informal planting arrangement near to and/or adjoining transmission line poles, where possible, together with "shrubs and shrub-like" and "sub-shrubs and groundcover" vegetation.

c) **Shrubs and shrub-like.**

i. Species in the "shrubs and shrub-like" category shall be provided at a minimum ratio of ten (10) per required "trees/shrubs" (50 per pole).

ii. At time of planting, all "shrubs and shrub-like" plantings shall have a minimum of eighteen (18) inches in height when measured immediately after planting.

d) **Sub-shrubs and ground cover.**

i. Species in the "sub-shrubs and groundcover" category shall be provided at a minimum ratio of twenty-five (25) per required "trees/shrubs" (125 per pole).

e) **Species requirements and specifications.**

i. Vegetation shall be selected from categories delineated in the Miami-Dade Landscape Manual. FPL shall select a variety of species from within each category mentioned herein to ensure that plantings are resilient to local climate conditions and achieve design goals of Miami-Dade County and affected municipalities for the US1 corridor and the Busway.

ii. Thirty (30) percent shall be native species; and

iii. Fifty (50) percent shall be low maintenance and drought tolerant; and

iv. Eighty (80) percent shall be listed in the Miami-Dade Landscape Manual, the Miami-Dade Street Tree Master Plan and/or the University of Florida's Low-Maintenance Landscape Plants for South Florida list;

v. Additional planting specifications regarding mulch and plant quality shall comply with relevant sections of the County Landscape Ordinance *(Miami-Dade Code of Ordinances, Section 18A-6(F), (G), (K)).*

2) **Planting locations.** All required vegetation shall be planted in shall be planted in accordance with the Conceptual Enhancement Plan and Detailed Landscaping Plan If obstructions to planting in public rights-of-way exist in any particular area, as determined by Miami-Dade County, the Florida Department of Transportation (FDOT), and/or the appropriate *authority* within the municipality, required vegetation shall be planted in medians, on private/public property (with the owners' consent) adjacent to or across from the affected public roadway side, or along adjacent private streets and/or easements. Placement of trees should prioritize shade for pedestrians and bicyclists, and then paved areas and must be planted to maximize aesthetic benefits. If required vegetation cannot be located on private or public land in accordance with this condition, the trees and other required vegetation shall be provided to the County for planting in the immediate vicinity.

3) **Planting design.** Plantings shall be provided to visually buffer transmission line poles ***adjacent to residential properties, outside of established transmission line rights-of-way***. Visual buffers shall minimize the vertical and linear impacts of the transmission facilities through informal type plantings and to enhance the urban environment. Earthen berms may be incorporated in the overall design scheme, provided necessary clearances required by the National Electrical Safety Code, ANSI Z133, as may be updated from time to time

4) **Vegetation maintenance agreement.** The Conceptual Enhancement Plan for New Transmission Line Corridors Along/Within Residential Properties and the post-certification detailed landscaping plan shall include a vegetation maintenance agreement to state that licensee shall plant, establish, and replace required vegetation to ensure survivorship as long as transmission line infrastructure is in place. Species requirements and quantities shall be described licensee's vegetation maintenance agreement.

a) Where applicable, FPL shall coordinate amongst municipalities, the County, and the FDOT to ensure that any existing maintenance agreements for vegetation in rights-of-way reflect new conditions associated with the certification of the Western Corridor.

d. Light fixtures. To help mitigate visual impacts FPL shall install light fixtures adjacent to adjacent or nearby sidewalks, or other pedestrian areas and should be "pedestrian scale" in height, design, and candle strength. Fixtures located along

neighborhood streets should be of a height, design, and candle strength that complement the urban environment while minimizing light pollution. Planned fixture designs and installation plans, including proposed locations, shall be submitted to Miami-Dade County for review and approval at least six months prior to construction.

3. ***Condition for Open Land Subarea 2 (Northwest Wellfield):*** With respect to Open Land Subarea 2, FPL has an established right-of-way in this area currently utilized for overhead electrical poles and lines. However, proposed expansion/modification of these facilities must be consistent with the CDMP. For this Subarea, the CDMP states, "Uses that could compromise groundwater quality shall not occur in this area." Since multiple public wells are located in this Subarea, and could be impacted by any spills or leaching of contaminants into the ground, the CDMP also requires land uses in this area to comply with the Northwest Wellfield Protection Plan, and relevant sections of Chapter 24 and Chapter 33 of the Miami-Dade County Code.

   a. Conditions in the section entitled "Conditions for Wellfield Protection Areas" apply to Open Land Subarea 2 (Northwest Wellfield).

Levee/ Environmental Protection Subarea A and C Segment. This segment originates at the Levee Substation, intersects Krome Avenue (177th Avenue), and terminates at SW 8th Street. Land use categories intersected by this segment include Open Land Subarea 2, Transportation, Environmental Protection Subarea C (Miami-Dade-Broward Levee Basin), and Environmental Protection Subarea A (State Water Conservation Area).

Impacts to the Environmental Protection lands (Subarea A and C) may not be compatible with the subareas' environment, objectives of the Comprehensive Everglades Restoration Plan (CERP), and may adversely affect long-term ecosystem viability, form and/or function. Environmental Protection Subarea C is a wetland area and all land use and site alteration proposals will be closely evaluated for conformity with all prevailing environmental regulations, including Chapter 24 restrictions related to protection of the Northwest Wellfield Protection Area, and objectives of CERP. Land uses in Water Conservation Area 3 are governed by the South Florida Water Management District.

4. ***Conditions to minimize impacts in Environmental Protection Subarea C* (Miami-Dade-Broward Levee Basin)**: *(CDMP Land Use Element, p. I-64- I-67).*

   a. For alignments within Environmental Protection Subarea C: FPL must submit a letter of approval from the South Florida Water Management District and submit plans to the County for PERA approval at least six months prior to any construction in this area. Non-compliance with this condition would necessitate alteration of the transmission line corridor. *(CDMP Land Use Element p. I-67)*

   b. FPL shall utilize adjacent existing public roads for access to the ROW for construction, operation, and/or maintenance purposes, wherever possible. *(CDMP Objective LU-3, Policy LU-3B)*

5. ***Conditions to minimize impacts in Environmental Protection Subarea A (State Water Conservation Area):*** *(CDMP Land Use Element, p. I-64- I-65).*

a. Transmission line uses within Environmental Protection Subarea A must be compatible CERP objectives, and shall not adversely affect long-term ecosystem viability, form or function. Additionally there shall not be impacts to South Florida Water Management District's programs or policies associated with Water Conservation Area 3.

b. For alignments within Environmental Protection Subarea A: The applicant must demonstrate through design features that the construction and long term establishment of transmission line poles, transmission lines, filled areas, and service roads will not adversely affect South Florida Water Management District projects and plans for this area. To demonstrate compliance with this condition, the applicant must submit a letter of approval from the South Florida Water Management District at least six months prior to any construction in this area and submit plans to the County for PERA approval. Non-compliance with this condition would necessitate alteration of the transmission line corridor.

c. FPL shall utilize adjacent existing public roads for access to the ROW for construction, operation, and/or maintenance purposes, wherever possible. *(CDMP Objective LU-3, Policy LU-3B)*

6. ***Conditions to maintain sheet-flow in specific wetland sloughs and within the Biscayne Bay Coastal Wetlands Area*** *(Miami-Dade County Resolution Z-56-07, Miami-Dade County Code Chapter 33 and Chapter 24 Sections 24-7 and 24-48, CDMP Objective LU-3, Policies LU-3A and LU-3B and LU-3C, Objective CM-1, Policy CM-1B, and Objective CON-7, Policies CON-7C and CON-7J)*

a. Sheet flow impacts, as a result of the proposed transmission line project, are prohibited to wetland sloughs important to the Everglades and Everglades restoration including Wink-eye slough, Taylor slough, and northeast Shark River slough. In addition, FPL shall not constrain the restoration and maintenance of these natural surface water flows pursuant to the CDMP in any areas where the transmission corridors would cross these natural features. Any construction work including preconstruction earthwork in these slough areas crossed by the FPL transmission line corridor shall maintain an equivalent level of sheet-flow to that which currently exists in these sloughs. FPL shall identify access and maintenance road design and construction techniques such as elevated roadways to bridge the slough features, stabilized at-grade roads or geoswales that would not extend above existing wetland grades in these slough areas, or other design alternatives that will maintain an equivalent level of sheet-flow to that which currently exists in these sloughs. These design and construction techniques shall also be sufficient to accommodate the increased flowage anticipated from planned restoration projects such as the 50-cfs pump proposed to be constructed linking the Florida City Canal with Wink Eye Slough under the CERP BBCW Alternative O project.

For Wink Eye Slough, the engineering design shall be based on the requirement that sheet flow shall not be impacted to within the limits of jurisdictional wetlands in Sections 30 and 31 of Township 57 South, Range 39 East, and Section 36 of Township 57 South, Range 38 East by construction or operation of the transmission roadway or associated infrastructure. Of all potential designs considered by FPL, the most practicable one (given engineering constraints and costs) that would minimize wetland

impacts and prevent sheet flow impacts shall be selected for final design, submittal and approval. DEP and Miami-Dade County shall verify that the proposed final design will not impact sheet flow in this slough and shall also verify that the final design is also in full compliance with all other requirements of this condition of certification and other applicable conditions of certification prior to commencement of any work within the transmission corridor including but not limited to clearing, earthwork or site preparation. *(County Code Section 24-48, CDMP Land Use Element Policy LU-3A, LU-3B)*

b. At least ninety (90) days prior to beginning construction of the transmission lines or any associated roadways including but not limited to preconstruction earthwork or clearing, FPL shall provide to Miami-Dade County PERA for review and approval, design details and information demonstrating preservation of sheet-flow in wetland slough areas consistent with the applicable substantive requirements of Miami-Dade County, including requirements of Miami-Dade County Resolution No. Z-56-07, the CDMP and the Miami-Dade County Code. FPL shall not commence work within the transmission line corridors until Miami-Dade County PERA and FDEP have determined that the design as well as construction techniques meet all requirements of this condition. *(Miami-Dade County Code Chapter 33, Condition 17 of Miami-Dade County Resolution Z-56-07)*

7. ***Other conditions***

a. Wetland conditions in the section entitled, *"Impacts and Conditions Applicable to Multiple Segments within Eastern and Western Corridors"* are applicable to wetlands within this segment.

Krome Avenue Access Corridor Segment. This segment intersects Environmental Protection Subarea A and C. Depending on the final alignment of the proposed corridor, the applicant shall comply with the conditions listed in the section above ("Levee/ Environmental Protection Subarea Segment") for Environmental Protection Subarea C, conditions listed below for Environmental Protection Subarea A (State Water Conservation Area), and the condition below related to greenway trail enhancement.

8. ***Other conditions***

a. Wetland conditions in the section entitled, *"Impacts and Conditions Applicable to Multiple Segments within Both Corridors"* are applicable to wetlands within this segment.

b. Conditions in the section, "*Condition to maintain sheet-flow in specific wetland sloughs and within the Biscayne Bay Coastal Wetlands Area"* apply to this area.

9. ***Conditions to minimize impacts in Environmental Protection Subarea A (State Water Conservation Area):*** *(CDMP Land Use Element, p. I-64- I-65).*

a. See conditions above for Environmental Protection Subarea A.

10. ***Condition to enhance greenway trails:***

a. FPL will work with the County to discuss the ability to co-locate public recreational trails and the provision for bicycle and pedestrian access or the allowance of other public uses within the proposed transmission line rights-of-way. A courtesy review of the proposed surface enhancement shall be provided to PROS staff, simultaneously

with PERA and SPEE staff. *(CDMP Land Use Element, Policy LU-1H, Miami-Dade County Open Space Master Plan)*

Impacts associated with Proposed Transmission Line Corridors within and adjacent to the Everglades National Park.

FPL proposes two potential transmission line corridors that would intersect Everglades National Park. FPL's "Western Secondary Corridor" enters ENP approximately 2.9 miles west of Krome Avenue at SW 8th Street and extends 7.4 miles south to SW 120th Street. This proposed alignment corresponds with lands owned by FPL. FPL's proposed "Western Preferred Corridor" runs along the eastern boundary of the ENP and this 930 foot corridor extends 330 feet into the park, with 600 feet overlapping the SFWMD L-31N canal and levee. As proposed, the transmission lines would be constructed within the portion of the western preferred corridor located within the current boundaries of the National Park if this corridor were to be approved, and access roadways are proposed to extend from the transmission lines eastward across additional wetlands owned by the South Florida Water Management District (SFWMD) located between the boundary of the Park and the L-31N canal which is also owned by the SFWMD.

The following paragraphs provide basis for the determination that transmission line uses are not consistent or compatible with the Everglades National Park. The Everglades National Park is a land area designated as an Environmentally Protected Park on the Miami-Dade County Land Use Plan map and in the adopted text of the CDMP Land Use Element. The CDMP states, "Land uses and activities which may occur in the National Parks and Big Cypress National Preserve, are outlined in management plans for those areas prepared and adopted by the National Park Service." (CDMP Land Use Element, p. I-52 and I-52.2) This text goes on to state, "Miami-Dade County supports the implementation of the National Park Service's management policies" and "Because of their wetlands value, areas within the boundaries of Everglades National Park that are not owned by the National Parks Service are subject to careful evaluation on a case-by-case basis...". Land use restrictions for private properties that fall within the Everglades National Park boundary are outlined by the Land Protection Plan (LPP) published by the United States Department of the Interior, National Park Service, in April 1991. The LPP specifies the following:

> *Section III. Land Ownership and Uses, B. Compatible and Incompatible Uses of Private Land: Major additions to existing developments or agricultural activities, as well as the construction of utility lines and roads, also would not be compatible... Basically, any activity that would alter the ecological values and integrity of the wildlife habitat, or the restored hydrology, would not be compatible.*

The federal 1991 East Everglades Land Protection Plan also explicitly states that the proposed transmission line land use is incompatible with the restoration purposes that justified federal acquisition of the East Everglades area. Additionally, the CDMP states that the County-adopted East Everglades Resource Management Program (Chapter 33-B, Code of Miami-Dade County) shall continue to govern private land use and site alteration for privately-owned areas within the Everglades National Park. (CDMP Land Use Element, p. I-52.2 The CDMP Policy LU-3C also provides direction as to how development in the East Everglades shall be managed.

> *Policy LU-3C. Development in the Big Cypress Area of Critical State Concern, and in the East Everglades as defined in Section 33B-13, Code of Miami-Dade County, Florida*

(1981) shall be limited to uses, designs, and management practices which are consistent with adopted State regulations and policies, the Comprehensive Everglades Restoration Plan, and related federal, State or County policies, plans or regulations as may be formulated, consistent with the goals, objectives and policies of this comprehensive plan. Miami-Dade County shall improve its enforcement of East Everglades development regulations and shall improve such regulations if necessary to enable effective enforcement."

As currently proposed, the transmission line corridor segments proposed to be located within the East Everglades Area of Critical Environmental Concern do not comply with the required Environmental Performance Standards contained within Section 33B-26 of the Code of Miami-Dade County, Florida. Code provisions are described in more detail in the section below entitled, "*Impacts to Conflict with County Code Section 33B, East Everglades Area of Critical Environmental Concern".*

Specific anticipated impacts to the ENP and adjacent publicly owned wetlands including wetlands owned by the SFWMD are described in paragraphs below.

The ecological resources of the East Everglades Addition to Everglades National Park are of extraordinary quality and this includes very high quality wetlands in either of the proposed corridors that would be impacted as a result of the project. Construction and operation of transmission infrastructure as proposed within and adjacent to Everglades National Park will significantly impact the Park's ecological, hydrologic, and aesthetic resources. There would be significant direct impacts including but not limited to hydrology, wetlands values, aesthetics, threatened and endangered species and their habitats, as well as associated impacts from noise and disruption of the viewshed for a considerable distance from the transmission corridor.

Everglades wetlands are of national significance and include large expanses of contiguous wetlands that experience uninterrupted sheet flow of surface water, they contain foraging and nesting areas critical to several listed species, and they provide breathtaking vistas of undisturbed Everglades wetlands. All of the wetlands proposed to be eliminated within Everglades National Park are also located within the Miami-Dade County-designated East Everglades Area of Critical Environmental Concern, as are additional wetlands adjacent to the National Park that would also be impacted if transmission lines were constructed in this area. This designation by Miami-Dade County was made due to the significant environmental and natural resource values provided which were found by the Miami-Dade County Board of County Commissioners to be inextricably related to the health, safety and welfare of the present and future inhabitants of, and visitors to, Miami-Dade County.

Information provided in the application indicates that impacts associated with construction of the West Preferred Corridor within the East Everglades Area of Critical Environmental Concern would include direct filling impacts to as much as 117.96 acres of wetlands. This includes elimination of wetlands in Everglades National Park (ENP) associated with the construction of transmission tower pads and associated infrastructure for the FPL-designated West Preferred Corridor. The projected wetland acreage impacts included in the application for the portion of segment 3 located within the East Everglades Area of Critical Environmental Concern includes: segment 3A -15.33 acres and segment 3B - 102.63 acres. These amounts include impacts to SFWMD owned wetlands resulting from FPL's proposed use of Levee L-31N for access to the proposed transmission line facilities. Analysis of these project related impacts indicates a clear

opportunity for further reductions in project related impacts. Therefore the project as proposed does not adequately avoid and minimize impacts in the East Everglades area, including impacts to wetlands and important habitat for rare, threatened, and endangered species as required pursuant to County Code. Section 24-48.4 of the Miami-Dade County Code requires projects to avoid and minimize project related impacts, and maximize preservation of natural resources. The project as proposed has the potential to adversely impact sheet flow in significant wetland areas and may constrain Comprehensive Everglades Restoration or other regional restoration projects. Consistency with CERP is required pursuant to the CDMP and Chapter 24 of the Code of Miami-Dade County, Florida. In addition, FPL's application has not demonstrated consistency with Policy CON-7C of the CDMP which requires support for restoration and maintenance of surface water flow through wetland systems of the Shark River Slough, Everglades National Park, and the saline wetlands of southeastern Miami-Dade County.

FPL proposes to exchange land it owns within the west secondary corridor of ENP for a linear strip along the Park's eastern boundary in order to construct facilities within the west preferred corridor. This land exchange is subject to a federal review and approval and it is unknown whether this federal approval will be obtained. The land exchange would significantly impact the national park due to the removal of nearly 260 acres of high-quality wetlands from within the current boundaries of ENP. These 260 acres would no longer be under direct federal management and protection because as part of the land exchange, the boundary of ENP would be relocated to remove the eastern strip from the national park.

Both the Western Preferred and Western Secondary transmission line corridors would result in significant negative avian impacts, including state and federally listed threatened and endangered bird species. The County has considered information on avian impacts provided by the U.S. Fish and Wildlife Service, the Department of Interior (ENP), and FPL consultants. The U.S. Fish and Wildlife Service has stated that the number of birds nationwide that are killed annually is conservatively estimated at tens of thousands to as high as 174 million deaths due to collision with transmission and distribution lines. *(United States Department of the Interior, U.S. Fish and Wildlife Service, Division of Migratory Bird Management, "Migratory Bird Mortality, Many Human-Caused Threats Afflict our Bird Populations". January 2002.)*

Scientific literature and information provided by FPL indicate that the presence of electric power lines, whether for transmission or distribution, raises the risk of collision and electrocution for a wide variety of avian species, including state and federally listed threatened and endangered species. Scientific literature reports that the risk is particularly elevated where power lines cross wetlands and/or avian travel corridors. Much of the proposed West Corridor and some portions of the proposed East Corridor, as currently described in the SCA and supplementary documentation, may elevate the risk of avian collision to an unacceptable level because the transmission lines are proposed to be located in wetlands, near bird rookeries, in habitats utilized by state and federally listed threatened and endangered avian species, and they cross avian travel corridors.

Both the proposed West Preferred and proposed West Secondary Corridors are located within a mile of known wood stork colonies located along or in the vicinity of Tamiami Trail, and in Water Conservation Area 3B. Habitat management guidelines for the wood stork that have been adopted by the US Fish & Wildlife Service include recommendations that power lines not be built within one mile of a known wood stork colony, in part to protect fledgling and juvenile birds that are inexperienced at flying. The Ecological Risk Assessment of Potential Impacts of Turkey

Point Units 6 & 7 West Corridor Transmission Lines on Wood Storks by Pandion Systems (provided by FPL in the 5th Completeness Response) states that both of these proposed corridors pose an elevated risk of mortality to wood storks due to collision. The avian impacts report recently completed by Everglades National Park (Evaluation of potential impacts of proposed Florida Power & Light Company transmission power lines on avian resources in Everglades National Park, Everglades National Park 2010) states that nesting colonial wading birds adjacent to the West Preferred Corridor, including wood storks, are at the greatest risk of injury and mortality from the power lines as compared to all other bird groups. Additionally, habitat management guidelines for the wood stork that have been adopted by the US Fish & Wildlife Service state that disturbances such as removal of vegetation and construction of power lines that occur within 1500 feet from a colony edge are likely to be detrimental to the survival of the colony. Construction and operation of the proposed transmission line infrastructure in this corridor is likely to impact the success of these colonies. In addition, based on the aforementioned data and information, wood stork mortality will occur as a result of the project if transmission lines are constructed in this area as proposed and habitat for rare, threatened and endangered species will be degraded and destroyed.

Much of the proposed West Corridor is located in wetlands that are utilized for nesting and/or foraging by a variety of water-dependent birds, including but not limited to wading birds and waterfowl. A number of the water-dependent birds, such as the wood stork and the Everglades snail kite, are listed at either the state or federal levels as Endangered or Threatened. Populations of the Everglades snail kite, in particular, have fallen to critically low levels, with juvenile survival being the key to population recovery. The transmission infrastructure, as proposed, would involve the filling of wetlands and installation of infrastructure that will permanently degrade a significant amount of this habitat (the habitat under the wires) and permanently destroy additional habitat (the habitat that is lost to filling of wetlands), thereby disrupting the local hydrology and impacting local feeding conditions for water-dependent birds. The portion of the proposed West Corridor that is within the East Everglades Area of Critical Concern also passes through or near well-documented nesting habitat for both the wood stork and the Everglades snail kite. FPL acknowledged in its Third Completeness Response (SFWMD(3)-03) that the proposed West Corridor passes near 4 wood stork rookeries located along or near Tamiami Trail or in Water Conservation Area 3B and both the West Preferred and West Secondary corridors cross the Secondary Management Zone for at least one of them. PERA also notes that at least two snail kite nests were confirmed in this area in 2010. The US Fish and Wildlife Service indicated, in a preliminary assessment of the proposed West Preferred transmission line corridor provided to Everglades National Park on August 12, 2010, that "the proposed corridor will result in eliminating or altering suitable foraging habitat within the core foraging area (CFA) of at least five active wood stork colonies". The US Fish and Wildlife Service also indicated in the same assessment that the "proposed corridor is likely to affect the Everglades snail kite by eliminating or altering existing nesting and foraging habitat." Transmission line activities that would adversely affect habitat that is critical to federal or State designated, endangered or threatened species, are prohibited unless FPL sufficiently demonstrates there is a public necessity and there are no possible alternative sites where the activity(ies) can occur. (CDMP Policy CON-9A). The County CDMP states that 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 (CON-9B). The CDMP also specifies that rookeries and nesting sites used by these designated species shall not be moved or destroyed (CON-9C).

As noted above, transmission infrastructure in the proposed West transmission corridors would, as conceptually designed, disrupt scenic views across Miami-Dade County's local, state, and federally-protected conservation lands. Public enjoyment of conservation lands includes aesthetic characteristics of those lands. The proposed East and West transmission corridors pass through, adjacent to, or near lands designated as conservation lands, including but not limited to Miami-Dade County's Environmentally Endangered Lands and Everglades and Biscayne National Parks. The viewshed is likely to be dominated by the transmission infrastructure for a significant distance from the actual transmission corridor because of the number of lines proposed and the size of the transmission infrastructure proposed to support these lines. This is of particular concern in the East Everglades area of Everglades National Park, where no transmission lines currently exist.

Impacts to Conflict with County Code Section 33B, East Everglades Area of Critical Environmental Concern

This section of the report describes how the provisions of Section 33B and Chapter 24 of the County Code reflect and support protections for the Everglades National Park in the adopted CDMP.

As currently proposed, the transmission line corridor segments proposed to be located within the East Everglades Area of Critical Environmental Concern do not comply with the required Environmental Performance Standards contained within Section 33B-26 of the Code of Miami-Dade County, Florida. Impacts prohibited by the Code are summarized below:

- Road construction is prohibited in Management Areas 2A and 2B within the East Everglades Area of Critical Environmental Concern. *(County Code Chapter 33B, CDMP Policy LU-3C).*

- Within Management Areas 1, 3A, 3B, and 3C of the East Everglades Area of Critical Environmental Concern (includes Open Land Subarea 4), roads must be designed so that they will not interrupt or divert natural sheet flow. Elevated roads must be sufficiently bridged and culverted to allow the passage of high water flows without causing significant backwater conditions. The roads must also be constructed in accordance with the Miami-Dade County Public Works Manual. *(County Code Chapter 33B(c)(2))*

- Tree islands characterized by native vegetation shall be preserved in all management areas within the East Everglades Area of Critical Concern, including agricultural areas. *(County Code Section 33B-26(d))*

- Excavation associated with transmission line construction and expansion is prohibited within the East Everglades Area of Critical Environmental Concern. (*County Code Section 33B-26(b)).*

- In Management Areas 1 and 3B, fill is limited to one-half (1/2) acre. In Management Areas 2A, 2B, 3A and 3C fill shall not exceed one-half acre.

Chapter 24 of the Code of Miami-Dade County requires projects to maximize preservation of existing natural resources including protection of important wetland ecological resources and endangered species habitat, and also includes consideration of aesthetic impacts and impacts to rare, threatened and endangered species when determining whether proposed work can be authorized. In addition, Section 33B-28 of the Code of Miami-Dade County specifically requires avoidance and minimization of adverse effects, including visual impacts, within the East Everglades Area of Critical Environmental Concern.

Impacts within the County's designated East Everglades Area of Critical Environmental Concern and Everglades National Park as proposed are not consistent with Chapters 24 and 33 of the Code of Miami-Dade County. In addition, degradation and destruction of wetlands designated as Future Wetlands in the Land Use element and endangered species habitat would result which is inconsistent with CDMP Objective LU-3, Policies LU-3A and LU-3C, Objective CON-7, Policy CON-7A, Objective CON-9, Policies CON-9A, CON-9B, CON-9C.

Section 24-48.4 of the Miami-Dade County Code requires that the transmission project be designed to maximize the preservation of existing natural resources by the following methods, listed below in the order of priority:

(1) avoiding the impact altogether by not taking a certain action or parts of an action;

(2) minimizing impacts by limiting the degree or magnitude of the action or its implementation;

(3) rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

(4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;

(5) compensating for the impact by replacing or providing substitute resources or environments.

FPL's mitigation plan and proposed transmission corridors do not comply with Section 24-48.4 of the Code of Miami-Dade County because both of the proposed alignments involving wetland impacts within and adjacent to the current boundaries of Everglades National Park (ENP) are avoidable and because the project would not maximize the preservation of existing natural resources which are of high quality and of local, state and national significance and because the proposed work does not meet the environmental and other requirements of Chapter 33B, which is required under Chapter 24. In addition, the proposed mitigation for these wetland impacts at Hole in the Donut is not consistent with the applicable state and county requirements with respect to the proposed ratios and Miami-Dade County has advised FPL and DEP of this in completeness submittals relating to deficiencies in the overall mitigation plan. The project is also inconsistent with the aforementioned Miami-Dade County listed species habitat protection requirements because one or more alternatives exist to avoid these listed species impacts and because listed species habitats would be degraded in some areas and destroyed in others.

Based on the above, Miami-Dade County finds the portions of the proposed transmission corridors located within the current boundaries of Everglades National Park to be

inconsistent with the County Code and CDMP. As previously mentioned, although Miami-Dade County did not propose an alternate corridor under the Power Plant Siting Act Process, it is recognized that less impacting alternative alignments exist west of the UDB that would be more consistent or fully consistent with applicable County Code and CDMP requirements and would entirely avoid the ENP and all Management Areas of the East Everglades Area of Critical Environmental Concern.

The portion of the project proposed in the East Everglades Area of Critical Environmental Concern shall be relocated outside the East Everglades or not be constructed unless the project is modified to meet all requirements of County Code Chapter 24 and 33B including but not limited to the Section 33B-28 and provided the portions of the corridor are built with roadless construction techniques and without fill pads for the transmission lines. Furthermore, additional modification of project design in this area would be required to avoid all permanent impacts to rare, threatened and endangered species by techniques such as undergrounding, and FPL shall be responsible for the cost associated with undergrounding transmission lines.

Agricultural Segment. This segment begins at SW 120th Street and extends south through Open Land Subarea 4 (East Everglades Residential Areas), Agricultural Subarea 1 (East Everglades Agricultural Area), then land designated Agriculture, then Environmentally Protected Parks (Kings Highway Pineland and Sunny Palms Pineland EEL property) and finally turns east near SW 364th Street. FPL has existing transmission facilities within this Segment, however expansions and modifications must be consistent with the CDMP. Due to anticipated impacts to agricultural properties and businesses that may result from proposed Western Corridor construction, conditions are provided below to address these impacts for land designated Agriculture and Agricultural Subarea 1. Compatible and necessary utility facilities may be approved in Open Land Subarea 4 within this Segment, however impacts to residential uses in this area must be addressed.

11. ***Conditions for new transmission line alignments passing through or adjacent to properties with residential uses within Open Land Subarea 4 (outside of established transmission line rights-of-way):*** *(CDMP Land Use Element Objective LU-4, Policy LU-4A, LU-4D)*
    a. Where the proposed transmission line corridor intersects land designated Open Land Subarea 4 on the CDMP Land Use Plan map, conditions in the section entitled, "*Tree canopy and streetscape beautification for all overhead transmission lines passing through or adjacent to residential properties, outside of established transmission line rights-of-way"* also apply to applicable portions of this segment.

12. ***Condition for land designated Agriculture:***
    a. Where the proposed transmission line corridor intersects land designated Agriculture on the CDMP Land Use Plan map, conditions in the section entitled, "*Tree canopy and streetscape beautification for all overhead transmission lines passing through or adjacent to residential properties, outside of established transmission line rights-of-way"* also apply to applicable portions of this segment.

13. ***Condition for alignments intersecting Agricultural Subarea 1:***
    a. Where the transmission line corridor passes through or adjacent to properties with residential uses in land designated Agricultural Subarea 1 on the CDMP Land Use Plan

map, conditions in the section entitled, "*Tree canopy and streetscape beautification for all overhead transmission lines passing through or adjacent to residential properties, outside of established transmission line rights-of-way"* also apply to applicable portions of this segment.

For lands designated Environmentally Protected Parks all portions of this land shall be managed in a manner consistent with the goals, objectives, and policies for development of the applicable environmental resources or protection area. For lands that are owned or managed by the Miami-Dade County Environmentally Endangered Lands (EEL) Program, these lands shall be managed and preserved according to the EEL ordinance as adopted in the County Code.

14. ***Conditions for alignments intersecting or in the vicinity of Environmentally Protected Parks, as well as lands owned or managed by Miami-Dade County Environmentally Endangered Lands (EEL) program:***

    a. Conditions under the section entitled, "*Conditions for Miami-Dade County Environmentally Endangered Lands (EEL)"* apply to this area.

15. ***Conditions for Kings Highway Natural Forest Community.*** The proposed transmission corridor in this segment will impact a County designated Natural Forest Community (NFC) on the Kings Highway NFC parcel (property folio number 30-7810-000-0140) that contains rare, threatened and endangered plant species and provides habitat for federal or State designated, endangered or threatened animals. This pine rockland forest is known as the Kings Highway NFC and the current boundaries of this NFC do not extend onto any other privately owned parcels. The proposed transmission corridor infrastructure will also impact associated geologic features (limerock substrate) on this site; the threatened and endangered plants on this site depend on this limerock substrate. Prescribed burning and exotic vegetation management are required to maintain this pine rockland plant community, including specific rare, threatened and endangered species. Installation of transmission infrastructure on this site could preclude the use of fire to maintain this protected plant community unless the infrastructure is properly designed and the NFC is managed and maintained on a regular basis. Chapter 24 of the Miami-Dade Code requires NFC impacts to be avoided/minimized and also requires preservation of the remaining NFC. *(Supporting Miami-Dade County Code Chapter 33, Chapter 18, Chapter 24 Sections 24-7, 24-48 and 24-49, Condition 20 of Miami-Dade County Resolution Z-56-07, CDMP objectives and policies include Objective CON-8 and Policy CON-8D and CON-8E.)*

    a. Commencement of Work in Kings Highway NFC. FPL shall not commence work within the Kings Highway NFC FPL easement until FPL demonstrates compliance with all applicable conditions with its proposed design as well as construction techniques. No vegetation or substrate within the transmission line corridor will be removed, transplanted, or damaged by FPL, their agents or contractors until FPL has demonstrated compliance with applicable conditions relating to work in the Kings Highway NFC.

    b. Acquisition of Additional Easement for Mid Span 230 kV Pole. Extending the boundary of the proposed transmission corridor westward beyond the existing 330 foot wide easement will require the acquisition of additional easement/right-of-way for access

to the proposed midspan unguyed 230 kV pole in order to provide construction access as proposed by FPL to minimize NFC impacts. Therefore, if the corridor is certified, the requisite property interest necessary shall be obtained in the area located between the west boundary of the existing easement on the Kings Highway NFC parcel and the western boundary of the proposed transmission corridor. This alignment is a quarter section line and FPL shall therefore also acquire and dedicate right of way in this area if Miami-Dade County determines such is appropriate. This added easement/right-of-way shall be used to also access all other NFC areas necessary for line and pole installation and maintenance and access elsewhere through the NFC shall be prohibited.

c. **Avoidance and Minimization of Impacts and Preservation of Pine Rockland NFC -** At least ninety (90) days prior to commencement of work including site preparation or vegetation removal within the transmission line corridor located on the Kings Highway NFC FPL easements, FPL shall submit to FDEP and MDC PERA construction plans that demonstrate compliance with the applicable conditions of certification and the substantive requirements of MDC, including requirements of Z-56-07, the CDMP and the MDC Code including but not limited to the following:

1) Except for access to the new poles, construction access and maintenance access shall be located outside the NFC. The proposed access for the midspan unguyed 230kV pole shall also be utilized for access to all other necessary pole installations and maintenance.

2) All avoidable impacts to this NFC shall be eliminated and all unavoidable impacts shall be minimized to the greatest extent practicable. In addition, modification of the project shall be required such that not more than one set of supporting structures is required within the NFC.

3) Work associated with installation of poles and transmission lines shall be performed to minimize clearing and substrate disturbance. Only the minimum amount of clearing and grubbing necessary to achieve installation of the poles and lines is permitted in order facilitate regeneration of pine rockland plant species and future management, in accordance with the accepted pine rockland management practices mentioned below.

4) The total of all temporary clearing as well as permanent pre-emption or impact to NFC within the easement shall be minimized to the greatest practicable extent. The permanent removal of NFC for the poles and anchors is acknowledged and authorized not to exceed 1,200 square feet and all other temporary impacts to NFC associated with construction shall be restored.

5) In order to minimize impacts to pine rockland substrate, staging of equipment, materials or debris within the NFC shall be prohibited at all times. All staging shall occur outside of NFC boundaries.

6) The remaining areas of the easement not pre-empted by the transmission line support structure including all temporarily impacted areas, shall be managed and preserved in accordance with accepted pine rockland land management practices and pursuant to the preservation requirements of Section 24-

49.2(I)(1)(b) Miami-Dade County Code. This shall include but not be limited to herbiciding of exotic vegetation and periodic burns as required under these conditions of certification. Non target damage to rare, threatened or endangered plant species as a result of herbicide application is prohibited.

7) With the exception of areas where pole and guywire installation is to occur, the complete removal of Dade County slash pines and other native trees is prohibited. Outside of areas where complete removal is authorized, only trimming, pruning or topping of pines and other native trees, to obtain the minimum clearance necessary, is authorized. All line clearing work shall be done in accordance with the most recent American National Standards (ANSI) A-300 Standard Practices of Tree Care Operations. Trimming or topping of slash pines and other native trees shall be performed only for purposes of maintaining adequate line clearance and performed in a timely manner such that the required work does not result in the effective destruction of native trees to the extent practicable. All exotic vegetation requiring maintenance clearing shall be completely removed by cutting at the lowest point possible and by treating cut stumps immediately with appropriate herbicide. Resprouts shall be treated within thirty (30) days. Dead pine snags shall be left in place to provide habitat for cavity nesting birds and other wildlife. All vegetative material that is cut, trimmed, topped or otherwise removed shall be taken off site and disposed of properly in accordance with all applicable local and state solid waste disposal regulations. The placement, staging or storage of mulched material is prohibited within the NFC.

d. **Protection of Vegetation and Substrate**. FPL shall maintain the substrate and understory within the Kings Highway NFC to the greatest extent practicable, utilizing mats and rubber tired vehicles for construction access, as wells as during line and pole installation. Damage as well as permanent alteration or filling of the substrate is prohibited within the NFC for access purposes. Within FPL's transmission line easement, all trees and NFC understory vegetation outside of those areas where work is to be undertaken are to remain and be protected by barriers throughout the construction phase of the project. No work (including but not limited to land clearing or grading) may begin within designated NFC until FPL demonstrates compliance with this condition and PERA inspections are conducted to verify fencing pursuant to Section 24-49.5, Miami-Dade County Code. (PERA inspections require two weeks notice.)

e. **NFC Restoration within FPL's Easement**. All NFC areas within the easement that are disturbed through the installation of transmission line infrastructure shall be restored as soon as practicable and within sixty (60) days of completion of that portion of the construction work located within the Kings Highway NFC. Restoration shall include, but not be limited to, substrate restoration including but not limited to the removal of spoil material as well as removal and subsequent control of all exotic plants. Damage or disturbance to NFC substrate outside of the FPL easement is also prohibited and any unauthorized work or damage to NFC outside the easement shall be restored. Restoration shall also be required for any damage or disturbance of NFC within the easement that is not in accordance with the conditions of certification or the substantive requirements of MDC. FDEP and MDC PERA shall be notified when restoration is complete so inspections can be conducted to verify compliance.

f. **NFC Restoration Beyond FPL's Easement.** Impacts shall be prohibited to Kings Highway NFC adjacent to the FPL easement and FPL shall restore the NFC damaged by the portion of the access road that extends beyond the easement area as well as any additional portions of this road that are no longer needed based on this project. This restoration work shall be completed as soon as practicable and within sixty (60) days of completion of that portion of the construction work located within the Kings Highway NFC easement. Restoration shall include, but not be limited to, the removal of spoil material if determined appropriate by FDEP or MDC PERA and removal and subsequent control of all exotic plants.

g. **Prescribed Burns**. FPL shall design and install the transmission infrastructure to allow for prescribed burns within the FPL ROW in order to maintain the Kings Highway NFC. Prior to construction, FPL shall have a prescribed burn performed on the FPL easement land and shall herbicide all exotic vegetation that regrows within sixty (60) days of the burn. Following construction, FPL shall have performed prescribed maintenance burns within the FPL easement on appropriate intervals with the approval of the Florida Division of Forestry (DOF) as applicable, upon notice and coordination. The burning intervals shall not be less frequent than once every five (5) years.

h. **Removal of Exotic Vegetation**. No construction work (including preconstruction clearing or other site preparation work) shall occur on the Kings Highway NFC prior to the eradication of all MDC Code prohibited species from the portion of the NFC located within the FPL easement. Subsequent to initial eradication, FPL shall perform exotic vegetation control for all invasive species within the FPL easement portion of the Kings Highway NFC on a periodic basis. All remaining NFC within the FPL easement shall be regularly managed to preserve the pine rockland habitat and all maintenance activities shall be performed in a manner that prevents further damage to all pine rockland substrate at the site. All exotic vegetation eradication and maintenance work shall be performed by hand and no heavy equipment shall be allowed within the easement to perform this exotic vegetation work without prior agency approval. Prohibited species under MDC Code and the CDMP are listed in Attachment 2.

16. ***Other conditions:***

a. Conditions in the section, "*Condition to maintain sheet-flow in specific wetland sloughs and within the Biscayne Bay Coastal Wetlands Area*" are applicable to any slough or slough headwaters in this area.

Florida City Segment. As this southernmost segment of the Western Corridor extends eastward (east of SW 158th Avenue, generally parallel to SW 359th street) it intersects Environmental Protection Subarea D (Canal-111 Wetlands), Open Land Subarea 5 (South Miami-Dade), Business and Office, Agriculture, Environmental Protection Subarea E (Southeast Wetlands), and Environmental Protection Subarea F (Coastal Wetlands and Hammocks). This segment passes through Unincorporated Miami-Dade County and the City of Florida City.

Environmental Protection Subarea D is a wetlands area where use approvals must demonstrate consistency with the CDMP, CERP objectives, and all prevailing environmental regulations. FPL has an existing utility line and access road within this Subarea, however County CDMP policy specifically states, ". . . no improvements or expansions involving further filling or drainage of

wetlands should be permitted." Impacts to Environmental Protection Subareas E and F have been discussed previously in this report.

17. ***Condition for alignments intersecting Environmental Protection Subareas D, E and F:***

a. FPL must design transmission and access road structures for minimal ground coverage and minimal impact on hydrology, ecosystems, and habitats throughout the Subarea. Consistency with all wetlands restoration plans for the general area, including CERP, applicable environmental regulations, and policies of the CDMP will be required through reviews by County staff and must be demonstrated within one year of certification of the transmission corridor(s). Expansions to existing uses must demonstrate through design and engineering that biologic and hydrologic functions inherent to these areas will be preserved. *(Miami-Dade County Resolution Z-56-07, Miami-Dade County Code Chapter 33 and Chapter 24 Sections 24-7 and 24-48, CDMP Objective LU-3, Policies LU-3A and LU-3B, Objective CM-1, Policy CM-1B, and Objective CON-7, Policies CON-7C and CON-7J, CDMP text, Land Use Element p. I-64, I-65, and I-68)*

b. FPL shall construct improvements to sheet flow across all portions of the transmission corridors located within the CERP Biscayne Bay Coastal Wetlands Project Study Boundaries where construction or upgrade of transmission infrastructure is necessary. Complete and detailed engineering plans and calculations describing these improvements shall be submitted to PERA and the SFWMD for review and approval within one year of certification of the transmission corridor(s) or at least six months prior to any construction. FPL shall modify the plans as necessary and in a timely manner in order to obtain PERA and SFWMD approval. All sheet flow improvements shall be constructed in accordance with PERA specified time frames (Condition 17 of Miami-Dade County Resolution No. Z-56-07) once the plans have been approved. *(Miami-Dade County Code Chapter 33, Condition 17 of Miami-Dade County Resolution Z-56-07)*

c. FPL shall utilize adjacent existing public roads for access to the ROW for construction, operation, and/or maintenance purposes, wherever possible. *(CDMP Objective LU-3, Policy LU-3B)*

18. ***Other conditions:***

a. Conditions in the section, "*Condition to maintain sheet-flow in specific wetland sloughs and within the Biscayne Bay Coastal Wetlands Area"* are applicable to this area.

b. Conditions previously provided in this report apply to this segment of the corridor where they impact land designated Agriculture, *residential* areas, and wetlands.

RESPECTFULLY SUBMITTED

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by _____U.S. mail _____facsimile __**XX**__electronic mail **ONLY** this _17th___ day of January, 2012, to:

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Miami-Dade County Transmission Line Agency Report

ATTACHMENTS

ATTACHMENT 1
FPL Transmission Line Corridor Mitigation (Minimum HID Ratios)

West Preferred Corridor			
SEGMENT	**MAP #**	**SPECIFIC AREA**	**RATIO**
5B	27	Between Pensuco substation and approximately NW 106 St.	1.5 to 1
5B	26	Along east side of NW 107 Ave. from just north of NW 90 St. to approximately NW 66 St.	2 to 1
5B	25	Along NW 107 Ave. from NW 66 St. south to NW 50 St.	1.5 to 1
5A	25	Along South side of NW 50 St. from NW 107 Ave. to Turnpike	1.5 to 1
5A	25	Along south side of NW 50 St. from Turnpike west to NW 122 Ave.	2.5 to 1
5A	24	Along south side of NW 50 St. from NW 122 Ave. to NW 137 Ave. And along NW 137 Ave. from NW 50 St. to NW 41 St.	2 to 1
5A	24	Along north side of NW 41 St. from NW 137 Ave. west to NW 147 Ave.	2 to 1
5A	23	Small area east of NW 147 Ave.	2 to 1
4	23	L-shaped mitigation area along the north and west sides of substation & adjacent wetland to the east of the substation	2.5 to 1
4	23	Exotics dominated wetland (Melaleuca) between Levee substation and the Dade-Broward Levee	2 to 1
4	23	West of Dade-Broward Levee	2 to 1
4	22	Open area of clump east of Krome Ave.	4 to 1
3C*	22	Along west side of Krome Ave. southward of theoretical NW 41 St.	3.5 to 1
3C*	21	Along west side of Krome Ave.	3.5 to 1
3C*	20	Along west side of Krome Ave. southward to SW 8 St.	3.5 to 1
3B	20	Along west side of Krome Ave. south of SW 8 St. along west side of L-31N Canal.	**
3B	19	Along west side of L-31N Canal	**
3B	18	Along west side of L-31N Canal	**
3B	17	Along west side of L-31N Canal	**
3B	16	Along west side of L-31N Canal, northern portion of segment	3.5 to 1
3B	16	Along west side of L-31N Canal (wetlands previously farmed, now fallow)	1.5 to 1
3A	16	Along north side of SW 120 St. from L-31N canal west to SW 197 Ave. (wetlands previously farmed, now fallow)	1.5 to 1
3A	15/28	Along north side of SW 120 St. from SW 197 Ave. to SW 204 Ave, open prairie	3.5 to 1
2	15	Along east side of SW 204 Ave. from SW 120 St. to about SW 128 St. (in wetland areas, if any)	1.5 to 1

ATTACHMENT 1
FPL Transmission Line Corridor Mitigation (Minimum HID Ratios)

SEGMENT	MAP #	SPECIFIC AREA	RATIO
2	14	South of SW 128 St. to SW 152 Ave. (in wetland areas, if any)	1.5 to 1
2	13	South of SW 152 St. to L-31N Canal (in active farm fields that contain wetlands)	1.5 to 1
2	12	From L-31N south to about SW 204 St. (in active farm fields that contain wetlands)	1.5 to 1
2	11	From about SW 204 St. south to about SW 234 St. (in active farm fields that contain wetlands)	1.5 to 1
2	10	From about SW 234 St. south to about SW 262 St. (in active farm fields that contain wetlands)	1.5 to 1
2	9	From about SW 262 St. south to about SW 290 St. (in active farm fields that contain wetlands)	1.5 to 1
2	8	From about SW 290 St. to south to about SW 320 St. (in active farm fields that contain wetlands)	1.5 to 1
2	7	From about SW 320 St. south to about SW 344 St. (in active farm fields that contain wetlands)	1.5 to 1
2	6	From about SW 344 St. south to about SW 364 St. (in active farm fields that contain wetlands)	1.5 to 1
2	6	From about SW 204 Ave. east to about SW 187 Ave. (in wetland areas, if any)	1.5 to 1
2	5	From about SW 187 Ave. to diagonal road just west of 182 Ave. (in active farm fields that contain wetlands)	1.5 to 1
2	5	From diagonal road to end of farm areas (in active farm fields that contain wetlands)	1.5 to 1
2	5	End of farm areas (approximately SW 179 Ave.) to FEC	3 to 1
1D	5	East of FEC to US-1	2.5 to 1
1D	5	Northern tip of "Triangle" (between US-1 and Card Sound Road)	2.5 to 1
1D	5	Winkeye slough to forested wetland	3.5 to 1
1D	5	Forested wetlands to SW 167 Ave.	**
1D	4	SW 167 Ave. to SW 162 Ave. (in wetland areas, if any)	1.5 to 1
1D	4	East of SW 162 Ave. to narrow stretch of prairie (in wetland areas, if any)	2.5 to 1
1D	4	East of prairie to agricultural area located just west of SW 157 Ave.	1.5 to 1
1D	4	Agricultural area just west of SW 157 Ave. (in wetlands previously farmed, now fallow & active farm fields that contain wetlands) to SW 157 Ave.	1.5 to 1
1D	4	SW 157 Ave. to SW 150 Ave. (under ACI)	1.5 to 1
1D	4	SW 150 Ave. to approx. SW 146 Ave.	**
	3	forested component	**
1C	3	prairie areas	3.5 to 1
1C	2	west side - possible forested component	**
1B	1	Tree Island east of SW 117 Ave.	**

Secondary Corridor

ATTACHMENT 1
FPL Transmission Line Corridor Mitigation (Minimum HID Ratios)

SEGMENT	MAP #	SPECIFIC AREA	RATIO
SEGMENT	MAP #	SPECIFIC AREA	RATIO
Secondary Corridor	15/28	Point at which the Preferred and Secondary corridors diverge at SW 120 St.	4 to 1
Secondary Corridor	29	FPL property entirely surrounded by ENP	4 to 1
Secondary Corridor	30	FPL property entirely surrounded by ENP	4 to 1
Secondary Corridor	31	FPL property entirely surrounded by ENP	4 to 1
Secondary Corridor	32	South and north of SW 8th St. & crossing SW 8 St. under the corridor boundary line.	3.5 to 1
Secondary Corridor	32	South and just north of SW 8th St. Canal/ditch feature under the boundary line - **Center of ditch**	1.5 to 1
Secondary Corridor	32	South and just north of SW 8th St. Canal/ditch feature under the corridor boundary line - **Edges of ditch are forested wetlands. Cannot be mitigated in HID.**	**
Secondary Corridor	34/35	North of SW 8 St. within WCA-3B (small portion of canal that crosses the corridor near L-30 & Krome Ave. and joins the Preferred corridor east of Krome).	3.5 to 1
Secondary Corridor	22/35	North of SW 8 St. within WCA-3B (small portion of canal that crosses the corridor near L-30 & Krome Ave. and joins the Preferred corridor east of Krome)-**Center of ditch**	2.0 to 1
Secondary Corridor	35	North of SW 8th St. within WCA-3B (small portion of canal that crosses the corridor near L-30 & Krome Ave. and joins the Preferred corridor east of Krome). **Edges of ditch are forested wetlands. Cannot be mitigated in HID.**	**

* Only scoring west side of the corridor unless District allows them to use the east side.
**Tree Islands and forested wetlands cannot be mitigated in HID - have to go to EMB or other mitigation areas.
*** All ratios provided are the minimum ratios acceptable to Miami-Dade County.

ATTACHMENT 2: PROHIBITED SPECIES

Species – Latin Name	Species Common Name
Abrus precatorius	Rosary pea
Acacia auriculiformis	Earleaf acacia
Adenanthera pavonina	Red beadtree, red sandalwood, coralwood, redwood, circassian bean tree, peacock flower-fence, coral pea, Barbados pride
Albizia lebbeck	Woman's tongue, lebbeck tree, siris tree
Antigonon leptopus	Coral vine, queen's jewels
Ardisia crenata	Scratchthroat, coral ardisia
Ardisia elliptica	Shoebutton, shoebutton ardisia
Bischofia javanica	Javanese bishopwood, bishopwood, bischofia, toog
Casuarina spp.	Australian pine, sheoak, beefwood
Cestrum diurnum	Dayflowering jessamine, day blooming jasmine, day jessamine
Cinnamomum camphora	Camphortree, camphor tree
Colubrina asiatica	Asian nakedwood, leatherleaf, latherleaf
Cupaniopsis anacardioides	Carrotwood
Dalbergia sissoo	Indian Rosewood, sissoo
Dioscorea alata	White yam, winged yam
Dioscorea bulbifera	Air potato, bitter yam, potato vine
Eichhornia crassipes	Common water-hyacinth, water-hyacinth
Ficus altissima	Council tree, lofty fig, banyan tree, false banyan
Ficus benghalensis	Banyan tree, banyan fig, Indian banyan, East Indian fig tree, bengal fig
Ficus microcarpa	Indian laurel, laurel fig, Malay banyan, Chinese banyan, glossy leaf banyan
Flacourtia indica	Governor's plum, Madagascar plum, batoko plum, ramonchi
Hydrilla verticillata	Waterthyme, hydrilla
Hygrophila polysperma	Indian swampweed, green hygro
Hymenachne amplexicaulis	Trompetilla, West Indian marsh grass

Imperata cylindrica	Cogongrass
Ipomea aquatica	Water-spinach
Jasminum dichotomum	Gold Coast jasmine
Jasminum fluminense	Brazilian jasmine, jazmin de trapo
Leucaena leucocephala	White leadtree, lead tree, jumbie bean, tan-tan
Ludwigia peruviana	Peruvian primrosewillow
Lygodium spp. except *L. palmatum*	Climbing fern, e.g. Old World climbing fern, Japanese climbing fern
Macfadyena unguis-cati	Catclawvine
Melaleuca quinquenervia	Punk tree, melaleuca, cajeput, paperbark tree, tea tree, swamp tea tree
Melia azedarach	Chinaberrytree, Chinaberry
Merremia tuberosa	Spanish arborvine, yellow morning-glory, woodrose, Hawaiian woodrose, ceylon morning glory, Spanish wood vine
Mimosa pigra	Black mimosa, Catclaw mimosa
Neyraudia reynaudiana	Burmareed, silkreed
Paederia spp.	Sewervine, skunkvine, onion vine
Panicum repens	Torpedograss
Pennisetum purpureum	Elephantgrass, Napiergrass
Pistia stratiotes	Water lettuce
Pueraria montana var. *lobata*	Kudzu
Rhodomyrtus tomentosa	Rose myrtle, Downy rose-myrtle
Rhynchelytrum repens	Rose natalgrass, Natal grass
Ricinus communis	Castorbean, castor oil plant, palma christi, wonder tree
Sapium sebiferum	Popcorntree, Chinese tallowtree
Scaevola taccada	Beach naupaka, scaevola, half-flower
Schefflera actinophylla	Australian umbrella tree, octopus tree, Queensland umbrella tree, umbrella tree, rubber tree, starleaf
Schinus terebinthifolius	Brazilian pepper, Christmas berry tree, Florida holly

Senna pendula var. *glabrata*	Valamuerto, Climbing cassia, Christmas cassia, Christmas senna
Solanum tampicense	Aquatic soda apple, wetland nightshade
Solanum viarum	Tropical soda apple
Talipariti tiliaceum	Mahoe, sea hibiscus, yellow mahoe
Tectaria incisa	Incised halberd fern
Thespesia populnea	Seaside Mahoe, portia tree, cork tree, false rosewood
Tribulus cistoides	Puncture vine, burrnut, Jamaican feverplant, billy-goat weed, large yellow caltrop
Urochloa mutica	Paragrass

ATTACHMENT 3: ROADS / RIGHTS-OF-WAY ASSOCIATED WITH FPL TURKEY POINT UNITS 6 & 7 AND ALL RELATED FACILITIES

All ROW within Sections 29, 30, 31 and 32, Township 57, Range 40 plus ROW for SW 117 Ave in Section 25-57-39 between L31E and SW 117 Ave

- Remove roads as applicable*
- Close and convey to Miami-Dade County

NW 41 St between NW 167 Ave and NW 177 Ave

- Close and convey portions adjacent to public land to SFWMD or Miami-Dade County
- Dedicate portions adjacent to private land

SW 102 Ave between SW 312 St and SW 328 St

- Close and convey dedicated portions to Miami-Dade County
- Convey undedicated portions to Miami-Dade County

SW 102 Ave between SW 328 St and SW 336 St

- Close and convey to Miami-Dade County

SW 102 Ave between SW 336 St and SW 340 St

- Close and convey to Miami-Dade County

SW 107 Ave between SW 300 St (Military Canal) and SW 312 St

- Dedicate ROW adjacent to FPL folios (need at least 120' for road and spreader associated with CERP BBCW project)

SW 107 Ave between SW 312 St and SW 328 St

- Close and convey dedicated portions to Miami-Dade County
- Convey undedicated portions to Miami-Dade County

SW 107 Ave between SW 336 St and SW 344 St

- Close and convey to Miami-Dade County

SW 107 Ave between SW 260 St and SW 261 St

- Dedicate ROW adjacent to FPL folios

SW 109 Ave between SW 319 St (Mowry/C-103 Canal) and SW 344 St

- Dedicate ROW adjacent to FPL folios (need at least 120' for road and spreader associated with CERP BBCW project)

SW 112 Ave between SW 319 St (Mowry/C-103 Canal) and SW 344 St

- Dedicate ROW adjacent to FPL folios (need at least 120' for road and spreader associated with CERP BBCW project)

SW 117 Ave between SW 260 St and SW 261 St

- Dedicate ROW adjacent to FPL folios

SW 117 Ave between SW 321 St (Mowry/C-103 Canal) and SW 344 St

- Dedicate ROW adjacent to FPL folios (need at least 120' for road and spreader associated with CERP BBCW project)

SW 136 St between SW 124 Ave and SW 127 Ave

- Dedicate ROW adjacent to FPL folios

SW 137 Ave between SW 344 St and SW 359 St

- Remove roads as applicable*
- Close and convey to Miami-Dade County

SW 202 Ave between SW 363 St and SW 364 St

- Dedicate ROW adjacent to FPL folios

SW 336 St between L-31E and SW 104 Ave

- Close and convey to Miami-Dade County

SW 344 St between SW 97 Ave and SW 107 Ave

- Dedicate ROW adjacent to FPL folios

SW 344 St between SW 203 Ave and SW 204 Ave

- Dedicate ROW adjacent to FPL folios

SW 344 St between SW 137 Ave and SW 142 Ave

- Remove roads as applicable*
- Close and convey excess ROW to Miami-Dade County

SW 360 St between SW 203 Ave and SW 204 Ave

- Dedicate ROW adjacent to FPL folios

SW 97 Ave between SW 312 St and SW 328 St

- Close and convey dedicated portions to Miami-Dade County
- Convey undedicated portions to Miami-Dade County

* Road removal refers to deconstruction of temporary access roads once they are no longer needed by FPL

Other Note:
The Miami-Dade County Parks, Recreation, and Open Spaces (PROS) Department needs access to maintenance roads for passive use as trails (bike and equestrian). This should continue to be coordinated through the Sustainability, Planning, and Economic Enhancement Department (SPEED).

Appendix III-H: City of Coral Gables

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

FILED
11 JUN 15 PM 3:45

IN RE: FLORIDA POWER & LIGHT CO.)
TURKEY POINT UNITS 6 AND 7)
POWER PLANT SITING APP. PA03-45A3.)
_____)

DOAH Case No. 09-3575-EPP
DEP. OGC Case No. 09-3107

NOTICE OF FILING AGENCY REPORT

The CITY OF CORAL GABLES, by and through undersigned counsel, hereby files its Notice of Filing Agency Report with the Department of Environmental Protection, as required by Florida Statutes Section 403.526, which Agency Report is attached hereto.

Respectfully Submitted.

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By:_____
ELIZABETH HERNANDEZ
Florida Bar No.: 378186

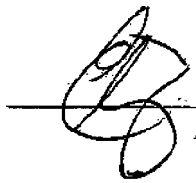
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Attorneys for the City of Coral Gables

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was sent by e-mail this 14th day of June, 2011 to the attached service list.



Attorney

FPL TURKEY POINT UNITS 6 AND 7
DOAH Case No. 09-3575-EPP
DEP. OGC Case No. 09-3107

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June 14, 2011

Ms. Cindy Mulkey
Program Administrator
Office of Siting Coordination
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

RE: Agency Report for the Turkey Point Nuclear Power Plant Expansion-Transmission Lines Component of the Project Site Certification Application-Eastern Corridor Case Nos. DOAH CASE NO. 09-3575-EPP and OGC CASE NO. 09-3107, STATE OF FLORIDA, DIVISION OF ADMINISTRATIVE HEARINGS.

Dear Ms. Mulkey:

Pursuant to section 403.526 of the Florida Statutes, the City of Coral Gables hereby submits a Final Agency Report pertaining to the Turkey Point Transmission Line and Associated Facilities for the Proposed Preferred Route for the East Corridor in the above application. By way of background, Florida Power and Light ("FPL") filed two applications: a Site Certification Application, and a Transmission Line and Associated Facilities Application ("Applications" or "Applications") with the Florida Department of Environmental Protection ("DEP") on June 30, 2009. If the Site Certification Application is approved, FPL would be authorized to expand nuclear energy production at its Turkey Point facility in Miami-Dade County.

This Agency report addresses the placement of a new transmission line along FPL's preferred route for the East Corridor, which proceeds along US 1/Ponce de Leon Blvd, between S.W. 57th Avenue and approximately S.W. 37th Avenue, (just past the intersection of Ponce de Leon Boulevard and U.S. 1 Hwy) in Coral Gables, Florida ("East Preferred Corridor"). (See attached "Exhibit A"). The area along which the East Preferred route traverses includes the University of Miami Campus, several student Dormitories, an approved medical facility (which will be in a mixed-use district alongside Ponce de Leon Boulevard), and an open space used as a helicopter landing area by Fire Rescue for transporting emergency and catastrophic injury victims. Further along the route are single family residential homes, as well as another mixed use district. Pursuant to FPL's request, the proposed route for the transmission line and associated facitilies is being reviewed under an earlier timeframe than the Turkey Point power plant expansion application (which would allow for the construction of two new 1,100 megawatt (mW) nuclear reactors. 6 and 7). However, with regards to the instant Application, the transmission line and

associated facilities, will only be necessary if the Unit 6 and 7 ("Unit 6 and 7") Application is approved.

The City of Coral Gables is one of several affected agencies actively involved in the review and comment on the Application for the East Preferred Corridor, which is a 36.7 mile long area, as proposed by FPL in their Application and intended to connect the existing Turkey Point substation to a proposed Clear Sky substation and the existing Davis and Miami substations. A 230 kV line is proposed to run along this corridor. There is an existing 138 kV power line which FPL proposes to co-locate the 230 kV on a new common pole with a new transmission line. (See attached Exhibit ("B"). Should the Application for the Transmission line and Associated Facilities be granted, the City of Coral Gables will suffer substantial and measurable negative effects on the local economy, due to, among other things, the presence and blighting influence of what would likely be more than 100-foot-tall, 4-foot-wide structures, supporting multiple 230 kV and 138 kV wires. The following Agency report contains Coral Gables recommendations regarding the East Preferred Corridor, as well as requested conditions should the Application ultimately be approved.

For the reasons stated in this Agency Report, the **City of Coral Gables** recommends that the Application for Transmission Lines along the East Preferred Corridor be:

Denied but if approved-subject to the conditions below.

Two of the city's largest property owners who are significantly impacted by FPL's proposal have submitted their concerns to the City, and are in support of the City's recommendation to deny the Application, or in the alternative to impose the conditions contained in the Agency Report, should certification be approved. The University of Miami whose Coral Gables campus borders Ponce de Leon, is directly affected by the Application. Their letter is attached hereto as Exhibit "C" and incorporated herein. Furthermore, Gables Residential is the owner of the site located at 4585 Ponce de Leon Boulevard in Coral Gables. The property owner received the necessary zoning approvals for the development of a mixed use residential / retail development consisting of a ten (10) story building with 250 residential units on the Property. Their letter outlining the potential impacts to the project is attached as Exhibit "D" and incorporated herein.

I. INTRODUCTION.

One of the purposes of the State Power Plant Siting Act ("PPSA"), Chapter 403, Part II, Sections 403.501 through 403.519, Florida Statutes, is to certify transmission line corridors and associated facilities through a centralized and coordinated planning and permitting process administered by the Florida DEP. Authority to issue the Certification Order is assigned to the Governor and Cabinet sitting as the Siting Board, after consideration of a Recommended Order issued by a Hearing Officer of the Department of Administrative Hearings. The Recommended Order includes findings of fact and conclusions of law on those matters raised at the hearing or in pleadings filed, including the application. If certification is recommended, the Hearing Officer will also include any conditions of certification. If it is contested, then the Department of Administrative Hearings shall schedule a Certification Hearing.

In the instant matter, rather than pursuing the power plant project and the transmission corridor projects separately, FPL is seeking joint certification of the generating units and the transmission corridors as "associated facilities". This joint procedure provides for the certification review of both the power plant site and the transmission corridor sites within the context of a single filing and within a single hearing. However, the pre-hearing activities of the transmission portion of the proceeding are being conducted on a more rapid procedural track which is expected to be completed before the pre-hearing activities associated with the power plant.

The PPSA mandates that the affected local governments and other administrative agencies participate in the process, and further requires that they prepare an assessment report. Affected local government agencies are granted party status in the proceedings. The instant Agency Report is submitted in compliance with the requirements of Chapter 403, Florida Statutes. Specifically, Section 403. 526 (2) (a), Florida Statutes, provides in pertinent part:

> 5. Each local government shall prepare a report as to the impact of each proposed transmission line or corridor on matters within its jurisdiction, including the consistency of the proposed transmission line or corridor with all applicable local ordinances, regulations, standards, or criteria that apply to the proposed transmission line or corridor, ***including local comprehensive plans, zoning regulations, land development regulations, and any applicable local environmental regulations adopted pursuant to s. 403.182 or by other means.***

(emphasis supplied).

Further, pursuant to the provisions of Florida Statutes 403.526(2) (b), the agency report must include:

> 1. A notice of any nonprocedural requirements not specifically listed in the application, from which a variance, exemption, exception, or other relief is necessary in order for the proposed corridor to be certified. Failure to include the notice shall be treated as a waiver from the nonprocedural requirements of that agency.
>
> 2. A recommendation for approval or denial of the application.
>
> 3. The proposed conditions of certification on matters within the jurisdiction of each agency. For each condition proposed by an agency, the agency shall list the specific statute, rule or ordinance, as applicable, which authorizes the proposed condition.

In addition, in accordance with the provisions of section 403.5271 of the Florida Statutes, the City of Coral Gables has filed its notice of Proposed Alternate Corridor, a copy of which is attached hereto as Exhibit "E".

II. PRELIMINARY COMMENTS AND OBJECTIONS.

A. Power Plant Expansion Application vs. Transmission Lines Application.

At the outset, the City of Coral Gables, objects to the processing and review of the Transmission Lines Application on an earlier time line than the Power Plant Expansion Application. Coral Gables respectfully requests that the present Application be continued until such time as the Power Plant Siting Application has at a minimum been determined complete. Miami-Dade County recently submitted its fifth incompleteness determination. In addition, the South Florida Regional Planning Council recently submitted its own incompleteness determination. If the Power Plant Siting Application is withdrawn, suspended or delayed, Coral Gables requests that the Transmission Line and Associated Facilities be likewise withdrawn, suspended or delayed. Alternatively, the City requests that a condition of certification be that the Application would be contingent on the processing of the Power Plant Application.

Section 403.529 of the Florida Statutes, provides;

> ...(4) 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 of the transmission line corridor and the construction, operation, and maintenance of the transmission line will:
> (a) Ensure electric power system reliability and integrity;
> (b) Meet the electrical energy needs of the state in an orderly, economical, and timely fashion;
> (c) ***Comply with applicable nonprocedural requirements of agencies;***
> (d) ***Be consistent with applicable provisions of local government comprehensive plans, if any; and***
> (e) ***Effect a reasonable balance between the need for the transmission line as a means of providing reliable, economically efficient electric energy, as determined by the commission, under s. 403.537, and the impact upon the public and the environment resulting from the location of the transmission line corridor and the construction, operation, and maintenance of the transmission lines.***

(emphasis supplied).

and section 403.529 (5) (a), Florida Statutes, provides:

> ***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. 403.522(10) 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 (4), including costs.***

(emphasis supplied).

In obvious observation of the foregoing statutory provisions, the South Florida Regional Planning Council, in their report, noted that

> ...[W]hile transmission lines are not defined as development, the placement of transmission lines should be compatible with allowed densities, intensities and adjacent uses. Transmission line placement will impact surrounding communities' ability to achieve their comprehensive plan goals. **The proposed locations and the scale of transmission poles should be respectful of those visions.**
>
> Although the application proposes siting overhead transmission lines, the alternatives of under-grounding and co-locating transmission lines with Metrorail are also being examined. Public investment costs should be equitably shared by all FPL rate holders, not matter what delivery system is ultimately constructed. Proposed transmission lines should be compatible with existing and future land use in terms of mass, scale and height. The ability to provide services should not hinder the prospect of future economic development. The applicant should consider both monetary and societal costs when making decisions about infrastructure location and technology. Special attention should be given to limiting environmental, health, economic and social impacts to the surrounding communities.

(emphasis supplied).

As can be seen from the Application and Agency Reports on transmission lines, the Applicant has not given sufficient consideration to the significance of the environmental, health, economic or social impacts to the surrounding communities.

The Reporting Agencies are at a disadvantage in analyzing the application in its present posture. The Agencies are to evaluate the preferred corridor under their existing regulations to comment on whether the proposal "..Effect(s) a reasonable balance between the need for the transmission line..."and "the impact upon the public and the environment resulting from the location of the transmission line corridor and the construction, operation, and maintenance of the transmission lines". § 403.529 (4)(e), Florida Statutes.

It is impracticable to pull the cart before the horse. If the Siting Application is withdrawn, suspended or denied, until a much later date, then the Affected Agencies are shackled with a recommended order for a proposal that may not see the light of day. The present City Commission would be placed in the unconstitutional and impermissible position of tying the hands of a future city commission. *See* Florida Constitution Article, VIII, Section 2 and Chapter 166, Florida Statutes. In addition, Miami Dade County, is a constitutionally created Charter County. As such, under Article VIII, Section 1(g) of the Florida Constitution, as well as Florida Statutes section 166.021, any matter which the County preempts to itself, cannot be the subject of municipal regulation, although it may substantially impact the quality of the city's residents. However, as an affected party, the City has the right to raise those issues even if they are subject to County regulation, just as the City has the right to raise Statutory requirements.

FPL cannot seek permission for a transmission line on an existing plant absent a "showing and approval of need" as required under applicable statutes. However, FPL has been allowed to pick and choose when to proceed on the Power Plant Application. The replacement, expansion and addition of the transmission poles and line are being justified by FPL as part of the necessary expansion of the Power Plant. These proceedings should be suspended until the Power Plant Application has moved forward.

B. City of Coral Gables Preferred Alternate Corridor.

As part of these proceedings, the City of Coral Gables, along with the Village of Pinecrest has proposed an alternate corridor ("PAC") which runs along the existing FPL transmission corridor. It is described in detail in the accompanying *Notice of Proposed Alternate Corridor*, which the City filed with the State of Florida's Division of Administrative Hearings and the Florida Department of Environmental Protection on May 2, 2011. (See attached Exhibit "E") It is evident that the city's PAC is the appropriate route under the provisions of section 403.529 5(a) of the Florida Statutes, which provides in part "....***When more than one transmission line corridor is proper for certification under s. 403.522(10) 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 (4), including costs."*** . (emphasis supplied).

The Proposed Alternate Corridor is the City's preferred corridor, as well as the appropriate corridor under applicable Florida Statutes, for the following reasons:

a. Unlike, FPL's Preferred Corridor, approximately ninety-nine percent (99%) of the PAC is co-located with existing FPL facilities, and the balance is co-located with other linear facilities;
b. The majority of the PAC is either in an existing FPL Right of Way or is within an existing previously approved corridor;
c. The PAC, unlike the FPL East Preferred Corridor, will neither conflict with, nor adversely affect, existing adjacent commercial and residential development;
d. The PAC, unlike the FPL East Preferred Corridor, will not impose negative impacts on the aesthetic, environment or roadway network of the City. Nor will it add additional negative impacts to the communities alongside the PAC.
e. The present FPL corridor (also known as the City' PAC) has already been found to comply with section 403.529 and with or without appropriate improvement effectuates the most "reasonable balance between the need for the transmission line as a means of providing reliable, economically efficient electric energy, as determined by the commission, under section 403.537, and the impact upon the public and the environment resulting from the location of the transmission line corridor and the construction, operation, and maintenance of the transmission lines." The

existing corridor has the least adverse impact and should be the recommended corridor.

The City of Coral Gables respectfully requests that FPL's Transmission Line Application **be denied for the reasons stated herein.** Alternately, FPL's designated preferred corridor should be denied and the City's Proposed Alternate Corridor approved ("PAC"). The PAC is the most appropriate corridor under the criteria in Chapter 403, F..S., and FPL should invest in improving the PAC rather than attempting to blaze through a new route.

III. PROPOSED CONDITIONS OF CERTIFICATION.

Should FPL's Certification Application be approved, the City of Coral Gables respectfully requests the following Conditions of Certification. Included herein are non-procedural requirements of the City of Coral Gables. FPL has conceded and acquiesced to certain Conditions of Certification and made commitments as a result of the Site Certification Application completeness review process. However, FPL has rejected the conditions requested in this Agency Report. The Conditions of Certification shall be:

A. Quality-of-Life and Aesthetic Concerns

Aesthetics are highly valued by Coral Gables residents, and the City's stringent Code Requirements and Regulations exemplify the City's strict protection of the residents quality of life.

Further, as discussed below, the City's codes ensure a cohesive interplay of the structures, buildings, canopy, signs, and all visual elements in order to provide an aesthetically pleasing quality of life for the city's residents and visitors. *See also for example, Kuvin v. City of Coral Gables*, 45 So. 3d 836 (Fla. 3d DCA 2010); *Gold Coast Publications, Inc. v. Corrigan*, 42 F.3d 1336 (11th Cir. 1994), *cert. denied*, 516 U.S. 931, 116 S.Ct. 337, 133 L.Ed.2d 236 (1995).
(citing the United States Supreme Court which held ("[A] city's 'interest in attempting to preserve the quality of urban life is one that must be accorded high respect.' " (quoting *Young v. American Mini Theatres, Inc.*, 427 U.S. 50, 71, 96 S.C. 2440, 2453, 49 L.Ed.2d 310 (1976) (plurality opinion))); *Clark v. Community for Creative Non-Violence*, 468 U.S. 288, 298-99, 104 S.Ct. 3065, 3071-72, 82 L.Ed.2d 221 (1984) (upholding the National Park Service's restrictions on demonstrations in national parks).) Aesthetic considerations are a valid element of a city's quality of life and must be accorded due consideration. The City of Coral Gables is required by State law to study and adopt comprehensive plans which uniformly enhance and preserve the city's quality of life. Statutes Chapter 163, Part II. See also, *Berman v. Parker* U.S. (195_) and *Penn Central Transportation Co. v.City of New York*, 438 U.S. 104 (1978); *Glisson v. Alachua County*, 558 So.2d 1030 (Fla. App. 1990).

As the South Florida Regional Planning Council observed "[T]ransmission line placement will impact surrounding communities' ability to achieve their comprehensive plan goals." It is therefore imperative that FPL ensure the compatibility of any new buildings, accessory structures and appurtenances within affected neighborhoods.

Supporting Regulation(s): Section 337.403, F.S.; 403.526(2)(b)3, F.S.; 403.522(18), F.S.; 403.526(2)(a)5, F.S.; Rule 14-46, F.A.C.; City of Coral Gables Zoning Code Article 4, Division 2, Section 4-201 and Article 5, Division 22; City of Coral Gables Comprehensive Plan Green Element Policy Number-1.4.2., 1.4.5 and 1.4.6- see also, City of Coral Gables Zoning Code Section 5-2005, for height limitations and conditions on Telecommunications Towers and Facilities.

1. ***Location of Transmission Poles and Lines-City's Preferred Alternate Corridor ("PAC").***

   The City of Coral Gables has serious concerns about the location of FPL's proposed East Preferred Corridor, and along with the Village of Pinecrest, proposed an Alternate Corridor ("PAC"). The FPL East Preferred Corridor delineates the boundaries for the alignment of a 230-kilovolt transmission line to connect the existing Turkey Point substation to a proposed Clear Sky substation, and the existing Davis and Miami substations in Miami-Dade County. The instant Agency Report outlines the City's requirements for the placement and location of Poles should the Application be Certified.

2. ***Number of Poles.***

   FPL shall indicate the number of existing poles versus new poles in quantitative form. FPL shall also confirm that the number of poles installed will not exceed the number of existing poles presently in place. In the schematics which FPL initially submitted to elected officials-the power poles appear to be nothing comparison to the size, girth or height of the actual poles and FPL represented that the number of poles would either decrease or remain the same. (See Exhibit "F"). A condition of certification shall limit the number of poles to no more than the existing number of poles, and shall further limit the size and girth of the poles to those appropriately demonstrated to meet the needs of the system.

Supporting Regulation(s): Section 337.403, F.S.; 403.526(2)(b)3, F.S.; 403.522(18), F.S.; 403.526(2)(a)5, F.S.; Rule 14-46, F.A.C.; City of Coral Gables Zoning Code Article 4, Division 2, Section 4-201 and Article 5, Division 22; City of Coral Gables Comprehensive Plan Green Element Policy Number-1.4.2., 1.4.5 and 1.4.6- see also, City of Coral Gables Zoning Code

Section 5-2005, for height limitations and conditions on Telecommunications Towers and Facilities.

3. ***Buffering and Landscaping.***

The city's tree canopy is of critical importance to the City's of Coral Gables quality of life and the pedestrian and bicycle friendly atmosphere which the city wishes to foster for and on behalf of its residents and visitors. This is further exemplified by the City's stringent Landscape Code Requirements pursuant Article 5, Division 11, as well as the City's Tree Preservation Code found in the City Code.

FPL shall ensure the compatibility of any new buildings, accessory structures and appurtenances within affected neighborhoods. To mitigate the impact of the poles and lines FPL shall install approved screening and buffering. The City's Codes provide that all newly-developed and redeveloped above-ground utility appurtenances visible from the public ROW shall be under-grounded and/or screened. Materials and earth-tone colors for screening shall be compatible with the natural setting and surrounding structures, as per Article 5, section 603. "Architectural Style". Chain link fencing is not permitted as a screening mechanism.

Inasmuch as transmission line siting may lead either to the loss of tree canopy or disfiguring "vegetation management" practices, FPL shall offer a suitable plan for maximum tree retention and tree replacement. To ensure that canopy protection is given due weight in actual transmission line siting, FPL shall identify all trees within the proposed corridor, determine their type and size, record their location on a planning map, and ensure that sufficient tree canopy remains as required by local ordinance. FPL shall commit, first, to relocating trees, and, only when relocation is not feasible, to replacing trees on at least a one-to-one basis. FPL will comply with all applicable tree removal ordinances, including provisions for mitigation with approved replacement trees and/or tree fund contributions. Impacts by FPL to landscaping or other improvements, if any, will be restored by FPL after construction is completed.

Supporting Regulation(s): City of Coral Gables Code of Ordinances Chapter 82, Article II City of Coral Gables Comprehensive Plan, Land Use Element - Policy 1.3.3, Objective 1.4; Policy 1.4.1, Objective 1.14; Policy 1.3.1; Mobility Element -Objective 1, Policy 1.1.1 and 2.8.1; Natural Resources Element- Objective 1.7, Policy 1.7.1, 1.6.3, 2.8.1; Design Element-Objective 1.1, Policy 1.4.2; Governance Element-Policy 2.5.1; City of Coral Gables Comprehensive Plan, Green Element Policies 1.4.2.-3 and 5 and 6; City of Coral Gables Zoning Code, Article 1-Section 1-103 and Article 5.

4. ***Height and Massing.***

Height and massing considerations are of paramount importance to the City of Coral Gables. The proposed height of the poles along the FPL East Preferred Corridor will go up to 105 feet and visual massing of the upper utility appendages (electrical line support masts) at 105 will exceed the various allowable building heights that can be built along the transmission line corridor within the City. (See Exhibit "G"). FPL has proffered lower poles provided the total number of poles increases. Not only is this offer unacceptable, it is also inconsistent with FPL's response to the Miami Dade County's offer to co-locate on the Metro-rail system. The City of Coral Gables has extensive provisions governing the height, bulk and mass, as well as aesthetics of all structures within the City to ensure the protection of the historic and architectural character of the City which is unique throughout the State and specifically South Florida. This is accomplished through implementation of the City's Zoning Code and more specifically the zoning district requirements, as well as the City Code.

In addition to the provisions of the City's Comprehensive Plan, Zoning Code Section 1-103, J, requires that the City "Establish zoning districts as a means of achieving unified civic design and proper relationship between the uses of land by regulating the location and use of buildings, signs and other structures, and land or water for trade, agriculture, industry and residence, by providing adequate buffers, by regulating and limiting or determining the height, bulk and access to light and air of buildings and structures, the area of yards and other open spaces, and the density of use." In addition to the policies in the City's Comprehensive Plan, Section 1-103 of the Zoning Code, provides further supporting principles to protect and promote the safety, health, comfort, morals and convenience, peace, prosperity, appearance and general welfare of the City and its inhabitants. Zoning Code Article 4, "Zoning Districts", provides stringent height, bulk and mass provisions that limit structures, buildings, appurtenances and properties along the corridor far below the FPL desired height of up to 105 per pole. Likewise, Zoning Code Article 5, Zoning Code Article 3, Division 11, Historic Preservation and Article 5, Division 6 include numerous aesthetic and architectural design regulations to ensure sound, attractive and aesthetically pleasing designs. The City's Comprehensive Plan, Administration Element, Future Land Use Element and Design Element contain numerous goals, objectives and policies governing height, bulk and mass. The City's codes provide regulations to ensure that future development will be in conformity with the foregoing distinctive character, with respect to type, intensity, design and appearance of all structures in the City.

Supporting Regulation(s): City of Coral Gables Code of Ordinances Chapter 82, Article II City of Coral Gables Comprehensive Plan, Land Use Element - Policy 1.3.3, Objective 1.4; Policy 1.4.1, Objective 1.14; Policy 1.3.1; Mobility Element -Objective 1, Policy 1.1.1 and 2.8.1; Natural Resources Element- Objective 1.7, Policy 1.7.1, 1.6.3, 2.8.1; Design Element-Objective 1.1, Policy 1.4.2; Governance Element-Policy 2.5.1; City of Coral Gables Comprehensive Plan, Green Element Policies 1.4.2.-3 and 5 and 6; City of Coral Gables Zoning Code, Article 1-Section 1-103 and Article 5.

5. ***Electromagnetic Fields***

The City is concerned with the compatibility of uses and the impacts on its adjacent neighborhoods, specifically striving to facilitate the protection of the character of the surrounding residential neighborhoods. The City is concerned about potential conflicts with existing and proposed homes within the corridor. The City is also concerned about where potential line location could limit future economic development. In order to ensure both safety and peace of mind for adjacent residential uses the City requests that FPL show the limits of any EMFs (electromagnetic fields) to be generated by the line, when adjacent to recreational or residential uses, including the mixed use district along the US 1 Corridor, between Lejeune Road and approximately 37th Avenue.

FPL shall at all times comply with the applicable electromagnetic field standards set forth in Chapter 62.814, F.A.C. The electromagnetic fields associated with any configuration developed during the final design of this project must be provided to the City and to DEP at least 90 days prior to the start of construction, or such a shorter time period to which the DEP Siting Coordination Office agrees, as required by Rule 62-814.520(3), F.A.C.

Supporting Regulation(s): Section 403.523(10), F.S. (2006); Chapter 62-814.520(3), F.A.C.; City of Coral Gables Comprehensive Plan, Land Use Element – Policy 1.3.2; City of Coral Gables Comprehensive Plan, Green Element Objective 1.3.

6. ***Economic Impact on Adjacent Properties.***

The City of South Miami commissioned a study on the economic impact of the preferred corridor of property values by Dr. Richard Weisskoff. Dr. Weisskoff concludes that a 10% decline in property values for all property within "sight of the transmission lines and poles" of the FPL proposed Preferred Corridor. Dr. Weisskoff estimates over $400 million is lost property values for the entire 17.7 mile stretch. In addition, Dr. Weisskoff projected annual loss of jobs and salaries at a value of over $300 million to the County. Finally, the annual loss of municipal revenues for the city's along the corridor, including Coral Gables would be in excess of $24.5 million.

The City of Coral Gables adopts the findings and conclusions of Dr. Weisskoff, as submitted by the City of South Miami to the extent they address the impacts on the City of Coral Gables. FPL shall compensate the City for the economic impacts of the proposed East Corridor.

Supporting Regulation(s): Report of Dr. Richard Weisskoff, City of South Miami, 2011.

B. Eminent Domain

In the event that the completion of the corridor for the proposed transmission line requires that FPL acquire property and/or property rights located within the City or Miami-Dade County ROW, FPL shall comply with Chapters 361, 73 and 74, Florida Statutes, to exercise the power of eminent domain for a public purpose if necessary. Further, FPL shall fully compensate the City for any property and/or property rights taken from it. See also, A.6 above

Supporting Regulation(s): Chapters 361, 73 and 74, F.S.

C. Public Facilities-Emergency Operation Stations,-Public Health and Safety.

1. Life Safety and Public Health.

·Emergency Transmission Communications and Radio Operations.

FPL's proposed route for the East Corridor Transmission Lines is in relatively close proximity to the City's Police and Fire departments and operations, which provide vital public safety functions. It is imperative that the City's emergency operations never be compromised or interrupted. FPL will address and resolve any radio frequency interference on the City's radio network from the East Preferred Corridor. FPL will correct all interference issues with the city's system that are caused by the addition of FPL's proposed transmission line(s) at FPL's sole cost and expense. [1] In the event of interference or blocking, the

[1] Without limiting any claims on behalf of the city, its employees or citizens, the City offers the following as a baseline for the present impacts for any potential claim: City Fire Station No. 2- Microwave Relay Station. The City will provide FPL with a recent copy of the maintenance document for City's Alcatel Microwave radio system that is currently in production at both ends of the link. This maintenance document will include the RSSI (received signal strength indication) and BER (bit error rate) for the link between the City Fire Station No. 2 and 2800 Ponce de Leon Boulevard in order to allow for a comparison of radio configurations both before and after the installation of FPL's East Preferred Corridor. The City will also provide FPL with circuit requirements and location endpoint information for both ends of the microwave relay path, so that FPL may secure cost quotes in the event that a T1 line is temporarily required to serve City emergency communications needs as a result of construction activities during FPL's installation of the East Preferred Corridor.

FPL will provide the City with a point-to-point path study of the microwave link for the current production system to confirm the measured RSSI and, if necessary to maintain uninterrupted operation of the City's emergency communications system, provide the City with appropriate remedial measures including, but not limited to, larger antennas, taller transmission structures, raising or lowering the City's antenna, or a temporary T1 circuit to be deployed during FPL's construction activities and subsequent operations of the transmission line(s) and poles.

The Microwave Relay operates on a line-of-sight principle ("path") which cannot be interrupted, as it is critical to maintaining the City's ISO Class 1 Fire Department Rating and is a Public Safety Facility. FPL agrees that at no time will it erect or place any facility that will disrupt such path (The current microwave dish is a 1.5 meter dish. Its lowest point is 61 feet above ground level (AGL). The dish is generally oriented in a North NorthEast heading and has an up tilted orientation). If a violation of the path is unavoidable, FPL shall restore the microwave path so that the Interim T-1 communication circuits provide seamless service. Any such replacement facilities will be of Public Safety grade. FPL will bear any and all costs associated with restoring the microwave path.

City-Wide Radio Network. The City will provide FPL with a report of the most recent "drive test" of their 800 MHz radio communications system. The "drive test" will be performed by an entity certified to do so and capture the current performance of the City's existing radio communications system. FPL acknowledges and agrees that the City's radio network serves a public safety/life safety function and cannot be interrupted. FPL will not cause radio blocking or radio frequency interference (collectively, "RFI") on any of the City's federally-licensed radio frequencies. In the event that FPL's East Preferred Corridor causes RFI on City's federally-licensed radio frequencies, FPL will, within twenty-four (24) hours of written notice from the City, begin immediate, exhaustive and decisive measures to remedy the disruption caused by FPL's Preferred Corridor, at no cost to the City. RFI can be identified by either FPL or the City. In the event of a dispute in determining the source of RFI, a third party expert chosen by the City will be brought in to settle the dispute, the cost to be borne by FPL. If an FPL-owned source is determined to be causing RFI, that source must be repaired, removed or deactivated immediately. In the event facilities need to be placed in a deactivated condition to verify interference, FPL agrees to do so within 4 hours of receiving a request. In addition to all other notice requirements, FPL will provide the City with ongoing and updated contact information for personnel responsible for RFI issues on October 1 and April 1 of each year. This contact information shall be provided, via e-mail, to the licensee contact, as listed in the City's Trunked Radio License, WPCJ404. The license may be searched on the FCC Universal Licensing Service Website.

Other Frequencies. FPL acknowledges there are other radio frequencies licensed and operated by the City, including VHF and 220 MHz frequencies. Should FPL's East Preferred Corridor cause RFI on City's other federally-licensed radio frequencies, FPL agrees that it will, within twenty-four (24) hours of written notice from the City begin immediate measures to remedy the disruption caused by FPL's Preferred Corridor, at no cost to the City. Within five (5) business days, FPL shall provide a timeline for compliance. Failure to do so, will allow the City the right to commence remedial action and FPL shall indemnify the City for all costs incurred. Notwithstanding any conditions requested herein, all conditions shall provide that the Chief of Police may take appropriate action to preserve the life and safety of persons or property, at no cost to the City of Coral Gables. At all times, FPL shall indemnify and re-imburse the City for all costs or claims incurred.

Microwave Relay Station Tower- Future Paths. FPL agrees that an arc from 46.6 degrees through 228.9 degrees will remain unobstructed to facilitate future microwave paths. FPL and City acknowledge and agree that each has the ability to identify RFI on City's facilities and the RFI source. In the event of a dispute between City and FPL as to the source of RFI on City's facilities, the Parties agree that a third-party RFI expert chosen by the City and paid for by FPL shall determine the cause of the RFI on City's facilities. City and FPL shall cooperate with one another in any efforts to identify the source of RFI on City's facilities and/or to mediate the effects of RFI on City's facilities.

City will verify, to the best of its ability, that FPL equipment/facilities are at fault before requesting any FPL mitigation efforts. FPL shall bear the costs incurred by the City in rendering such determinations, and shall cover any and all costs associated with restoring and/or improving the transmission path as necessary. This may include the construction of additional radio infrastructure to augment coverage in the blocked area, according to the City's specifications. In the event of imminent injury or threat to life or safety of persons or property, the City of Coral Gables shall have the right to take appropriate action to preserve life or property and ensure the safety of the residents, employees or visitors, and shall to the extent practicable provide 24 hours written notice to FPL so that FPL will either respond and/or reimburse the City for all costs, and undertake immediate permanent improvements.

Fire Station. The City's Fire Station No. 2, at 525 South Dixie Highway is located adjacent to the East Preferred Corridor (See Exhibit "A"). FPL shall address all adverse impacts on the Fire Station, and/or to any City Employee or user and shall remove the impacts at their own costs. Expressly included in this condition would be the requirement that FPL address all nighttime noise or EMF impacts to the public health, safety and welfare of the City's firefighters, employees or visitors. FPL will retrofit the building or take all appropriate measures to ensure that the noise level from the new transmission lines does not impact the City's firefighters, employees or visitors quality of life.

FPL shall maintain on file with the Police Department Communications Department, with a copy to the City Attorney and the Office of City Manager, up to date emergency notice and contact information for purposes associated with this section.

The City of Coral Gables shall have the right to enforce the provisions of this section through all appropriate civil or other action including injunctive relief as the injuries which would be suffered as a result of the breach of these conditions would be irreparable, and injunctive relief would be in the public interest.

2. ***Undergrounding.***

Coral Gables has in place a policy that no overhead installation of electrical devices should be allowed in any district. It views the proposed East Preferred Corridor as being subject to this same requirement. The Zoning Code provides: "The purpose of this Division is to require the installation of utility service facilities underground to assure the public

safety, foster tree preservation, and improve and protect the aesthetic character of City." City of Coral Gables Zoning Article 5 Division 22. Section 5-2201 A. Furthermore, "all new construction and utility installation shall be required to be underground." id. Section 5-2201 B. See also, Comprehensive Plan.

To that end, should the City's Proposed Alternate Corridor, discussed above, not prove to be feasible, the City hereby requests that all transmission poles be removed and that all lines, both new and proposed, be placed underground or co-located with Miami Dade County's Metrorail system corridor. Undergrounding is a grid-wide safety and aesthetic improvement. It serves a broader benefit that extends far beyond the City; it benefits all of Miami-Dade County, Broward and Palm Beach County. As such, any and all costs incurred to underground the Proposed Eastern Corridor should be borne exclusively by FPL or all the rate users. See also, South Florida Regional Planning Council Agency Report.

Additionally, in the Mixed –Use district ("MXD"), (portions of which run along Ponce from Lejeune Road to the City's northeastern border) all utilities are required to be underground.

Based on the foregoing life –safety and public health and welfare issues raised, as well as the totally of the City's Agency Report, FPL should underground the facilities. In the alternative, FPL should co-locate the lines with the Metro-rail system from at least Stanford Drive to Lejeune Road.

Supporting Regulation(s): City Code City of Coral Gables Zoning Code Article 5. Division 22; City of Coral Gables Comprehensive Land Use Plan-Future Land Use Element –Policy 1.3.2; City of Coral Gables Comprehensive Plan Green Element-Objective 1.3, 1.4.2-3, 5 and 6 .

D. <u>Location within Public ROW</u>

To the extent the Transmission Poles and Lines are certified, the East Preferred Corridor shall be installed near the outer boundaries of the public rights-of-way and so as not to unreasonably interfere with traffic over the public rights-of-way, or with reasonable egress or ingress to abutting property.

FPL shall co-locate the transmission line ROW within or adjacent to existing public ROW for those portions of the corridor that include such existing public ROW. A post-certification submittal by FPL to the City shall include a final design plan including pole locations throughout the entire route and additional details as to locations and specific route segments as requested by the City to enable the City to review and provide comment on maximizing to the extent practicable the location of the poles outside of the existing and the proposed public ROW for the roads within the City. FPL shall be responsible for the costs to

relocate any transmission line poles located within any existing City public ROW as required by Section 337.403, F.S., and Rule 14-46, F.A.C.

1. FPL shall locate the transmission line in the ROW so as to avoid the taking of homes.

2. FPL shall confer with the City to discuss the ability to co-locate within the proposed transmission line corridor, public recreational trails.

3. FPL shall allow the city to co-locate utilities, fiber optic cable, repeater type antennas, telecommunications, public safety and other technology lines. In addition, FPL will work with the City to facilitate collocation of the City's communications facilities within the right-of-way used for the East Preferred Corridor.

4. FPL shall use their best efforts to co-locate or underground.

Supporting Regulation(s): Section 337.403, F.S.; 403.526(2)(b)3, F.S.; 403.522(18), F.S.; 403.526(2)(a)5; F.S.; Rule 14-46, F.A.C.; City of Coral Gables Ordinance No. 3306 (January 22, 1998), section 2; City of Coral Gables City Code Chapter 70, Section 70-77; City of Coral Gables Comprehensive Plan: Future Land Use Element- Policies 1.3.3, 1.6.2; Governance Element-2.5.1; Mobility Element-2.6.2 and 3; Natural Resources Element 1.6.3.

E. <u>Right of Way Management, Transportation and Mobility-Related Concerns</u>

1. ROW Management and Restoration.

FPL shall conduct a field meeting with the City's Public Works and Planning & Zoning Departments to determine the location of significant vegetation within the proposed route and supplemental vegetation in compliance with City regulations. Every effort must be made to retain native vegetation. Such meeting shall be conducted prior to the submittal of construction plans. All vegetation and supplemental vegetation identified must be accurately located and identified on such plans.

Once construction is completed, construction debris, if any, will be removed, and FPL will employ various methods to restore the ROW. These methods will be specific to each location. Once removed, FPL will replant lower-growing vegetation identified in consultation with the City.

When any portion of a public right-of-way is excavated by FPL in the location or relocation of its facilities, the portion of the public right-of-way so excavated shall within a reasonable time under existing circumstances be replaced by FPL at its expense and in as good a condition as it was at the time of such excavation.

Notwithstanding any provision contained herein, a condition of approval shall require FPL to provide "Streetscape Upgrades consistent with the Ponce de Leon

Phase II Streetscape Project to mitigate the visual impact of the proposed higher, wider poles. FPL shall provide beautification enhancements in this area of the City of Coral Gables to offset the economic, visual and aesthetic impacts to the area. FPL shall be responsible for a maintenance and upkeep plan submitted to and approved by the City.

Supporting Regulation(s): City Ordinance No. 3306 (January 22, 1998), section 2; City of Coral Gables City Code Chapter 62; Chapter 70, Section 70-77; Chapter 82, Article II; City of Coral Gables Comprehensive Plan: Mobility Plan- Policies 2.8.1 et seq.; Natural Resources- Policy 1.7.1.

2. Utilization of Road ROW

In the construction of the transmission line on or crossing City, County or State Road ROW, FPL shall:

a. Comply with the requirements of the FDOT's Utility Accommodation Manual;

b. Detail the quality and placement of all utility installations from FPL within the proposed corridor on the post-certification submittals to the City to demonstrate compliance with the FDOT's Plans Preparation Manual and the FDOT's Utility Accommodation Manual;

c. Place transmission line structures at crossings of roads in such a manner as to accommodate future road widening and future public safety technology and improvements, including signalization. If future widening of any road in the area of the transmission line is required, the cost of relocating the transmission line shall be borne by FPL to the extent required by Section 337.403, F.S., and Rule Chapter 14-46, F.A.C.

FPL shall minimize the impacts of the transmission line on intersection improvements by locating all proposed transmission line poles outside the ultimate configuration for all current and potential future signalized intersections. FPL should agree to a condition of certification requiring that the transmission poles be located longitudinally along the ROW outside of the intimate configuration for all currently designed and acquired future traffic infrastructure projects. Furthermore, FPL shall provide for co-location of Municipal public safety technology at no cost to the City of Coral Gables.

Supporting Regulation(s): FDOT's Plans Preparation Manual; FDOT Utility Accommodation Manual; Section 337.403, F.S., Chapter 14-46, F.A.C.; City of Coral Gables City Code Chapter 62; City of Coral Gables Comprehensive Plan Mobility Element.

3. Traffic Management.

a. Traffic calming and traffic control coordination are important concerns. FPL must identify and coordinate with the City which public roadways are to be used for the transportation of the transmission poles, the type of carriers that will be utilized, and the times of day for the transport of said poles. In this way the City can plan for any traffic issues the deliveries may cause. FPL shall comply with City procedures in preparing its transportation schedule and plan.

b. If FPL anticipates the closing or encroachment of streets, and/or working in the right of way, during the project, it must coordinate with the City's Public Works and Police Departments and obtain the necessary approvals prior to undertaking such action.

c. During the construction of the Project, all construction-related traffic going to construction sites is required to adhere to the City's Codes, regulations, provisions and directives.

d. FPL shall follow all city procedures for the coordination and mitigation of all traffic impacts during the construction stage and any other period when traffic is impacted. In all instances, the final decision on traffic mitigation shall be by the Chief of Police in coordination with Public Works and any other impacted Department.

Supporting Regulation(s): City of Coral Gables City Code Chapter 62; City of Coral Gables Police Department SOP-057.

4. Access Roads and Drainage.

FPL as a post-certification submittal to the City shall submit detailed design plans showing all access roads and drainage plans after ROW surveys and final design plans are completed.

Supporting Regulation(s): Section 403.5317(2), F.S.; Rule 62.17.665, F.A.C. City of Coral Gables City Code Chapter 62;

F. **Solid Waste.**

FPL will collect, remove, and dispose of debris and solid wastes in compliance with state and local regulations.

Supporting Regulation(s): City of Coral Gables Code of Ordinances Chapter 54, Article III, Section 54-155.

G. **Conservation.**

1. Potable Water.

The City derives its potable water supply from the Miami-Dade Water & Sewer Department. According to the Application, FPL proposes to derive a portion of its water supply from the same source as the City. However, the Application fails to describe what impact, if any, FPL's use of potable water will have on the long-term water supply throughout Miami-Dade County.

The application lacks any detailed analysis of the potential impacts that FPL's fill extraction activities may have upon the aquifer from which the City's potable water supply is obtained. FPL shall provide to the City information sufficient to allow the City to properly evaluate the impact of the spoil areas by the Project's dredge-and-fill activity may have upon the aquifer from which the City's potable water supply is obtained.

Supporting Regulation(s): City of Coral Gables Comprehensive Plan: Community Facilities Element-Policy 5.1.4.

H. **Wildlife and Upland Habitat Protection.**

1. The City strongly wishes to protect endangered or distinctive native species of plants and animals. The City of Coral Gables is a part of a bird migratory flow pattern to the Bahamas, West Indies, and tropical Americas. Miami-Dade County, Fairchild Tropical Botanic Gardens, as well as the City of Coral Gables proper, are a stopping grounds for numerous species of migratory birds, and FPL must present plans to offset any impacts to the migratory patterns of the affected bird population.

2. FPL shall coordinate with Miami- Dade County and Fairchild Tropical Botanic Gardens and provide a study to be performed over the spring or fall migration and consistent with the following requirements to document any endangered or unique plant and animal species within the proposed ROW to the City during the post-certification submittal process. Permits for management plans approved by Federal agencies or acknowledged by State agencies as being consistent with these Conditions of Certification shall be provided to the City for any listed species affected or potentially affected by the transmissions lines within the City ROW. The post-certification submittal to the City shall include a written evaluation of the proposed ROW containing:

   a. date of field review;

   b. name and qualifications of individual(s) conducting the review;

c. a brief statement of the methodology used to conduct the investigation;

d. a map of land use and land cover using the FDOT land cover classification system;

e. a list of species observed on the site;

f. a map indicating where listed species were observed on the site; and,

g. measures proposed by the applicant to ensure non-disturbance, relocation or other acceptable mitigation measures.

Supporting Regulation(s): Section 403.5113 (21), F.S ; 403.526(2)(b)3, F.S.; 403.522(18), F.S.; 403.526(2)(a)5; F.S.; Rule 62-17.191, F.A.C.; Rule 62.17.665, F.A.C.; City of Coral Gables Comprehensive Plan, Natural Resources Policy 1.5.2.

I. <u>Architectural and Historical Resources.</u>

Though much of the East Preferred Corridor has been cleared, the City has concerns about historic resources located within or adjacent to the East Preferred Corridor. FPL, as a condition during post-certification, shall coordinate with the City's Historic Preservation Officer, and with Miami-Dade County's Historic Preservation Department to determine the level of coordination required to satisfy the City's Land Development Code stipulations regarding historic and archaeologically significant sites and to minimize any potential effects that the final route may have on these resources. FPL should also agree to hire a consultant to perform an archaeological survey prior to the construction of the transmission line to avoid damaging any historic resources found to the extent practicable, and if avoidance is not practicable, to mitigate impacts through salvage operations or other methods acceptable to the State of Florida Division of Historic Resources and the City and County.

Supporting Regulation(s): City of Coral Gables Comprehensive Plan, Historical Resources Element- Policy 3.1.2 and 4.1.2. City of Coral Gables Historic Preservation Ordinance.

J. <u>Parks and Recreation.</u>

1. Development of a Bike Trail.

FPL has indicated its willingness to allow shared use of the proposed transmission line corridor with other users, such as parks and trails. The County and City have developed detailed designs for a proposed bike trail along the area of the East Corridor route, and it requests an improved development of a trail co-located

along the Project site for the use of walkers, joggers, and bicyclists as part of the development of the Project.

2. Coordination with Other City Recreational Facilities.

In addition to the bike trail, recreational offerings would be enhanced by linking the area under consideration with the City's parks. The City would like to request the development of a pathway connecting the new bike trail to any parks located within a mile from the corridor.

Supporting Regulation(s): City of Coral Gables Comprehensive Plan, Mobility Element-Goal-2, Policies, 1.1.4, 1.1.5, 2.3.1, 2.3.4 and 2.8.6; Recreation and Open Space Element, Goal 1; City of Coral Gables Master Plan; City of Coral Gables Parks and Recreation System Master Plan; City of Coral Gables Bicycle Master Plan.

K. <u>Mitigation of Construction Impacts</u>.

1. Final Design and Document Submittal; Notice to City Departments, Coordination of Scheduling.

At least ninety (90) days prior to the commencement of construction of any portion of the transmission line, FPL shall coordinate with, and provide to the City the following:

a. a narrative description of the installation and construction of the line improvements specific to potential impacts within the City, inclusive of location of poles, lines and scheduling;

b. identification of general location of construction staging, and minimum land area required, and

c. ROW encroachments necessary as applicable (i.e. road closures, etc).

d. a final design plan showing:

-all protected trees over 4" dbh to be removed for the transmission line, access road, and drainage installation. Protection measures for trees proposed for preservation shall be detailed;

-the distances of the transmission line location to the nearest existing homes;

-construction timetables, phasing, and construction traffic to be generated by the transmission line construction;

-the screening measures, including landscaping, to be installed to screen any auxiliary equipment to be located along the transmission line from adjacent residential uses;

-location, description, and terms of any proposed easements, reservations or dedications, together with any necessary legal instruments;

-all flood zone and floodway delineations along the route of the transmission line;

-the location of any proposed school or park sites within one-quarter mile of the transmission line location on the final design plan;

-the location of the ROW with respect to adjoining development, the existing zoning on adjoining properties, and existing land uses adjacent to the ROW;

-the name, location, and width of existing or platted street public ROW within or contiguous to the right-of- way;

-the location, size, and depth of sewers, water mains, and storm drains, and approximate location of power, and phone lines, within contiguous ROW;

-the location and size of easements for all the above-ground utilities, such as electric power lines, within or adjacent to the ROW;

-topographic contours on one-foot intervals based on means sea-level datum;

-flood plain management information on flood zones;

-location of fire hydrants and exterior fire suppression systems supplied by potable and non-potable water sources;

-location, size and type of all proposed stormwater management facilities, and

-gross acreage of the site.

All calculations and descriptions prepared by a Florida registered professional engineer need to show evidence of compliance with stormwater management including the percentage of all impervious surface located on lots. If the ROW is located in a flood

way, all calculations and descriptions prepared by a Florida registered professional engineer need to demonstrate compliance with applicable flood plain management requirements.

As part and parcel of the foregoing, prior to construction, FPL shall provide the City with a post-certification submittal regarding the design and location of the transmission line within the City of Coral Gables. These details will include: coordination with and approval by the Public Works and Police Departments regarding how poles will be delivered, parking of crew members during construction, construction hours, and how the pedestrian walkway will be affected, as well as a schedule which details explicit activities and the time frame for the construction project, to be updated, at a minimum, on a bi-weekly basis.

Supporting Regulation(s): Section 403.526(2)(b)3, F.S.; 403.522(18), F.S.; 403.526(2)(a)5, F.S.; Rule 62.17.665, F.A.C.; FDOT's Plans Preparation Manual; FDOT Utility Accommodation Manual; Section 337.403, F.S., Chapter 14-46, F.A.C.; City of Coral Gables City Code Chapter 62; City of Coral Gables Comprehensive Plan, Future Land Use Element-Policies 1.10.2; Community Facilities Element-Goal 4, Policies 4.1.3 and 4.1.5; Natural Resources Element -Policies 1.4.4; Public Safety Element- Policies 2.1.1 and 2.2.2. and .3.

L. **Safety and Design Standards**.

FPL will design the proposed poles and transmission line(s) to meet or exceed the following safety and design standards, including but not limited to:

1. National Electrical Safety Code (NESC), adopted by the Florida Public Service Commission (see Section 366.04, Fla. Stat., and Rule 25-6.0345(1), Fla. Admin. Code);

2. Occupational Safety and Health Administration (OSHA) rules providing requirements for safe minimum approach distances;

3. American Society of Civil Engineers (ASCE) Manual 74, Guidelines for Electrical Transmission Line Structural Loading, and Standard 48-05, Design of Steel Transmission Pole Structures;

4. FAA guidelines involving requirements in the vicinity of airports (if applicable);

5. FDOT Utility Accommodation Manual;

6.Chapter 62-814, Fla. Admin. Code (FDEP rule regarding electric and magnetic fields);

7.National Electrical Reliability Corporation (NERC) standard FAC-003-1; and

8.American National Standards Institute (ANSI) standards A300 (Part I)-2001 and Z133.1-2000.

M. Traffic Coordination and Maintenance.

1. Transportation plans.

During post-certification, FPL shall submit to the City the names of the public roadways that it plans to use for the transportation of the transmission poles, the types of carriers, and wheel pressures that will be utilized, and the times of day for the transport of said transmission poles. During construction of the proposed transmission line, FPL will comply with the Maintenance of Traffic Plans submitted to the City of Coral Gables.

The area of the City through which the proposed transmission line corridor will pass is densely developed with residential type homes and apartments, as well as Dormitories for University of Miami Students. The open field along Ponce de Leon boulevard and Granada is owned by the University of Miami and used as a Fire Rescue Helicopter Landing Area. FPL shall provide detailed information as to how it proposes to mitigate the construction activity associated with the new transmission line through the City as it relates specifically to the immediately adjacent University Campus and residential areas.

In its use of public rights-of-way, FPL will implement traffic control plans as outlined in the Manual on Uniform Traffic Control Devices (MUTCD), the Florida Department of Transportation (FDOT) Utility Accommodation Manual, or other appropriate traffic control plans, and will conform to applicable state and local regulations.

2. Construction Matters.

A site plan and Temporary Use Permit forms and fee shall be submitted to the City's Public Works Department a minimum of 30 days prior to installation of any construction trailer. A description of the type of building shall be provided.

3. Coordination of Construction Schedule.

After the specific right-of-way to be used for construction of the transmission line is identified, and the transmission line is designed, FPL shall coordinate with the appropriate City departments regarding the City's infrastructure projects and resurfacing programs.

Supporting Regulation(s): Florida Statutes Chapter 316; FDOT's Plans Preparation Manual; FDOT Utility Accommodation Manual; Section 337.403, F.S., City of Coral Gables Code of Ordinances, Chapter 14-46, F.A.C Chapter 62, Article III, Section 62-63(a).

N. Noise Level and Hours of Operation.

The Project, as proposed, will be in close proximity to existing developed residential uses, and multifamily residential developments which are currently under construction, as well as the University of Miami Campus which includes the University's multi-use zone and approved medical facility alongside Ponce de Leon Boulevard and the City's Fire Station No. 2. Care shall be taken to adequately address the public health and welfare of nearby residents through the strict observation of permitted hours of construction and permitted noise levels, both during and post construction. FPL shall comply with the City's noise ordinance in the construction, operation, and maintenance of the proposed transmission line.

During construction of the proposed transmission line, FPL proposes to mitigate and minimize the potential noise impacts of construction by scheduling activities to be completed during weekdays and during daylight hours (7:30 am to 6:00 pm) in accordance with Chapter 34 of the City Code. To the extent that nighttime construction is required, FPL will coordinate with the City in advance of such nighttime construction and obtain approval from the city no later than seven (7) days prior to anticipated nighttime work so that appropriate notification may be provided to affected neighbors. FPL shall be responsible for the costs of such notification. Since the area of proposed construction is primarily a residential neighborhood, which also includes University Dormitories, a medical facility and multi-use zone, a mixed use district and the City's Fire Station No. 2 building, in all instances the final decision as to whether nighttime construction or activity shall occur, shall be made by the City of Coral Gables City Manager's office.

Following construction, power poles and line will be located adjacent to University of Miami Dormitories and classrooms, and a University Multi-Use zone and Medical Facility, as well as, Single Family residential units, Fire Station Number 2, and Mixed Use Developments which house retail and commercial uses on the ground level and multi-family residential units all on the floors above, all of which are immediately adjacent to the Right of Way where the new FPL proposed poles and line will be placed. Operation of the Transmission lines shall at all time be with due care to the adjacent Fire Department Building off US 1 and Riviera Drive. The building has housed the city's firefighters for well over 40 years. Metro-rail which is immediately adjacent to the building shuts down at 11 P.M. every day. The noise emanating from the transmission line/poles shall not interfere with firefighters peace and tranquility, as well as hours of rest and sleep. FPL shall be required to retrofit the building or install any barriers necessary to prevent any impact on the city's fire fighters.

In addition, FPL shall at all times comply with the City's Noise Ordinance so as to preserve the tranquility and health of the City's residents and University students. Section 34- 121 of the City Code provides:

> It shall be unlawful for any person to make, continue, or cause to be made or continued any unreasonably loud, excessive, unnecessary or unusual noise which either annoys, disturbs, injures or endangers the comfort, repose, health, peace, or safety of others, within the limits of the city.

Section 38-29 of the City Code further provides:

> It shall be unlawful for the owner of any property, or the agent of any owner of any property, to allow to be made, any loud, improper, unnecessary, or unusual noise which annoys, disturbs, injures or endangers the comfort, health, peace or safety of others within the limits of the city.

Due to the proximity, height, intensity of usage and power lines of, and along the poles, FPL shall mitigate all potential impacts on the health peace and tranquility of the affected neighbors and students including the installation of reasonable buffering to lessen negative aural impacts. (See Exhibits "G" and "H" attached hereto)

Supporting Regulation(s): City of Coral Gables Code of Ordinances, Chapter 34, Article V, Sections 34-121 through 34-128; and Chapter 38; City of Coral Gables Comprehensive Plan, Future Land Use Element, Policies 1.3.2 and 1.3.3.

O. <u>Erosion and Sediment Control Plan.</u>

FPL shall provide information necessary to the City to demonstrate the avoidance and minimization of erosion during construction activities. This information will include: design drawings drawn to scale showing the nature, location, dimensions and elevations of the area in question, existing or proposed structures, earthen fill, storage of materials or equipment, drainage facilities, and the location of the foregoing.

Prior to commencement of construction activities as part of the post-certification submittal, FPL shall submit an Erosion and Sediment Control Plan (ESCP) to the City for review. The ESCP shall identify construction sequencing, Best Management Practices to minimize erosion and sedimentation and to manage the quality and quantity of stormwater runoff during and after construction and other practices employed to minimize fugitive particulate emissions during and after construction. The ESCP shall at a minimum include the following information:

1. Details of construction sequencing, dewatering activities and sump locations, stockpile areas, and/or deposition areas for excavated materials:

a. description of land clearing/disturbing activities, existing site conditions, and adjacent land uses/areas that might be affected by land clearing/disturbances;

b. identification of stockpile areas and/or deposition areas for excavated materials;

c. description of potential on-site problem areas such as steep grade changes, highly erodible soils, areas adjacent to wetlands, surface waters, or upland preservation areas;

a. construction scheduling, including the expected starting and stabilization dates;

e. identification of disturbed areas where construction will not be ongoing, and final grade will not be achieved within fourteen (14) days, and an indication of temporary stabilization measures.

2. Details of Best Management Practices and Fugitive Particulate Abatement Methods:

a. details, drawing and cross-sections of erosion and sediment control devices;

b. maintenance program for erosion and sediment control devices including inspection frequency and maintenance activities;

c. haul routes and details of apron stabilization at ingress/egress points to ROW;

d. details/location of equipment washing area;

e. details of fugitive particulate abatement methods, and

f. contractor information, including twenty-four-a-day contact information.

3. Details of dewatering activities and locations, drawing and cross-sections-sections of dewatering pumps.

4. Water Quality Monitoring Plan and monitoring stations if applicable. FPL shall be responsible for scheduling an on-site meeting with City staff. Prior to scheduling the on-site meeting, FPL shall:

a. obtain all applicable approvals (Environmental Resource and

Permit and NPDES Permit);

b. stake the boundaries of the wetland buffers, upland preservation areas or other environmentally-sensitive areas, as indicated on the approved Final Design Plan;

c. stake all silt screen locations as needed to prevent turbidity and erosion off the site as indicated on the Final Design Plans.

Supporting Regulation(s): Section 403.526(2)(b)3., F.S.; 403.522(18), F.S.; 403.526(2)(a)5, F.S.; Rule 62.17.665, F.A.C.; City of Coral Gables Code of Ordinances Chapter 113. City of Coral Gables Comprehensive Plan, Mobility Element- Policy 2.8.5: Natural Resources Element-Policy 2.3.2.

P. <u>Public Information and Notification.</u>

1. Detailed Construction Schedule.

Transmission line construction may impact grant deadlines and scheduled roadway and other improvements. FPL meet with and coordinate with the Office of the City Manager to create a detailed timetable for the construction sequencing within the City's boundaries. The Schedule shall be routinely updated and coordinated with the Office of the City Manager.

2. Ongoing Greenhouse Gas Mitigation Strategies.

FPL has created a comprehensive greenhouse gas reduction strategy. Given the long-term nature of the proposed project in a highly environmentally sensitive area. FPL shall provide information about greenhouse gas mitigating strategies for contract fleets, heavy-duty vehicles, and off-road equipment (cranes, bulldozers, and other equipment) FPL shall describe what advanced technology or alternative fuel equipment will be used and any Transportation Demand Management strategies to reduce vehicle miles traveled during construction and operation.

3. Monitoring Reports.

Monitoring reports stating the status and condition of the project shall be provided to the City every month until all on-site construction is completed. A final report indicating changes or deterioration of the roadway shall also be submitted. Any damages identified as the responsibility of FPL or any agents working for FPL shall be repaired within 90 days of filing the report. A ROW permit shall be submitted to and approved by the City's Public Works Department before proceeding with any repairs.

4. Public Meetings and Notices.

In order to keep the residents of the City informed of the status of the project within the City and to address the concerns of the various citizens, groups, and organizations affected by the construction of the transmission line, FPL shall agree to hold regular community neighborhood meetings and public meetings throughout the design, permitting, and construction phases of the project in coordination with the Office of the City Manager. The City requests that FPL take further initiative to schedule this meeting with adequate public notice to City residents and interested parties. FPL shall coordinate with the Office of the City Manager in obtaining updated homeowner associations' and civic groups' contact information to provide these organizations with periodic updates on the design and development process.

Supporting Regulation(s): City of Coral Gables City Code, Chapter 2; City of Coral Gables Comprehensive Plan, Future Land Use Element- Policy 1.6.1; City of Coral Gables Zoning Code, Articles 1 and 3.

Q. Favored Nations, Hold Harmless and Indemnification, and Miscellaneous Conditions.

To the fullest extent permitted by Laws and Regulations, FPL shall indemnify and hold harmless the City of Coral Gables and its consultants, agents and employees from and against all claims, damages, losses, and expenses direct, indirect, or consequential (including but not limited to fees and charges of attorneys and other professionals and court and arbitration costs) arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury, or property damage and (b) is caused in whole or in part by any willful or negligent act or omission of FPL, any sub consultant, or any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder or arises by or is imposed by Law and Regulations regardless of the negligence of any such party.

In any and all claims against the City of Coral Gables or any of its consultants, agents or employees by any employee of FPL, any sub consultant, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, the indemnification obligation under the above paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for FPL or any such sub consultant or other person or organization under workers' compensation acts, disability benefit acts, or other employee benefit acts.

In performance of the services, FPL will comply with applicable regulatory requirements, including federal, state, special district, and local laws, rules, regulations, orders, codes, criteria, and standards. It shall be the responsibility of FPL to obtain and maintain, at no cost to the City of Coral Gables, any and all approvals, licenses and permits required to complete the services provided in the certification and any matters related thereto.

To the extent which any other similarly situated community, or other governmental entity subject to this application, seeks or obtains mitigations, accommodations, terms, benefits or other conditions of approval or agreements or concessions agreed to or granted by FPL (hereafter "conditions") the City of Coral Gables seeks the same such conditions. Should FPL enter into any subsequent agreement or conditions, with any other governmental entity, during the term of this project, which provides for conditions, and conditions are more favorable than those contained in this Agency Report and/or any other agreement between FPL and the City of Coral Gables, then this Agency Report and any subsequent Agreements between FPL and the City shall be deemed to be modified to provide the City of Coral Gables with those more favorable conditions. FPL shall notify the City of Coral Gables promptly of the existence of such more favorable conditions, and the City shall have the right to receive the more favorable conditions immediately. If requested in writing by the City, FPL shall amend any agreements with the City of Coral Gables, the certification, or any other applicable agreement, approval, document, license, permit, etc. to contain the more favorable conditions.

Finally, as to matters within their control, the City of Coral Gables adopts the reports, conditions and recommendations of the South Florida Water Management District, South Florida Regional Planning Council and Miami Dade County.

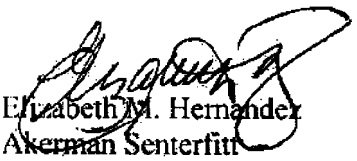
IV. CONCLUSION

It is incumbent on the Secretary to consider the various interests of the affected or impacted communities and residents, as well as those of FPL. As the South Florida Regional Planning Council succinctly stated in their Agency report

> "Proposed transmission lines should be compatible with existing and future land use in terms of mass, scale and height. The ability to provide services should not hinder the prospect of future economic development. The applicant should consider both monetary and societal costs when making decisions about infrastructure location and technology. Special attention should be given to limiting environmental, health, economic and social impacts to the surrounding communities."

For the foregoing reasons, the City of Coral Gables recommends denial of the Application. In the alternative, should approval be granted, the City of Coral Gables requests that first and foremost, FPL be compelled to underground the transmission lines, and that the foregoing conditions be imposed as conditions of certification. Furthermore, and as a specific condition of certification, the City respectfully requests that if the Power Plant Siting Application is withdrawn, suspended or delayed, the Transmission Line and Associated Facilities Application shall likewise be withdrawn, suspended or delayed, or dismissed. Alternatively, the City requests that a condition of certification be that the Application would be contingent on the processing of the Power Plant Application.

Respectfully submitted,



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- and -

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(continued on next page).

FPL TURKEY POINT UNITS 6 AND 7
DOAH Case No. 09-3575-EPP
DEP. OGC Case No. 09-3107

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CITY OF CORAL GABLES

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EXHIBITS TO AGENCY REPORT

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Exhibit F	Photo Simulation of Typical Double Circuit along Ponce de Leon Boulevard
Exhibit G	Powerpoint Presentation of Existing Coral Gables Poles and Lines (kV 138) and Depiction of Proposed FPL Power Poles and Lines (kV230)

EXHIBIT A

PONCE DE LEON BLVD. - FROM RED ROAD (SW 57 AVE.) TO BROOKER ST. (SW 36 AVE.)

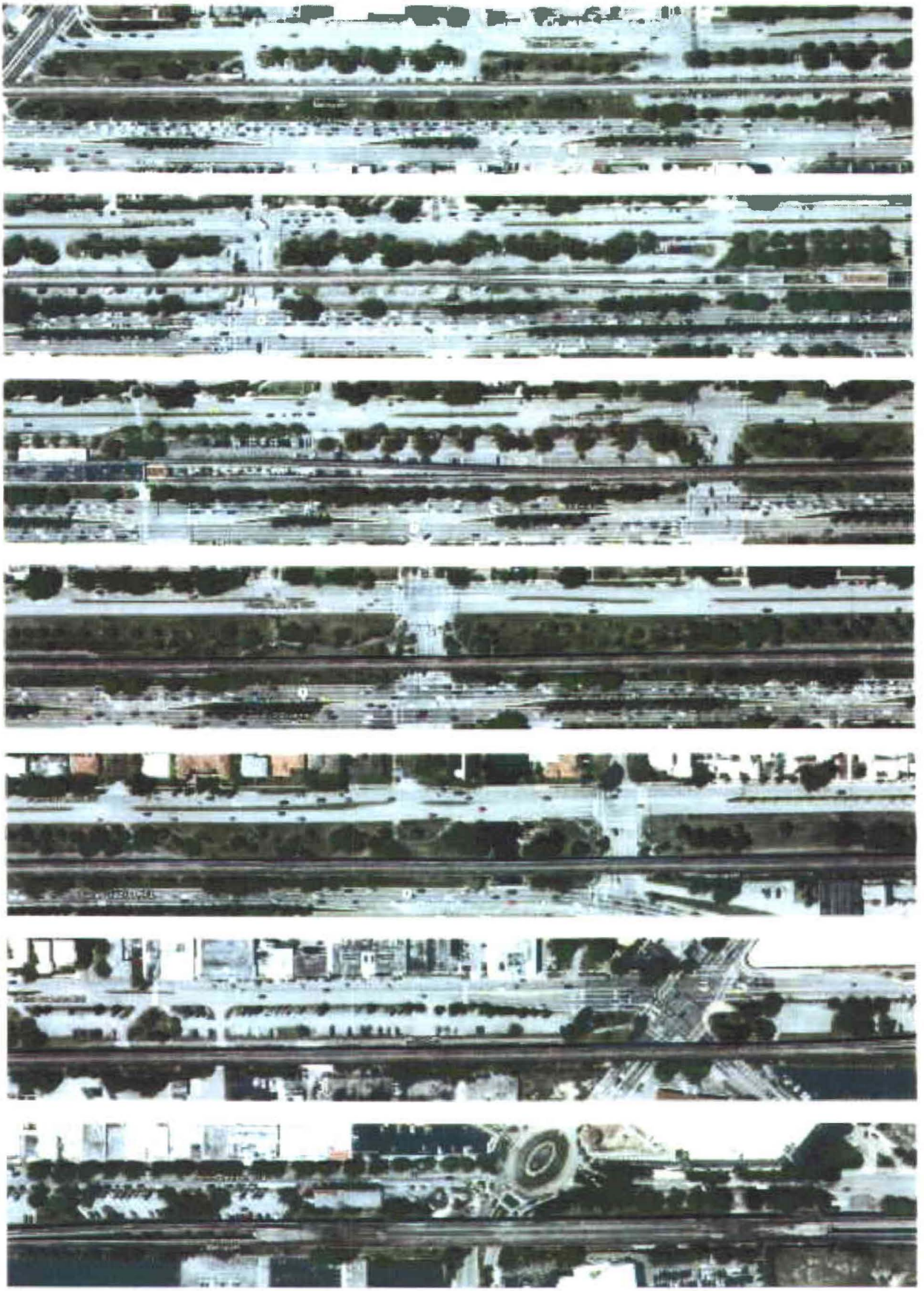
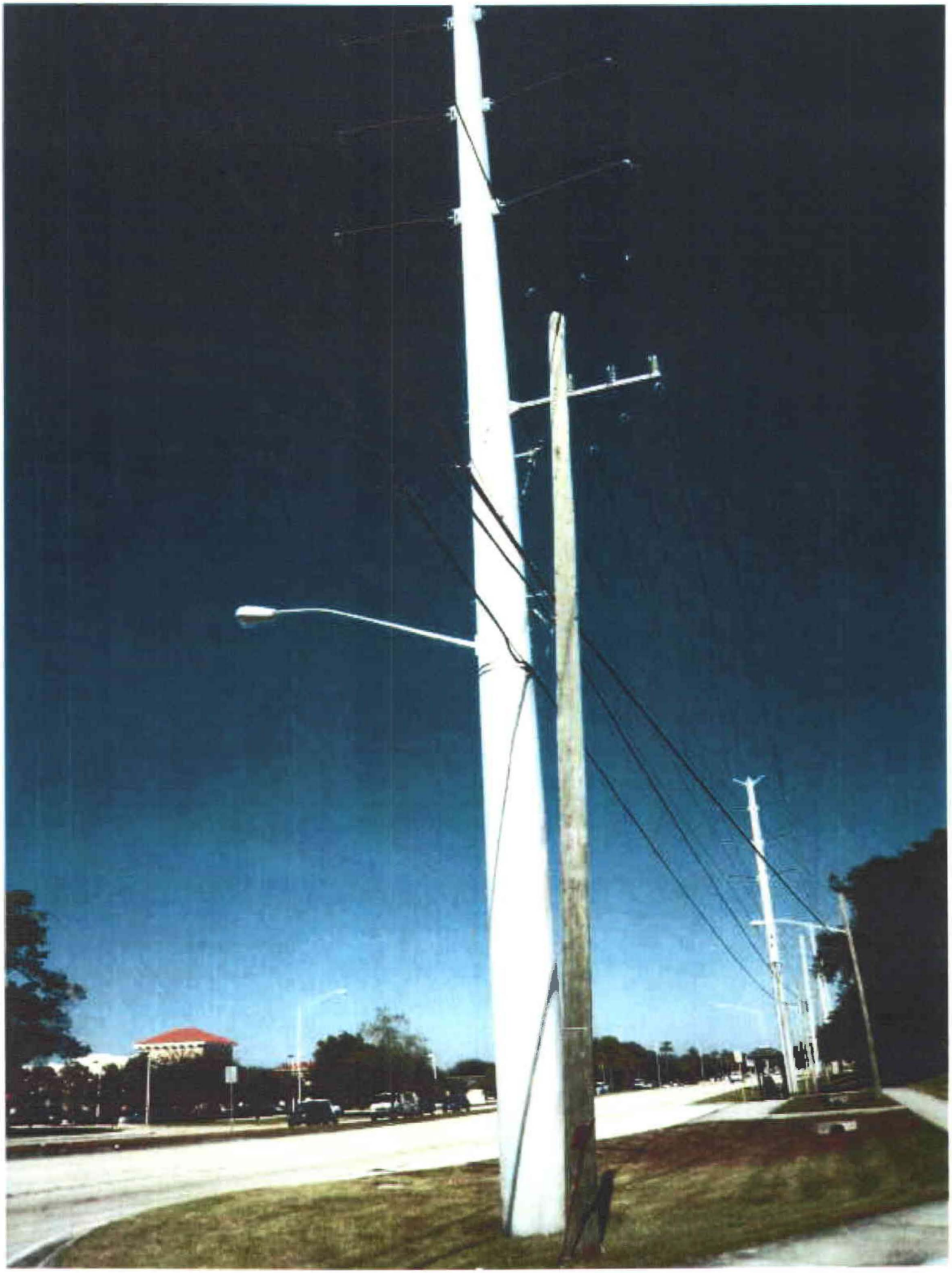
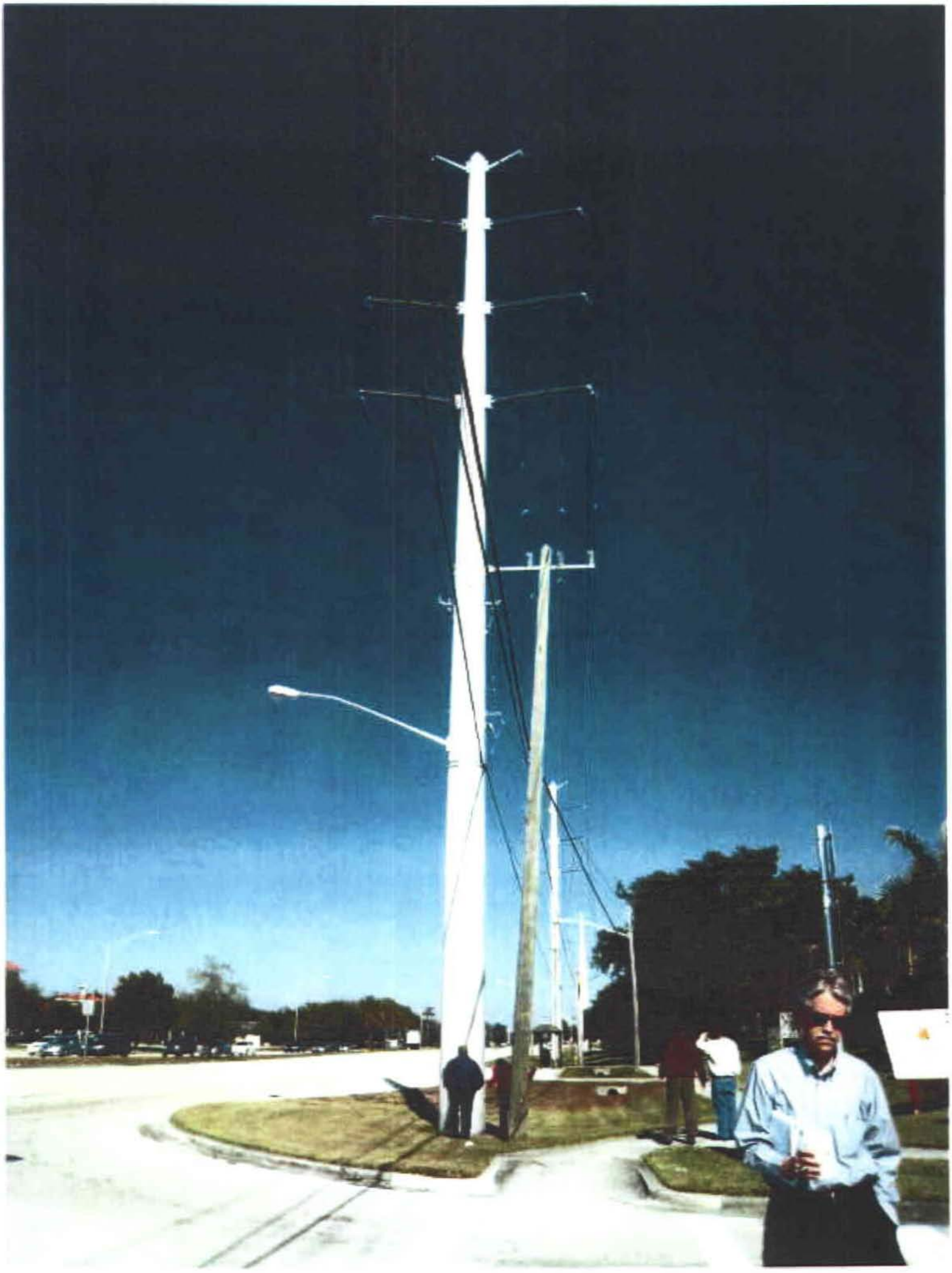


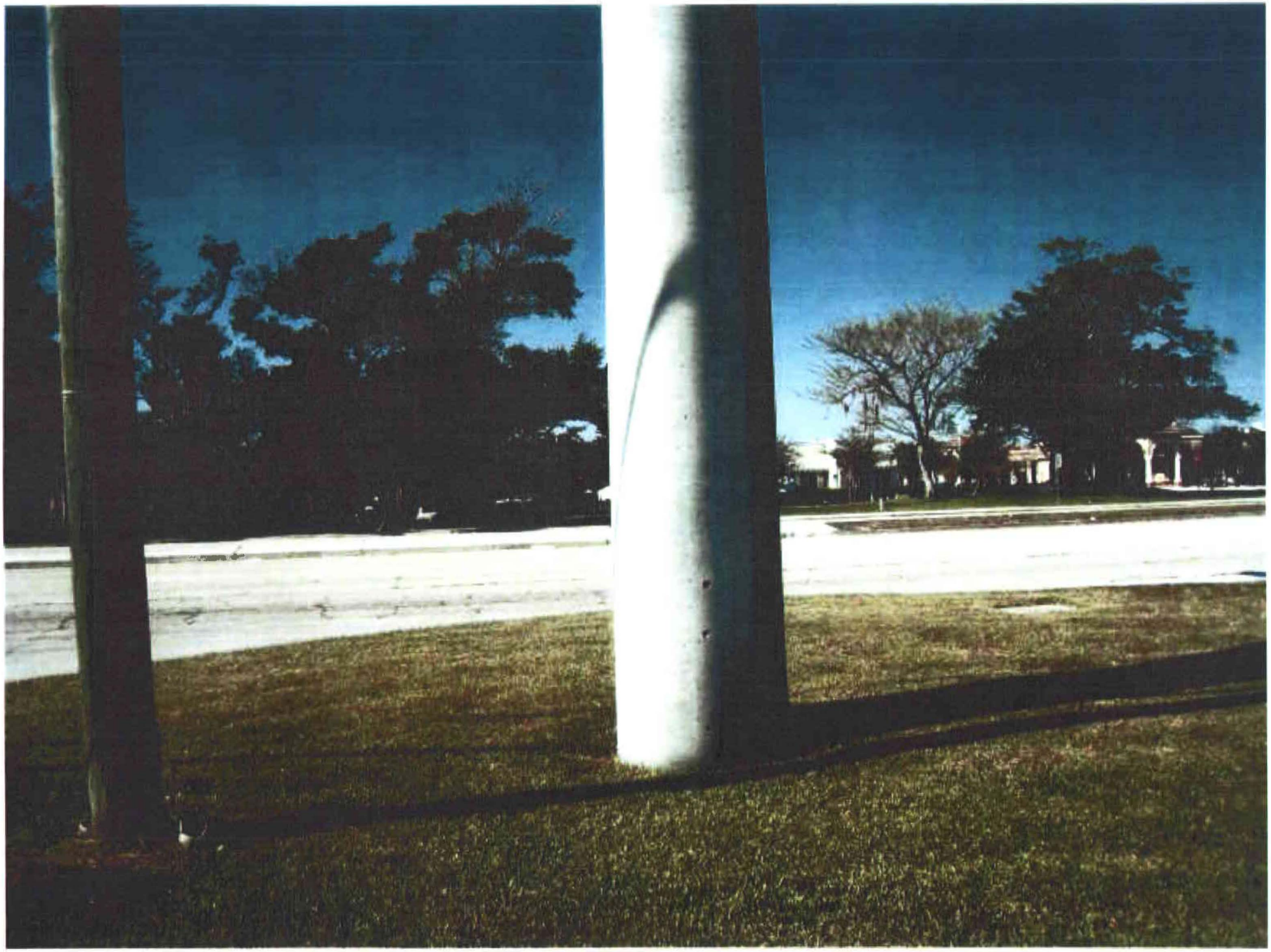
EXHIBIT B



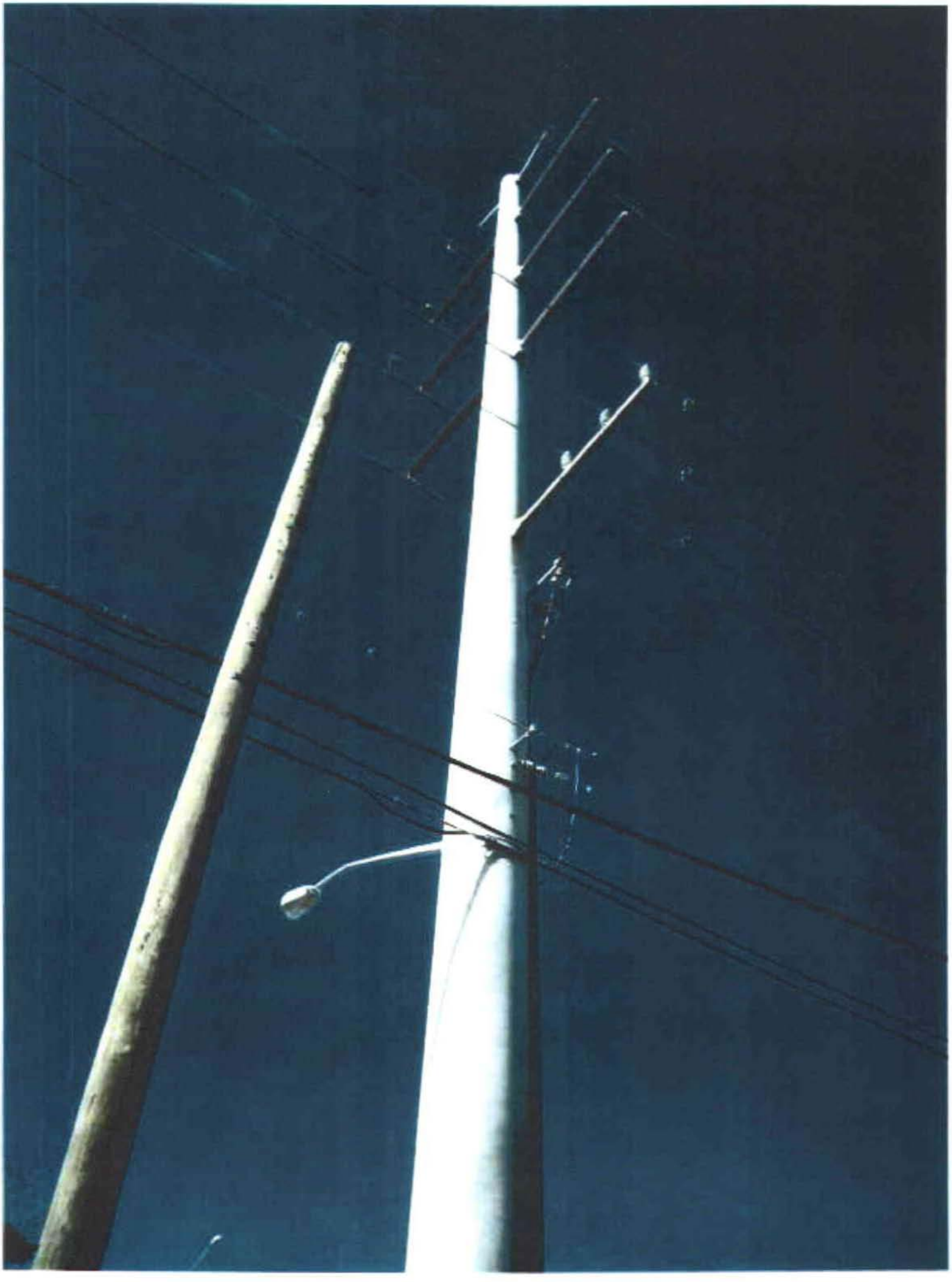


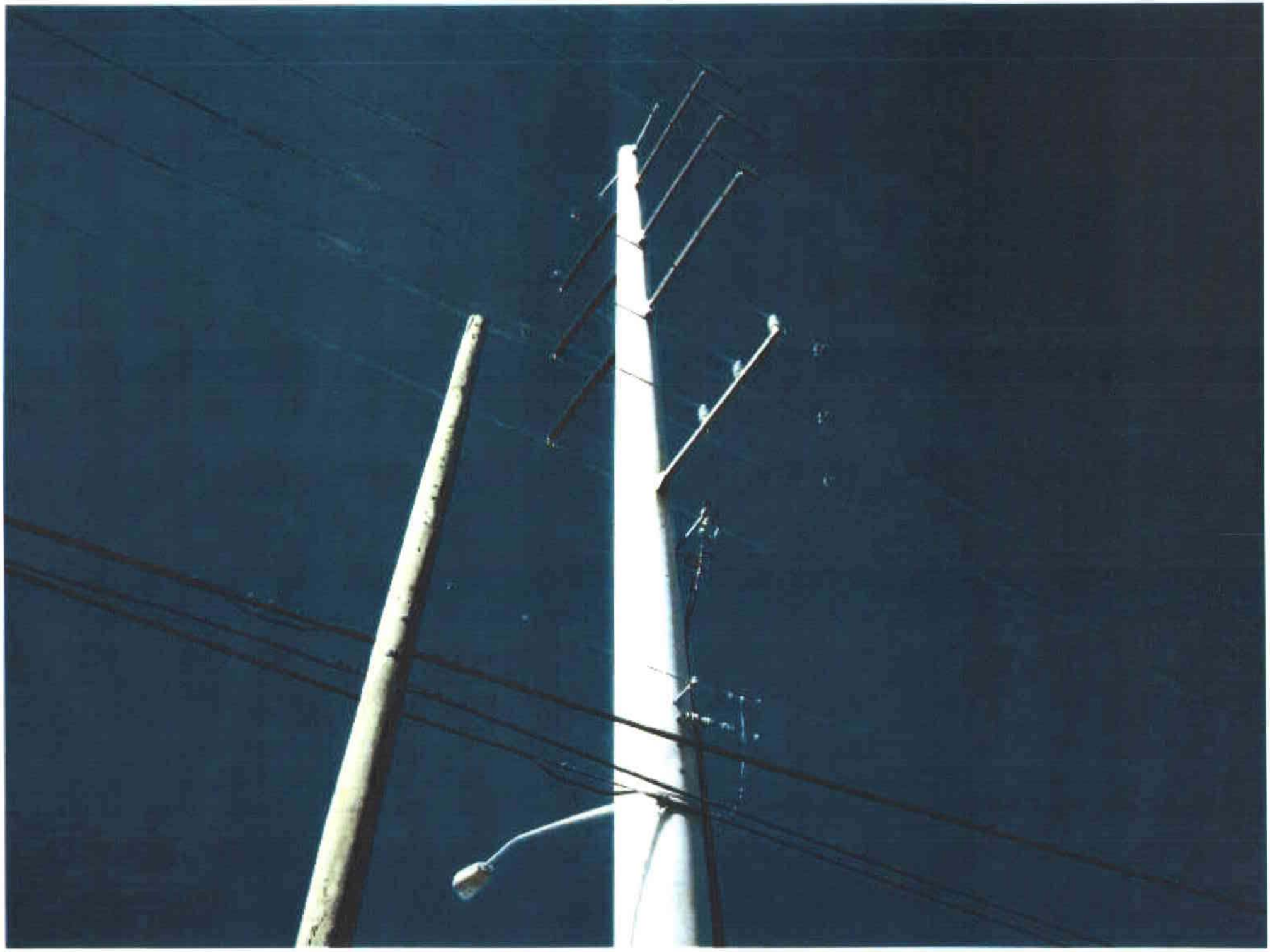

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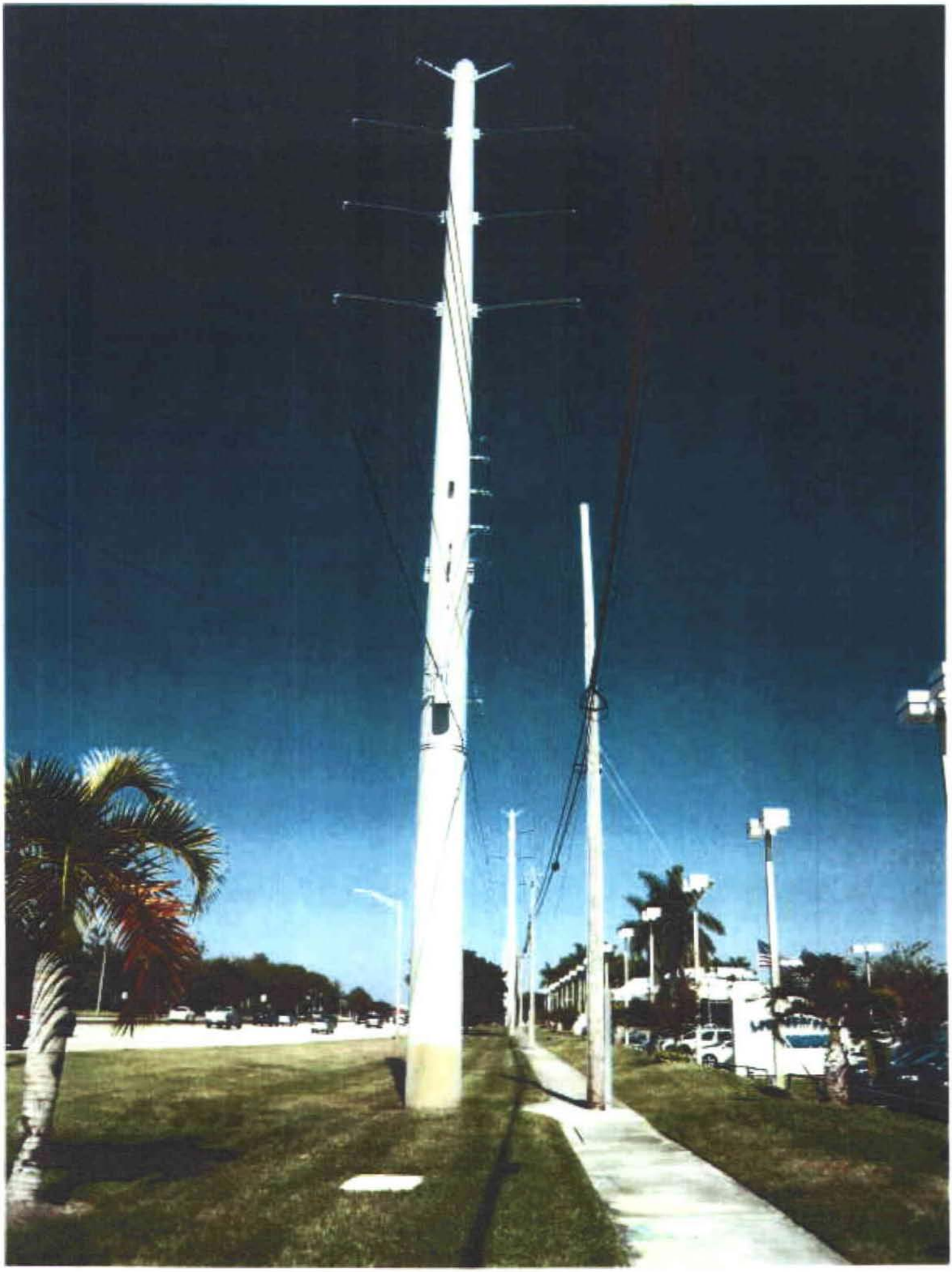


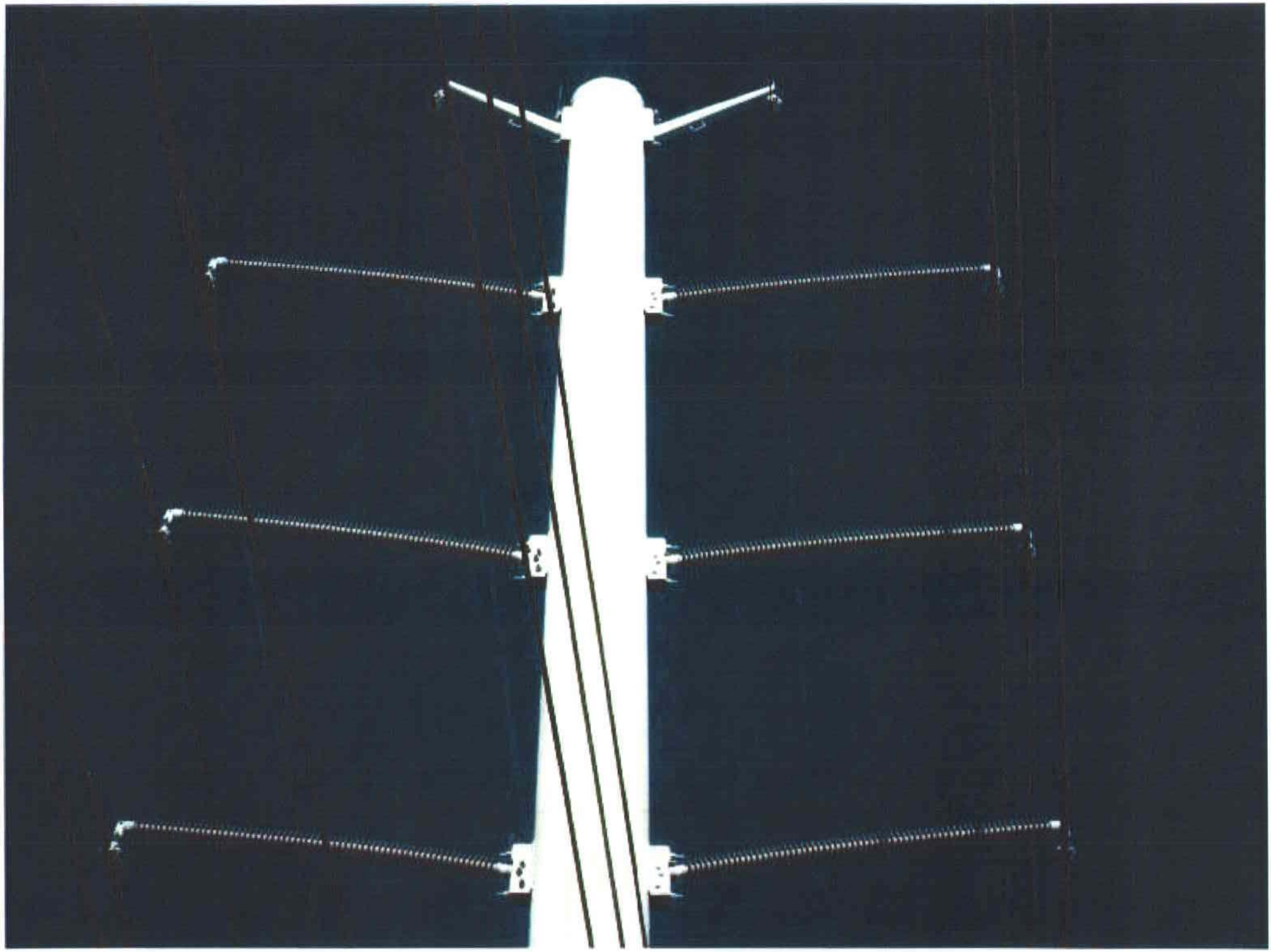




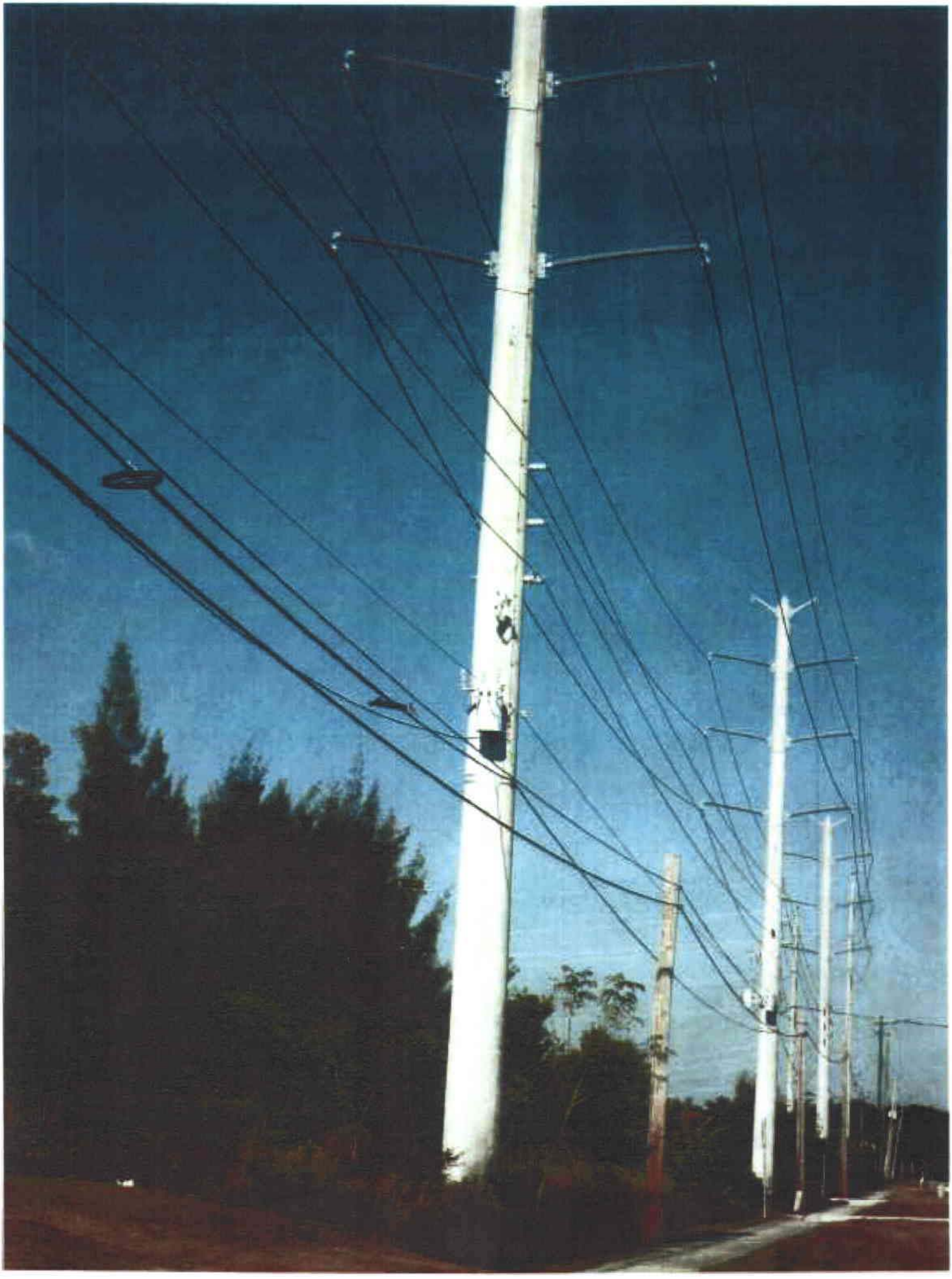




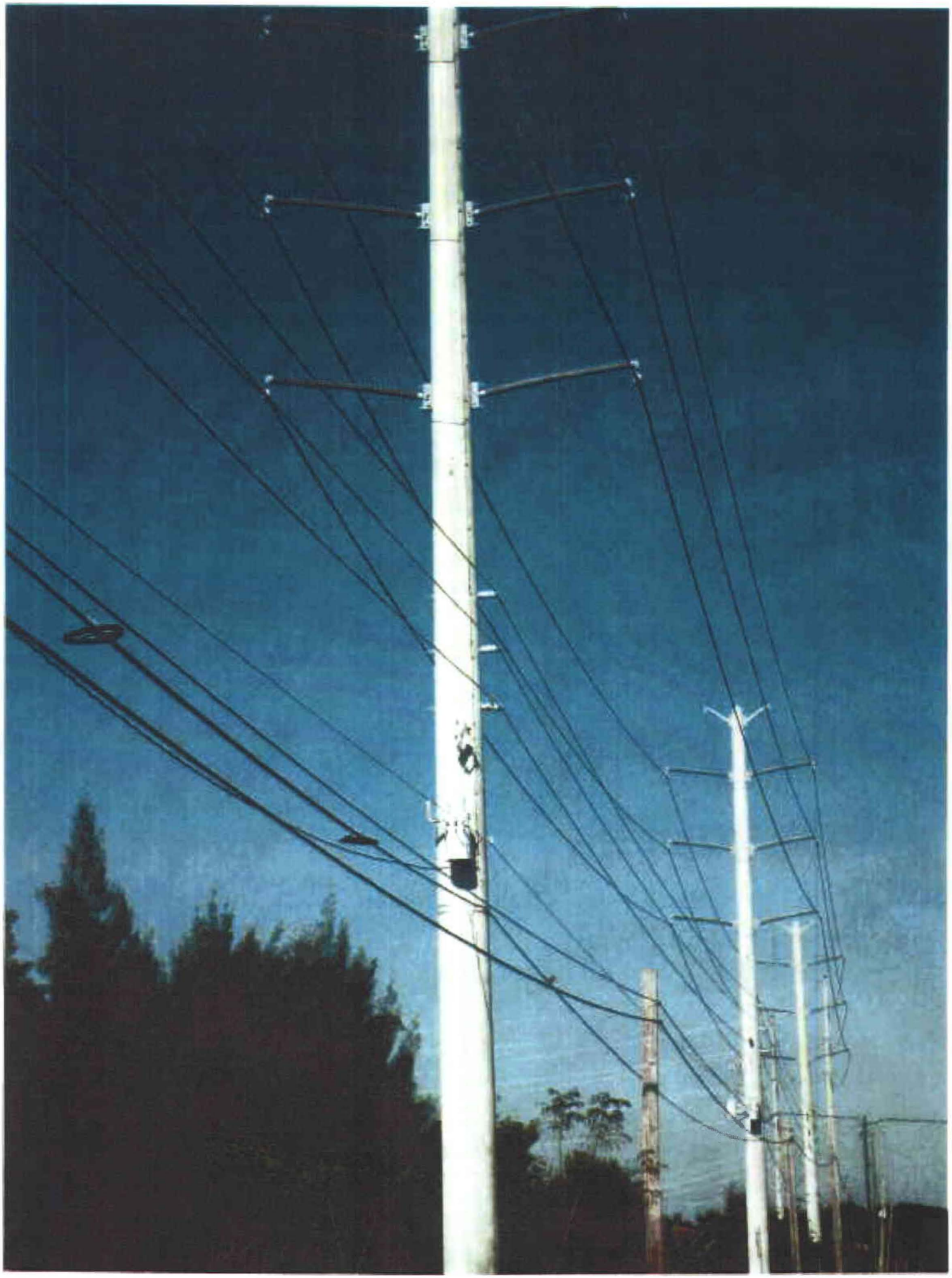


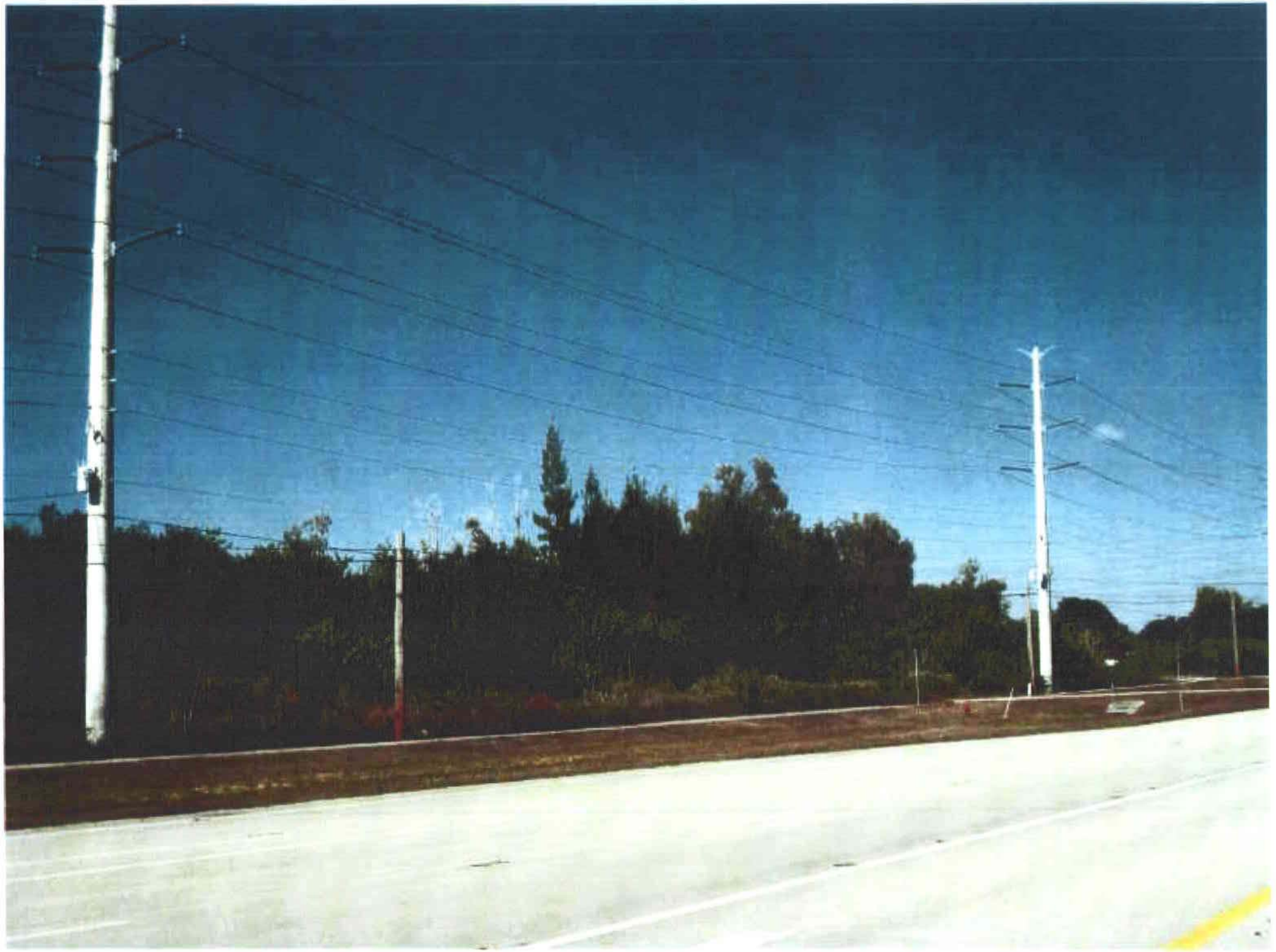



SUNSHINE MEADOWS
EQUESTRIAN VILLAGE
Boarding and Training
561-495-1455

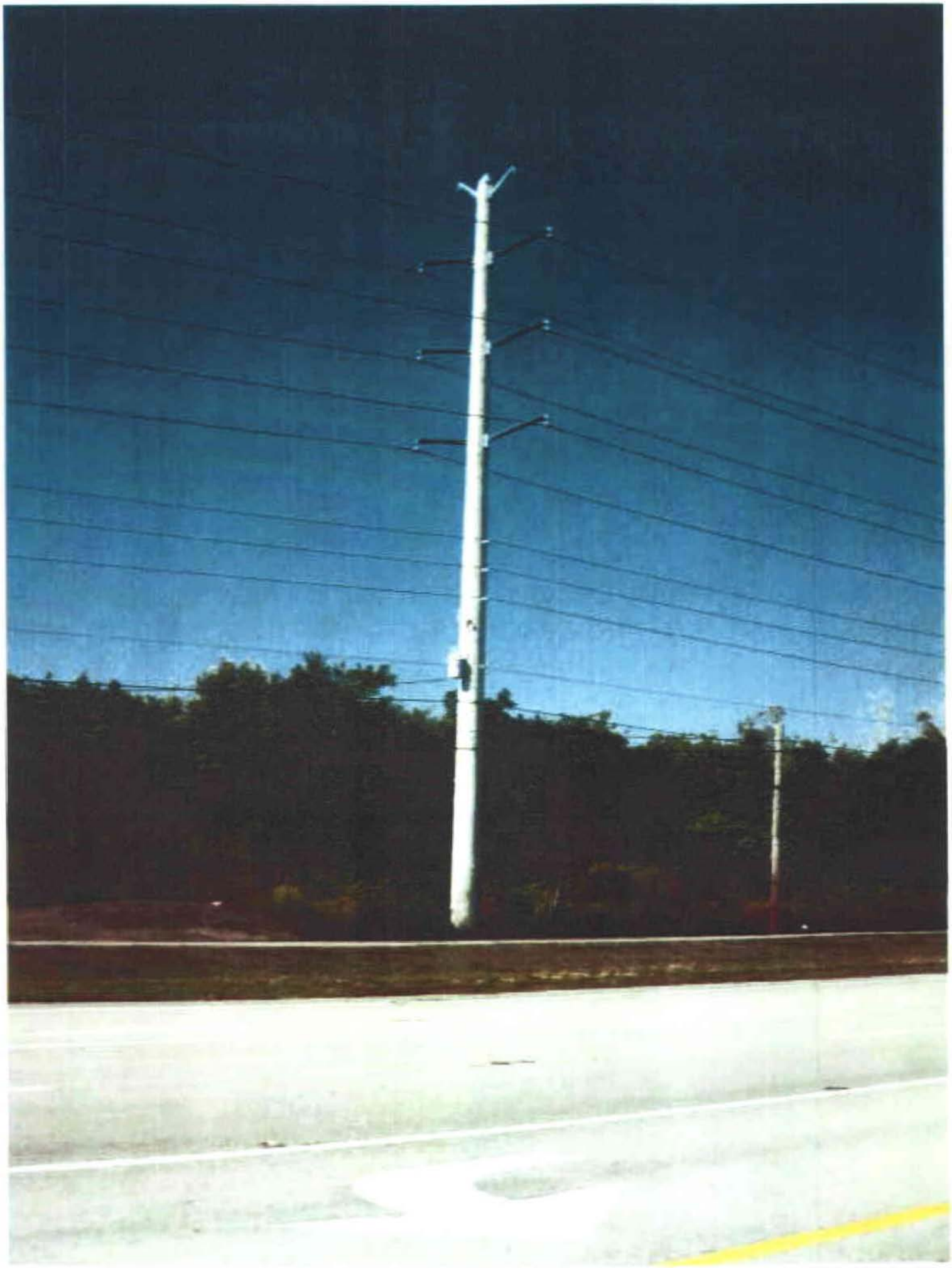


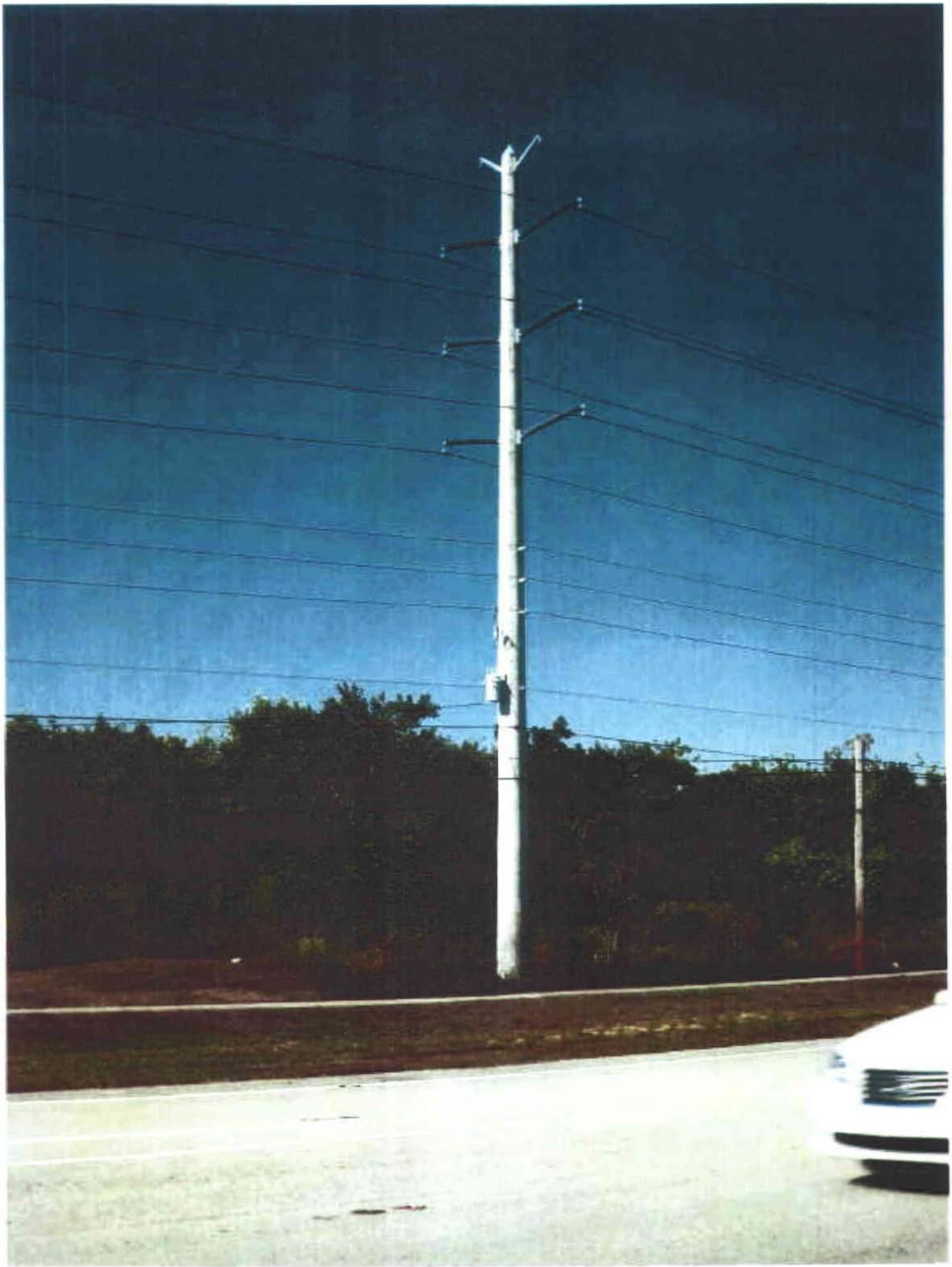

SUNSHINE MEADOWS
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561-495-1455

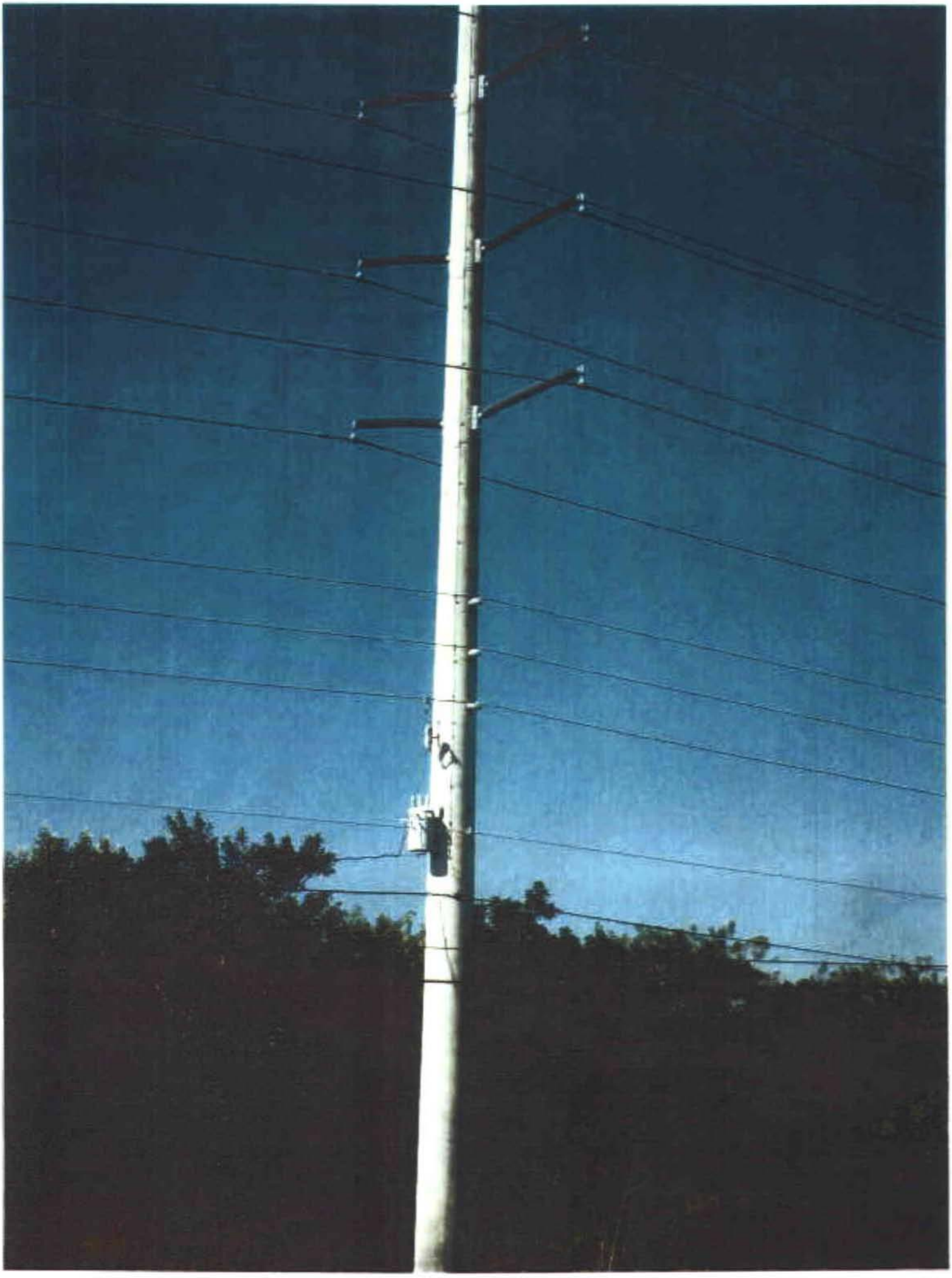


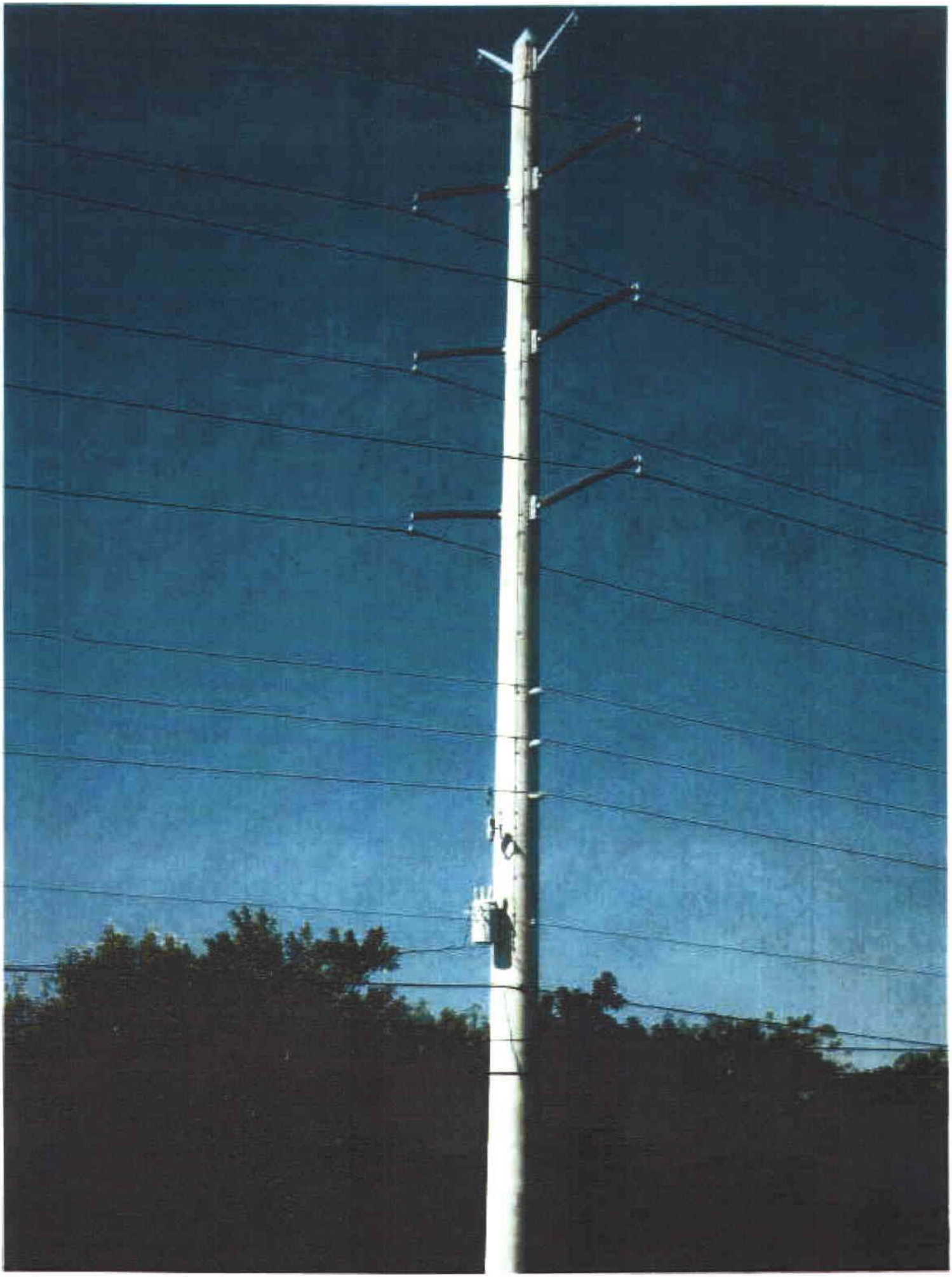


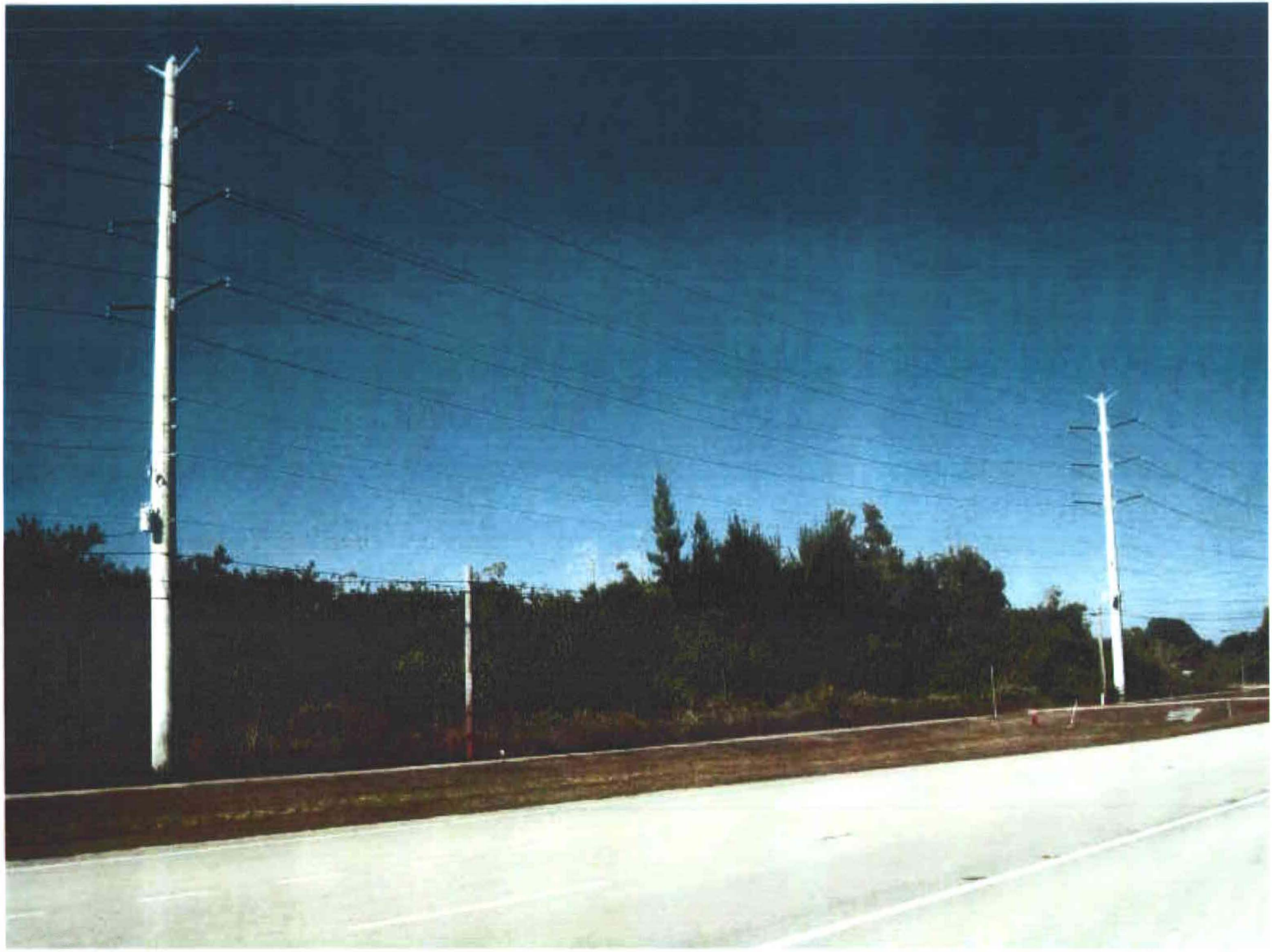








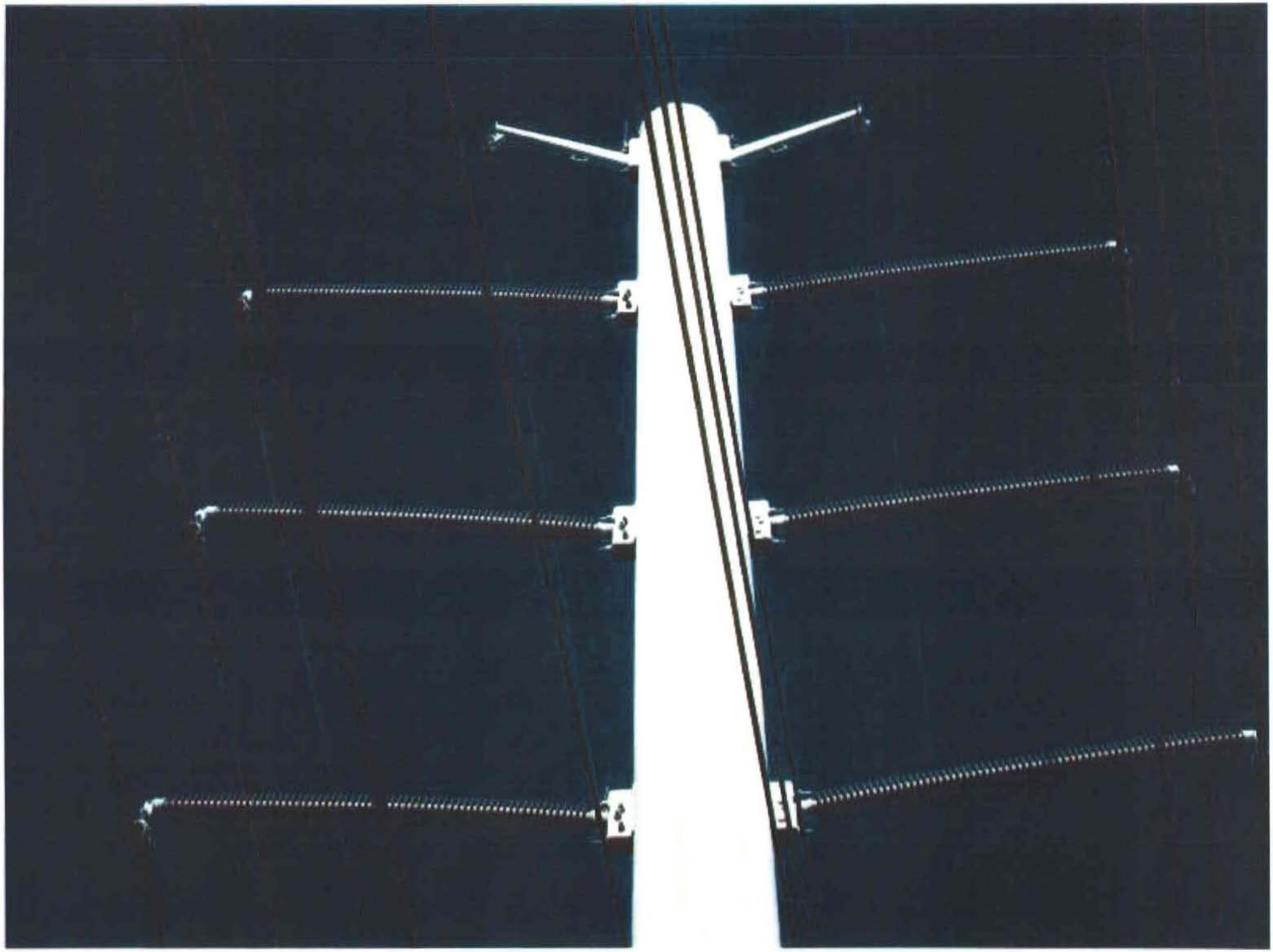


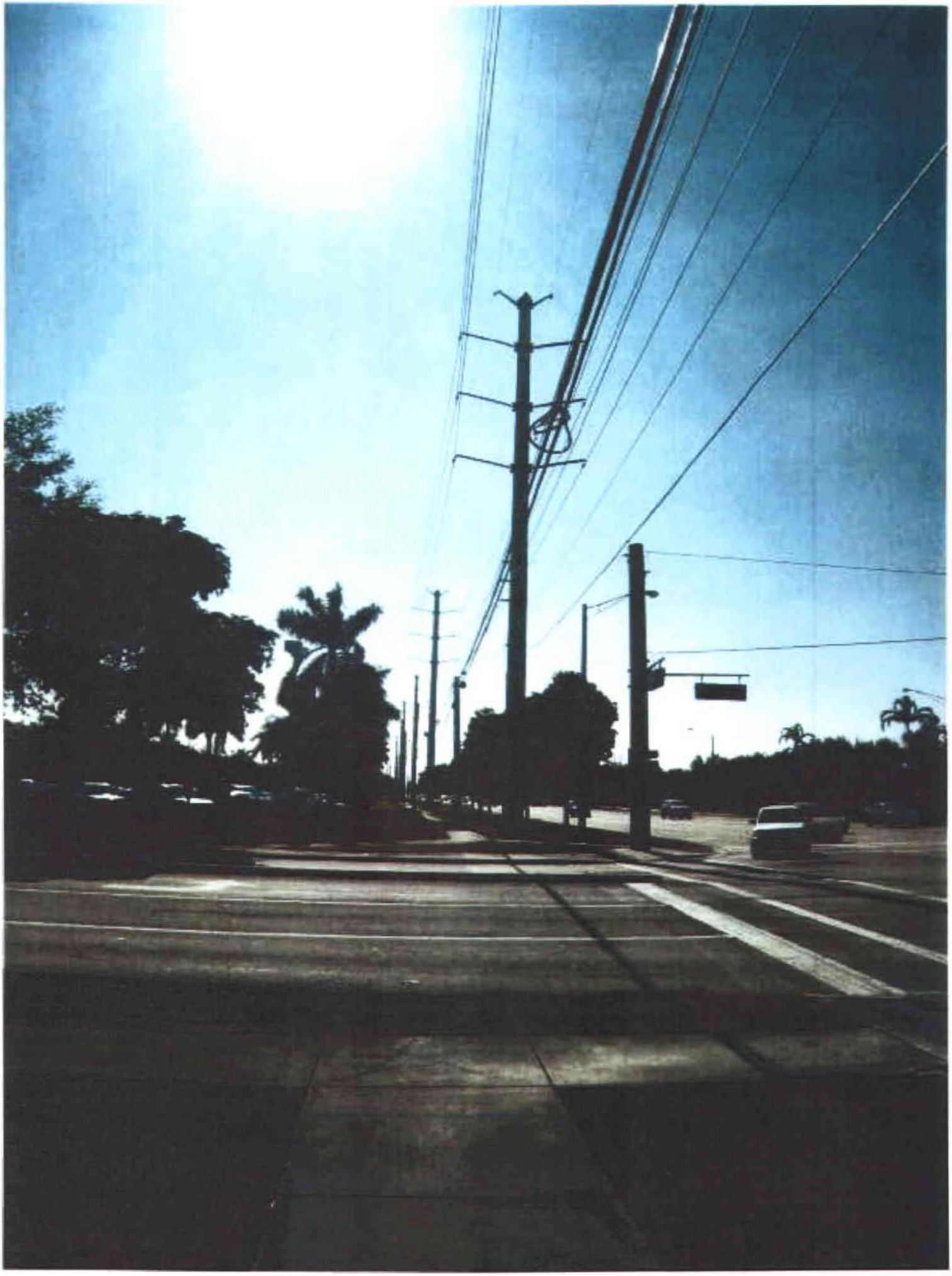


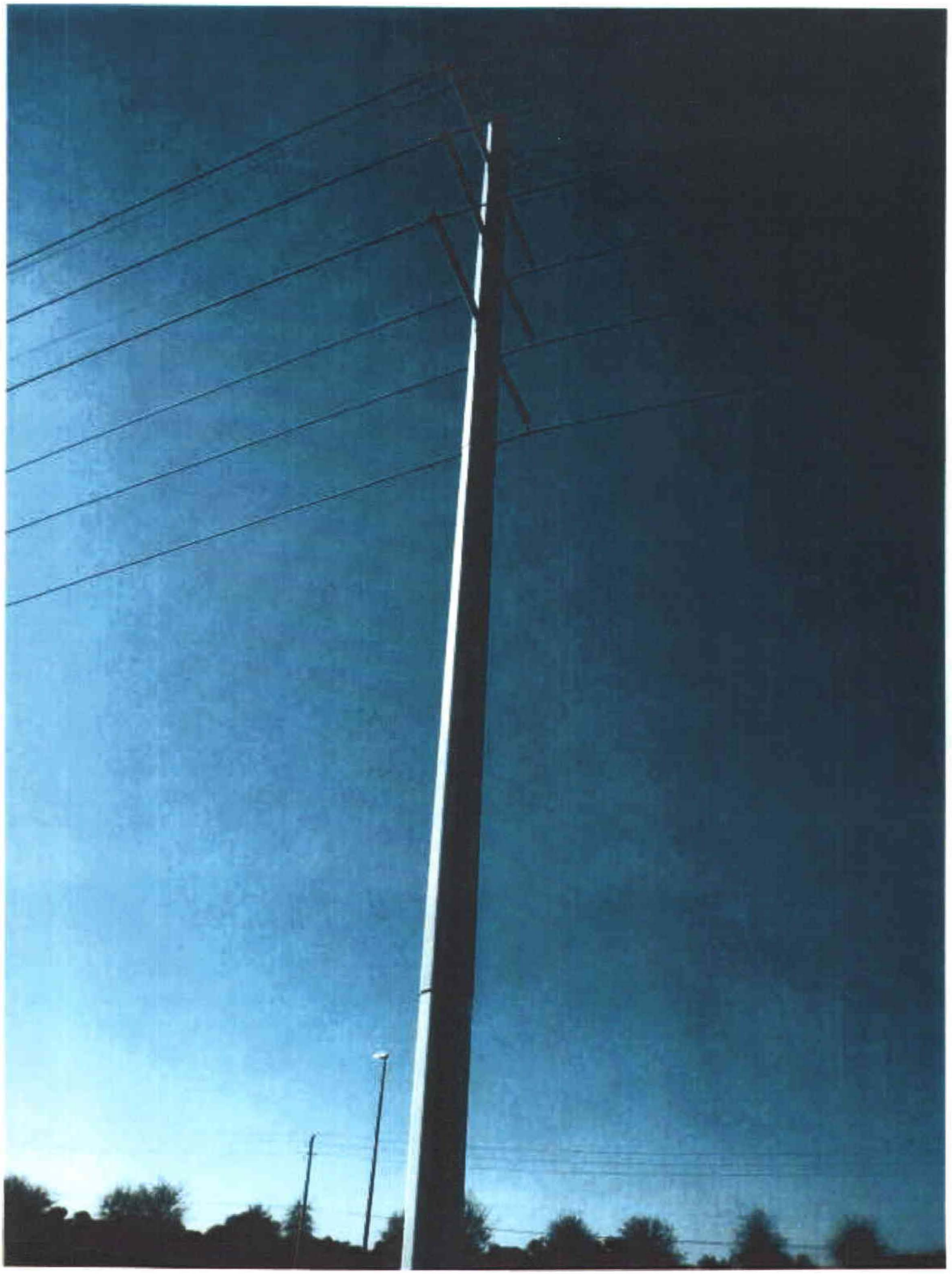


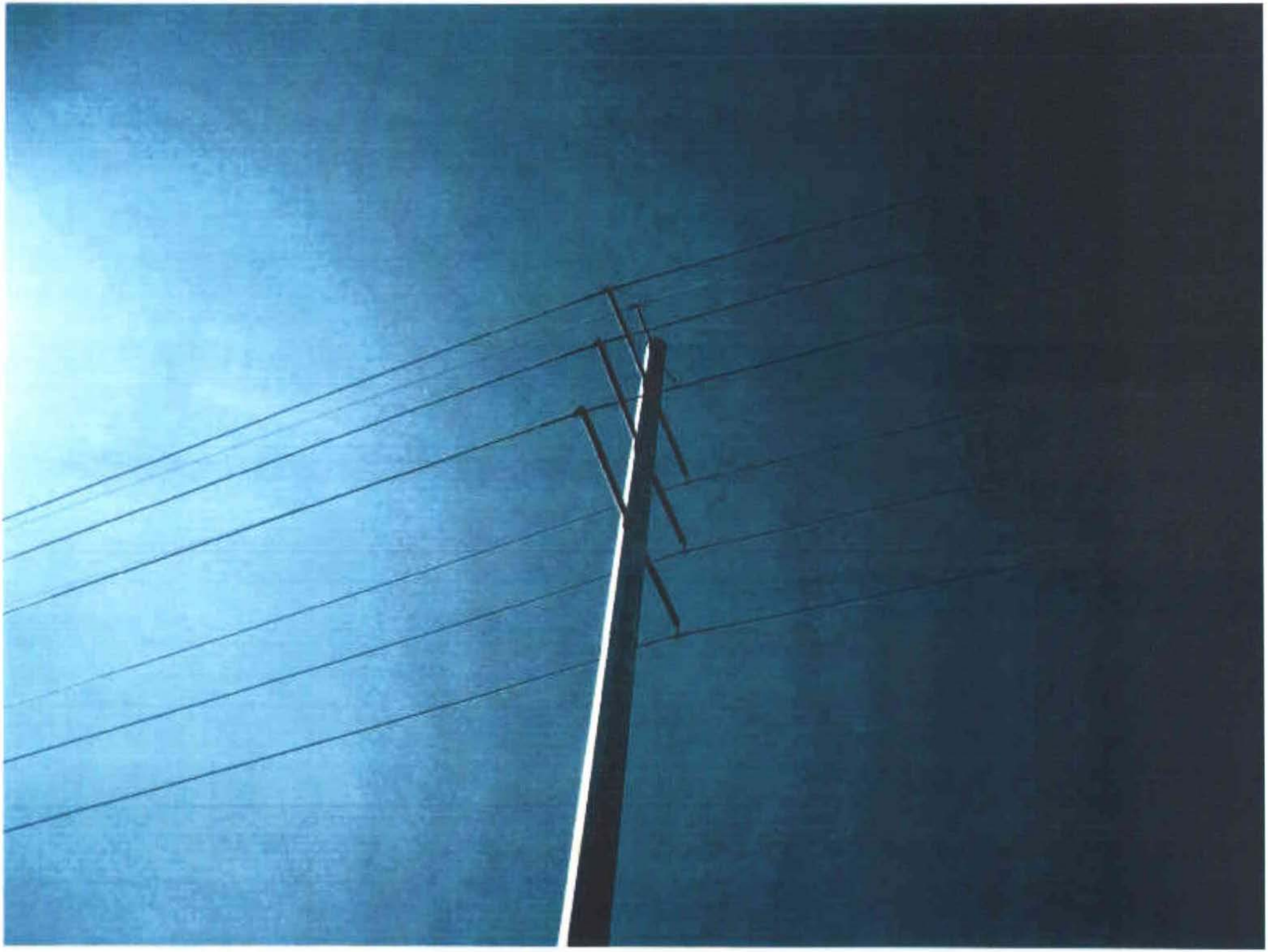

STALLS AVAILABLE

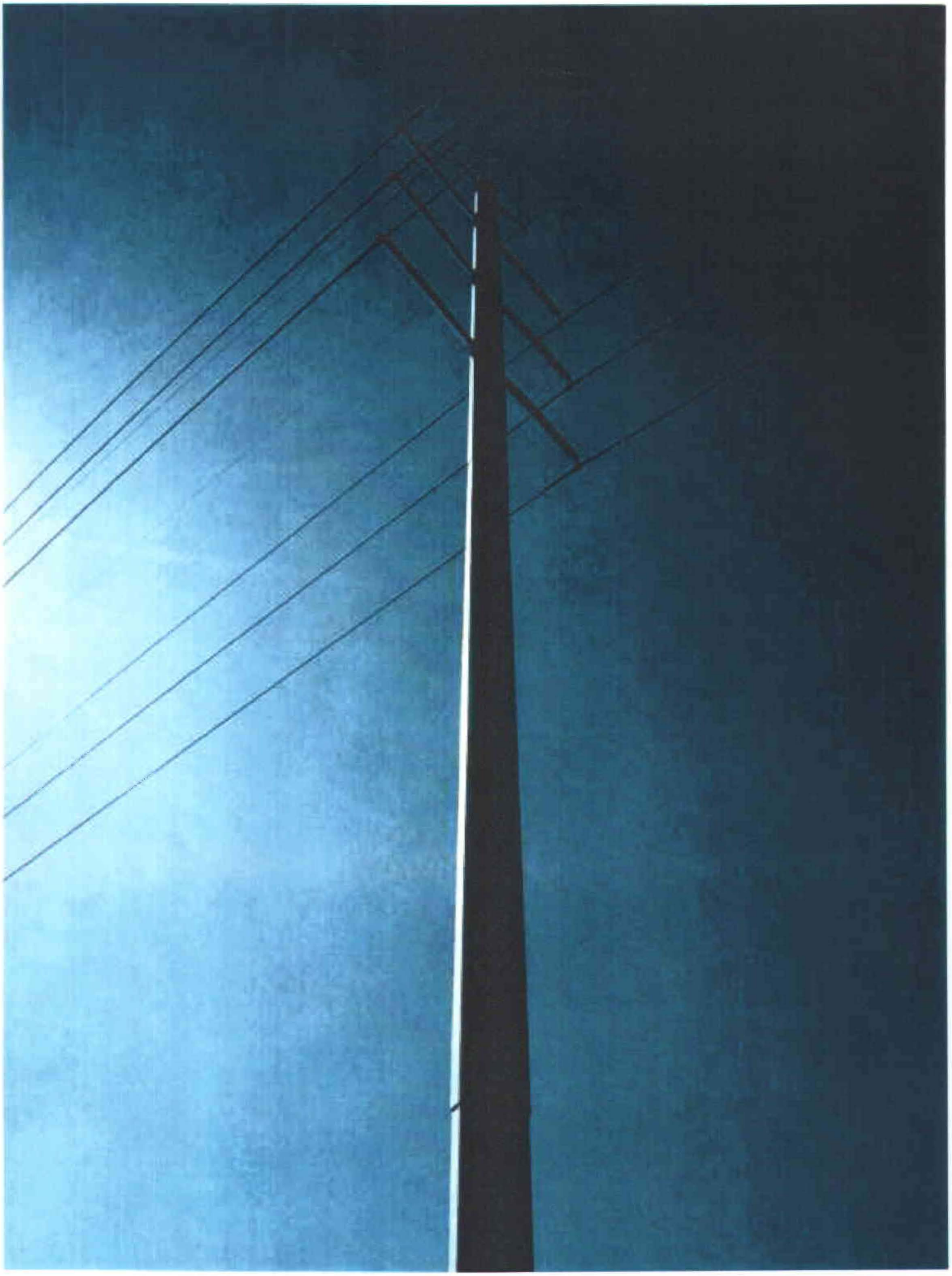


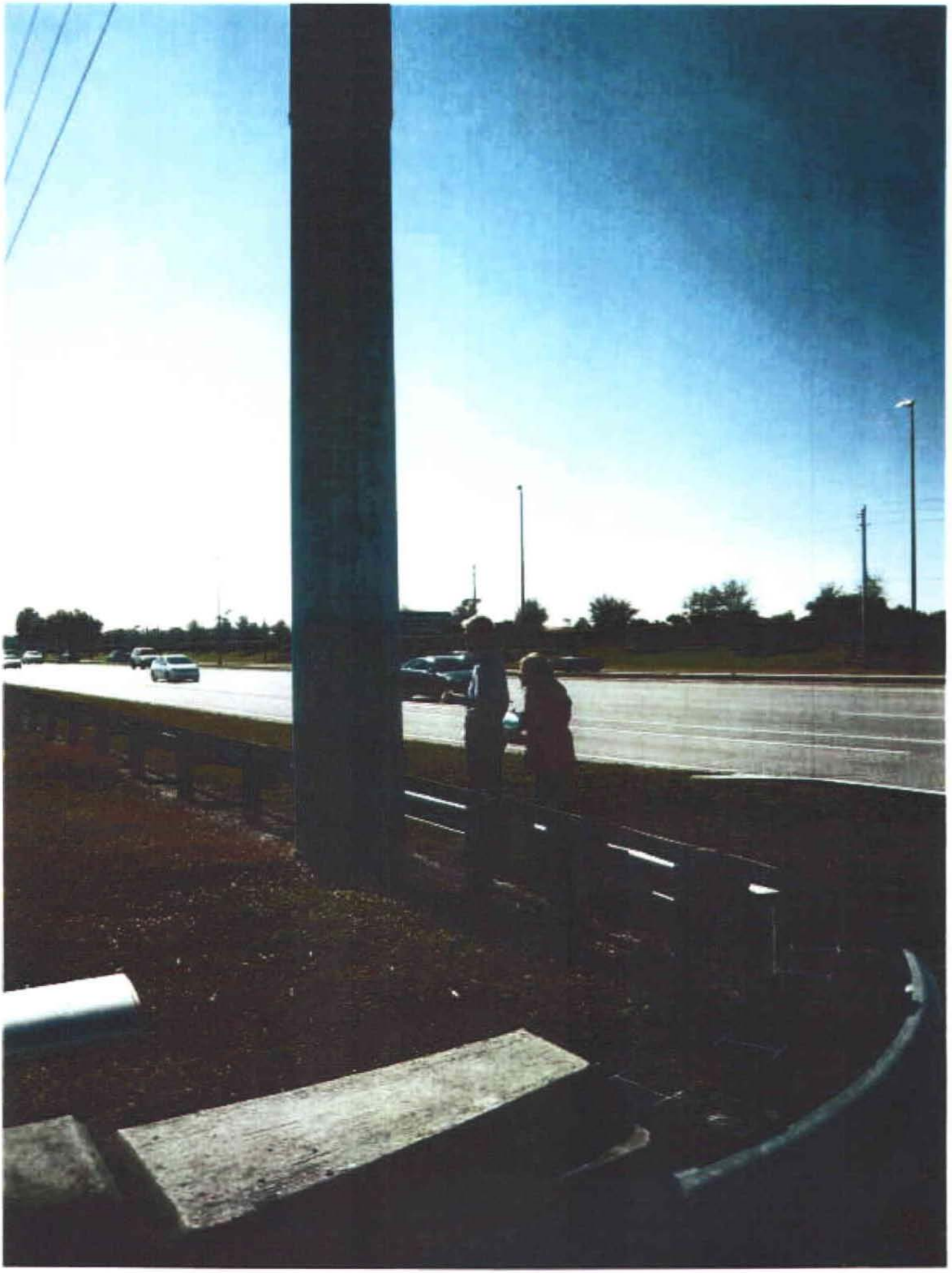




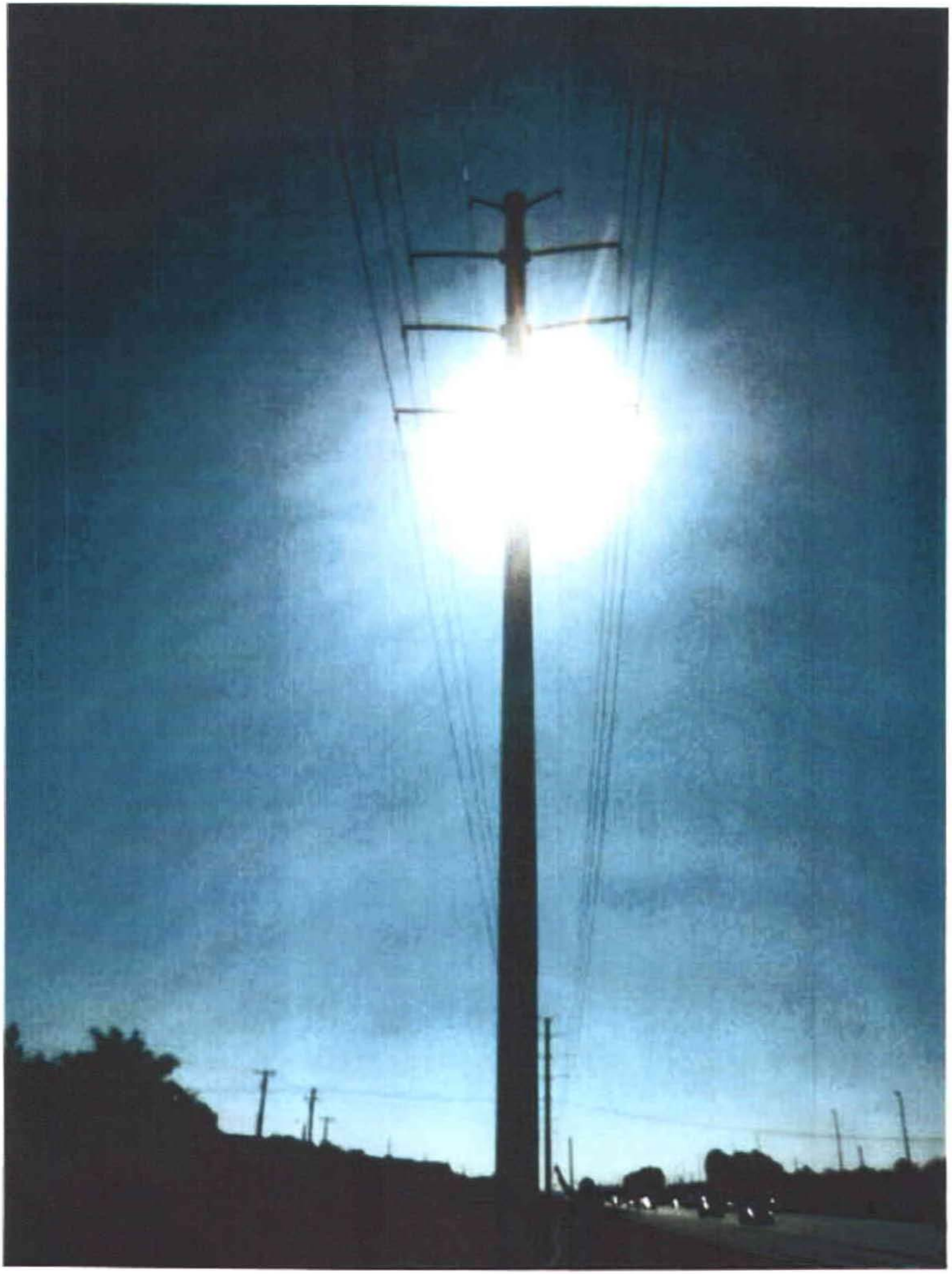












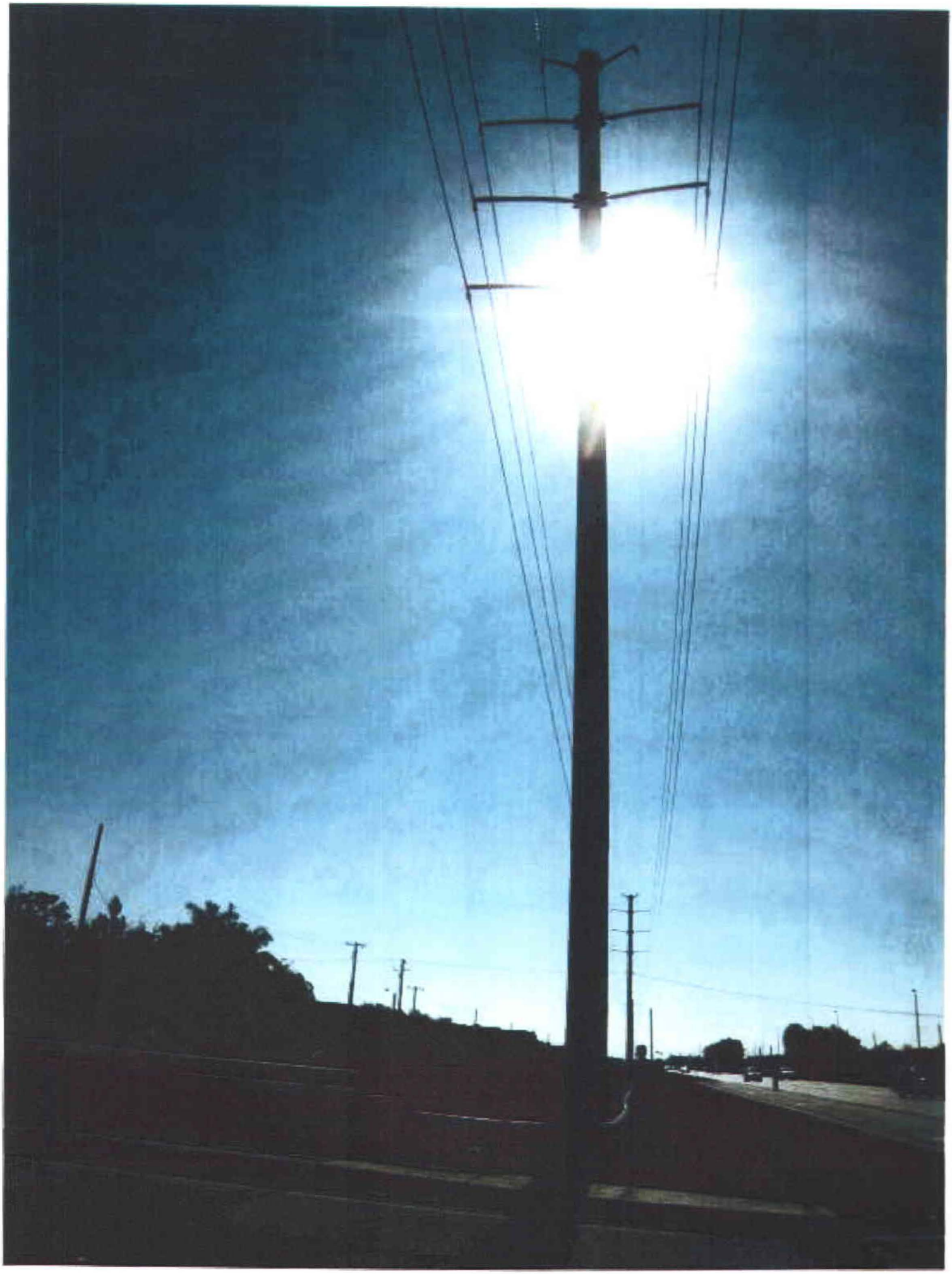




EXHIBIT C

UNIVERSITY
OF MIAMI

Sr. V. P. for Business and Finance
P.O. Box 248106
Coral Gables, FL 33124-4626

Phone: 305-284-6100
Fax: 305-284-4621

June 13, 2011

Hand Delivered

The Honorable Jim Cason
Mayor of the City of Coral Gables
405 Biltmore Way, Second Floor
Coral Gables, Florida 33134

Re: Florida Power and Light Transmission Line Component of the Project Site Certification Application- Eastern Corridor

Dear Mayor Cason:

Please accept this letter as confirmation that the University of Miami ("University") is in support of the City of Coral Gables' recommendation of denial of the Florida Power and Light Site Certification Application for the Turkey Point Transmission Lines for the Proposed Preferred Route for the East Corridor ("Application").

The University is a private research institution with more than 15,000 students. In 2010, *U.S. News & World Report* recognized the University as the No. 1 school in Florida, ranking it No. 47 in its listing of "America's Best Colleges." The Coral Gables campus, the University's main campus, is one of South Florida's prime destinations for a rich variety of arts and cultural offerings. The transmission lines as proposed by Florida Power and Light for the East Corridor will have a detrimental effect on the University's ability to recruit and retain the quality of students and faculty that will allow the University to continue to ascend the ranks of the country's best private research institutions.

Last year, the City approved UHealth, a state of the art medical facility located on the University's Coral Gables campus in the area known as the Multi-Use Zone. The Multi-Use Zone permits hotels, conference centers, governmental/public sector uses, research, office, medical and health care uses for the benefit of the University and the public, in particular the residents of the City of Coral Gables. The first development slated for the

Multi-Use zone is the UHealth Clinic, a medical facility comprising approximately 220,000 square feet of medical office, clinical and operating rooms. UHealth will provide outpatient medical services, including chemotherapy, oncology radiation and other highly specialized treatments and surgeries. The University is concerned that the placement of these transmission lines will impede development of the Multi-Use Zone depriving the University and the public of the substantial benefits of these uses.

For the reasons stated above and the University's concern for the safety, health and well being of its students, staff and patients, the University supports the City's denial of the Application. Furthermore, the University agrees with the City that the Application must be continued until such time that the Power Plant Siting Application has been determined to be complete. Alternatively, should approval of the Application be granted as proposed by Florida Power and Light, the University is in support of conditions set forth in the City's Agency Report, including compelling Florida Power and Light to underground the transmission lines.

Respectfully yours,

Joseph T. Natoli

cc: Patrick G. Salerno, City Manager

EXHIBIT D

GABLES.
RESIDENTIAL

Taking Care of the Way People Live

June 13, 2011

The Honorable James Cason
Mayor of the City of Coral Gables
405 Biltmore Way, 2nd Floor
Coral Gables, Florida 33134

Re: City of Coral Gables Agency Report for the Turkey Point Nuclear Power Plant Expansion - Transmission Lines Component of the Project Site Certification Application - Eastern Corridor - Case Nos. DOAH Case No. 09-3575-EPP and OGC Case No. 09-3107 / Letter of Support

Dear Mayor Cason,

Gables Residential is the owner of the site located at 4585 Ponce de Leon Boulevard in Coral Gables, Florida, (the "Property"). In April of 2008, the Coral Gables City Commission granted the necessary zoning approvals for the development of a mixed use residential / retail development consisting of a ten (10) story building with 250 residential units on the Property. In April of 2011, the City's Building Department issued a building permit for the project and we have commenced preparations for construction. By the time that construction has completed, Gables Residential will have invested approximately $75 million dollars in the development of this Property and it will serve as an architectural landmark for this gateway area of the City and bring much needed improvements to the surrounding public realm areas.

Understandably, we are very alarmed by the proposal of Florida Power and Light, ("FPL"), to install 230 kV transmission lines along the southerly side of the Ponce de Leon Boulevard right of way as part of its "East Preferred Corridor" connecting the existing Turkey Point substation to the proposed Clear Sky substation. Accordingly, please accept this letter as our statement of support of the City's Agency Report recommending denial of FPL's Transmission Line Application. Our reasons for opposing the Transmission Line Application for the East Preferred Corridor can be summarized as follows:

Aesthetics and Quality of Life - It is our understanding that the proposed transmission line poles will measure 105 feet in height which is taller than the 100 foot height of our proposed building. The negative aesthetic impact of these poles on the marketability of our project and on the quality of life of our residents and retail tenants would be considerable and is unacceptable.

Economic Impact - An economic impact study commissioned by the City of South Miami and prepared by Dr. Richard Weisskoff concluded that all properties within "sight

3399 Peachtree Road, NE - Suite 600 - Atlanta, GA 30326
o: 404.923.5500 f: 404.923.5700 www.gables.com

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of the transmission lines and poles" would suffer a decline in property value of an average of 10%. Our Property which is located across a street from the proposed "East Preferred Corridor" would most likely be impacted to an even greater extent due to its exceptionally close proximity, height, and residential use. Units which previously had unobstructed views to Biscayne Bay will now be almost "face to face" with transmission lines taller than the building.

Electromagnetic Fields - The electromagnetic fields which will be generated by the transmission lines may create a potential risk to the health of our residents. We have not been provided any evidence that FPL took the close proximity of our future residents into consideration when proposing the "East Preferred Corridor" since our project has not yet been completed.

Transmission Line Application is Premature - FPL's application for expansion of its Turkey Point facility is still pending and, if denied, will render the Transmission Line Application moot. As mentioned in the City's agency report, this is clearly a case of putting "the cart before the horse" and expending the efforts of all affected parties needlessly.

There are numerous other grounds upon which the City has based its objections and we are in agreement with each one of them, in particular, those regarding the impact which the East Preferred Corridor would have on municipal services and facilities. We respectfully request that you incorporate this letter of support as part of the City's Agency Report to the Florida Department of Environmental Protection. Thank you for your attention to this matter.

Sincerely,

Joe Wilber
Senior Vice President, Investments East

cc: Craig E. Leen, City Attorney
Elizabeth M. Hernandez, Special Counsel to the City

EXHIBIT E

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: FLORIDA POWER & LIGHT CO.	)	
TURKEY POINT UNITS 6 AND 7	)	DOAH Case No. 09-3575EPP
POWER PLANT SITING APP. PA03-45A3.	)	DEP OGC Case No. 09-3107
	)	

THE VILLAGE OF PINECREST'S AND THE CITY OF CORAL GABLES' NOTICE OF PROPOSED ALTERNATE CORRIDOR

Pursuant to section 403.5271, Florida Statutes, THE VILLAGE OF PINECREST, FLORIDA, AND THE CITY OF CORAL GABLES, FLORIDA ("the Cities"), through their undersigned attorneys, file this NOTICE OF PROPOSED ALTERNATE CORRIDOR and state as follows:

Introduction

1. In this proceeding, the Cities are proposing an alternate corridor to the Florida Power & Light Company's ("Applicant" or "FPL") East Preferred Corridor for certification. The FPL East Preferred Corridor delineates the boundaries for the alignment of a 230 kilovolt ("kV") transmission line connecting two Transmission Substations in the Miami-Dade County area, and is sought for certification by the Applicant in support of its Turkey Point Units 6 & 7 Site Certification Application.

2. The alternate corridor proposed by the Cities will interconnect the Davis Substation located in the SW area of Miami-Dade County with the Miami Substation located in the south end of the downtown Miami area, and is delineated on the United States Geological Survey quadrangle maps at a scale of 1:24,000, attached as Exhibit A. The Cities' Proposed

Alternate Corridor and the attached Exhibit A comply with the FPL Line Alternate Corridor Process and the requirements of section 403.5271, Florida Statutes.

Proposed Alternate Corridor Description

3. The proposed alternate corridor is described as follows: Beginning where the existing FPL multi-circuit transmission lines along SW 131st Street intersect the existing FPL North-South Kendall transmission line right-of-way ("ROW"), the corridor runs north within the existing north-south Kendall multi-circuit transmission line corridor to the existing Flagami Substation. This corridor has varying widths from 100' – 150' and is approximately 10.15 miles long.

4. At the Flagami Substation, beginning at the west ROW of SW 92nd Avenue, the corridor turns east towards downtown Miami and follows the existing public rights-of-way. This west-to-east leg of the proposed alternate corridor is intentionally drawn very wide to allow for placement of the pole line on an adjacent street should existing utilities or other concerns preclude placement within a particular roadway. Also, the corridor is generally widened by 30 feet on either side of all ROW in the west-to-east segment of the corridor to accommodate the acquisition of any easements or other property rights which may be necessary to accomplish the line placement. At certain sharp 90-degree corners along the west-to-east segment of the proposed alternate corridor, in order to accommodate proper pole guying, the acquisition of easements or other property rights in excess of the 30 ft may be necessary. The first section heading east runs for approximately 2.0 miles between the north ROW of West Flagler Street and the south ROW of SW 4th Street until it reaches the east ROW of SW 72nd Avenue. This corridor is approximately 1,400 feet wide.

5. From SW 72nd Avenue, the corridor continues east for approximately 1.0 mile between the north ROW of Tamiami Canal Road and the south ROW of SW 4th Street, until it reaches the east ROW of SW 61st Avenue. This corridor varies in width from approximately 1,400 – 3,980 feet wide.

6. At the intersection of SW 61st Avenue and Tamiami Canal Road, the corridor continues east for approximately 1.6 miles between the North ROW of NW 7th Street and the south ROW of NW 3rd Street to the east ROW of NW 53rd Avenue. This corridor is approximately 1,350 feet wide.

7. From the east ROW of NW 53rd Avenue, the corridor continues east for approximately 0.65 miles between the north ROW of NW 7th Street and the south ROW of NW 4th Street, until it reaches the west ROW of NW 47th Avenue. This corridor is approximately 2,400 feet wide.

8. From the west ROW of NW 47th Avenue, the corridor continues east for approximately 0.25 miles between the north ROW of NW 9th Street and the south ROW of NW 3rd Street to the west ROW of NW 44th Avenue. This corridor is approximately 2,100 feet wide.

9. From the west ROW of NW 44th Avenue, the corridor continues east for approximately 0.70 miles between the north ROW of NW 11th Street and the south ROW of NW 3rd Street until it reaches the west ROW of NW 38th Court. This corridor is approximately 2,400 feet wide.

10. From the west ROW of NW 38th Court, the corridor continues east for approximately 0.70 miles between the north ROW of NW 11th Street and the south ROW of NW

7th Street until it reaches the west ROW of NW 22nd Avenue. This corridor is approximately 1,400 feet wide.

11. From the west ROW of NW 22nd Avenue, the corridor continues east for approximately 0.30 miles between the north ROW of NW 11th Street and the south ROW NW 1st Street until it reaches the east ROW of NW 19th Avenue. This corridor is approximately 2,600 feet wide.

12. From the east ROW of NW 19th Avenue, the corridor continues east for approximately 0.95 miles between the north ROW of NW 7th Street and the south ROW of NW 1st Street until it reaches the intersection of NW 10th Avenue and NW South River Drive. This corridor is approximately 2,140 feet wide.

13. From the intersection of NW 10th Avenue and NW South River Drive, the corridor follows the north ROW of NW/SW South River Drive and the south ROW of SW 7th Street for approximately 0.65 miles until it reaches the north ROW of SW 1st Street and the east ROW of SW South River Drive. This corridor varies in width from 1,800 to 4,950 feet.

14. From the north ROW of SW 1st Street, the northern boundary of the corridor continues to the west ROW of the SW 7th Street/Brickell Avenue off-ramp (exit 1B) from I-95 south bound. The northern boundary of the corridor then diverts to the south along the west ROW of the SW 7th Street/Brickell Avenue off-ramp to the north ROW of SW 2nd Street. At SW 2nd Street the corridor continues east for approximately 0.30 miles between the north ROW of SW 2nd Street and the south ROW of SW 7th Street until it reaches the FPL Miami Substation. This corridor is approximately 1,800 feet wide.

Reasons the Alternate Corridor Should be Certified

15. The Proposed Alternate Corridor should be certified for the following reasons:

a. The south-to-north leg (approx. 10.15 miles) of the proposed alternate corridor is co-located with existing FPL facilities and is located completely within an existing FPL right-of-way.

b. The west-to-east leg (approx. 10.10 miles) of the proposed alternate corridor contains existing FPL 230 and 138 kV transmission lines. The proposed additional 230 kV line can in some areas be located on a common pole with the existing lines. This will afford FPL the early opportunity to harden its existing system in this area, which includes numerous poles that are very old. The entire west-to-east leg of the proposed alternate route is co-located with other linear facilities.

c. The proposed alternate corridor, unlike the FPL preferred corridor, will neither conflict with, nor adversely affect, planning for future transportation and transit needs along the US-1 corridor – a major multimodal transportation facility for Miami-Dade County.

d. The proposed alternate corridor, unlike the FPL preferred corridor along US-1, will not negatively impact the aesthetics of US-1 - a main city thoroughfare which serves as the terminus to I-95, and is a gateway to the Greater Miami area.

e. The cost of construction along the proposed alternate route is likely to be less than or similar to the cost of construction along the corresponding segment of the FPL preferred corridor.

f. Miami-Dade Transit is currently in the Project Development and Environmental (PD&E) stage of evaluating the excess capacity along the South Dade Busway from SW 344th Street to SR 826/Dadeland South to build a managed lane facility, enabling regular traffic to travel with buses for the length of the corridor. Elements of this managed lane facility are anticipated to include High Occupancy Toll lanes, elevated grade separation for the

Busway and the extension of the Metrorail. Certification of the proposed alternate corridor will avoid the potential conflict with this future expansion by Miami-Dade Transit that is posed by the 230 kV aerial lines FPL proposes to install along the US-1 corridor. Avoiding this conflict represents a significant potential cost savings to both Miami-Dade Transit and FPL ratepayers.

Service on Affected Local Governments

16. Miami-Dade County and the City of Miami, the local governments with jurisdiction over the area in which the alternate corridor is proposed, have been provided with copies of this Notice of Proposed Alternate Corridor through counsel as required by section 403.5271, Florida Statutes.

WHEREFORE, THE VILLAGE OF PINECREST, FLORIDA, AND THE CITY OF CORAL GABLES, FLORIDA, request that the alternate corridor proposed by this Notice be accepted for consideration in this certification proceeding, and that the Administrative Law Judge grant any other relief as deemed appropriate.

Respectfully submitted,

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and

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Attorneys for the Village of Pinecrest, Florida.

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CRAIG E. LEEN
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Florida Bar No. 701696
cleen@coralgables.com
405 Biltmore Way
Coral Gables, FL 33134-5717
(305) 460-5218
(305) 460-5264 Facsimile

Attorneys for the City of Coral Gables.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been sent by electronic mail, except as otherwise noted, to the following listed persons this 2nd day of May, 2011:

Peter Cunningham, Esquire
Carolyn Raepple, Esquire
Virginia Dailey, Esquire
Hopping Green & Sams, P.A.
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Tallahassee, FL 32314
peterc@hgslaw.com
craepple@hgslaw.com
vdailey@hgslaw.com
cc: jmcneill@hgslaw.com
VIA HAND DELIVERY

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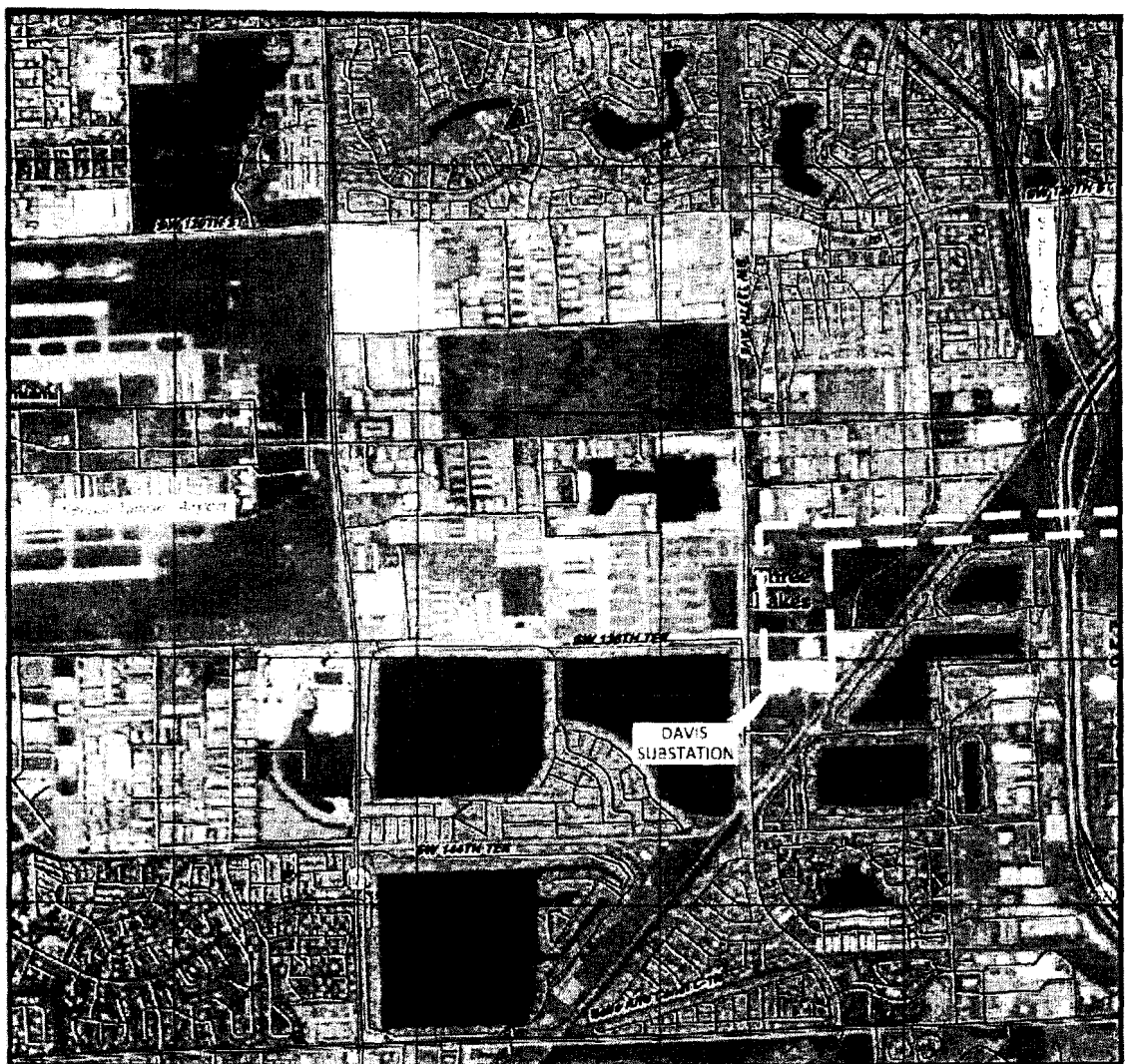
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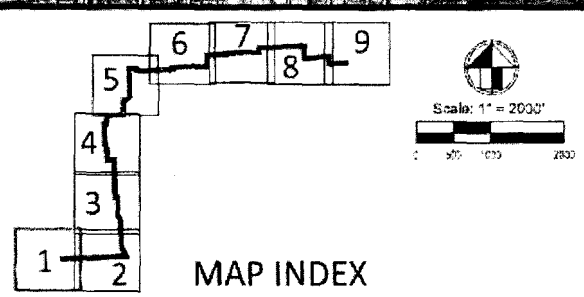
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ATTORNEY

EXHIBIT A





MAP INDEX

LEGEND

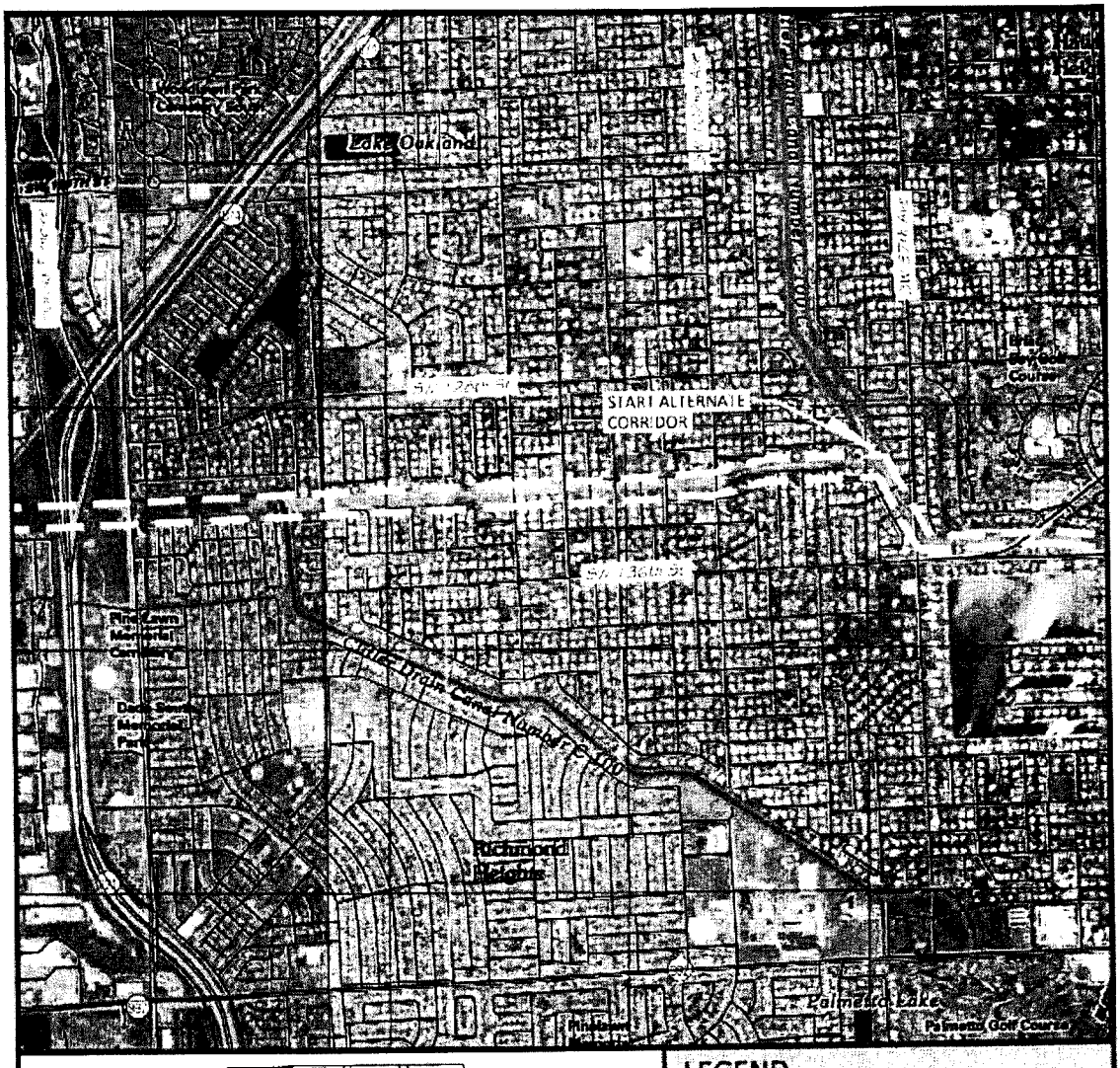
FPL PROPOSED ROUTE

PROPOSED ALTERNATE ROUTE

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS · ARCHITECTS · PLANNERS
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CORAL GABLES, FLORIDA 33134
MIAM (305)445-2900 FLORIDA (800)448-0227
CA REGISTRATIONS: EB0009022 AAC002142

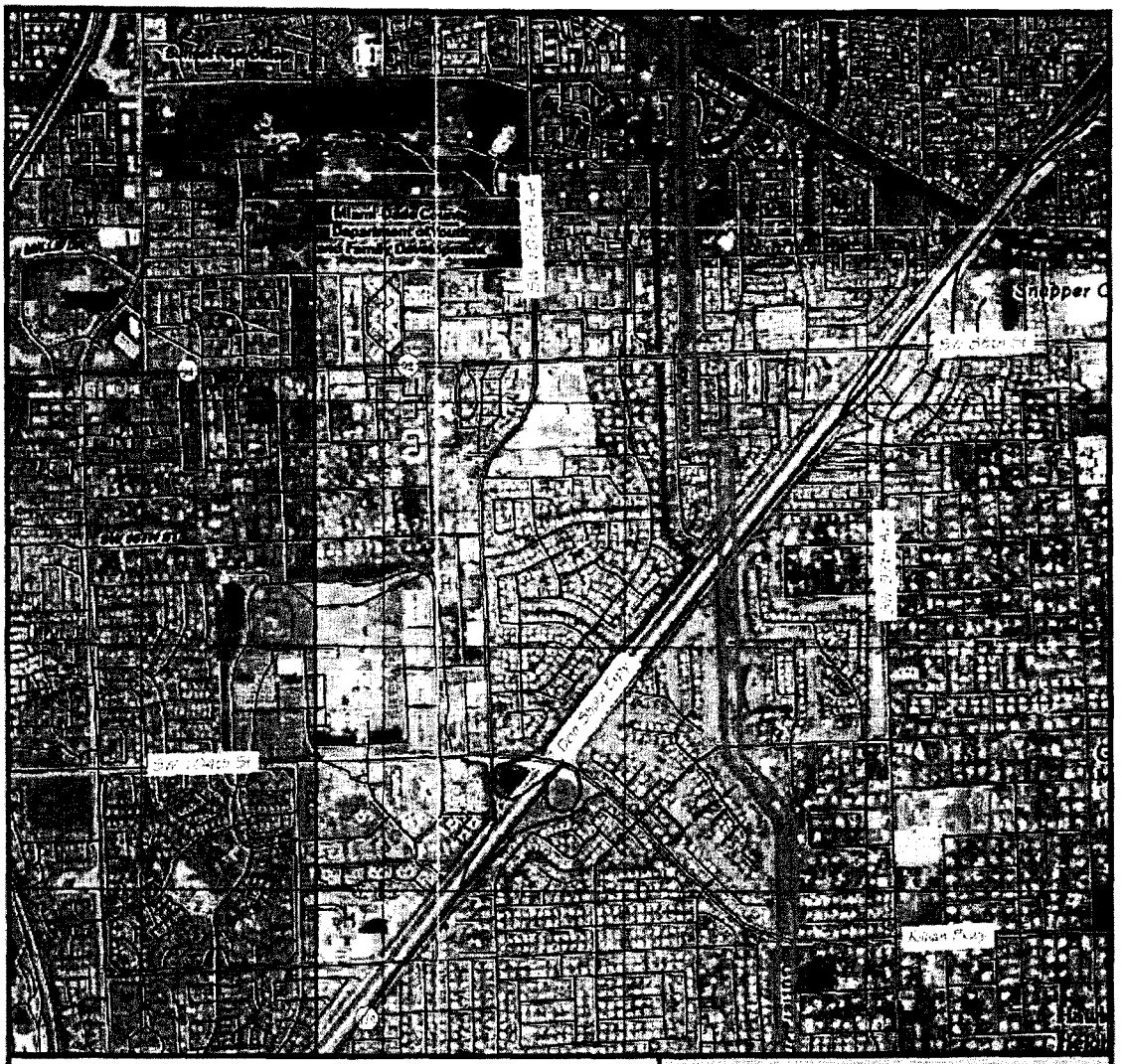
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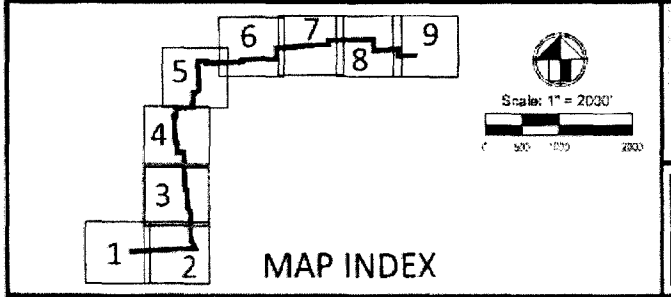
FIGURE 1



PROPOSED ALTERNATE EAST CORRIDOR
FPL TRANSMISSION LINE

FIGURE 2





LEGEND

FPL PROPOSED ROUTE

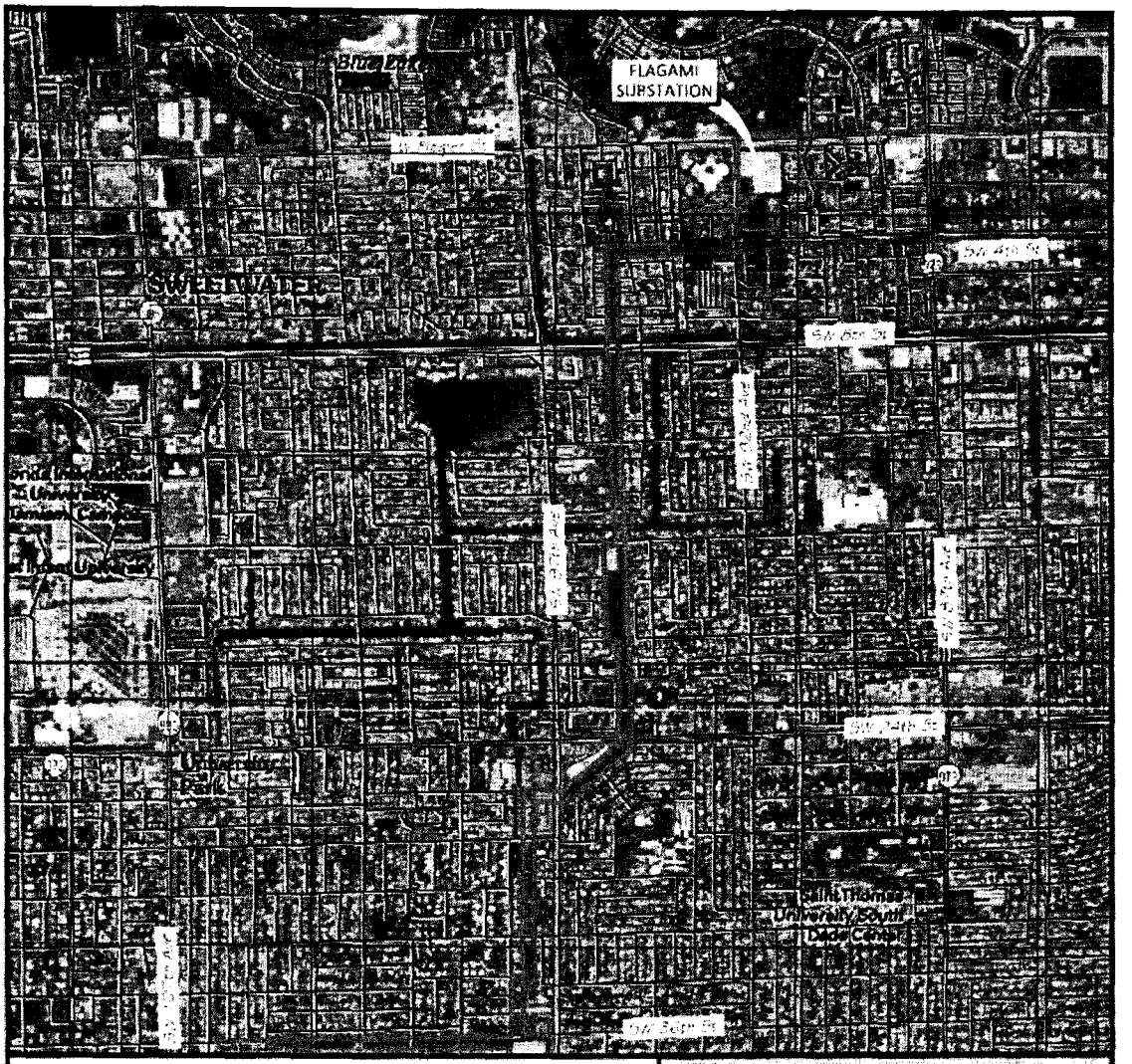
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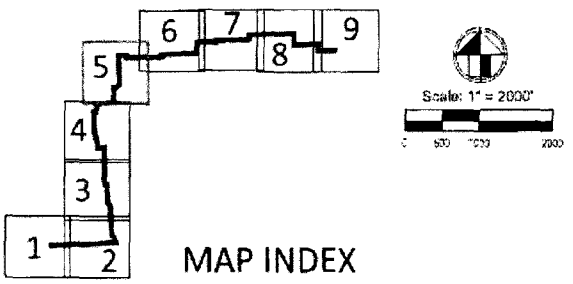
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MIAMI (305)-442-2800 FLORIDA (800)-448-0227
FL REGISTRATION# EB0001722 AA0002142

PROPOSED ALTERNATE EAST CORRIDOR
FPL TRANSMISSION LINE

FIGURE 3


Wetland
Water Body
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SW 3944th St
SW 3946th St
SW 3948th St
SW 3950th St
SW 3952nd St
SW 3954th St
SW 3956th St
SW 3958th St
SW 3960th St
SW 3962nd St
SW 3964th St
SW 3966th St
SW 3968th St
SW 3970th St
SW 3972nd St
SW 3974th St
SW 3976th St
SW 3978th St
SW 3980th St
SW 3982nd St
SW 3984th St
SW 3986th St
SW 3988th St
SW 3990th St
SW 3992nd St
SW 3994th St
SW 3996th St
SW 3998th St
SW 4000th St
SW 4002nd St
SW 4004th St
SW 4006th St
SW 4008th St
SW 4010th St
SW 4012th St
SW 4014th St
SW 4016th St
SW 4018th St
SW 4020th St
SW 4022nd St
SW 4024th St
SW 4026th St
SW 4028th St
SW 4030th St
SW 4032nd St
SW 4034th St
SW 4036th St
SW 4038th St
SW 4040th St
SW 4042nd St
SW 4





MAP INDEX

LEGEND

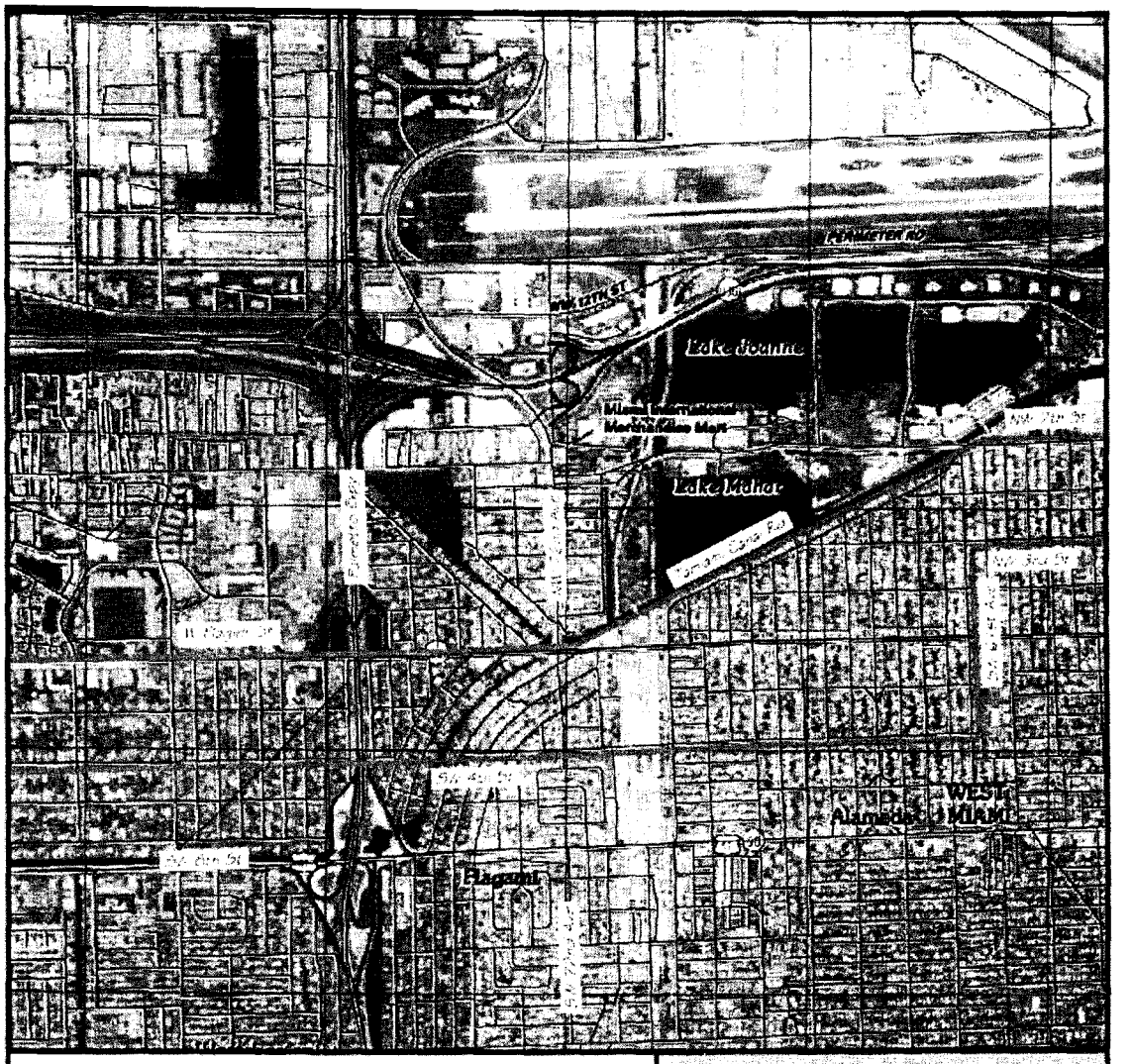
FPL PROPOSED ROUTE

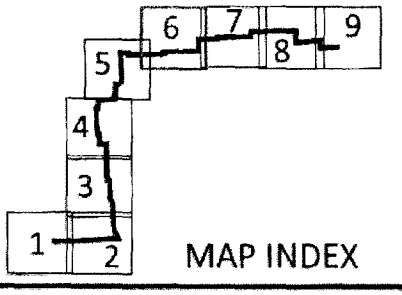
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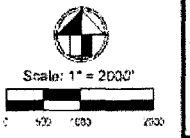
CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS · ARCHITECTS · PLANNERS
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CORAL GABLES, FLORIDA 33134
MIAMI (305)-445-2900 FLORIDA (800)-448-0227
FL REGISTRATIONS: EB0000122 AA-C002142

PROPOSED ALTERNATE EAST CORRIDOR
FPL TRANSMISSION LINE

FIGURE 5







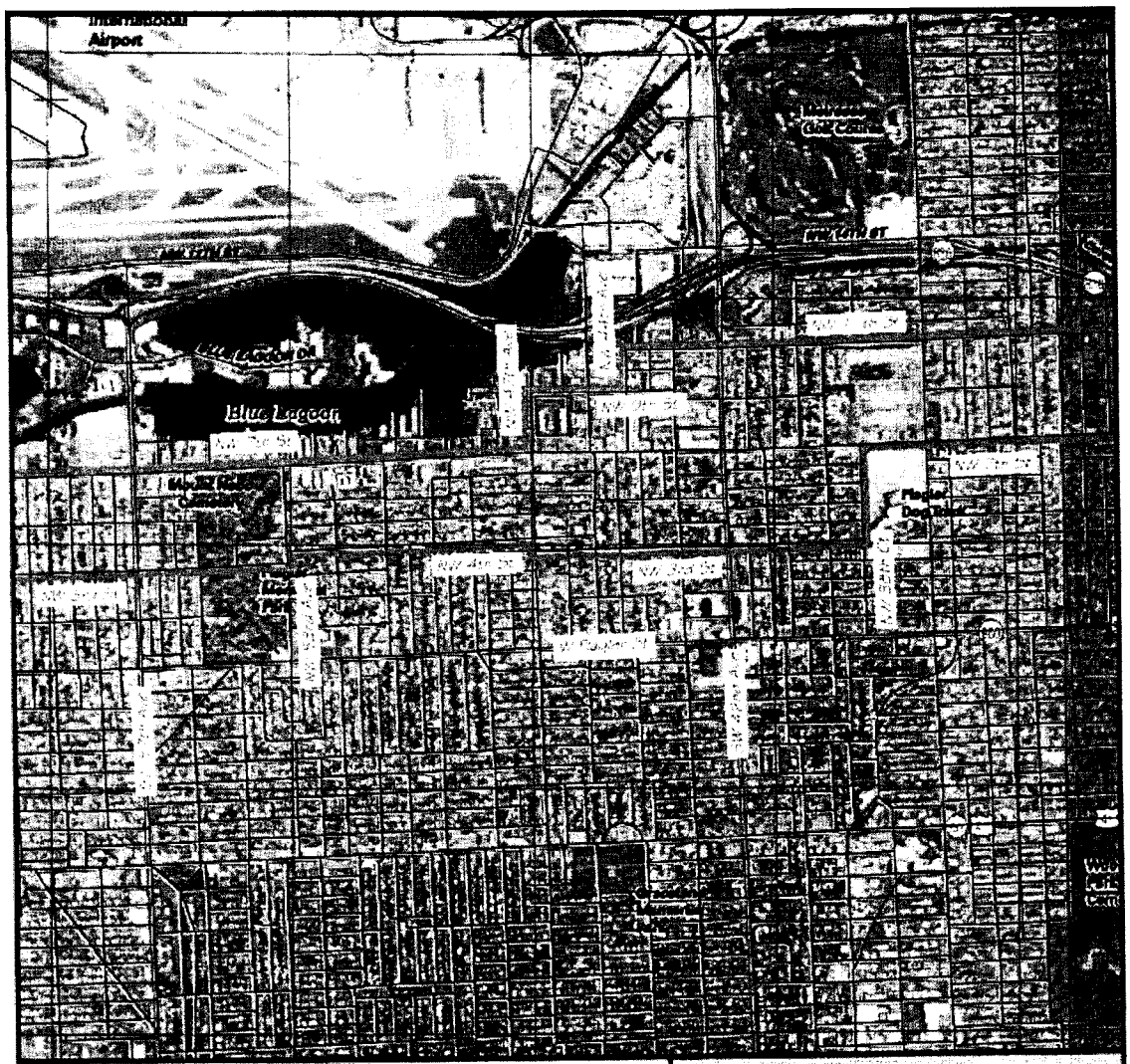
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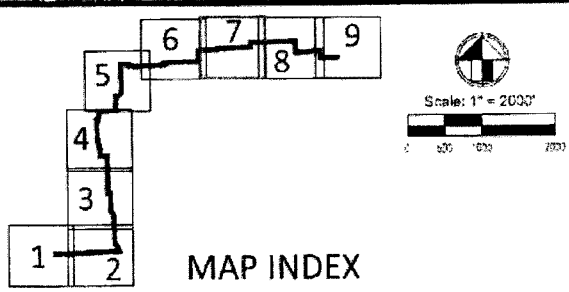
FPL PROPOSED ROUTE

PROPOSED ALTERNATE ROUTE

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS · ARCHITECTS · COMMUNITY PLANNERS

PROPOSED ALTERNATE EAST CORRIDOR FPL TRANSMISSION LINE	FIGURE 6





MAP INDEX

Scale: 1" = 2000'

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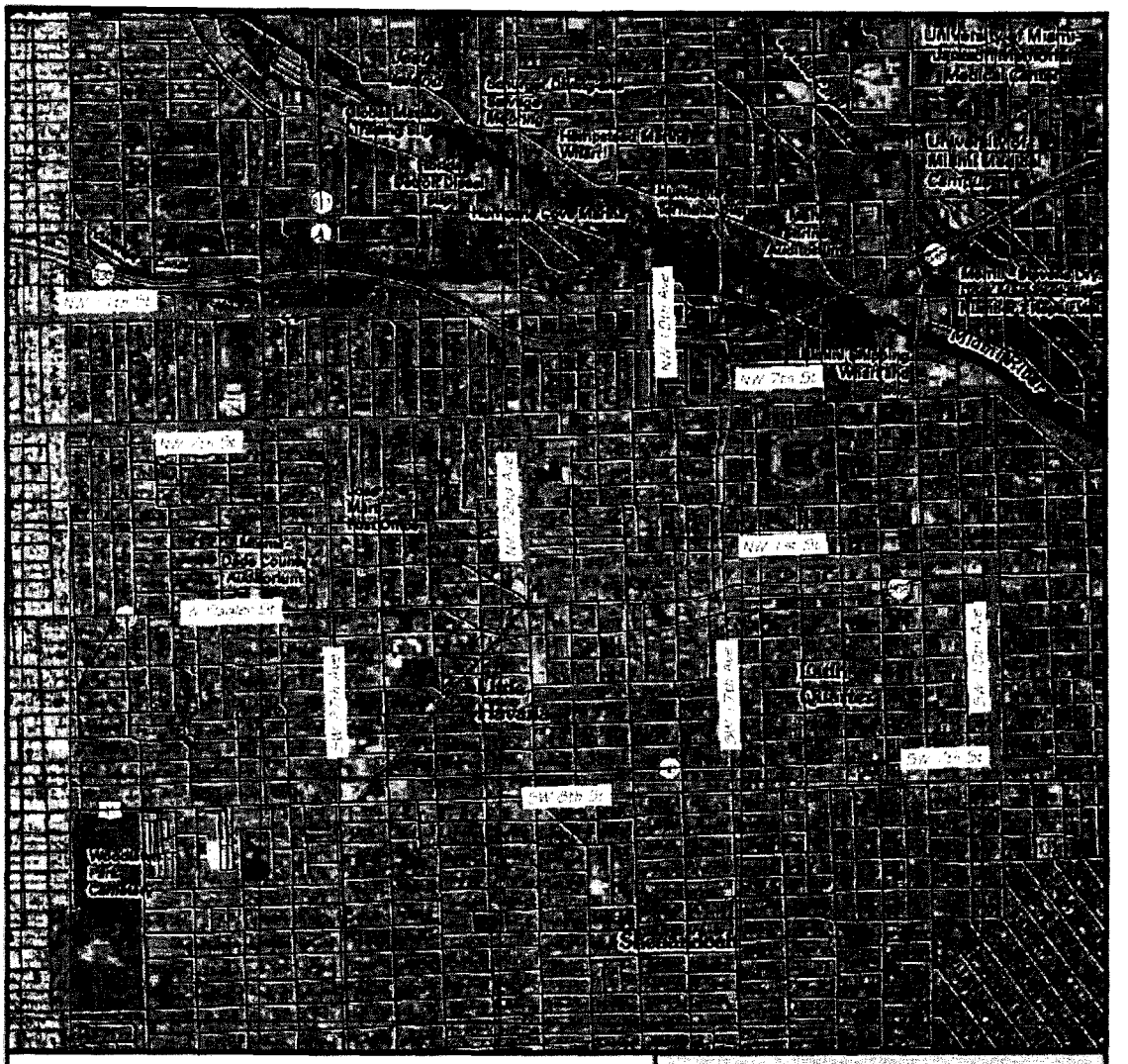
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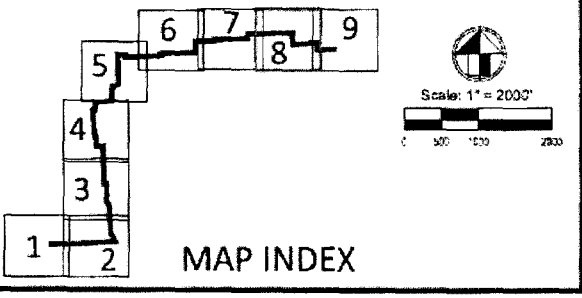
PROPOSED ALTERNATE ROUTE

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PROPOSED ALTERNATE EAST CORRIDOR
FPL TRANSMISSION LINE

FIGURE 7





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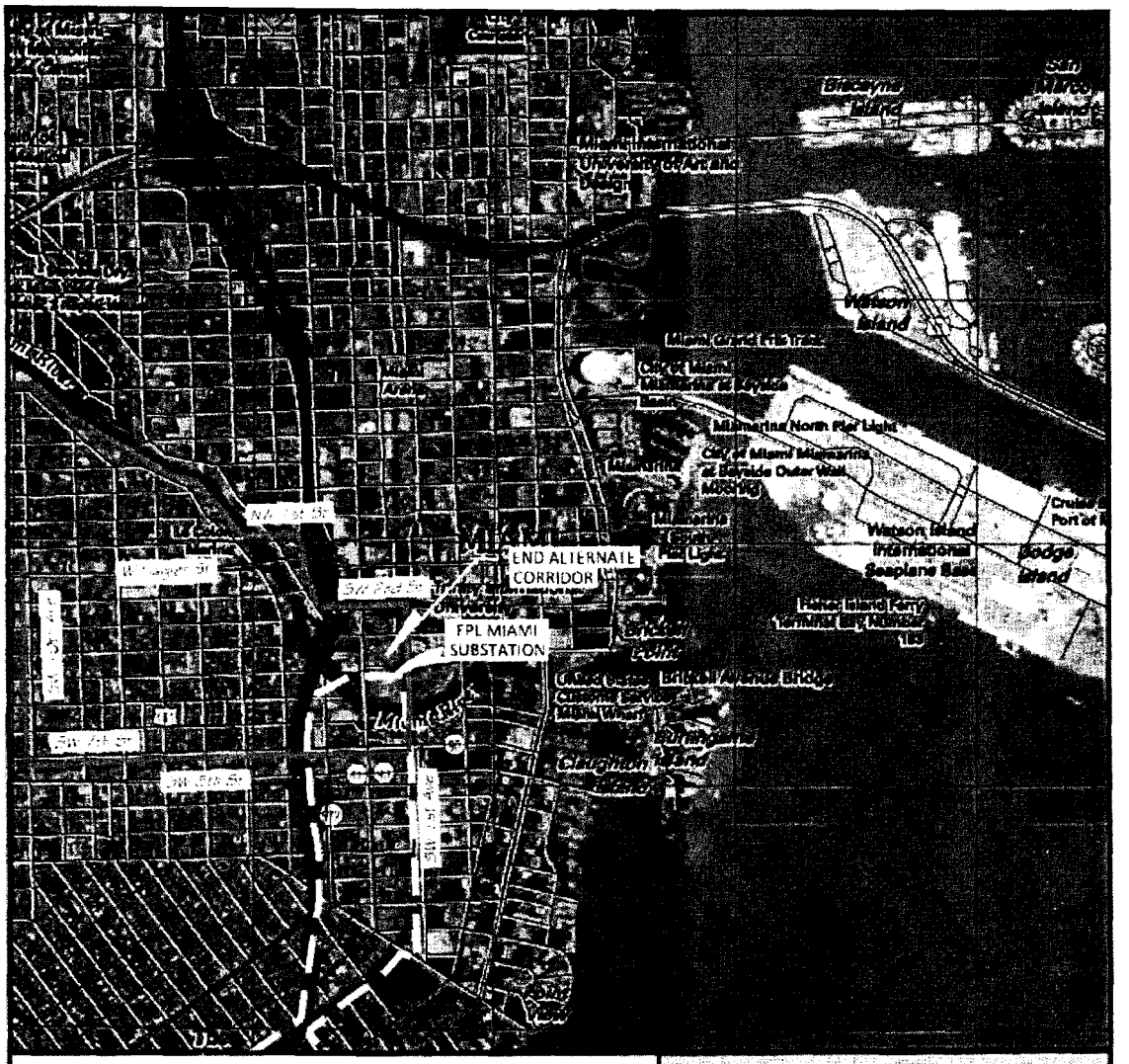
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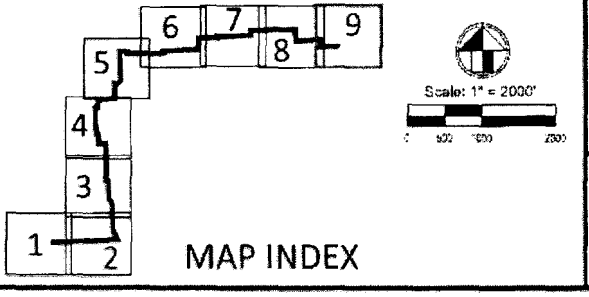
PROPOSED ALTERNATE ROUTE

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FL REGISTRATION: EB0001022 AA0002342

PROPOSED ALTERNATE EAST CORRIDOR FPL TRANSMISSION LINE

FIGURE 8





LEGEND

FPL PROPOSED ROUTE

PROPOSED ALTERNATE ROUTE

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS · ARCHITECTS · PLANNERS

PROPOSED ALTERNATE EAST CORRIDOR FPL TRANSMISSION LINE

FIGURE 9

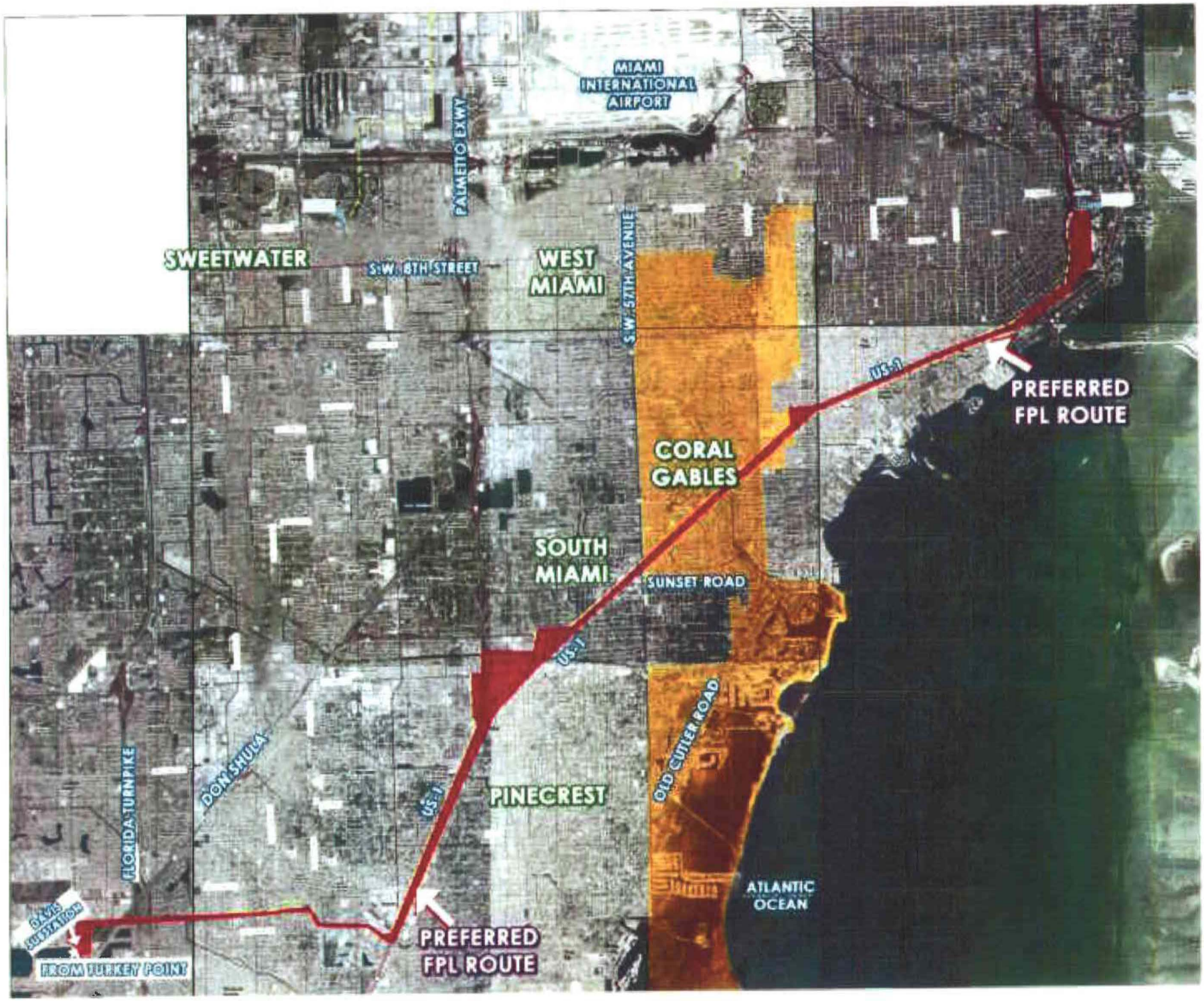
EXHIBIT F



Photo Simulation of Typical Double Circuit along Ponce de Leon Blvd

EXHIBIT G

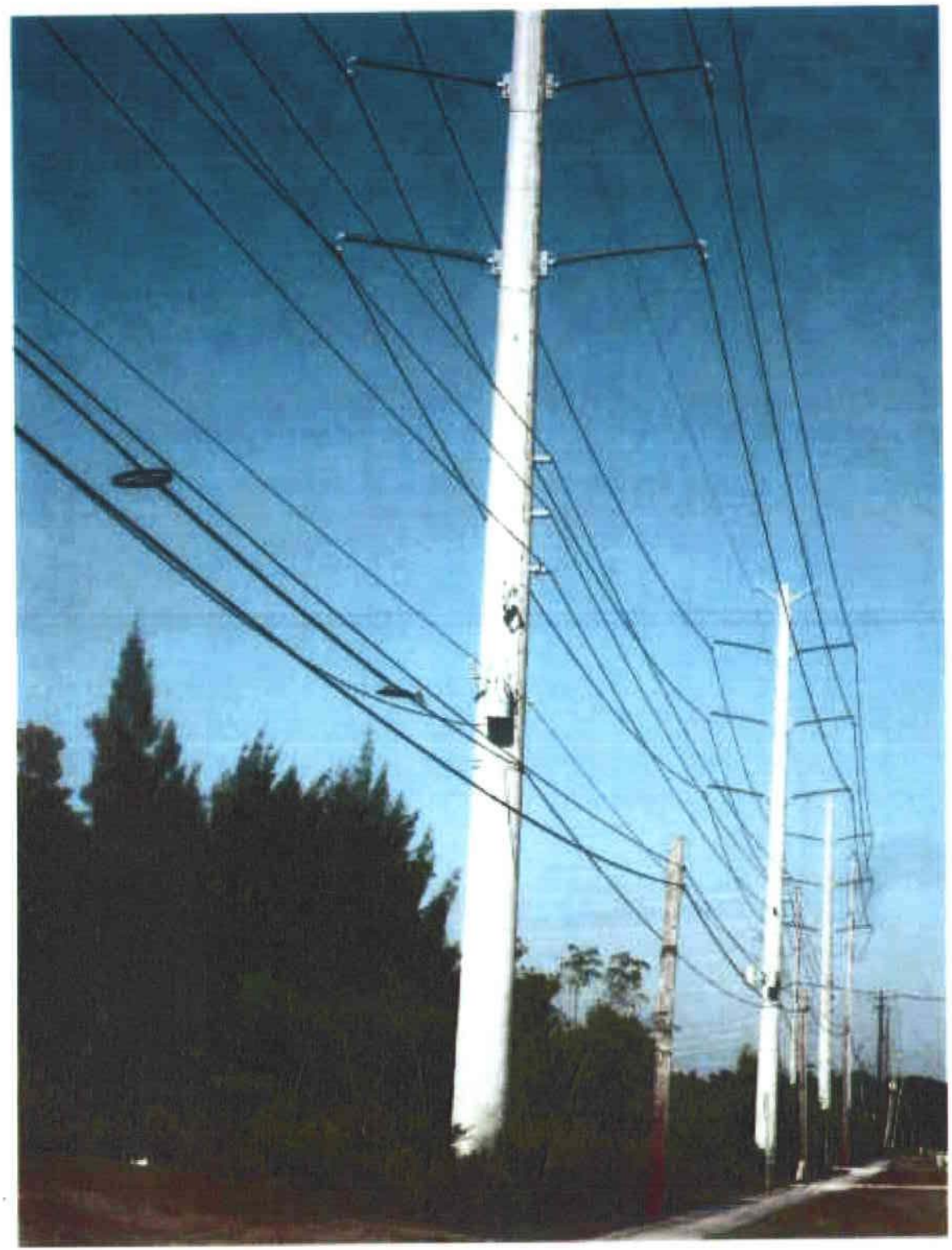

FPL 230KV
Powerline Corridor
Turkey Point to Downtown Miami
C3TS


MIAMI INTERNATIONAL AIRPORT
PALMETTO EXPY
SWEETWATER
S.W. 8TH STREET
WEST MIAMI
S.W. 57TH AVENUE
US-1
PREFERRED FPL ROUTE
CORAL GABLES
SOUTH MIAMI
SUNSET ROAD
US-1
OLD CUTLER ROAD
DON SHULA
US-1
PINECREST
FLORIDA TURNPIKE
ATLANTIC OCEAN
DAVIS SUBSTATION
FROM TURKEY POINT
PREFERRED FPL ROUTE


BIRD ROAD
CORAL GABLES
SW 57TH AVENUE
PONCE DE LEON BLVD
US-1
PROPOSED DOUBLE 138 KV CIRCUIT REBUILD
SOUTH MIAMI
SUNSET ROAD

FPL Similar Project



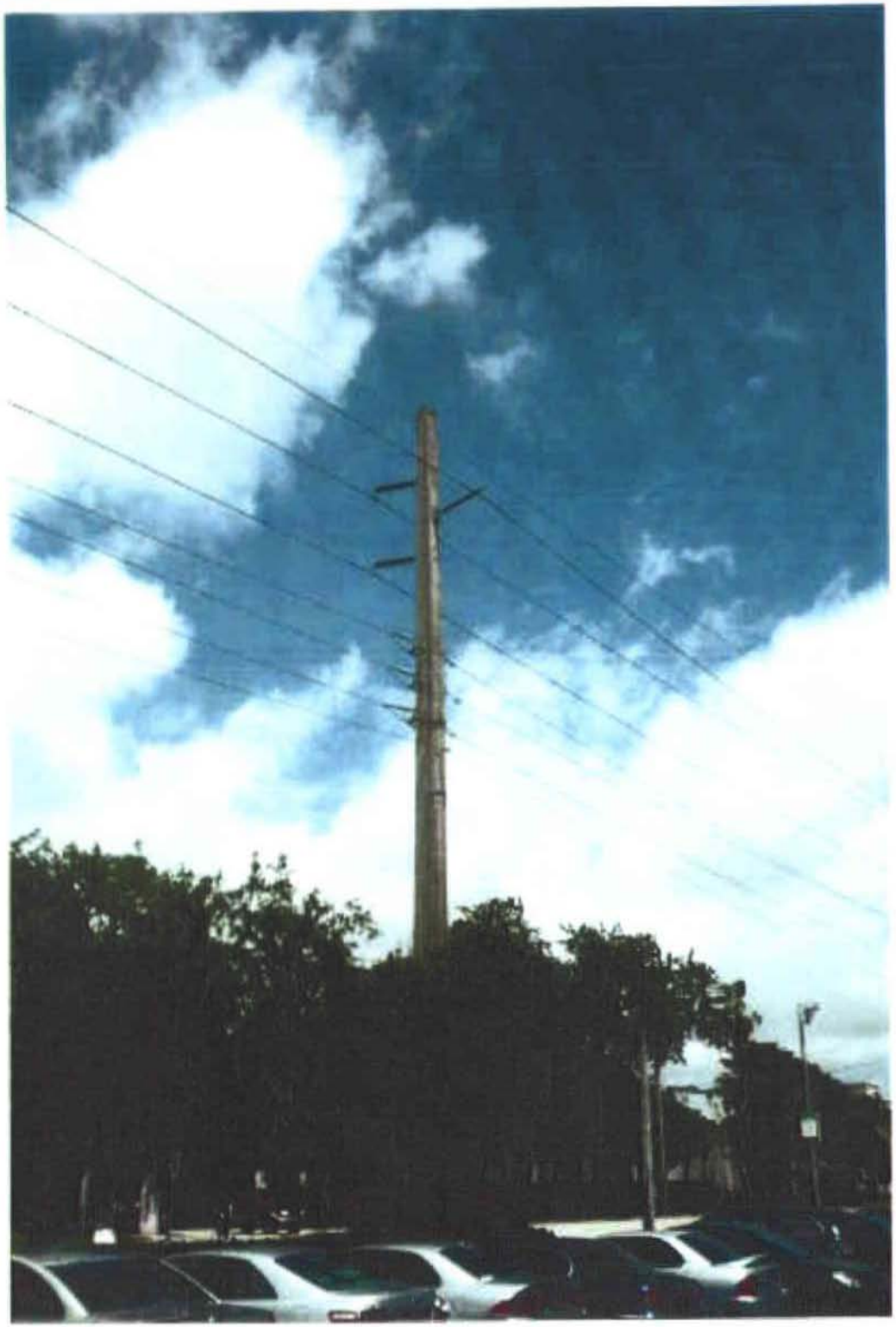


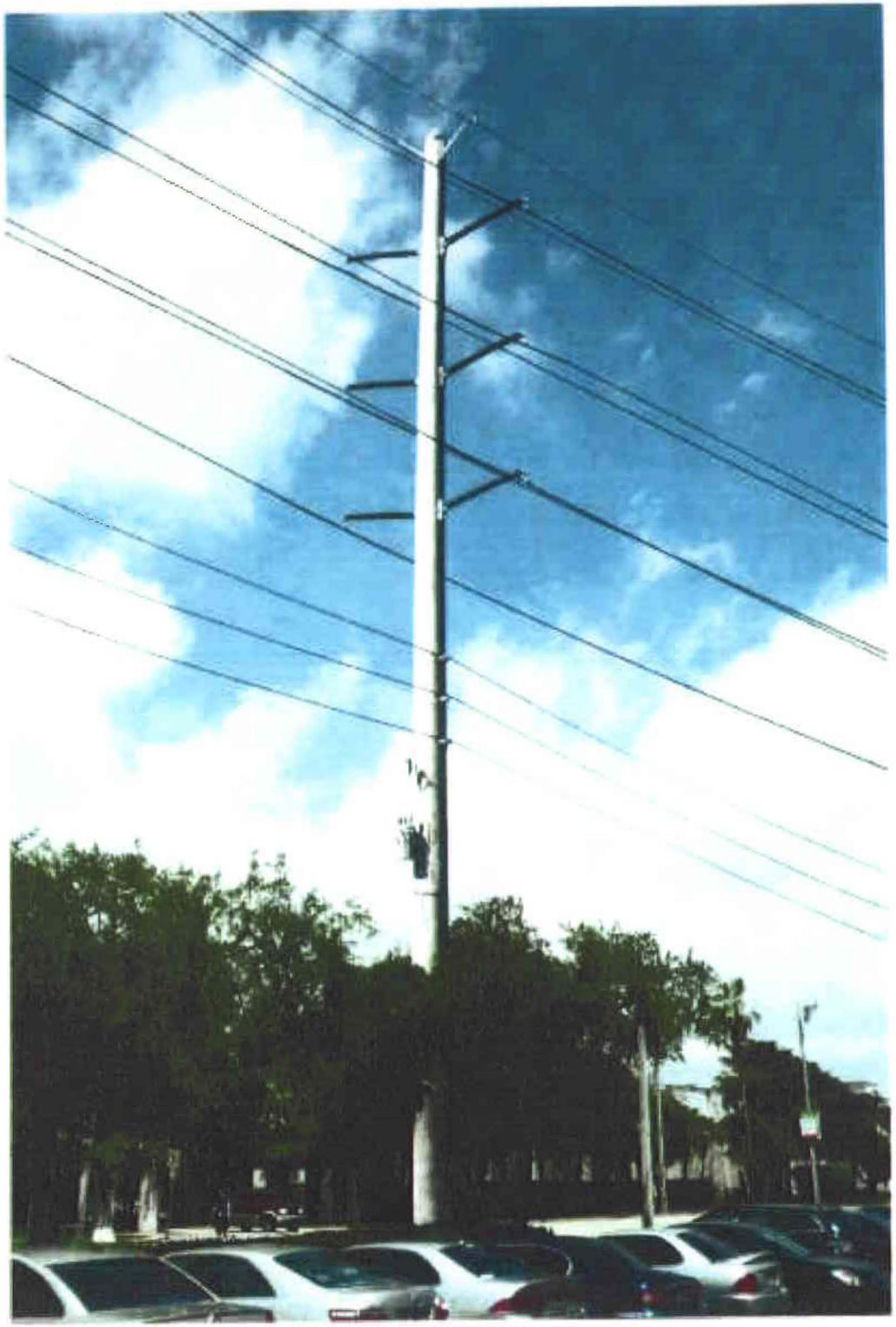





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Ponce de Leon Blvd Double Circuit Rebuild SIMULATIONS











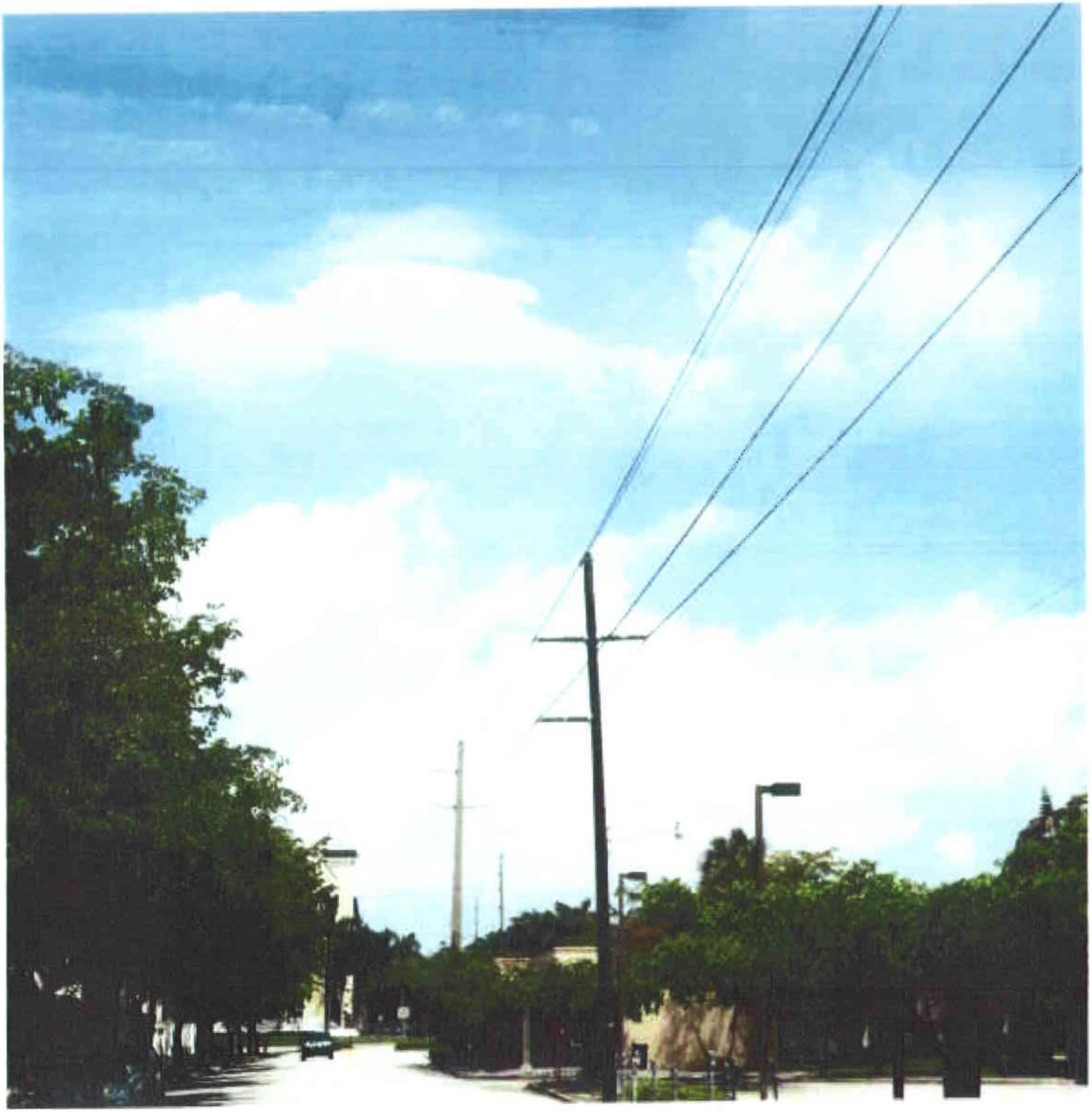


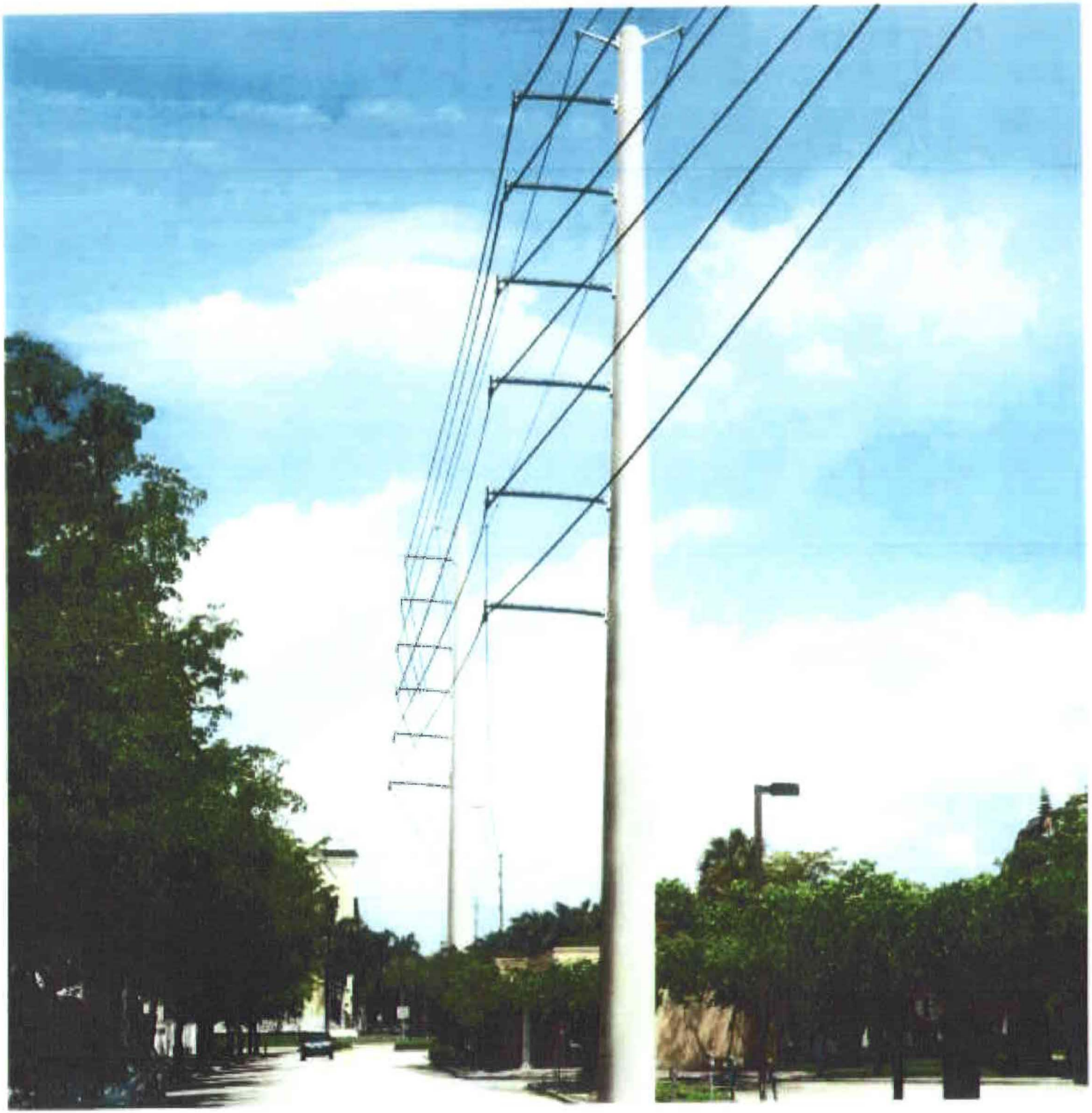




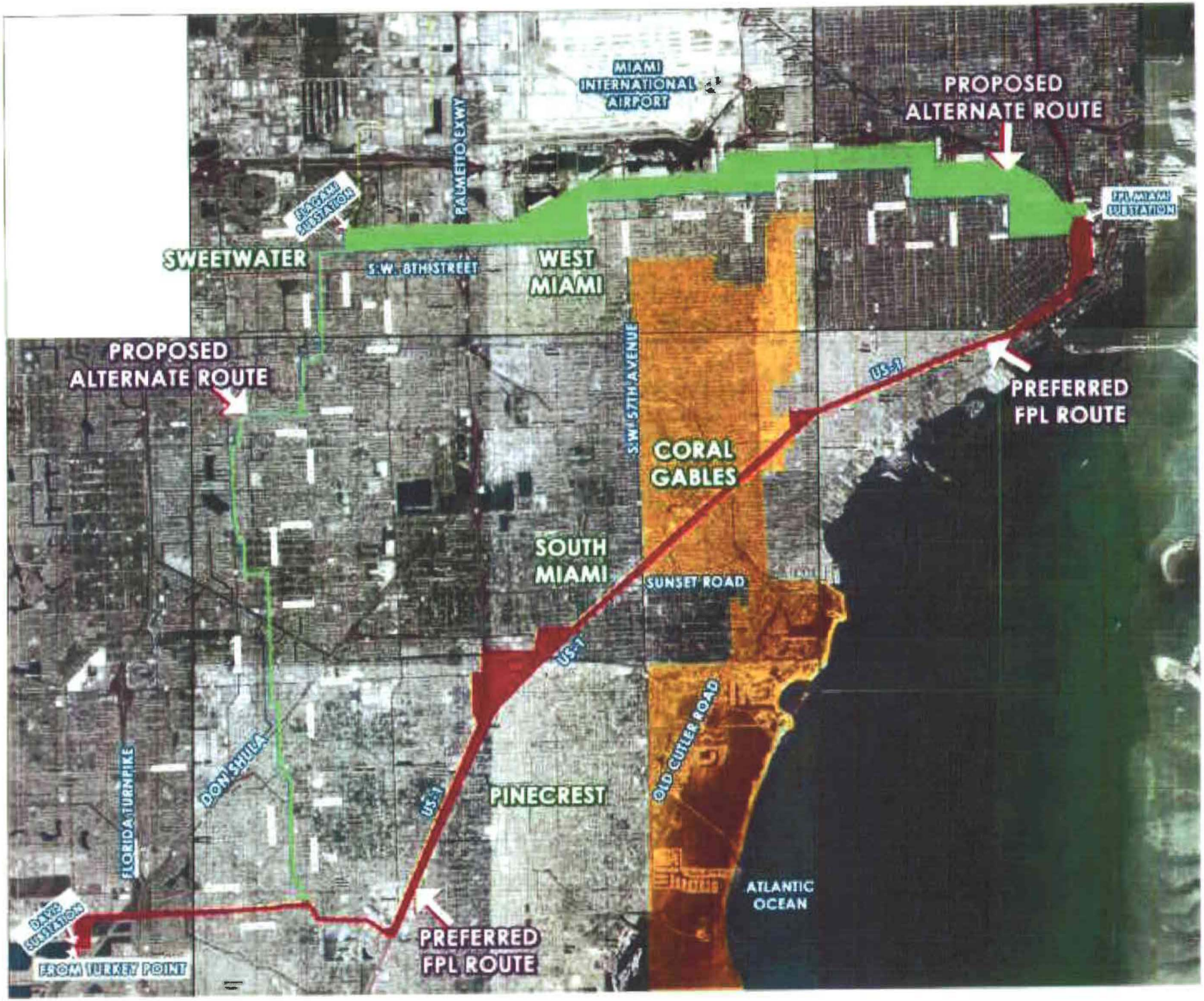






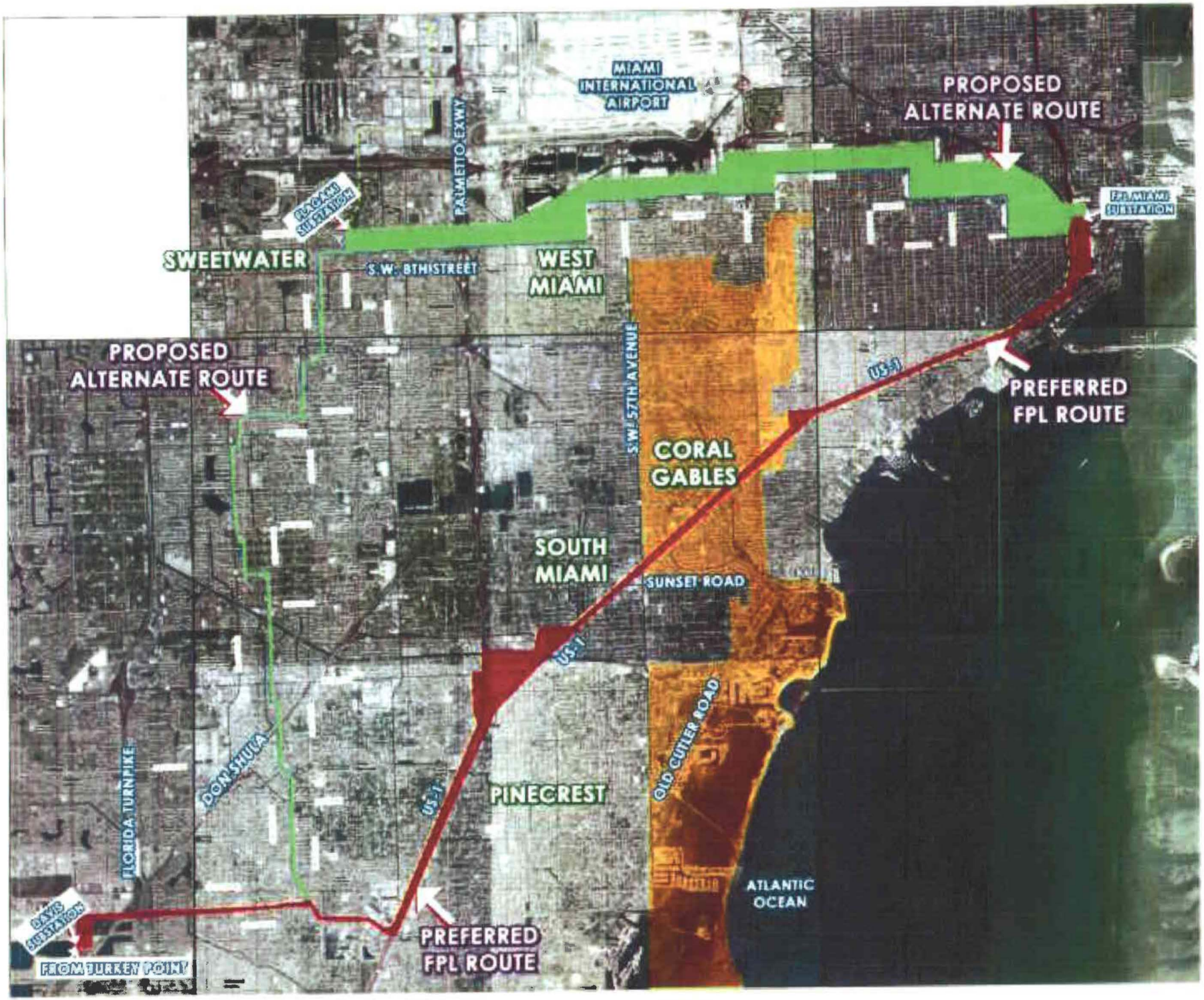


Proposed Alternate Route


MIAMI INTERNATIONAL AIRPORT
PROPOSED ALTERNATE ROUTE
PALMETTO EXWY
FLAGAMI SUBSTATION
FPL MIAMI SUBSTATION
SWEETWATER
S.W. 8TH STREET
WEST MIAMI
PROPOSED ALTERNATE ROUTE
S.W. 57TH AVENUE
US-1
PREFERRED FPL ROUTE
CORAL GABLES
SOUTH MIAMI
SUNSET ROAD
US-1
OLD CUTLER ROAD
DON SHULA
US-1
PINECREST
FLORIDA TURNPIKE
DAVIS SUBSTATION
FROM TURKEY POINT
PREFERRED FPL ROUTE
ATLANTIC OCEAN

Proposed Alternate Route South to North Leg

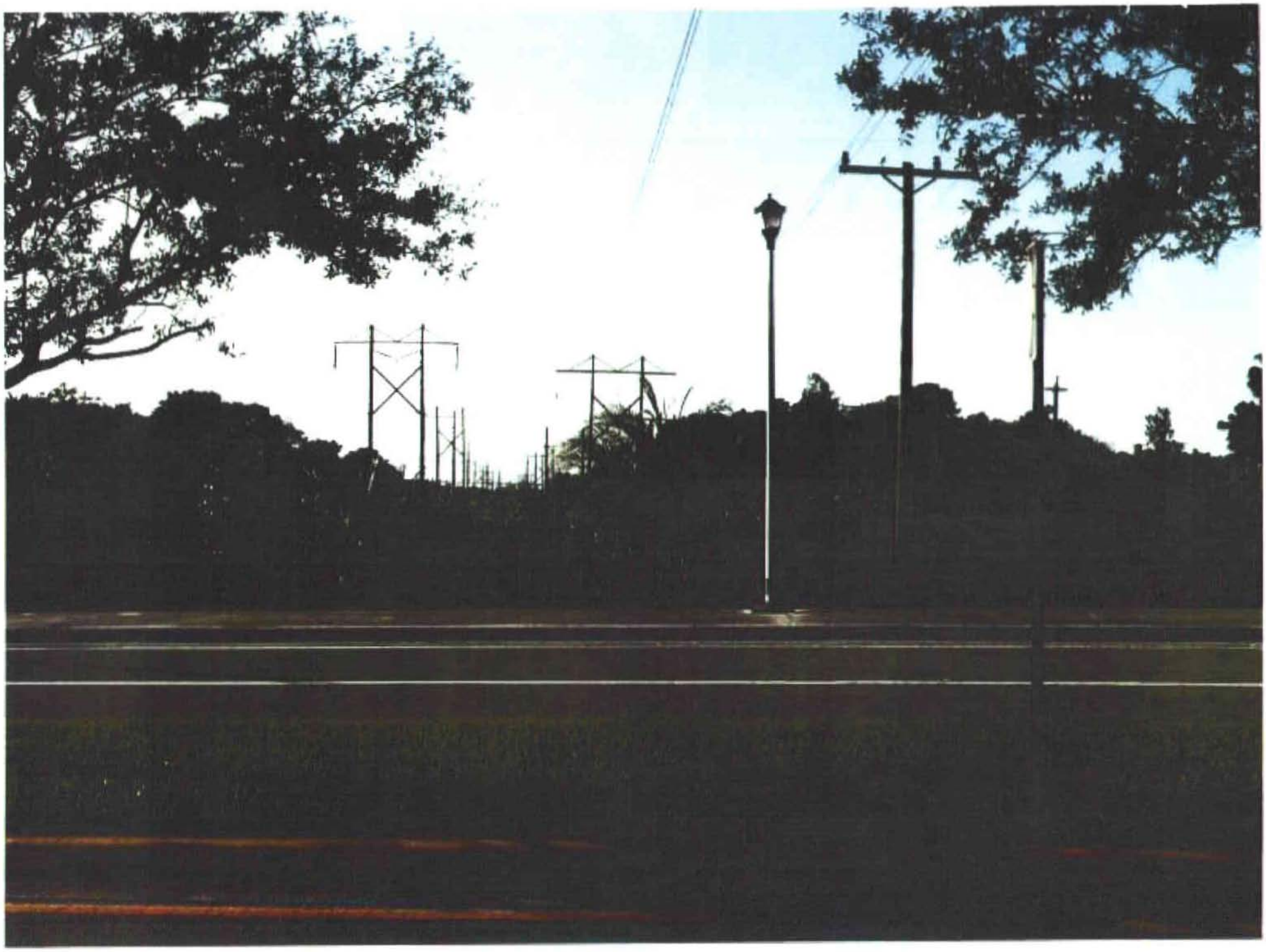
Davis to Flagami Substations


MIAMI INTERNATIONAL AIRPORT
PROPOSED ALTERNATE ROUTE
PALMETTO EXPWY
FLAGAMI SUBSTATION
FT. MIAMI SUBSTATION
SWEETWATER
S.W. 8TH STREET
WEST MIAMI
S.W. 57TH AVENUE
US-1
PREFERRED FPL ROUTE
PROPOSED ALTERNATE ROUTE
CORAL GABLES
SOUTH MIAMI
SUNSET ROAD
US-1
OLD CUTLER ROAD
DON SHULA
FLORIDA TURNPIKE
US-1
PINECREST
ATLANTIC OCEAN
DAVIS SUBSTATION
FROM TURKEY POINT
PREFERRED FPL ROUTE

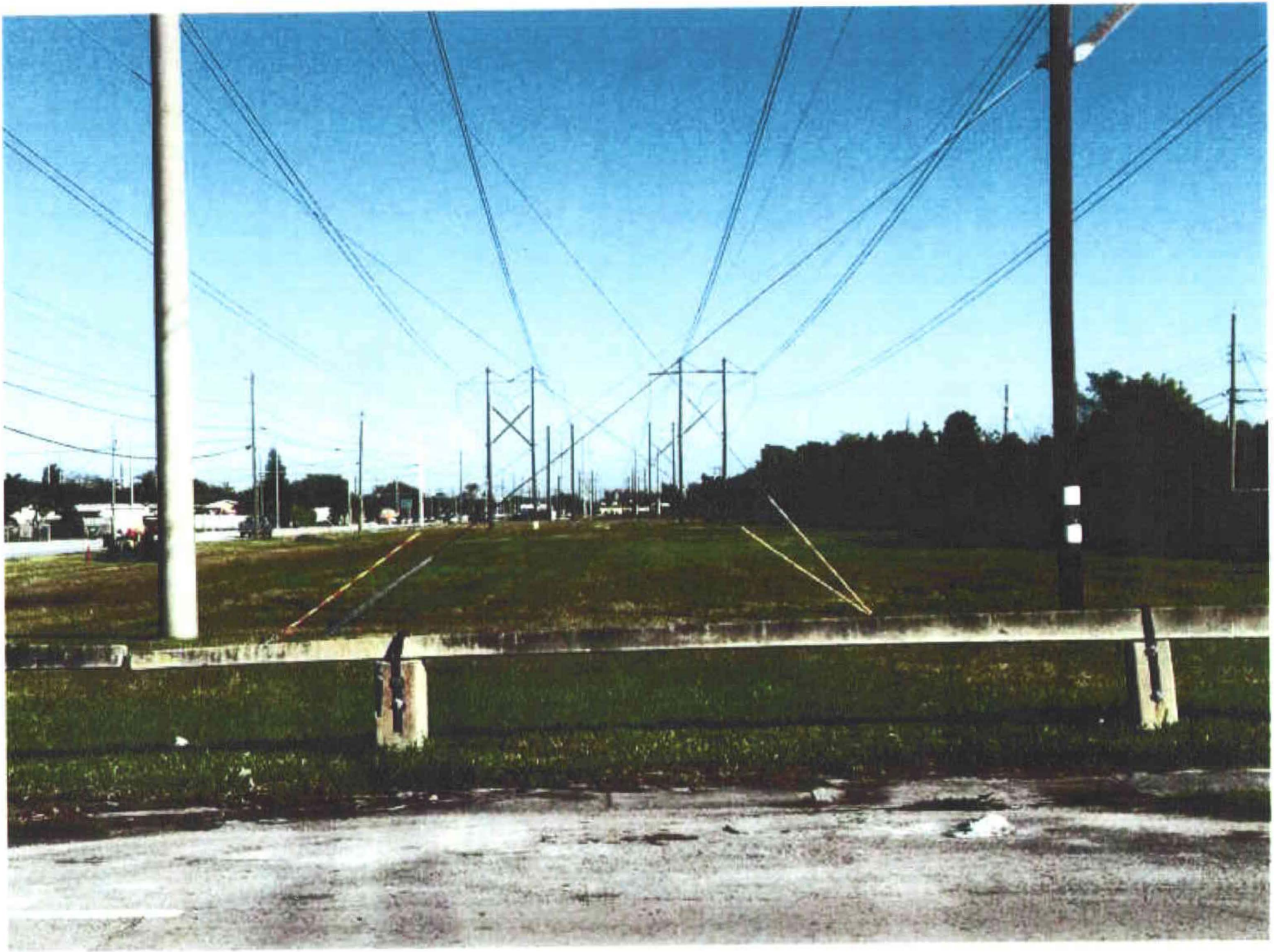












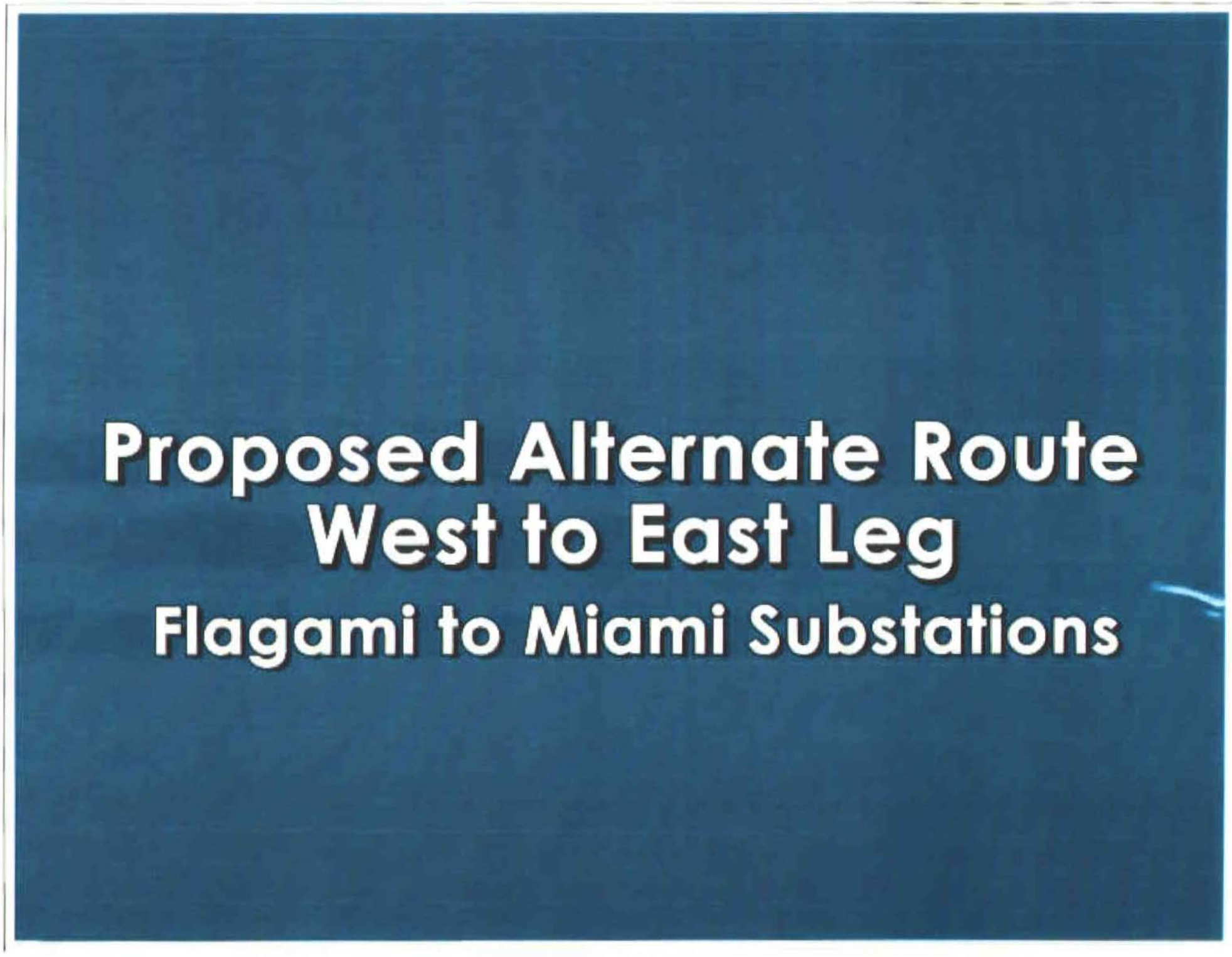


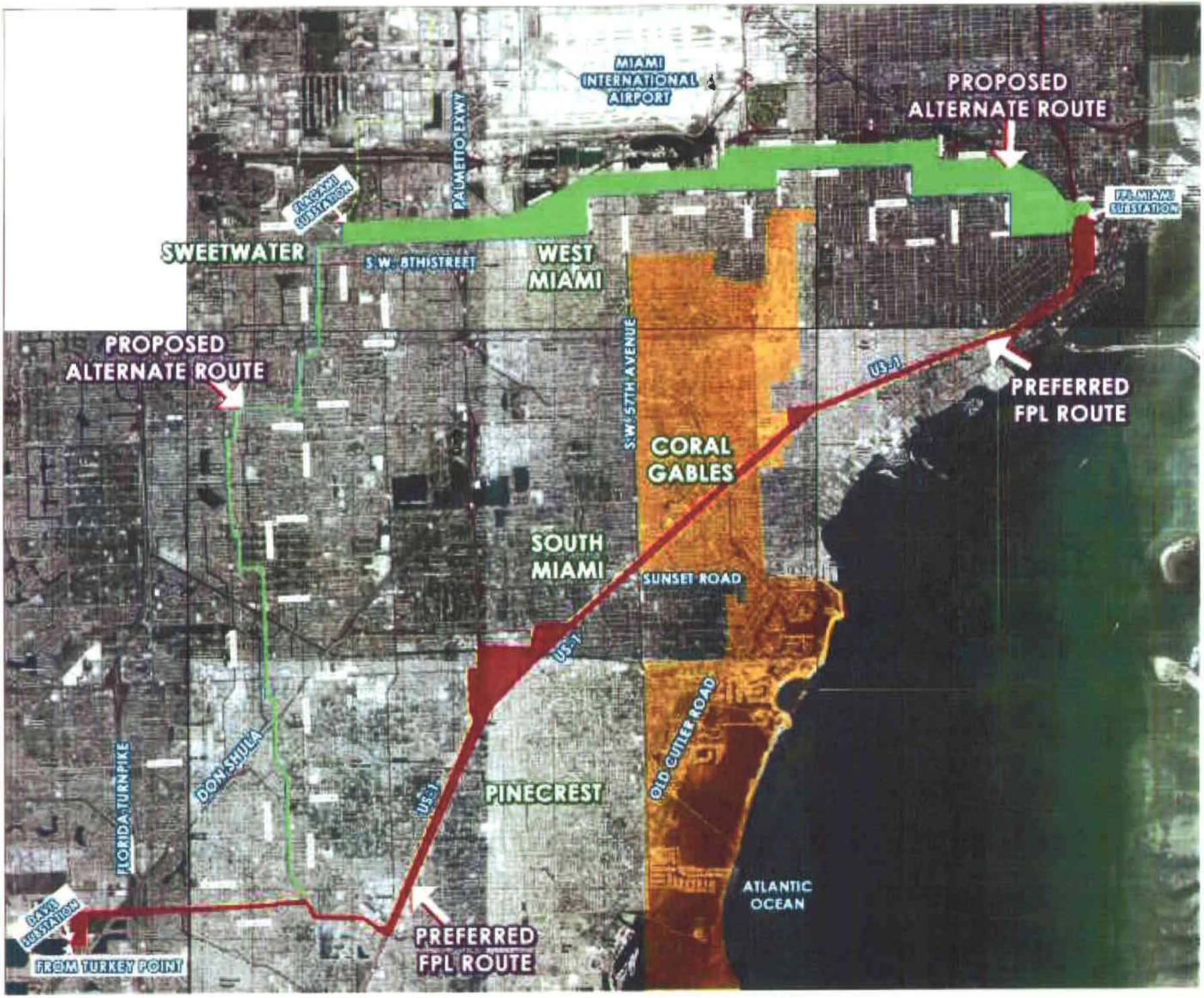









Proposed Alternate Route
West to East Leg
Flagami to Miami Substations


MIAMI INTERNATIONAL AIRPORT
PROPOSED ALTERNATE ROUTE
PALMETTO EXPWY
FLAGAMI SUBSTATION
FPL MIAMI SUBSTATION
SWEETWATER
S.W. 8TH STREET
WEST MIAMI
PROPOSED ALTERNATE ROUTE
S.W. 57TH AVENUE
US-1
PREFERRED FPL ROUTE
CORAL GABLES
SOUTH MIAMI
SUNSET ROAD
US-1
OLD CUTLER ROAD
DON SHULA
FLORIDA TURNPIKE
US-1
PINECREST
ATLANTIC OCEAN
FROM TURKEY POINT
PREFERRED FPL ROUTE


04/06/2011


04/06/2011


04/06/2011


04/06/2011


04/06/2011


04/08/2011


04/06/2011

04/12/2011


04/12/2011


04/12/2011


04/12/2011


04/12/2011


04/12/2011


04/12/2011

04/12/2011


04/12/2011


04/12/2011


04/12/2011


04/12/2011


04/12/2011


04/12/2011


NW 42 AV
04/12/2011


04/12/2011


15
04/12/2011


04/12/2011


04/12/2011

Appendix III-I: Village of Pinecrest

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

FILED
11 JUN 15 AM 11:35
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: FLORIDA POWER & LIGHT CO.	)	
TURKEY POINT UNITS 6 AND 7	)	DOAH Case No. 09-3575EPP
POWER PLANT SITING APP. PA03-45A3.	)	DEP OGC Case No. 09-3107
	)	

NOTICE OF SUBMISSION OF AGENCY REPORT

The VILLAGE OF PINECREST, FLORIDA, through its undersigned counsel, hereby serves notice that, pursuant to Section 403.526, Florida Statutes, it has submitted to the Department of Environmental Protection its Agency Report on the effect of FPL's East Preferred Corridor upon matters within the Village's jurisdiction, and has filed same with the Department of Administrative Hearings.

Respectfully submitted,

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gstewart@ngnlaw.com
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Attorneys for the Village of Pinecrest, Florida.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been sent by U.S. Mail, except where otherwise indicated, to the following listed persons this 15th day of June, 2011:

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ATTORNEY

June 15, 2011

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Program Administrator
Office of Siting Coordination
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

RE: Turkey Point Nuclear Power Plant Site Certification Application – DOAH Case No. 09-3575EPP/DEP OGC Case No. 09-3107 – Associated Transmission Lines Component – Agency Report

Dear Ms. Mulkey:

Introduction

Pursuant to Section 403.526, Florida Statutes, the Village of Pinecrest, Florida, ("Village" or "Pinecrest") has prepared its Final Agency Report detailing the impact of Florida Power and Light Company's ("FPL") proposed East Preferred Corridor on matters within the Village's jurisdiction, including the consistency of the East Preferred Corridor and FPL's proposed right-of-way alignment with the Village's applicable ordinances, regulations, standards and criteria, including the Village's comprehensive plan, zoning regulations, land regulations, and local environmental regulations.

The report, contained herein, acknowledges FPL's concession of certain conditions of certification and commitments already made as a result of the Site Certification Application ("SCA") completeness review process. However, the report also provides notice of additional non-procedural requirements not specifically listed in the SCA from which relief would be necessary for the proposed corridor to be certified. In addition, the report contains the Village's recommendation to deny certification of the East Preferred Corridor in favor of its own Proposed Alternate Corridor, and the Village's proposed conditions of certification should the corridor be certified.

In addition to its recommendation for denial, notice of non-procedural requirements, and its conditions of certification based on applicable local non-procedural requirements, the Village also recommends the additional condition that the segment of the East Preferred Corridor alignment which runs along U.S. 1 be placed underground. As a result of its strongly-held objections to an above-ground alignment within the U.S. 1 corridor, the Village has joined with the City of Coral Gables to formally propose an alternate corridor to FPL's East Preferred Corridor. For this reason, as more fully described below, the Village recommends denial of certification of FPL's preferred corridor, and recommends that its Proposed Alternate Corridor be approved for certification instead. Should the East Preferred Corridor be approved for certification instead of the Village's Proposed Alternate Corridor, that certification should be made subject to the conditions set forth below, including the condition that lines located along U.S. 1 be placed underground.

Background

On June 30, 2009, FPL submitted an SCA to the Florida Department of Environmental Protection ("DEP") for the development of two new 1,100 megawatt ("mW") nuclear electricity generating units at its existing Turkey Point facility in Miami-Dade County. In addition to the two generating units, FPL's application also seeks certification of several new transmission corridors where the company proposes to align transmission facilities associated with, and justified by, the capacity added from the new generating units.

One of FPL's proposed corridors, referred to in its application as its East Preferred Corridor, would be the site of a 230 kilovolt ("kV") facility that begins at a proposed "Clear Sky" substation located at the Turkey Point facility and proceeds generally northward for approximately 19 miles before it connects with FPL's Davis substation located in an unincorporated area in south Miami-Dade County. From the Davis substation, the East Preferred Corridor follows an existing FPL transmission right-of-way until it reaches a location at U.S. 1 where the U.S. 1 right-of-way nears the C-100C Cutler Drain Canal in the northern area of the Village of Palmetto Bay. From that location, the corridor turns generally northward again, and follows the U.S. 1 corridor, proceeding along the eastern edge of the Villages of Palmetto Bay and Pinecrest. The East Preferred Corridor continues following U.S. 1 along the entire eastern edge of Pinecrest and back into an unincorporated area of Miami-Dade County before bisecting the Cities of South Miami and Coral Gables and terminating at the Miami substation located in the City of Miami.

Although the pole placements as described in FPL's proposed right-of-way alignment are not located within the jurisdictional limits of the Village of Pinecrest, the relevant segment of the company's East Preferred Corridor is drawn to include a boundary 30 feet beyond the western edge of the South Dade Busway right-of-way and 30 feet beyond the eastern edge of the U.S. 1 right-of-way. FPL acknowledges that its East Preferred Corridor is widened in this location to include a strip along the western edge of Pinecrest because its authority to place the alignment in the South Dade Busway right-of-way has not yet been secured. As FPL's final location of its right-of-way alignment will not occur until after corridor certification, the pole locations in the final alignment may be placed within the Village of Pinecrest. Even if the final alignment is located within the South Dade Busway right-of-way, and the pole locations are outside the Village, the final transmission line right-of-way may still extend into the jurisdictional limits of the Village. Therefore, the Village hereby states its objections to the corridor in favor of its own alternate corridor, and proposes its conditions for certification of the East Preferred Corridor.

Even if FPL's intended alignment in the South Dade Busway right-of-way occurs, the Village will suffer substantial and measurable negative effects on the local economy despite the potentially extra-jurisdictional location of the poles due to the presence and blighting influence of what would likely be more than 100-foot-tall, 4-foot-wide structures, supporting multiple 230 kV and 138 kV wires. A recent study commissioned by the City of South Miami (attached as "Exhibit 1") suggests that If FPL wins approval of its proposed alignment, the value of properties within the Village of Pinecrest that are adjacent to the alignment will be reduced by approximately 10 percent, which will in turn result in diminished revenues to the Village and reduced economic activity among its residents and businesses within its primary commercial districts.

In addition, the proposed overhead alignment in FPL's East Preferred Corridor is inconsistent with the current and future land uses of the Village, as set forth more fully below in the discussion about undergrounding, and is inconsistent with and damaging to the Village's unique character as well as the State's efforts to encourage higher density and more compact zoning in certain areas of the Village adjacent to the U.S. 1 corridor. By way of example, in 1999, the Florida Department of Community Affairs found the Village's comprehensive development master plan ("CDMP") to be inconsistent and out of compliance with state requirements because the future land use designations for certain areas in along U.S. 1 in the northern area of the Village didn't provide for uses of sufficient density and intensity to support transit functions. From this dispute emerged the creation of the North Pinecrest Business Alternative District which settled the Village's dispute with DCA by encouraging new mix-used development, including offices, retail establishments, personal services, restaurants, and some residential development. This change in Village future land use planning was intended to build upon and take advantage of the area's proximity to the Metro Rail Station, allowing for improved use of rail transit, increased pedestrian activity, and reduced reliance on automobiles. Certification of FPL's proposal would be in direct conflict with the effort of the State and the Village to promote State-supported higher density and urban infill in this location to improve utilization of the area's transit system.

The Village is also characterized by its extensive tree canopy. In fact, the Village is recognized as a Tree City USA community by the Arbor Day Foundation in recognition of the Village's commitment to community forestry. The Village has met the Foundation's standards for receiving this national recognition, in part, by planting over 10,000 trees since 1997. A distinct and important part of the Village's identity will be harmed if overhead transmission lines are permitted within its jurisdiction. Despite any electric utility's best intentions, it is impossible for an unaltered and undamaged tree canopy to coexist in close proximity to power lines. Even where it is possible for a utility to preserve valued tree canopy, the practicalities of meeting line maintenance and tree trimming schedules in a timely manner often results in use of tree trimming methods harmful to affected trees.

For these reasons among others, the Village recommends denial of certification of the FPL East Preferred Corridor, and recommends instead, certification of the Proposed Alternate Corridor filed by the Village and the City of Coral Gables. The reasons supporting certification of the alternate corridor are set forth below. In the event that the FPL East Preferred Corridor is certified, the Village's conditions of certification are also set forth below.

General Objections

Rather than pursuing the power plant project and the transmission corridor projects separately, FPL is seeking joint certification of the generating units and the transmission corridors as "associated facilities" under ss. 403.501 through 403.519, Florida Statutes, also known as the "Florida Electrical Power Plant Siting Act."

Although this joint procedure provides for the certification review of both the power plant site and the transmission corridor sites within the context of a single filing and within a single hearing, the pre-hearing activities of the transmission portion of the proceeding are being conducted on a more rapid

procedural track which is expected to be completed before the pre-hearing activities associated with the power plant. This apparent bifurcation in the proceedings, coupled with the statutory nuclear cost recovery mechanism which allows FPL to recover annually the "prudently incurred" construction costs for facilities associated with the plant, has aroused suspicion among some stakeholders that FPL, despite its contrary statements, intends to construct a 230 kV transmission facility within the East Preferred Corridor irrespective of whether the power plant is ever licensed, built and operated. However, the Village recognizes that through 2012, for the transmission facilities related to the Turkey Point 6 & 7 project, FPL has reported no actual or projected expenditures to the Florida Public Service Commission ("FPSC" or "Commission") for cost recovery purposes except those associated with the site planning and certification costs. See, Florida Power & Light Company's Petition for Approval of Nuclear Power Plant Cost Recovery Amount for the Period January – December 2012, FPSC Docket No. 110009, Document No. 03003-11, filed May 2, 2011.

Nevertheless, local governments and state agencies are required to expend scarce resources evaluating, and where necessary opposing, aspects of the company's SCA without any assurances that the proposed Turkey Point units and associated transmission facilities will ever be licensed, let alone constructed and operated. Additionally, FPL will recover its expenses for all "prudently incurred" site certification costs from its ratepayers despite no assurances the facilities will ever become operational. Reviewing agencies, which are unable to simply pass through the procedural costs of site certification review, are at a significant disadvantage to FPL in this process, and ratepayers are ill-served, due to the order of the proceedings. Ratepayers and taxpayers of the affected local governments should not be required to bear the costs of certifying associated facilities before the underlying power plants are certified. At a minimum, the transmission portion of the proceedings in this docket should be continued, and all procedural deadlines applicable thereto should be deemed tolled, until the power plant portion of the SCA is deemed complete by DEP. If, for workload and resource allocation purposes, it is necessary for DEP to address transmission and power plant issues consecutively, the Village urges that the order of addressing those issues should be reversed, so that the power plant issues are handled first. This re-ordering of the proceedings will provide assurances to ratepayers and local government taxpayers that the burden they bear serves an actual purpose.

Recommendation Regarding Certification

Alternate Corridor

Due to the Village of Pinecrest's serious concerns about, and objections to, the location of FPL's proposed East Preferred Corridor and its potential impacts on the health, safety and welfare of the Village's residents and on the economic health of the community, the Village has joined with the City of Coral Gables to propose an alternate corridor for certification which would replace a segment of the FPL East Preferred Corridor. The alternate corridor segment proposed by the Village will interconnect the Davis substation, located at the intersection of SW 136th Street and SW 127th Avenue in unincorporated Miami-Dade County, with the Flagami substation, located at the intersection of West Flagler Street and 92nd Avenue in the City of Miami, and terminate at the Miami substation, located at the intersection of SW 2nd Avenue and SW 3rd Street along the Miami River. This alternate corridor is described in detail in

the Village's Notice of Proposed Alternate Corridor (attached as "Exhibit 2"), which has been filed with the State of Florida's Division of Administrative Hearings pursuant to Section 403.5271, Florida Statutes.

Reasons to Certify Alternate Corridor

The Proposed Alternate Corridor is the Village's preferred corridor, and should be certified for the following reasons:

1. The entire South-to-North leg of the Proposed Alternate Corridor is co-located with existing FPL facilities and is located completely within an existing FPL right-of-way. Certification of the Proposed Alternate Corridor will afford FPL the opportunity to reconfigure and "harden" its existing transmission facilities located within this leg, particularly in the segment that bisects the residential and recreational areas within the purview of the Kendale Homeowners' Association.

2. The entire West-to-East leg of the Proposed Alternate Corridor is co-located with other linear facilities, and contains existing FPL 230 and 138 kV transmission lines. The proposed additional 230 kV line can, in some areas, be located on a common pole with the existing lines, affording FPL the early opportunity to harden its existing system and to reconfigure existing lines to reduce the blight and other negative impacts to City of Miami and Miami-Dade County residents and property owners which are caused by FPL's existing facilities. Not only will development of FPL's East Preferred Corridor eliminate the opportunity to reduce existing blight within the City of Miami, but it will create new blight conditions in an area of Miami-Dade County where they don't currently exist, and where the proposed facilities are inconsistent with current and future land uses.

3. The Proposed Alternate Corridor, unlike the FPL East Preferred Corridor, will neither conflict with, nor adversely affect, planning for future transportation and transit needs along the U.S. 1 corridor – a major multi-modal transportation facility for Miami-Dade County.

4. The Proposed Alternate Corridor, unlike the FPL East Preferred Corridor, will not negatively impact the aesthetics of U.S. 1 – a main city thoroughfare which serves as the terminus to I-95, and is the gateway to the Greater Miami area.

5. The Proposed Alternate Corridor, unlike the FPL East Preferred Corridor, will not have a "blighting" influence on the U.S. 1 corridor resulting in reduced property values and business activity in the Village's principal commercial district, which would, in turn, reduce the economic health of Village residents and businesses and reduce Village revenues.

6. The cost of construction along the Proposed Alternate Corridor is likely to be less than or similar to the cost of construction along the corresponding segment of the FPL East Preferred Corridor.

7. Miami-Dade Transit is currently in the Project Development and Environmental (PD&E) stage of evaluating the excess capacity along the South Dade Busway from SW 344th Street to SR 826/Dadeland South to build a managed lane facility, enabling regular traffic to travel with buses for the length of the corridor. Elements of this managed lane facility are anticipated to include High Occupancy Toll lanes, elevated grade separation for the Busway and the extension of the Metrorail. Certification of the Proposed Alternate Corridor will avoid the potential conflict with this future expansion by Miami-Dade Transit that is posed by the 230 kV aerial lines FPL proposes to install along the U.S. 1 corridor. Avoiding this conflict represents a significant potential cost savings to both Miami-Dade Transit and FPL ratepayers.

Conclusion and Recommendation Regarding Certification of FPL East Preferred Corridor

For the foregoing reasons, the Village of Pinecrest recommends denial of FPL's request for certification of its East preferred Corridor, and respectfully requests that its Proposed Alternate Corridor be certified instead.

However, in the event that the Village's Proposed Alternate Corridor is not certified, but the East Preferred Corridor is certified, the Village of Pinecrest requests the consideration of the following impacts of FPL's project on matters within the Village's jurisdiction. In addition, the Village proposes conditions of certification, as set forth below.

Acknowledgment of Conditions of Certification Proposed by FPL, and of Prior Commitments Made by FPL

To the extent that the following conditions and commitments proposed by FPL are different than or inconsistent with conditions of certification recommended below by the Village, the conditions recommended by the Village should control.

Conditions of Certification Proposed by FPL

1. ***Emergency Management***. FPL shall coordinate with the Village Manager regarding the Davis-Miami 230-kV transmission line during times of emergency.

   Citation: Chapter 12, Article III, Section 12-59, Village of Pinecrest Code of Ordinances

2. ***Solid Waste***. FPL will collect, remove, and dispose of debris and solid wastes in compliance with state, county, and local regulations.

   Citation: Chapter 15, Article I, Village of Pinecrest Code of Ordinances.

3. ***Noise***. FPL shall comply with the Village's noise ordinance in the construction, operation, and maintenance of the proposed transmission line. During construction of the proposed transmission line, FPL proposes to mitigate and minimize the potential noise impacts of construction by scheduling activities to be completed as much as practicable during daylight hours (7am to 6:30pm) in accordance with Chapter 15 of the VIllage Code of Ordinances. To

the extent that nighttime construction is required, FPL will notify the Village in advance of such nighttime construction.

Citation: Chapter 15, Article II, Village of Pinecrest Code of Ordinances.

Commitments Previously Made by FPL

1. ***Location of Transmission Line***.

   a. To the extent practicable, it is FPL's intent to locate the proposed new transmission line in the same alignment and, if possible, same pole locations as the distribution line, therefore, minimizing any disruption.

   b. To the extent practicable, it is FPL's intent to be on the west side of the U.S. 1 right-of-way and the east side of the Busway, and thus outside the Village of Pinecrest.

   Source of Commitment: FPL's 1st Completeness Responses No. VOP-04 (August 2009).

2. ***Coordination with Metrorail***. During design of the Davis-Miami 230-kV transmission line, FPL will coordinate with appropriate authorities so as to accommodate the expansion plans for the Busway and Metrorail along U.S. 1 as currently known at the time of design of the transmission line.

   Source of Commitment: FPL's 1st Completeness Responses No. VOP-03 (August 2009).

3. ***Tree Relocation and Replacement***.

   a. FPL will comply with all applicable tree removal ordinances, including provisions for mitigation with approved replacement trees and/or tree fund contributions.

   b. Prior to construction, FPL will inventory the transmission line route to identify vegetation to be trimmed or removed to provide required electrical clearances to the transmission line in accordance with the North American Electric Reliability Corporation (NERC) reliability standards.

   c. To the extent practicable, it is FPL's intent to locate the proposed new transmission line in the same alignment and, if possible, pole locations as the distribution line, therefore, minimizing any disruption to existing trees and vegetation.

   Source of Commitment: FPL's 1st Completeness Responses No. VOP-07 (August 2009).

Proposed Conditions of Certification

As previously stated, the Village recommends denial of FPL's application for certification of its proposed East Preferred Corridor due to the inconsistency of the proposed overhead transmission line configuration with current and future land uses within the Village of Pinecrest. This inconsistency exists for the proposed alignment, and would be exacerbated if all or part of the final alignment consists of

pole locations within the Village. However, in the event FPL obtains certification for the East Preferred Corridor, the Village recommends that certain conditions of certification be imposed, as described below. The first group of conditions includes those that should apply generally, whether the final right-of-way is located inside or outside the Village limits. The second group of conditions contains those that would apply in the event that the final right-of-way is located within the Village limits.

Conditions of General Applicability

1. ***Undergrounding.*** The Village generally requires that lateral electric distribution lines be placed underground, but that high-voltage transmission lines may be placed on concrete poles provided that they are located within street rights-of-way and provision is made for street lighting. However, placement of the East Preferred Corridor adjacent to U.S. 1 within the Village, even within the U.S. 1 right-of-way, is inconsistent with numerous goals, objectives and policies within several elements of the Village's CDMP, making compatible placement of overhead transmission lines within the Village impossible. Although the Village's land use requirements are not controlling in areas outside its jurisdiction, placement of overhead transmission facilities within the South Dade Busway right-of-way may still create some overlap of the transmission right of way and the Village limits which extend to the center of U.S. 1. Placement of the facilities in said right-of-way is, nevertheless, inconsistent with several of the goals, objectives, and policies of the Village's CDMP, and such an overhead placement would frustrate the ability of the Village to execute its CDMP rendering portions of it a nullity within the western-most districts of the Village. For Example:

   Future Land Use Element

   Goal 1-1:

   The Village of Pinecrest shall maintain and enhance the extraordinary character and quality of land uses within the Village... .

   Permitted land uses adjacent to the U.S. 1 corridor within the Village consist predominantly of office and restricted commercial development. Village offices, Suniland Park, and Veterans Wayside Park are also located adjacent to U.S. 1. Residential development exists immediately to the east of the office and commercial development. Monopoles over 100 feet in height and associated guy wires are incompatible with the established pattern of development and aesthetic character within the U.S. 1 corridor and would be inconsistent with planned development and uses as identified within the Village's Comprehensive Development Master Plan.

Policy 1-1.1.2:

Promote orderly land use transition. ...[B]uffering shall be required to promote a smooth land use transition.

The power lines and monopoles, whether they are placed within the Village limits or across U.S. 1 in the South Dade Busway right-of-way, will likely be visible from the residential neighborhoods that are located adjacent to U.S. 1, immediately behind the established commercial development. Even in the Busway right-of-way, the distance of the power lines from the western-most residences of the Village is not sufficient to allow for an orderly or smooth land use transition as directed by this policy.

Policy 1-1.2.3:

Improve the image and function of commercial development along S. Dixie Highway (U.S. 1).

Power lines, monopoles over 100 feet in height, and associated guy wires will detract from the image or function of commercial development along U.S. 1. Indeed, the economic analysis prepared by Dr. Weisskoff, attached hereto as "Exhibit 1", indicates that placement of the transmission alignment as proposed will result in a substantial reduction in property values and commercial activity within adjacent commercial districts. These effects would be exacerbated by a final alignment located on the east side of U.S. 1.

Policy 1-1.3.1:

Maintain integrity of the Future Land Use Map. ...The introduction of intense industrial land uses would have a disruptive influence on the ability of the Village to ... continue to attract upwardly mobile single family homeowners.

Placement of multiple monopoles, overhead electric lines, and guy wires at the scale proposed would be contrary and directly inconsistent with this Policy.

Objective 1-1.5:

Develop a distinctive Village character and sense of place. The Village shall pursue projects that promote a distinctive Village character and a sense of place as directed by the following policies:

Policy 1-1.5.3:

Roadway Corridor Beautification.

The monopoles, overhead power lines, and guy wires if installed at the proposed scale, either within the Village or within the South Dade Busway right-of-way will neither

enhance nor beautify areas of the Village adjacent to the proposed alignment, but will instead have the opposite effect.

Objective 1-1.7:

Promote Village appearance, natural amenities and urban design principles. ...[P]ublic and private improvements, especially improvements adjacent to the U.S. 1 commercial corridor...shall be managed and enhanced through application of the site plan review process.

Installation of overhead power lines on monopoles over 100 feet in height, and associated guy wires, will not enhance the Village's appearance and will not be of benefit to the natural environment. Pursuant to this Objective, projects are normally subject to the Village's site plan review process which is specifically described within the Village Land Development Code. Because that process is circumvented through the Site Certification Review process, this objective of the Village's CDMP would be rendered a nullity as applied to this project.

Policy 1-1.7.1:

Reinforce and enhance the Village's community appearance. ...Special emphasis shall be placed on preserving and/or improving the character of major natural and man-made corridors, including...major transportation corridors which serve as a focal point of the motoring public.

Installation of overhead power lines on monopoles over 100 feet in height and associated guy wires, either within the Village or within the South Dade Busway right-of-way, will not enhance the Village's appearance, will severely detract from the existing character of the corridor, and will permanently prevent the Village from implementing this policy to its fullest potential as planned and expected.

Objective 1-2.4.1:

Public and semi-public land use designation (PS). The public and semi-public land use designation (PS) is intended to accommodate existing public and semi-public services including ... essential public services... .

Essential services include "electrical collection and distribution facilities," as defined in the Pinecrest Land Development Regulations. The U.S. 1 corridor is designated largely for commercial, residential, and recreational uses. The Village Hall is the only property designated as PS, Public Service adjacent to U.S. 1. Public and semi-public services (PS) are also designated on the Village Future Land Use Map in other limited areas of the Village.

Policy 1-3.9.8:

Urban design and community appearance. Good principles of urban design shall be applied through the site plan review procedures in order to enhance the general community appearance... .

The proposed overhead lines strung on monopoles do not appear to be consistent with good principles of urban design. Because the normal local site plan review process is circumvented by the State's Site Certification Review process there will be no opportunity for the Village to ensure at the local level that the proposed overhead electric lines and monopoles are reviewed consistently with good principles of urban design.

Transportation Element

Policy 2-1.4.1:

Efficient Public Transit Service.

To the extent that the proposed FPL transmission lines will impact plans by Miami-Dade Transit to establish a managed lane facility on the west side of U.S. 1, the proposed transmission lines may be inconsistent with this policy and other objectives and policies of the Village Comprehensive Development Master Plan that encourage efficient public transit service.

Housing Element

Policy 3-1.5.3:

Minimize blighting influences.

The placement of an overhead configuration with electrical lines and monopoles over 100 feet in height, whether within the Village or within the South Dade Busway right-of-way, will detract from the appearance and appeal of the areas within the Village adjacent to U.S. 1, and is therefore inconsistent with this policy of the CDMP to minimize blighting influences.

Policy 3-1.5.8:

Compatibility of new development. ...The Village of Pinecrest shall not permit any development which is inconsistent ... with the surrounding neighborhood.

Public utility projects are designated as a conditional use in every zoning district under the Village's Code of Land Use Regulations. Pursuant to those regulations, a conditional use shall only be permitted on specific sites where the proposed use may be adequately accommodated without generating adverse impacts on properties and land uses within

the immediate vicinity. *Chapter 30, Article 3, Division 3.3, Village of Pinecrest Code of Ordinances.*

Given the obvious inconsistency of overhead power lines with the Village's comprehensive plan, the Village recommends that should FPL's East Preferred Corridor be certified instead of the Proposed Alternate Corridor, the Department include in its Project Analysis a recommendation that the segment of the East Preferred Corridor alignment which runs along the U.S. 1 corridor be placed underground or co-located with Miami-Dade County's Metrorail system corridor as a condition of certification.

The Village points out that in communications with stakeholders, FPL has informally relied upon a Florida Supreme Court case, Florida Power Corp. v. Seminole County, 579 So. 2d 105 (Fla. 1991), which holds that a local government's authority to require a utility to convert overhead power lines to underground in certain circumstances is preempted to the FPSC because such ordinances affect rates, determinations of which are within the exclusive purview of the Commission. The Village believes Seminole County leaves room for the State, through the site certification process, to require undergrounding.

First, the Seminole County case involved the adoption of city and county ordinances that required the conversion of existing overhead power lines to underground, one of which required the utility to bear the incremental cost of conversion. Within the context of site certification, FPL has evaluated numerous possible transmission routes, and had the freedom to evaluate the potential of each route to be susceptible to the need to place lines underground. FPL had the opportunity to propose alternatives for certification, but elected not to do so. The site certification process, where FPL enjoyed the freedom to pursue any one or any number of potential alternatives for its East corridor, is not comparable to the situation in Seminole County, where the utility was required to move existing lines due to road construction.

Second, recommending undergrounding as a condition of certification is not a decision affecting rates, as was one of the two ordinances at issue in Seminole County. FPL will still be required to demonstrate to the FPSC whether its expenditures in the planning and construction of its transmission facilities are prudent, and if so, will be allowed to recover those costs from the general body of ratepayers. FPL is not asked to underground existing facilities and eat the cost. Rather, FPL is asked to adhere to local norms by placing a portion of its selected route underground, and then to justify its choice to pursue this particular route to the FPSC. The PPSA allows FPL the broadest flexibility possible within the SCA process to identify and pursue the project it desires, and it is appropriate to consider in rate setting the prudence of pursuing one route versus another. The decision affecting rates was made by FPL when it chose its preferred route and declined to consider alternatives, and it should therefore bear the risk of its choices when it faces the FPSC.

Third, where the undergrounding of power lines is shown to have quantifiable system-wide benefits, the FPSC has stated that incremental costs may be spread across the general body

of ratepayers. See Order No. PSC-07-0442-TRF-EI, at p. 2. The Village believes that FPL's transmission corridor project is one of regional if not statewide significance, and if placed underground, would provide statewide cost and reliability benefits. This project has been justified by a finding of system-wide rather than localized need. As such, like a developer who is the cost causer and is therefore required to finance local undergrounding requirements in new development, the general body of ratepayers may be regarded as the cost causer where their use of the system necessitates additions of new capacity and associated facilities. It is, therefore, not a foregone conclusion that the FPSC will preclude recovery of undergrounding costs from the general body of ratepayers.

Fourth, the *context* of the Seminole County case is critical to its holding. That case dealt with the unilateral actions of local governments, unlike the circumstances present in a site certification proceeding involving the local governments of an entire region and numerous agencies with regional and statewide authority. Site certification is a state action, not the action of a local government, and it most often concerns projects of regional and statewide impact, rather than merely local. Read out of context, the Seminole County decision makes little sense, because its rule that all actions affecting rates and service are preempted to the FPSC would preempt virtually every form of State utility regulation to the FPSC, including environmental regulation. The DEP undertakes numerous and regular actions affecting the rates and service of investor-owned and publicly owned utilities alike, but the authority to take those actions is clearly not preempted to the FPSC. The FPSC is simply charged with determining the appropriate rate making treatment of a utility's response to those regulatory actions. The same should be the case here, where FPL has had the freedom to pursue any corridor and alignment it desired.

In light of these points, and in light of the inconsistency of the East Preferred Corridor utilizing an overhead configuration with the norms of most, if not all, of the jurisdictions in South Florida, undergrounding is a reasonable condition of certification.

2. ***Number of Poles.*** Prior to authorization of the final right-of-way alignment, FPL shall submit to the Village a report indicating the number of poles currently located in the South Miami Busway right-of-way adjacent to the Village, and the number of poles proposed to be installed in the final alignment, and their location. If an alignment other than the one proposed is authorized, FPL shall indicate the number of poles which will be installed in said other alignment, and their locations, and shall indicate whether existing lines will be co-located in said other alignment. FPL's submission shall include schematics and renderings depicting the actual material, configuration, height and width of the structures that will be placed in the final authorized right-of-way alignment.

Citation: Chapter 30, Articles 4 and 5, Village of Pinecrest Code of Ordinances.

3. Nuisances.

a. Unlawful accumulations of materials; disposal and storage of goods.

FPL shall not place, sweep, scatter, throw or dump or cause to be placed, swept, scattered, thrown or dumped for any purpose whatsoever, any refuse, rubbish, or trash of any kind, any commercial trash, industrial waste, tree trimmings, or similar material in or upon:

i. Any road, street, parkway, sidewalk, park, lake or bank of any river, stream, lake, watercourse or pool, or any portion thereof, within the limits of the village, or upon any village owned real property, except under the rules and regulations promulgated for the handling of such material, at a designated place, and with the consent of the village or its designated agents or employees. Garbage shall be placed in secured containers (i.e. garbage cans) in order to prevent disturbance of contents by animals.

ii. Private property not owned or controlled by FPL, within the village limits, without the consent of the owner of said private property.

b. Commercial vehicles/equipment in residential districts.

i. FPL shall refrain from the outside storage of any commercial equipment, steel storage containers, supplies, or materials in any land use district within the Village.

ii. FPL shall refrain from storing tractor-trailers, tractor-trucks, semi-trailers, mobile homes, trailers, and portable dwelling units on any parcel of land within the village. Tractor-trailers may be permitted for purposes of loading and unloading. Port-a-potties shall not be placed on swales and must be located 15 feet from the property line. The use of a construction trailer is prohibited within the Village except in connection with the development of a subdivision.

c. Litter/waste.

i. *Waste liquid or refuse upon public ways.* FPL shall not permit waste water, oil, grease or other waste liquids to drain from its East Preferred Corridor work site upon and across, or permit or cause waste matter or refuse of any nature whatsoever to rest or accumulate upon the sidewalks, streets or other public ways of the village, except in alleys in receptacles approved by the enforcement official.

ii. *Litter in public places.* FPL shall not throw or deposit litter in or upon any street, sidewalk or other public place within the village except in public receptacles, in authorized private receptacles for collection, or in official trash stations.

iii. *Placement of litter in receptacles.* FPL, when placing litter in public receptacles or in authorized private receptacles, shall do so in such a manner as to prevent it from being carried or deposited by the elements upon any street, sidewalk or other public place or upon private property.

iv. *Sweeping litter into public ways.* FPL shall not sweep into or deposit in any gutter, street or other public place within the village the accumulation of litter from any building or lot or from any public or private sidewalk or driveway. During periods of construction, maintenance, and operation of the transmission facilities, FPL shall keep the sidewalk adjacent to the transmission right-of-way free of litter.

v. *Litter in parks.* FPL shall not throw or deposit litter in any park within the village except in public receptacles and in such a manner that the litter will be prevented from being carried or deposited by the elements upon any part of the park or upon any street or other public place. Where public receptacles are not provided, all such litter shall be carried away from the park by the person responsible for its presence and properly disposed of elsewhere as provided herein.

vi. *Posting notices prohibited.* FPL shall not post or affix any notice, poster or other paper or device, calculated to attract the attention of the public, to any lamppost, public utility pole or shade tree, or upon any public structure or building, except as may be authorized or required by law.

vii. *Litter on occupied private property.* FPL shall not throw or deposit litter on any occupied private property within the village, unless FPL is in control of said private property for the purposes of constructing maintaining, or operating the transmission facilities, in which case, FPL may maintain thereon private receptacles for collection in such manner that litter will be prevented from being carried or deposited by the elements upon any street, sidewalk or other public place or upon any private property.

viii. *Owner to maintain premises free of litter.* In the event that FPL is in control of any private property for the purpose of constructing, maintaining, or operating the transmission facilities, whether said

property is occupied or vacant, FPL shall at all times maintain the premises free of litter. FPL shall, however, be permitted to store litter on such private property in authorized private receptacles for collection.

ix. *Litter on vacant lots.* FPL shall not throw or deposit litter on any open or vacant private property within the village whether owned or controlled by FPL or not.

Citation: Chapter 15, Article 1, Village of Pinecrest Code of Ordinances; Chapter 30, Article 5, Division 5.8, Village of Pinecrest Code of Ordinances.

4. ***Emergency Management.***

FPL shall comply with applicable Village ordinances concerning emergency management. See FPL's Proposed Conditions of Certification, above.

Citation: Chapter 12, Article 3, Village of Pinecrest Code of Ordinances.

Conditions Which Should Apply in the Event the Approved Alignment is located within the Village

1. ***Historic or Archaeological Sites.***

Upon identification of any historic or archaeological sites which will be impacted by the East Preferred Corridor Project, FPL shall develop a plan which mitigates any potential adverse impacts. The plan shall address the following:

a. Adverse impacts from destruction or alteration of all or part of such site;

b. Adverse impacts resulting from isolation from, or alteration of, the surrounding environment;

c. Adverse impacts resulting from introduction of visual, audible, or atmospheric elements out of character with a property or alter its setting;

d. Vegetation removal shall not be permitted on a historic or archaeological site unless the vegetation to be removed is part of a duly authorized scientific excavation, or is a part of an approved development plan; and

e. Adverse impacts from other forms of neglect resulting in resource deterioration.

Citation: Chapter 30, Article 5, Division 5.13, Village of Pinecrest Code of Ordinances.

2. ***Obstructions of visibility.***

In the placement of structures in right-of-way located within the Village, FPL shall comply with all applicable Village regulations concerning obstructions of visibility.

Citation: Chapter 30, Article 5, Division 5.16, Village of Pinecrest Code of Ordinances.

3. ***Appearance of site and structures.***

   a. *Utility lines.* New utility lines are generally required to be placed underground. To the extent any above-ground placement is authorized, FPL shall place its transmission lines within street rights-of-way within the Village, shall use concrete poles, and shall make provision for street lighting. Any high-voltage transmission lines not within a street right-of-way, shall be placed underground. Large transformers shall be placed on the ground and be mounted on pads and contained within enclosures or vaults. Where enclosures or vaults are used, the construction and design shall be compatible with primary budding design. Landscaping with shrubs and plants shall be provided to screen pad mounted transformers.

   b. *Exterior lighting.* Any light sources installed by FPL, or caused to be installed by FPL, shall be shielded and arranged to eliminate glare from roadways and streets; and shall be directed away from properties lying outside the zoning district within which the lighting has been installed. Shielding of lighting elements shall be accomplished by using an opaque shade to direct the light.

Citation: Chapter 30, Article 5, Division 5.19, Village of Pinecrest Code of Ordinances.

4. ***Compliance with CDMP and proper use of mitigative techniques***

FPL's East Preferred Corridor power line project shall comply with environmental, zoning and other applicable regulations of the Village of Pinecrest Land Development code, and shall be consistent with the Village of Pinecrest CDMP. Utility projects are conditional uses within all Village zoning districts. Therefore, FPL's East Preferred Corridor power line project shall incorporate proper mitigative techniques, including but not limited to appropriate screening and buffering, needed to prevent adverse impacts to adjacent land uses. In addition, the design scheme shall appropriately address off-site impacts to ensure that land use activities in the immediate vicinity, including community infrastructure, are not burdened with adverse impacts detrimental to the general public health, safety and welfare.

Citation: Chapter 30, Article 1, Division 1.4, Village of Pinecrest Code of Ordinances. Chapter 30, Article 3, Division 3.3, Village of Pinecrest Code of Ordinances. Village of Pinecrest Comprehensive Development Master Plan Policies 1-1.1.2 and 3-1.5.8.

5. ***Landscape regulations.***

FPL shall comply with all applicable Village regulations concerning landscaping, including but not limited to, preparation and submission of the following as defined and required by the Village Code of Ordinances: a landscape plan, a vegetation survey, and irrigation plan.

Citation: Chapter 30, Article 6, Division 6.1, Village Code of Ordinances.

6. ***Tree preservation and protection.***

FPL shall comply with all applicable Village regulations concerning tree preservation and protection. See Commitments Previously Made by FPL, above.

Citation: Chapter 30, Article 6, Division 6.2, Village of Pinecrest Code of Ordinances.

7. ***Signs.***

FPL shall comply with all applicable Village regulations concerning the use of signs.

Citation: Chapter 30, Article 7, Village of Pinecrest Code of Ordinances.

8. ***Right of way management and restoration.***

FPL shall comply with all applicable state laws and rules and all applicable Village ordinances and regulations concerning repair of damaged public roads and rights-of-way caused by its construction, maintenance, and operation of the proposed transmission facilities. FPL shall comply with all applicable state laws and rules and all Village ordinances and regulations concerning restoration of public rights-of-way.

Citation: Sections 337.401-404, Florida Statutes. Chapter 30, Article 6, Division 6.12 Village of Pinecrest Code of Ordinances.

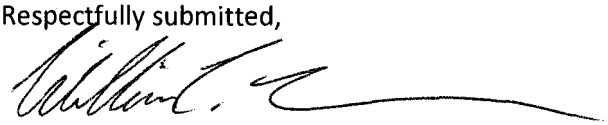
Modification of Agreements

The Village is aware of FPL's practice of negotiating with affected agencies and local governments to establish agreeable conditions of certification and its practice of making commitments to said agencies and local governments. All of the accommodations, mitigations, benefits, terms, commitments or conditions agreed to or granted by FPL to the Village shall be at least as favorable as the accommodations, mitigations, benefits, terms, commitments or conditions agreed to or granted by FPL to any other governmental entity affected by the East Preferred Corridor project. Should FPL enter into any subsequent agreement with any other governmental entity during the term of the East Preferred Corridor project which provides for accommodations, mitigations, benefits, terms, commitments or conditions more favorable than those contained in this Agency Report and/or any agreement between FPL and the Village, then this Agency Report and any agreements between FPL and the Village shall be deemed to be modified to provide the Village with those more favorable accommodations, mitigations, benefits, terms, commitments, or conditions. FPL shall notify the Village promptly of the existence of such more favorable accommodations, mitigations, benefits, terms, commitments, or conditions immediately. If requested in writing by the Village, FPL shall amend its agreement with the Village or any other applicable agreement, approval, document, permit, etc., to contain the more favorable accommodations, mitigations, benefits, terms, commitments, or conditions.

Conclusion

Based on all of the foregoing, the Village of Pinecrest recommends denial of FPL's application for certification of its East Preferred Corridor. This recommendation is based on what the Village believes are inherent inconsistencies between the Village's ordinances, regulations, standards and criteria, including the Village's comprehensive plan, zoning regulations, land regulations, and local environmental regulations on the one hand, and the East Preferred Corridor as it has been proposed by FPL on the other. Because of this inconsistency, the Village has joined with the City of Coral Gables to propose an alternate corridor, and recommends its own alternate corridor for certification instead. Should the State certify FPL's East Preferred Corridor, the Village respectfully requests that certification be conditioned upon adherence to the foregoing policies and regulations, and that any transmission facilities located along the U.S. 1 corridor be placed underground or co-located with Miami-Dade County's Metrorail corridor. Utilizing an alternate corridor or placing the segments along U.S. 1 underground are the only means of avoiding unacceptable economic and quality-of-life impacts to the Village and its residents. Additionally, the Village requests that the Department re-evaluate the order in which the power plant and transmission facility elements of the SCA are being processed, and work with FPL and all other interested parties to develop a procedural schedule that addresses the power plant portion of the SCA more fully before ratepayers and Miami-Dade County taxpayers are asked to bear any further costs associated with the certification of transmission facilities that may ultimately be unnecessary.

Respectfully submitted,



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Exhibit 1

Corridor to Nowhere: Economic Impacts of FPL's Proposed Transmission Lines on the US 1 Corridor

By Richard Weisskoff, Ph.D.

Submitted to the City of South Miami

Version 3.4 – revised 3 June 2011

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Executive Summary

- FPL's proposed Eastern 230 kV Transmission Corridor, proposed to route power from two new nuclear power plants proposed for construction at Turkey Point, would occupy an economically critical segment of the US 1 corridor stretching from the Falls to Brickell that currently lacks such transmission lines. Since the mid 1990's, the US 1 Corridor north from Broward to St. Lucie County had become the cornerstone of the South Florida Region's strategy of compact growth, *"Eastward, Ho!"* and has been incorporated into the South Miami-Dade Watershed Study of 2007. These studies form the basis of the current anti-sprawl and compact growth policies of the South Florida Region. (Section 1).

- The introduction of high voltage transmission lines on 105 ft high, 4-foot diameter, concrete poles from the Falls to Brickell on US 1 inserts a major disamenity or blockage into this gateway to Miami and into its rapidly growing southern neighborhoods. Addition of aboveground transmission lines shatters the strategy of compact growth, changes the nature of the urban corridor, and will produce severe and deleterious economic effects. Projected economic consequences of FPL's proposed transmission lines on the existing and future economy of the US 1 corridor have not been included in the combined operating license application (COLA) for Turkey Point nuclear reactors 6 & 7. This report details the probable consequences on the existing economy.

- FPL's proposed US 1 transmission line corridor directly affects a minimum of 173,000 people or 7.2% of the county's residents (derived from the ZIP Code map, Figure 2.2 and Table 2.1). But seen as the gateway to the South Miami-Dade Watershed region and areas to the North including the City of Miami, Coral Gables, South Miami, Pinecrest, and Palmetto Bay, the area is a portal and corridor for almost a million people or 38% of the county's residents (Table 2.2).

- The value of the 4,091 parcels (buildings and land) within two blocks on both sides of the transmission line route was assessed at $4.03 billion in 2010, including FPL Corridor Option 1 at Brickell, 16th to 136 Street SW, and FPL's proposed corridor around Dadeland (Table 3.3).

- We examined the literature on effects of transmission line proximity on property values. Overall we found a high degree of concordance between surveys of real estate professionals and statistical analyses by academicians, with industry consultants consistently publishing lesser effects. Real estate professionals reported a 10.3% decline, academicians a 12.6% decline, and industry consultants a 2.7% decline. A detailed regression study of an area with an urban density most comparable to that found along US 1 revealed a 10% decline in value (Des Rossiers, 2002; Table 4.2).

- We have applied an array of loss rates: 5%, 10%, 20%, and 34% to reflect the range of findings from studies done in other regions. **Based on the literature, our best conservative estimate is to expect a minimum of 10% property loss from**

construction of transmission lines on US 1, but losses as high as 20% could occur as this value was found in the higher income neighborhoods of Montreal in the study by Des Rossiers (2002). The 10% and 20% loss rates applied to the FPL transmission line corridor would create declines in property values of $400 and $800 million respectively.

- **At a 10% property loss rate, local municipalities would lose an aggregate of $9.3 million in property taxes annually** (Table 5.1)**. Total revenue losses would be approximately $24.5 million annually**.

- **The 10% property value loss rate translates into a total job loss ranging from 4,382 to 8,040 jobs,** depending on the particular job sectors that are most affected. **The economic cost of the expected job loss is $306 million per year.**

- We note two anecdotal cases of urban power lines in South Florida associated with economic loss and blight:

  1. A set of power lines occupy the portion of West 63rd St., North Miami Beach that fronts 6205 Laguna Path, a 4 story, $1.5 million townhouse, part of the Aqua project on Allison Island that was purchased in 2005 prior to construction, on the basis of the promoter's models and drawings. Once built, however, the owner realized that the spectacular living room view of the channel was marred by the powerlines and poles in the center stage. The owner has therefore kept the property off the market due to the severe penalty caused by the disamenity of visible aboveground power lines.

  2. The State Road 7 / US 441 corridor in Broward County has, since 2004, been designated as a growth corridor by the both County and the South Florida Regional Planning Council. However, the transmission lines along the route may have effectively turned investors away (Section 6).

- **Our best prediction of economic loss to municipalities along the proposed US 1 corridor is severe: approximately $400 million in property losses, $300 million a year in household wages from lost jobs, and $25 million a year reduction in municipal revenue.**

- **We caution that the *path* proposed by FPL to transmit the energy needed for economic growth in the region will likely become both the assassin and graveyard of economic activity and growth, a *"corridor to nowhere"*.**

Economic Impacts of FPL's Proposed Transmission Lines on the US 1 Corridor

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Section 1. History of the Corridor: Between Ocean and Swamp

The growth of Miami in the past decades has been an alternating clash between "sprawl-and-spread" growth, on the one hand, and "compact-and-compressed" growth with higher densities, on the other. One would think that Miami, a city constrained between the ocean and the swamp, would have been forced to grow upward, not outward. Geography alone would dictate that compactness and density would win over sprawl.

The record shows otherwise: indeed, of Florida's counties on the lower East coast, Miami-Dade is already the most densely populated with 8.4 people per urban acre, more than Broward with 7.2 inhabitants per acre. (See Table 1.1, col. 3, lines 1-2.) But the average for the nine South Florida counties is half Miami-Dade's density or 4.8 people per urban acre.

More important than density is a measure of the historical "responsiveness" of urban land absorption as the population grows. Economists call this responsiveness "the elasticity of demand for urban land with respect to urban population growth" and we measure it in terms of the percentage change in land relative to the percent change in urban population for a given time period and county. We computed the elasticities for a number of counties using two comparable land use studies done in 1988 and 1995 (Table 1.1, col. 4). The value for Miami-Dade is 0.910, or almost unity, which means that historically, a 10% increase in urban population has been associated with a 9.1% increase in urban land occupancy. Note that the elasticity value for Miami-Dade is the highest of all the counties in Table 1.1. Indeed, only the values for St. Martin (0.76) and for the lower West coast counties (0.88) approach Miami-Dade's "sprawl tendency."

This sprawl tendency means simply that Miami-Dade incorporated 44.5 thousand new urban acres from 1995 to 2010 to accommodate its growing population (Table 1.1, col. 9). This kind of land-intensive growth expresses itself in the periodic wars to push the Urban Development Boundary westward and to fill in ecologically precarious lands, reduce parklands, and build on any kind of open space. Palm Beach County took 44.6 thousand acres, and that, with a lower elasticity (0.55) but a higher rate of population growth (33% vs. 20% for Miami-Dade). But on Florida's lower West coast, the

population of the four sprawl-setting counties grew by 108% (Table 1.1, col. 7) and transformed 284 thousand acres into urban land.

Clearly, with these historical parameters, the continued growth of the cities in their traditional manner is unsustainable. If the historical tendencies are not checked, the future of the Everglades is doomed as the cities seek more and more of the marshy land to fill in and build upon.

In the southern suburbs of Miami, however, developers had learned early to make peace with precarious coastal lowlands due to the high water table, frequent floods, the exuberance of the hurricanes, and the multitude transversal creeks and canals, simply in order to capitalize on the sheer beauty of the place. Dan Williams' South Dade Watershed Project (1995) offered a planner's visualization of the region, which could work neatly with another approach that could be realized in South Florida. The Governor's Commission for a Sustainable South Florida, which started to meet monthly in the mid-nineties, began to promote a more compact development by pushing *eastward*, not westward, in order to remove pressure on the agricultural lands and on the water collection areas of the Everglades. As the Everglades were to be "re-hydrated" and water levels raised, the adjacent cities would require great flood protection and better drainage. The built area would have to be kept back, intensified, filled in, and the economic impetus to sprawl – the reward for converting freshwater marshland into houses – would have to be kept in check (see SF Regional Planning Council 1996, and Burchell 1999).

At the same time, researchers were showing that the "sprawl-model" by which most of Florida had been developed was merely shifting the costs of infrastructure from the private developer (who took his profit up front) to the counties and municipalities who then had to tax the new residents to cover *their* new costs. Burchell computed the detailed costs of sprawl for New Jersey (2000), most major U.S. cities (2002), and the saving that South Florida could realize by compact development (2003). A special six-volume study was completed in 2002 on the retention of the agricultural land and those strategies and policies that would keep the South Dade farmer in business (Degner & Morgan, eds., 2002).

Miami-Dade County, together with the other agencies, sponsored a million dollar South Miami-Dade Watershed Study (2007) which today offers a clear plan which

comprehends and builds on these earlier visions. The drive to sprawl could be checked, the farm lands protected, and the Urban Development Boundary held, all by focusing development on the US 1 corridor which had several distinct advantages: a rapid transit system; an exclusive busway; the high coastal ridge to minimize flooding in view of future sea level rise; home to a variety of income groups and land uses.

A series of charettes propelled the ideas: the cities and towns would become focal points for development along the corridor: Coral Gables, South Miami, Kendall, Pinecrest, Palmetto Bay, Cutler Bay – and the small towns too – Leisure City, Naranja, Princeton, Goulds, Cutler Ridge, Perrine —and the endpoints, Florida City and Homestead. With commercial, residential, and industrial growth concentrated along the straight and naturally elevated US 1 corridor, the remaining agricultural lands and open spaces would be retained and the urban infrastructure consolidated. The Plan (2007) was widely publicized and the collaborating towns and cities along the route began laying the groundwork for new city-centers, higher densities, and more compact zoning.

Into this setting enter the FPL transmission lines. They clash, head-on, with two decades of work by the local communities and county planners. Along this very route are to be strung the three 230 KV lines with 80' to105' high concrete poles every 300 ft., held in place by guyed wires where needed. Possibly three or more "underbuilt" lines are to be strung lower down the poles. The poles themselves measure almost 4 feet in diameter, such that the hands of two grown men hugging the poles on opposite sides barely reach one another. The poles dwarf the neighboring buildings, hospital, shops and schools; they block the sidewalks if they are placed near the curb to suspend the lines over the roadway.

What are the economic impacts of running the lines from the Falls up US 1 to Brickell? What would the true cost be to the society which has already launched itself onto a risky but rational venture of compact growth along that very corridor?

General References for Chapter 1: Introduction to the Issues

Arranged Chronologically:

1. South Dade Watershed Project, 1995. Planning Document. Miami: Center for Urban and Community Design, University of Miami, and South Florida Water Management District.

2. South Florida Regional Planning Council, 1996. Eastward Ho! Revitalizing Southeast Florida's Urban Core. (Initiative of the Governor's Commission for a Sustainable South Florida). Hollywood. (pamphlet; also posted on sfrpc.com website).

3. Burchell, R.W., 1999. Eastward Ho! Development Futures: Paths to More Efficient Growth in Southeast Florida. Tallahassee, FL: Dept. of Community Affairs.

4. Burchell, R.W., 2000. The Costs and Benefits of Alternative Growth Patterns: The Impact Assessment of the New Jersey State Plan. New Brunswick, NJ: State University of New Jersey (Rutgers), Center for Urban Policy Research, Bloustein School of Planning and Public Policy,

5. Burchell, R.W. et al., 2002. Costs of Sprawl, 2000. Transit Cooperative Research Program, TCRP Report 74. Washington, D.C.: National Academy Press.

6. Degner, R.L. & Morgan, K.L., eds., 2002. Miami-Dade County Agricultural Land Retention Study (6 Vols.), FAMRC Industry Report 02-02, Gainesville, FL: University of Florida, Institute of Food and Agricultural Sciences.

7. Burchell, R.W., et al., 2003. Projected Development in the GEER (Greater Everglades Ecosystem Restoration) Region and Potential Resource Savings by Employing a Compact Development Growth Regime. New Brunswick, NJ: Rutgers University, Center for Urban Policy Research.

8. Weisskoff, R., 2005. Economics of Everglades Restoration: Missing Pieces in the Future of South Florida. Cheltenham, UK: Edward Elgar.

9. Miami-Dade County, 2007. South Miami-Dade Watershed Study and Plan: Planning for a sustainable, healthy environment and economy. Posted at: http://southmiamidadewatershed.net/

10. U.S. Environmental Protection Agency, Smart Growth Implementation Assistance Program, 2010. Growing for a Sustainable Future: Miami-Dade County Urban Development Boundary Assessment. http://www.miamidade.gov/PlanZone/Library/Miami-DadeFinalReport(EPA)12-17-10.pdf. Accessed May 1, 2011.

Section 2. Population in the FPL Corridor

How many people will be affected directly by FPL's proposed transmission line corridor on US 1?

We used three sources for deriving population figures:

1) ZIP Code zones along the route.
2) Miami-Dade Planning and Zoning Dept. Projections from the year 2000 onwards for minor statistical areas.
3) South Miami-Dade Watershed Study estimates and projections for the region.

The IMPLAN file for Miami-Dade County provides economic information on population and business activity for all 79 ZIP Codes of Miami-Dade County. We have selected the eight ZIP Codes through which FPL's proposed Eastern Corridor passes (see accompanying Map 2.1). The population of the "ZIP Code corridor" is almost 207,000 persons living on 49 square miles, making for a density of 4,218 people per square mile; Table 2.1, lines 2-4, col. 1). This population constitutes 8.6% of the County's total population, living on 2.5% of the land area, creating a density that is 3.4 times the countywide average (Table 2.1, col.3, lines 2-4).

Almost 160,000 people are employed in the corridor, or 11.1% of the County's total workforce. Total personal income is $12.6 billion, which is 14% of the county total. Household income averages $145,000, or 145% of the countywide average of $100,322 (Table 2.1, lines 7-8, cols. 1-3).

By extending the US1 corridor all the way to Homestead (Table 2.1, col. 4), we add more area and more families. The entire corridor encompasses 16% of the county's population, households, and workforce (Table 2.1, lines 2, 5, 6) and 21% of its total personal income. The overall population density of the entire corridor is lower than the FPL Eastern corridor on US 1, but is still 2.2 times the countywide average, and household income averages $127,000, which is 127% of the countywide average.

In summary, then, the ZIP Code corridor is the narrowest economic area around the FPL proposed Eastern corridor and encompasses 9% of the population, 11% of the jobs, and 14% of the county's personal income. Its density is 3.4 times higher than the county

average, and household incomes average 45% higher than the county average. It is the high-end corridor into Miami.

A statistical "cut" of the corridor, which is broader than the ZIP Code file, is provided by the Miami-Dade County "minor statistical areas" (Table 2.2.). According to this measure, the population of the FPL Corridor was 349,000 in 2000 or 15.5% of the county, projected to reach 402,000 by 2015. The addition of five more statistical areas for the "southern extended" corridor adds another 176,000 people, totaling 23% of the County's population in 2000 and projected to reach 38% of the County by 2025. (Table 2.2, line 9).

The broadest boundary around the FPL proposed Eastern corridor on US 1 is drawn by the South Miami-Dade Watershed Study (Table 2.2, line C), which views the entire region as a single unit of almost a million people or 38% of the County's population.

In summary, the ZIP Code file gives the narrowest number of people in the zone, or 207,000 or 8.6% of the county's population. The County's Planning and Zoning "Statistical Areas" draws a larger corridor boundary with 349,000 people or 15.5% of the county, and the Watershed Study comprehends an even larger area with about a million people or 38% of the county.

But in addition to the sheer number of people living in the corridor area, our concern now turns to the economic value likely to be affected by the addition of new above-ground transmission lines on the corridor in question.

Section 3. The Value of Corridor Property

We divided the FPL Corridor Route into 13 segments, from SW 16th to SW 136 St., plus Option 1 at Brickell and the "noose" around Dadeland. We examined a total of 4,091 properties on two blocks on both sides of the transmission line route. We noted their CLUC (land use codes), address, square footage, value of land, value of building, and total market value (see sample in Table 3.1).

The variety of land uses is broad. In the sample of properties shown in Table 3.1 which refer to SW 26-36 Streets, on both sides of US 1, we recorded 21 different land uses, including commercial, industrial, institutional, residential, and many vacant properties. These data could be valuable research tool for identifying potential areas for land use improvements in the corridor (see Table 3.2 for a summary of the Land Use Codes found in the sample properties).

We have found that the total market value for all land and buildings, two blocks on both sides of US 1 is $4,031,771,963 just over $4.03 billion (Table 3.3.)[1].

This estimate raises three further questions, only one of which will we attempt to answer in this report. The first and most important question is, "What is the impact of the transmission lines on the value of these properties and the economic activity they generate?"

The second question is not explored here, but is extremely important nonetheless. If the current value of local properties has already lost perhaps half of their value in the recent economic meltdown, then to what extent will the future (and presumably recovering) value be affected by FPL's proposed transmission lines on the US 1 corridor? This question assumes that the recovery continues, as FPL assumes, and which is the entire basis of the need for the new transmission lines in the first place (e.g., Statement of Need, approved by the Public Service Commission on 11 April 2008).

Third, what is the loss of investment in expansion and new construction that would be scheduled for the high-density corridor that now, with the transmission lines, might be deterred and seek other places if not other counties? What is the cost of returning to the

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[1] The team of University of Miami graduate students participating in this project were: Vania Baker, Meisha Brisbane, Ali Bustamante, Sephanie Cazobon, Patricia Guia-Martini, Andrej Lampe, Carl Mbao, Meissa Meade, Martha Rodriguez, Mathieu Root, Sarah Slater and Lina Sokol. Edward Laird constructed a 40 ft. array of panels using aerial photographs of the entire proposed US 1 Corridor. Mr. Laird also created a full-size cardboard replica of the base segment of a typical 4 ft. diameter transmission line pole.

sprawling, non-compact growth pattern if high-rise residential and business construction shuns the transmission line corridor?

In the absence of published studies of the impact of transmission lines on property values in Florida, we shall turn now to a detailed review of the published literature and their findings.

Section 4. Literature review of the decline in property value adjacent to transmission lines.

Two types of studies have been applied to measure the economic impacts of transmission lines on property value: the questionnaire-survey and statistical regression analysis. The former asks questions of industry experts and buyers of property. The latter uses data of sales and detailed records of the characteristics of those properties.

One type of direct survey inquires as to the magnitude of the loss or gain due to transmission lines, and a second asks simply if is the properties experience a loss or gain of value. Among the responses to the questionnaires sent to appraisers, real estate professionals, and purchasers overwhelmingly cite transmission lines as a disamenity, that is, a downward influence on price. (Table 4.1, cols. 6-7). Only one survey found no effect (Table 4.1, line 6). The average loss for the 12 reporting cases was 10.3%.

Among the 11 surveys inquiring simply if there was a gain or loss due to transmission lines, (without estimating the magnitude of that loss or gain), an average of 57% of respondents reported a loss; in 3 studies, 46% of the respondents said "no loss, no gain," and 2 surveys, 10.5%, reported gains, usually due to larger parcel sizes or to the recreational amenities and low traffic associated with transmission line easements (Table 4.1, cols. 11-13, bottom line).

In the statistical regression analysis, the researchers use multivariate statistical techniques to measure the "contribution" of the transmission line to the value of the house. This variable itself may get redefined into other dimensions: distance from the transmission line, front or rear sighting, noise, plus the wide array normal variables, such as year of construction, rooms, lot size, and other amenities.

But these observations appear, and measurements can be "made", only when the houses are sold. What if the house cannot be sold, as may occur if the owner is unwilling or unable to take the market loss and chooses to hold on to his otherwise "devalued" property? In such cases, the "loss of value" is never realized, the measurement is never made, and the "observation" never appears in the data set. Moreover, the "loss" of housing or commercial construction foregone due to the transmission line is not recorded in these data. For this reason, empirical data sets may provide an overly optimistic estimate of actual property values adjacent to transmission lines.

Including all eighteen regression studies, the mean recorded loss attributable to transmission line proximity was 6.4% (Table 4.2, line 22, col. 7; Table 4.3). However, we consider the possibility of bias within these studies. For instance, studies published in peer-reviewed journals are universally considered more reliable than those published without peer review. Likewise, studies performed by industry consultants are likely to find outcomes favorable to industry because a consulting firm stands to be hired again if its results favor the industry's interest. We analyzed the literature for evidence of these two potential biases, journal type and author employment (Table 4.3).

We found that studies by industry consultants reported significantly lower mean (average) property devaluations from transmission line proximity than studies by academics, 2.7% vs. 12.6% ($p=0.004$, Table 4.3). For non-statisticians, the Fisherian significance value, "$p=0.004$" can be interpreted to mean that elves rolling dice would only obtain a difference in mean roll scores as extreme or more extreme than the difference in reported devaluation means no more than four times in a thousand. In other words, such an extreme difference between the author groups (industry consultant vs. academic) is extremely unlikely to have been obtained by chance alone, and thus likely has an underlying cause. We posit this cause to be financial conflict of interest experienced by industry consultants.

Examining the effect of journal type, we found that the non-peer-reviewed literature reported a lesser decline on average than the peer reviewed literature, 4.25% vs. 8.6%. While the difference is not statistically significant (t-test, 1-tailed, unequal variance, $t=1.38$, $p=0.09$), one data point falls more than three standard deviations beyond the mean, the accepted statistical standard for outlier exclusion; a study prepared by the University of Quebec for Hydro-Quebec found transmission line proximity associated with a 17% decline in property value. Omitting this statistical outlier from this analysis, the mean value decline in non-peer-reviewed literature is a 2.67% and the difference between peer-reviewed and non-peer-reviewed literature is statistically significant ($t=2.18$, $p=0.03$). Even within the peer-reviewed literature, industry consultants reported significantly lower devaluations than academics, 2.3% vs.13.3% ($t=2.99$, $p=0.01$).

Which group of studies is most accurate? The question is resolved by the corroboration of the academic regression studies by the real estate professional

questionnaire surveys. Surveys of real estate professionals reported an average 10.3% loss of property values due to transmission line proximity, a figure in concordance with the 12.6% average reported in the academic studies, and much higher than the 2.7% reported by industry consultants. We place confidence in the concordance between the realtor surveys and the academic regression studies.

Seeking studies most geographically and economically similar to US 1, we imagined the ideal study in which urban property values along a major thoroughfare were measured before and after the construction of a high-voltage transmission line. It hasn't been published yet. Most published studies analyzed corridors that pass through small towns between major cities, but the study by Des Rossiers (2002) examined the city of Brossard in the Greater Montreal Area (Table 4.2, line 7), a region directly comparable to the urban character of FPL's proposed US 1 corridor. That city of 69,000 is smaller than our corridor of 207,000 people (as measured by the ZIP Code areas, Table 2.1 above), but Brossard's density of 4,059 people per sq. mile is very similar to our corridor's density of 4,218 people per sq mile. Des Rossiers (2002) used a sample of 507 single-family houses sold between 1991 and 1996, but the high-voltage transmission line corridor was itself two miles long and 200 ft. wide, and not built alongside a major thoroughfare: their 315 kV lines were run on high pylons down the middle of its exclusive corridor, whereas US 1 would feature 230 kV lines situated along the roadway. Des Rossiers' study is outstanding in the number of variables tested (62), the numerous geographical and class divisions of the city, the number of models tested, and the forms of the equations fitted. In Brossard, Des Rossiers found transmission line proximity produced on average a 10% loss of residential property value and a maximum loss of 20% in certain locations. An earlier of another Quebec site (Table 4.2, line 7, Université du Quebec, 1982) found a maximum of 34% value loss.

The concordance between Des Rossier's study (10% loss), the realtor surveys (10.3% loss), and the academic regression studies (12.6% loss) give us confidence that **10% is a reliable and conservative figure for the property value loss within two blocks of FPL's US 1**. Below we apply a range of property loss rate projections to the property corridor: 5%, 10%, 20%, and 34%, then select 10% for our remaining calculations.

In our review of 42 studies, important questions arise, for example:

1) For how long does the disamenity last? One year? Ten years? Some studies found that prices "normalized" after 20 years.

2) Over what distance is the disamenity "effective"? One block? Two blocks? 200 meters? The literature shows that distance depends on the field of vision, the height of the towers, and intervening structures and foliage.

3) Some studies report no loss of sale price, but rather a longer time period to sell the property at the asking price. Such an economic effect fails to show up in the regression analysis but requires the conversion of the lost time into the price variable.

4) Literature shows that the *perception* of the disamenity is itself the "real" cause of lost value, so that, for example, developers of upscale restaurants, car dealerships, hospitals, and daycare centers are likely to avoid the transmission line corridor altogether.

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Section 5. Value of Property and Job Loss in Miami-Dade County

5.1 Loss in property values

In Section 3 above, we identified property valued $4.03 billion in the two-block corridor along the FPL's preferred route. At loss rates of 5%, 10%, 20%, and 34%, respectively, the corresponding losses in property values are $203 million, $403 million, $803 million, and $1.37 billion for the respective loss rates (Table 5.1, lines A.1-A.4.). The corresponding losses of property tax revenues (valued on the Miami-Dade County millage rate of 22.992) range from $4.6 to $31.5 million annually (Table 5.1, lines B.1-B.4.). **At the "best-estimate" loss rate of 10%, the projected property value loss from transmission lines on US 1 is $403 million, roughly twice FPL's upper estimate of $200 million required to underground these lines.**

5.1 Loss in municipal revenues

A property value loss of 10% translates to annual property tax losses of $9.3 million (Table 5.1, B). The losses in other municipal revenues are more difficult to model, but we can make an approximation. Ad-valorem taxes in South Miami constitute 38% of annual municipal revenues, so assuming the hit to property value affects other activities such as construction and retail by a proportional amount, we can assume **that total annual revenues lost would be $24.5 million** ($9.3 million / 0.34). Loss rates of 20% would produce annual ad-valorem tax loss of $18.6 million and total revenue losses of $49 million.

5.2 Job Losses

How do property value losses affect the number of jobs in the economy? How does "dollar property loss" translate into "job loss"? Fortunately economists have developed two standard models for measuring economic impacts of different "events" or policy changes, IMPLAN (Impact Analysis for Planners) and REMI (Regional Economic Modeling, Inc.; see IMPLAN.com and REMI.com). Both are excellent analytic tools; each gives a different dimension of the economy, and both must be used to obtain a complete projection of economic impacts. IMPLAN measures the impacts for a single

time period. It assumes the full "loss" ripples through the economy all at once. It collapses or consolidates all the economic effects into a single "solution," even if the effects take years to work themselves out and occur at different points in time. IMPLAN deals primarily with the backward or production linkages, with the inter-industry connections, and also with the consumption effect of workers' spending as a result of an impact or policy change. These effects are specified as "direct, indirect, and induced" effects on jobs; their sum is the total job impact. IMPLAN gives us an "X-ray" of the economy. Alter one economic entity, such as land value, and IMPLAN will trace which other components are connected to it and quantitatively how much value flows from one economic entity to another. REMI (Regional Economic Modeling, Inc.) is analogous to a video MRI of the patient yesterday, today, tomorrow, and for the next 40 years. The REMI model measures the interactions between the interconnected economic components. This modeling system includes "blocks" that trace flows and relationships between output, capital and labor demand, population and labor supply, wages, prices, and profits, and market shares (see the sketch of the economic pieces in Figure 5.1). Both tools give the analyst significant insights into the impacts of a disamenity.

Once the real estate market "recognizes" the disamenity and prices react, say, by a decline of 10%, what is the next step? Do the homeowners and business owners see themselves as "poorer," and if so, how is that expressed? If prices and appraisals fall, then taxes will fall and government spending will fall. But the private citizen's reaction to losing 10% of the value of his house may vary widely. The aggregate loss in the Miami-Dade economy of $403 million in property value, almost a half billion dollars when the lines are completed, spread across 4,000 property owners, may lead to different scenarios. How will individuals, families, and businesses express this loss? Will they cut spending across the board, invest less, or save more? Will they cut discretionary spending on restaurants, jewelry, and travel, or insist on cuts in social services, such as nursing care and education? The precise responses of different property owners to declining property values determines how the value losses resonate through the economy.

5.2a IMPLAN Job Loss

We use IMPLAN as a fast "X-ray" guide to these alternatives, designing alternative programs to evaluate the impact of different levels of value reductions (5%, 10%, 20%, and 34%) on different arrays of sectors (Table 5.2, lines A 1-6). **At 10% property devaluation,** the affected neighborhoods along the corridor **would experience from 4,382 to 8,040 jobs lost,** with the precise number depending on the economic sectors present and affected by spending reductions (Table 5.2). For instance, if just the real estate sector and government-spending take the full hit, then a total of 4,382 jobs will be lost at the 10% property loss level (Table 5.2, col. 2, line A). But if the cut in sector spending hits air travel, private colleges, and retailing (Table 5.2, line 2), then 5,170 jobs will be lost. The most service-intensive "basket" of cuts is our last scenario (Table 5.2, col. 2, line 6) which reduces $403 million in spending on private education, real estate, nursing care facilities, food and drinking places, and jewelry manufacturing. In this case, 8,040 jobs would be lost.

All the numbers above assume that the effects are compressed into a single year. We must now turn to REMI and play out similar scenarios with a more complex regional economic model and for a longer time span.

5.2b REMI Job Loss

The basic REMI model for Miami-Dade County gives results that are similar to the IMPLAN findings. At a 10% property loss, REMI finds the first year reduction in jobs of 3,790, compared to the IMPLAN loss of 4,382 jobs. (Table 5.3, line A). But REMI allows us to keep the disamenity in place for a number of years and watch as its "unattractiveness" disappears. The underlying assumption entered into REMI is that the disamenity causes an initial drop in value, then people gradually get used to the disamenity and business as usual returns. In a low quality economic area (e.g., industrial, used motor homes, fast food), the assumption of a disappearing disamenity may be founded. In upscale retail and residential areas, however, the desired development may simply move to a location lacking the disamenity, to be replaced by activities of lower economic value. In the former scenario (gradually returning value), the number of lost jobs declines gradually to 3,056 in five years (2015) and to 2,132 in ten years (2020). If

the disamenity lasts 30 years, then the impact is still a loss of 838 jobs by 2040. The length and depth of the trough (job loss) due to the disamenity is shown in Graph 5.1 for the 10% rate. Under the second scenario, if the jobs return at all they would be at lower pay grades.

The depth of the trough might also vary, as we discovered already from our IMPLAN experiments. For a five-year disamenity, if only the real estate sector is affected, then the REMI model finds that 2,586 jobs per year will be affected *for each year*, falling to 2,142 jobs per year in five years. (Table 5.3, line B1) If the business service sector takes the hit (line B2), then 7,536 jobs will be affected, falling to about 6,000 jobs in 5 years. If, however, nursing takes the hit, then 10,680 jobs per year will be lost, falling to 8,238 jobs by 2015 (line B3). If the disamenity lasts long and affects the service or health industries, then the impact on jobs could be quite severe.

5.3 Economic Effect of Job Loss

Let us calculate the economic cost of jobs lost from a 10% property value decline. The most recent available U.S. Census figures for wages in Miami-Dade Count (year 2000) show that the median salary for men was $30,120, and for women was $24,686, with a median value of $27,403. The Employment Cost Index (ECI) from the U.S. Bureau of Labor Statistics shows wages have risen 39% in the private sector since the 2000 U.S. Census. Median wage adjusted by the ECI is $38,090. Under the IMPLAN model, these salaries correspond to service sector jobs in the lower economic echelons, for which we would expect the greater number (8040) of jobs to be lost. The product is $306,244,967 in lost wages, giving us an approximate **predicted wage loss of $306 million per year,** at least over the first few years (see REMI model, above). Because the IMPLAN model indicates a trade-off between economic sector (and thus income) and number of jobs lost, a difference in economic activity level would increase wages and reduce numbers of jobs, coming out to roughly the same value for lost wages.

5.4 Economic Losses NOT Analyzed in this Report

We must recognize that these loss figures are not a complete analysis of all possible economic losses to the Corridor municipalities or the County as a whole. This report did not analyze:

1. Effects of proposed US 1 transmission lines on the recovery of property values and jobs previously lost in the recent economic hyper-recession.
2. The cost in future development desired and planned for the US 1 corridor in the Watershed Study and the Miami21 plan.
3. The cost of new infrastructure needed to service the urban sprawl that would result from failure to concentrate future development along this transit corridor.

Actual costs to the region could easily be an order of magnitude higher than those projected in this study.

In their Statement of Need, FPL has promoted these new transmission lines in terms of societal gain from increased electrical generation and transmission. However neither the utility nor the Florida Public Services Commission that approved the Statement of Need considered offsetting these proposed gains by the economic losses expected from siting aboveground transmission lines on the US 1 corridor. The economic loss figures projected in this report are a contribution toward expanding that fuller economic picture of new transmission lines in eastern Miami-Dade County.

Section 6. Epilogue - Stories of the Special Case: a Corridor to Nowhere

The entire US 1 development strategy, a decade of collaborative planning and action on the part of local and county government, is jeopardized by FPL's transmission line project, and the anti-sprawl program of compact growth along the corridor is likewise threatened. As a prologue, we provide two cautionary case studies that will never be featured in the regression analysis literature.

In 2005 Howard Taft and Charles Gelman bought a 4-floor town house at 6205 Laguna Path, a part of the famous Aqua Project on Allison Island in North Miami Beach. They paid $1.4 million prior to construction on the basis of models and architectural renderings. Their corner lot was to have a corner window and a spectacular view of the bay channel. However, after it was built, the frontage was marred by a spectacular view of poles and power lines running up West 63rd Street. The owners replaced the corner picture window with opaque glass that lets in light but no images. To this day, the prices Taft and Gelman have been offered for the property, even by the current tenants, is far below the market value of comparable properties that lack power lines in front. The owners have been unwilling to sell at the "disamenity" price, thus the property will not appear among data on disamenity losses.

The second case is another transmission corridor that, perhaps, gives us a glimpse of what US 1 with transmission lines might come to look like. In Broward County, State Road 7 / US 441 had been targeted as a "future growth corridor" by the South Florida Regional Planning Council. About 17.5% of Broward's residents reside within a mile of the transmission lines. In 2004, the Urban Land Institute (ULI) identified five major development centers along the corridor and forecast growth of office space, retailing, hotels, and new residences in a study commissioned by the SR 7 / US 441 Collaborative. Yet the corridor never developed and remains a semi-moribund zone. Is it because of the landfill along part of the route? The casino? The remains of an old incinerator site? Or maybe it is the miles of high-voltage transmission wires that parallel and cross the route?

We find it ironic indeed that the very conveyance of the energy needed for economic growth can itself prevent the same growth. Siting a new transmission corridor though a developing urban region may create a graveyard monument to the economic potential it destroyed, a corridor to nowhere.

Table 1.1
Measures of Sprawl and South Florida Appetite for Land, 1995-2010

	1995			1988-1995	2010	1995-2010			
	Urban Pop. (thou.)	**Urban Land** (thou acres)	**Density** (People/ acre	**Land-Pop. Elasticity**	**Urban Pop** (thou.)	**Pop. abs. chnge.** (thou.)	**% chge pop.**	**% chge land**	**new urban land** (thou. ac.)
	1	2	3	4	5	6	7	8	9
A. Lower East Coast (LEC)									
1 M-Dade	**2,085**	**248**	**8.4**	**0.910**	**2,496**	**411**	**19.7**	**17.9**	**44.5**
2 Broward	1,438	199	7.2	0.532	1,748	310	21.6	11.5	22.8
3 Palm Beach	995	250	4.0	0.546	1,320	325	32.7	17.8	44.6
Sum (3 counties)	4,518	697	6.5	0.693	5,564	1,046	23.2	16.1	111.9
B. Upper East Coast (UEC)									
4 Martin	114	50	2.3	0.763	146	32	28.1	21.4	10.7
5 St. Lucie	173	73	2.4	0.137	278	105	60.7	8.3	6.1
Sum (2 counties)	287	123	2.3	0.286	424	137	47.7	13.7	16.8
C Lwr. E. Coast (5 counties)	**4,805**	**820**	**5.9**	**0.637**	**5,988**	**1,183**	**24.6**	**15.7**	**128.7**
D. Lower West Coast (LWC) (Collier, Glades, Lee, Hendry) Sum (4 counties)	620	300	2.1	0.879	1,289	669	107.9	94.8	284.4
E Sum: 9 counties	**5,425**	**1,120**	**4.8**	**1.080**	**7,277**	**1,852**	**34.1**	**36.9**	**413.1**

Sources and Methods:

col. 1: Population 1995 from BEBR, Fla. Statistical Abstract 2002, Table 1.20.

col.2: Urban land 1995 from SFWMD GIS Data, CD-ROM #1, "Land Use, National Wetlands Inventory", West Palm Beach, 1997.

col. 3: Computed col.1/col. 2.

col. 4: Elasticity from Weisskoff 2005, Econ of Everglades Restoration. Table 4.2, p. 87. See computations there.
Elasticity is defined as the % change in land divided by the % change in population.

col. 5: Population from BEBR, Table 1, http://www.bebr.ufl.edu/content/census-population-counts-county-and-city-florida-2000-2010-new

col.6 = col. 5 - col. 1.

col. 7 = (col. 5 - col. 1)/(col. 1)

col. 8 = col 4 * col. 7.

col. 9 = col. 8 * col. 2

Table 2.1 IMPLAN Socio-Economic Data of the FPL Corridor by Zip Codes Narrow and Extended, 2008 Data.

	FPL Corridor	M-D County	% FPL/ County col 1/col 2	Entire Corridor to Homestead	% Entire Corr/County col 4/col 2
	1	2	3	4	5
1 Number of Zip Codes*	8	79	10.1	14	17.7
2 Population	206,682	2,398,245	8.6	387,150	16.1
3 Area (sq.miles)	49	1,945	2.5	137	7.0
4 Density (pop/sq mi)	4,218	1,233	342.1	2,816	228.4
5 Employment	159,527	1,441,182	11.1	223,096	15.5
6 No. households	87,078	901,127	9.7	147,673	16.4
7 Total personal income (bill. $)	$12.649	$90.402	14.0	$18.754	20.7
8 Income per household $	$145,257	$100,322	144.8	$126,999	126.6
9 No. IMPLAN sectors**	222	384	57.8	245	63.8

Notes:
* Zip codes for FPL Corridor are: 33129, 30, 33, 43, 46, 56, 58, & 76.
Zip codes for the rest of the US1 Corridor include: 33157, 189, 170, 032, 033, & 030.

* *The IMPLAN model has potentially 440 producing sectors, but not all are found in any single area. The number of sectors in any given region indicates the number of inter-industry linkages operating in the region.

Source: IMPLAN zip-code data files for Miami-Dade County, 2008.

Table 2.2 Projecting Population Growth and Expansion in the Corridor: M-D P&Z Dept. and South Miami-Dade Watershed Study.

A. Miami Dade Planning & Zoning Minor Statistical Areas	2000	2015	2025	Abs.Chge	% Change
	1	2	3	4	5
1 FPL Corridor				2000-2025	2000-2025
5.2	55,893	79,106	92,559	36,666	65.6
5.3	120,126	128,766	131,814	11,688	9.7
5.5	80,111	88,586	96,165	16,054	20.0
5.6	32,431	35,188	36,720	4,289	13.2
5.7	25,346	28,104	30,131	4,785	18.9
5.8	35,040	42,501	48,629	13,589	38.8
2 Total: FPL Corridor	**348,947**	**402,251**	**436,018**	**87,071**	**25.0**
3 South Extension:					
7.1	41,575	76,248	99,332	57,757	138.9
7.2	39,327	58,490	73,199	33,872	86.1
7.3	32,367	43,205	50,854	18,487	57.1
7.4	48,364	104,187	146,118	97,754	202.1
7.5	14,636	36,024	49,979	35,343	241.5
4 Total: South Extension	**176,269**	**318,154**	**419,482**	**243,213**	**138.0**
5 Sum Entire Corridor	525,216	720,405	855,500	330,284	62.9
6 Total: Miami-Dade County	2,253,362	2,724,623	3,046,081	792,719	35.2
7 % FPL Corridor/ County	**15.5**	**14.8**	**14.3**	**11.0**	
8 % So. Extension only/County	**7.8**	**11.7**	**13.8**	**30.7**	
9 % Entire Corridor/County	**23.3**	**26.4**	**28.1**	**41.7**	
B Watershed Project Region	952,779	1,033,751	1,161,016	208,237	21.9
% of County:	**38.2%**	**37.9**	**38.1**		

Sources:

A. Miami-Dade County, Dept of Planning and Zoning, Research Section, Population Estimates and Projections, Feb. 2008.

B. South Miami-Dade Watershed Study, 2007, Table 2.1, p. 2.6.

Table 3.1

Sample Appraisal Valuation of "Power Line Properties", 26-36 St., Two blocks in, both sides of US1

	Folio No.	Cluc	Property Address	Adj Sq Footage	lot size	Land	Building	Market Value
1	01-4116-117-0010	47		0	5.17 Acres	1,466,380	0	1,466,380
2	01-4116-038-0010	34	2900 SW 28 LN	11,214	25,432 SQ FT	$1,525,920	$256,518	$1,782,438
3	01-4116-038-0020	81	2940 SW 28 LN	0	12,129 SQ FT	$727,740	0	$727,740
4	01-4116-038-0070	12	2950 SW 28 LN	2,175	6,250 SQ FT	$375,000	$99,823	$474,823
5	01-4116-076-0020	37	2990 SW 28 LN	81,533	29,185 SQ FT	$1,751,100	$3,041,190	$4,792,290
6	01-4116-037-0350	2	2902 SW 27 LN	1,916	10,167 SQ FT	$66,086	$119,062	$185,148
7	01-4116-037-0351	1	2966 SW 27 LN	1,015	6,696 SQ FT	$43,572	$58,575	$102,147
8	01-4116-037-0360	1	2978 SW 27 LN	1,797	8,122 SQ FT	$52,820	$112,473	$165,293
9	01-4116-037-0370	1	2990 SW 27 LN	1,074	8,432 SQ FT	$55,310	$63,204	$118,514
10	01-4116-035-0320	3	2796 SW 30 AVE	1,741	4,500 SQ FT	$40,162	$61,032	$101,194
11	01-4116-035-0330	3	3010 SW 27 LN	1,961	4,500 SQ FT	40,162	$64,864	$105,026
12	01-4116-035-0331	3	3020 SW 27 LN	1,918	4,500 SQ FT	$40,162	$63,253	$103,415
13	01-4116-035-0340	3	3036 SW 27 LN	3,394	9,000 SQ FT	$80,325	$139,482	$219,807
14	01-4116-035-0350	3	3040 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
15	01-4116-035-0360	3	3050 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
16	01-4116-035-0370	3	3060 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
17	01-4116-035-0380	3	3070 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
18	01-4116-035-0390	3	3074 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
19	01-4116-035-0400	3		1,834	4,500 SQ FT	$40,162	$64,293	$104,455
20	01-4116-035-0401	3	3090 SW 27 LN	1,304	3,375 SQ FT	$30,122	$46,732	$76,854
21	01-4116-035-0410	3	3094 SW 27 LN	1,293	3,137 SQ FT	$27,998	$46,347	$74,345
22	01-4116-035-0590	13	3001 SW 28 LN	6,934	10,620 SQ FT	584,100	$21,360	$605,460
23	01-4116-035-0580	81	3015 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
24	01-4116-035-0570	81	3025 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
25	01-4116-035-0560	81	3035 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
26	01-4116-035-0530	32	3029 SW 28 ST	3,660	6,750 SQ FT	$371,250	$1,000	$372,250
27	01-4116-035-0510	36	3051 SW 28 ST	3,380	4,500 SQ FT	$247,500	$56,519	$304,019
28	01-4116-035-0500	81	3055 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
29	01-4116-035-0490	81	3057 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
30	01-4116-035-0480	81	3061 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
31	01-4116-035-0470	81	3071 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
32	01-4116-035-0440	37	3075 SW 28 ST	3,850	6,750 SQ FT	$371,250	$90,960	$462,210
33	01-4116-035-0420	81	3085 SW 28 ST	0	5,963 SQ FT	$327,965	$0	$327,965
34	01-4116-035-0430	37	3099 SW 28 ST	5,339	3,038 SQ FT	$167,090	$165,911	$333,001
35	01-4116-038-0350	13	3010 SW 28 LN	6,550	12,300 SQ FT	$738,000	$401,627	$1,139,627
36	01-4116-038-0420	34	2801 SW 31 AVE	16,824	11,650 SQ FT	$699,000	$405,774	$1,104,774
37	01-4116-038-0260	11	3000 SW 28 LN	51,312	27,973 SQ FT	$1,678,380	$2,848,215	$4,526,595
38	01-4116-038-0270	41	3044 SW 28 LN	4,568	6,250 SQ FT	$375,000	$203,017	$578,017
39	01-4116-038-0330	37	3054 SW 28 LN	98,373	25,000 SQ FT	$1,500,000	$7,000,000	$8,500,000
40	01-4116-038-0340	37	2851 SW 31 AVE	82,863	26,809 SQ FT	$1,608,540	$5,491,460	$7,100,000
41	01-4116-036-0010	42	2805 SW 32 AVE	36,424	9.91 ACRES	$2,916,776	$504,399	$3,421,175
42	01-4116-017-0100	2	3201 SW 29 ST	2,360	7,494 SQ FT	$48,711	$153,510	$202,221
43	01-4116-017-0090	2	2890 SW 32 AVE	2,620	6465 SQ FT	$42,582	$170,892	$213,474
44	01-4116-017-0080	2	2880 SW 32 AVE	2,200	6,465 SQ FT	$42,582	$141,488	$184,070
45	01-4116-017-0130	2	2883 SW 32 CT	2,260	13,899 SQ FT	$90,107	$129,475	$219,582
46	01-4116-017-0120	2	2893 SW 32 CT	1,886	7,584 SQ FT	$49,597	$117,211	$166,808
47	01-4116-017-0300	1	2892 SW 32 CT	883	4,276 SQ FT	$27,879	$50,717	$78,596
48	01-4116-017-0310	1	3261 SW 29 ST	612	2,695 SQ FT	$17,518	$36,064	$53,582
49	01-4116-017-0290	2	2886 SW 32 CT	1,194	6,949 SQ FT	$45,053	$71,964	$117,017
50	01-4116-017-0281	1	2876 SW 32 CT	1,157	6,949 SQ FT	$45,053	$71,907	$116,960
51	01-4116-017-0280	1	2870 SW 32 CT	1,752	6,949 SQ FT	$45,053	$97,303	$142,356
52	01-4116-017-0350	1	2877 SW 33 AVE	1,378	6,949 SQ FT	$45,053	$82,531	$127,584
53	01-4116-017-0340	1	2887 SW 33 AVE	1,128	6,949 SQ FT	$45,053	$65,333	$110,386
54	01-4116-017-0330	2	3281 SW 29 ST	2,200	6,583 SQ FT	$42,957	$138,118	$181,075
55	01-4116-017-0320	2	3285 SW 29 ST	2,195	7,374 SQ FT	$47,931	$137,067	$184,998
56	01-4116-022-0150	2	3260 SW 29 ST	1,371	17,038 SQ FT	$71,148	$106,021	$177,169
57	01-4116-022-0140	41	3270 SW 29 ST	4,576	16,819 SQ FT	$109,324	$204,662	$313,986
58	01-4116-018-0440	1	2911 SW 33 CT	1,522	7,869 SQ FT	$51,148	$45,809	$96,957
59	01-4116-018-0430	2	2901 SW 33 CT	2,419	6,100 SQ FT	$39,820	$152,944	$192,764
60	01-4116-018-0420	2	2891 SW 33 CT	1,502	6,100 SQ FT	$39,820	$87,327	$127,147
61	01-4116-018-0410	1	2881 SW 33 CT	1,435	6,100 SQ FT	$39,820	$75,889	$115,709
62	01-4116-018-0400	81		0	9,150 SQ FT	$59,729	$0	$59,729
63	01-4116-018-0570	2	2920 SW 33 CT	2,906	10,557 SQ FT	$68,620	$177,678	$246,298
64	01-4116-018-0560	1	3351 SW 29 TER	1,182	7,540 SQ FT	$49,338	$68,230	$117,568
65	01-4116-018-0553	2	3363 SW 29 TER	1,746	6,250 SQ FT	$40,500	$114,982	$155,482
66	01-4116-018-0552	2	3369 SW 29 TER	1,892	7,622 SQ FT	$49,872	$119,275	$169,147
67	01-4116-018-0550	2	3375 SW 29 TER	1,431	3,582 SQ FT	$23,283	$87,873	$111,156
68	01-4116-018-0551	1	3373 SW 29 TER	1,150	5,434 SQ FT	$35,321	$69,840	$105,161
69	01-4116-018-0541	1	3377 SW 29 TER	2,390	7,075 SQ FT	$46,172	$154,826	$200,998
70	01-4116-018-0540	2	2935 SW 34 AVE	4,589	7,500 SQ FT	$49,150	$338,480	$387,630

71	01-4116-018-0530	1	2929 SW 34 AVE	1,426	7,500 SQ FT	$49,150	$80,212	$129,362
72	01-4116-018-0520	2	2927 SW 34 AVE	2,400	7,500 SQ FT	$49,150	$152,752	$201,902
73	01-4116-019-1390	1	2960 SW 34 AVE	1,182	6,795 SQ FT	$44,421	$68,052	$112,473
74	01-4116-019-1380	1	2950 SW 34 AVE	1,804	7,250 SQ FT	$47,593	$79,852	$127,445
75	01-4116-019-1372	2	2946 SW 34 AVE	3,339	7,250 SQ FT	$47,593	$204,667	$252,260
76	01-4116-019-1371	3	2940 SW 34 AVE	2,576	7,250 SQ FT	$47,593	$161,964	$209,557
77	01-4116-019-1430	2	2939 SW 35 AVE	2,774	7,250 SQ FT	47,593	$143,358	$190,951
78	01-4116-019-1440	2	2941 SW 35 AVE	1,378	7,250 SQ FT	$47,593	$86,963	$134,556
79	01-4116-019-1450	2	2951 SW 35 AVE	1,935	7,250 SQ FT	$47,593	$122,339	$169,932
80	01-4116-019-1460	2	2961 SW 35 AVE	2,013	7,250 SQ FT	$47,593	$124,520	$172,113
81	01-4116-019-1470	2	3441 SW 29 TER	2,241	10,572 SQ FT	$68,718	$141,039	$209,757
82	01-4116-019-1220	1	2980 SW 35 AVE	2,127	7,000 SQ FT	$45,540	$137,569	$183,109
83	01-4116-019-1230	13	2990 SW 35 AVE	6,201	7,000 SQ FT	$45,500	$488,000	$533,500
84	01-4116-019-1310	1	2965 SW 36 AVE	954	7,000 SQ FT	$45,540	$56,647	$102,187
85	01-4116-019-1320	2	2973 SW 36 AVE	2,201	7,000 SQ FT	$45,540	$137,246	$182,786
86	01-4116-019-1330	65	3555 SW 29 TER	0	14,756 SQ FT	$885,360	$18,525	$903,885
87	01-4121-002-1550	12	3621 S DIXIE HWY	4,119	13,489 SQ FT	$1,031,908	$10,000	$1,041,908
88	01-4121-002-1470	19	3501 S DIXIE HWY	1,997	12,091 SQ FT	$924,962	$1,000	$925,962
sum north side				**538,019**		**23,992,066**	**27,230,676**	**51,222,742**

South of US 1 **Table 3.1 cont.**

	Folio No.	Cluc	Property Address	Adj Sq Footage	lot size	Land	Building	Market Value
1	01-4115-041-0580	11	2600 S DIXIE HW	14,098	24,180 SQ FT	$2,418,000	$764,855	$3,182,855
2	01-4115-041-0570	11	2610 S DIXIE HWY	1,956	5,580 SQ FT	$558,000	$71,754	$629,754
3	01-4115-041-0560	11	2698 S DIXIE HWY	1,196	8,370 SQ FT	$837,000	$74,436	$911,436
4	01-4115-041-0720	11	2795 SW 27 AVE	7,691	8,356 SQ FT	$752,040	$378,300	$1,130,340
5	01-4116-078-0010	26	2775 SW 28 TER	8,647	54,979 SQ FT	5,745,306	$576,239	$6,321,545
6	01-4116-078-0020	11	2710 S DIXIE HWY	4,928	29,228 SQ FT	$2,922,800	$518,948	$3,441,748
7	01-4116-078-0030	11	2720 S DIXIE HWY	18,962	63,190 SQ FT	$5,371,150	$1,251,523	$6,622,673
8	01-4116-028-0130	13	2900 SW 28 TER	46,958	25,593 SQ FT	$1,279,650	$4,362,953	$5,642,603
9	01-4116-028-0170	3	2950 S DIXIE HWY	64,769	52,320 SQ FT	$2,333,472	$2,805,771	$5,139,243
10	01-4116-007-0250	3	2890 VIRGINIA ST	60,229	46,073 SQ FT	$2,073,285	$1,926,715	$4,000,000
11	01-4116-007-0220	1	2923 SW 30 CT	993	7,532 SQ FT	$248,556	$24,537	$273,093
12	01-4116-001-0070	65	2906 VIRGINIA ST	0	6,407 SQ FT	$42,286	$12,513	$54,799
13	01-4116-001-0080	2	2914 VIRGINIA ST	2,997	8,680 SQ FT	$286,440	122,616	$409,056
14	01-4116-007-0110	3	3050 S DIXIE HWY	14,354	17,705 SQ FT	$672,790	$774,615	$1,447,405
15	01-4116-007-0090	1	2920 SW 30 CT	1,249	6,322 SQ FT	$208,626	$70,480	$279,106
16	01-4116-027-0150	40	2901 BRIDGEPORT AVE	8,517	13,797 SQ FT	$1,034,775	$749,130	$1,783,905
17	01-4116-027-0140	13	2911 BRIDGEPORT AVE	1,828	7,500 SQ FT	$375,000	$142,162	$517,162
18	01-4116-027-0130	1	2919 BRIDGEPORT AVE	853	6,750 SQ FT	$337,500	$100	$337,600
19	01-4116-027-0320	10	2925 BRIDGEPORT AVE	1,156	3,213 SQ FT	$0	$0	$177,720
20	01-4116-027-0310	1	2923 BRIDGEPORT AVE	1,156	2,676 SQ FT	$0	$0	$177,720
21	01-4116-027-0160	13	3100 S DIXIE HWY	16,831	23,680 SQ FT	$1,894,400	$1,175,290	$3,069,690
22	01-4116-027-0220	3	2942 BRIDGEPORT AVE	3,887	20,250 SQ FT	$534,600	$58,627	$593,227
23	01-4116-048-0010	11	2999 SW 32 AVE	106,807	8.23 ACRES	$17,931,450	$10,000	$17,941,450
24	01-4116-045-0010	11	2935 MCDONALD ST	2,053	11,458 SQ FT	$973,930	$203,132	$1,177,062
25	01-4116-042-0010	62	3198 S DIXIE HWY	1,846	11,761 SQ FT	$1,058,490	$121,397	$1,179,887
26	01-4116-022-0130	11	3200 S DIXIE HWY	4,183	29,250 SQ FT	$2,632,500	$445,053	$3,077,553
27	01-4116-022-0120	3	3220 W DIXIE HWY	3,155	6,390 SQ FT	319,500	$163,494	$482,994
28	01-4116-022-0110	13	3250 S DIXIE HWY	2,573	13,292 SQ FT	$797,520	$168,508	$966,028
29	01-4116-022-0071	3	3244 W TRADE AVE	3,619	7,500 SQ FT	300,000	$173,962	$473,962
30	01-4116-022-0040	3	3250 W TRADE AVE	14,633	28,000 SQ FT	$1,260,000	$665,904	$1,925,904
31	01-4116-022-0080	3	3270 W TRADE AVE	10,812	15,000 SQ FT	$600,000	$646,040	$1,246,040
32	01-4116-022-0090	3	3280 W TRADE AVE	4,136	7,500 SQ FT	$300,000	$178,627	$478,627
33	01-4116-049-0010	3	3300 S DIXIE HWY	45,059	32,126 SQ FT	$2,730,710	$758,660	$3,489,370
34	01-4116-022-0030	1	3265 BIRD AVE	2,004	13,000 SQ FT	$650,000	$13,353	$663,353
35	01-4116-061-0010	81	3335 BIRD AVE	0	7,841 SQ FT	$392,050	$0	$392,050
36	01-4116-003-0070	81	3355 BIRD AVE	0	4,050 SQ FT	$202,500	$0	$202,500
37	01-4116-047-0030	81	3375 BIRD AVE	0	6,710 SQ FT	$335,500	$0	$335,500
38	01-4116-047-0020	13	3350 S DIXIE HWY	9,088	17,897 SQ FT	$1,521,245	$584,834	$2,106,079
39	01-4116-047-0010	19	3400 S DIXIE HWY	5,040	32,735 SQ FT	$2,946,150	$377,777	$3,323,927
40	01-4116-046-0010	26	3490 S DIXIE HWY	2,912	14,331 SQ FT	$1,218,130	$170,943	$1,389,078
41	01-4121-001-0150	1	3000 ELIZABETH ST	1,052	5,896 SQ FT	$188,672	$28,404	$217,076
42	01-4121-001-0160	1	3420 BIRD AVE	1,543	6,600 SQ FT	$211,200	$44,954	$256,154
43	01-4121-001-0180	1	3011 NEW YORK ST	1,078	6,000 SQ FT	$192,000	$30,354	$222,354
44	01-4121-002-0250	11	3490 BIRD AVE	8,738	41,101 SQ FT	$2,109,284	$605,838	$2,715,122
45	01-4121-002-0560	98	3500 S DIXIE HWY	925	45,300 SQ FT	$4,303,500	$17,399	$4,320,899
Sum south side=				514,511	0	73,100,007	21,270,197	94,725,649

Source: Miami-Dade County, County Appraiser's Files on line, Accessed Oct-Dec., 2010
http://www.miamidade.gov/pa/property_search.asp

Table 3.2
Sample of County Land Use Codes (CLUC) found in Power Line Property from Table 3.1.

Commercial	0011	Retail Outlet
	0012	Repairs, Non-Automotive
	0013	Office Building
	0019	Automotive or Marine
	0026	Service Station - Automotive
Industrial/Warehouse	0032	Light mfg and food processing
	0034	Canneries , bottler
	0036	Heavy industry or lumber yard
	0037	Warehouse or Storage
Institutional	0040	Municipal
	0041	Educational, private
	0042	Club or hall, private
	0047	Dade County
	0098	Federal
Multi-Family	0003	Multi-family 3 or more units
Not used	0062	Railroad Assessment
	0065	Parkin//vacant lot enclosed
Single Family	0001	Residential, single family
	0002	Duplex
	0010	Townhouse
Vacant	0081	Vacant land

Source: Selected from Miami-Dade County Property Appraiser's Office, Web site, from CLUC that appear in our Table 3.1, Col. 2.

Table 3.3

Summary Table of Summed Appraisal Values by Segments, Brickell to 136 St, Both Sides of US 1.

West	# prties		streets	Adj Sq Ft	Land Value	Bldg Value	sum Market v
of US 1	18	opt 1	3rd Ave, 4th St to 15th Rd	122,023	12,978,780	13,441,935	26,420,715
	109	a	16-26	505,656	26,812,968	27,426,144	56,188,017
	88	b	26-36	538,019	23,992,066	27,230,676	51,222,742
	29	c	36-46	163,032	72,688,020	6,556,191	79,244,211
	40	d'	46-56	135,598	35,702,734	7,616,392	45,744,776
	142	d''	46-56	411,448	38,493,510	30,070,002	68,563,512
	21	e	57-66	1,162,416	50,195,938	70,231,925	194,332,949
	75	f	66-76	4,555,411	118,371,353	123,369,756	553,541,109
	134	g	78-88	1,066,884	78,259,882	49,461,447	127,721,329
	27	h	86-96	2,533,060	57,525,060	30,571,005	385,096,065
	301	i	96-106	1,455,400	66,649,510	50,881,298	145,889,438
	48	j	106-116	328,413	22,569,132	8,563,183	40,706,555
	49	k	116-126	104,445	10,975,862	5,621,235	16,597,097
	25	l	126-136	322,777	22,729,183	16,437,273	38,663,800
	1,088		total above	13,282,559	624,965,218	454,036,527	1,803,511,600
	1,106	**h opt1**		**13,404,582**	**637,943,998**	**467,478,462**	**1,829,932,315**

East	# prties		streets	Adj Sq Ft	Land Value	Bldg Value	sum Market v
of US 1	49	opt 1	3rd Ave, 4th St to 15th Rd	395,204	21,393,737	19,893,141	41,749,688
	118	a	16-26	468,389	48,206,038	31,960,019	80,166,057
	45	b	26-36	514,511	73,100,007	21,270,197	94,725,649
	89	c	36-46	352,192	57,219,860	18,174,221	75,394,081
	175	d	46-56	472,020	36,126,784	21,751,656	86,839,120
	14	d'	46-56	47,921	7,822,717	5,690,738	13,513,455
	259	e	57-66	1,425,739	100,688,124	76,432,895	229,896,429
	98	f	66-76	1,757,825	229,502,100	57,371,638	370,773,738
	122	g	78-88	1,878,164	299,507,454	91,947,705	391,455,159
	23	h	86-96	516,340	79,399,934	23,202,218	102,602,152
	196	i	96-106	660,124	81,568,397	34,767,012	137,459,739
	21	j	106-116	401,699	58,510,480	20,926,779	79,437,259
	33	k	116-126	551,775	89,149,900	28,881,863	121,535,388
	13	l	126-136	517,320	81,138,049	18,102,119	99,240,168
	1,206	l above		9,564,019	1,241,939,844	450,479,060	1,883,038,394
	1,255		**total- with opt1**	**9,959,223**	**1,263,333,581**	**470,372,201**	**1,924,788,082**

Total	# prties		Adj Sq Ft	Land Value	Bldg Value	sum Market v
Dadeland	1,730					276,551,566
West	1,106	total-with opt1	13,404,582	637,943,998	467,478,462	1,829,932,315
East	**1,255**	total-with opt1	**9,959,223**	**1,263,333,581**	**470,372,201**	**1,924,788,082**
SUM:	**4,091**					**4,031,271,963**

Source & Method: The power line route was traced on Miami-Dade County Appraiser's File, and all Properties were listed, as in Appendix Table 3.1. These were then summed and presented in this Table.

Table 4.1
Review of Survey Results: Power Line Effect on Property Prices

	Study authors	Yr	Citati	Profession	Client		Survey Findings: % loss	neutral	aver.	Comments	% reporting: loss	eutral	gain	single aver		Geography	line feature #
	1	2	3	4	5		6	7	8	9	10	11	12	13		14	15
1	Ball 1989	1989	9	Appraisers		less than	5			devel residential						Ariz	69-230
						more than	12		20.3	com., ind.from easemt							
							44			value in easemt area							
2	Jensen & Weber	1982	9	Appraisers	Utility		0-20		10							W.Central Minn	230-400
3	NJersey	1989	9	Appraisers	Utility		0-10		5							NJ	230
4	Van Court	1988	9	Appraisers	Pub Serv Co		3		3							Colo	230
5	Jensen	1980	9	Appraisers	Utility						10-20			15		W.Central Minn	230,315,500
6	Early & Early	1988	9	Appraisers	Utility			no effect	0							NC	230
7	Mitchell	1976	9	Perception	Academic					33 on line;94 nearby				63.5		S. Ontario	230
8	Boyer	1978	9	Perception	Academic						74-79			76.5		S. Ontario	230,500
9	Real Est Counselg Gr	1984	9	Perception	n.g.					Restate professionals:	86-90			88	lower price; hard to finance; sold slowly.	NY metr	345
										Purchasers:	26-46			36	affected value		
10	Market Trends	1988	9		Utility						53			53		Phoenix, AZ	var
11	Rhodeside	1988	9	Perception	Utility						27	57	16	27		Va., WashgtnDC	var
12	Ec Consulting NW	1990	9		Utility						50			50		W. Montana	500
13	Priestly	1990	9		Utility						65	30	5	65		No. Calif	115-230
14	Kung & Seagle	1992	11		Academic						28/87*			72	**if they had known".	Memphis, Tenn	
15	Delaney & Timmons	1992	10		Academic	US aver:	7.8-15.5		11.7							USA	
						SE US:	10.7										
16	Bond	1996	4				10			said 50% respondents						Australia	110
							5-10		10	said 46% respond.							
							10-15			said 31% respond.							
17	Jones, JC, Texas A&M	1999	4		Academic		7.6		7.6	w/i 200 yds.						St. Cloud, MN	
							4.1			by appraisers, sellers						St. Louis	
18	Devel Strategies	1995	8		RE consult											Calif.	
19	Gimmy	1994	8				18-53.8		35.9							Georgetown, TX	
20	Lower Colorado	1997	8				5-10		7.5	on all lands						Central Calif.	138
21	Pitts & Jackson	2007	3				0-5		3.5	if view		50			no effect		
							2-7			if adjacent							
22	Sims & Dent	2005	19				5-10		9	appraisers, agents							
							5-15			appraisers							
23	Rikon, Mich.	1996	8		Law journal:	Crisula Case:				"fear is as important as actual data." observ:							
												neu:	gain	loss			
24	Averages of all entries:							sum:	123.5		Sum:	137	21	622.5			
25								# cases:	12.0		# cases:	3	2	11			
26								Aver:	10.3		Aver:	45.7	10.5	56.6			
								7	8			11	12	13			

Notes:
* See citations at end of chapter.
n.g.= "not given"

Table 4.2
Review of Statistical (Regression Analysis) Studies of Power Line Effect on Property Prices

					All Studies % loss			Peer Review Only	% loss			Non- peer Review % loss	Sponsor			
Study authors	Yr	Citation*	Client	close	distant	% Aver. loss	yes or no?	All	Acad	non-acad	all	Acad / Non-acad / Hybrid ?	where published?	profession	Geography	line feature
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	16
1 Colwell & Foley	79	15	Acad & utility	8.8	3.6	5.7	y	5.7		5.7		H	Appraisal Journal (prof. assoc)	Professor + broker for utility	Decatur, Ill	138
2 Colwell	90	16	Acad.			25.0	y	25.0	25.0			A	Jour of Real Est. Research (American RE Soc. ARES)	Professor	Ill. Resident.	138
3 Kinnard & Mitchell	88	9	NY Power Auth			0.0	n				0.0	H	Client report, Real Est. Consultg. Group of Ct.	Professor + Consultant	NYState	345
4 Kinnard	88	9	Utility co.			0.0	n				0.0	H	Client report, Real Est. Consultg. Group of Ct.	Professor / Consultant	Me.	345
5 Kinnard, Mitchell, Webb	89	9	NY Power Auth			0.0	n				0.0	H	Client report, Real Est. Consultg. Group of Ct.	Professor + Consultant	NYState	345
6 Pacific Consulting	91	9	Utility co.			5.0	n				5.0	N	client report for Calif. Edison	Consultant	CA	115/230
7 Un. Quebec	82	9	Acad.			17.0	n				17.0	A	client report for Hydro-Quebec	Professor	Quebec	735
8 Kinnard & Dickey	95	21	Acad & consultant			5.2	y	5.2		5.2		H	Real Estate Issues, jour of Counselor of R.Est.	Professor + Consultant	CA	
9 Hamilton & Carruthers	93	13	Acad			5.0	n				5.0	A	U. Br. Columbia Report (Academic, not peer reviewed)	Professors	Vancouver	n.g.
10 Ignelzi & Priestly	91	13		1-9		4.5	n				4.5	N	consultant, Pacific Consulting Services	Consultants	Albany, CA	
11 Kinnard various	67	13		3											Hartford, CT	n.g
	84			2		1.8	n				1.8	N	Client report	Client reports	Orange City, NY	
	96			0.3											"	
	97			2-4.0											"	
12 Hamilton & Schwan	95	13	Acad.			6.3	y	6.3	6.3			A	Land Economics	acad funded	Vancover sub	230 500
13 Cowgan & Bottemiller	96	8	Acad.	0-10		5.0	n				5.0	N	Right of Way Magazine, Trade journal for Int. Right of Way Assoc.	consultant: client: Bonneville Power Administration	Portland, Oreg	
14 Des Rossiers	02	17	Acad.	5-22		10.0	y	10.0	10.0			A	J. R. Est. Res. (ARES)	acad funded	Montreal	
15 Wolverton & Bottemiller	03	18	n.g.			0.0	y	0.0		0.0		N	Appraisal J.	co-auth is chief appraiser for Bonneville Pwr. Ad; utility financed	Portland, Vanc, Seattle	
16 Chalmers & Voorvaart	09	22	Utility co.			0.0	y	0.0		0.0		N	Appraisal J.	sponsored N.England Util; mostly rural.	rur., sub Ct MA	
17 Jackson & Pitts	10	14		2-9		-	y			-			J. R. Est. Lit..	no new data	Lit review	
18 Callanan & Hargreaves	95	13	meters: 10	27.3										Professors	Wellington, NZ	110
			30	9.1		13.9	y	13.9	13.9			A				
			50	5.4									J. Prpty. Res.(cites NZealand Valuers Journal, Wellington)			
19 Sims & Dent	05	19	semi-detach:	13.8										Professors	Scotland	275
			detach:	9.7		11.3	y	11.3	11.3			A	Urban Studies	(Scotland cases)		
			rear view:	7.1												
			front view:	14.4												

			All:	All Peer:	Peer Acad:	Peer Non-acad:	All non-peer		Sum: Non-acad peer + non-peer	All non-peer w/o Quebec	Non-peer (w/o Quebec) + non-academic	
20		sum:	115.7	77.4	66.5	10.9	38.3		49.2 (col 11 & col 12)	21.3 (col 12)	32.2 (col 11 & col 12)	
21		# cases:	18	9	5	4	9		13	8	12	
22		Average:	6.4	8.6	13.3	2.7	4.3		3.8	2.7	2.7	
Notes:			7	9	10	11	12	13	14	15	16	

Table 4.3 - Statistical analysis of literature

Study type	Author	Journal type	n	percent value loss Mean	SD
Survey	Realtor	all	12	10.29%	9.57%
Regression	All	all	18	6.43%	6.81%
Regression	All	peer-review	9	8.60%	7.74%
Regression	All	non-peer-review	9	4.26%	5.30%
Regression	Academic	all	7	12.64%	6.90%
Regression	Industry	all	6	2.72%	2.42%
Regression	Hybrid	all	5	2.18%	2.99%
Regression	Academic	peer-review	5	13.30%	7.09%
Regression	Industry	peer-review	4	2.73%	3.15%

Statistic	Author	Journal Type	t	p
T-test	Academic vs. Industry	Peer-reviewed	2.99	0.013
T-test	Academic vs. Industry	All	3.59	0.004
T-test	All	Peer-reviewed vs. non-peer-reviewed	1.39	0.093
T-test	All	Peer-reviewed vs. non-peer-reviewed (removed outlier)	2.18	0.027

Table 5.1
Summary: Property Adjacent to the Power Lines

Total	# properties	Adj Sq Ft	Land Value $	Bldg Value $	Sum Market Value $
1	2	3	4	5	6
1 Dadeland	1,730				276,551,566
2 West (w/ opt 1)	1,106	13,404,582	637,943,998	467,478,462	1,829,932,315
3 East (w/opt 1)	1,255	9,959,223	1,263,333,581	470,372,201	1,924,788,082
4 Total:	**4,091**				**4,031,271,963**

		% loss rate:	**$ value lost:**
A.	**Loss in Property Value**		
	1. Lower boundary, all studies	0.05	201,563,598
	2. Aver. Montreal urban, 2002	**0.10**	**403,127,196**
	3. Upper boundary, 2002	0.20	806,254,393
	4. Un. Quebec (1982)	0.34	$1,370,632,467
B.	**Loss in Property Taxes per year***		
	1. Lower boundary, all studies	0.05	4,634,370
	2. Aver. Montreal urban, 2002	**0.10**	**9,268,741**
	3. Upper boundary, 2002	0.20	18,537,482
	4. Un. Quebec (1982)	0.34	$31,513,719
	(*Miami-Dade millage rate: 22.9921)		

Source: Sum of individual property records, Miami-Dade County Property Appraiser Office, on line.

Table 5.2
Employment Impacts of 5, 10, 20, and 34% Loss of Property Value: IMPLAN Model
Various Sectors, Single Year Only

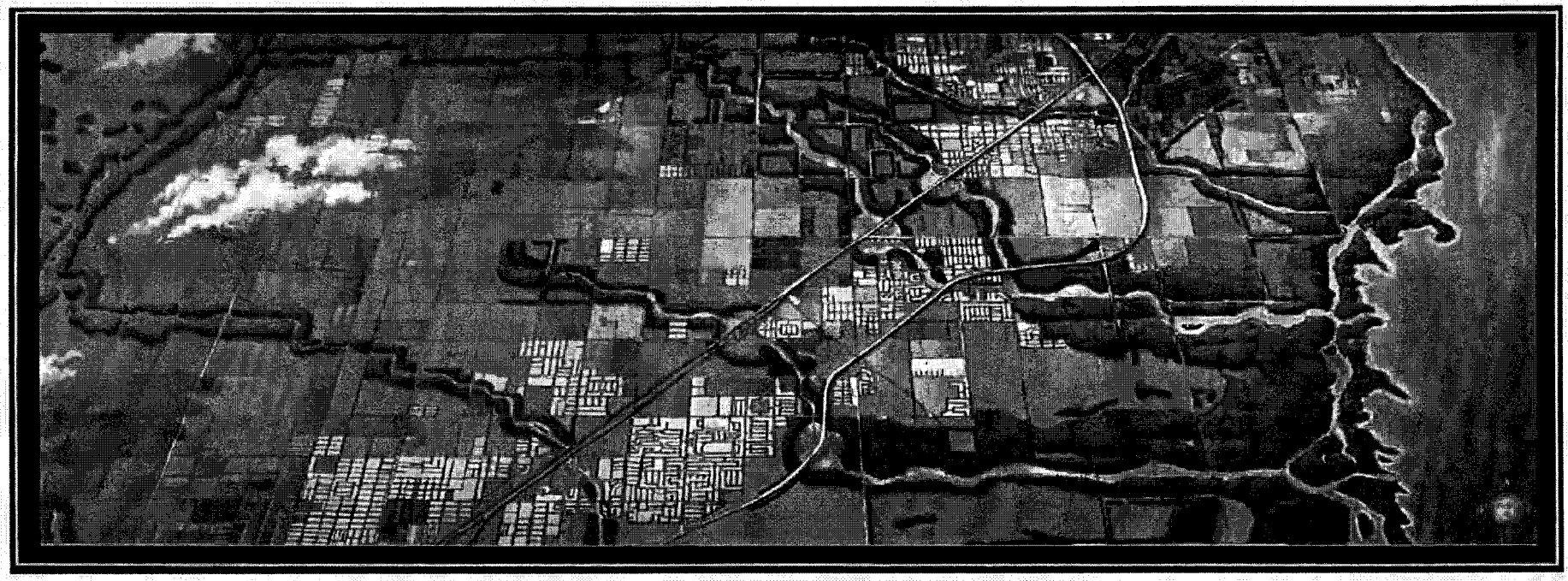
	Model	Total Jobs Lost: Direct., Indirect and Induced at 5% loss	at 10% :	at 20%	at 34%	IMPLAN Sector Nos.
		1	2	3	4	5
A	**Basic loss of real estate value & government spending**	2,191	**4,382**	8,764	14,899	**360, 437**
1	Money, real estate, hospital, drink & dining, retail, pharmaceutical mfg.	2,349	**4,698**	9,396	15,973	397, 413,354,360,133
2	**real estate, air travel, private colleges, retailing**	2,585	**5,170**	10,340	17,578	392, 329, 360, 332, 359
3	Boat building, performg arts, scientific research, biol prep, travel agencies	2,979	**5,958**	11,916	20,257	402, 376, 135, 291, 383
4	Museums, family care services, private hospitals, retail, home care, office physicians	3,392	**6,784**	13,568	23,066	406, 400, 397, 330, 32/25, 395,394
5	Fitness centers, food, drinking, surgical instruments, wholesale, printing	3,327	**6,654**	13,308	22,624	407, 413, 305, 319, 113
6	**Private education, real estate, nursingg facilities, food services, jewelry manufacturing**	4,020	**8,040**	16,080	27,336	391, 413, 398, 310, 360
	total	20,843	**41,686**	83,372	141,732	

Source: Computations using IMPLAN Model with Miami-Dade County Data

Table 5.3 REMI Model: Job Loss over Time: Different Scenarios and Time Periods

Model or Sector of Impact:	% value loss	Jobs Lost per Year								
		No. yrs:	1	...	5	...	10	...	20	...	30
		Year:	2011	...	2015	...	2020	...	2030	...	2040
A General Reduction	5%		1,895		1,528	...	1,066	...	639	...	419
	10%		**3,790**		**3,056**		**2,132**		**1,278**		**838**
	20%		7,580		6,112		4,264		2,556		1,676
	34%		12,886		10,390		7,249		4,345		2,849
B Sector Impacts on Economy:											
1 Real Estate, only	5%		1,293	...	1,071						
	10%		**2,586**		**2,142**						
	20%		5,172		4,284						
	34%		8,792		7,283						
2 Business Services, only	5%		3,768	...	2,954						
	10%		**7,536**		**5,908**						
	20%		15,072		11,816						
	34%		25,622		20,087						
3 Nursing, only	5%		5,340	...	4,119						
	10%		**10,680**		**8,238**						
	20%		21,360		16,476						
	34%		36,312		28,009						

Source: REMI Model for Miami-Dade County, with 2008 Data Base, run in Dec. 2010.
See accompanying graphs

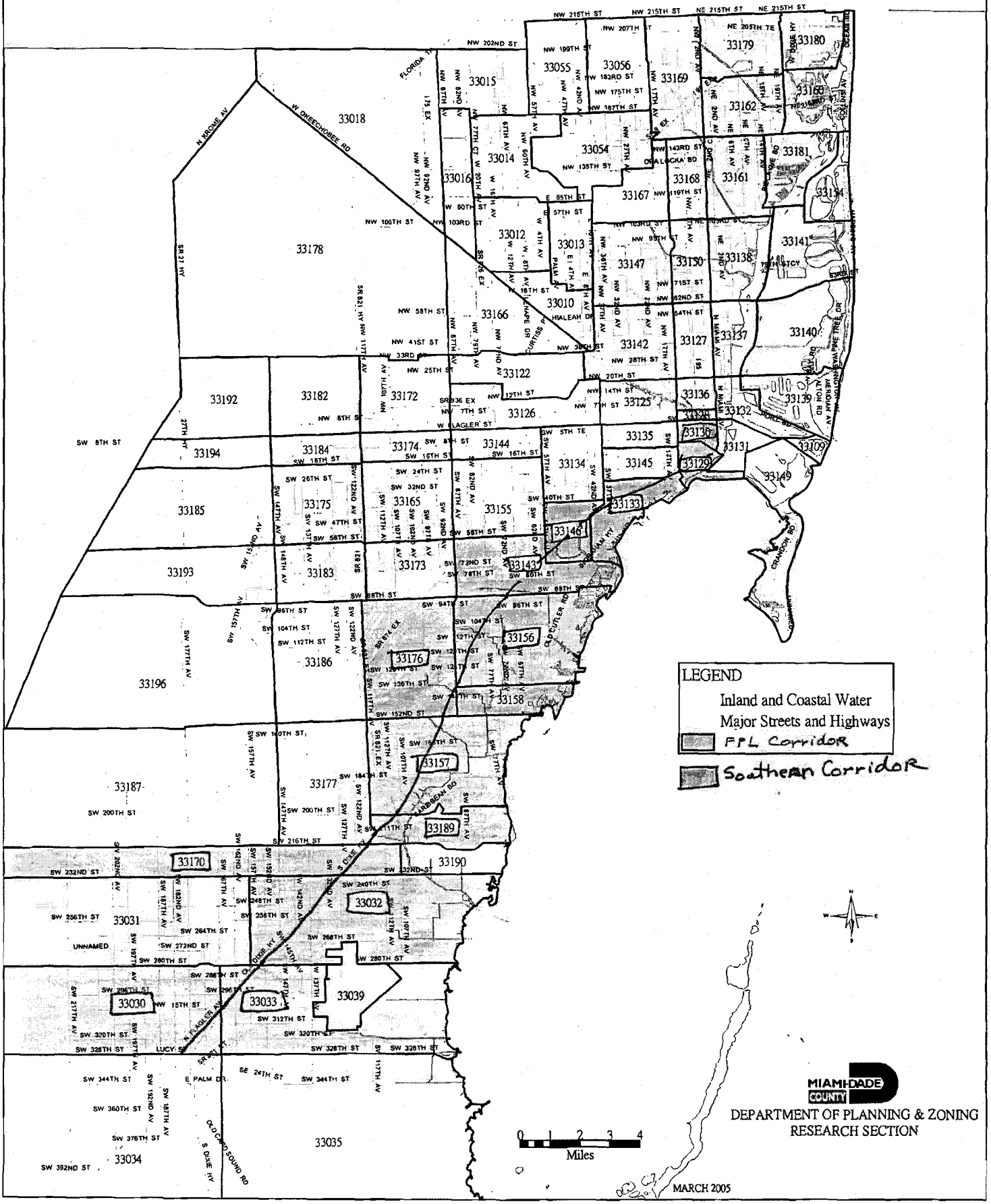


Planning Document

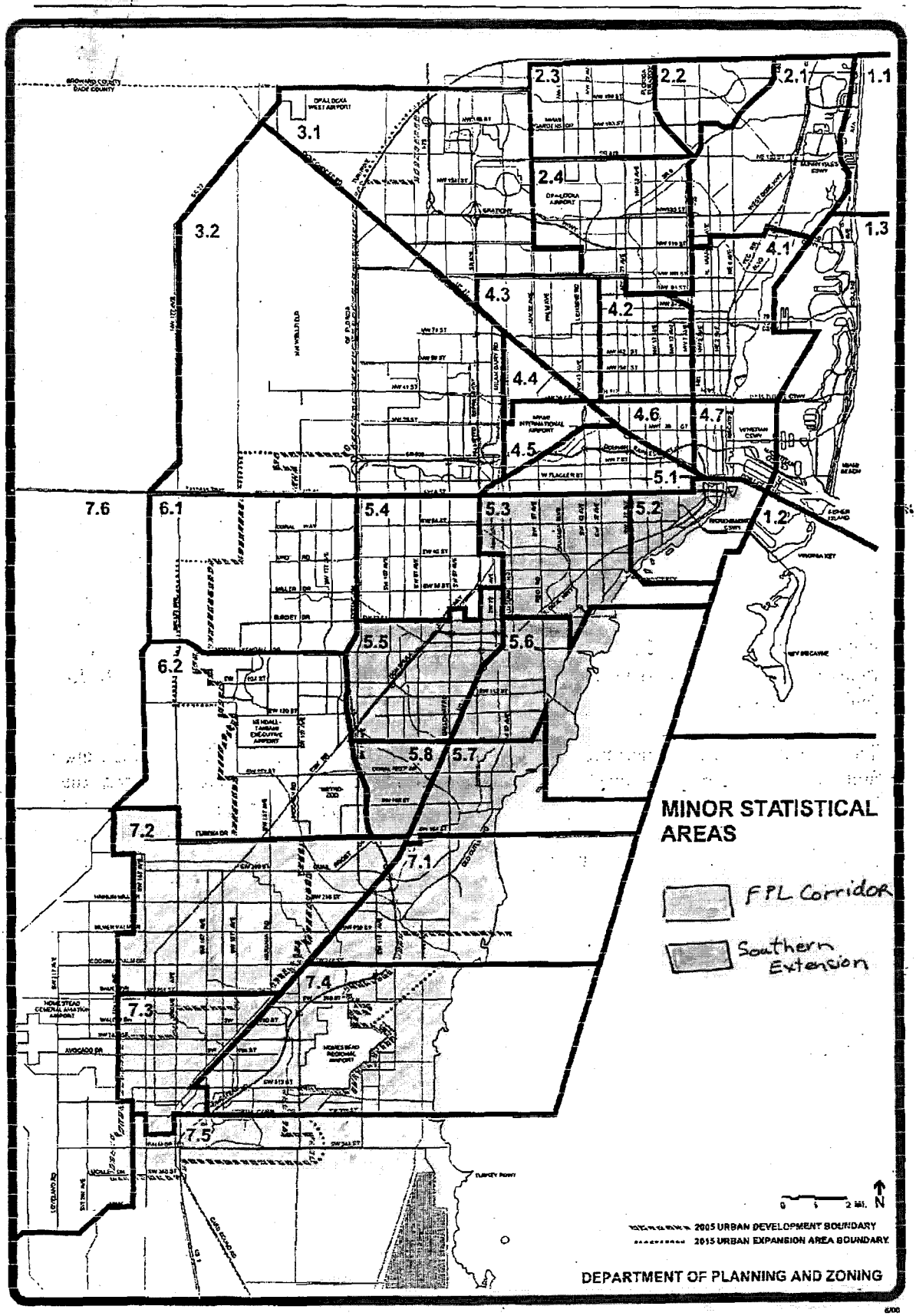
THE SOUTH DADE WATERSHED PROJECT

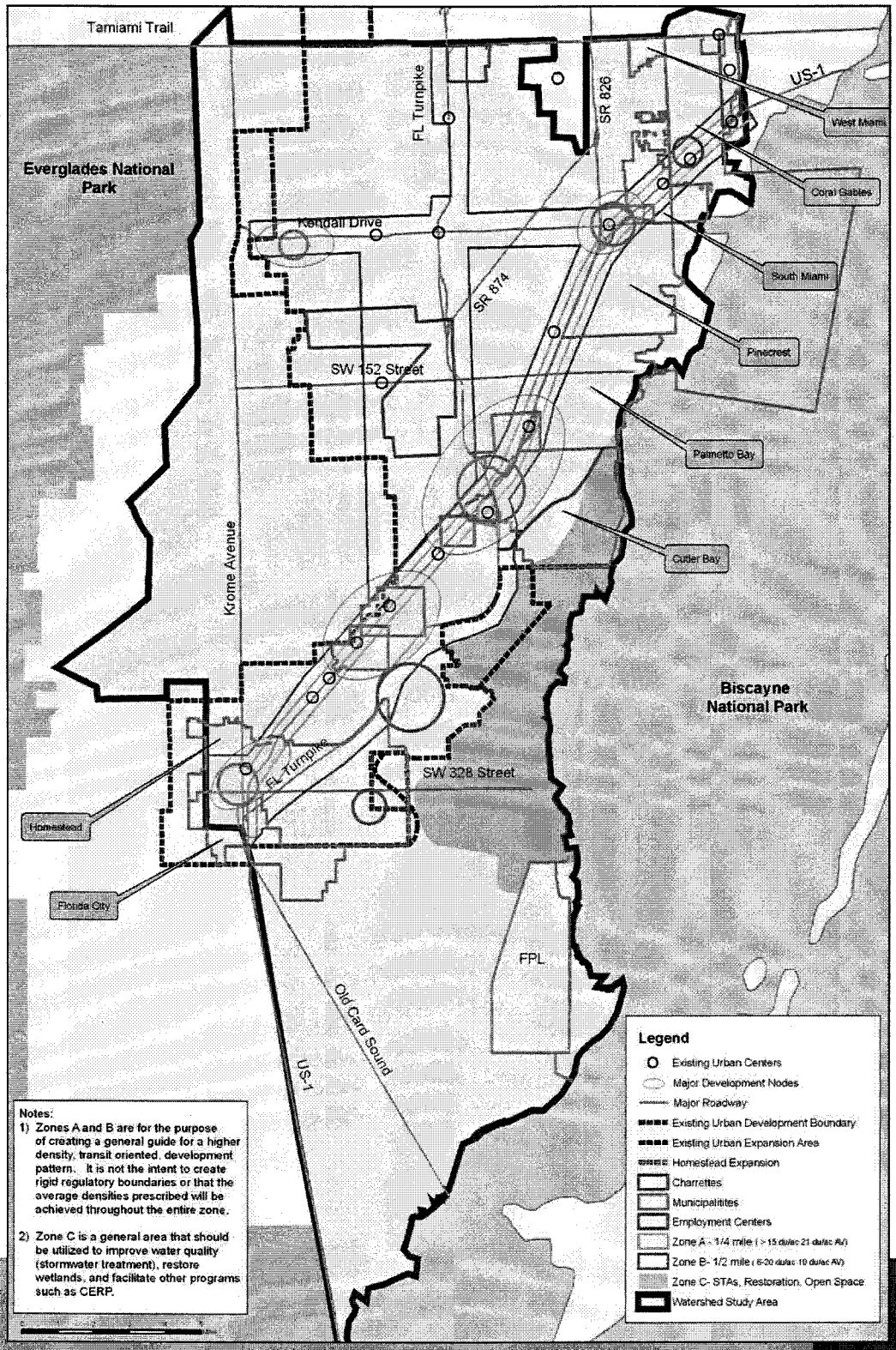
Center for Urban and Community Design, University of Miami, School of Architecture / South Florida Water Management District

MIAMI-DADE COUNTY, FLORIDA
ZIP CODE BOUNDARY



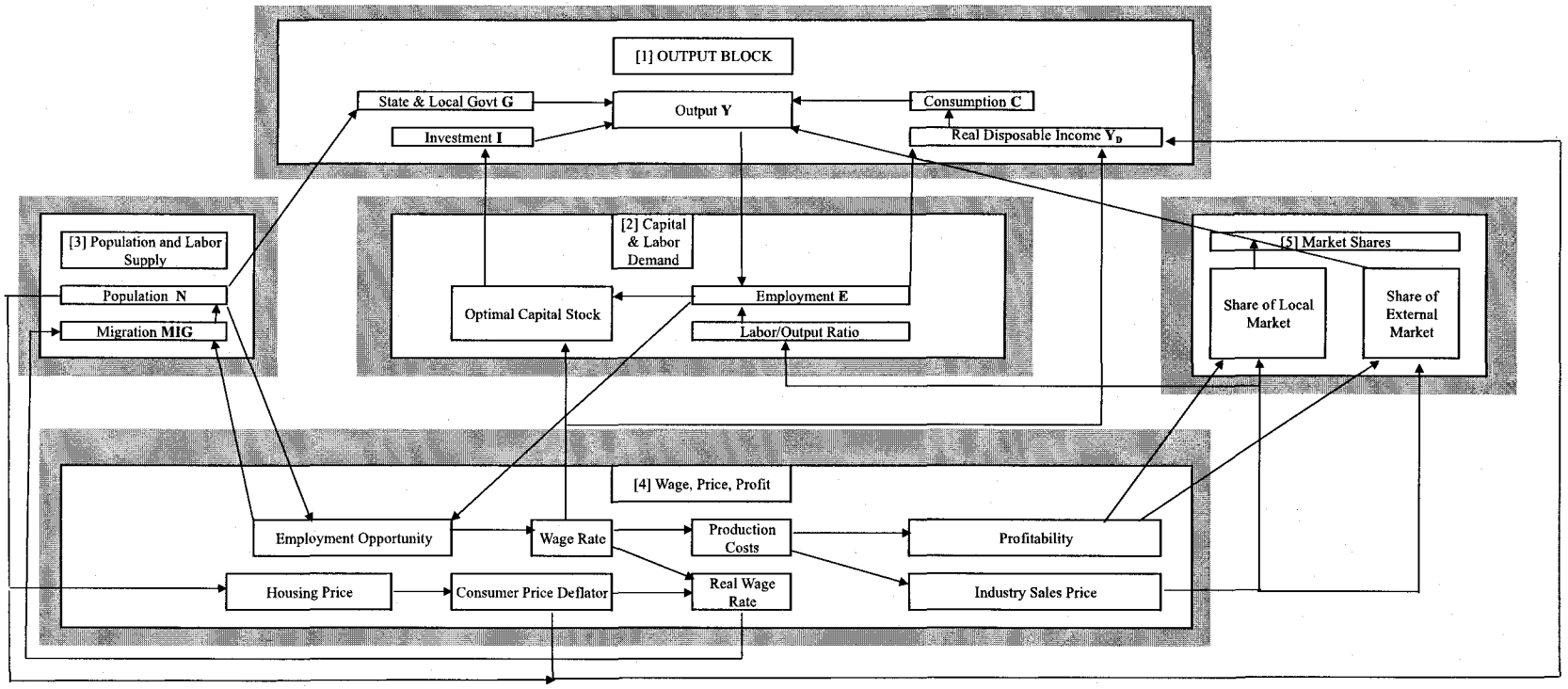
Population Projections by Minor Statistical Area





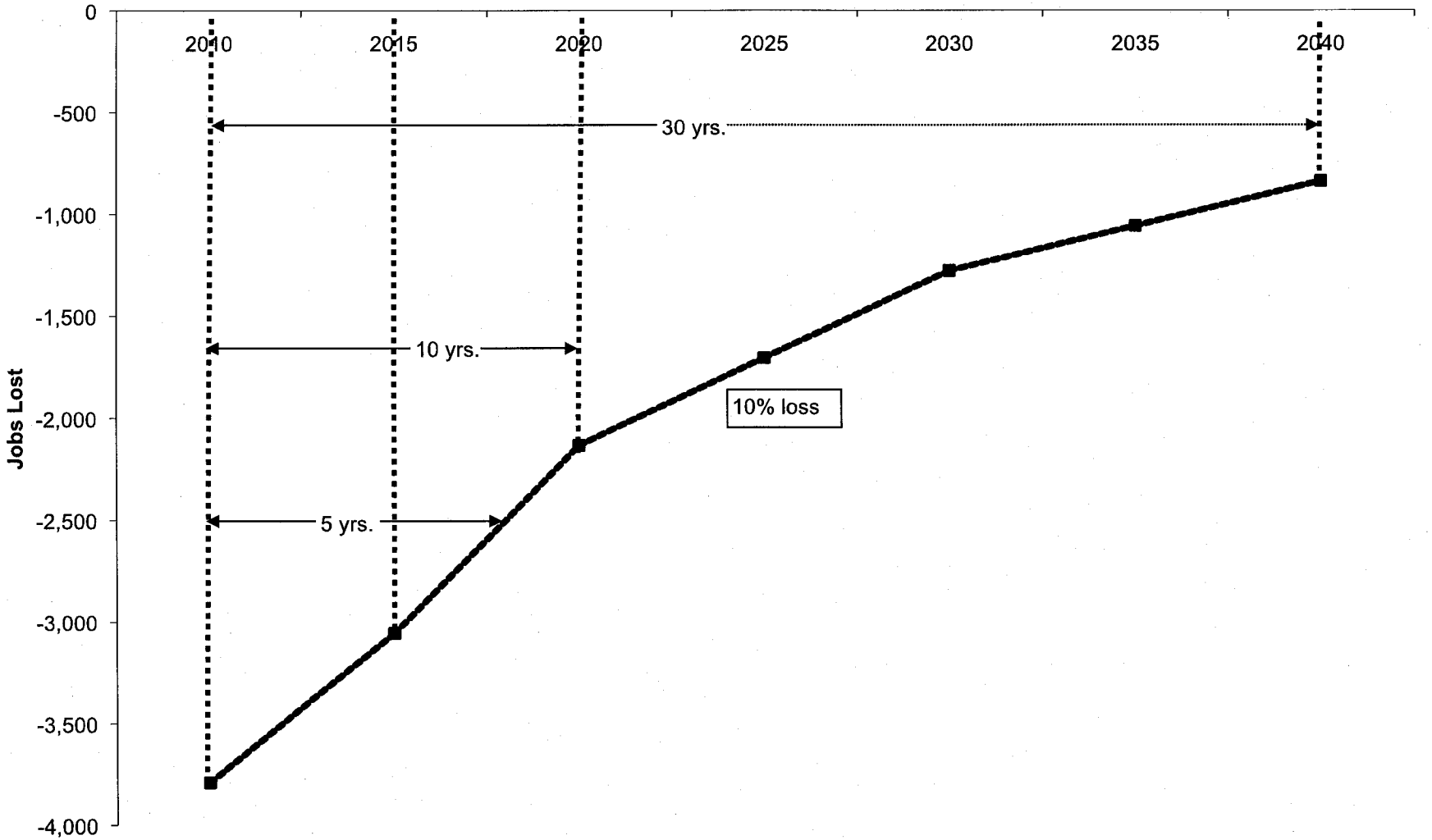
Recommended Watershed Plan Design Guide Map

Figure 5.1 The Blocks of the REMI Model and Some Connections



Source: Excerpted from Treyz, Regional Economic Modeling, Kluwer, 1993, p. 291.

Graph 5.1 How Long the Trough (Job Loss)?
General Reductions for Miami-Dade County, 10% Property Loss over Differing Time Spans



Graph 5.2: 10% Loss of Property Value, 5-Yr. Dis-Amenity: How deep the trough?

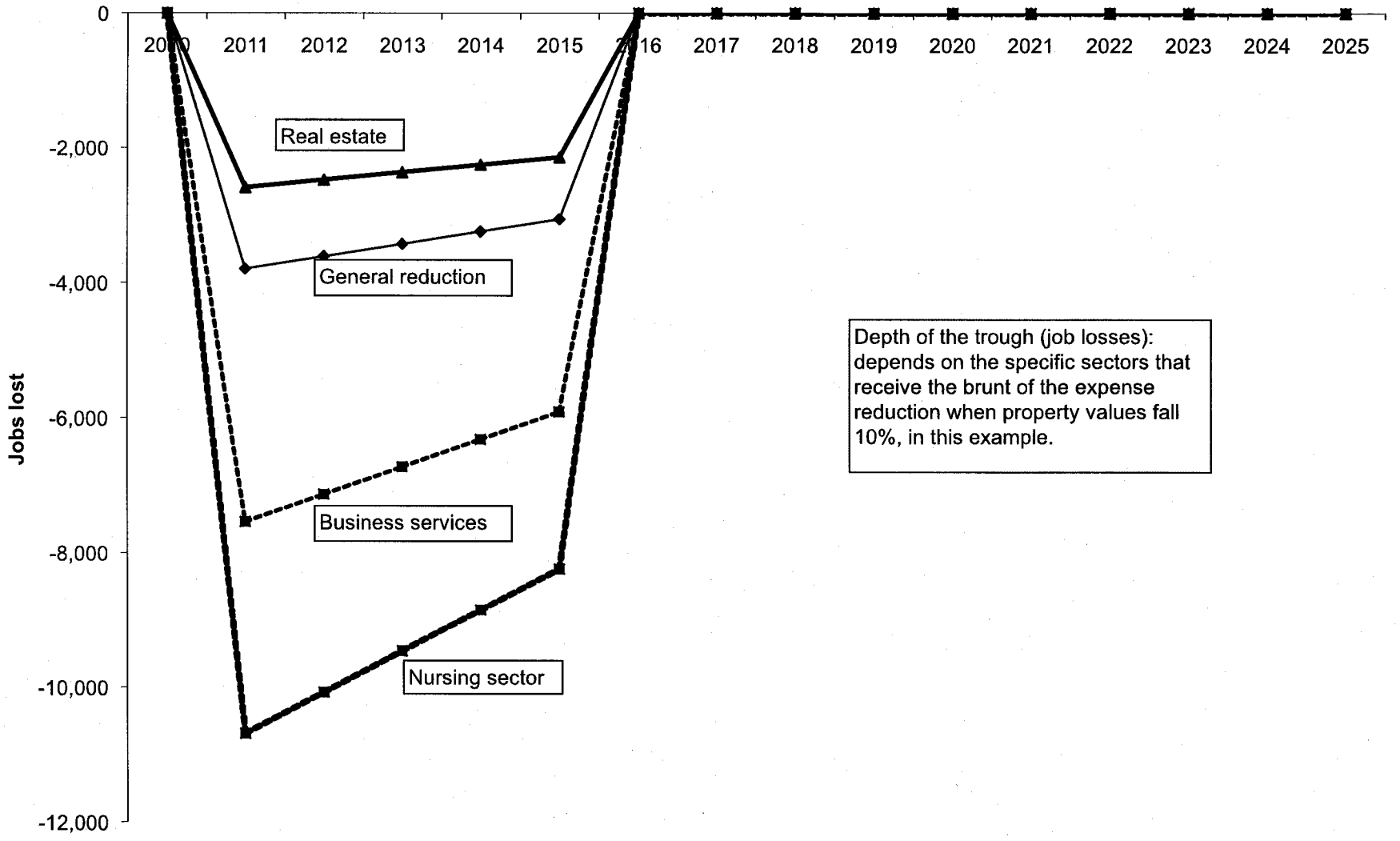


Exhibit 2

FILED
11 MAY -2 AM 11:40
DIVISION OF ADMINISTRATIVE HEARINGS

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: FLORIDA POWER & LIGHT CO.	)	
TURKEY POINT UNITS 6 AND 7	)	DOAH Case No. 09-3575EPP
POWER PLANT SITING APP. PA03-45A3.	)	DEP OGC Case No. 09-3107
	)	

THE VILLAGE OF PINECREST'S AND THE CITY OF CORAL GABLES' NOTICE OF PROPOSED ALTERNATE CORRIDOR

Pursuant to section 403.5271, Florida Statutes, THE VILLAGE OF PINECREST, FLORIDA, AND THE CITY OF CORAL GABLES, FLORIDA ("the Cities"), through their undersigned attorneys, file this NOTICE OF PROPOSED ALTERNATE CORRIDOR and state as follows:

Introduction

1. In this proceeding, the Cities are proposing an alternate corridor to the Florida Power & Light Company's ("Applicant" or "FPL") East Preferred Corridor for certification. The FPL East Preferred Corridor delineates the boundaries for the alignment of a 230 kilovolt ("kV") transmission line connecting two Transmission Substations in the Miami-Dade County area, and is sought for certification by the Applicant in support of its Turkey Point Units 6 & 7 Site Certification Application.

2. The alternate corridor proposed by the Cities will interconnect the Davis Substation located in the SW area of Miami-Dade County with the Miami Substation located in the south end of the downtown Miami area, and is delineated on the United States Geological Survey quadrangle maps at a scale of 1:24,000, attached as Exhibit A. The Cities' Proposed

Alternate Corridor and the attached Exhibit A comply with the FPL Line Alternate Corridor Process and the requirements of section 403.5271, Florida Statutes.

Proposed Alternate Corridor Description

3. The proposed alternate corridor is described as follows: Beginning where the existing FPL multi-circuit transmission lines along SW 131st Street intersect the existing FPL North-South Kendall transmission line right-of-way ("ROW"), the corridor runs north within the existing north-south Kendall multi-circuit transmission line corridor to the existing Flagami Substation. This corridor has varying widths from 100' – 150' and is approximately 10.15 miles long.

4. At the Flagami Substation, beginning at the west ROW of SW 92nd Avenue, the corridor turns east towards downtown Miami and follows the existing public rights-of-way. This west-to-east leg of the proposed alternate corridor is intentionally drawn very wide to allow for placement of the pole line on an adjacent street should existing utilities or other concerns preclude placement within a particular roadway. Also, the corridor is generally widened by 30 feet on either side of all ROW in the west-to-east segment of the corridor to accommodate the acquisition of any easements or other property rights which may be necessary to accomplish the line placement. At certain sharp 90-degree corners along the west-to-east segment of the proposed alternate corridor, in order to accommodate proper pole guying, the acquisition of easements or other property rights in excess of the 30 ft may be necessary. The first section heading east runs for approximately 2.0 miles between the north ROW of West Flagler Street and the south ROW of SW 4th Street until it reaches the east ROW of SW 72nd Avenue. This corridor is approximately 1,400 feet wide.

5. From SW 72nd Avenue, the corridor continues east for approximately 1.0 mile between the north ROW of Tamiami Canal Road and the south ROW of SW 4th Street, until it reaches the east ROW of SW 61st Avenue. This corridor varies in width from approximately 1,400 – 3,980 feet wide.

6. At the intersection of SW 61st Avenue and Tamiami Canal Road, the corridor continues east for approximately 1.6 miles between the North ROW of NW 7th Street and the south ROW of NW 3rd Street to the east ROW of NW 53rd Avenue. This corridor is approximately 1,350 feet wide.

7. From the east ROW of NW 53rd Avenue, the corridor continues east for approximately 0.65 miles between the north ROW of NW 7th Street and the south ROW of NW 4th Street, until it reaches the west ROW of NW 47th Avenue. This corridor is approximately 2,400 feet wide.

8. From the west ROW of NW 47th Avenue, the corridor continues east for approximately 0.25 miles between the north ROW of NW 9th Street and the south ROW of NW 3rd Street to the west ROW of NW 44th Avenue. This corridor is approximately 2,100 feet wide.

9. From the west ROW of NW 44th Avenue, the corridor continues east for approximately 0.70 miles between the north ROW of NW 11th Street and the south ROW of NW 3rd Street until it reaches the west ROW of NW 38th Court. This corridor is approximately 2,400 feet wide.

10. From the west ROW of NW 38th Court, the corridor continues east for approximately 0.70 miles between the north ROW of NW 11th Street and the south ROW of NW

7th Street until it reaches the west ROW of NW 22nd Avenue. This corridor is approximately 1,400 feet wide.

11. From the west ROW of NW 22nd Avenue, the corridor continues east for approximately 0.30 miles between the north ROW of NW 11th Street and the south ROW NW 1st Street until it reaches the east ROW of NW 19th Avenue. This corridor is approximately 2,600 feet wide.

12. From the east ROW of NW 19th Avenue, the corridor continues east for approximately 0.95 miles between the north ROW of NW 7th Street and the south ROW of NW 1st Street until it reaches the intersection of NW 10th Avenue and NW South River Drive. This corridor is approximately 2,140 feet wide.

13. From the intersection of NW 10th Avenue and NW South River Drive, the corridor follows the north ROW of NW/SW South River Drive and the south ROW of SW 7th Street for approximately 0.65 miles until it reaches the north ROW of SW 1st Street and the east ROW of SW South River Drive. This corridor varies in width from 1,800 to 4,950 feet.

14. From the north ROW of SW 1st Street, the northern boundary of the corridor continues to the west ROW of the SW 7th Street/Brickell Avenue off-ramp (exit 1B) from I-95 south bound. The northern boundary of the corridor then diverts to the south along the west ROW of the SW 7th Street/Brickell Avenue off-ramp to the north ROW of SW 2nd Street. At SW 2nd Street the corridor continues east for approximately 0.30 miles between the north ROW of SW 2nd Street and the south ROW of SW 7th Street until it reaches the FPL Miami Substation. This corridor is approximately 1,800 feet wide.

Reasons the Alternate Corridor Should be Certified

15. The Proposed Alternate Corridor should be certified for the following reasons:

a. The south-to-north leg (approx. 10.15 miles) of the proposed alternate corridor is co-located with existing FPL facilities and is located completely within an existing FPL right-of-way.

b. The west-to-east leg (approx. 10.10 miles) of the proposed alternate corridor contains existing FPL 230 and 138 kV transmission lines. The proposed additional 230 kV line can in some areas be located on a common pole with the existing lines. This will afford FPL the early opportunity to harden its existing system in this area, which includes numerous poles that are very old. The entire west-to-east leg of the proposed alternate route is co-located with other linear facilities.

c. The proposed alternate corridor, unlike the FPL preferred corridor, will neither conflict with, nor adversely affect, planning for future transportation and transit needs along the US-1 corridor – a major multimodal transportation facility for Miami-Dade County.

d. The proposed alternate corridor, unlike the FPL preferred corridor along US-1, will not negatively impact the aesthetics of US-1 - a main city thoroughfare which serves as the terminus to I-95, and is a gateway to the Greater Miami area.

e. The cost of construction along the proposed alternate route is likely to be less than or similar to the cost of construction along the corresponding segment of the FPL preferred corridor.

f. Miami-Dade Transit is currently in the Project Development and Environmental (PD&E) stage of evaluating the excess capacity along the South Dade Busway from SW 344th Street to SR 826/Dadeland South to build a managed lane facility, enabling regular traffic to travel with buses for the length of the corridor. Elements of this managed lane facility are anticipated to include High Occupancy Toll lanes, elevated grade separation for the

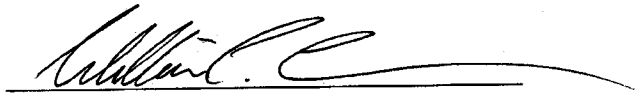
Busway and the extension of the Metrorail. Certification of the proposed alternate corridor will avoid the potential conflict with this future expansion by Miami-Dade Transit that is posed by the 230 kV aerial lines FPL proposes to install along the US-1 corridor. Avoiding this conflict represents a significant potential cost savings to both Miami-Dade Transit and FPL ratepayers.

Service on Affected Local Governments

16. Miami-Dade County and the City of Miami, the local governments with jurisdiction over the area in which the alternate corridor is proposed, have been provided with copies of this Notice of Proposed Alternate Corridor through counsel as required by section 403.5271, Florida Statutes.

WHEREFORE, THE VILLAGE OF PINECREST, FLORIDA, AND THE CITY OF CORAL GABLES, FLORIDA, request that the alternate corridor proposed by this Notice be accepted for consideration in this certification proceeding, and that the Administrative Law Judge grant any other relief as deemed appropriate.

Respectfully submitted,



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I HEREBY CERTIFY that a true and correct copy of the foregoing has been sent by U.S. Mail, except as otherwise noted, to the following listed persons this 2nd day of May, 2011:

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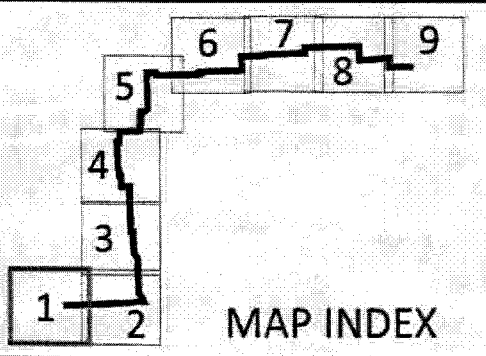
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ATTORNEY

EXHIBIT A





MAP INDEX

Scale: 1" = 2000'

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LEGEND

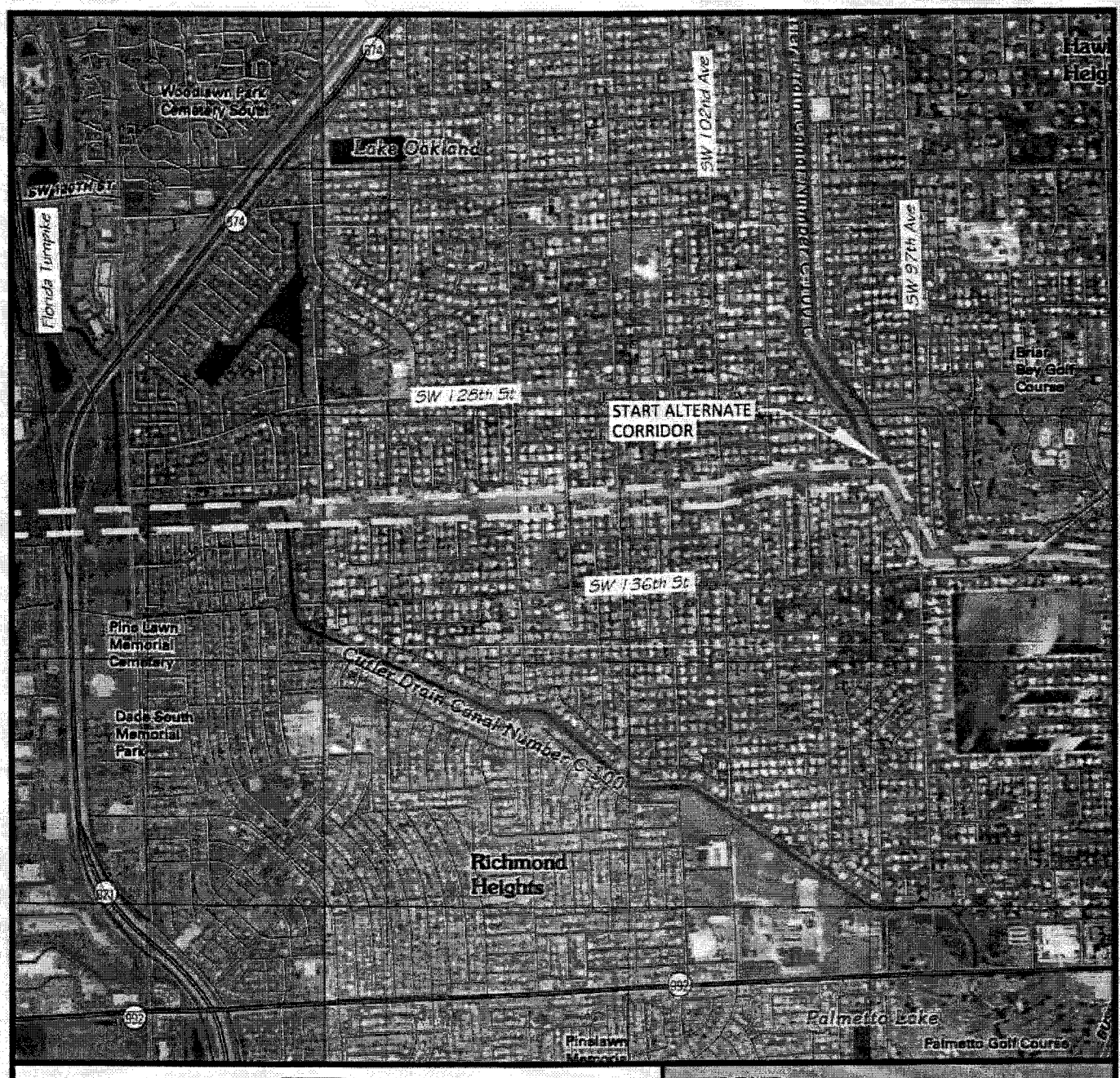
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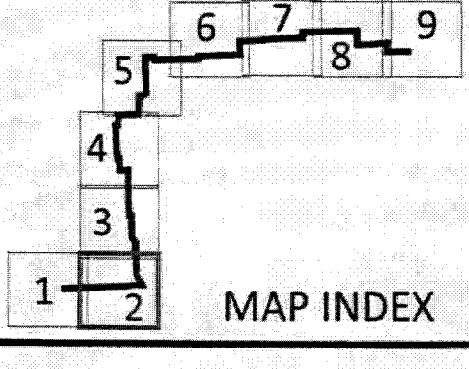
PROPOSED ALTERNATE ROUTE

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FL REGISTRATIONS: EB0005022 AAC002142

PROPOSED ALTERNATE EAST CORRIDOR FPL TRANSMISSION LINE

FIGURE 1





MAP INDEX

Scale: 1" = 2000'

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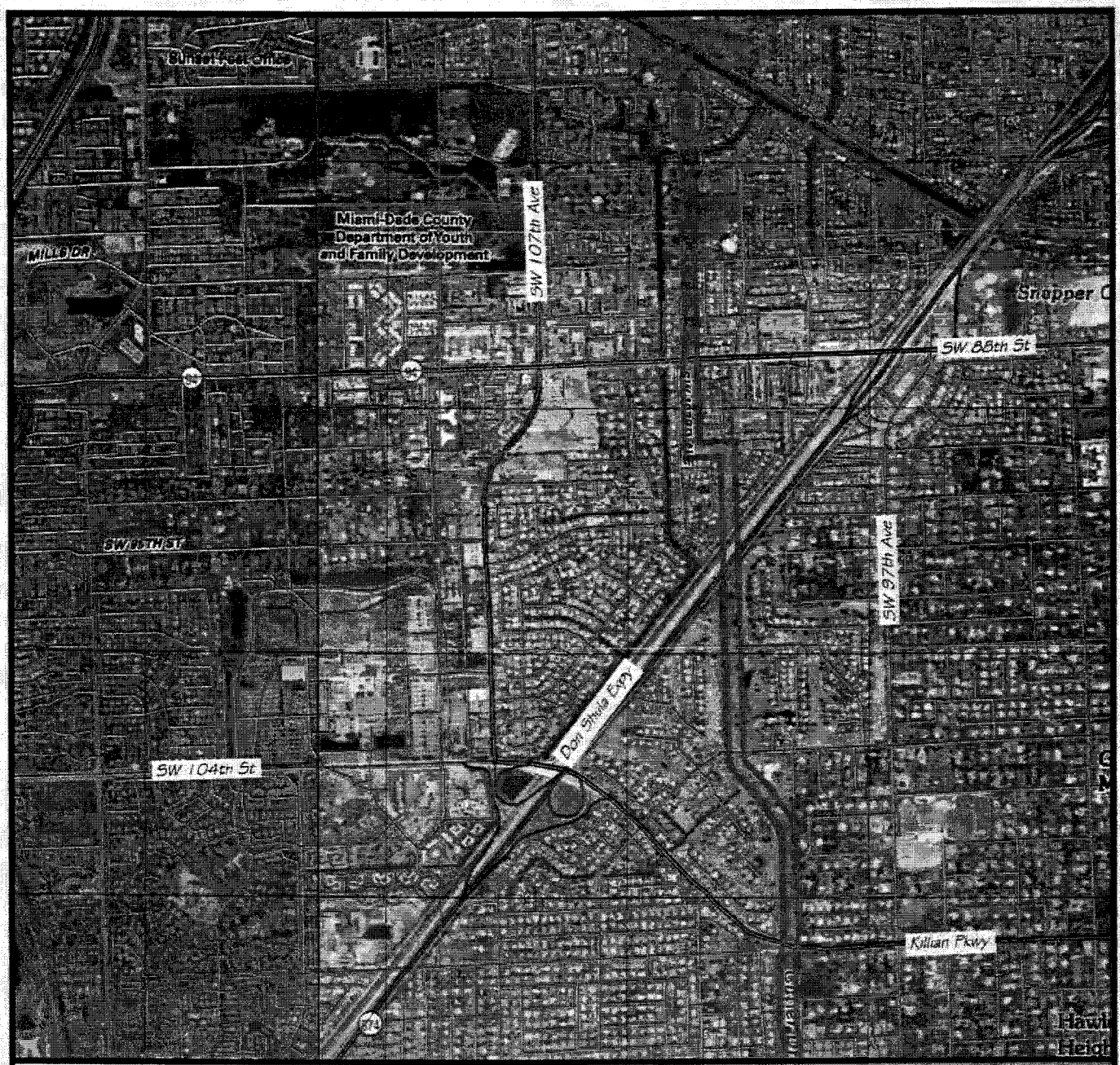
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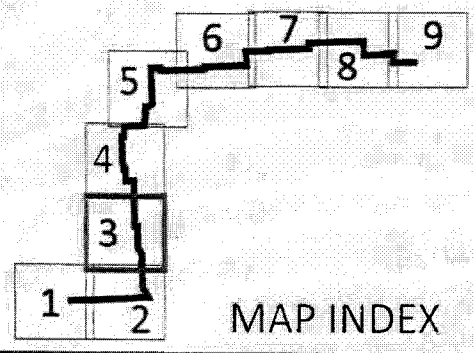
PROPOSED ALTERNATE ROUTE

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PROPOSED ALTERNATE EAST CORRIDOR FPL TRANSMISSION LINE

FIGURE 2





MAP INDEX

Scale: 1" = 2000'

0 500 1000 2000

LEGEND

FPL PROPOSED ROUTE

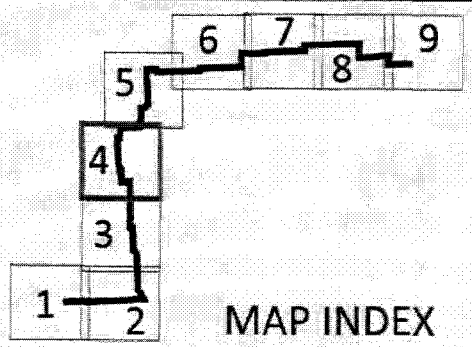
PROPOSED ALTERNATE ROUTE

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PROPOSED ALTERNATE EAST CORRIDOR FPL TRANSMISSION LINE

FIGURE 3





MAP INDEX

Scale: 1" = 2000'

0 500 1000 2000

LEGEND

FPL PROPOSED ROUTE

PROPOSED ALTERNATE ROUTE

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PROPOSED ALTERNATE EAST CORRIDOR FPL TRANSMISSION LINE

FIGURE 4

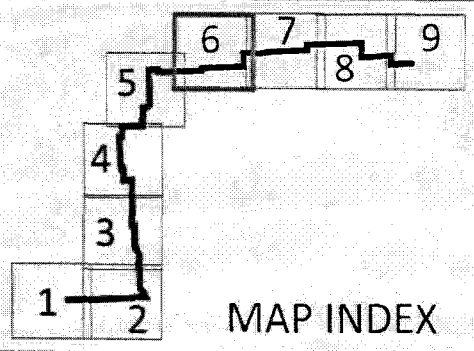


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PROPOSED ALTERNATE EAST CORRIDOR FPL TRANSMISSION LINE

FIGURE 5





MAP INDEX

Scale: 1" = 2000'

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LEGEND

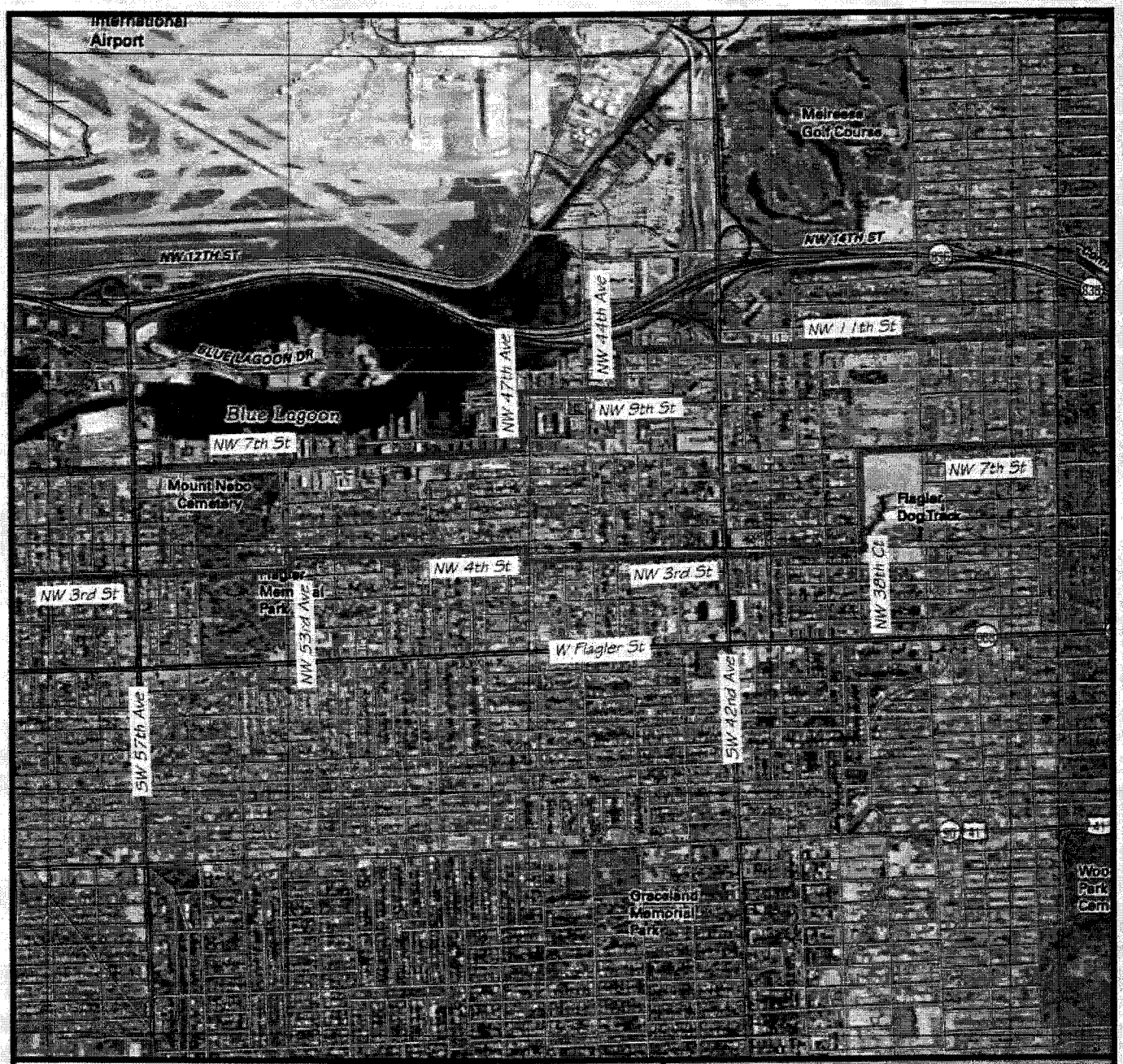
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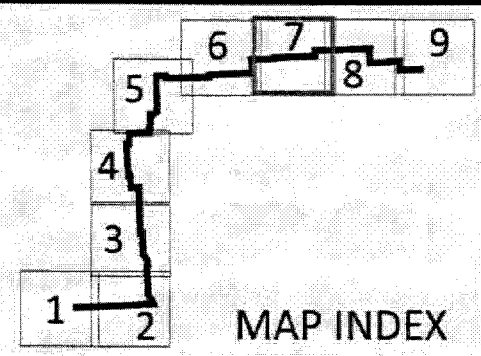
PROPOSED ALTERNATE ROUTE

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PROPOSED ALTERNATE EAST CORRIDOR FPL TRANSMISSION LINE

FIGURE 6





MAP INDEX

Scale: 1" = 2000'

0 500 1000 2000

LEGEND

FPL PROPOSED ROUTE

PROPOSED ALTERNATE ROUTE

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PROPOSED ALTERNATE EAST CORRIDOR FPL TRANSMISSION LINE

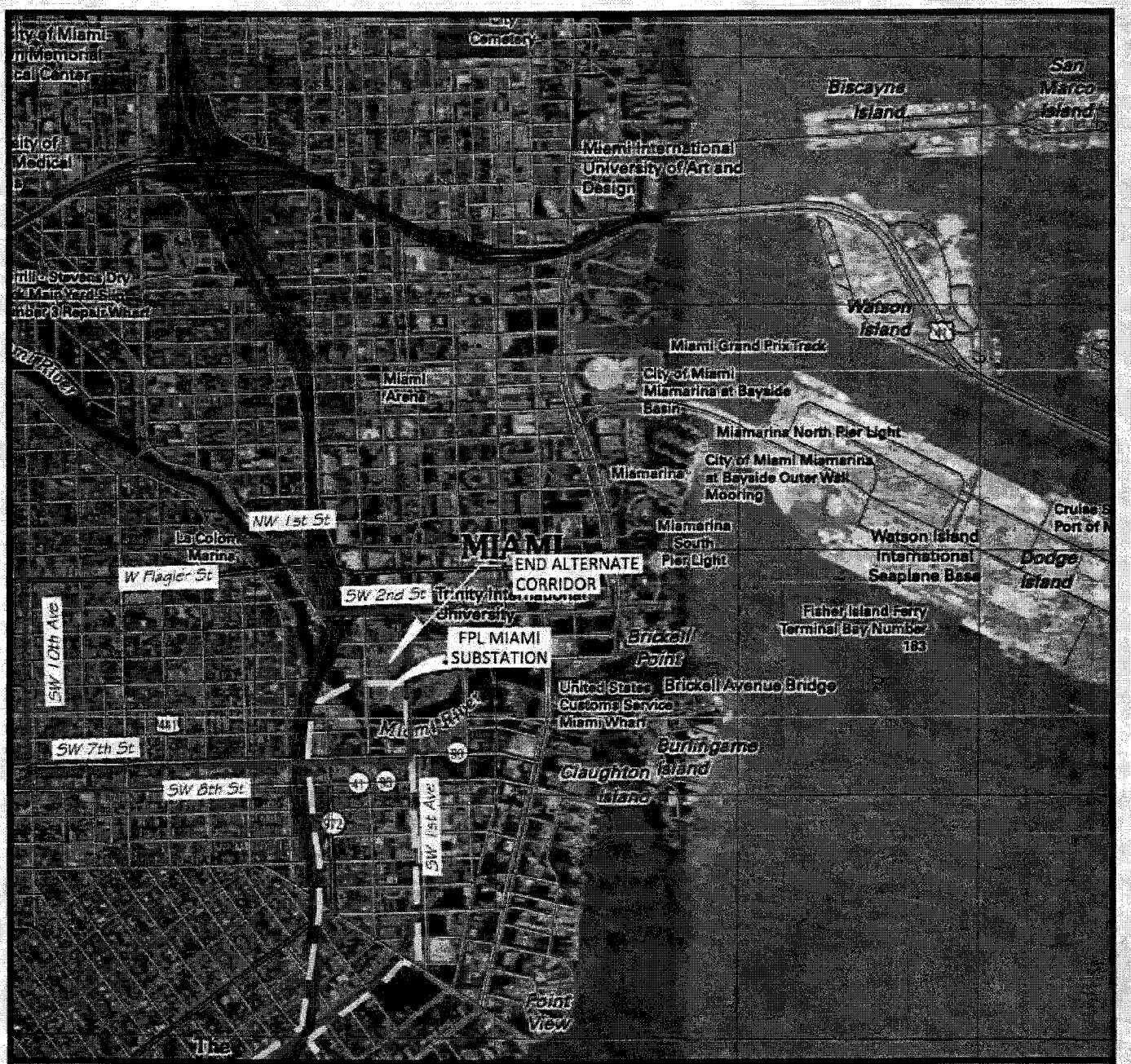
FIGURE 7

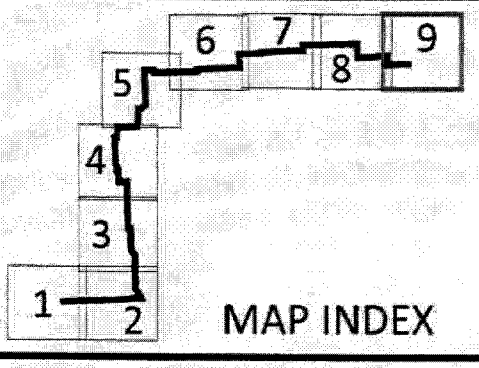


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PROPOSED ALTERNATE EAST CORRIDOR FPL TRANSMISSION LINE

FIGURE 8





MAP INDEX

Scale: 1" = 2000'

0 500 1000 2000

LEGEND

FPL PROPOSED ROUTE

PROPOSED ALTERNATE ROUTE

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PROPOSED ALTERNATE EAST CORRIDOR FPL TRANSMISSION LINE

FIGURE 9

Appendix III-J: City of Doral

THE STATE OF FLORIDA
DIVISION OF ADMINISGTRATIVE HEARINGS

IN RE: FLORIDA POWER & LIGHT CO.
TURKEY POINT UNITS 6 & 7

DOAH CASE NO. 09-3575EPP
OGC CASE NO. 09-3107

_____/

CITY OF DORAL'S NOTICE OF FILING AGENCY REPORT

The City of Doral, Florida, by and through undersigned counsel, in accordance with Chapter 403, Florida Statutes, hereby files its Notice of Filing Agency Report with the Department of Environmental Protection.

RESPECTFULLY SUBMITTED this 15th day of June, 2011.

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John R. Herin, Esq.

#1041798 v1

April 30, 2011

Mr. Mike Halpin
Siting Administrator
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 48
Tallahassee, FL 32399-2400

Re: Site Certification Application
Proposed Western Corridor
Florida Power & Light – Turkey Point Units 6 and 7
DOAH Case No. 09-3575 ETP

Dear Mr. Halpin:

The City of Doral prides itself on being one of South Florida's most visionary and vibrant communities. *CNN Money* and *US News and World Report*, among others, have recently ranked it as one of the most desirable residential and commercial locations in the country. Not surprisingly, then, sustaining a high quality of life is the City's preeminent goal.

In accordance with Section 403.526, F.S., the City of Doral (the "City") has reviewed the above-referenced application for completeness certification with respect to Florida Power & Light Company's ("FPL") Site Certification Application for Turkey Point Units 6 & 7. As a result of its review, and pursuant to Section 403.526, F.S., the City has prepared this Final Agency Report relating to the certification of those transmission lines.

The City hereby recommends denial of FPL's proposed transmission line corridor as well as its subsequent construction as it relates to the territory of the City of Doral. Should FPL's request be approved, we urge that it be contingent upon the conditions set forth in this Report being addressed and/or met.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

Juan Carlos Bermudez
Mayor

Cc: Vice Mayor Michael DiPietro
Councilman Luigi Boria
Councilman Pete Cabrera
Councilwoman Ana Maria Rodriguez

Yvonne Soler-McKinley, City Manager
Nathan Kogon, Director of Planning & Zoning
John R. Herin, Jr., City Attorney
Jimmy Morales, City Attorney

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City of Doral
Final Agency Report on Proposed Western Corridor
Florida Power & Light – Turkey Point Units 6 and 7
DOAH Case No. 09-3575 ETP
June 2011

Definitions

A. "Application" shall mean the Application for Corridor Certification for FPL's Western Corridor Transmission Line Project.

B. "Council" shall mean the elected Mayor and Council Members of the City of Doral.

C. "Facility" or "Project" shall mean FPL's proposed Western Corridor that is intended to pass through the City of Doral and other parts of Miami-Dade County en route to Turkey Point Units 6 & 7.

D. "Feasible" or "Practicable" shall mean reasonably achievable considering a balance of land-use impacts, environmental impacts, engineering constraints and costs.

E. "Post-Certification Submittal" shall mean a submittal made by FPL pursuant to a Condition of Certification.

F. "ROW" shall mean the transmission line right-of-way to be selected by FPL within the certified corridor in accordance with the Conditions of Certification.

Proposed Conditions of Certification

Favored Nations Conditions

All of the accommodations, mitigations, benefits, terms, and conditions agreed to or granted by FPL to the City shall be at least as favorable as the accommodations, mitigations, benefits, terms, and conditions agreed to or granted by FPL to any other governmental entity affected by this Project or FPL's proposed Eastern Corridor. Should FPL enter into any subsequent agreement with any other governmental entity, during the term of this Project, which provides for accommodations, mitigations, benefits, terms, and conditions more favorable than those contained in this agency report and/or any agreement between FPL and the City, then this agency report and any subsequent agreements between FPL and the City shall be deemed to be modified to provide the City with those more favorable accommodations, mitigations, benefits, terms, and conditions. FPL shall notify the City promptly of the existence of such more favorable accommodations, mitigations, benefits, terms, and conditions, and the City shall have the right to receive the more favorable accommodations, mitigations, benefits, terms and conditions immediately. If requested in writing by the City, FPL shall amend its agreement with the City or any other applicable agreement, approval, document, permit, etc. to contain the more favorable accommodations, mitigations, terms, and conditions.

Hold Harmless and Indemnification

To the fullest extent permitted by Laws and Regulations, FPL shall indemnify and hold harmless the City and its consultants, agents and employees from and against all claims, damages, losses, and expenses direct, indirect, or consequential (including but not limited to fees and charges of attorneys and other professionals and court and arbitration costs) arising out of or resulting from the performance of work on the Project, provided that any such claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury, or property damage and (b) is caused in whole or in part by any willful or negligent act or omission of FPL, any subconsultant, or any person or organization directly or indirectly employed by any of them to perform or furnish any of the work on the Projector anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder or arises by or is imposed by Law and Regulations regardless of the negligence of any such party.

In any and all claims against the City or any of its consultants, agents or employees by any employee of FPL, any subconsultant, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, the indemnification obligation under the above paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for FPL or any such subconsultant or other person or organization under workers' compensation acts, disability benefit acts, or other employee benefit acts.

In performance of the work on the Project, FPL will comply with applicable regulatory requirements, including federal, state, special district, and local laws, rules, regulations, orders, codes, criteria, and standards. It shall be the responsibility of FPL to obtain and maintain, at no cost to the City, any and all approvals, licenses and permits required to complete the Project provided in the certification and any matters related thereto.

Miscellaneous

Finally, as to matters within its control, jurisdiction, or that affect the City as outlined herein, the City adopts the reports, conditions and recommendations of the Florida Department of Environmental Protection, South Florida Water Management District, South Florida Regional Planning Council, and Miami-Dade County.

I. Quality-of-Life and Aesthetic Concerns

A. Location of Transmission Poles and Lines

1. On June 30, 2009, FPL submitted a Site Certification Application to the Florida Department of Environmental Protection. If approved, the application would allow FPL to expand its nuclear energy production capacity at its Turkey Point facility in Miami-Dade County, through the construction of two new nuclear reactors (6 and 7) and the placement of new transmission lines along an "Eastern" and "Western" Preferred Corridor. The City of Doral is particularly concerned about the location of

FPL's proposed Western Preferred Corridor. The City has in place a policy stating that no overhead installation of electrical devices should be allowed in any of its zoning districts. It views the proposed Project as being subject to this same requirement. To that end, the City hereby requests that all transmission poles be removed and that all lines, both new and proposed, be placed underground.

Undergrounding is a grid-wide safety improvement. It serves a broader benefit that extends far beyond the City and Miami-Dade County; as it benefits all of FPL's customers by providing a hardened and secure supply of energy impervious to the elements – particularly tropical cyclone events that are common to South Florida. As such, any and all costs incurred to underground the Proposed Western Corridor should be borne exclusively by FPL.

"Corridor to Nowhere: Economic Impacts of FPL's Proposed Transmission Line on the US 1 Corridor," by University of Miami professor Richard Weisskoff, Ph.D. (included as Attachment A), includes an extensive summary of previous research on the impact of transmission lines on nearby property values. Survey studies done by realtors and regression studies done by academic economists agree that property values decline in the range of 10-13%, on average, within sight of transmission lines. By extension, undergrounding the Western Corridor should help property owners within Doral and other impacted localities to recover approximately 10-13% of the value that was lost when the transmission lines were built. This has a corresponding impact on the tax base of the localities and taxing districts themselves.

2. If and only if undergrounding proves not to be feasible, at such time as the engineering design of Project is commenced, FPL will inspect the adjacent existing line(s) within the same ROW to determine if the replacement of all wood and concrete trestles with monopoles should be undertaken within the same timeframe as the construction of the new certified transmission line and provide the City with a copy of the inspection report. In the event that FPL elects not to replace all wood and concrete trestles with monopole the City may petition the assigned Administrative Law Judge to review and reverse FPL's decision. In addition, the City hereby requests that FPL utilize overlay mapping to identify the location and spacing of new and replacement poles and lines in relation to existing ones. FPL shall indicate the number of existing poles versus new poles in quantitative form. FPL shall also confirm that the number of poles installed will not exceed the number of existing poles presently in place.

Supporting Regulation(s): Section 337.403, F.S.; 403.526(2)(b)3, F.S.; 403.522(18), F.S.; 403.526(2)(a)5, F.S.; Rule 14-46, F.A.C.; City of Doral Land Development Code, Chapter XI.

B. **Location within ROW**

1. FPL shall locate the transmission line ROW to the extent feasible outside existing public r-o-w for those portions of the corridor that include such existing public r-o-w. A post-certification submittal of FPL to the City shall include a final design plan including pole locations throughout the entire route and additional details as to locations and specific route segments as requested by the City Council to enable the City to review and provide comment on maximizing to the extent practicable the location of the poles outside of existing and proposed public r-o-w within the City. If FPL elects to place the transmission line within existing or proposed public r-o-w, FPL shall be responsible for the costs to relocate any transmission line poles located within any existing City public ROW to the extent required by Section 337.403, F.S., and Rule 14-46, F.A.C.

2. To the extent feasible FPL shall locate the transmission line ROW so as to avoid the taking of homes.

Supporting Regulation(s): Section 337.403, F.S.; 403.526(2)(b)3, F.S.; 403.522(18), F.S.; 403.526(2)(a)5; F.S.; Rule 14-46, F.A.C.; City of Doral Comprehensive Plan: Policies 1.1.4, 1.1.20, 1.3.3, 2.1.6, 2.4.7, 6.1.4, 6.1.6, and 9.2.8, and Objectives 5.11, 6.2, 6.3, 6.4; Doral Land Development Code, Chapter VII; City of Doral Green Master Plan: Guiding Green Principles; City of Doral Parks and Recreation System Master Plan: Nine Guiding Principles; City of Doral Bicycle Master Plan.

C. **Buffering and Landscaping**

1. If necessary, FPL shall ensure the compatibility of any new buildings, accessory structures and appurtenances within neighborhoods. This shall be achieved through careful screening and buffering, as the City's Land Development Code provides that all newly-developed and redeveloped above-ground utility appurtenances shall be screened. Materials and earth-tone colors for screening shall be compatible with the natural setting and surrounding structures. Chain link fencing alone is not considered to be a screening mechanism.

2. Community aesthetics are valued highly by Doral residents, and Doral's tree canopy is of critical importance. Inasmuch as the Project may lead either to the loss of tree canopy or disfiguring "vegetation management" practices, as a condition of certification FPL shall provide a plan for maximum tree retention and tree replacement in accordance with the applicable provisions of the City Code, which include

    - The identification of all trees within the proposed corridor through

the City;

- Their type, size and location; and
- A mitigation and screening program that:

  i. gives preference to relocating trees, and, only when relocation is not feasible, to replacing trees on at least a one-to-one basis;
  ii. transmission poles will be installed to avoid the removal of any large or existing specimen trees whenever possible (defined as trees having a minimum 18-inch diameter trunk at breast height measured 4.5 feet above grade);
  iii. provides for the installation of large shade trees measuring a minimum height of 15 feet and planted at no greater than 30 feet on center to help screen views of the transmission lines and poles.

Supporting Regulation(s): City of Doral Comprehensive Plan: Policies 1.1.20 and 3.1.14; City of Doral Land Development Code, Chapter VII.

II. **Electromagnetic Fields**

A. **Compatibility with Adjacent Neighborhoods**

The City is concerned with the compatibility of uses and the impacts of the proposed transmission corridor on its adjacent neighborhoods, specifically striving to facilitate the protection of the character of the surrounding residential neighborhoods. The City is concerned about potential conflicts with existing and proposed homes within the corridor. The City is also concerned about where potential line location could limit future development. To the extent such information is maintained by FPL in the normal course of business, or otherwise readily available, and in order to ensure both the safety and peace of mind of the City's residents the City requests that FPL show the limits of any EMFs (electromagnetic fields) to be generated by the transmission corridor, when adjacent to residential uses.

The Project shall comply with the applicable electromagnetic field standards set forth in Chapter 62.814, F.A.C. The electromagnetic fields associated with any configuration developed during the final design of the Project must be provided to the City and to DEP at least 90 days prior to the start of construction, or such a shorter time period to which the DEP Siting Coordination Office agrees, as required by Rule 62-814.520(3), F.A.C.

Supporting Regulation(s): Section 403.523(10), F.S. (2006); Chapter 62-814.520(3), F.A.C.; City of Doral Comprehensive Plan: Policy 1.1.20, 1.3.3, and 1.4.4.

B. **Public Safety and Appropriate Design Standards**

The proposed route for the transmission lines is in relatively close proximity to the City's police department and operations, which provide vital public safety functions. It is imperative that the City's emergency operations never be compromised or interrupted. In the event of interference or interruption, the City will verify the cause. If FPL equipment/facilities are determined to be responsible for the interference or interruption, FPL shall bear all costs incurred by the City in rendering such determinations and shall cover any and all costs associated with restoring the transmission path. This may include the construction of additional radio infrastructure to augment coverage in the blocked area, according to the City's specifications.

FPL will design the proposed poles and transmission line(s) to meet or exceed the following safety and design standards, including but not limited to:

1. National Electrical Safety Code (NESC), adopted by the Florida Public Service Commission (see Section 366.04, Fla. Stat., and Rule 25-6.0345(1), Fla. Admin. Code);

2. Occupational Safety and Health Administration (OSHA) rules providing requirements for safe minimum approach distances;

3. American Society of Civil Engineers (ASCE) Manual 74, Guidelines for Electrical Transmission Line Structural Loading, and Standard 48-05, Design of Steel Transmission Pole Structures;

4. FAA guidelines involving requirements in the vicinity of airports (if applicable);

5. FDOT Utility Accommodation Manual;

6. Chapter 62-814, F.A.C. (FDEP rule regarding electric and magnetic fields);

7. National Electrical Reliability Corporation (NERC) standard FAC-003-1, and

8. American National Standards Institute (ANSI) standards A300 (Part I) - 2001 and Z133.1- 2000.

Supporting Regulation(s): City of Doral Comprehensive Plan: Policies 1.1.20, 1.3.3, and 1.4.4.

III. **Eminent Domain**

In the event that the completion of the corridor for the proposed transmission line requires that FPL acquire property and/or property rights through the use of the power of eminent domain, FPL shall strictly comply with Chapters 361, 73 and 74, F.S. and pay full compensation for any property and/or property rights it must acquire through eminent domain.

Supporting Regulation(s): Chapters 361, 73 and 74, F.S.

IV. **Transportation and Mobility-Related Concerns**

A. **ROW Management**

Once construction is completed, construction debris, if any, will be removed, and FPL will employ various methods to restore the ROW. These methods will be specific to each location. Once removed, FPL will replant lower-growing vegetation identified in consultation with the City. FPL shall conduct a field meeting with the City's Public Works and Planning & Zoning Departments to determine the location of significant vegetation within the proposed route and supplemental vegetation in compliance with City regulations. Every effort must be made to retain native vegetation. Such meeting shall be conducted prior to the submittal of construction plans. All vegetation and supplemental vegetation identified must be accurately located and identified on such plans (see also, Section 1.C. herein).

Supporting Regulation(s): City of Doral Comprehensive Plan: Policies 1.1.20 and 3.1.14; City of Doral Land Development Code, Chapter VII.

B. Utilization of Road R-O-W Within City

In the construction of the transmission line on or crossing City, County or State Road r-o-w, FPL shall:

1. Comply with the requirements of the FDOT's Utility Accommodation Manual;

2. Detail the quality and placement of all utility installations by FPL within the proposed corridor on the post-certification submittals to the City to demonstrate compliance with all applicable requirements including, but not limited to FDOT's Plans Preparation Manual and FDOT's Utility Accommodation Manual (see also, FDOT's Revised Agency Report);

3. Place transmission line structures at crossings of roads in such a manner as to accommodate future road widening, to the extent practicable. If future widening of any road in the area of the transmission line is required, the cost of relocating the transmission line shall be borne by FPL to the extent required by Section 337.403, F.S., and Rule Chapter 14-46, F.A.C.

Supporting Regulation(s): FDOT's Plans Preparation Manual; FDOT Utility Accommodation Manual; Section 337.403, F.S., Chapter 14-46, F.A.C.; City of Doral Comprehensive Plan: Objective 1.3.; and policies and procedures of the City's Public Works Department.

C. **Traffic Management**

1. Traffic calming and traffic control coordination are important concerns. FPL must identify which public roadways are to be used for the transportation of the transmission poles, the type of carriers that will be utilized, and the times of day for the transport of said poles. In this way the City can plan for any traffic issues the deliveries may cause.

2. If FPL anticipates the closing of streets during the Project, it must coordinate with the City's Public Works Department and comply with the City's traffic management requirements prior to undertaking such action.

3. During the construction of the Project, all construction-related traffic going to construction sites is required to adhere to the City's Truck Route Plan. A truck may leave a designated truck route and drive on a City road that is otherwise restricted to truck traffic only if the truck cannot reach its destination without crossing another truck route.

4. FPL shall follow all City procedures for the coordination and mitigation of all traffic impacts during the construction stage and another period when traffic is impacted. In all instances, the final decision on traffic mitigation shall be by the City's Chief of Police in coordination with the Public Works Department and any other appropriate department.

Supporting Regulation(s): City of Doral Comprehensive Plan: Policy 2.3.3, Objective 2.4.; and policies and procedures of the City's Public Works Department.

D. **Access Roads and Drainage**

FPL as a post-certification submittal to the City shall submit detailed design plans showing all access roads and drainage plans after ROW surveys and final design plans are completed.

Supporting Regulation(s): Section 403.5317(2), F.S.; Rule 62.17.665, F.A.C.; City of Doral Comprehensive Plan: Policy 2.1.6, and Objectives 5.3 and 5.4.

E. **Future Signalized Intersections**

FPL shall design the Project to minimize any impacts on existing or planned state, county, or City intersection improvements by locating all proposed transmission line poles outside the configuration of existing or planned intersection improvements for which the necessary property interests have been acquired before commencement of construction of the project. FPL shall coordinate with the state, county and City the implementation of this condition of certification during the design of the Project.

Supporting Regulation(s): Section 403.5317(2), F.S.; Rule 62.17.665, F.A.C.; City of Doral Comprehensive Plan: Policy 2.1.6, and Objectives 5.3 and 5.4.

V. **Conservation**

A. **Potable Water**

The City derives its potable water supply from the Miami-Dade Water & Sewer Department. According to the Application, the Project proposes to derive a portion of its water supply from the same source as the City. However, the City agrees with Miami-Dade County's assertion that the Application fails to describe what impact, if any, the Project's use of potable water will have on the long-term water supply throughout Miami-Dade County; and that the Application lacks detailed analysis of the potential impacts the Project will have upon the aquifer from which the City's potable water supply is obtained.

To the extent that Miami-Dade County's Agency Report sets forth proposed conditions of certification directly pertaining to the protection of the City's potable water supply (as supplied through the Miami-Dade Water & Sewer Department), the City adopts them as if set forth fully herein.

Supporting Regulation(s): City of Doral Comprehensive Plan: Objective 1.5, and Policies 1.5.7 and 5.1.

B. **Wetland Protection**

Project impacts on any wetlands within the City's boundaries should be avoided. FPL shall prepare and provide an impact avoidance and minimization analysis demonstrating that any proposed Project impacts to wetlands cannot be avoided. In lieu thereof, FPL may substitute an appropriate wetland analysis, report, or study submitted to the Department of Environmental Protection, South Florida Water Management District, or Miami-Dade Department of Environmental Management.

All Project activities within wetlands shall be properly permitted and all impacts to wetlands shall be mitigated in accordance with all applicable federal, state, regional and local government requirements. To the extent the

Department of Environmental Protection, South Florida Water Management District, or Miami-Dade County Agency Reports set forth proposed conditions of certification directly pertaining to Project activities within wetlands, and mitigation of same, the City adopts them as if set forth fully herein.

Supporting Regulation(s): Section 403.526(2)(b)3, F.S.; 403.522(18), F.S.; 403.526(2)(a)5, F.S.; Rule 62.17.665, F.A.C.; Chapter 62-345, F.A.C.; City of Doral Comprehensive Plan, Objectives 1.5, 5.5 and 5.6, and Policy 1.5.7.

C. **Wildlife and Upland Habitat Protection**

Project impacts on endangered or threatened wildlife or fauna within the City's boundaries should be avoided. FPL shall prepare and provide an impact avoidance and minimization analysis demonstrating that any proposed Project impacts to endangered or threatened wildlife or fauna cannot be avoided. In lieu thereof, FPL may substitute an appropriate endangered or threatened wildlife or fauna analysis, report, or study submitted to the Department of Environmental Protection, South Florida Water Management District, or Miami-Dade Department of Environmental Management.

All Project activities impacting endangered or threatened wildlife or fauna shall be properly permitted and all impacts to endangered or threatened wildlife or fauna shall be mitigated in accordance with all applicable federal, state, regional and local government requirements. To the extent the Department of Environmental Protection, South Florida Water Management District, or Miami-Dade County Agency Reports set forth proposed conditions of certification directly pertaining to Project activities impacting endangered or threatened wildlife or fauna, and mitigation of same, the City adopts them as if set forth fully herein.

Supporting Regulation(s):Section 403.5113 (21), F.S. ; 403.526(2)(b)3, F.S.; 403.522(18), F.S.; 403.526(2)(a)5; F.S.; Rule 62-17.191, F.A.C.; Rule 62.17.665, F.A.C.; National Bald Eagle Management Guidelines (2007); City of Doral Comprehensive Plan, Policy 1.5.6, and Objectives 5.6 and 5.7.

D. **Archeological and Historical Resources**

Project impacts on any archeological or historical resources within the City's boundaries should be avoided. FPL shall prepare and provide an impact avoidance and minimization analysis demonstrating that any proposed Project impacts to archeological or historical resources cannot be avoided. In lieu thereof, FPL may substitute an appropriate archeological or historical resources analysis, report, or study submitted to the State of Florida Division of Historic Resources or Miami-Dade County's Historic Preservation Department

All Project activities impacting any archeological or historical resources shall be properly permitted and all impacts to any archeological or historical resources shall be mitigated in accordance with all applicable federal, state, regional and local government requirements. To the extent the Department of State or Miami-Dade County Agency Reports set forth proposed conditions of certification directly pertaining to Project impacts on any archeological or historical resources, and mitigation of same, the City adopts them as if set forth fully herein.

Supporting Regulation(s): City of Doral Comprehensive Plan, Policy 1.5.3 and Objective 5.10.

E. **Removal of Exotic/Nuisance Vegetation**

1. FPL shall remove all exotic vegetation from the ROW within the City's boundaries, and maintain it free of excessive or noxious weeds or exotic vegetation on a regular cycle basis. To the extent that FPL uses a suitable herbicide it shall take all precautions to not damage or destroy existing native (indigenous) vegetation.

Supporting Regulation(s): City of Doral Land Development Code, Chapter VII, and City Code.

VI. **Parks and Recreation**

A. **Development of a Bike Trail**

FPL's Application indicates its willingness to allow shared use of the proposed transmission line corridor with other users, such as parks and trails. FPL will coordinate with the City the design and development of a trail co-located along the Project site for the use of walkers, joggers, and bicyclists as part of the Project.

B. **Coordination with Other City Recreational Facilities**

The Project offers an opportunity to enhance existing recreational opportunities in the City by facilitating the linkage of the aforementioned trail with the City's parks. FPL will coordinate with the City the design and development of pathways connecting the trail to any parks located within a mile from the ROW.

Supporting Regulation(s): City of Doral Comprehensive Plan, Policies 2.1.6, 2.4.7, 6.1.4, and 6.1.6, and Objectives 2.4, 2.5, 6.2, and 6.3; City of Doral Green Master Plan; City of Doral Parks and Recreation System Master Plan; City of Doral Bicycle Master Plan.

VII. **Mitigation of Construction Impacts**

A. **Final Design and Document Submittal**

At least sixty (60) days prior to the commencement of construction of any portion of the transmission line, FPL shall provide the City with the following:

1. A construction timetable and narrative description of the proposed construction activity by phase;

2. Anticipated traffic generation and road closures by phase;

3. Identification of location of construction staging, and minimum land area required;

4. Location, description, and terms of any proposed easements, reservations or dedications, together with any necessary legal instruments

5. The distances of the proposed construction activity to the nearest existing homes, businesses, churches; parks and schools on the **final design plan** (emphasis added);

6. Flood zone delineations on the **final design plan** (emphasis added);

7. The location of any school or park sites within one-quarter mile of the transmission line location on the **final design plan** (emphasis added);

8. The location of the ROW in relation to adjoining development, and the existing land uses and zoning of adjoining properties on the **final design plan** (emphasis added);

9. The name, location, and width of existing or platted street public r-o-w within or contiguous to the ROW on the **final design plan** (emphasis added);

10. The location, size, and depth of sewers, water mains, and storm drains, and approximate location of power, and phone lines, within or contiguous to the ROW on the **final design plan** (emphasis added);

11. The location and size of easements for all above-ground utilities, within or contiguous to the ROW on the **final design plan** (emphasis added);

12. The location of fire hydrants within ½ mile of the ROW;

13. The limits of the ROW within the City on the **final design plan** (emphasis added).

Supporting Regulation(s): Section 403.526(2)(b)3, F.S.; 403.522(18), F.S.; 403.526(2)(a)5, F.S.; Rule 62.17.665, F.A.C.; City of Doral Comprehensive Plan, Policies 3.1.2 and 3.1.14.

B. **Erosion and Sediment Control Plan**

FPL shall submit an Erosion and Sediment Control Plan (ESCP) to the City for review and approval. The ESCP shall identify construction sequencing, Best Management Practices to minimize erosion and sedimentation and to manage the quality and quantity of stormwater runoff during and after construction and other practices employed to minimize fugitive particulate emissions during and after construction. In lieu thereof, FPL may substitute an appropriate ESCP submitted to the Department of Environmental Protection, South Florida Water Management District, or Miami-Dade Department of Environmental Management.

All Project activities creating erosion or sedimentation impacting stormwater runoff shall be properly permitted and all impacts shall be mitigated in accordance with all applicable federal, state, regional and local government requirements. To the extent the Department of Environmental Protection, South Florida Water Management District, or Miami-Dade County Agency Reports set forth proposed conditions of certification directly pertaining to Project activities creating erosion or sedimentation impacting stormwater runoff, and mitigation of same, the City adopts them as if set forth fully herein.

Supporting Regulation(s): Section 403.526(2)(b)3., F.S.; 403.522(18), F.S.; 403.526(2)(a)5, F.S.; Rule 62.17.665, F.A.C.; City of Doral Comprehensive Plan, Policy 1.5.7, and Objective 5.11.

C. **Traffic Coordination**

FPL shall provide the City the names of the public roadways that it plans to use for the transportation of the transmission poles and all other construction equipment and materials, the types of carriers, and weight loads, and the times of day for the transport of said transmission poles and construction equipment.

The area of the City through which the proposed transmission line corridor will pass is densely developed with apartments, homes and townhomes. FPL shall provide detailed information as to how it will mitigate the construction activity associated with the Project, particularly as it relates to immediately adjacent residential areas, churches, parks and schools.

D. **Noise Level and Hours of Operation**

The Project, as proposed, will be in close proximity to existing developed residential uses. FPL shall adequately address the public health and welfare of nearby residents through the strict observation of permitted hours of construction and permitted noise levels.

During the construction of the Project, FPL shall mitigate and minimize the noise impacts of construction by scheduling activities to be completed during daylight hours (7:30 am – 6 pm).

The Application states that some construction activities may require night-time operation. FPL shall coordinate closely with the Office of the City Manager and the Public Works Department any construction activities that may take place at night.

Supporting Regulation(s): City of Doral Comprehensive Plan, Policies 1.1.4, 2.3.3, and 3.2.1; City of Doral Land Development Code, Chapter XV.

E. **Construction Trailer**

A site plan and Temporary Use Permit forms and fee shall be submitted to the City's Public Works Department a minimum of 30 days prior to installation of any construction trailer. A description of the type of building shall be provided.

Supporting Regulation(s): Chapter 316, F.S.; City of Doral Comprehensive Plan, Policy 1.1.4.

VIII. **Public Information and Notification**

A. **Detailed Construction Schedule**

Transmission line construction may impact grant deadlines and scheduled roadway and other improvements. As a result, once it is available, FPL shall provide the Office of the City Manager with a detailed timetable for the construction sequencing within the City's boundaries.

B. **Ongoing Greenhouse Gas Mitigation Strategies**

FPL shall provide information about greenhouse gas mitigating strategies for contract fleets, heavy-duty vehicles, and off-road equipment (cranes, bulldozers, and other equipment), including what advanced technology or alternative fuel equipment will be used and any Transportation Demand Management strategies to reduce vehicle miles traveled during construction of the Project.

C. **Monitoring Reports**

Upon FPL's submission of the Project's final design plan to the City and other reviewing agencies, FPL shall begin providing monthly monitoring reports stating the status and condition of the project to the City until all construction activities within, or affecting, the City are completed. A final report indicating changes or deterioration of the roadway shall also be submitted. Any damages identified as the responsibility of FPL or any agents working for FPL shall be repaired within 90 days of filing the report at FPL's sole cost. A City r-o-w permit application shall be submitted to the City's Public Works Department before proceeding with any repairs.

D. **Public Meetings and Notices**

In order to keep the residents of the City informed of the status of the Project within the City's boundaries and to address the concerns of the residents, businesses, property owners, citizens, groups, and organizations affected by the construction of the Project, FPL shall agree to hold regular communicate with the City's residents throughout the Project, through mailings and neighborhood meetings. FPL shall coordinate with the Office of the City Manager to obtain updated homeowner associations' and civic groups' contact information to provide the residents and these organizations with periodic updates on the Project.

Supporting Regulation(s): City of Doral Comprehensive Plan, Policies 1.1.4 and 9.2.8.

IX. **Cost Recovery**

FPL shall assist the City in obtaining appropriate and equitable cost recovery from the Department of Environmental Protection for its staff time associated with plan reviews and inspections.

Supporting Regulation(s): Section 403.531(4), F.S.

April 30, 2011

Mr. Mike Halpin
Siting Administrator
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 48
Tallahassee, FL 32399-2400

Re: Site Certification Application
Proposed Western Corridor
Florida Power & Light – Turkey Point Units 6 and 7
DOAH Case No. 09-3575 ETP

Dear Mr. Halpin:

The City of Doral prides itself on being one of South Florida's most visionary and vibrant communities. *CNN Money* and *US News and World Report*, among others, have recently ranked it as one of the most desirable residential and commercial locations in the country. Not surprisingly, then, sustaining a high quality of life is the City's preeminent goal.

In accordance with Section 403.526, F.S., the City of Doral (the "City") has reviewed the above-referenced application for completeness certification with respect to Florida Power & Light Company's ("FPL") Site Certification Application for Turkey Point Units 6 & 7. As a result of its review, and pursuant to Section 403.526, F.S., the City has prepared this Final Agency Report relating to the certification of those transmission lines.

The City hereby recommends denial of FPL's proposed transmission line corridor as well as its subsequent construction as it relates to the territory of the City of Doral. Should FPL's request be approved, we urge that it be contingent upon the conditions set forth in this Report being addressed and/or met.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

Juan Carlos Bermudez
Mayor

Cc: Vice Mayor Michael DiPietro
Councilman Luigi Boria
Councilman Pete Cabrera
Councilwoman Ana Maria Rodriguez

Yvonne Soler-McKinley, City Manager
Nathan Kogon, Director of Planning & Zoning
John R. Herin, Jr., City Attorney
Jimmy Morales, City Attorney

STEARNS WEAVER MILLER WEISSLER ALHADEFF & SITTERSON, P.A.
Museum Tower ▪ 150 West Flagler Street ▪ Miami, FL 33130 ▪ 305-789-3200

Attachment A

Corridor to Nowhere: Economic Impacts of FPL's Proposed Transmission Line on the US 1 Corridor

By Richard Weisskoff, Ph.D.

Submitted to the City of South Miami

May 27, 2011

Draft 3.2

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Executive Summary

- FPL's proposed Eastern 230 kV Transmission Corridor, proposed to route power from two new nuclear power plants proposed for construction at Turkey Point, would occupy an economically critical segment of the US 1 corridor stretching from the Falls to Brickell that currently lacks such transmission lines. Since the mid 1990's, the US 1 Corridor north from Broward to St. Lucie County had become the cornerstone of the South Florida Region's strategy of compact growth, *"Eastward, Ho!"* and has been incorporated into the South Miami-Dade Watershed Study of 2007. These studies form the basis of the current anti-sprawl and compact growth policies of the South Florida Region. (Section 1).

- The introduction of high voltage transmission lines on 105 ft high, 4-foot diameter, concrete poles from the Falls to Brickell on US 1 inserts a major disamenity or blockage into this gateway to Miami and into its rapidly growing southern neighborhoods. Addition of aboveground transmission lines shatters the strategy of compact growth, changes the nature of the urban corridor, and will produce severe and deleterious economic effects. Projected economic consequences of FPL's proposed transmission lines on the existing and future economy of the US 1 corridor have not been included in the combined operating license application (COLA) for Turkey Point nuclear reactors 6 & 7. This report details the probable consequences on the existing economy.

- FPL's proposed US 1 transmission line corridor directly affects a minimum of 173,000 people or 7.2% of the county's residents (derived from the ZIP Code map, Figure 2.2 and Table 2.1). But seen as the gateway to the South Miami-Dade Watershed region and areas to the North including the City of Miami, Coral Gables, South Miami, Pinecrest, and Palmetto Bay, the area is a portal and corridor for almost a million people or 38% of the county's residents (Table 2.2).

- The value of the 4,091 parcels (buildings and land) within two blocks on both sides of the transmission line route was assessed at $4.03 billion in 2010, including FPL Corridor Option 1 at Brickell, 16th to 136 Street SW, and FPL's proposed corridor around Dadeland (Table 3.3).

- We examined the literature on effects of transmission line proximity on property values. Overall we found a high degree of concordance between surveys of real estate professionals and statistical analyses by academicians, with industry consultants consistently publishing lesser effects. Real estate professionals reported a 10.3% decline, academicians a 12.6% decline, and industry consultants a 2.7% decline. A detailed regression study of an area with an urban density most comparable to that found along US 1 revealed a 10% decline in value (Des Rossiers, 2002; Table 4.2).

- We have applied an array of loss rates: 5%, 10%, 20%, and 34% to reflect the range of findings from studies done in other regions. **Based on the literature, our best conservative estimate is to expect a minimum of 10% property loss from construction of transmission lines on US 1,** but losses as high as 20% could occur as this value was found in the higher income neighborhoods of Montreal in the study by Des Rossiers (2002). The 10% and 20% loss rates applied to the FPL transmission line corridor would create declines in property values of $400 and $800 million respectively.

- **At a 10% property loss rate, local municipalities would lose an aggregate of $9.3 million in property taxes annually** (Table 5.1). **Total revenue losses would be approximately $24.5 million annually.**

- **The 10% property value loss rate translates into a total job loss ranging from 4,382 to 8,040 jobs,** depending on the labor-intensity of the job sectors that are most affected. **The economic cost of the average expected job loss is $300 million per year.**

- We note two anecdotal cases of urban power lines in South Florida associated with economic loss and urban blight:

  1. A set of power lines occupy the portion of West 63rd St., North Miami Beach that fronts 6205 Laguna Path, a 4 story, $1.5 million townhouse, part of the Aqua project on Allison Island that was purchased in 2005 prior to construction, on the basis of the promoter's models and drawings. Once built, however, the owner realized that the spectacular living room view of the channel was marred by the powerlines and poles in the center stage. The owner has therefore kept the property off the market due to the severe penalty caused by the disamenity of visible aboveground power lines.

  2. The State Road 7 / US 441 corridor in Broward County has, since 2004, been designated as a growth corridor by the both County and the South Florida Regional Planning Council. However, the transmission lines along the route may have effectively turned investors away (Section 6).

- **Our best prediction of economic loss to municipalities along the proposed US 1 corridor is severe: approximately $400 million in property losses, $300 million a year in household income from job losses, and $25 million a year in losses to municipal revenue.**

- **We caution that the *path* proposed by FPL to transmit the energy needed for economic growth in the region will likely become both the assassin and graveyard of economic activity and growth, a *"corridor to nowhere"*.**

Economic Impacts of the FPL Transmission Lines in the US 1 Corridor

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Section 1. History of the Corridor: Between Ocean and Swamp

The growth of Miami in the past decades has been an alternating clash between "sprawl-and-spread" growth, on the one hand, and "compact-and-compressed" growth with higher densities, on the other. One would think that Miami, a city constrained between the ocean and the swamp, would have been forced to grow upward, not outward. Geography alone would dictate that compactness and density would win over sprawl.

The record shows otherwise: indeed, of Florida's counties on the lower East coast, Miami-Dade is already the most densely populated with 8.4 people per urban acre, more than Broward with 7.2 inhabitants per acre. (See Table 1.1, col. 3, lines 1-2.) But the average for the nine South Florida counties is half Miami-Dade's density or 4.8 people per urban acre.

More important than density is a measure of the historical "responsiveness" of urban land absorption as the population grows. Economists call this responsiveness "the elasticity of demand for urban land with respect to urban population growth" and we measure it in terms of the percentage change in land relative to the percent change in urban population for a given time period and county. We computed the elasticities for a number of counties using two comparable land use studies done in 1988 and 1995 (Table 1.1, col. 4). The value for Miami-Dade is 0.910, or almost unity, which means that historically, a 10% increase in urban population has been associated with a 9.1% increase in urban land occupancy. Note that the elasticity value for Miami-Dade is the highest of all the counties in Table 1.1. Indeed, only the values for St. Martin (0.76) and for the lower West coast counties (0.88) approach Miami-Dade's "sprawl tendency."

This sprawl tendency means simply that Miami-Dade incorporated 44.5 thousand new urban acres from 1995 to 2010 to accommodate its growing population (Table 1.1, col. 9). This kind of land-intensive growth expresses itself in the periodic wars to push the Urban Development Boundary westward and to fill in ecologically precarious lands, reduce parklands, and build on any kind of open space. Palm Beach County took 44.6 thousand acres, and that, with a lower elasticity (0.55) but a higher rate of population growth (33% vs. 20% for Miami-Dade). But on Florida's lower West coast, the

population of the four sprawl-setting counties grew by 108% (Table 1.1, col. 7) and transformed 284 thousand acres into urban land.

Clearly, with these historical parameters, the continued growth of the cities in their traditional manner is unsustainable. If the historical tendencies are not checked, the future of the Everglades is doomed as the cities seek more and more of the marshy land to fill in and build upon.

In the southern suburbs of Miami, however, developers had learned early to make peace with precarious coastal lowlands due to the high water table, frequent floods, the exuberance of the hurricanes, and the multitude transversal creeks and canals, simply in order to capitalize on the sheer beauty of the place. Dan Williams' South Dade Watershed Project (1995) offered a planner's visualization of the region, which could work neatly with another approach that could be realized in South Florida. The Governor's Commission for a Sustainable South Florida, which started to meet monthly in the mid-nineties, began to promote a more compact development by pushing *eastward*, not westward, in order to remove pressure on the agricultural lands and on the water collection areas of the Everglades. As the Everglades were to be "re-hydrated" and water levels raised, the adjacent cities would require great flood protection and better drainage. The built area would have to be kept back, intensified, filled in, and the economic impetus to sprawl – the reward for converting freshwater marshland into houses – would have to be kept in check (see SF Regional Planning Council 1996, and Burchell 1999).

At the same time, researchers were showing that the "sprawl-model" by which most of Florida had been developed was merely shifting the costs of infrastructure from the private developer (who took his profit up front) to the counties and municipalities who then had to tax the new residents to cover *their* new costs. Burchell computed the detailed costs of sprawl for New Jersey (2000), most major U.S. cities (2002), and the saving that South Florida could realize by compact development (2003). A special six-volume study was completed in 2002 on the retention of the agricultural land and those strategies and policies that would keep the South Dade farmer in business (Degner & Morgan, eds., 2002).

Miami-Dade County, together with the other agencies, sponsored a million dollar South Miami-Dade Watershed Study (2007) which today offers a clear plan which

comprehends and builds on these earlier visions. The drive to sprawl could be checked, the farm lands protected, and the Urban Development Boundary held, all by focusing development on the US 1 corridor which had several distinct advantages: a rapid transit system; an exclusive busway; the high coastal ridge to minimize flooding in view of future sea level rise; home to a variety of income groups and land uses.

A series of charettes propelled the ideas: the cities and towns would become focal points for development along the corridor: Coral Gables, South Miami, Kendall, Pinecrest, Palmetto Bay, Cutler Bay – and the small towns too – Leisure City, Naranja, Princeton, Goulds, Cutler Ridge, Perrine —and the endpoints, Florida City and Homestead. With commercial, residential, and industrial growth concentrated along the straight and naturally elevated US 1 corridor, the remaining agricultural lands and open spaces would be retained and the urban infrastructure consolidated. The Plan (2007) was widely publicized and the collaborating towns and cities along the route began laying the groundwork for new city-centers, higher densities, and more compact zoning.

Into this setting enter the FPL transmission lines. They clash, head-on, with two decades of work by the local communities and county planners. Along this very route are to be strung the three 230 KV lines with 80' to105' high concrete poles every 300 ft., held in place by guyed wires where needed. Possibly three or more "underbuilt" lines are to be strung lower down the poles. The poles themselves measure almost 4 feet in diameter, such that the hands of two grown men hugging the poles on opposite sides barely reach one another. The poles dwarf the neighboring buildings, hospital, shops and schools; they block the sidewalks if they are placed near the curb to suspend the lines over the roadway.

What are the economic impacts of running the lines from the Falls up US 1 to Brickell? What would the true cost be to the society which has already launched itself onto a risky but rational venture of compact growth along that very corridor?

General References for Chapter 1: Introduction to the Issues

Arranged Chronologically:

1. South Dade Watershed Project, 1995. Planning Document. Miami: Center for Urban and Community Design, University of Miami, and South Florida Water Management District.

2. South Florida Regional Planning Council, 1996. Eastward Ho! Revitalizing Southeast Florida's Urban Core. (Initiative of the Governor's Commission for a Sustainable South Florida). Hollywood. (pamphlet; also posted on sfrpc.com website).

3. Burchell, R.W., 1999. Eastward Ho! Development Futures: Paths to More Efficient Growth in Southeast Florida. Tallahassee, FL: Dept. of Community Affairs.

4. Burchell, R.W., 2000. The Costs and Benefits of Alternative Growth Patterns: The Impact Assessment of the New Jersey State Plan. New Brunswick, NJ: State University of New Jersey (Rutgers), Center for Urban Policy Research, Bloustein School of Planning and Public Policy,

5. Burchell, R.W. et al., 2002. Costs of Sprawl, 2000. Transit Cooperative Research Program, TCRP Report 74. Washington, D.C.: National Academy Press.

6. Degner, R.L. & Morgan, K.L., eds., 2002. Miami-Dade County Agricultural Land Retention Study (6 Vols.), FAMRC Industry Report 02-02, Gainesville, FL: University of Florida, Institute of Food and Agricultural Sciences.

7. Burchell, R.W., et al., 2003. Projected Development in the GEER (Greater Everglades Ecosystem Restoration) Region and Potential Resource Savings by Employing a Compact Development Growth Regime. New Brunswick, NJ: Rutgers University, Center for Urban Policy Research.

8. Weisskoff, R., 2005. Economics of Everglades Restoration: Missing Pieces in the Future of South Florida. Cheltenham, UK: Edward Elgar.

9. Miami-Dade County, 2007. South Miami-Dade Watershed Study and Plan: Planning for a sustainable, healthy environment and economy. Posted at: http://southmiamidadewatershed.net/

10. U.S. Environmental Protection Agency, Smart Growth Implementation Assistance Program, 2010. Growing for a Sustainable Future: Miami-Dade County Urban Development Boundary Assessment. http://www.miamidade.gov/PlanZone/Library/Miami-DadeFinalReport(EPA)12-17-10.pdf. Accessed May 1, 2011.

Section 2. Population in the FPL Corridor

How many people will be affected directly by FPL's proposed transmission line corridor on US 1?

We used three sources for deriving population figures:

1) ZIP Code zones along the route.
2) Miami-Dade Planning and Zoning Dept. Projections from the year 2000 onwards for minor statistical areas.
3) South Miami-Dade Watershed Study estimates and projections for the region.

The IMPLAN file for Miami-Dade County provides economic information on population and business activity for all 79 ZIP Codes of Miami-Dade County. We have selected the eight ZIP Codes through which FPL's proposed Eastern Corridor passes (see accompanying Map 2.1). The population of the "ZIP Code corridor" is almost 207,000 persons living on 49 square miles, making for a density of 4,218 people per square mile; Table 2.1, lines 2-4, col. 1). This population constitutes 8.6% of the County's total population, living on 2.5% of the land area, creating a density that is 3.4 times the countywide average (Table 2.1, col.3, lines 2-4).

Almost 160,000 people are employed in the corridor, or 11.1% of the County's total workforce. Total personal income is $12.6 billion, which is 14% of the county total. Household income averages $145,000, or 145% of the countywide average of $100,322 (Table 2.1, lines 7-8, cols. 1-3).

By extending the US1 corridor all the way to Homestead (Table 2.1, col. 4), we add more area and more families. The entire corridor encompasses 16% of the county's population, households, and workforce (Table 2.1, lines 2, 5, 6) and 21% of its total personal income. The overall population density of the entire corridor is lower than the FPL Eastern corridor on US 1, but is still 2.2 times the countywide average, and household income averages $127,000, which is 127% of the countywide average.

In summary, then, the ZIP Code corridor is the narrowest economic area around the FPL proposed Eastern corridor and encompasses 9% of the population, 11% of the jobs, and 14% of the county's personal income. Its density is 3.4 times higher than the county

average, and household incomes average 45% higher than the county average. It is the high-end corridor into Miami.

A statistical "cut" of the corridor, which is broader than the ZIP Code file, is provided by the Miami-Dade County "minor statistical areas" (Table 2.2.). According to this measure, the population of the FPL Corridor was 349,000 in 2000 or 15.5% of the county, projected to reach 402,000 by 2015. The addition of five more statistical areas for the "southern extended" corridor adds another 176,000 people, totaling 23% of the County's population in 2000 and projected to reach 38% of the County by 2025. (Table 2.2, line 9).

The broadest boundary around the FPL proposed Eastern corridor on US 1 is drawn by the South Miami-Dade Watershed Study (Table 2.2, line C), which views the entire region as a single unit of almost a million people or 38% of the County's population.

In summary, the ZIP Code file gives the narrowest number of people in the zone, or 207,000 or 8.6% of the county's population. The County's Planning and Zoning "Statistical Areas" draws a larger corridor boundary with 349,000 people or 15.5% of the county, and the Watershed Study comprehends an even larger area with about a million people or 38% of the county.

But in addition to the sheer number of people living in the corridor area, our concern now turns to the economic value likely to be affected by the addition of new above-ground transmission lines on the corridor in question.

Section 3. The Value of Corridor Property

We divided the FPL Corridor Route into 13 segments, from SW 16th to SW 136 St., plus Option 1 at Brickell and the "noose" around Dadeland. We examined a total of 4,091 properties on two blocks on both sides of the transmission line route. We noted their CLUC (land use codes), address, square footage, value of land, value of building, and total market value (see sample in Table 3.1).

The variety of land uses is broad. In the sample of properties shown in Table 3.1 which refer to SW 26-36 Streets, on both sides of US 1, we recorded 21 different land uses, including commercial, industrial, institutional, residential, and many vacant properties. These data could be valuable research tool for identifying potential areas for land use improvements in the corridor (see Table 3.2 for a summary of the Land Use Codes found in the sample properties).

We have found that the total market value for all land and buildings, two blocks on both sides of US 1 is $4,031,771,963 just over $4.03 billion (Table 3.3.)[1].

This estimate raises three further questions, only one of which will we attempt to answer in this report. The first and most important question is, "What is the impact of the transmission lines on the value of these properties and the economic activity they generate?"

The second question is not explored here, but is extremely important nonetheless. If the current value of local properties has already lost perhaps half of their value in the recent economic meltdown, then to what extent will the future (and presumably recovering) value be affected by FPL's proposed transmission lines on the US 1 corridor? This question assumes that the recovery continues, as FPL assumes, and which is the entire basis of the need for the new transmission lines in the first place (e.g., Statement of Need, approved by the Public Service Commission on 11 April 2008).

Third, what is the loss of investment in expansion and new construction that would be scheduled for the high-density corridor that now, with the transmission lines, might be deterred and seek other places if not other counties? What is the cost of returning to the

[1] The team of University of Miami graduate students participating in this project were: Vania Baker, Meisha Brisbane, Ali Bustamante, Sephanie Cazobon, Patricia Guia-Martini, Andrej Lampe, Carl Mbao, Meissa Meade, Martha Rodriguez, Mathieu Root, Sarah Slater and Lina Sokol. Edward Laird constructed a 40 ft. array of panels using aerial photographs of the entire proposed US 1 Corridor. Mr. Laird also created a full-size cardboard replica of the base segment of a typical 4 ft. diameter transmission line pole.

sprawling, non-compact growth pattern if high-rise residential and business construction shuns the transmission line corridor?

In the absence of published studies of the impact of transmission lines on property values in Florida, we shall turn now to a detailed review of the published literature and their findings.

Section 4. Literature review of the decline in property value adjacent to transmission lines.

Two types of studies have been applied to measure the economic impacts of transmission lines on property value: the questionnaire-survey and statistical regression analysis. The former asks questions of industry experts and buyers of property. The latter uses data of sales and detailed records of the characteristics of those properties.

One type of direct survey inquires as to the magnitude of the loss or gain due to transmission lines, and a second asks simply if is the properties experience a loss or gain of value. Among the responses to the questionnaires sent to appraisers, real estate professionals, and purchasers overwhelmingly cite transmission lines as a disamenity, that is, a downward influence on price. (Table 4.1, cols. 6-7). Only one survey found no effect (Table 4.1, line 6). The average loss for the 12 reporting cases was 10.3%.

Among the 11 surveys inquiring simply if there was a gain or loss due to transmission lines, (without estimating the magnitude of that loss or gain), an average of 57% of respondents reported a loss; in 3 studies, 46% of the respondents said "no loss, no gain," and 2 surveys, 10.5%, reported gains, usually due to larger parcel sizes or to the recreational amenities and low traffic associated with transmission line easements (Table 4.1, cols. 11-13, bottom line).

In the statistical regression analysis, the researchers use multivariate statistical techniques to measure the "contribution" of the transmission line to the value of the house. This variable itself may get redefined into other dimensions: distance from the transmission line, front or rear sighting, noise, plus the wide array normal variables, such as year of construction, rooms, lot size, and other amenities.

But these observations appear, and measurements can be "made", only when the houses are sold. What if the house cannot be sold, as may occur if the owner is unwilling or unable to take the market loss and chooses to hold on to his otherwise "devalued" property? In such cases, the "loss of value" is never realized, the measurement is never made, and the "observation" never appears in the data set. Moreover, the "loss" of housing or commercial construction foregone due to the transmission line is not recorded in these data. For this reason, empirical data sets may provide an overly optimistic estimate of actual property values adjacent to transmission lines.

Including all eighteen regression studies, the mean recorded loss attributable to transmission line proximity was 6.4% (Table 4.2, line 22, col. 7; Table 4.3). However, we consider the possibility of bias within these studies. For instance, studies published in peer-reviewed journals are universally considered more reliable than those published without peer review. Likewise, studies performed by industry consultants are likely to find outcomes favorable to industry because a consulting firm stands to be hired again if its results favor the industry's interest. We analyzed the literature for evidence of these two potential biases, journal type and author employment (Table 4.3).

We found that studies by industry consultants reported significantly lower mean (average) property devaluations from transmission line proximity than studies by academics, 2.7% vs. 12.6% ($p=0.004$, Table 4.3). For non-statisticians, the Fisherian significance value, "$p=0.004$" can be interpreted to mean that elves rolling dice would only obtain a difference in mean roll scores as extreme or more extreme than the difference in reported devaluation means no more than four times in a thousand. In other words, such an extreme difference between the author groups (industry consultant vs. academic) is extremely unlikely to have been obtained by chance alone, and thus likely has an underlying cause. We posit this cause to be financial conflict of interest experienced by industry consultants.

Examining the effect of journal type, we found that the non-peer-reviewed literature reported a lesser decline on average than the peer reviewed literature, 4.25% vs. 8.6%. While the difference is not statistically significant (t-test, 1-tailed, unequal variance, $t=1.38$, $p=0.09$), one data point falls more than three standard deviations beyond the mean, the accepted statistical standard for outlier exclusion; a study prepared by the University of Quebec for Hydro-Quebec found transmission line proximity associated with a 17% decline in property value. Omitting this statistical outlier from this analysis, the mean value decline in non-peer-reviewed literature is a 2.67% and the difference between peer-reviewed and non-peer-reviewed literature is statistically significant ($t=2.18$, $p=0.03$). Even within the peer-reviewed literature, industry consultants reported significantly lower devaluations than academics, 2.3% vs.13.3% ($t=2.99$, $p=0.01$).

Which group of studies is most accurate? The question is resolved by the corroboration of the academic regression studies by the real estate professional

questionnaire surveys. Surveys of real estate professionals reported an average 10.3% loss of property values due to transmission line proximity, a figure in concordance with the 12.6% average reported in the academic studies, and much higher than the 2.7% reported by industry consultants. We place confidence in the concordance between the realtor surveys and the academic regression studies.

Seeking studies most geographically and economically similar to US 1, we imagined the ideal study in which urban property values along a major thoroughfare were measured before and after the construction of a high-voltage transmission line. It hasn't been published yet. Most published studies analyzed corridors that pass through small towns between major cities, but the study by Des Rossiers (2002) examined the city of Brossard in the Greater Montreal Area (Table 4.2, line 7), a region directly comparable to the urban character of FPL's proposed US 1 corridor. That city of 69,000 is smaller than our corridor of 207,000 people (as measured by the ZIP Code areas, Table 2.1 above), but Brossard's density of 4,059 people per sq. mile is very similar to our corridor's density of 4,218 people per sq mile. Des Rossiers (2002) used a sample of 507 single-family houses sold between 1991 and 1996, but the high-voltage transmission line corridor was itself two miles long and 200 ft. wide, and not built alongside a major thoroughfare: their 315 kV lines were run on high pylons down the middle of its exclusive corridor, whereas US 1 would feature 230 kV lines situated along the roadway. Des Rossiers' study is outstanding in the number of variables tested (62), the numerous geographical and class divisions of the city, the number of models tested, and the forms of the equations fitted. In Brossard, Des Rossiers found transmission line proximity produced on average a 10% loss of residential property value and a maximum loss of 20% in certain locations. An earlier of another Quebec site (Table 4.2, line 7, Université du Quebec, 1982) found a maximum of 34% value loss.

The concordance between Des Rossier's study (10% loss), the realtor surveys (10.3% loss), and the academic regression studies (12.6% loss) give us confidence that **10% is a reliable and conservative figure for the property value loss within two blocks of FPL's US 1**. Below we apply a range of property loss rate projections to the property corridor: 5%, 10%, 20%, and 34%, then select 10% for our remaining calculations.

In our review of 42 studies, important questions arise, for example:

1) For how long does the disamenity last? One year? Ten years? Some studies found that prices "normalized" after 20 years.

2) Over what distance is the disamenity "effective"? One block? Two blocks? 200 meters? The literature shows that distance depends on the field of vision, the height of the towers, and intervening structures and foliage.

3) Some studies report no loss of sale price, but rather a longer time period to sell the property at the asking price. Such an economic effect fails to show up in the regression analysis but requires the conversion of the lost time into the price variable.

4) Literature shows that the *perception* of the disamenity is itself the "real" cause of lost value, so that, for example, developers of upscale restaurants, car dealerships, hospitals, and daycare centers are likely to avoid the transmission line corridor altogether.

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Section 5. Value of Property and Job Loss in Miami-Dade County

5.1 Loss in property values

In Section 3 above, we identified property valued $4.03 billion in the two-block corridor along the FPL's preferred route. At loss rates of 5%, 10%, 20%, and 34%, respectively, the corresponding losses in property values are $203 million, $403 million, $803 million, and $1.37 billion for the respective loss rates (Table 5.1, lines A.1-A.4.). The corresponding losses of property tax revenues (valued on the Miami-Dade County millage rate of 22.992) range from $4.6 to $31.5 million annually (Table 5.1, lines B.1-B.4.). **At the "best-estimate" loss rate of 10%, the projected property value loss from transmission lines on US 1 is $403 million, roughly twice FPL's upper estimate of $200 million required to underground these lines.**

5.1 Loss in municipal revenues

A property value loss of 10% translates to annual property tax losses of $9.3 million (Table 5.1, B). The losses in other municipal revenues are more difficult to model, but we can make an approximation. Ad-valorem taxes in South Miami constitute 38% of annual municipal revenues, so assuming the hit to property value affects other activities such as construction and retail by a proportional amount, we can assume **that total annual revenues lost would be $24.5 million** ($9.3 million / 0.34). Loss rates of 20% would produce annual ad-valorem tax loss of $18.6 million and total revenue losses of $49 million. **At a 10% value loss, the lost municipal revenues alone would exceed the cost of undergrounding in eight years, and at 20% value loss, municipal revenue losses would exceed the undergrounding costs in four years.**

5.2 Job Losses

How do property value losses affect the number of jobs in the economy? How does "dollar property loss" translate into "job loss"? Fortunately economists have developed two standard models for measuring economic impacts of different "events" or policy changes, IMPLAN (Impact Analysis for Planners) and REMI (Regional Economic Modeling, Inc.; see IMPLAN.com and REMI.com). Both are excellent analytic tools;

each gives a different dimension of the economy, and both must be used to obtain a complete projection of economic impacts. IMPLAN measures the impacts for a single time period. It assumes the full "loss" ripples through the economy all at once. It collapses or consolidates all the economic effects into a single "solution," even if the effects take years to work themselves out and occur at different points in time. IMPLAN deals primarily with the backward or production linkages, with the inter-industry connections, and also with the consumption effect of workers' spending as a result of an impact or policy change. These effects are specified as "direct, indirect, and induced" effects on jobs; their sum is the total job impact. IMPLAN gives us an "X-ray" of the economy. Alter one economic entity, such as land value, and IMPLAN will trace which other components are connected to it and quantitatively how much value flows from one economic entity to another. REMI (Regional Economic Modeling, Inc.) is analogous to a video MRI of the patient yesterday, today, tomorrow, and for the next 40 years. The REMI model measures the interactions between the interconnected economic components. This modeling system includes "blocks" that trace flows and relationships between output, capital and labor demand, population and labor supply, wages, prices, and profits, and market shares (see the sketch of the economic pieces in Figure 5.1). Both tools give the analyst significant insights into the impacts of a disamenity.

Once the real estate market "recognizes" the disamenity and prices react, say, by a decline of 10%, what is the next step? Do the homeowners and business owners see themselves as "poorer," and if so, how is that expressed? If prices and appraisals fall, then taxes will fall and government spending will fall. But the private citizen's reaction to losing 10% of the value of his house may vary widely. The aggregate loss in the Miami-Dade economy of $403 million, almost a half billion dollars when the lines are completed, spread across 4,000 property owners, may lead to different scenarios. How will individuals, families, and businesses express this loss? Will they cut spending across the board, invest less, or save more? Will they cut discretionary spending on restaurants, jewelry, and travel, or insist on cuts in social services, such as nursing care and education? The precise responses of different property owners to declining property values determines how the value losses resonate through the economy.

5.2a IMPLAN Job Loss

We use IMPLAN as a fast "X-ray" guide to these alternatives, designing alternative programs to evaluate the impact of different levels of value reductions (5%, 10%, 20%, and 34%) on different arrays of sectors (Table 5.2, lines A 1-6). **At 10% property devaluation,** the affected neighborhoods along the corridor **would experience from 4,382 to 8,040 jobs lost,** with the precise number depending on the economic sectors present and affected by spending reductions (Table 5.2). For instance, if just the real estate sector and government-spending take the full hit, then a total of 4,382 jobs will be lost at the 10% property loss level (Table 5.2, col. 2, line A). But if the cut in sector spending hits air travel, private colleges, and retailing (Table 5.2, line 2), then 5,170 jobs will be lost. The most service-intensive "basket" of cuts is our last scenario (Table 5.2, col. 2, line 6) which reduces $403 million in spending on private education, real estate, nursing care facilities, food and drinking places, and jewelry manufacturing. In this case, 8,040 jobs would be lost.

All the numbers above assume that the effects are compressed into a single year. We must now turn to REMI and play out similar scenarios with a more complex regional economic model and for a longer time span.

5.2b REMI Job Loss

The basic REMI model for Miami-Dade County gives results that are similar to the IMPLAN findings. At a 10% property loss, REMI finds the first year reduction in jobs of 3,790, compared to the IMPLAN loss of 4,382 jobs. (Table 5.3, line A). But REMI allows us to keep the disamenity in place for a number of years and watch as its "unattractiveness" disappears. The underlying assumption entered into REMI is that the disamenity causes an initial drop in value, then people gradually get used to the disamenity and business as usual returns. In a low quality economic area (e.g., industrial, used motor homes, fast food), the assumption of a disappearing disamenity may be founded. In upscale retail and residential areas, however, the desired development may simply move to a location lacking the disamenity, to be replaced by activities of lower economic value. In the former scenario (gradually returning value), the number of lost jobs declines gradually to 3,056 in five years (2015) and to 2,132 in ten years (2020). If

the disamenity lasts 30 years, then the impact is still a loss of 838 jobs by 2040. The length and depth of the trough (job loss) due to the disamenity is shown in Graph 5.1 for the 10% rate. Under the second scenario, if the jobs return at all they would be at lower pay grades.

The depth of the trough might also vary, as we discovered already from our IMPLAN experiments. For a five-year disamenity, if only the real estate sector is affected, then the REMI model finds that 2,586 jobs per year will be affected *for each year*, falling to 2,142 jobs per year in five years. (Table 5.3, line B1) If the business service sector takes the hit (line B2), then 7,536 jobs will be affected, falling to about 6,000 jobs in 5 years. If, however, nursing takes the hit, then 10,680 jobs per year will be lost, falling to 8,238 jobs by 2015 (line B3). If the disamenity lasts long and affects the service or health industries, then the impact on jobs could be quite severe.

5.3 Economic Effect of Job Loss

Let us calculate the economic cost of jobs lost from a 10% property value decline. We assume average income is $50,166, half the countywide family total income of $100,322. We assume the expected job loss number is the average value in Table 5.2, 5955 jobs. **The annual cost of the job loss is $298,738,530, approximately $300 million.**

Recognize that these loss figures do not include the effects of transmission lines on the recovery of property values and jobs lost in the recent economic hyper-recession. Nor do these loss figures include the cost in future development desired for the US 1 corridor. Nor do these loss figures include the extreme cost of infrastructure needed to service the urban sprawl that would result from failure to create density along this corridor. Actual costs to the region could be an order of magnitude higher than those projected in this study.

The potential gains of value to society from enhanced electrical transmission must be fairly offset by the economic losses from citing aboveground transmission lines on the US 1 corridor.

Section 6. Epilogue - Stories of the Special Case: a Corridor to Nowhere

The entire US 1 development strategy, a decade of collaborative planning and action on the part of local and county government, is jeopardized by FPL's transmission line project, and the anti-sprawl program of compact growth along the corridor is likewise threatened. As a prologue, we provide two cautionary case studies that will never be featured in the regression analysis literature.

In 2005 Howard Taft and Charles Gelman bought a 4-floor town house at 6205 Laguna Path, a part of the famous Aqua Project on Allison Island in North Miami Beach. They paid $1.4 million prior to construction on the basis of models and architectural renderings. Their corner lot was to have a corner window and a spectacular view of the bay channel. However, after it was built, the frontage was marred by a spectacular view of poles and power lines running up West 63rd Street. The owners replaced the corner picture window with opaque glass that lets in light but no images. To this day, the prices Taft and Gelman have been offered for the property, even by the current tenants, is far below the market value of comparable properties that lack power lines in front. The owners have been unwilling to sell at the "disamenity" price, thus the property will not appear among data on disamenity losses.

The second case is another transmission corridor that, perhaps, gives us a glimpse of what US 1 with transmission lines might come to look like. In Broward County, State Road 7 / US 441 had been targeted as a "future growth corridor" by the South Florida Regional Planning Council. About 17.5% of Broward's residents reside within a mile of the transmission lines. In 2004, the Urban Land Institute (ULI) identified five major development centers along the corridor and forecast growth of office space, retailing, hotels, and new residences in a study commissioned by the SR 7 / US 441 Collaborative. Yet the corridor never developed and remains a semi-moribund zone. Is it because of the landfill along part of the route? The casino? The remains of an old incinerator site? Or maybe it is the miles of high-voltage transmission wires that parallel and cross the route?

We find it ironic indeed that the very conveyance of the energy needed for economic growth can itself prevent the same growth. Siting a new transmission corridor though a developing urban region may create a graveyard monument to the economic potential it destroyed, a corridor to nowhere.

Table 1.1
Measures of Sprawl and South Florida Appetite for Land, 1995-2010

	1995			1988-1995	2010	1995-2010			
	Urban Pop. (thou.)	Urban Land (thou acres)	Density (People/ acre	Land-Pop. Elasticity	Urban Pop (thou.)	Pop. abs. chnge. (thou.)	% chge pop.	% chge land	new urban land (thou. ac.)
	1	2	3	4	5	6	7	8	9
A. Lower East Coast (LEC)									
1 **M-Dade**	**2,085**	**248**	**8.4**	**0.910**	**2,496**	**411**	**19.7**	**17.9**	**44.5**
2 Broward	1,438	199	7.2	0.532	1,748	310	21.6	11.5	22.8
3 Palm Beach	995	250	4.0	0.546	1,320	325	32.7	17.8	44.6
Sum (3 counties)	4,518	697	6.5	0.693	5,564	1,046	23.2	16.1	111.9
B. Upper East Coast (UEC)									
4 Martin	114	50	2.3	0.763	146	32	28.1	21.4	10.7
5 St. Lucie	173	73	2.4	0.137	278	105	60.7	8.3	6.1
Sum (2 counties)	287	123	2.3	0.286	424	137	47.7	13.7	16.8
C Lwr. E. Coast (5 counties)	**4,805**	**820**	**5.9**	**0.637**	**5,988**	**1,183**	**24.6**	**15.7**	**128.7**
D. Lower West Coast (LWC) (Collier, Glades, Lee, Hendry) Sum (4 counties)	620	300	2.1	0.879	1,289	669	107.9	94.8	284.4
E Sum: 9 counties	**5,425**	**1,120**	**4.8**	**1.080**	**7,277**	**1,852**	**34.1**	**36.9**	**413.1**

Sources and Methods:

col. 1: Population 1995 from BEBR, Fla. Statistical Abstract 2002, Table 1.20.

col.2: Urban land 1995 from SFWMD GIS Data, CD-ROM #1, "Land Use, National Wetlands Inventory", West Palm Beach, 1997.

col. 3: Computed col.1/col. 2.

col. 4: Elasticity from Weisskoff 2005, Econ of Everglades Restoration. Table 4.2, p. 87. See computations there.
Elasticity is defined as the % change in land divided by the % change in population.

col. 5: Population from BEBR, Table 1, http://www.bebr.ufl.edu/content/census-population-counts-county-and-city-florida-2000-2010-new

col.6 = col. 5 - col. 1.

col. 7 = (col. 5 - col. 1)/(col. 1)

col. 8 = col 4 * col. 7.

col. 9 = col. 8 * col. 2

Table 2.1 IMPLAN Socio-Economic Data of the FPL Corridor by Zip Codes Narrow and Extended, 2008 Data.

	FPL Corridor	M-D County	% FPL/ County col 1/col 2	Entire Corridor to Homestead	% Entire Corr/County col 4/col 2
	1	2	3	4	5
1 Number of Zip Codes*	8	79	10.1	14	17.7
2 Population	206,682	2,398,245	8.6	387,150	16.1
3 Area (sq.miles)	49	1,945	2.5	137	7.0
4 Density (pop/sq mi)	4,218	1,233	342.1	2,816	228.4
5 Employment	159,527	1,441,182	11.1	223,096	15.5
6 No. households	87,078	901,127	9.7	147,673	16.4
7 Total personal income (bill. $)	$12.649	$90.402	14.0	$18.754	20.7
8 Income per household $	$145,257	$100,322	144.8	$126,999	126.6
9 No. IMPLAN sectors**	222	384	57.8	245	63.8

Notes:
* Zip codes for FPL Corridor are: 33129, 30, 33, 43, 46, 56, 58, & 76.
Zip codes for the rest of the US1 Corridor include: 33157, 189, 170, 032, 033, & 030.

* *The IMPLAN model has potentially 440 producing sectors, but not all are found in any single area. The number of sectors in any given region indicates the number of inter-industry linkages operating in the region.

Source: IMPLAN zip-code data files for Miami-Dade County, 2008.

Table 2.2 Projecting Population Growth and Expansion in the Corridor: M-D P&Z Dept. and South Miami-Dade Watershed Study.

A. Miami Dade Planning & Zoning Minor Statistical Areas	**2000**	**2015**	**2025**	**Abs.Chge**	**% Change**
	1	2	3	4	5
1 FPL Corridor				**2000-2025**	**2000-2025**
5.2	55,893	79,106	92,559	36,666	65.6
5.3	120,126	128,766	131,814	11,688	9.7
5.5	80,111	88,586	96,165	16,054	20.0
5.6	32,431	35,188	36,720	4,289	13.2
5.7	25,346	28,104	30,131	4,785	18.9
5.8	35,040	42,501	48,629	13,589	38.8
2 Total: FPL Corridor	**348,947**	**402,251**	**436,018**	**87,071**	**25.0**
3 South Extension:					
7.1	41,575	76,248	99,332	57,757	138.9
7.2	39,327	58,490	73,199	33,872	86.1
7.3	32,367	43,205	50,854	18,487	57.1
7.4	48,364	104,187	146,118	97,754	202.1
7.5	14,636	36,024	49,979	35,343	241.5
4 Total: South Extension	**176,269**	**318,154**	**419,482**	**243,213**	**138.0**
5 Sum Entire Corridor	525,216	720,405	855,500	330,284	62.9
6 Total: Miami-Dade County	2,253,362	2,724,623	3,046,081	792,719	35.2
7 % FPL Corridor/ County	**15.5**	**14.8**	**14.3**	**11.0**	
8 % So. Extension only/County	**7.8**	**11.7**	**13.8**	**30.7**	
9 % Entire Corridor/County	**23.3**	**26.4**	**28.1**	**41.7**	
B Watershed Project Region	952,779	1,033,751	1,161,016	208,237	21.9
% of County:	**38.2%**	**37.9**	**38.1**		

Sources:

A. Miami-Dade County, Dept of Planning and Zoning, Research Section, Population Estimates and Projections, Feb. 2008.

B. South Miami-Dade Watershed Study, 2007, Table 2.1, p. 2.6.

Table 3.1

Sample Appraisal Valuation of "Power Line Properties", 26-36 St., Two blocks in, both sides of US1

	Folio No.	Cluc	Property Address	Adj Sq Footage	lot size	Land	Building	Market Value
1	01-4116-117-0010	47		0	5.17 Acres	1,466,380	0	1,466,380
2	01-4116-038-0010	34	2900 SW 28 LN	11,214	25,432 SQ FT	$1,525,920	$256,518	$1,782,438
3	01-4116-038-0020	81	2940 SW 28 LN	0	12,129 SQ FT	$727,740	0	$727,740
4	01-4116-038-0070	12	2950 SW 28 LN	2,175	6,250 SQ FT	$375,000	$99,823	$474,823
5	01-4116-076-0020	37	2990 SW 28 LN	81,533	29,185 SQ FT	$1,751,100	$3,041,190	$4,792,290
6	01-4116-037-0350	2	2902 SW 27 LN	1,916	10,167 SQ FT	$66,086	$119,062	$185,148
7	01-4116-037-0351	1	2966 SW 27 LN	1,015	6,696 SQ FT	$43,572	$58,575	$102,147
8	01-4116-037-0360	1	2978 SW 27 LN	1,797	8,122 SQ FT	$52,820	$112,473	$165,293
9	01-4116-037-0370	1	2990 SW 27 LN	1,074	8,432 SQ FT	$55,310	$63,204	$118,514
10	01-4116-035-0320	3	2796 SW 30 AVE	1,741	4,500 SQ FT	$40,162	$61,032	$101,194
11	01-4116-035-0330	3	3010 SW 27 LN	1,961	4,500 SQ FT	40,162	$64,864	$105,026
12	01-4116-035-0331	3	3020 SW 27 LN	1,918	4,500 SQ FT	$40,162	$63,253	$103,415
13	01-4116-035-0340	3	3036 SW 27 LN	3,394	9,000 SQ FT	$80,325	$139,482	$219,807
14	01-4116-035-0350	3	3040 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
15	01-4116-035-0360	3	3050 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
16	01-4116-035-0370	3	3060 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
17	01-4116-035-0380	3	3070 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
18	01-4116-035-0390	3	3074 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
19	01-4116-035-0400	3		1,834	4,500 SQ FT	$40,162	$64,293	$104,455
20	01-4116-035-0401	3	3090 SW 27 LN	1,304	3,375 SQ FT	$30,122	$46,732	$76,854
21	01-4116-035-0410	3	3094 SW 27 LN	1,293	3,137 SQ FT	$27,998	$46,347	$74,345
22	01-4116-035-0590	13	3001 SW 28 LN	6,934	10,620 SQ FT	584,100	$21,360	$605,460
23	01-4116-035-0580	81	3015 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
24	01-4116-035-0570	81	3025 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
25	01-4116-035-0560	81	3035 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
26	01-4116-035-0530	32	3029 SW 28 ST	3,660	6,750 SQ FT	$371,250	$1,000	$372,250
27	01-4116-035-0510	36	3051 SW 28 ST	3,380	4,500 SQ FT	$247,500	$56,519	$304,019
28	01-4116-035-0500	81	3055 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
29	01-4116-035-0490	81	3057 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
30	01-4116-035-0480	81	3061 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
31	01-4116-035-0470	81	3071 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
32	01-4116-035-0440	37	3075 SW 28 ST	3,850	6,750 SQ FT	$371,250	$90,960	$462,210
33	01-4116-035-0420	81	3085 SW 28 ST	0	5,963 SQ FT	$327,965	$0	$327,965
34	01-4116-035-0430	37	3099 SW 28 ST	5,339	3,038 SQ FT	$167,090	$165,911	$333,001
35	01-4116-038-0350	13	3010 SW 28 LN	6,550	12,300 SQ FT	$738,000	$401,627	$1,139,627
36	01-4116-038-0420	34	2801 SW 31 AVE	16,824	11,650 SQ FT	$699,000	$405,774	$1,104,774
37	01-4116-038-0260	11	3000 SW 28 LN	51,312	27,973 SQ FT	$1,678,380	$2,848,215	$4,526,595
38	01-4116-038-0270	41	3044 SW 28 LN	4,568	6,250 SQ FT	$375,000	$203,017	$578,017
39	01-4116-038-0330	37	3054 SW 28 LN	98,373	25,000 SQ FT	$1,500,000	$7,000,000	$8,500,000
40	01-4116-038-0340	37	2851 SW 31 AVE	82,863	26,809 SQ FT	$1,608,540	$5,491,460	$7,100,000
41	01-4116-036-0010	42	2805 SW 32 AVE	36,424	9.91 ACRES	$2,916,776	$504,399	$3,421,175
42	01-4116-017-0100	2	3201 SW 29 ST	2,360	7,494 SQ FT	$48,711	$153,510	$202,221
43	01-4116-017-0090	2	2890 SW 32 AVE	2,620	6465 SQ FT	$42,582	$170,892	$213,474
44	01-4116-017-0080	2	2880 SW 32 AVE	2,200	6,465 SQ FT	$42,582	$141,488	$184,070
45	01-4116-017-0130	2	2883 SW 32 CT	2,260	13,899 SQ FT	$90,107	$129,475	$219,582
46	01-4116-017-0120	2	2893 SW 32 CT	1,886	7,584 SQ FT	$49,597	$117,211	$166,808
47	01-4116-017-0300	1	2892 SW 32 CT	883	4,276 SQ FT	$27,879	$50,717	$78,596
48	01-4116-017-0310	1	3261 SW 29 ST	612	2,695 SQ FT	$17,518	$36,064	$53,582
49	01-4116-017-0290	2	2886 SW 32 CT	1,194	6,949 SQ FT	$45,053	$71,964	$117,017
50	01-4116-017-0281	1	2876 SW 32 CT	1,157	6,949 SQ FT	$45,053	$71,907	$116,960
51	01-4116-017-0280	1	2870 SW 32 CT	1,752	6,949 SQ FT	$45,053	$97,303	$142,356
52	01-4116-017-0350	1	2877 SW 33 AVE	1,378	6,949 SQ FT	$45,053	$82,531	$127,584
53	01-4116-017-0340	1	2887 SW 33 AVE	1,128	6,949 SQ FT	$45,053	$65,333	$110,386
54	01-4116-017-0330	2	3281 SW 29 ST	2,200	6,583 SQ FT	$42,957	$138,118	$181,075
55	01-4116-017-0320	2	3285 SW 29 ST	2,195	7,374 SQ FT	$47,931	$137,067	$184,998
56	01-4116-022-0150	2	3260 SW 29 ST	1,371	17,038 SQ FT	$71,148	$106,021	$177,169
57	01-4116-022-0140	41	3270 SW 29 ST	4,576	16,819 SQ FT	$109,324	$204,662	$313,986
58	01-4116-018-0440	1	2911 SW 33 CT	1,522	7,869 SQ FT	$51,148	$45,809	$96,957
59	01-4116-018-0430	2	2901 SW 33 CT	2,419	6,100 SQ FT	$39,820	$152,944	$192,764
60	01-4116-018-0420	2	2891 SW 33 CT	1,502	6,100 SQ FT	$39,820	$87,327	$127,147
61	01-4116-018-0410	1	2881 SW 33 CT	1,435	6,100 SQ FT	$39,820	$75,889	$115,709
62	01-4116-018-0400	81		0	9,150 SQ FT	$59,729	$0	$59,729
63	01-4116-018-0570	2	2920 SW 33 CT	2,906	10,557 SQ FT	$68,620	$177,678	$246,298
64	01-4116-018-0560	1	3351 SW 29 TER	1,182	7,540 SQ FT	$49,338	$68,230	$117,568
65	01-4116-018-0553	2	3363 SW 29 TER	1,746	6,250 SQ FT	$40,500	$114,982	$155,482
66	01-4116-018-0552	2	3369 SW 29 TER	1,892	7,622 SQ FT	$49,872	$119,275	$169,147
67	01-4116-018-0550	2	3375 SW 29 TER	1,431	3,582 SQ FT	$23,283	$87,873	$111,156
68	01-4116-018-0551	1	3373 SW 29 TER	1,150	5,434 SQ FT	$35,321	$69,840	$105,161
69	01-4116-018-0541	1	3377 SW 29 TER	2,390	7,075 SQ FT	$46,172	$154,826	$200,998
70	01-4116-018-0540	2	2935 SW 34 AVE	4,589	7,500 SQ FT	$49,150	$338,480	$387,630

71	01-4116-018-0530	1	2929 SW 34 AVE	1,426	7,500 SQ FT	$49,150	$80,212	$129,362
72	01-4116-018-0520	2	2927 SW 34 AVE	2,400	7,500 SQ FT	$49,150	$152,752	$201,902
73	01-4116-019-1390	1	2960 SW 34 AVE	1,182	6,795 SQ FT	$44,421	$68,052	$112,473
74	01-4116-019-1380	1	2950 SW 34 AVE	1,804	7,250 SQ FT	$47,593	$79,852	$127,445
75	01-4116-019-1372	2	2946 SW 34 AVE	3,339	7,250 SQ FT	$47,593	$204,667	$252,260
76	01-4116-019-1371	3	2940 SW 34 AVE	2,576	7,250 SQ FT	$47,593	$161,964	$209,557
77	01-4116-019-1430	2	2939 SW 35 AVE	2,774	7,250 SQ FT	47,593	$143,358	$190,951
78	01-4116-019-1440	2	2941 SW 35 AVE	1,378	7,250 SQ FT	$47,593	$86,963	$134,556
79	01-4116-019-1450	2	2951 SW 35 AVE	1,935	7,250 SQ FT	$47,593	$122,339	$169,932
80	01-4116-019-1460	2	2961 SW 35 AVE	2,013	7,250 SQ FT	$47,593	$124,520	$172,113
81	01-4116-019-1470	2	3441 SW 29 TER	2,241	10,572 SQ FT	$68,718	$141,039	$209,757
82	01-4116-019-1220	1	2980 SW 35 AVE	2,127	7,000 SQ FT	$45,540	$137,569	$183,109
83	01-4116-019-1230	13	2990 SW 35 AVE	6,201	7,000 SQ FT	$45,500	$488,000	$533,500
84	01-4116-019-1310	1	2965 SW 36 AVE	954	7,000 SQ FT	$45,540	$56,647	$102,187
85	01-4116-019-1320	2	2973 SW 36 AVE	2,201	7,000 SQ FT	$45,540	$137,246	$182,786
86	01-4116-019-1330	65	3555 SW 29 TER	0	14,756 SQ FT	$885,360	$18,525	$903,885
87	01-4121-002-1550	12	3621 S DIXIE HWY	4,119	13,489 SQ FT	$1,031,908	$10,000	$1,041,908
88	01-4121-002-1470	19	3501 S DIXIE HWY	1,997	12,091 SQ FT	$924,962	$1,000	$925,962
sum north side				**538,019**		**23,992,066**	**27,230,676**	**51,222,742**

South of US 1 — **Table 3.1 cont.**

	Folio No.	Cluc	Property Address	Adj Sq Footage	lot size	Land	Building	Market Value
1	01-4115-041-0580	11	2600 S DIXIE HW	14,098	24,180 SQ FT	$2,418,000	$764,855	$3,182,855
2	01-4115-041-0570	11	2610 S DIXIE HWY	1,956	5,580 SQ FT	$558,000	$71,754	$629,754
3	01-4115-041-0560	11	2698 S DIXIE HWY	1,196	8,370 SQ FT	$837,000	$74,436	$911,436
4	01-4115-041-0720	11	2795 SW 27 AVE	7,691	8,356 SQ FT	$752,040	$378,300	$1,130,340
5	01-4116-078-0010	26	2775 SW 28 TER	8,647	54,979 SQ FT	5,745,306	$576,239	$6,321,545
6	01-4116-078-0020	11	2710 S DIXIE HWY	4,928	29,228 SQ FT	$2,922,800	$518,948	$3,441,748
7	01-4116-078-0030	11	2720 S DIXIE HWY	18,962	63,190 SQ FT	$5,371,150	$1,251,523	$6,622,673
8	01-4116-028-0130	13	2900 SW 28 TER	46,958	25,593 SQ FT	$1,279,650	$4,362,953	$5,642,603
9	01-4116-028-0170	3	2950 S DIXIE HWY	64,769	52,320 SQ FT	$2,333,472	$2,805,771	$5,139,243
10	01-4116-007-0250	3	2890 VIRGINIA ST	60,229	46,073 SQ FT	$2,073,285	$1,926,715	$4,000,000
11	01-4116-007-0220	1	2923 SW 30 CT	993	7,532 SQ FT	$248,556	$24,537	$273,093
12	01-4116-001-0070	65	2906 VIRGINIA ST	0	6,407 SQ FT	$42,286	$12,513	$54,799
13	01-4116-001-0080	2	2914 VIRGINIA ST	2,997	8,680 SQ FT	$286,440	122,616	$409,056
14	01-4116-007-0110	3	3050 S DIXIE HWY	14,354	17,705 SQ FT	$672,790	$774,615	$1,447,405
15	01-4116-007-0090	1	2920 SW 30 CT	1,249	6,322 SQ FT	$208,626	$70,480	$279,106
16	01-4116-027-0150	40	2901 BRIDGEPORT AVE	8,517	13,797 SQ FT	$1,034,775	$749,130	$1,783,905
17	01-4116-027-0140	13	2911 BRIDGEPORT AVE	1,828	7,500 SQ FT	$375,000	$142,162	$517,162
18	01-4116-027-0130	1	2919 BRIDGEPORT AVE	853	6,750 SQ FT	$337,500	$100	$337,600
19	01-4116-027-0320	10	2925 BRIDGEPORT AVE	1,156	3,213 SQ FT	$0	$0	$177,720
20	01-4116-027-0310	1	2923 BRIDGEPORT AVE	1,156	2,676 SQ FT	$0	$0	$177,720
21	01-4116-027-0160	13	3100 S DIXIE HWY	16,831	23,680 SQ FT	$1,894,400	$1,175,290	$3,069,690
22	01-4116-027-0220	3	2942 BRIDGEPORT AVE	3,887	20,250 SQ FT	$534,600	$58,627	$593,227
23	01-4116-048-0010	11	2999 SW 32 AVE	106,807	8.23 ACRES	$17,931,450	$10,000	$17,941,450
24	01-4116-045-0010	11	2935 MCDONALD ST	2,053	11,458 SQ FT	$973,930	$203,132	$1,177,062
25	01-4116-042-0010	62	3198 S DIXIE HWY	1,846	11,761 SQ FT	$1,058,490	$121,397	$1,179,887
26	01-4116-022-0130	11	3200 S DIXIE HWY	4,183	29,250 SQ FT	$2,632,500	$445,053	$3,077,553
27	01-4116-022-0120	3	3220 W DIXIE HWY	3,155	6,390 SQ FT	319,500	$163,494	$482,994
28	01-4116-022-0110	13	3250 S DIXIE HWY	2,573	13,292 SQ FT	$797,520	$168,508	$966,028
29	01-4116-022-0071	3	3244 W TRADE AVE	3,619	7,500 SQ FT	300,000	$173,962	$473,962
30	01-4116-022-0040	3	3250 W TRADE AVE	14,633	28,000 SQ FT	$1,260,000	$665,904	$1,925,904
31	01-4116-022-0080	3	3270 W TRADE AVE	10,812	15,000 SQ FT	$600,000	$646,040	$1,246,040
32	01-4116-022-0090	3	3280 W TRADE AVE	4,136	7,500 SQ FT	$300,000	$178,627	$478,627
33	01-4116-049-0010	3	3300 S DIXIE HWY	45,059	32,126 SQ FT	$2,730,710	$758,660	$3,489,370
34	01-4116-022-0030	1	3265 BIRD AVE	2,004	13,000 SQ FT	$650,000	$13,353	$663,353
35	01-4116-061-0010	81	3335 BIRD AVE	0	7,841 SQ FT	$392,050	$0	$392,050
36	01-4116-003-0070	81	3355 BIRD AVE	0	4,050 SQ FT	$202,500	$0	$202,500
37	01-4116-047-0030	81	3375 BIRD AVE	0	6,710 SQ FT	$335,500	$0	$335,500
38	01-4116-047-0020	13	3350 S DIXIE HWY	9,088	17,897 SQ FT	$1,521,245	$584,834	$2,106,079
39	01-4116-047-0010	19	3400 S DIXIE HWY	5,040	32,735 SQ FT	$2,946,150	$377,777	$3,323,927
40	01-4116-046-0010	26	3490 S DIXIE HWY	2,912	14,331 SQ FT	$1,218,130	$170,943	$1,389,078
41	01-4121-001-0150	1	3000 ELIZABETH ST	1,052	5,896 SQ FT	$188,672	$28,404	$217,076
42	01-4121-001-0160	1	3420 BIRD AVE	1,543	6,600 SQ FT	$211,200	$44,954	$256,154
43	01-4121-001-0180	1	3011 NEW YORK ST	1,078	6,000 SQ FT	$192,000	$30,354	$222,354
44	01-4121-002-0250	11	3490 BIRD AVE	8,738	41,101 SQ FT	$2,109,284	$605,838	$2,715,122
45	01-4121-002-0560	98	3500 S DIXIE HWY	925	45,300 SQ FT	$4,303,500	$17,399	$4,320,899
Sum south side=				**514,511**	**0**	**73,100,007**	**21,270,197**	**94,725,649**

Source: Miami-Dade County, County Appraiser's Files on line, Accessed Oct-Dec., 2010
http://www.miamidade.gov/pa/property_search.asp

Table 3.2
Sample of County Land Use Codes (CLUC) found in Power Line Property from Table 3.1.

Commercial	0011	Retail Outlet
	0012	Repairs, Non-Automotive
	0013	Office Building
	0019	Automotive or Marine
	0026	Service Station - Automotive
Industrial/Warehouse	0032	Light mfg and food processing
	0034	Canneries , bottler
	0036	Heavy industry or lumber yard
	0037	Warehouse or Storage
Institutional	0040	Municipal
	0041	Educational, private
	0042	Club or hall, private
	0047	Dade County
	0098	Federal
Multi-Family	0003	Multi-family 3 or more units
Not used	0062	Railroad Assessment
	0065	Parkin//vacant lot enclosed
Single Family	0001	Residential, single family
	0002	Duplex
	0010	Townhouse
Vacant	0081	Vacant land

Source: Selected from Miami-Dade County Property Appraiser's Office, Web site, from CLUC that appear in our Table 3.1, Col. 2.

Table 3.3

Summary Table of Summed Appraisal Values by Segments, Brickell to 136 St, Both Sides of US 1.

West	# prties		streets	Adj Sq Ft	Land Value	Bldg Value	sum Market v
of US 1	18	opt 1	3rd Ave, 4th St to 15th Rd	122,023	12,978,780	13,441,935	26,420,715
	109	a	16-26	505,656	26,812,968	27,426,144	56,188,017
	88	b	26-36	538,019	23,992,066	27,230,676	51,222,742
	29	c	36-46	163,032	72,688,020	6,556,191	79,244,211
	40	d'	46-56	135,598	35,702,734	7,616,392	45,744,776
	142	d"	46-56	411,448	38,493,510	30,070,002	68,563,512
	21	e	57-66	1,162,416	50,195,938	70,231,925	194,332,949
	75	f	66-76	4,555,411	118,371,353	123,369,756	553,541,109
	134	g	78-88	1,066,884	78,259,882	49,461,447	127,721,329
	27	h	86-96	2,533,060	57,525,060	30,571,005	385,096,065
	301	i	96-106	1,455,400	66,649,510	50,881,298	145,889,438
	48	j	106-116	328,413	22,569,132	8,563,183	40,706,555
	49	k	116-126	104,445	10,975,862	5,621,235	16,597,097
	25	l	126-136	322,777	22,729,183	16,437,273	38,663,800
	1,088		total above	13,282,559	624,965,218	454,036,527	1,803,511,600
	1,106 h opt1			**13,404,582**	**637,943,998**	**467,478,462**	**1,829,932,315**

East	# prties		streets	Adj Sq Ft	Land Value	Bldg Value	sum Market v
of US 1	49	opt 1	3rd Ave, 4th St to 15th Rd	395,204	21,393,737	19,893,141	41,749,688
	118	a	16-26	468,389	48,206,038	31,960,019	80,166,057
	45	b	26-36	514,511	73,100,007	21,270,197	94,725,649
	89	c	36-46	352,192	57,219,860	18,174,221	75,394,081
	175	d	46-56	472,020	36,126,784	21,751,656	86,839,120
	14	d'	46-56	47,921	7,822,717	5,690,738	13,513,455
	259	e	57-66	1,425,739	100,688,124	76,432,895	229,896,429
	98	f	66-76	1,757,825	229,502,100	57,371,638	370,773,738
	122	g	78-88	1,878,164	299,507,454	91,947,705	391,455,159
	23	h	86-96	516,340	79,399,934	23,202,218	102,602,152
	196	i	96-106	660,124	81,568,397	34,767,012	137,459,739
	21	j	106-116	401,699	58,510,480	20,926,779	79,437,259
	33	k	116-126	551,775	89,149,900	28,881,863	121,535,388
	13	l	126-136	517,320	81,138,049	18,102,119	99,240,168
	1,206	l above		9,564,019	1,241,939,844	450,479,060	1,883,038,394
	1,255		**total- with opt1**	**9,959,223**	**1,263,333,581**	**470,372,201**	**1,924,788,082**

Total	# prties		Adj Sq Ft	Land Value	Bldg Value	sum Market v
Dadeland	1,730					276,551,566
West	1,106	total-with opt1	13,404,582	637,943,998	467,478,462	1,829,932,315
East	**1,255**	total-with opt1	**9,959,223**	**1,263,333,581**	**470,372,201**	**1,924,788,082**
SUM:	**4,091**					**4,031,271,963**

Source & Method: The power line route was traced on Miami-Dade County Appraiser's File, and all Properties were listed, as in Appendix Table 3.1. These were then summed and presented in this Table.

Table 4.1
Review of Survey Results: Power Line Effect on Property Prices

Study authors	Yr	Citati	Profession	Client		Survey Findings: % loss	neutral	aver.	Comments	% reporting: loss	eutral	gain	single aver	Geography	line feature #
1	2	3	4	5		6	7	8	9	10	11	12	13	14	15
1 Ball 1989	1989	9	Appraisers		less than	5			devel residential					Ariz	69-230
					more than	12		20.3	com., ind.from easemt						
						44			value in easemt area						
2 Jensen & Weber	1982	9	Appraisers	Utility		0-20		10						W.Central Minn	230-400
3 NJersey	1989	9	Appraisers	Utility		0-10		5						NJ	230
4 Van Court	1988	9	Appraisers	Pub Serv Co		3		3						Colo	230
5 Jensen	1980	9	Appraisers	Utility						10-20			15	W.Central Minn	230,315,500
6 Early & Early	1988	9	Appraisers	Utility			no effect	0						NC	230
7 Mitchell	1976	9	Perception	Academic					33 on line;94 nearby				63.5	S. Ontario	230
8 Boyer	1978	9	Perception	Academic						74-79			76.5	S. Ontario	230,500
9 Real Est Counselg Gr	1984	9	Perception	n.g.					Restate professionals:	86-90			88 lower price; hard to finance; sold slowly.	NY metr	345
									Purchasers:	26-46			36 affected value		
10 Market Trends	1988	9		Utility						53			53	Phoenix, AZ	var
11 Rhodeside	1988	9	Perception	Utility						27	57	16	27	Va., WashgtnDC	var
12 Ec Consulting NW	1990	9		Utility						50			50	W. Montana	500
13 Priestly	1990	9		Utility						65	30	5	65	No. Calif	115-230
14 Kung & Seagle	1992	11		Academic						28/87*			72 **if they had known".	Memphis, Tenn	
15 Delaney & Timmons	1992	10		Academic	US aver:	7.8-15.5		11.7						USA	
					SE US:	10.7									
16 Bond	1996	4				10			said 50% respondents					Australia	110
						5-10		10	said 46% respond.						
						10-15			said 31% respond.						
17 Jones, JC, Texas A&M	1999	4		Academic		7.6		7.6	w/i 200 yds.					St. Cloud, MN	
						4.1			by appraisers, sellers					St. Louis	
18 Devel Strategies	1995	8		RE consult										Calif.	
19 Gimmy	1994	8				18-53.8		35.9						Georgetown, TX	
20 Lower Colorado	1997	8				5-10		7.5	on all lands					Central Calif.	138
21 Pitts & Jackson	2007	3				0-5		3.5	if view		50		no effect		
						2-7			if adjacent						
22 Sims & Dent	2005	19				5-10		9	appraisers, agents						
						5-15			appraisers						
23 Rikon, Mich.	1996	8		Law journal:	Crisula Case:				"fear is as important as actual data." observ:						
											neu:	gain	loss		
24 Averages of all entries:						sum:		123.5		Sum:	137	21	622.5		
25						# cases:		12.0		# cases:	3	2	11		
26						Aver:		10.3		Aver:	45.7	10.5	56.6		
								7	8		11	12	13		

Notes:
* See citations at end of chapter.
n.g.= "not given"

Table 4.2
Review of Statistical (Regression Analysis) Studies of Power Line Effect on Property Prices

				All Studies % loss			Peer Review Only % loss			Non- peer Review % loss	Sponsor				
Study authors	Yr	Citation*	Client	close	distant	% Aver. loss	yes or no?	All	Acad	non-acad	all	Acad / Non-acad / Hybrid ?	where published?	profession	Geography	line feature
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	15	16
1 Colwell & Foley	79	15	Acad & utility	6.8	3.6	5.7	y	5.7		5.7		H	Appraisal Journal (prof. assoc)	Professor + broker for utility	Decatur, Ill	138
2 Colwell	90	16	Acad.			25.0	y	25.0	25.0			A	Jour of Real Est. Research (American RE Soc. ARES)	Professor	Ill. Resident	138
3 Kinnard & Mitchell	88	9	NY Power Auth.			0.0	n				0.0	H	Client report, Real Est. Consultg. Group of Ct.	Professor + Consultant	NYState	345
4 Kinnard	88	9	Utility co.			0.0	n				0.0	H	Client report, Real Est. Consultg. Group of Ct.	Professor / Consultant	Me.	345
5 Kinnard, Mitchell, Webb	89	9	NY Power Auth			0.0	n				0.0	H	Client report, Real Est. Consultg. Group of Ct.	Professor + Consultant	NYState	345
6 Pacific Consulting	91	9	Utility co.			5.0	n				5.0	N	client report for Calif. Edison	Consultant	CA	115/230
7 Un. Quebec	82	9	Acad.			17.0	n				17.0	A	client report for Hydro-Quebec	Professor	Quebec	735
8 Kinnard & Dickey	95	21	Acad & consultant			5.2	y	5.2		5.2		H	Real Estate Issues, jour of Counselor of R.Est.	Professor + Consultant	CA	
9 Hamilton & Carruthers	93	13	Acad			5.0	n				5.0	A	U. Br. Columbia Report (Academic, not peer reviewed)	Professors	Vancouver	n.g.
10 Ignelzi & Priestly	91	13		1-9		4.5	n				4.5	N	consultant, Pacific Consulting Services	Consultants	Albany, CA	
11 Kinnard various	67	13		3											Hartford, CT	n.g
	84			2		1.8	n				1.8	N	Client report	Client reports	Orange City, NY	
	96			0.3											"	
	97			2-4.0											"	
12 Hamilton & Schwan	95	13	Acad.			6.3	y	6.3	6.3			A	Land Economics	acad funded	Vancover sub	230 500
13 Cowgan & Bottemiller	96	8	Acad.	0-10		5.0	n				5.0	N	Right of Way Magazine, Trade journal for Int. Right of Way Assoc.	consultant; client; Bonneville Power Administration	Portland, Oreg	
14 Des Rosiers	02	17	Acad.	5-22		10.0	y	10.0	10.0			A	J. R. Est. Res. (ARES)	acad funded	Montreal	
15 Wolverton & Bottemiller	03	18	n.a.			0.0	y	0.0		0.0		N	Appraisal J.	co-auth is chief appraiser for Bonneville Pwr. Ad; utility financed	Portland, Vanc, Seattle	
16 Chalmers & Voorvaart	09	22	Utility co.			0.0	y	0.0		0.0		N	Appraisal J.	sponsored N.England Util; mostly rural,	cur., sub Ct MA	
17 Jackson & Pitts	10	14		2-9		-	y			-			J. R. Est. Lit.	no new data	Lit review	
18 Callanan & Hargreaves	95	13	meters: 10	27.3										Professors	Wellington, NZ	110
			30	9.1		13.9	y	13.9	13.9			A				
			50	5.4									J. Prply. Res.(cites NZealand Valuers Journal, Wellington)			
19 Sims & Dent	05	19	semi-detach:	13.6										Professors	Scotland	275
			detach:	9.7		11.3	y	11.3	11.3			A	Urban Studies	(Scotland cases)		
			rear view:	7.1												
			front view:	14.4		All:		All Peer:	Peer Acad:	Peer Non-acad:	All non-peer		Sum: Non-acad peer + non-peer	All non-peer w/o Quebec	Non-peer (w/o Quebec) + non-academic	
20				sum:		115.7		77.4	66.5	10.9	38.3		49.2 (col 11 & col 12)	21.3 (col 12)	32.2 (col 11 & col 12)	
21				# cases:		18		9	5	4	9		13	8	12	
22				Average:		6.4		8.6	13.3	2.7	4.3		3.8	2.7	2.7	
Notes:						7		9	10	11	12	13	14	15	16	

Table 4.3 - Statistical analysis of literature

Study type	Author	Journal type	n	percent value loss Mean	SD
Survey	Realtor	all	12	10.29%	9.57%
Regression	All	all	18	6.43%	6.81%
Regression	All	peer-review	9	8.60%	7.74%
Regression	All	non-peer-review	9	4.26%	5.30%
Regression	Academic	all	7	12.64%	6.90%
Regression	Industry	all	6	2.72%	2.42%
Regression	Hybrid	all	5	2.18%	2.99%
Regression	Academic	peer-review	5	13.30%	7.09%
Regression	Industry	peer-review	4	2.73%	3.15%

Statistic	Author	Journal Type	t	p
T-test	Academic vs. Industry	Peer-reviewed	2.99	0.013
T-test	Academic vs. Industry	All	3.59	0.004
T-test	All	Peer-reviewed vs. non-peer-reviewed	1.39	0.093
T-test	All	Peer-reviewed vs. non-peer-reviewed (removed outlier)	2.18	0.027

Table 5.1
Summary: Property Adjacent to the Power Lines

Total	# properties	Adj Sq Ft	Land Value $	Bldg Value $	Sum Market Value $
1	2	3	4	5	6
1 Dadeland	1,730				276,551,566
2 West (w/ opt 1)	1,106	13,404,582	637,943,998	467,478,462	1,829,932,315
3 East (w/opt 1)	1,255	9,959,223	1,263,333,581	470,372,201	1,924,788,082
4 Total:	**4,091**				**4,031,271,963**

		% loss rate:	**$ value lost:**
A.	**Loss in Property Value**		
	1. Lower boundary, all studies	0.05	201,563,598
	2. Aver. Montreal urban, 2002	**0.10**	**403,127,196**
	3. Upper boundary, 2002	0.20	806,254,393
	4. Un. Quebec (1982)	0.34	$1,370,632,467
B.	**Loss in Property Taxes per year***		
	1. Lower boundary, all studies	0.05	4,634,370
	2. Aver. Montreal urban, 2002	**0.10**	**9,268,741**
	3. Upper boundary, 2002	0.20	18,537,482
	4. Un. Quebec (1982)	0.34	$31,513,719
	(*Miami-Dade millage rate: 22.9921)		

Source: Sum of individual property records, Miami-Dade County Property Appraiser Office, on line.

Table 5.2

Employment Impacts of 5, 10, 20, and 34% Loss of Property Value: IMPLAN Model
Various Sectors, Single Year Only

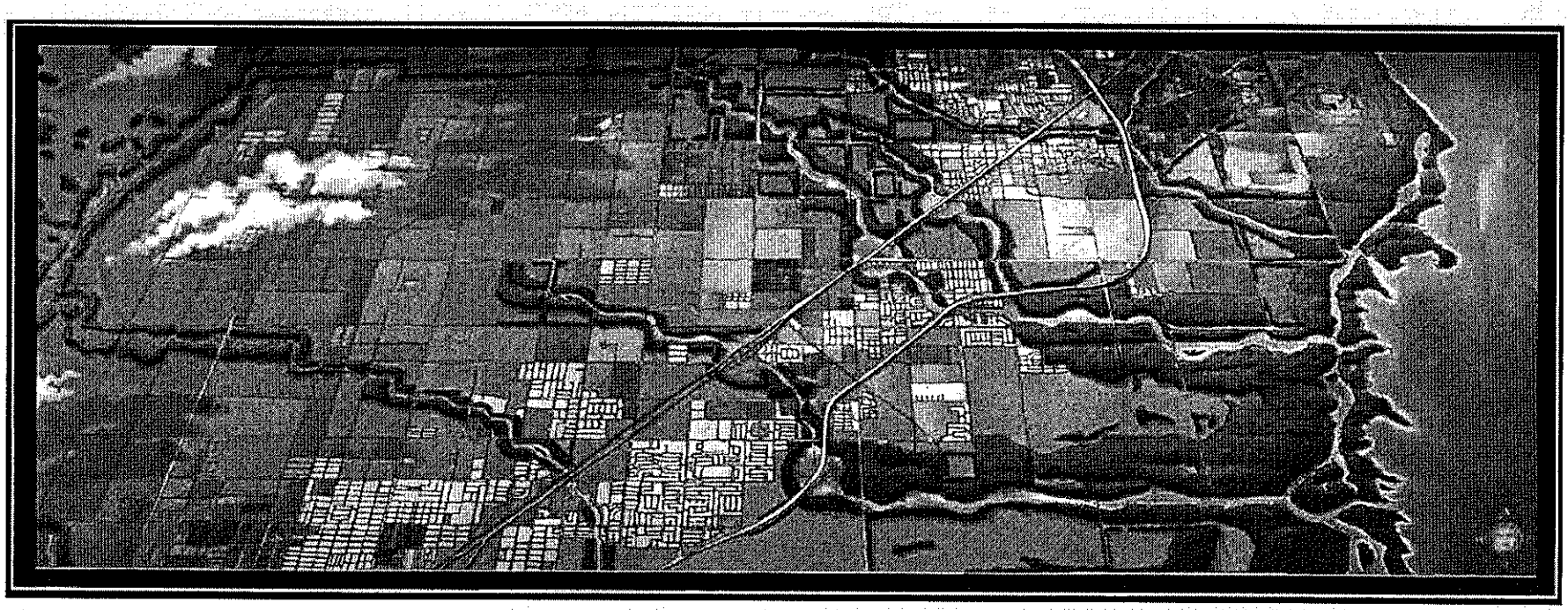
	Model	Total Jobs Lost: Direct., Indirect and Induced at 5% loss	at 10% :	at 20%	at 34%	IMPLAN Sector Nos.
		1	2	3	4	5
A	**Basic loss of real estate value & government spending**	2,191	**4,382**	8,764	14,899	**360, 437**
1	Money, real estate, hospital, drink & dining, retail, pharmaceutical mfg.	2,349	**4,698**	9,396	15,973	397, 413,354,360,133
2	**real estate, air travel, private colleges, retailing**	2,585	**5,170**	10,340	17,578	392, 329, 360, 332, 359
3	Boat building, performg arts, scientific research, biol prep, travel agencies	2,979	**5,958**	11,916	20,257	402, 376, 135, 291, 383
4	Museums, family care services, private hospitals, retail, home care, office physicians	3,392	**6,784**	13,568	23,066	406, 400, 397, 330, 32/25, 395,394
5	Fitness centers, food, drinking, surgical instruments, wholesale, printing	3,327	**6,654**	13,308	22,624	407, 413, 305, 319, 113
6	**Private education, real estate, nursingg facilities, food services, jewelry manufacturing**	4,020	**8,040**	16,080	27,336	391, 413, 398, 310, 360
	total	20,843	**41,686**	83,372	141,732	

Source: Computations using IMPLAN Model with Miami-Dade County Data

Table 5.3 REMI Model: Job Loss over Time: Different Scenarios and Time Periods

Model or Sector of Impact:	% value loss	Jobs Lost per Year								
		No. yrs:	1	...	5	...	10	...	20	...	30
		Year:	2011	...	2015	...	2020	...	2030	...	2040
A General Reduction	5%		1,895		1,528	...	1,066	...	639	...	419
	10%		**3,790**		**3,056**		**2,132**		**1,278**		**838**
	20%		7,580		6,112		4,264		2,556		1,676
	34%		12,886		10,390		7,249		4,345		2,849
B Sector Impacts on Economy:											
1 Real Estate, only	5%		1,293	...	1,071						
	10%		**2,586**		**2,142**						
	20%		5,172		4,284						
	34%		8,792		7,283						
2 Business Services, only	5%		3,768	...	2,954						
	10%		**7,536**		**5,908**						
	20%		15,072		11,816						
	34%		25,622		20,087						
3 Nursing, only	5%		5,340	...	4,119						
	10%		**10,680**		**8,238**						
	20%		21,360		16,476						
	34%		36,312		28,009						

Source: REMI Model for Miami-Dade County, with 2008 Data Base, run in Dec. 2010.
See accompanying graphs

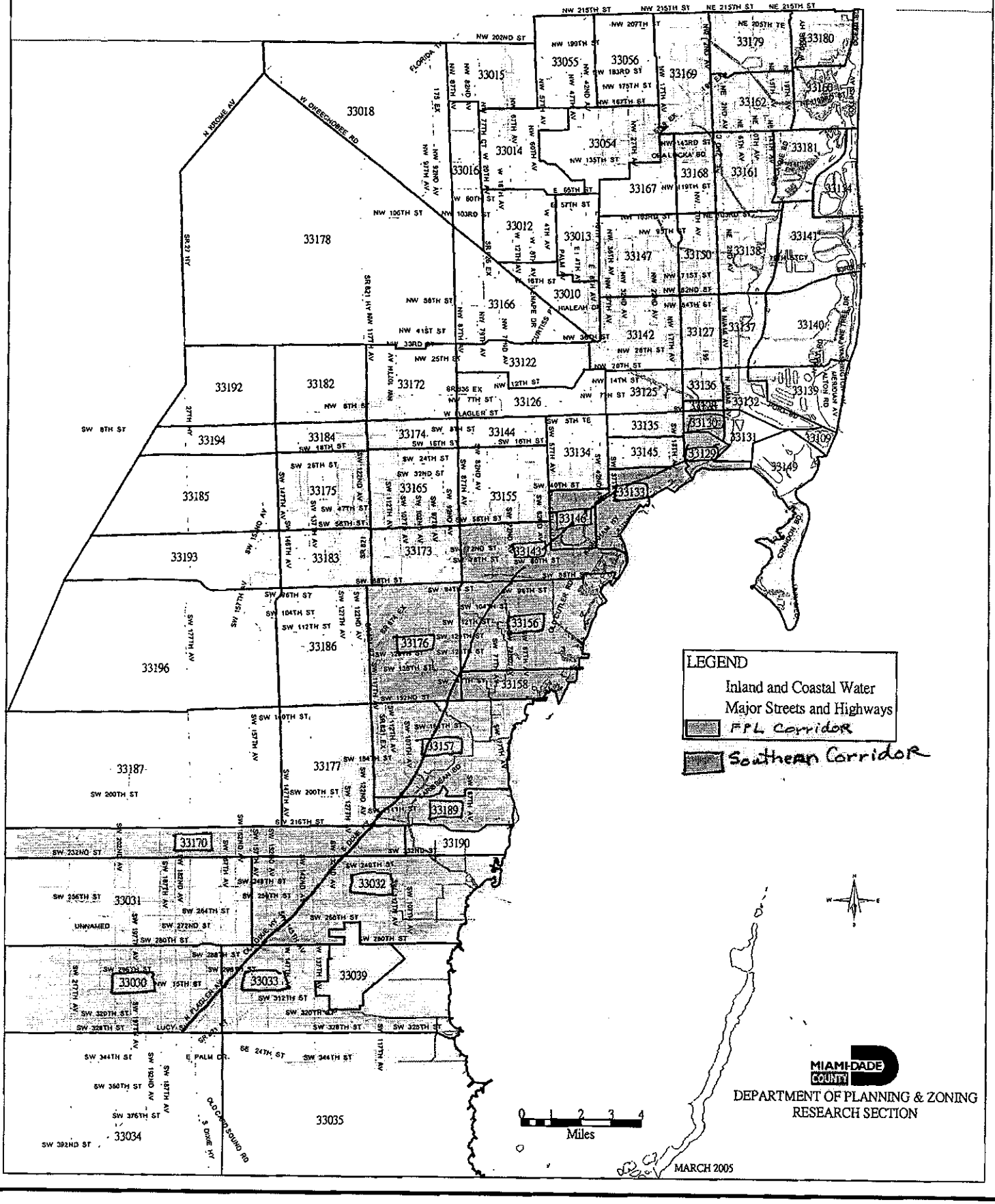


Planning Document

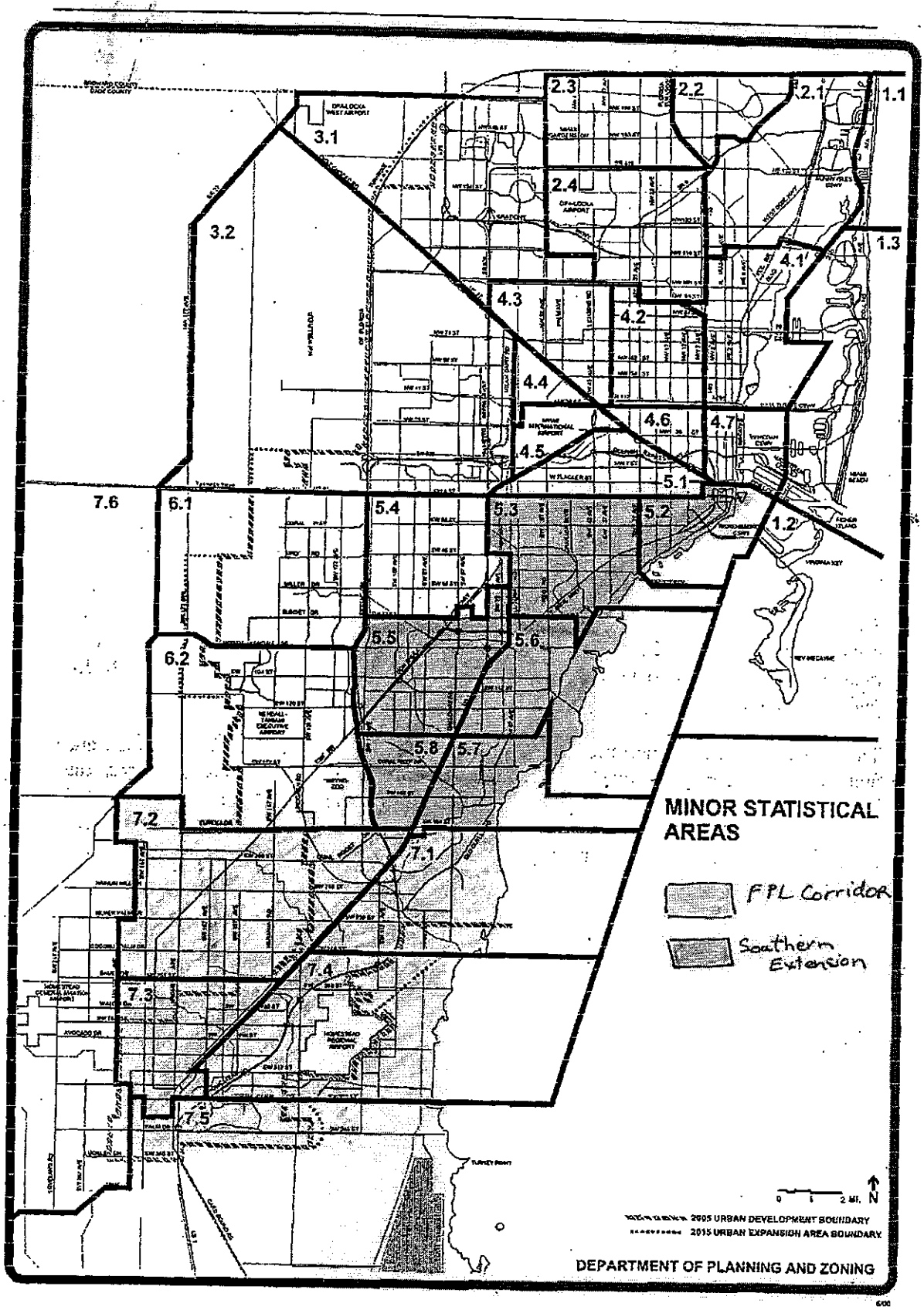
THE SOUTH DADE WATERSHED PROJECT

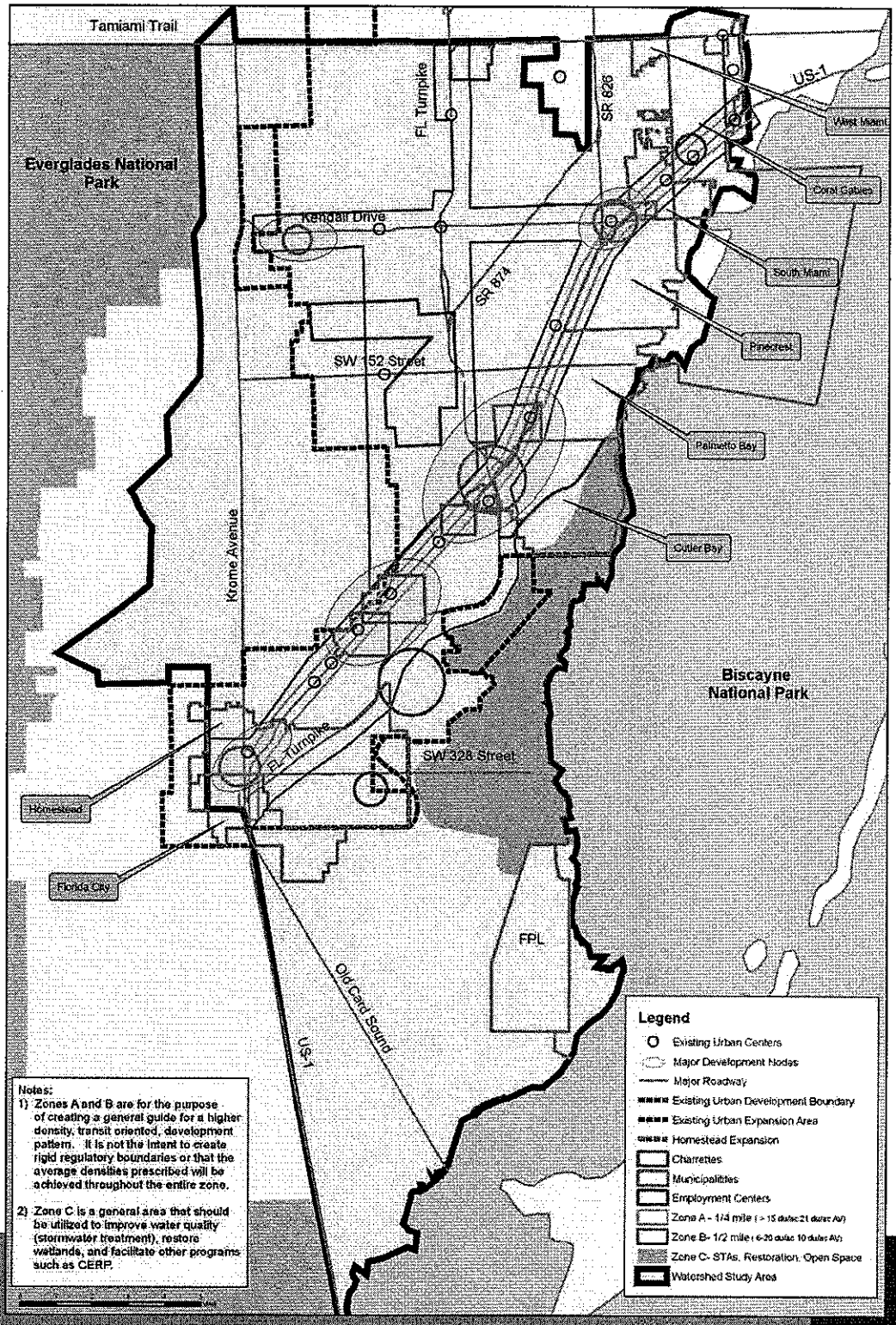
Center for Urban and Community Design, University of Miami, School of Architecture / South Florida Water Management District

MIAMI-DADE COUNTY, FLORIDA
ZIP CODE BOUNDARY



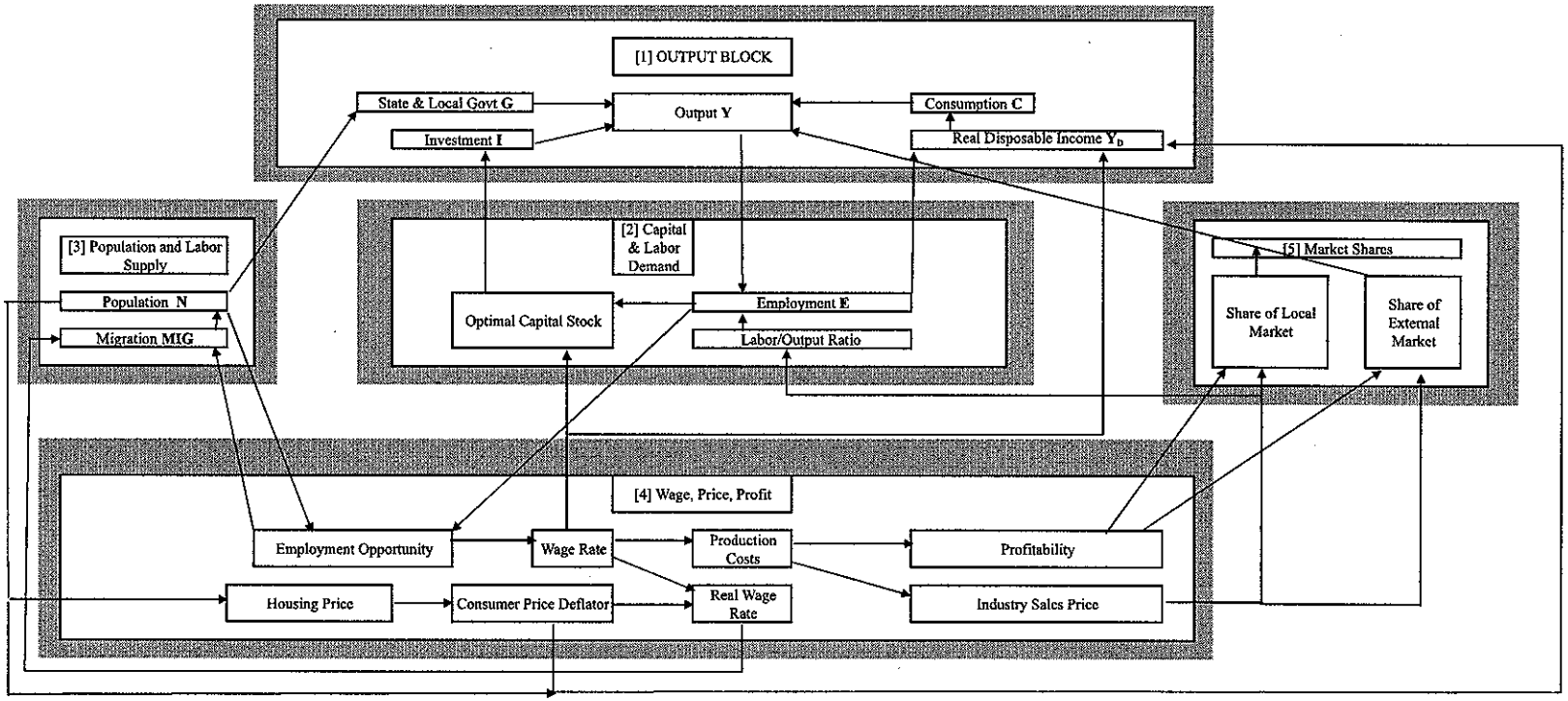
Population Projections by Minor Statistical Area





Recommended Watershed Plan Design Guide Map

Figure 5.1 The Blocks of the REMI Model and Some Connections



Source: Excerpted from Treyz, Regional Economic Modeling, Kluwer, 1993, p. 291.

Appendix III-K: City of Miami

THE STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: FLORIDA POWER & LIGHT CO.
TURKEY POINT UNITS 6 AND 7

DOAH CASE NO. 09-3575EPP
OGC CASE NO. 09-3107

_____/

CITY OF MIAMI'S NOTICE OF FILING ITS AGENCY REPORT

The City of Miami (City), by and through undersigned counsel, hereby respectfully submits the following Agency Report:

1. In accordance with the Chapter 403 Florida Statutes, the City of Miami respectfully submits this Notice of Filing its Agency Report.

RESPECTFULLY SUBMITTED this 15th day of June, 2011.

Julie O. Bru, City Attorney
Victoria Mendez, Asst. City Attorney
Florida Bar No. 194931
City of Miami
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Miami, FL 33130-1910
Tel.: (305) 416-1800
Fax: (305) 416-1801
Email: vmendez@miamigov.com
Attorney for THE CITY OF MIAMI

Filed June 16, 2011 8:00 AM Division of Administrative Hearings

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing Notice of Filing Agency Report and the Agency Report itself has been furnished to counsel listed below via electronic mail this 15 day of June, 2011:

FPL TURKEY POINT UNITS 6 AND 7
DOAH Case No. 09-3575-EPP
DEP. OGC Case No. 09-3107

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CITY OF MIAMI AGENCY REPORT ON FLORIDA POWER AND LIGHT TURKEY POINT UNITS 6 & 7 PROJECT SITING APPLICATION PA03-45A3 AND TRANSMISSION LINE CORRIDOR BETWEEN DAVIS AND MIAMI SUBSTATIONS (FPL "EAST PREFERRED CORRIDOR")

1. CORRIDOR LOCATION ISSUES:

The proposed Florida Power and Light (FPL) transmission line Corridor, known as FPL's "East Preferred Corridor" (Corridor) runs directly through the City of Miami (City). The corridor runs through US 1 Highway (US1) as it approaches downtown Miami through the Roads neighborhood and the West Brickell area before ending at the Downtown substation. Due to the significance of US1 as a gateway to the City and the Central Business District within the City, as the economic engine of South Florida, several agencies have invested heavily in improving the appearance of this corridor.

The Florida Department of Transportation (FDOT) is one such agency which has invested heavily in the implementation of ornate and lush landscape, in addition to a maintenance plan along the Corridor. Similarly, the Miami-Dade Transit Agency (MDT) has also focused on the Corridor implementing the M-Path, a bicycle/pedestrian corridor along US 1 with improved landscaping and signage. The City has also invested heavily in the appearance of this Corridor through the implementation of two roadway improvement projects along US1 replacing the dilapidated "pink wall" with a modern pre-cast post and panel wall and improved landscaping.

The FPL Corridor calls for gigantic and out of place poles measuring up to one hundred and twenty (120) feet in height and four (4) feet in diameter to support the proposed transmission lines. The incorporation of these poles within the dense and urban Corridor is incompatible and significantly impacts its appearance and counteracts the investments of the public agencies described above. This Corridor runs along the main thoroughfare of Miami-Dade County, and is at the center of commercial, mixed-use, and residential developments in the heart of the City.

Once the proposed Corridor reaches I-95, it runs through a predominantly residential area that has recently benefitted from redevelopment initiatives with new buildings providing underground electric lines. The construction of new over-head transmission lines and large diameter poles would negatively impact this community in the following manner:

- Negative aesthetic impacts to residential areas resulting from the transmission lines and large diameter poles
- Negative aesthetic impacts to high-rise developments that invested significantly to assure that distribution lines were constructed underground.
- Right-of-Ways in this area are already narrow-- existing widths are needed to accommodate sidewalks and bicycle paths and bicycle facilities which are in high-demand given the urban nature of the area. Construction of transmission lines and large-diameter poles would negatively impact mobility in the area.
- The overhead transmission lines would cause the property values to plummet, in an already depressed market. Please see the attached Economic Impacts Report by Richard Weisskoff, PhD, as Exhibit A.

The negative impact of the project on the City would be lessened if the lines were buried underground. The proposed corridor will bisect several high-density residential and mixed use areas, including Palmetto Bay, Pinecrest, Dadeland Station, South Miami, Sunset area, Coral Gables, West Brickell, and Downtown. The

County's main Metro-Rail and Bus Line will also be negatively impacted. The Corridor is designed to go through the heart of Miami's Commercial District, which is adjacent to or in close proximity to hospitals, single family residential, and multifamily residential units. The negative impacts to these residential cores and mixed use developments must be considered.

The existing Metro-Rail Line is at least 25 feet above ground, and would expose all travelers to electromagnetic fields from the proposed transmission lines. No documentation or scientific studies have been distributed to the community to alleviate the concerns arising from the electromagnetic field exposure at that height.

The economic detriment forced upon the entire US1 via this Corridor is documented as extensive. The City is concerned about conflicts with existing and proposed homes and businesses in the Corridor, a highly dense Corridor that is one of the main thoroughfares in the County. The City is concerned about where potential line locations could limit future development.

2. **OUTSTANDING ISSUES AND THE DETERMINATION OF NEED HAS CHANGED:**

It is the City's position that several factors have changed since FPL began its Certification Process two years ago. Since then FPL's Nuclear Plant Certification has not progressed as fast as the Transmissions Lines Certification process. Moreover, it seems the Nuclear Plant Construction may not advance quickly at all. Sources reveal that it may not be constructed at all. Separate approval of the lines will place the City in a position where they are at a disadvantage for the benefit of fortifying the existing FPL power grid without ever being allowed or required to build the expansion. Frankly, it is the City's position, that but for the Nuclear Plant project, the City is not in need of these transmission lines at all, and the Transmission Line Certification should be halted or travel with the Nuclear Plant Process.

3. **RECOMMENDATION FOR CERTIFICATION:** The City of Miami finds that the FPL Application does not meet the requirements of the City's Code and Ordinances. Moreover, the City recommends DENIAL of Certification at this time. If the Administrative Law Judge (ALJ), were not to agree with the City, and felt that the City was incorrect, at a minimum, the Conditions of Certification (Conditions) outlined herein should be adopted. Staff analysis is contained herein. This recommendation is made contingent upon the Conditions contained herein be satisfactorily addressed during the Post-certification review process.

4. **VARIANCE TO STANDARDS:** The City requests, that should the Corridor proposed by FPL go forward, that FPL be required to underground and shield the Transmission Lines regardless of the cost. FPL is entitled to reimbursement for the construction expenditures and as the lines benefit the entire state. FPL should be required to protect electrical power for all residents of the state by ensuring (1) that the dense residential/commercial corridor of US1 is protected; (2) that Miami-Dade County as it is affected more frequently by hurricane events than any other County in Florida and has faced catastrophic damage due to various hurricanes in the past 20 years causing downed power lines and power outages, as such, undergrounding the Transmission Lines would benefit all electrical Rate Payers as the Transmission Lines would not be affected by wind storm events; and (3) the US 1 Corridor would be protected from the economic downturn projected in the South Miami report by Dr. Weisskoff, attached hereto as **Exhibit A.** The City adopts the findings and conclusions of Dr. Weisskoff, as submitted by the City of South Miami.

At a recent appearance before the City of Miami Commission May 26, 2011, FPL representatives stated that FPL could only bear the cost of constructing the Transmission Lines underground if it were the only technically feasible alternative. Given the importance and investments made to improving the appearance of the Corridor by multiple agencies, the importance of safety from storms and hurricane events, and the density of this area, constructing over-head lines is not feasible given the substantial negative impacts. The new Transmission Lines must be approved by the Federal Energy Regulatory Commission (FERC) as part of the Turkey Point Units 6 & 7

Site Certification. This federal agency decision must be based on the results of a corresponding study to comply with the National Environmental Policy Act (NEPA) as dictated in United States Code Title 42, Chapter 55:

> SUBCHAPTER I § 4331 states that... *it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may...5) achieve a balance between population and resource use which will permit high standards of living.*

Construction of overhead Transmission Lines in lieu of buried underground lines negatively impacts the character and aesthetic value of this corridor, thereby having a negative impact on the standard of living and quality of life of the residents of the City.

> SUBCHAPTER I § 4332 states that
> *c) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on—*
> *(i) the environmental impact of the proposed action,*
> *(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,*
> *(iii) alternatives to the proposed action*

The provision of underground lines would avoid the significant adverse environmental impact resulting from the construction of the overhead Transmission Lines that have been identified in this report. As such, the only feasible alternative to be considered within the City is construction of underground lines. Since this is the only technical feasible alternative on such a monumental project, the cost shall be borne by FPL.

5. PROPOSED CONDITIONS OF CERTIFICATION:

5.1 Definitions:

Administrative Law Judge (ALJ) shall mean the Department of Administrative Hearings (DOAH) Judge assigned to this matter.

Application shall mean the Application for Corridor Certification for the Florida Power & Light Company "East Preferred Corridor between Davis and Miami Substations" project.

City Commission is the governing body of the City of Miami.

Conditions of Certification or Conditions shall mean the conditions placed by this Agency Report.

Corridor shall mean the East Preferred Corridor between Davis and Miami Substations down US1.

Department of Environmental Resource Management shall mean the environmental division of Miami-Dade County (DERM).

Feasible or Practicable shall mean reasonably achievable considering a balance of land use impacts, environmental impacts, engineering constraints and costs.

Miami Comprehensive Neighborhood Plan (MCNP or Comprehensive Plan) is the City's comprehensive growth plan for future development.

Miami 21 Code is the City's Land Development Code or Zoning regulations.

Nuclear Plant shall mean Turkey Point Project 6 and 7.

Post-Certification Submittal shall mean a submittal made by FPL pursuant to a Condition of Certification.

Rate Payers shall mean all those in Florida that pay FPL a usage fee to consume electric.

Right- of- Way (ROW) shall mean the transmission line right-of-way to be selected by FPL within the certified corridor in accordance with the Conditions of Certification.

Transmission Lines shall mean the overhead transmission power lines generating out of the Turkey Point Units 6 & 7 Project and the "East Preferred Corridor" proposed by FPL between the Davis Substation and the Miami Substation under Plant Siting Application PA03-45A3, under DOAH Case No.: 09-3575-EPP.

5.2 Quality of Life, Aesthetics and Location

The City Commission is particularly concerned about the location of FPL's proposed Eastern Preferred Corridor. The City already has in place a policy pursuant to resolution stating that no overhead installation of electrical devices should be allowed in any of its zoning districts. It views the proposed Project as being subject to this same requirement. Given the significant investment undertaken by FDOT, Miami-Dade County, and the City to improve the appearance of the US1 corridor, the City hereby requests that all transmission poles be removed and that all lines, both new and proposed, be placed underground. Undergrounding is a grid-wide safety and aesthetic improvement. It serves a broader benefit that extends far beyond the City; it benefits all of Miami-Dade County. As such, any and all costs incurred to underground the Corridor should be borne exclusively by FPL or by all the rate payers accessing the electric.

5.3 Location of ROW and Appurtenances

1. Utilization of State and County Road Right- Of- Way

   In the construction of the Transmission Line on or crossing State Road and/or County Rights-of-Way, FPL shall:

   A. Comply with the requirements of the FDOT's Utility Accommodation Manual. A separate FDOT permit is required; and
   B. In regard to County Rights-of-Way, the quality and placement of all utility installations from FPL within the proposed corridor shall be detailed on the Certification submittals to the City to demonstrate compliance with the Miami-Dade County design standard and criteria.
   C. Place Transmission Line structures at crossings of State Roads in such a manner as to accommodate future road widening, to the extent practicable. If future widening of any State Road in the area of the Transmission Line is required, the cost of relocating the transmission line shall be borne by FPL to the extent required by Section 337.403, Fla. Stat., and Rule Chapter 14-46, F.A.C.

2. Transmission line poles shall be free standing without any guide wires and as small in diameter as technologically feasible.
   (Miami 21 Code, Article 4, Tbl. 12)

3. Rights- of- Way Location:

A. FPL shall locate the Transmission Line to the extent feasible within or adjacent to existing public ROW for those portions of the corridor which include such existing public ROW. A post-certification submittal of FPL to City of Miami shall be a final design plan including pole locations throughout the entire route and additional details as to locations and specific route segments as requested by the City Public Works Department to enable the Public Works Department to review and provide comment on maximizing to the extent practicable the location of the poles to comply with visibility and Americans with Disabilities Act (ADA) clearance requirements. FPL shall be responsible for all costs to relocate any utility facilities, water mains, sanitary sewers or storm sewers located in conflict with the proposed Transmission Line infrastructure. FPL shall be responsible for obtaining any necessary easements.

B. To the extent feasible FP&L shall locate the Transmission Line ROW so as to avoid the taking of homes.

4. Storm-water Pollution Prevention Plan:

A. Prior to commencement of construction activities as part of the post-certification submittal, FPL shall submit an Erosion and Sediment Control Plan (ESCP) to the City of Miami Public Works Department for approval. The ESCP shall identify construction sequencing, Best Management Practices (BMPs) to minimize erosion and sedimentation and to manage the quality and quantity of storm-water runoff during and after construction and other practices employed to protect all storm-sewer systems and minimize fugitive particulate emissions during and after construction. The ESCP shall at a minimum include the following information:

1. Details of construction sequencing, dewatering activities and sump locations, stockpile area and/or deposition areas for excavated materials:

a. Description of land clearing/disturbing activities, storm-sewer locations, existing site conditions including the location of the storm-sewer system and adjacent land uses/areas that might be affected by land clearing disturbances;
b. Identification of stockpile areas and/or deposition areas for excavated materials;
c. Description of potential on-site problem areas such as steep grade changes, highly erodible soils, areas adjacent to wetlands, surface waters, or upland preservation areas;
d. Construction scheduling, including the expected starting and stabilization dates;
e. Identification of all storm-sewer systems adjacent to the construction site.
f. Protect all storm sewer inlets adjacent to the construction site during and after construction.
g. If a sedimentation tank is needed for any type of approved dewatering activity, the location of the tank must be approved by the NPDES Section and must be coordinated with DERM and the Public Works Development and Roadway Plans Section.

2. Details of Best Management Practices and Fugitive Particulate Abatement Methods:

a. Details, drawing and cross-sections of erosion and sediment control devices;
b. Maintenance program for erosion and sediment control devices including inspection frequency and maintenance activities; and the location of the

storm-sewer system affected by the construction.

c. Haul routes and details of apron stabilization at ingress/egress points to rights-of-way;
d. Details/location of equipment washing area:
e. Details of fugitive particulate abatement methods;
f. Contractor information, including a twenty-four hour, seven day contact and phone numbers.

3. Details of dewatering activities and locations, drawing and cross-sections of dewatering pumps. A separate de-watering permit is required. Protect all storm sewer inlets around construction site.
4. Water Quality Monitoring Plan and monitoring stations if applicable. FPL shall be responsible for scheduling an on-site meeting with staff from the City of Miami NPDES Section, including the Engineer of Record and Contractor. Prior to scheduling the on-site meeting, FPL shall:

a. Obtain all applicable approvals (DERM, Public Works De-watering permit and NPDES Permit);
b. Stake the boundaries of the wetland buffers, upland preservation areas or other environmentally sensitive areas, as indicated on the approved Final Design Plan, if applicable;
c. Stake all silt screen locations as needed to prevent turbidity and erosion off the site as indicated on the Final Design Plans.
d. Install 6-foot high wind screens as required by City of Miami Ordinance No. 13081.

The erosion and sedimentation control plan shall include the location of all proposed erosion and sediment-control devices and a point-by-point response to the NPDES requirements in this section.

5. Access Road And Drainage

FP&L as a post-certification submittal to City of Miami shall submit detailed design plans showing all access roads and drainage plans after right-of-way surveys and final design plans are completed.

5.4 Zoning Requirements

1. The proposed use of "Infrastructure and Utilities" requires a Warrant in all transect zones, except CI – Civic Institution Zones where an Exception Permit is required and in D2 – Industrial District Zones where they are allowed by right (Art. 4, Tbl. 3). The definition is as follows:

   Infrastructure and Utilities: A facility or Structure related to the provision of roads, water and sewer lines, electrical, telephone and cable transmission, and all other utilities and communication systems necessary to the functioning of a community. (Art. 1, Sec. 1.1)

   Warrant permits are administrative permits issued by the Planning Department based on criteria established in Article 7 and Article 4, Table 12 – Design review criteria, including the purpose and intent of the transect zone indicated in section 2 below; see also Planning Department comments. Exception permits are public hearings that require review by the Planning Department and approval by the Planning, Zoning and Appeals Board. The criteria is established in Article 7 and Article 4, Table 12 of the Miami 21 Code; see also Planning Department comments.

2. The proposal for high intensity transmission lines shall be consistent with the purpose and

intent of the City of Miami Zoning Code, referenced herein as "The Miami 21 Code". Article 2 of the Miami 21 Code establishes the following purpose and intent:

a. It is further the purpose of the Miami 21 Code to promote the public health, safety, morals, convenience, comfort, amenities, prosperity, and general welfare of the City and to provide a wholesome, serviceable, and attractive community, including without limitation protection of the environment; conservation of land, energy and natural resources; improved mobility; more efficient use of public funds; greater health benefits of a pedestrian environment; historic preservation; provision of recreational and open spaces; reduction of sprawl; and improvement of the built environment and human habitat. (Art. 2, Sec. 2.1.1.b)

b. Improving the relationship between low Density Residential neighborhoods and adjacent Commercial Corridors with appropriate transitions of Density and Height following the theory of the Transect. (Art. 2, Sec. 2.1.2.a.2)

c. In all cases the goal of transit-oriented, pedestrian-friendly, Mixed-Use urbanism shall guide the arrangement of Transect Zones, Thoroughfares, Buildings and landscape. The specific design of each component should be appropriate to its Transect Zone, as provided in this Code. (Art. 2, Sec. 2.1.3)

d. The design of Thoroughfares and Buildings should reinforce safe environments, but not at the expense of accessibility. Designs should incorporate principles of Crime Prevention Through Environmental Design (CPTED).

e. Architecture and landscape design should grow from local climate, topography, history, and building practice.

3. The proposed transmission lines shall be consistent with the Transect regulations for the Transect Zone in which it is located. Where a Transect Zone designation is not indicated for an area in the Miami 21 Atlas, the area shall be construed to be zoned as for the most restrictive Abutting Zone, until corrective action shall be taken by the City Commission.

   a. Height restrictions are applicable to all structures. There are no Variances permitted for height under the Miami 21 Code.

   b. Transect Zones along the proposed corridor include: T3, T4, T5, T6, CS, and CI. See Article 5 of the Miami 21 Code for height restrictions in each Transect Zone.

4. Building Disposition (Article 4. Table 12 Design Review Criteria)

   -Articulate the building façade at street level to recognize pedestrian continuity and interest and at upper levels to recognize long views of buildings.
   -Respond to the physical context taking into consideration natural features, existing urban form and Transect Zone intentions.
   -Create Transitions in height and mass with abutting properties and transect zones.
   Building Configuration
   -Promote pedestrian interaction

5. Landscape Standards
   -Preserve existing vegetation and/or geological features whenever possible.
   -Use landscaping to enhance building design and continuity of streetscape.
   -Provide landscaping that screens undesirable elements and that enhances open space and architecture.

5.5 Buffering and Landscaping

FPL shall ensure the compatibility of any new buildings, accessory structures and appurtenances within neighborhoods. This can be achieved largely through careful screening and buffering. Miami 21 Code provides that all newly-developed and redeveloped above-ground utility appurtenances visible from the public ROW shall be screened. Materials and earth-tone colors for screening shall be compatible with the natural setting and surrounding structures. Chain link fencing alone shall not be considered to be a screening mechanism.

1. Community aesthetics are valued highly by Miami residents, and Miami's tree canopy is of critical importance. Inasmuch as transmission line siting may lead either to the loss of tree canopy or disfiguring "vegetation management" practices, FPL shall offer a suitable plan for maximum tree retention and tree replacement, if necessary, as part of its Application. To ensure that canopy protection is given due weight in actual transmission line siting, FPL shall identify all trees within the proposed corridor, determine their type and size, record their location on a planning map, and ensure that sufficient tree canopy remains as required by local ordinance. FPL shall commit, first, to relocating trees, and, only when relocation is not feasible, to replacing trees on at least a one-to-one basis.

2. Transmission poles shall be installed to avoid the removal of any large or existing specimen trees, defined as trees having a minimum 18 inch diameter trunk at breast height measured 4.5 feet above grade.
   (Miami 21 Code, Article 4 Tbl. 12) (City of Miami Tree Protection Ordinance)
   (MCNP Policy LU-1.1.3, Policy LU-1.1.8 and Objective LU-1.5)

3. For the entire transmission line route, provide large shade trees measuring a minimum height of 15 feet and planted at no greater than 30 feet on center to help screen views of the transmission lines and poles.
   (Miami 21 Code, Article 4 Tbl. 12) (City of Miami Tree Protection Ordinance)
   (MCNP Policy LU-1.1.3, Policy LU-1.1.8 and Objective LU-1.5, TR-1.4.3)

4. Provide a tree survey and tree disposition plan prior to any work. Furthermore, provide a landscape plan that shows additional appropriate landscaping to visually screen the view of transmission line poles, as well as, uphold tree replacement requirements.
   (City of Miami Tree Protection Ordinance) (MCNP Policy LU-1.1.3, Policy LU- 1.1.8 and Objective LU-1.5, TR-1.4.3) (Landscape Ordinance)

5.6 Electromagnetic Fields (EMFs)

Compatibility with Adjacent Neighborhoods

The City is concerned with the compatibility of uses and the impacts on its adjacent neighborhoods, specifically striving to facilitate the protection of the character of the surrounding commercial areas and residential neighborhoods. The City is concerned about potential conflicts with existing and proposed buildings and homes within the corridor. The City is also concerned about where potential line location could limit future development. In order to ensure both safety and peace of mind for adjacent residential uses the City requests that FPL show the limits of any EMFs (electromagnetic fields) to be generated by the line, when adjacent to residential uses.

The Project shall comply with the applicable electromagnetic field standards set forth in Chapter 62.814, F.A.C. The electromagnetic fields associated with any configuration developed during the final design of this project must be provided to the City and to DEP at least 90 days prior to the start of construction, or such a shorter time period to which the DEP Siting Coordination Office agrees, as required by Rule 62-814.520(3), F.A.C.

5.7 Public Safety

The proposed route for the transmission lines is in relatively close proximity to numerous City police and fire department facilities, which provide vital public safety functions. It is imperative that the City's emergency operations never be compromised or interrupted by the EMFs. In the event of interference or blocking, the City will verify, to the best of its ability that FPL equipment/facilities are at fault before requesting any FPL mitigation efforts. In the event that FPL is determined to be responsible, FPL shall bear the costs incurred by the City in rendering such determinations and shall cover any and all costs associated with restoring the transmission path. This may include the construction of additional radio infrastructure to augment coverage in the blocked area, according to the City's specifications.

5.8 Future Signalized Intersections

The City needs FPL to minimize the impacts of the transmission line on intersection improvements by locating all proposed transmission line poles outside the ultimate configuration for all current and potential future signalized intersections. FPL should agree to a condition of certification requiring that the transmission poles be located longitudinally along the ROW outside of the potential configuration for all currently designed and acquired future traffic infrastructure projects to the extent practicable.

5.9 Architectural and Historical Resources

The City has concerns about historic resources located within or adjacent to the transmission line corridor. FPL, as a condition during post-certification, shall coordinate with the City and with Miami-Dade County's Historic Preservation Department to determine the level of coordination required to satisfy the City's Land Development Code stipulations regarding historic and archaeologically significant sites and to minimize any potential effects that the final route may have on these resources. FPL should also agree to hire a consultant to perform an archaeological survey prior to the construction of the transmission line to avoid damaging any historic resources found to the extent practicable, and if avoidance is not practicable, to mitigate impacts through salvage operations or other methods acceptable to the State of Florida Division of Historic Resources and the City and County.

Any excavation done within the archeological conservation area (starting with 8th street going south on US 1 and ending just north of Coral Reef Drive) will require a certificate to dig, monitoring by an archeologist, monthly reports to the Preservation Officer regarding the ongoing excavation, and a final report to the Preservation Officer.

(MCNP Objective LU-1.5, LU-1.5.1and Policy LU-2.2.3) (City Code Chapter 17, City Code Chapter 23)

5.10 Scenic Transportation Corridor

Any work done along a "Scenic Transportation Corridor" (starting at SW 13th street and continuing along Coral Way) requires a certificate of approval, surveys showing the location of the proposed work, and photographs. It may also require a public hearing before the Historic and Environmental Preservation Board (HEPB).

(MCNP Objective LU-1.5, LU-1.5.1, LU-1.3.14) (City Code Chapter 17)

5.11 Pedestrian and Bicycle Facilities

Placement of the transmission line poles shall be located off pedestrian facilities, and ADA access must be accommodated at all times during construction. Where portions of the transmission poles are along the M-path, those sections shall be refurbished after construction and include the addition of pedestrian scale lighting. When the planned lines go through the M-Path, they shall upgrade the M-Path to the standards of the M-Path Master Plan rather than refurbishing it to current standards.

Existing facilities in Brickell and Downtown, should be restored.
(MCNP Objective TR-1.3, Policy TR-1.2.2, Policy TR-1.3.3, TR-1.4.3) (City Code Chapter 54) (County M-path Master Plan)

5.12 Mitigation of Construction Impacts

1. **Final Design and Document Submittal**

At least ninety (90) days prior to the commencement of construction of any portion of the transmission line, FPL shall provide the City with the following:

A. a narrative description of the installation and construction of the line improvements specific to potential impacts within the City, including but not limited to the following Information:

B. an identification of general location of construction staging, and minimum land area required, and

C. any ROW encroachments necessary as applicable (i.e. lane or road closures, etc).

2. **Traffic coordination**

During post-certification, FPL shall submit to the City the names of the public roadways that it plans to use for the transportation of the transmission poles, the types of carriers, and wheel pressures that will be utilized, and the times of day for the transport of said transmission poles. For debris removal, FPL must consult the City of Miami's preferred Haulers.

The area of the City through which the proposed transmission line corridor will pass is densely developed with residential type apartments, homes and townhomes. FPL shall provide detailed information as to how it proposes to mitigate the construction activity associated with the new transmission line through the City as it relates specifically to the immediately adjacent residential areas.

3. **Noise Level and Hours of Operation**

The Corridor and any construction therein, as proposed, will be in close proximity to existing developed residential uses. Care shall be taken to adequately address the public health and welfare of nearby residents through the strict observation of permitted hours of construction and permitted noise levels, as closely as possible. FPL shall comply with the City's noise ordinance in the construction, operation, and maintenance of the proposed transmission line.

During construction of the proposed transmission line, FPL proposes to mitigate and minimize the potential noise impacts of construction by scheduling activities to be completed during weekdays and during daylight hours (7:30am to 6:00 pm) in accordance with Chapter 36 of the City Code.

The Application states that some construction activities may require night-time operation. FPL should coordinate closely with the Office of the City Manager and the Department of Code Enforcement for any construction activities that may take place at night, and procure the proper permits for said activity, no later than seven (7) days prior to anticipated nighttime work so that appropriate notification may be provided

to affected neighbors. FPL shall be responsible for the costs of such notification. In all instances the final decision as to whether night-time construction or activity shall occur, shall be made by the City Manager's office.

If at any time the City or City residents hear noises emanating from the Transmission Lines, which can be heard in violation of Chapter 36 of the City of Miami Code, the City will prosecute such violations of the City Code.

4. **Construction Trailer**

A site plan and Temporary Use Permit application forms, along with the appropriate fee shall be submitted to the City's Public Works Department a minimum of 30 days prior to installation of any construction trailer. A description of the type of building shall be provided.

5.13 Public Information and Notification

1. **Detailed Construction Schedule**

Transmission line construction may impact grant deadlines and scheduled roadway and other improvements. As a result, once it is available, FPL shall provide the Office of the City Manager with a detailed timetable for the construction sequencing within the City's boundaries.

2. Ongoing Greenhouse Gas Mitigation Strategies

FPL has created a comprehensive greenhouse gas reduction strategy. Given the long-term nature of the proposed project in a densely-populated area. FPL shall provide information about greenhouse gas mitigating strategies for contract fleets, heavy-duty vehicles, and off-road equipment (cranes, bulldozers, and other equipment) FPL shall describe what advanced technology or alternative fuel equipment will be used and any Transportation Demand Management strategies to reduce vehicle miles traveled during construction and operation.

3. **Monitoring Reports**

Monitoring reports stating the status and condition of the project shall be provided to the City every month until all on-site construction is completed. A final report indicating changes or deterioration of the roadway shall also be submitted. Any damages identified as the responsibility of FPL or any agents working for FPL shall be repaired within 90 days of filing the report. A ROW permit shall be submitted to and approved by the City's Public Works Department before proceeding with any repairs.

4. **Public Meetings and Notices**

In order to keep the residents of the City informed of the status of the project within the City and to address the concerns of the various citizens, groups, and organizations affected by the construction of the transmission line, FPL shall agree to hold regular community neighborhood meetings and public meetings throughout the design, permitting, and construction phases of the project. The City requests that FPL take further initiative to schedule this meeting with adequate public notice to City residents and interested parties. FPL shall coordinate with the Office of the City Manager in obtaining updated homeowner associations' and civic groups' contact information to provide these organizations with periodic updates on the

design and development process.

5. **Environmental Programs**

The City adopts by reference the report of Miami-Dade County, particularly relating to DERM review, as DERM administers environmental programs on the City's behalf, as filed in this case.

6. **South Florida Regional Issues**

The City adopts by reference the report of South Florida Regional Planning Council as it relates to the South Florida Regional issues filed in this case..

5.14 CITY OF MIAMI PERMITS

Based on conceptual transmission line route submittals, the following City of Miami permits shall be required. A final determination of permit requirements shall be prepared once the engineering plans are reviewed by the City of Miami:

1. Public Works Department Excavation Permit
2. City of Miami NPDES permit
3. Public Works De-watering Permit
4. Police Department/ Public Works Maintenance of Traffic/Road Closure/Special Events Permit
5. Night and weekend work requires separate approval.
6. Tree removal/ trimming permit
7. And any other permits as required by law

5.15 FINAL DESIGN SUBMITTAL

A post-certification submittal to the City of Miami shall be a final design plan showing:

1. All protected trees over 3" diameter at breast height (DBH) to be removed for the transmission line, access road and drainage installation. Protection measure for trees proposed for preservation shall be detailed. A separate tree removal/trimming permit is required. Tree replacement per Chapter 17 is required.
2. The distances of the Transmission Line location to the nearest existing homes.
3. Construction timetables, phasing and construction traffic to be generated by the transmission line construction. A separate Maintenance of Traffic permit is required.
4. What measures will be installed to screen any auxiliary equipment to be located along the transmission line from adjacent residential uses with landscaping.
5. All existing and proposed easements.
6. All flood zone and floodway delineations along the route of the transmission line.
7. Show the location of any school or park sites within one-quarter mile of the transmission line location on the final design plan. Concurrent review by other agencies may be required.

Show " as is" existing site conditions on the final design plan the following:

1. The location of the right-of-way/easement with respect to adjoining development, the existing zoning on adjoining property and existing land use adjacent to the right-of-way.
2. The name, location and width of existing or platted street public right-of-way

within or contiguous to the transmission line right-of-way/easement.

3. Approximate location, size and depth of sewers, water mains and storm drains, and approximate location of power and phone lines; within all contiguous right-of-way.
4. Location and size of easements for all the above ground utilities, such as electric power lines, adjacent to the right-of-way.
5. Typographic contours on one-foot intervals based on means sea-level datum.
6. Flood plain management information on flood zones delineated if applicable.
7. Location of fire hydrants and exterior for suppression systems supplied by potable and non-potable water sources.
8. Location, size and type of all proposed stormwater management facilities.

Supplemental information to be submitted with final design plans to the City of Miami:

1. All calculations and descriptions prepared by a Florida registered professional engineer need to show evidence of compliance with stormwater management.
2. If the right-of-way/easement is located in a flood way, all calculations and descriptions prepared by a Florida registered professional engineer need to demonstrate compliance with applicable flood plain management requirements.
3. Location, description and terms of any proposed easements, reservation or dedications, together with any necessary legal instruments.

CONCLUSION

For the reasons mentioned in this Agency Report, the City of Miami recommends **DENIAL** of the Application. In the alternative, should approval be granted, the City requests that FPL be compelled to underground the Transmission Lines due to the unique and compelling reasons touched upon in this report. Miami is a densely populated urban community, continuously pounded by and subject to hurricanes and storms, which is being treated as a third world country if Transmission Lines of this magnitude are allowed to bifurcate the City via US1. If the Certification is approved, the City asks that the foregoing conditions be imposed as Conditions of Certification.

Respectfully Submitted,

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CITED JUSTIFICATIONS

Miami 21 Code
http://www.miami21.org/final_code_AsAdopted.asp

City of Miami Tree Protection Ordinance
http://www.miamigov.com/Planning/pages/services/TreeProtectionOrd.pdf

Landscape Ordinance
http://www.miamigov.com/Planning/pages/services/LandscapeOrdinance-asADOPTED.pdf

Miami City Code
http://library8.municode.com/default-test/home.htm?infobase=10933&doc_action=whatsnew

Important Code Chapter references include, but are not limited to, the following:

Chapter 17 Environmental Preservation

Chapter 23 Historic Preservation

Chapter 36 Noise

Chapter 54 Street and Sidewalks

Miami Dade County Metrorail M-Path Master Plan
http://www.miamidade.gov/mpo/docs/MPO_mpath_master_final_200707.pdf

Corridor to Nowhere: Economic Impacts of FPL's Proposed Transmission Line on the US 1 Corridor

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Submitted to the City of South Miami

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EXHIBIT A

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Executive Summary

- FPL's proposed Eastern 230 kV Transmission Corridor, proposed to route power from two new nuclear power plants proposed for construction at Turkey Point, would occupy an economically critical segment of the US 1 corridor stretching from the Falls to Brickell that currently lacks such transmission lines. Since the mid 1990's, the US 1 Corridor north from Broward to St. Lucie County had become the cornerstone of the South Florida Region's strategy of compact growth, *"Eastward, Ho!"* and has been incorporated into the South Miami-Dade Watershed Study of 2007. These studies form the basis of the current anti-sprawl and compact growth policies of the South Florida Region. (Section 1).

- The introduction of high voltage transmission lines on 105 ft high, 4-foot diameter, concrete poles from the Falls to Brickell on US 1 inserts a major disamenity or blockage into this gateway to Miami and into its rapidly growing southern neighborhoods. Addition of aboveground transmission lines shatters the strategy of compact growth, changes the nature of the urban corridor, and will produce severe and deleterious economic effects. Projected economic consequences of FPL's proposed transmission lines on the existing and future economy of the US 1 corridor have not been included in the combined operating license application (COLA) for Turkey Point nuclear reactors 6 & 7. This report details the probable consequences on the existing economy.

- FPL's proposed US 1 transmission line corridor directly affects a minimum of 173,000 people or 7.2% of the county's residents (derived from the ZIP Code map, Figure 2.2 and Table 2.1). But seen as the gateway to the South Miami-Dade Watershed region and areas to the North including the City of Miami, Coral Gables, South Miami, Pinecrest, and Palmetto Bay, the area is a portal and corridor for almost a million people or 38% of the county's residents (Table 2.2).

- The value of the 4,091 parcels (buildings and land) within two blocks on both sides of the transmission line route was assessed at $4.03 billion in 2010, including FPL Corridor Option 1 at Brickell, 16th to 136 Street SW, and FPL's proposed corridor around Dadeland (Table 3.3).

- We examined the literature on effects of transmission line proximity on property values. Overall we found a high degree of concordance between surveys of real estate professionals and statistical analyses by academicians, with industry consultants consistently publishing lesser effects. Real estate professionals reported a 10.3% decline, academicians a 12.6% decline, and industry consultants a 2.7% decline. A detailed regression study of an area with an urban density most comparable to that found along US 1 revealed a 10% decline in value (Des Rossiers, 2002; Table 4.2).

- We have applied an array of loss rates: 5%, 10%, 20%, and 34% to reflect the range of findings from studies done in other regions. **Based on the literature, our best conservative estimate is to expect a minimum of 10% property loss from construction of transmission lines on US 1**, but losses as high as 20% could occur as this value was found in the higher income neighborhoods of Montreal in the study by Des Rossiers (2002). The 10% and 20% loss rates applied to the FPL transmission line corridor would create declines in property values of $400 and $800 million respectively.

- **At a 10% property loss rate, local municipalities would lose an aggregate of $9.3 million in property taxes annually** (Table 5.1). **Total revenue losses would be approximately $24.5 million annually.**

- **The 10% property value loss rate translates into a total job loss ranging from 4,382 to 8,040 jobs,** depending on the labor-intensity of the job sectors that are most affected. **The economic cost of the average expected job loss is $300 million per year.**

- We note two anecdotal cases of urban power lines in South Florida associated with economic loss and urban blight:

  1. A set of power lines occupy the portion of West 63rd St., North Miami Beach that fronts 6205 Laguna Path, a 4 story, $1.5 million townhouse, part of the Aqua project on Allison Island that was purchased in 2005 prior to construction, on the basis of the promoter's models and drawings. Once built, however, the owner realized that the spectacular living room view of the channel was marred by the powerlines and poles in the center stage. The owner has therefore kept the property off the market due to the severe penalty caused by the disamenity of visible aboveground power lines.

  2. The State Road 7 / US 441 corridor in Broward County has, since 2004, been designated as a growth corridor by the both County and the South Florida Regional Planning Council. However, the transmission lines along the route may have effectively turned investors away (Section 6).

- **Our best prediction of economic loss to municipalities along the proposed US 1 corridor is severe: approximately $400 million in property losses, $300 million a year in household income from job losses, and $25 million a year in losses to municipal revenue.**

- **We caution that the *path* proposed by FPL to transmit the energy needed for economic growth in the region will likely become both the assassin and graveyard of economic activity and growth, a *"corridor to nowhere"*.**

Economic Impacts of the FPL Transmission Lines in the US 1 Corridor

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Section 1. History of the Corridor: Between Ocean and Swamp

The growth of Miami in the past decades has been an alternating clash between "sprawl-and-spread" growth, on the one hand, and "compact-and-compressed" growth with higher densities, on the other. One would think that Miami, a city constrained between the ocean and the swamp, would have been forced to grow upward, not outward. Geography alone would dictate that compactness and density would win over sprawl.

The record shows otherwise: indeed, of Florida's counties on the lower East coast, Miami-Dade is already the most densely populated with 8.4 people per urban acre, more than Broward with 7.2 inhabitants per acre. (See Table 1.1, col. 3, lines 1-2.) But the average for the nine South Florida counties is half Miami-Dade's density or 4.8 people per urban acre.

More important than density is a measure of the historical "responsiveness" of urban land absorption as the population grows. Economists call this responsiveness "the elasticity of demand for urban land with respect to urban population growth" and we measure it in terms of the percentage change in land relative to the percent change in urban population for a given time period and county. We computed the elasticities for a number of counties using two comparable land use studies done in 1988 and 1995 (Table 1.1, col. 4). The value for Miami-Dade is 0.910, or almost unity, which means that historically, a 10% increase in urban population has been associated with a 9.1% increase in urban land occupancy. Note that the elasticity value for Miami-Dade is the highest of all the counties in Table 1.1. Indeed, only the values for St. Martin (0.76) and for the lower West coast counties (0.88) approach Miami-Dade's "sprawl tendency."

This sprawl tendency means simply that Miami-Dade incorporated 44.5 thousand new urban acres from 1995 to 2010 to accommodate its growing population (Table 1.1, col. 9). This kind of land-intensive growth expresses itself in the periodic wars to push the Urban Development Boundary westward and to fill in ecologically precarious lands, reduce parklands, and build on any kind of open space. Palm Beach County took 44.6 thousand acres, and that, with a lower elasticity (0.55) but a higher rate of population growth (33% vs. 20% for Miami-Dade). But on Florida's lower West coast, the

population of the four sprawl-setting counties grew by 108% (Table 1.1, col. 7) and transformed 284 thousand acres into urban land.

Clearly, with these historical parameters, the continued growth of the cities in their traditional manner is unsustainable. If the historical tendencies are not checked, the future of the Everglades is doomed as the cities seek more and more of the marshy land to fill in and build upon.

In the southern suburbs of Miami, however, developers had learned early to make peace with precarious coastal lowlands due to the high water table, frequent floods, the exuberance of the hurricanes, and the multitude transversal creeks and canals, simply in order to capitalize on the sheer beauty of the place. Dan Williams' South Dade Watershed Project (1995) offered a planner's visualization of the region, which could work neatly with another approach that could be realized in South Florida. The Governor's Commission for a Sustainable South Florida, which started to meet monthly in the mid-nineties, began to promote a more compact development by pushing *eastward*, not westward, in order to remove pressure on the agricultural lands and on the water collection areas of the Everglades. As the Everglades were to be "re-hydrated" and water levels raised, the adjacent cities would require great flood protection and better drainage. The built area would have to be kept back, intensified, filled in, and the economic impetus to sprawl – the reward for converting freshwater marshland into houses – would have to be kept in check (see SF Regional Planning Council 1996, and Burchell 1999).

At the same time, researchers were showing that the "sprawl-model" by which most of Florida had been developed was merely shifting the costs of infrastructure from the private developer (who took his profit up front) to the counties and municipalities who then had to tax the new residents to cover *their* new costs. Burchell computed the detailed costs of sprawl for New Jersey (2000), most major U.S. cities (2002), and the saving that South Florida could realize by compact development (2003). A special six-volume study was completed in 2002 on the retention of the agricultural land and those strategies and policies that would keep the South Dade farmer in business (Degner & Morgan, eds., 2002).

Miami-Dade County, together with the other agencies, sponsored a million dollar South Miami-Dade Watershed Study (2007) which today offers a clear plan which

comprehends and builds on these earlier visions. The drive to sprawl could be checked, the farm lands protected, and the Urban Development Boundary held, all by focusing development on the US 1 corridor which had several distinct advantages: a rapid transit system; an exclusive busway; the high coastal ridge to minimize flooding in view of future sea level rise; home to a variety of income groups and land uses.

A series of charettes propelled the ideas: the cities and towns would become focal points for development along the corridor: Coral Gables, South Miami, Kendall, Pinecrest, Palmetto Bay, Cutler Bay – and the small towns too – Leisure City, Naranja, Princeton, Goulds, Cutler Ridge, Perrine —and the endpoints, Florida City and Homestead. With commercial, residential, and industrial growth concentrated along the straight and naturally elevated US 1 corridor, the remaining agricultural lands and open spaces would be retained and the urban infrastructure consolidated. The Plan (2007) was widely publicized and the collaborating towns and cities along the route began laying the groundwork for new city-centers, higher densities, and more compact zoning.

Into this setting enter the FPL transmission lines. They clash, head-on, with two decades of work by the local communities and county planners. Along this very route are to be strung the three 230 KV lines with 80' to105' high concrete poles every 300 ft., held in place by guyed wires where needed. Possibly three or more "underbuilt" lines are to be strung lower down the poles. The poles themselves measure almost 4 feet in diameter, such that the hands of two grown men hugging the poles on opposite sides barely reach one another. The poles dwarf the neighboring buildings, hospital, shops and schools; they block the sidewalks if they are placed near the curb to suspend the lines over the roadway.

What are the economic impacts of running the lines from the Falls up US 1 to Brickell? What would the true cost be to the society which has already launched itself onto a risky but rational venture of compact growth along that very corridor?

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Section 2. Population in the FPL Corridor

How many people will be affected directly by FPL's proposed transmission line corridor on US 1?

We used three sources for deriving population figures:

1) ZIP Code zones along the route.
2) Miami-Dade Planning and Zoning Dept. Projections from the year 2000 onwards for minor statistical areas.
3) South Miami-Dade Watershed Study estimates and projections for the region.

The IMPLAN file for Miami-Dade County provides economic information on population and business activity for all 79 ZIP Codes of Miami-Dade County. We have selected the eight ZIP Codes through which FPL's proposed Eastern Corridor passes (see accompanying Map 2.1). The population of the "ZIP Code corridor" is almost 207,000 persons living on 49 square miles, making for a density of 4,218 people per square mile; Table 2.1, lines 2-4, col. 1). This population constitutes 8.6% of the County's total population, living on 2.5% of the land area, creating a density that is 3.4 times the countywide average (Table 2.1, col.3, lines 2-4).

Almost 160,000 people are employed in the corridor, or 11.1% of the County's total workforce. Total personal income is $12.6 billion, which is 14% of the county total. Household income averages $145,000, or 145% of the countywide average of $100,322 (Table 2.1, lines 7-8, cols. 1-3).

By extending the US1 corridor all the way to Homestead (Table 2.1, col. 4), we add more area and more families. The entire corridor encompasses 16% of the county's population, households, and workforce (Table 2.1, lines 2, 5, 6) and 21% of its total personal income. The overall population density of the entire corridor is lower than the FPL Eastern corridor on US 1, but is still 2.2 times the countywide average, and household income averages $127,000, which is 127% of the countywide average.

In summary, then, the ZIP Code corridor is the narrowest economic area around the FPL proposed Eastern corridor and encompasses 9% of the population, 11% of the jobs, and 14% of the county's personal income. Its density is 3.4 times higher than the county

average, and household incomes average 45% higher than the county average. It is the high-end corridor into Miami.

A statistical "cut" of the corridor, which is broader than the ZIP Code file, is provided by the Miami-Dade County "minor statistical areas" (Table 2.2.). According to this measure, the population of the FPL Corridor was 349,000 in 2000 or 15.5% of the county, projected to reach 402,000 by 2015. The addition of five more statistical areas for the "southern extended" corridor adds another 176,000 people, totaling 23% of the County's population in 2000 and projected to reach 38% of the County by 2025. (Table 2.2, line 9).

The broadest boundary around the FPL proposed Eastern corridor on US 1 is drawn by the South Miami-Dade Watershed Study (Table 2.2, line C), which views the entire region as a single unit of almost a million people or 38% of the County's population.

In summary, the ZIP Code file gives the narrowest number of people in the zone, or 207,000 or 8.6% of the county's population. The County's Planning and Zoning "Statistical Areas" draws a larger corridor boundary with 349,000 people or 15.5% of the county, and the Watershed Study comprehends an even larger area with about a million people or 38% of the county.

But in addition to the sheer number of people living in the corridor area, our concern now turns to the economic value likely to be affected by the addition of new above-ground transmission lines on the corridor in question.

Section 3. The Value of Corridor Property

We divided the FPL Corridor Route into 13 segments, from SW 16th to SW 136 St., plus Option 1 at Brickell and the "noose" around Dadeland. We examined a total of 4,091 properties on two blocks on both sides of the transmission line route. We noted their CLUC (land use codes), address, square footage, value of land, value of building, and total market value (see sample in Table 3.1).

The variety of land uses is broad. In the sample of properties shown in Table 3.1 which refer to SW 26-36 Streets, on both sides of US 1, we recorded 21 different land uses, including commercial, industrial, institutional, residential, and many vacant properties. These data could be valuable research tool for identifying potential areas for land use improvements in the corridor (see Table 3.2 for a summary of the Land Use Codes found in the sample properties).

We have found that the total market value for all land and buildings, two blocks on both sides of US 1 is $4,031,771,963 just over $4.03 billion (Table 3.3.)[1].

This estimate raises three further questions, only one of which will we attempt to answer in this report. The first and most important question is, "What is the impact of the transmission lines on the value of these properties and the economic activity they generate?"

The second question is not explored here, but is extremely important nonetheless. If the current value of local properties has already lost perhaps half of their value in the recent economic meltdown, then to what extent will the <u>future</u> (and presumably recovering) value be affected by FPL's proposed transmission lines on the US 1 corridor? This question assumes that the recovery continues, as FPL assumes, and which is the entire basis of the need for the new transmission lines in the first place (e.g., Statement of Need, approved by the Public Service Commission on 11 April 2008).

Third, what is the loss of investment in expansion and new construction that would be scheduled for the high-density corridor that now, with the transmission lines, might be deterred and seek other places if not other counties? What is the cost of returning to the

[1] The team of University of Miami graduate students participating in this project were: Vania Baker, Meisha Brisbane, Ali Bustamante, Sephanie Cazobon, Patricia Guia-Martini, Andrej Lampe, Carl Mbao, Meissa Meade, Martha Rodriguez, Mathieu Root, Sarah Slater and Lina Sokol. Edward Laird constructed a 40 ft. array of panels using aerial photographs of the entire proposed US 1 Corridor. Mr. Laird also created a full-size cardboard replica of the base segment of a typical 4 ft. diameter transmission line pole.

sprawling, non-compact growth pattern if high-rise residential and business construction shuns the transmission line corridor?

In the absence of published studies of the impact of transmission lines on property values in Florida, we shall turn now to a detailed review of the published literature and their findings.

Section 4. Literature review of the decline in property value adjacent to transmission lines.

Two types of studies have been applied to measure the economic impacts of transmission lines on property value: the questionnaire-survey and statistical regression analysis. The former asks questions of industry experts and buyers of property. The latter uses data of sales and detailed records of the characteristics of those properties.

One type of direct survey inquires as to the magnitude of the loss or gain due to transmission lines, and a second asks simply if is the properties experience a loss or gain of value. Among the responses to the questionnaires sent to appraisers, real estate professionals, and purchasers overwhelmingly cite transmission lines as a disamenity, that is, a downward influence on price. (Table 4.1, cols. 6-7). Only one survey found no effect (Table 4.1, line 6). The average loss for the 12 reporting cases was 10.3%.

Among the 11 surveys inquiring simply if there was a gain or loss due to transmission lines, (without estimating the magnitude of that loss or gain), an average of 57% of respondents reported a loss; in 3 studies, 46% of the respondents said "no loss, no gain," and 2 surveys, 10.5%, reported gains, usually due to larger parcel sizes or to the recreational amenities and low traffic associated with transmission line easements (Table 4.1, cols. 11-13, bottom line).

In the statistical regression analysis, the researchers use multivariate statistical techniques to measure the "contribution" of the transmission line to the value of the house. This variable itself may get redefined into other dimensions: distance from the transmission line, front or rear sighting, noise, plus the wide array normal variables, such as year of construction, rooms, lot size, and other amenities.

But these observations appear, and measurements can be "made", only when the houses are sold. What if the house cannot be sold, as may occur if the owner is unwilling or unable to take the market loss and chooses to hold on to his otherwise "devalued" property? In such cases, the "loss of value" is never realized, the measurement is never made, and the "observation" never appears in the data set. Moreover, the "loss" of housing or commercial construction foregone due to the transmission line is not recorded in these data. For this reason, empirical data sets may provide an overly optimistic estimate of actual property values adjacent to transmission lines.

Including all eighteen regression studies, the mean recorded loss attributable to transmission line proximity was 6.4% (Table 4.2, line 22, col. 7; Table 4.3). However, we consider the possibility of bias within these studies. For instance, studies published in peer-reviewed journals are universally considered more reliable than those published without peer review. Likewise, studies performed by industry consultants are likely to find outcomes favorable to industry because a consulting firm stands to be hired again if its results favor the industry's interest. We analyzed the literature for evidence of these two potential biases, journal type and author employment (Table 4.3).

We found that studies by industry consultants reported significantly lower mean (average) property devaluations from transmission line proximity than studies by academics, 2.7% vs. 12.6% ($p=0.004$, Table 4.3). For non-statisticians, the Fisherian significance value, "p=0.004" can be interpreted to mean that elves rolling dice would only obtain a difference in mean roll scores as extreme or more extreme than the difference in reported devaluation means no more than four times in a thousand. In other words, such an extreme difference between the author groups (industry consultant vs. academic) is extremely unlikely to have been obtained by chance alone, and thus likely has an underlying cause. We posit this cause to be financial conflict of interest experienced by industry consultants.

Examining the effect of journal type, we found that the non-peer-reviewed literature reported a lesser decline on average than the peer reviewed literature, 4.25% vs. 8.6%. While the difference is not statistically significant (t-test, 1-tailed, unequal variance, $t=1.38$, $p=0.09$), one data point falls more than three standard deviations beyond the mean, the accepted statistical standard for outlier exclusion; a study prepared by the University of Quebec for Hydro-Quebec found transmission line proximity associated with a 17% decline in property value. Omitting this statistical outlier from this analysis, the mean value decline in non-peer-reviewed literature is a 2.67% and the difference between peer-reviewed and non-peer-reviewed literature is statistically significant ($t=2.18$, $p=0.03$). Even within the peer-reviewed literature, industry consultants reported significantly lower devaluations than academics, 2.3% vs.13.3% ($t=2.99$, $p=0.01$).

Which group of studies is most accurate? The question is resolved by the corroboration of the academic regression studies by the real estate professional

questionnaire surveys. Surveys of real estate professionals reported an average 10.3% loss of property values due to transmission line proximity, a figure in concordance with the 12.6% average reported in the academic studies, and much higher than the 2.7% reported by industry consultants. We place confidence in the concordance between the realtor surveys and the academic regression studies.

Seeking studies most geographically and economically similar to US 1, we imagined the ideal study in which urban property values along a major thoroughfare were measured before and after the construction of a high-voltage transmission line. It hasn't been published yet. Most published studies analyzed corridors that pass through small towns between major cities, but the study by Des Rossiers (2002) examined the city of Brossard in the Greater Montreal Area (Table 4.2, line 7), a region directly comparable to the urban character of FPL's proposed US 1 corridor. That city of 69,000 is smaller than our corridor of 207,000 people (as measured by the ZIP Code areas, Table 2.1 above), but Brossard's density of 4,059 people per sq. mile is very similar to our corridor's density of 4,218 people per sq mile. Des Rossiers (2002) used a sample of 507 single-family houses sold between 1991 and 1996, but the high-voltage transmission line corridor was itself two miles long and 200 ft. wide, and not built alongside a major thoroughfare: their 315 kV lines were run on high pylons down the middle of its exclusive corridor, whereas US 1 would feature 230 kV lines situated along the roadway. Des Rossiers' study is outstanding in the number of variables tested (62), the numerous geographical and class divisions of the city, the number of models tested, and the forms of the equations fitted. In Brossard, Des Rossiers found transmission line proximity produced on average a 10% loss of residential property value and a maximum loss of 20% in certain locations. An earlier of another Quebec site (Table 4.2, line 7, Université du Quebec, 1982) found a maximum of 34% value loss.

The concordance between Des Rossier's study (10% loss), the realtor surveys (10.3% loss), and the academic regression studies (12.6% loss) give us confidence that **10% is a reliable and conservative figure for the property value loss within two blocks of FPL's US 1.** Below we apply a range of property loss rate projections to the property corridor: 5%, 10%, 20%, and 34%, then select 10% for our remaining calculations.

In our review of 42 studies, important questions arise, for example:

1) For how long does the disamenity last? One year? Ten years? Some studies found that prices "normalized" after 20 years.

2) Over what distance is the disamenity "effective"? One block? Two blocks? 200 meters? The literature shows that distance depends on the field of vision, the height of the towers, and intervening structures and foliage.

3) Some studies report no loss of sale price, but rather a longer time period to sell the property at the asking price. Such an economic effect fails to show up in the regression analysis but requires the conversion of the lost time into the price variable.

4) Literature shows that the *perception* of the disamenity is itself the "real" cause of lost value, so that, for example, developers of upscale restaurants, car dealerships, hospitals, and daycare centers are likely to avoid the transmission line corridor altogether.

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Section 5. Value of Property and Job Loss in Miami-Dade County

5.1 Loss in property values

In Section 3 above, we identified property valued $4.03 billion in the two-block corridor along the FPL's preferred route. At loss rates of 5%, 10%, 20%, and 34%, respectively, the corresponding losses in property values are $203 million, $403 million, $803 million, and $1.37 billion for the respective loss rates (Table 5.1, lines A.1-A.4.). The corresponding losses of property tax revenues (valued on the Miami-Dade County millage rate of 22.992) range from $4.6 to $31.5 million annually (Table 5.1, lines B.1-B.4.). **At the "best-estimate" loss rate of 10%, the projected property value loss from transmission lines on US 1 is $403 million, roughly twice FPL's upper estimate of $200 million required to underground these lines.**

5.1 Loss in municipal revenues

A property value loss of 10% translates to annual property tax losses of $9.3 million (Table 5.1, B). The losses in other municipal revenues are more difficult to model, but we can make an approximation. Ad-valorem taxes in South Miami constitute 38% of annual municipal revenues, so assuming the hit to property value affects other activities such as construction and retail by a proportional amount, we can assume **that total annual revenues lost would be $24.5 million** ($9.3 million / 0.34). Loss rates of 20% would produce annual ad-valorem tax loss of $18.6 million and total revenue losses of $49 million. **At a 10% value loss, the lost municipal revenues alone would exceed the cost of undergrounding in eight years, and at 20% value loss, municipal revenue losses would exceed the undergrounding costs in four years.**

5.2 Job Losses

How do property value losses affect the number of jobs in the economy? How does "dollar property loss" translate into "job loss"? Fortunately economists have developed two standard models for measuring economic impacts of different "events" or policy changes, IMPLAN (Impact Analysis for Planners) and REMI (Regional Economic Modeling, Inc.; see IMPLAN.com and REMI.com). Both are excellent analytic tools;

each gives a different dimension of the economy, and both must be used to obtain a complete projection of economic impacts. IMPLAN measures the impacts for a single time period. It assumes the full "loss" ripples through the economy all at once. It collapses or consolidates all the economic effects into a single "solution," even if the effects take years to work themselves out and occur at different points in time. IMPLAN deals primarily with the backward or production linkages, with the inter-industry connections, and also with the consumption effect of workers' spending as a result of an impact or policy change. These effects are specified as "direct, indirect, and induced" effects on jobs; their sum is the total job impact. IMPLAN gives us an "X-ray" of the economy. Alter one economic entity, such as land value, and IMPLAN will trace which other components are connected to it and quantitatively how much value flows from one economic entity to another. REMI (Regional Economic Modeling, Inc.) is analogous to a video MRI of the patient yesterday, today, tomorrow, and for the next 40 years. The REMI model measures the interactions between the interconnected economic components. This modeling system includes "blocks" that trace flows and relationships between output, capital and labor demand, population and labor supply, wages, prices, and profits, and market shares (see the sketch of the economic pieces in Figure 5.1). Both tools give the analyst significant insights into the impacts of a disamenity.

Once the real estate market "recognizes" the disamenity and prices react, say, by a decline of 10%, what is the next step? Do the homeowners and business owners see themselves as "poorer," and if so, how is that expressed? If prices and appraisals fall, then taxes will fall and government spending will fall. But the private citizen's reaction to losing 10% of the value of his house may vary widely. The aggregate loss in the Miami-Dade economy of $403 million, almost a half billion dollars when the lines are completed, spread across 4,000 property owners, may lead to different scenarios. How will individuals, families, and businesses express this loss? Will they cut spending across the board, invest less, or save more? Will they cut discretionary spending on restaurants, jewelry, and travel, or insist on cuts in social services, such as nursing care and education? The precise responses of different property owners to declining property values determines how the value losses resonate through the economy.

5.2a IMPLAN Job Loss

We use IMPLAN as a fast "X-ray" guide to these alternatives, designing alternative programs to evaluate the impact of different levels of value reductions (5%, 10%, 20%, and 34%) on different arrays of sectors (Table 5.2, lines A 1-6). **At 10% property devaluation,** the affected neighborhoods along the corridor **would experience from 4,382 to 8,040 jobs lost,** with the precise number depending on the economic sectors present and affected by spending reductions (Table 5.2). For instance, if just the real estate sector and government-spending take the full hit, then a total of 4,382 jobs will be lost at the 10% property loss level (Table 5.2, col. 2, line A). But if the cut in sector spending hits air travel, private colleges, and retailing (Table 5.2, line 2), then 5,170 jobs will be lost. The most service-intensive "basket" of cuts is our last scenario (Table 5.2, col. 2, line 6) which reduces $403 million in spending on private education, real estate, nursing care facilities, food and drinking places, and jewelry manufacturing. In this case, 8,040 jobs would be lost.

All the numbers above assume that the effects are compressed into a single year. We must now turn to REMI and play out similar scenarios with a more complex regional economic model and for a longer time span.

5.2b REMI Job Loss

The basic REMI model for Miami-Dade County gives results that are similar to the IMPLAN findings. At a 10% property loss, REMI finds the first year reduction in jobs of 3,790, compared to the IMPLAN loss of 4,382 jobs. (Table 5.3, line A). But REMI allows us to keep the disamenity in place for a number of years and watch as its "unattractiveness" disappears. The underlying assumption entered into REMI is that the disamenity causes an initial drop in value, then people gradually get used to the disamenity and business as usual returns. In a low quality economic area (e.g., industrial, used motor homes, fast food), the assumption of a disappearing disamenity may be founded. In upscale retail and residential areas, however, the desired development may simply move to a location lacking the disamenity, to be replaced by activities of lower economic value. In the former scenario (gradually returning value), the number of lost jobs declines gradually to 3,056 in five years (2015) and to 2,132 in ten years (2020). If

the disamenity lasts 30 years, then the impact is still a loss of 838 jobs by 2040. The length and depth of the trough (job loss) due to the disamenity is shown in Graph 5.1 for the 10% rate. Under the second scenario, if the jobs return at all they would be at lower pay grades.

The depth of the trough might also vary, as we discovered already from our IMPLAN experiments. For a five-year disamenity, if only the real estate sector is affected, then the REMI model finds that 2,586 jobs per year will be affected *for each year*, falling to 2,142 jobs per year in five years. (Table 5.3, line B1) If the business service sector takes the hit (line B2), then 7,536 jobs will be affected, falling to about 6,000 jobs in 5 years. If, however, nursing takes the hit, then 10,680 jobs per year will be lost, falling to 8,238 jobs by 2015 (line B3). If the disamenity lasts long and affects the service or health industries, then the impact on jobs could be quite severe.

5.3 Economic Effect of Job Loss

Let us calculate the economic cost of jobs lost from a 10% property value decline. We assume average income is $50,166, half the countywide family total income of $100,322. We assume the expected job loss number is the average value in Table 5.2, 5955 jobs. **The annual cost of the job loss is $298,738,530, approximately $300 million.**

Recognize that these loss figures do not include the effects of transmission lines on the recovery of property values and jobs lost in the recent economic hyper-recession. Nor do these loss figures include the cost in future development desired for the US 1 corridor. Nor do these loss figures include the extreme cost of infrastructure needed to service the urban sprawl that would result from failure to create density along this corridor. Actual costs to the region could be an order of magnitude higher than those projected in this study.

The potential gains of value to society from enhanced electrical transmission must be fairly offset by the economic losses from citing aboveground transmission lines on the US 1 corridor.

Section 6. Epilogue - Stories of the Special Case: a Corridor to Nowhere

The entire US 1 development strategy, a decade of collaborative planning and action on the part of local and county government, is jeopardized by FPL's transmission line project, and the anti-sprawl program of compact growth along the corridor is likewise threatened. As a prologue, we provide two cautionary case studies that will never be featured in the regression analysis literature.

In 2005 Howard Taft and Charles Gelman bought a 4-floor town house at 6205 Laguna Path, a part of the famous Aqua Project on Allison Island in North Miami Beach. They paid $1.4 million prior to construction on the basis of models and architectural renderings. Their corner lot was to have a corner window and a spectacular view of the bay channel. However, after it was built, the frontage was marred by a spectacular view of poles and power lines running up West 63rd Street. The owners replaced the corner picture window with opaque glass that lets in light but no images. To this day, the prices Taft and Gelman have been offered for the property, even by the current tenants, is far below the market value of comparable properties that lack power lines in front. The owners have been unwilling to sell at the "disamenity" price, thus the property will not appear among data on disamenity losses.

The second case is another transmission corridor that, perhaps, gives us a glimpse of what US 1 with transmission lines might come to look like. In Broward County, State Road 7 / US 441 had been targeted as a "future growth corridor" by the South Florida Regional Planning Council. About 17.5% of Broward's residents reside within a mile of the transmission lines. In 2004, the Urban Land Institute (ULI) identified five major development centers along the corridor and forecast growth of office space, retailing, hotels, and new residences in a study commissioned by the SR 7 / US 441 Collaborative. Yet the corridor never developed and remains a semi-moribund zone. Is it because of the landfill along part of the route? The casino? The remains of an old incinerator site? Or maybe it is the miles of high-voltage transmission wires that parallel and cross the route?

We find it ironic indeed that the very conveyance of the energy needed for economic growth can itself prevent the same growth. Siting a new transmission corridor though a developing urban region may create a graveyard monument to the economic potential it destroyed, a corridor to nowhere.

Table 1.1
Measures of Sprawl and South Florida Appetite for Land, 1995-2010

	1995			1988-1995	2010	1995-2010			
	Urban Pop. (thou.)	Urban Land (thou acres)	Density (People/ acre	Land-Pop. Elasticity	Urban Pop (thou.)	Pop. abs. chnge. (thou.)	% chge pop.	% chge land	new urban land (thou. ac.)
	1	2	3	4	5	6	7	8	9
A. Lower East Coast (LEC)									
1 M-Dade	2,085	248	8.4	0.910	2,496	411	19.7	17.9	44.5
2 Broward	1,438	199	7.2	0.532	1,748	310	21.6	11.5	22.8
3 Palm Beach	995	250	4.0	0.546	1,320	325	32.7	17.8	44.6
Sum (3 counties)	4,518	697	6.5	0.693	5,564	1,046	23.2	16.1	111.9
B. Upper East Coast (UEC)									
4 Martin	114	50	2.3	0.763	146	32	28.1	21.4	10.7
5 St. Lucie	173	73	2.4	0.137	278	105	60.7	8.3	6.1
Sum (2 counties)	287	123	2.3	0.286	424	137	47.7	13.7	16.8
C Lwr. E. Coast (5 counties)	4,805	820	5.9	0.637	5,988	1,183	24.6	15.7	128.7
D. Lower West Coast (LWC) (Collier, Glades, Lee, Hendry) Sum (4 counties)	620	300	2.1	0.879	1,289	669	107.9	94.8	284.4
E Sum: 9 counties	5,425	1,120	4.8	1.080	7,277	1,852	34.1	36.9	413.1

Sources and Methods:
col. 1: Population 1995 from BEBR, Fla. Statistical Abstract 2002, Table 1.20.
col.2: Urban land 1995 from SFWMD GIS Data, CD-ROM #1, "Land Use, National Wetlands Inventory", West Palm Beach, 1997.
col. 3: Computed col.1/col. 2.
col. 4: Elasticity from Weisskoff 2005, Econ of Everglades Restoration. Table 4.2, p. 87. See computations there.
Elasticity is defined as the % change in land divided by the % change in population.
col. 5: Population from BEBR, Table 1, http://www.bebr.ufl.edu/content/census-population-counts-county-and-city-florida-2000-2010-new
col.6 = col. 5 - col. 1.
col. 7 = (col. 5 - col. 1)/(col. 1)
col. 8 = col.4 * col. 7.
col. 9 = col. 8 *.col. 2

Table 2.1 IMPLAN Socio-Economic Data of the FPL Corridor by Zip Codes Narrow and Extended, 2008 Data.

	FPL Corridor	M-D County	% FPL/ County col 1/col 2	Entire Corridor to Homestead	% Entire Corr/County col 4/col 2
	1	2	3	4	5
1 Number of Zip Codes*	8	79	10.1	14	17.7
2 Population	206,682	2,398,245	8.6	387,150	16.1
3 Area (sq.miles)	49	1,945	2.5	137	7.0
4 Density (pop/sq mi)	4,218	1,233	342.1	2,816	228.4
5 Employment	159,527	1,441,182	11.1	223,096	15.5
6 No. households	87,078	901,127	9.7	147,673	16.4
7 Total personal income (bill. $)	$12.649	$90.402	14.0	$18.754	20.7
8 Income per household $	$145,257	$100,322	144.8	$126,999	126.6
9 No. IMPLAN sectors**	222	384	57.8	245	63.8

Notes:
* Zip codes for FPL Corridor are: 33129, 30, 33, 43, 46, 56, 58, & 76.
Zip codes for the rest of the US1 Corridor include: 33157, 189, 170, 032, 033, & 030.

* *The IMPLAN model has potentially 440 producing sectors, but not all are found in any single area. The number of sectors in any given region indicates the number of inter-industry linkages operating in the region.

Source: IMPLAN zip-code data files for Miami-Dade County, 2008.

Table 2.2 Projecting Population Growth and Expansion in the Corridor: M-D P&Z Dept. and South Miami-Dade Watershed Study.

A. Miami Dade Planning & Zoning Minor Statistical Areas	2000	2015	2025	Abs.Chge	% Change
	1	2	3	4	5
1 FPL Corridor				2000-2025	2000-2025
5.2	55,893	79,106	92,559	36,666	65.6
5.3	120,126	128,766	131,814	11,688	9.7
5.5	80,111	88,586	96,165	16,054	20.0
5.6	32,431	35,188	36,720	4,289	13.2
5.7	25,346	28,104	30,131	4,785	18.9
5.8	35,040	42,501	48,629	13,589	38.8
2 Total: FPL Corridor	**348,947**	**402,251**	**436,018**	**87,071**	**25.0**
3 South Extension:					
7.1	41,575	76,248	99,332	57,757	138.9
7.2	39,327	58,490	73,199	33,872	86.1
7.3	32,367	43,205	50,854	18,487	57.1
7.4	48,364	104,187	146,118	97,754	202.1
7.5	14,636	36,024	49,979	35,343	241.5
4 Total: South Extension	**176,269**	**318,154**	**419,482**	**243,213**	**138.0**
5 Sum Entire Corridor	525,216	720,405	855,500	330,284	62.9
6 Total: Miami-Dade County	2,253,362	2,724,623	3,046,081	792,719	35.2
7 % FPL Corridor/ County	**15.5**	**14.8**	**14.3**	**11.0**	
8 % So. Extension only/County	**7.8**	**11.7**	**13.8**	**30.7**	
9 % Entire Corridor/County	**23.3**	**26.4**	**28.1**	**41.7**	
B. Watershed Project Region	952,779	1,033,751	1,161,016	208,237	21.9
% of County:	38.2%	37.9	38.1		

Sources:

A. Miami-Dade County, Dept of Planning and Zoning, Research Section, Population Estimates and Projections, Feb. 2008.

B. South Miami-Dade Watershed Study, 2007, Table 2.1, p. 2.6.

Table 3.1
Sample Appraisal Valuation of "Power Line Properties", 26-36 St., Two blocks in, both sides of US1

	Folio No.	Cluc	Property Address	Adj Sq Footage	lot size	Land	Building	Market Value
1	01-4116-117-0010	47		0	5.17 Acres	1,466,380	0	1,466,380
2	01-4116-038-0010	34	2900 SW 28 LN	11,214	25,432 SQ FT	$1,525,920	$256,518	$1,782,438
3	01-4116-038-0020	81	2940 SW 28 LN	0	12,129 SQ FT	$727,740	0	$727,740
4	01-4116-038-0070	12	2950 SW 28 LN	2,175	6,250 SQ FT	$375,000	$99,823	$474,823
5	01-4116-076-0020	37	2990 SW 28 LN	81,533	29,185 SQ FT	$1,751,100	$3,041,190	$4,792,290
6	01-4116-037-0350	2	2902 SW 27 LN	1,916	10,167 SQ FT	$66,086	$119,062	$185,148
7	01-4116-037-0351	1	2966 SW 27 LN	1,015	6,696 SQ FT	$43,572	$58,575	$102,147
8	01-4116-037-0360	1	2978 SW 27 LN	1,797	8,122 SQ FT	$52,820	$112,473	$165,293
9	01-4116-037-0370	1	2990 SW 27 LN	1,074	8,432 SQ FT	$55,310	$63,204	$118,514
10	01-4116-035-0320	3	2796 SW 30 AVE	1,741	4,500 SQ FT	$40,162	$61,032	$101,194
11	01-4116-035-0330	3	3010 SW 27 LN	1,961	4,500 SQ FT	40,162	$64,864	$105,026
12	01-4116-035-0331	3	3020 SW 27 LN	1,918	4,500 SQ FT	$40,162	$63,253	$103,415
13	01-4116-035-0340	3	3036 SW 27 LN	3,394	9,000 SQ FT	$80,325	$139,482	$219,807
14	01-4116-035-0350	3	3040 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
15	01-4116-035-0360	3	3050 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
16	01-4116-035-0370	3	3060 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
17	01-4116-035-0380	3	3070 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
18	01-4116-035-0390	3	3074 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
19	01-4116-035-0400	3		1,834	4,500 SQ FT	$40,162	$64,293	$104,455
20	01-4116-035-0401	3	3090 SW 27 LN	1,304	3,375 SQ FT	$30,122	$46,732	$76,854
21	01-4116-035-0410	3	3094 SW 27 LN	1,293	3,137 SQ FT	$27,998	$46,847	$74,845
22	01-4116-035-0590	13	3001 SW 28 LN	6,934	10,620 SQ FT	584,100	$21,360	$605,460
23	01-4116-035-0580	81	3015 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
24	01-4116-035-0570	81	3025 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
25	01-4116-035-0560	81	3035 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
26	01-4116-035-0530	32	3029 SW 28 ST	3,660	6,750 SQ FT	$371,250	$1,000	$372,250
27	01-4116-035-0510	36	3051 SW 28 ST	3,380	4,500 SQ FT	$247,500	$56,519	$304,019
28	01-4116-035-0500	81	3055 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
29	01-4116-035-0490	81	3057 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
30	01-4116-035-0480	81	3061 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
31	01-4116-035-0470	81	3071 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
32	01-4116-035-0440	37	3075 SW 28 ST	3,850	6,750 SQ FT	$371,250	$90,960	$462,210
33	01-4116-035-0420	81	3085 SW 28 ST	0	5,963 SQ FT	$327,965	$0	$327,965
34	01-4116-035-0430	37	3099 SW 28 ST	5,339	3,038 SQ FT	$167,090	$165,911	$333,001
35	01-4116-038-0350	13	3010 SW 28 LN	6,550	12,300 SQ FT	$738,000	$401,627	$1,139,627
36	01-4116-038-0420	34	2801 SW 31 AVE	16,824	11,650 SQ FT	$699,000	$405,774	$1,104,774
37	01-4116-038-0260	11	3000 SW 28 LN	51,312	27,973 SQ FT	$1,678,380	$2,848,215	$4,526,595
38	01-4116-038-0270	41	3044 SW 28 LN	4,568	6,250 SQ FT	$375,000	$203,017	$578,017
39	01-4116-038-0330	37	3054 SW 28 LN	98,373	25,000 SQ FT	$1,500,000	$7,000,000	$8,500,000
40	01-4116-038-0340	37	2851 SW 31 AVE	82,863	26,809 SQ FT	$1,608,540	$5,491,460	$7,100,000
41	01-4116-036-0010	42	2805 SW 32 AVE	36,424	9.91 ACRES	$2,916,776	$504,399	$3,421,175
42	01-4116-017-0100	2	3201 SW 29 ST	2,360	7,494 SQ FT	$48,711	$153,510	$202,221
43	01-4116-017-0090	2	2890 SW 32 AVE	2,620	6465 SQ FT	$42,582	$170,892	$213,474
44	01-4116-017-0080	2	2880 SW 32 AVE	2,200	6,465 SQ FT	$42,582	$141,488	$184,070
45	01-4116-017-0130	2	2883 SW 32 CT	2,260	13,899 SQ FT	$90,107	$129,475	$219,582
46	01-4116-017-0120	2	2893 SW 32 CT	1,886	7,584 SQ FT	$49,597	$117,211	$166,808
47	01-4116-017-0300	1	2892 SW 32 CT	883	4,276 SQ FT	$27,879	$50,717	$78,596
48	01-4116-017-0310	1	3261 SW 29 ST	612	2,695 SQ FT	$17,518	$36,064	$53,582
49	01-4116-017-0290	2	2886 SW 32 CT	1,194	6,949 SQ FT	$45,053	$71,964	$117,017
50	01-4116-017-0281	1	2876 SW 32 CT	1,157	6,949 SQ FT	$45,053	$71,907	$116,960
51	01-4116-017-0280	1	2870 SW 32 CT	1,752	6,949 SQ FT	$45,053	$97,303	$142,356
52	01-4116-017-0350	1	2877 SW 33 AVE	1,378	6,949 SQ FT	$45,053	$82,531	$127,584
53	01-4116-017-0340	1	2887 SW 33 AVE	1,128	6,949 SQ FT	$45,053	$65,333	$110,386
54	01-4116-017-0330	2	3281 SW 29 ST	2,200	6,583 SQ FT	$42,957	$138,118	$181,075
55	01-4116-017-0320	2	3285 SW 29 ST	2,195	7,374 SQ FT	$47,931	$137,067	$184,998
56	01-4116-022-0150	2	3260 SW 29 ST	1,371	17,038 SQ FT	$71,148	$106,021	$177,169
57	01-4116-022-0140	41	3270 SW 29 ST	4,576	16,819 SQ FT	$109,324	$204,662	$313,986
58	01-4116-018-0440	1	2911 SW 33 CT	1,522	7,869 SQ FT	$51,148	$45,809	$96,957
59	01-4116-018-0430	2	2901 SW 33 CT	2,419	6,100 SQ FT	$39,820	$152,944	$192,764
60	01-4116-018-0420	2	2891 SW 33 CT	1,502	6,100 SQ FT	$39,820	$87,327	$127,147
61	01-4116-018-0410	1	2881 SW 33 CT	1,435	6,100 SQ FT	$39,820	$75,889	$115,709
62	01-4116-018-0400	81		0	9,150 SQ FT	$59,729	$0	$59,729
63	01-4116-018-0570	2	2920 SW 33 CT	2,906	10,557 SQ FT	$68,620	$177,678	$246,298
64	01-4116-018-0560	1	3351 SW 29 TER	1,182	7,540 SQ FT	$49,338	$68,230	$117,568
65	01-4116-018-0553	2	3363 SW 29 TER	1,746	6,250 SQ FT	$40,500	$114,982	$155,482
66	01-4116-018-0552	2	3369 SW 29 TER	1,892	7,622 SQ FT	$49,872	$119,275	$169,147
67	01-4116-018-0550	2	3375 SW 29 TER	1,431	3,582 SQ FT	$23,283	$87,873	$111,156
68	01-4116-018-0551	1	3373 SW 29 TER	1,150	5,434 SQ FT	$35,321	$69,840	$105,161
69	01-4116-018-0541	1	3377 SW 29 TER	2,390	7,075 SQ FT	$46,172	$154,826	$200,998
70	01-4116-018-0540	2	2935 SW 34 AVE	4,589	7,500 SQ FT	$49,150	$338,480	$387,630

71	01-4116-018-0530	1	2929 SW 34 AVE	1,426	7,500 SQ FT	$49,150	$80,212	$129,362
72	01-4116-018-0520	2	2927 SW 34 AVE	2,400	7,500 SQ FT	$49,150	$152,752	$201,902
73	01-4116-019-1390	1	2960 SW 34 AVE	1,182	6,795 SQ FT	$44,421	$68,052	$112,473
74	01-4116-019-1380	1	2950 SW 34 AVE	1,804	7,250 SQ FT	$47,593	$79,852	$127,445
75	01-4116-019-1372	2	2946 SW 34 AVE	3,389	7,250 SQ FT	$47,593	$204,667	$252,260
76	01-4116-019-1371	3	2940 SW 34 AVE	2,576	7,250 SQ FT	$47,593	$161,964	$209,557
77	01-4116-019-1430	2	2939 SW 35 AVE	2,774	7,250 SQ FT	47,593	$143,358	$190,951
78	01-4116-019-1440	2	2941 SW 35 AVE	1,378	7,250 SQ FT	$47,593	$86,963	$134,556
79	01-4116-019-1450	2	2951 SW 35 AVE	1,935	7,250 SQ FT	$47,593	$122,339	$169,932
80	01-4116-019-1460	2	2961 SW 35 AVE	2,013	7,250 SQ FT	$47,593	$124,520	$172,113
81	01-4116-019-1470	2	3441 SW 29 TER	2,241	10,572 SQ FT	$68,718	$141,039	$209,757
82	01-4116-019-1220	1	2980 SW 35 AVE	2,127	7,000 SQ FT	$45,540	$137,569	$183,109
83	01-4116-019-1230	13	2990 SW 35 AVE	6,201	7,000 SQ FT	$45,500	$488,000	$533,500
84	01-4116-019-1310	1	2965 SW 36 AVE	954	7,000 SQ FT	$45,540	$56,647	$102,187
85	01-4116-019-1320	2	2973 SW 36 AVE	2,201	7,000 SQ FT	$45,540	$137,246	$182,786
86	01-4116-019-1330	65	3555 SW 29 TER	0	14,756 SQ FT	$885,360	$18,525	$903,885
87	01-4121-002-1550	12	3621 S DIXIE HWY	4,119	13,489 SQ FT	$1,031,908	$10,000	$1,041,908
88	01-4121-002-1470	19	3501 S DIXIE HWY	1,997	12,091 SQ FT	$924,962	$1,000	$925,962
sum north side				538,019		23,992,066	27,230,676	51,222,742

South of US 1 — Table 3.1 cont.

	Folio No.	Cluc	Property Address	Adj Sq Footage	lot size	Land	Building	Market Value
1	01-4115-041-0580	11	2600 S DIXIE HW	14,098	24,180 SQ FT	$2,418,000	$764,855	$3,182,855
2	01-4115-041-0570	11	2610 S DIXIE HWY	1,956	5,580 SQ FT	$558,000	$71,754	$629,754
3	01-4115-041-0560	11	2698 S DIXIE HWY	1,196	8,370 SQ FT	$837,000	$74,436	$911,436
4	01-4115-041-0720	11	2795 SW 27 AVE	7,691	8,356 SQ FT	$752,040	$378,300	$1,130,340
5	01-4116-078-0010	26	2775 SW 28 TER	8,647	54,979 SQ FT	5,745,306	$576,239	$6,321,545
6	01-4116-078-0020	11	2710 S DIXIE HWY	4,928	29,228 SQ FT	$2,922,800	$518,948	$3,441,748
7	01-4116-078-0030	11	2720 S DIXIE HWY	18,962	63,190 SQ FT	$5,371,150	$1,251,523	$6,622,673
8	01-4116-028-0130	13	2900 SW 28 TER	46,958	25,593 SQ FT	$1,279,650	$4,362,953	$5,642,603
9	01-4116-028-0170	3	2950 S DIXIE HWY	64,769	52,320 SQ FT	$2,333,472	$2,805,771	$5,139,243
10	01-4116-007-0250	3	2890 VIRGINIA ST	60,229	46,073 SQ FT	$2,073,285	$1,926,715	$4,000,000
11	01-4116-007-0220	1	2923 SW 30 CT	993	7,532 SQ FT	$248,556	$24,537	$273,093
12	01-4116-001-0070	65	2906 VIRGINIA ST	0	6,407 SQ FT	$42,286	$12,513	$54,799
13	01-4116-001-0080	2	2914 VIRGINIA ST	2,997	8,680 SQ FT	$286,440	122,616	$409,056
14	01-4116-007-0110	3	3050 S DIXIE HWY	14,354	17,705 SQ FT	$672,790	$774,615	$1,447,405
15	01-4116-007-0090	1	2920 SW 30 CT	1,249	6,322 SQ FT	$208,626	$70,480	$279,106
16	01-4116-027-0150	40	2901 BRIDGEPORT AVE	8,517	13,797 SQ FT	$1,034,775	$749,130	$1,783,905
17	01-4116-027-0140	13	2911 BRIDGEPORT AVE	1,828	7,500 SQ FT	$375,000	$142,162	$517,162
18	01-4116-027-0130	1	2919 BRIDGEPORT AVE	853	6,750 SQ FT	$337,500	$100	$337,600
19	01-4116-027-0320	10	2925 BRIDGEPORT AVE	1,156	3,213 SQ FT	$0	$0	$177,720
20	01-4116-027-0310	1	2923 BRIDGEPORT AVE	1,156	2,676 SQ FT	$0	$0	$177,720
21	01-4116-027-0160	13	3100 S DIXIE HWY	16,831	23,680 SQ FT	$1,894,400	$1,175,290	$3,069,690
22	01-4116-027-0220	3	2942 BRIDGEPORT AVE	3,887	20,250 SQ FT	$534,600	$58,627	$593,227
23	01-4116-048-0010	11	2999 SW 32 AVE	106,807	8.23 ACRES	$17,931,450	$10,000	$17,941,450
24	01-4116-045-0010	11	2935 MCDONALD ST	2,053	11,458 SQ FT	$973,930	$203,132	$1,177,062
25	01-4116-042-0010	62	3198 S DIXIE HWY	1,846	11,761 SQ FT	$1,058,490	$121,397	$1,179,887
26	01-4116-022-0130	11	3200 S DIXIE HWY	4,183	29,250 SQ FT	$2,632,500	$445,053	$3,077,553
27	01-4116-022-0120	3	3220 W DIXIE HWY	3,155	6,390 SQ FT	319,500	$163,494	$482,994
28	01-4116-022-0110	13	3250 S DIXIE HWY	2,573	13,292 SQ FT	$797,520	$168,508	$966,028
29	01-4116-022-0071	3	3244 W TRADE AVE	3,619	7,500 SQ FT	300,000	$173,962	$473,962
30	01-4116-022-0040	3	3250 W TRADE AVE	14,633	28,000 SQ FT	$1,260,000	$665,904	$1,925,904
31	01-4116-022-0080	3	3270 W TRADE AVE	10,812	15,000 SQ FT	$600,000	$646,040	$1,246,040
32	01-4116-022-0090	3	3280 W TRADE AVE	4,136	7,500 SQ FT	$300,000	$178,627	$478,627
33	01-4116-049-0010	3	3300 S DIXIE HWY	45,059	32,126 SQ FT	$2,730,710	$758,660	$3,489,370
34	01-4116-022-0030	1	3265 BIRD AVE	2,004	13,000 SQ FT	$650,000	$13,353	$663,353
35	01-4116-061-0010	81	3335 BIRD AVE	0	7,841 SQ FT	$392,050	$0	$392,050
36	01-4116-003-0070	81	3355 BIRD AVE	0	4,050 SQ FT	$202,500	$0	$202,500
37	01-4116-047-0030	81	3375 BIRD AVE	0	6,710 SQ FT	$335,500	$0	$335,500
38	01-4116-047-0020	13	3350 S DIXIE HWY	9,088	17,897 SQ FT	$1,521,245	$584,834	$2,106,079
39	01-4116-047-0010	19	3400 S DIXIE HWY	5,040	32,735 SQ FT	$2,946,150	$377,777	$3,323,927
40	01-4116-046-0010	26	3490 S DIXIE HWY	2,912	14,331 SQ FT	$1,218,130	$170,948	$1,389,078
41	01-4121-001-0150	1	3000 ELIZABETH ST	1,052	5,896 SQ FT	$188,672	$28,404	$217,076
42	01-4121-001-0160	1	3420 BIRD AVE	1,543	6,600 SQ FT	$211,200	$44,954	$256,154
43	01-4121-001-0180	1	3011 NEW YORK ST	1,078	6,000 SQ FT	$192,000	$30,354	$222,354
44	01-4121-002-0250	11	3490 BIRD AVE	8,738	41,101 SQ FT	$2,109,284	$605,838	$2,715,122
45	01-4121-002-0560	98	3500 S DIXIE HWY	925	45,300 SQ FT	$4,303,500	$17,399	$4,320,899
Sum south side=				514,511	0	73,100,007	21,270,197	94,725,649

Source: Miami-Dade County, County Appraiser's Files on line, Accessed Oct-Dec., 2010
http://www.miamidade.gov/pa/property_search.asp

Table 3.2
Sample of County Land Use Codes (CLUC) found in Power Line Property from Table 3.1.

Commercial	0011	Retail Outlet
	0012	Repairs, Non-Automotive
	0013	Office Building
	0019	Automotive or Marine
	0026	Service Station - Automotive
Industrial/Warehouse	0032	Light mfg and food processing
	0034	Canneries , bottler
	0036	Heavy industry or lumber yard
	0037	Warehouse or Storage
Institutional	0040	Municipal
	0041	Educational, private
	0042	Club or hall; private
	0047	Dade County
	0098	Federal
Multi-Family	0003	Multi-family 3 or more units
Not used	0062	Railroad Assessment
	0065	Parkin//vacant lot enclosed
Single Family	0001	Residential, single family
	0002	Duplex
	0010	Townhouse
Vacant	0081	Vacant land

Source: Selected from Miami-Dade County Property Appraiser's Office, Web site, from CLUC that appear in our Table 3.1, Col. 2.

Table 3.3
Summary Table of Summed Appraisal Values by Segments, Brickell to 136 St, Both Sides of US 1.

West	# prties		streets	Adj Sq Ft	Land Value	Bldg Value	sum Market v
of US 1	18	opt 1	3rd Ave, 4th St to 15th Rd	122,023	12,978,780	13,441,935	26,420,715
	109	a	16-26	505,656	26,812,968	27,426,144	56,188,017
	88	b	26-36	538,019	23,992,066	27,230,676	51,222,742
	29	c	36-46	163,032	72,688,020	6,556,191	79,244,211
	40	d'	46-56	135,598	35,702,734	7,616,392	45,744,776
	142	d''	46-56	411,448	38,493,510	30,070,002	68,563,512
	21	e	57-66	1,162,416	50,195,938	70,231,925	194,332,949
	75	f	66-76	4,555,411	118,371,353	123,369,756	553,541,109
	134	g	78-88	1,066,884	78,259,882	49,461,447	127,721,329
	27	h	86-96	2,533,060	57,525,060	30,571,005	385,096,065
	301	I	96-106	1,455,400	66,649,510	50,881,298	145,889,438
	48	j	106-116	328,413	22,569,132	8,563,183	40,706,555
	49	k	116-126	104,445	10,975,862	5,621,235	16,597,097
	25	l	126-136	322,777	22,729,183	16,437,273	38,663,800
	1,088		total above	13,282,559	624,965,218	454,036,527	1,803,511,600
	1,106	h opt1		13,404,582	637,943,998	467,478,462	1,829,932,315

East	# prties		streets	Adj Sq Ft	Land Value	Bldg Value	sum Market v
of US 1	49	opt 1	3rd Ave, 4th St to 15th Rd	395,204	21,393,737	19,893,141	41,749,688
	118	a	16-26	468,389	48,206,038	31,960,019	80,166,057
	45	b	26-36	514,511	73,100,007	21,270,197	94,725,649
	89	c	36-46	352,192	57,219,860	18,174,221	75,394,081
	175	d	46-56	472,020	36,126,784	21,751,656	86,839,120
	14	d'	46-56	47,921	7,822,717	5,690,738	13,513,455
	259	e	57-66	1,425,739	100,688,124	76,432,895	229,896,429
	98	f	66-76	1,757,825	229,502,100	57,371,638	370,773,738
	122	g	78-88	1,878,164	299,507,454	91,947,705	391,455,159
	23	h	86-96	516,340	79,399,934	23,202,218	102,602,152
	196	I	96-106	660,124	81,568,397	34,767,012	137,459,739
	21	j	106-116	401,699	58,510,480	20,926,779	79,437,259
	33	k	116-126	551,775	89,149,900	28,881,863	121,535,388
	13	l	126-136	517,320	81,138,049	18,102,119	99,240,168
	1,206	l above		9,564,019	1,241,939,844	450,479,060	1,883,038,394
	1,255		total- with opt1	9,959,223	1,263,333,581	470,372,201	1,924,788,082

Total	# prties		Adj Sq Ft	Land Value	Bldg Value	sum Market v
Dadeland	1,730					276,551,566
West	1,106	total-with opt1	13,404,582	637,943,998	467,478,462	1,829,932,315
East	1,255	total-with opt1	9,959,223	1,263,333,581	470,372,201	1,924,788,082
SUM:	4,091					4,031,271,963

Source & Method: The power line route was traced on Miami-Dade County Appraiser's File, and all Properties were listed, as in Appendix Table 3.1. These were then summed and presented in this Table.

Table 4.1
Review of Survey Results: Power Line Effect on Property Prices

Study authors	Yr	Citati	Profession	Client		Survey Findings % loss	neutral	aver.	Comments	% reporting loss	eutral	gain	single aver	Geography	line feature	#
1	2	3	4	5		6	7	8	9	10	11	12	13	14	15	
1 Ball 1989	1989	9	Appraisers		less than	5			devel residential					Ariz	69-230	
					more than	12		20.3	com., ind.from easemt							
						44			value in easemt area							
2 Jensen & Weber	1982	9	Appraisers	Utility		0-20		10						W.Central Minn	230-400	
3 NJersey	1989	9	Appraisers	Utility		0-10		5						NJ		230
4 Van Court	1988	9	Appraisers	Pub Serv Co		3		3						Colo		230
5 Jensen	1980	9	Appraisers	Utility						10-20			15	W.Central Minn		230,315,500
6 Early & Early	1988	9	Appraisers	Utility			no effect	0						NC		230
7 Mitchell	1976	9	Perception	Academic						33 on line;94 nearby			63.5	S. Ontario		230
8 Boyer	1978	9	Perception	Academic						74-79			76.5	S. Ontario		230,500
9 Real Est Counselg Gr	1984	9	Perception	n.g.					Restate professionals:	86-90			88 lower price; hard to finance; sold slowly.	NY metr		345
									Purchasers:	26-46			36 affected value			
10 Market Trends	1988	9		Utility						53			53	Phoenix, AZ	var	
11 Rhodeside	1988	9	Perception	Utility						27	57	16	27	Va., WashgtnDC	var	
12 Ec Consulting NW	1990	9		Utility						50			50	W. Montana		500
13 Priestly	1990	9		Utility						65	30	5	65	No. Calif	115-230	
14 Kung & Seagle	1992	11		Academic						28/87*			72 "If they had known".	Memphis, Tenn		
15 Delaney & Timmons	1992	10		Academic	US aver:	7.8-15.5		11.7						USA		
					SE US:	10.7										
16 Bond	1996	4				10			said 50% respondents					Australia		110
						5-10		10	said 46% respond.							
						10-15			said 31% respond.							
17 Jones, JC, Texas A&M	1999	4		Academic		7.6		7.6	w/i 200 yds.					St. Cloud, MN		
						4.1			by appraisers, sellers					St. Louis		
18 Devel Strategies	1995	8		RE consult										Calif.		
19 Gimmy	1994	8				18-53.8		35.9						Georgetown, TX		
20 Lower Colorado	1997	8				5-10		7.5	on all lands					Central Calif.		138
21 Pitts & Jackson	2007	3				0-5		3.5	if view		50		no effect			
						2-7			if adjacent							
22 Sims & Dent	2005	19				5-10		9	appraisers, agents							
						5-15			appraisers							
23 Rikon, Mich.	1996	8		Law journal:	Crisula Case:				"Tear is as important as actual data." observ:		neu:	gain	loss			
24 Averages of all entries:							sum:	123.5		Sum:	137	21	622.5			
25							# cases:	12.0		# cases:	3	2	11			
26							Aver:	10.3		Aver:	45.7	10.5	56.6			
							7	8			11	12	13			

Notes:
* See citations at end of chapter.
n.g.= "not given"

Table 4.2
Review of Statistical (Regression Analysis) Studies of Power Line Effect on Property Prices

				All Studies % loss			Peer Review Only % loss			Non-peer Review % loss	Sponsor			
Study authors	Yr	Citation*	Client	close	distant	% Aver. loss	yes or no?	All	Acad	non-acad	all	Acad / Non-acad / Hybrid ?	where published?	profession	Geography	line feature
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	16
1 Colwell & Foley	79	15	Acad & utility	8.8	3.6	5.7	y	5.7		5.7		H	Appraisal Journal (prof., assoc)	Professor + broker for utility	Decatur, Ill	138
2 Colwell	90	16	Acad.			25.0	y	25.0	25.0			A	Jour of Real Est. Research (American RE Soc. ARES)	Professor	Ill. Reckient.	138
3 Kinnard & Mitchell	88	9	NY Power Auth			0.0	n				0.0	H	Client report, Real Est. Consults. Group of Ct.	Professor + Consultant	NYState	345
4 Kinnard	88	9	Utility co.			0.0	n				0.0	H	Client report, Real Est. Consults. Group of Ct.	Professor / Consultant	Me.	345
5 Kinnard, Mitchell, Webb	89	9	NY Power Auth			0.0	n				0.0	H	Client report, Real Est. Consults. Group of Ct.	Professor + Consultant	NYState	345
6 Pacific Consulting	91	9	Utility co.			5.0	n				5.0	N	client report for Calif. Edison	Consultant	CA	115/230
7 Un. Quebec	82	9	Acad.			17.0	n				17.0	A	client report for Hydro-Quebec	Professor	Quebec	735
8 Kinnard & Dickey	95	21	Acad & consultant			5.2	y	5.2		5.2		H	Real Estate Issues, Jour of Counselor of R.Est.	Professor + Consultant	CA	
9 Hamilton & Carruthers	93	13	Acad			5.0	n				5.0	A	U. Br. Columbia Report (Academic, not peer reviewed)	Professors	Vancouver	n.a.
10 Ignelzi & Priestly	91	13		1-9		4.5	n				4.5	N	consultant, Pacific Consulting Services	Consultants	Albany, CA	
11 Kinnard various	67	13		3											Hartford, CT	n.g
	84			2		1.8	n				1.8	N	Client report	Client reports	Orange City, NY	
	56			0.3											-	
	97			2-4.9											-	
12 Hamilton & Schwan	95	13	Acad.			6.3	y	6.3	6.3			A	Land Economics	acad funded	Vancouver sub	230 500
13 Cowgan & Bottemiller	96	8	Acad.	0-10		5.0	n				5.0	N	Right of Way Magazine, Trade journal for Int. Right of Way Assoc.	consultant; client: Bonneville Power Administration	Portland, Oreg	
14 Des Rossiers	02	17	Acad.	5-22		10.0	y	10.0	10.0			A	J. R. Est. Res. (ARES)	acad funded	Montreal	
15 Wolverton & Bottemiller	03	18	n.a.			0.0	y	0.0		0.0		N	Appraisal J.	co-auth is chief appraiser for Bonneville Pwr. Ad; utility financed	Portland, Vanc, Seattle	
16 Chalmers & Voorvaart	09	22	Utility co.			0.0	y	0.0		0.0		N	Appraisal J.	sponsored N.England UB; mostly rural,	nr., sub Cl MA	
17 Jackson & Pitts	10	14		2-9		-	y			-			J. R. Est. Lit.	no new data	UI review	
18 Callanan & Hargreaves	95	13	meters: 10	27.3										Professors	Wellington, NZ	110
			30	9.1		13.9	y	13.9	13.9			A				
			50	5.4									J. Prpty. Res.(cites NZealand Valuers Journal, Wellington)			
19 Sims & Dent	05	19	semi-detach:	13.8										Professors	Scotland	275
			detach:	9.7		11.3	y	11.3	11.3			A	Urban Studies	(Scotland cases)		
			rear view:	7.1												
			front view:	14.4												
					All:			All Peer:	Peer Acad:	Peer Non-acad:	All non-peer		Sum: Non-acad peer + non-peer	All non-peer w/o Quebec	Non-peer [w/o Quebec] + non-academic	
20					sum:	115.7		77.4	66.5	10.9	38.3		49.2 (col 11 & col 12)	21.3 (col 12)	32.2 (col 11 & col 12)	
21					# cases:	18		9	5	4	9		13	8	12	
22					Average:	6.4		8.6	13.3	2.7	4.3		3.8	2.7	2.7	
Notes:						7		9	10	11	12	13	14	15	16	

Table 4.3 - Statistical analysis of literature

Study type	Author	Journal type	n	percent value loss Mean	SD
Survey	Realtor	all	12	10.29%	9.57%
Regression	All	all	18	6.43%	6.81%
Regression	All	peer-review	9	8.60%	7.74%
Regression	All	non-peer-review	9	4.26%	5.30%
Regression	Academic	all	7	12.64%	6.90%
Regression	Industry	all	6	2.72%	2.42%
Regression	Hybrid	all	5	2.18%	2.99%
Regression	Academic	peer-review	5	13.30%	7.09%
Regression	Industry	peer-review	4	2.73%	3.15%

Statistic	Author	Journal Type	t	p
T-test	Academic vs. Industry	Peer-reviewed	2.99	0.013
T-test	Academic vs. Industry	All	3.59	0.004
T-test	All	Peer-reviewed vs. non-peer-reviewed	1.39	0.093
T-test	All	Peer-reviewed vs. non-peer-reviewed (removed outlier)	2.18	0.027

Table 5.1
Summary: Property Adjacent to the Power Lines

Total	# properties	Adj Sq Ft	Land Value $	Bldg Value $	Sum Market Value $
1	2	3	4	5	6
1 Dadeland	1,730				276,551,566
2 West (w/ opt 1)	1,106	13,404,582	637,943,998	467,478,462	1,829,932,315
3 East (w/opt 1)	1,255	9,959,223	1,263,333,581	470,372,201	1,924,788,082
4 **Total:**	**4,091**				**4,031,271,963**

	% loss rate:	$ value lost:
A. **Loss in Property Value**		
1. Lower boundary, all studies	0.05	201,563,598
2. Aver. Montreal urban, 2002	**0.10**	**403,127,196**
3. Upper boundary, 2002	0.20	806,254,393
4. Un. Quebec (1982)	0.34	$1,370,632,467
B. **Loss in Property Taxes per year***		
1. Lower boundary, all studies	0.05	4,634,370
2. Aver. Montreal urban, 2002	**0.10**	**9,268,741**
3. Upper boundary, 2002	0.20	18,537,482
4. Un. Quebec (1982)	0.34	$31,513,719
(*Miami-Dade millage rate: 22.9821)		

Source: Sum of individual property records, Miami-Dade County Property Appraiser Office, on line.

Table 5.2
Employment Impacts of 5, 10, 20, and 34% Loss of Property Value: IMPLAN Model
Various Sectors, Single Year Only

	Model	Total Jobs Lost: Direct., Indirect and Induced at 5% loss	at 10% :	at 20%	at 34%	IMPLAN Sector Nos.
		1	2	3	4	5
A	Basic loss of real estate value & government spending	2,191	4,382	8,764	14,899	360, 437
1	Money, real estate, hospital, drink & dining, retail, pharmaceutical mfg.	2,349	4,698	9,396	15,973	397, 413,354,360,133
2	real estate, air travel, private colleges, retailing	2,585	5,170	10,340	17,578	392, 329, 360, 332, 359
3	Boat building, performg arts, scientific research, biol prep, travel agencies	2,979	5,958	11,916	20,257	402, 376, 135, 291, 383
4	Museums, family care services, private hospitals, retail, home care, office physicians	3,392	6,784	13,568	23,066	406, 400, 397, 330, 32/25, 395,394
5	Fitness centers, food, drinking, surgical instruments, wholesale, printing	3,327	6,654	13,308	22,624	407, 413, 305, 319, 113
6	Private education, real estate, nursingg facilities, food services, jewelry manufacturing	4,020	8,040	16,080	27,336	391, 413, 398, 310, 360
	total	20,843	41,686	83,372	141,732	

Source: Computations using IMPLAN Model with Miami-Dade County Data

Table 5.3 REMI Model: Job Loss over Time: Different Scenarios and Time Periods

Model or Sector of Impact:	% value loss		Jobs Lost per Year								
		No. yrs:	1	...	5	...	10	...	20	...	30
		Year:	2011	...	2015	...	2020	...	2030	...	2040
A General Reduction	5%		1,895		1,528	...	1,066	...	639	...	419
	10%		3,790		3,056		2,132		1,278		838
	20%		7,580		6,112		4,264		2,556		1,676
	34%		12,886		10,390		7,249		4,345		2,849
B Sector Impacts on Economy:											
1 Real Estate, only	5%		1,293	...	1,071						
	10%		2,586		2,142						
	20%		5,172		4,284						
	34%		8,792		7,283						
2 Business Services, only	5%		3,768	...	2,954						
	10%		7,536		5,908						
	20%		15,072		11,816						
	34%		25,622		20,087						
3 Nursing, only	5%		5,340	...	4,119						
	10%		10,680		8,238						
	20%		21,360		16,476						
	34%		36,312		28,009						

Source: REMI Model for Miami-Dade County, with 2008 Data Base, run in Dec. 2010.
See accompanying graphs

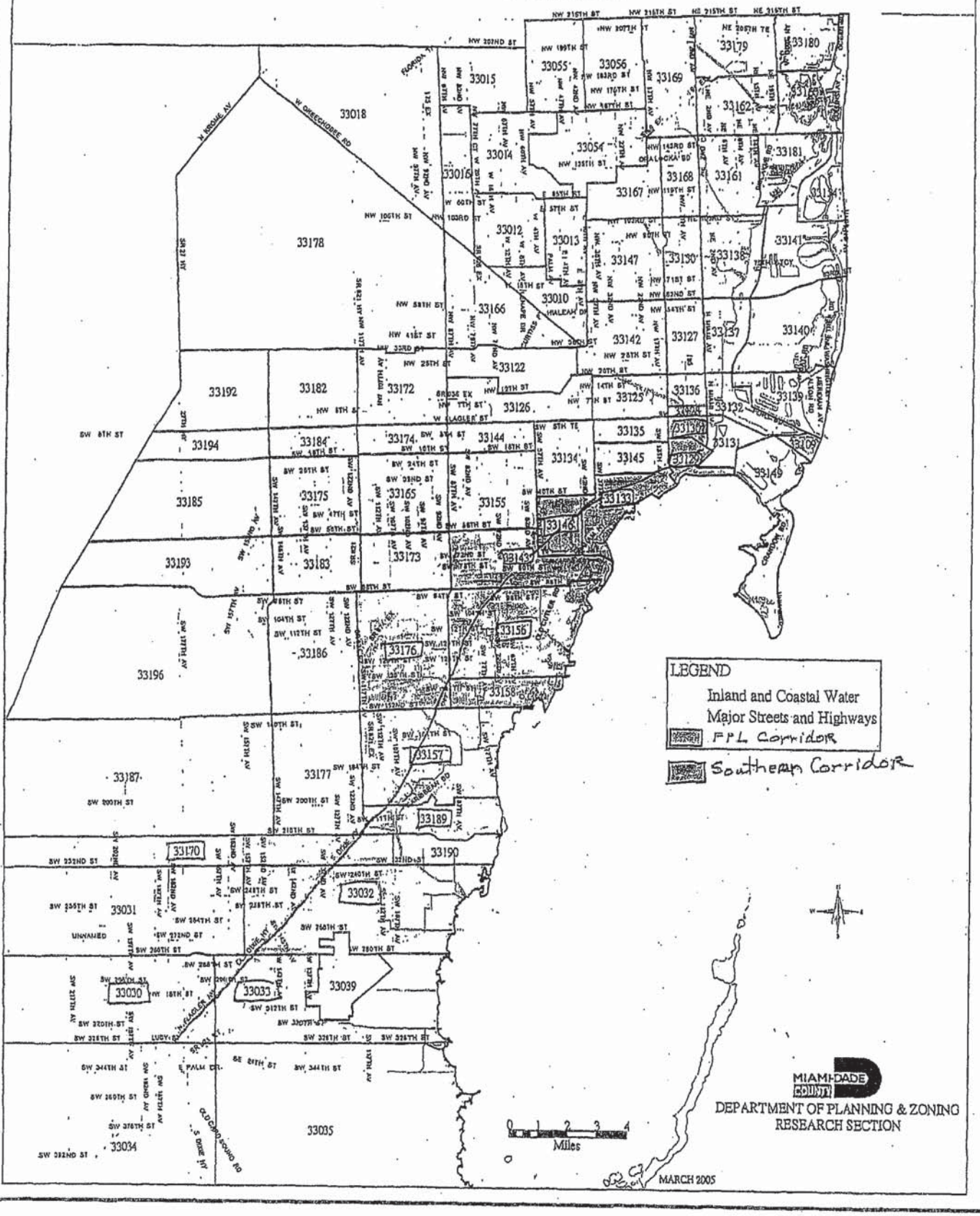


Planning Document

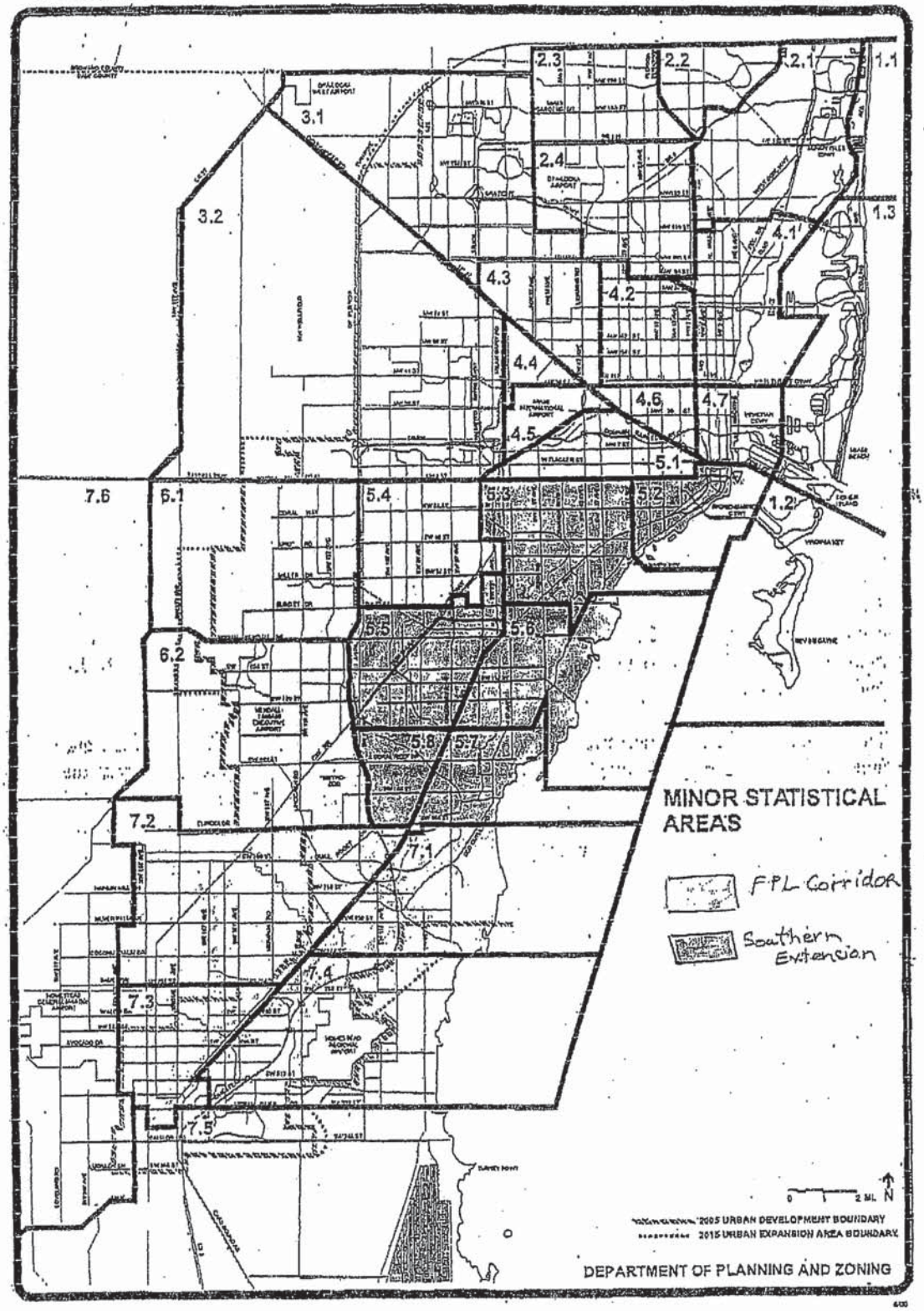
THE SOUTH DADE WATERSHED PROJECT

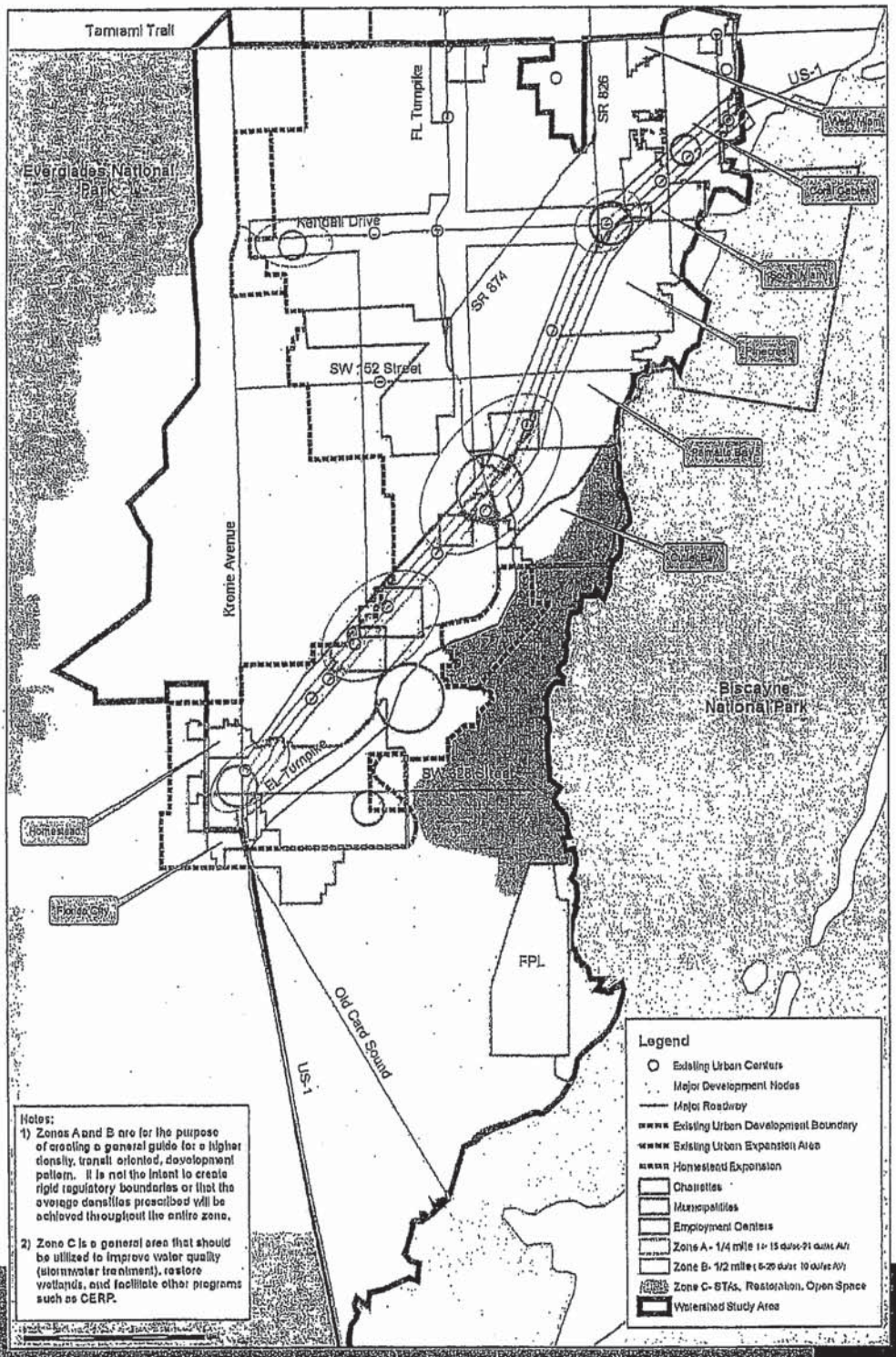
Center for Urban and Community Design, University of Miami, School of Architecture / South Florida Water Management District

MIAMI-DADE COUNTY, FLORIDA
ZIP CODE BOUNDARY



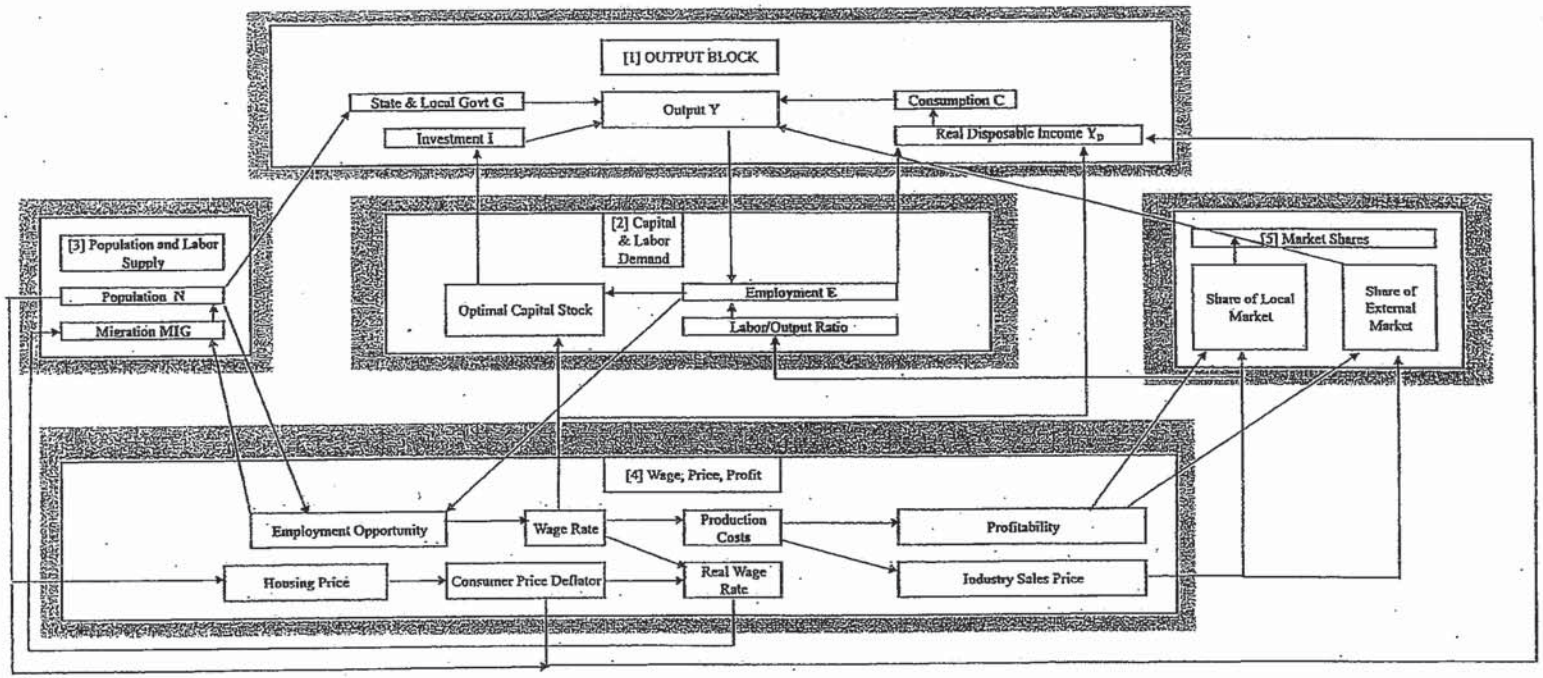
Population Projections by Minor Statistical Area





Recommended Watershed Plan Design Guide Map

Figure 5.1 The Blocks of the REMI Model and Some Connections



Source: Excerpted from Treyz, Regional Economic Modeling, Kluwer, 1993, p. 291.

Appendix III-L: City of South Miami

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS
DOAH Case No. 09-3575-EPP
DEP OGC Case No. 09-3107

IN RE: FLORIDA POWER & LIGHT
CO. ,TURKEY POINT UNITS 6 AND 7
POWER PLANT SITING APPLICATION
NO. PA03-45A3
_____/

CITY OF SOUTH MIAMI'S
NOTICE OF FILING AGENCY REPORT

The CITY OF SOUTH MIAMI ("City"), through its undersigned counsel, hereby serves notice that, pursuant to Section 403.526, Florida Statutes, it has submitted to the Department of Environmental Protection its Agency Report on the effect of FPL's East Preferred Corridor upon matters within the City's jurisdiction, and has filed same with the Department of Administrative Hearings.

Respectfully submitted,

_____
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CERTIFICATE OF SERVICE

WE HEREBY CERTIFY that a true and correct copy of the foregoing was furnished on this 15th day of JUNE, 2011, via electronic mail to:

Filed June 15, 2011 4:58 PM Division of Administrative Hearings

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By: _____
Thomas F. Pepe

June 15, 2011

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TRANSMITTED VIA ELECTRONIC COPY
HARD COPY WILL NOT FOLLOW

RE: Agency Report for the Turkey Point Nuclear Power Plant Expansion -
Siting Application and Transmission Lines Component of the Project Site Certification Application

Dear Ms. Mulkey and Mr. Halpin:

The City of South Miami has reviewed the portions of the above-referenced application related to the siting application and transmission lines component in which FPL proposes to locate in eastern Miami-Dade County, and in particular those lines that FPL proposes to run through the center of the City of South Miami.

Pursuant to Section 403.526, Florida Statute, the City of South Miami has contracted for a study of economic effects on our city of FPL's East Proposed Transmission Corridor submitted in support of their proposed Turkey Point 6 & 7 expansion. Our Final Agency Report and the economic study upon which it is based are enclosed with this letter.

If you have any questions or concerns, please do not hesitate to contact me:
tel (305) 342-0161, pstoddard2@southmiamifl.gov, or Mr. Thomas Pepe, City Attorney, tel (305) 667-2564, tpepe@southmiamifl.gov, or Dr. Hector Mirabile, City Manager, tel (305) 668-2510 hmirabile@southmiamifl.gov.

Sincerely,

Philip K. Stoddard, PhD
Mayor

City of South Miami Final Agency Report
for the Turkey Point Nuclear Power Plant Site Certification Application —
DOAH Case No. 09-3575EPP/DEP OGC Case No. 09-3107 —
and Associated Transmission Lines Component — Agency Report

Introduction

On June 30, 2009, Florida Power and Light (FPL) submitted a Site Certification Application to the Florida Department of Environmental Protection. If this application is approved, FPL will be permitted to build at Turkey Point two new nuclear reactors, TPN 6&7, as well as new transmission lines to carry their power northwards. Although siting of nuclear power plants and transmission lines are treated as separate processes in Florida Statutes Chapter 403, FPL has combined them into a Combined Operating License Application (COLA). The transmission lines have been justified through the Statement of Need solely to transmit power from TPN 6 and 7, however the review processes for the power plants and transmission lines are being conducted on separate but parallel tracks, with the transmission line portion to be reviewed before that of the nuclear reactors that the lines are intended to support.

The two nuclear reactors have not been approved. If the Siting Application is withdrawn, suspended or denied, until a much later date, then the affected agencies are tied to a recommended order. These proceedings should be suspended until the Power Plant Application has moved forward.

FPL has proposed as its ÒEast Preferred CorridorÓ a transmission line route from the Davis Substation to the Miami Substation that includes 17.7 miles along the US 1 transportation corridor. Its proposed corridor runs 1.25 miles (±0.1 mi depending on the exact route chosen) through the economic heart of the City of South Miami on US 1 and the area east of Dadeland Mall. The entire route

currently has no 230 kV transmission lines, and the South Miami portion has no transmission lines at all. In the Statement of Need submitted by FPL in October of 2007, the rationale for constructing TPN 6 & 7 was a projected near-term demand for additional electric power in Miami-Dade County. These demands were computed before the decline in real estate values. Since then, property values in South Miami have declined by 45% and economic activity has declined. Projected population growth has stalled and electricity demands have fallen slightly.

FPL considered many factors in proposing US 1 as their East Preferred Corridor, e.g., total distance, existing infrastructure, number of adjacent residents, and ease of obtaining right-of-ways. Citizens and municipalities have not been privy to FPL's weighting of those factors in their decision to propose US 1 as part of the East Preferred Corridor. We are confident, however, based on FPL's Statement of Need, FPL's COLA, and FPL's statements in many meetings with the public, municipal staff, and elected officials, that the economic impact of transmission lines on surrounding municipalities has not been a factor in whatever internal calculations led FPL to choose US 1 as their East Preferred Corridor.

For this reason the City of South Miami sought an economist with the expertise to determine whether the city's economy might be affected by a new transmission line corridor on US 1, and what that economic effect might be. After interviewing economists around the United States, we ultimately contracted with economist Dr. Richard Weisskoff, who was already familiar with the County's land use patterns and development plans. Dr. Weisskoff's economic report provides the basis for this final agency report, and is included as Exhibit 1.

Site and Economic Description of South Miami

US 1 was built on the Miami Ridge, an elevated strip that bisects the City of South Miami. The Miami Ridge is a pivotal geologic element in the future

economy of the region as will be explained below. Metrorail runs parallel to US 1, and has a stop in the City's center, making our downtown a fast transit hub and a center for development of the region. People have moved into our downtown area to be close to Metrorail. On the east side of US 1 is our commercial ÒHometown DistrictÓ, known for outside dining, entertainment, upscale shopping, and urban residential apartments close to public transit. On the west side of US 1 is South Miami's Transit Oriented Development District (TODD), home to hospitals and medical specialty practices. These business districts, while occupying only 10% of our 2.5 square mile city, generate 45% of the City's $16.2 million in annual municipal revenues.

Considerable efforts have gone into increasing the level of economic activity on the US 1 corridor, particularly in South Miami. The South Miami Community Redevelopment Authority (SMCRA) is focused on creating new commercial activity in both the TODD and Hometown districts. In addition, South Miami has endorsed a half-million dollar study to be carried out by the Lehman Center for Transportation at Florida International University, and funded by the US Dept of Transportation, HUD, and the Army Corps of Engineers. The study is directed at exploring ways to redevelop South Miami to protect the local economy from impacts of rising sea level over the next century. The study and its redevelopment proposal would be centered on the Miami Ridge in South Miami, precisely the area FPL has targeted for installation of new above-ground transmission lines. As in South Miami, the South-Dade Watershed study focused on increasing urban density along the US 1 transportation corridor, as has the more recent Miami21 plan for the City of Miami. In every instance, the drive for upscale commercial development and housing is threatened by the imposition of high voltage transmission lines.

Future projections aside, in these economic times, city budgets such as ours

have been cut to the bone. Any near-term economic harm to our city's business district would precipitate either decreases in municipal services to the citizens and businesses of our city or unacceptable increases in taxes. It was with those concerns in mind that we read Dr. Weisskoff's study.

Projected Declines in Property Values from FPL's Proposed Transmission Corridor on US 1

FPL has repeatedly accused critics of Òcherry-pickingÓ data unfavorable to their position. This accusation cannot be made of Dr. Weisskoff's study. His report includes a statistical analysis of the literature on observed and calculated effects of transmission lines on real estate values. Dr. Weisskoff's analyzed 30 published studies on effects of transmission lines on property values. Survey studies done by realtors and regression studies done by academic economists with no ties to the power industry agree that property values decline in the range of 10-13% on average within sight of transmission lines. Dr. Weisskoff recommends 10% as his conservative best estimate of the amount we can expect property values to decline within sight of the transmission lines and poles that FPL proposes on their current East Preferred Corridor.

Dr. Weisskoff conducted a survey of real estate within the two-block sight-line along FPL's proposed (US 1) East Preferred Corridor from The Falls to the Brickell area. Property values along this corridor are collectively valued at $4.03 billion by Miami-Dade County (most consider the current values depressed). A 10% loss of property value caused by installing transmission lines would destroy $403 million in value, distributed across the length of the 17.7 mile stretch. South Miami is home to 7.06% of this portion of the proposed corridor and our property losses would be approximately $28.5 million, borne primarily by owners of local commercial properties. Such a loss would be an uncompensated ÒtakingÓ of private property value by FPL.

South Miami's economy and property values benefit from upscale economic development in adjacent cities, Coral Gables to the north, and Pinecrest to the south. Any economic harm that new transmission lines might cause our neighboring municipalities will have the potential to spill over and harm economic activity and land valuations in South Miami.

Projected Loss of Jobs from FPL's Proposed Transmission Corridor on US 1

To calculate the effects of destroying 10% in real estate value on the number of jobs in the affected area, Dr. Weisskoff used two sophisticated economic modeling software packages. The IMPLAN model projects that the commercial areas on the Corridor would lose 4,382 to 8,040 jobs. The REMI model spreads out these job losses over time. These job losses could occur across a variety of economic sectors with the number lost varying with sector concentration. The effect on jobs would translate to approximately $300 million being lost in annual worker's wages in the County. The City of South Miami's share of the transmission lines would result in a loss of $21.6 million. We should note that people who work along the span of the corridor reside in the general area and not necessarily in the specific area in which the transmission lines are constructed. Thus the $300 million in annual wage losses would be borne by the County as a whole.

Projected Loss of Municipal Revenues from FPL's Proposed Transmission Corridor on US 1, and Their Effects on the City of South Miami

Loss of property values has a direct effect on assessed values, and thus lowers the ad-valorem taxes collected by municipalities along the corridor (Village of Pinecrest, City of South Miami, City of Coral Gables, City of Miami, and Miami-Dade County). Weisskoff's estimates a $24.5 million loss in annual municipal revenues along the corridor. South Miami's portion would be $1.73 million. The City of South Miami Capital & Operating Budget and Pay Plan Fiscal Year 2010-

2011 lists total annual revenues of $16.2 million so the loss of $1.73 million would constitute a decline of 10.7% in municipal revenues. This loss would necessitate a huge negative compensatory change in municipal services or taxes.

Interference with Hospital and Fire Rescue

The East Preferred Corridor would come within 20 feet (5 m) of South Miami Hospital. Florida DEP regulations, Ch. 62-814, require that transmission lines produce magnetic fields no greater than 15 microT measured at the edge of the transmission right-of-way, ***measured on the ground***. However the Hospital rises up six stories adjacent to the most likely line location within the proposed right-of-way. No regulation prevents FPL's lines from creating magnetic fields inside the hospital buildings far in excess of those considered safe by the DEP. Recent epidemiological data show doubling in Alzheimer's disease and a 50% elevation in other senile dementias for people who live within 50m (165 feet) of transmission lines (Huss, A., Spoerri, A., Egger, M. and Roosli, M. 2008. Residence Near Power Lines and Mortality From Neurodegenerative Diseases: Longitudinal Study of the Swiss Population. *American Journal of Epidemiol*ogy 169, 167-175).

The proposed transmission corridor comes within 15 feet of the South Miami Fire and Rescue Station #14. We are concerned that transmission lines might interfere with radio communication at this station.

As proposed by FPL, 230,000 volt lines could be situated within 5 m of hospital patients and medical staff, one tenth the distance statistically associated with elevation in neurodegenerative disease. Proper and safe function of sensitive medical equipment can also be affected by any change in local magnetic fields. To ensure health, safety, and reliable operation of equipment, the City requests that FPL:

(1) Provide the City with a detailed spatial model of magnetic field emissions to be generated by the transmission lines at all elevations from the ground to 100 feet above the ground, and from a distance of 15 to 165 feet (3-50 m),

(2) Assume liability for any interference with equipment and procedures including but not limited to fire and rescue communication, medical procedures, and medical instruments and equipment caused by change in the magnetic field structure within homes and businesses, including South Miami Hospital.

(3) Provide insurance that its transmission lines will not create magnetic fields greater than 15 microT at any height occupied by humans or electronics in any structure on any property situated in the City of South Miami.

Underground Lines

The problems associated with siting of new transmission lines in South Miami might be obviated if FPL placed the new transmission lines underground in a shielded configuration. The state's electric utilities successfully lobbied the Florida Legislature to change the regulations such that the Public Services Commission may not require a utility to bury transmission lines that could be placed above ground at a lesser cost to the utility. FPL says that local governments would have to bear 75% of the cost of undergrounding transmission lines through their municipalities, even if the municipality in question is not a destination for the power routed on those lines.

FPL estimates it would cost $13.3-$18.5 million per mile to bury 230 kV transmission lines. Because of the high number of major intersections, FPL engineers have told us to assume that the higher figure would apply along US 1. Thus, burying the 1.25 miles of new transmission lines proposed for South Miami would cost approximately $23.1 million, of which the City's share would be $17.9 million. Were we to bond our appointed share, we would incur yearly payments

$1.15 million at current municipal bond rates, assuming we could get an AA rating.

By attempting to route their new transmission lines through the economic center of South Miami, FPL is forcing an impossible economic choice onto the City: come up with an addition $1.15 million in annual bond payments for the next 30 years or risk losing an estimated $1.73 million in annual revenues, plus endure economic damage to the city as a whole.

Even if the City of South Miami wished to bond our appointed share of $17.9 million, raising the $1.15 million premium would require an increase in ad-valorem taxes of 19% (not legal for guaranteeing a bond issue), or more than double our utility taxes (not legal under the state cap), or more than double our franchise taxes (not possible). Bonding this amount would be impossible given the rules governing guarantees of municipal bonds, the rules on taxation limits, our city's fiscal situation, and the current economy.

Ultimate Economic Impacts on the City of South Miami

To compensate for a 10.7% decline in general revenues, the City of South Miami would have to increase ad-valorem property taxes by 29% ! The current high rates of unemployment, coupled with decline in economic activity caused by the transmission lines, negate any possibility of substantial tax increases to compensate for the loss in municipal revenues. Because many annual city expenses are inelastic, such as bond payments, long-term contracts, legal costs, and critical staff positions, the only remaining option would be to cut far more than 10.7% from financially elastic municipal services, such as police protection and street repair. The City has already trimmed elastic city services. Citizens and business owners already protest the service cuts we have made to accommodate recessionary revenue declines. Were we to cut police protection, close parks, and

reduce trash service, the quality of city life would decline, and our property values would go with them in a downward spiral. Further service cuts necessitated by economic impacts of transmission lines would severely damage the economy of South Miami. Nor would our finances readily recover, because the presence of the transmission lines would hobble attempts at revitalization. The pedestrian-friendly streets and outdoor dining adjacent to US 1, for which South Miami has worked hard and invested heavily, cannot thrive under or even near high-voltage transmission lines.

City of South Miami Support for Alternate Corridor Proposals by the Village of Pinecrest and the City of Coral Gables

The City of South Miami opposes FPL's proposed East Preferred Corridor and supports the Alternate Corridor plans proposed by the Village of Pinecrest and the City of Coral Gables. We are sensitive to the unfairness of simply pushing the transmission line problem from one location in the County to another. For this reason, both Alternate Corridors, as their guiding design principle, restrict new transmission lines, where possible, to areas already affected by existing transmission lines.

The north-south leg of the proposed Alternate Corridors is an existing FPL right-of-way, a grassy area, one block wide, that snakes its way northwards from Kendall through residential neighborhoods between SW 104 Ave and SW 107 Ave. This right-of-way already includes six 230 kV transmission line sets for a total of transmission 18 wires. Reengineering the poles to add one more line set (three wires) does not significantly alter magnetic fields at nearby residences (see below), nor change the skyline in any perceptible way. Because loss in property value and economic activity associated with transmission lines in these areas is primarily driven by negative change in visual appearance (they block the sky and give the area an industrial look), minor modification of existing lines on this leg of

the Alternate Corridor will not harm local property values or economic activity to any measurable extent.

Of greater concern to us, as fellow residents of Miami-Dade County, are the east-west legs of the two proposed Alternate Corridors that traverse residential areas with existing lines but little open space. We would expect residents of this area and their local elected officials to express immediate concern over the possible addition of a transmission line to *their* neighborhoods. Here, the key question is how it's done. FPL transmission engineer Daniel Hronec explained at the Palmetto Bay Village Council meeting of 25 May 2011, that double-stringing poles allows phasing of lines that can, under many circumstances, reduce magnetic fields below those produced by equivalent numbers of single-strung lines. Thus, if FPL uses this opportunity to re-engineer the existing hash of lines into a cleaner configuration with fewer poles, rather than simply erecting new poles and lines atop existing poles and lines, the visual impacts can be reduced, along with local magnetic field emissions. Thus home buyer perception and resident health concerns alike should be mitigated along the east-west portions of the Alternate Corridors. Accordingly, the east-west leg of the proposed Alternate Corridors, done well, need not cause a decline in property valuation or economic activity.

Alternatively, if DEP finds that the corridor should proceed, then, the FPL application must meet the requirements of the City's Codes of Ordinances including but not limited to the conditions identified below.

A. Variance To Standards: The City requests, that should the FPL proposed corridor be adopted, that FLP be required to ensure (1) that the dense residential/commercial corridor is protected; (2) that the City would be protected from the economic downturn projected in the economic report as prepared by economist Dr. Richard, Weisskoff of the University of Miami.

B. Proposed Conditions of Certification:

1 Defietions:

a. "Application shall mean the Application for Corridor Certification for the Florida Power & Light Company "East Preferred Corridor between Davis and Miami Substations" project

b. "Facility" or "Project" 0'101 mean the Turkey Point Units 6 & 7 Project and the "East Preferred Corridor" proposed by FPL between the Davis Substation and the Miami Substation under Plant Siting Application PA03-45A3, under DOAH case no.: 09-3575-EPP; and DEP OGC Case no.:09-3107.

c. "Feasible" or "-Practicable" shall mean reasonably achievable considering a balance of land use impacts, environmental impacts, engineering constraints and costs.

d. "Post-Certification Submittal" shall mean a submittal made by FPL pursuant to Condition of Certification.

e. "ROW" shall mean the transmission line right-of-way to be selected by FPL within the certified corridor in accordance with the Conditions of Certification

2. Row Location Conditions:

a. Access and Drainage; FPL as a post-certification submittal to the City shall submit detailed design plans showing all access roads and drainage plans after right of-way surveys and final design plans are completed.

b. Electric and Magnetic Fields: The Transmission lines shall comply with the applicable electric and magnetic field standards set forth in Chapter 62.814, FAC. The electric magnetic fields associated with any configuration developed during the final design of this project that is not shown in the application shall be provided to DEP at least 90 days prior to the start of construction, or such a shorter time period to which the DEP Siting Coordination Office agrees, as required by Rule 62-814.520(3), FAC, and provide an informational copy of same to the City.

c. In the construction of the transmission line on or crossing State Road rights-of-way FPL shall (1) comply with the requirements of the FDOT' s

Utility Accommodation Manual (Document 710-020-001 and Rule Chapter 14-46, Utilities Installation or Adjustment, FAC); (2) place transmission line structures at crossings of State Roads in such a manner as to accommodate future road widening to the extent practicable. If future widening of any road in the area of the transmission line is required, the cost of relocating the transmission lien shall be borne by the Licensee to the extent required by Section 337.403, Florida Statutes, and Rule Chapter 14-46, FAC.

d. A post-certification submittal to the City shall be a final design plan showing: (1) all protected trees to be removed for the transmission line, access road and drainage installation. Protection measure for trees proposed for preservation shall be detailed; (2) aerial photos of the transmission line location within the City; (3) Construction timetables, phasing and construction traffic to be generated by the transmission, line construction; (4) FPL confirms that it will not install any auxiliary equipment; (5) all existing and proposed easements; (6) show as existing site conditions on the final design plan and the following (a) the location of the right-of-way with respect to adjoining development, the existing zoning on adjoining property and existing land use adjacent to the right-of-way; (b) the name, location and width of existing or platted street public right-of-way within or contiguous to the right-of-way; (c) approximate location, size and depth of sewers, water mains and storm drains, and approximate location of power and phone lines; within all contiguous of the right-of-way; (d) location and size of easements for all the above ground utilities, such as electric power lines, within or adjacent to the right-of-way; (e) flood plain management information on flood zones delineated if applicable; (g) location of fire hydrants and exterior fire suppression systems supplied by portable and nonpotable water sources; and (h) location, size and type of all proposed stormwater management facilities.

e. FPL shall employ best management practices, construction techniques, and adequate culverting in order to maintain existing drainage patters along the Certified Transmission.

f. Line's ROW. Section 373.416 and 403.5011, Florida Statutes. FPL has provided a commitment that no storm water facilities and no facilities in a flood zone. Should such occur, supplemental information to be submitted with final design plans to the Village of the (a) gross acreage of the site; (b) all calculations and descriptions prepared by a Florida registered professional engineer need to show evidence of compliance with stormwater management including the percentage of all impervious

surface located on lots; (c) if the right-of-way is located in a flood way, all calculations and descriptions prepared by a Florida registered professional engineer need to demonstrate compliance with applicable flood plain management requirements; and (d) location, description and term of any proposed easements, reservations or dedications, together with any necessary legal instruments. FPL is to comply with Chapter 15, Article DT relating to "Stormwater

g. FPL is to comply. with the City's Comprehensive Plan and Land Development Code, including but not limited to adequate design and buffering as determined by the City.
h. Line's ROW. Section 373.416 and 403.5011, Florida Statutes. FPL has provided a commitment that no storm water facilities and no facilities in a flood zone. Should such occur, supplemental information to be submitted with final design plans to the City of the (a) gross acreage of the site; (b) all calculations and descriptions prepared by a Florida registered professional engineer need to show evidence of compliance with stormwater management including the percentage of all impervious surface located on lots; (c) if the right-of-way is located in a flood way, all calculations and descriptions prepared by a Florida registered professional engineer need to demonstrate compliance with applicable flood plain management requirements; and (d) location, description and term of any proposed easements, reservations or dedications, together with any necessary legal instruments.
i. FPL shall ensure that adjacent properties are not impacted by wind erosion, or emissions of unconfined particulate matter in accordance with Rule 62-96.320(4)(c)1., Florida Administrative Code, by taking appropriate measure to stabilize affected areas. Rule 62-296.320, Florida Administrative Code (FAC).
j. The City requires FPL to submit an emergency response plans to assist the City should an emergency arise relating to local contacts for FPL, and local plan of action to ensure the safety to the community, including evacuation of the area, and/or diligent repair of downed lines and/or plants, amongst other criteria
k. FPL shall comply with the City's noise ordinance and noise reduction program. In short, no person shall cause, suffer, allow, or permit the operation of any source of sound in such a manner as to create a sound level that exceeds the sound level limits listed in Ordinance.
l. FPL shall obtain building permits for any work on private or public, non-right of way property.
m. FPL shall compensate the City for road closures pursuant to the City's Ordinance.
n. FPL shall not block streets or close streets without notice to the City and

compensation for police supervision and protection.

o. FPL shall resurface all roads that are disturbed pursuant to the City's Ordinances.
p. FPL shall pay the City's fee for any road closures pursuant to the City's Ordinance.
q. FPL shall comply with the City's hours of work, landscape and fence Ordinance.

Conclusion

FPL's East Preferred Corridor on US 1 would cause serious economic harm to the City of South Miami, vastly exceeding any demonstrated benefits of the entire project to our city. We recognize that rerouting above-ground lines from one locale to another has the potential to merely shift harm from one neighborhood to another, however, the proposed alternate corridors along existing transmission routes, engineered optimally, should not inflict economic harm on those neighborhoods, nor cause any increase in potential health risks by significantly increasing local magnetic field exposure. In contrast, no equivalent engineering option exists to mitigate economic harm caused by creating a new above-ground transmission corridor along US 1 through the City of South Miami. For these reasons, the City of South Miami supports the Alternate Corridor Proposals submitted by the Village of Pinecrest and the City of Coral Gables.

Corridor to Nowhere: Economic Impacts of FPL's Proposed Transmission Line on the US 1 Corridor

By Richard Weisskoff, Ph.D.

Submitted to the City of South Miami

May 27, 2011

Draft 3.2

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Executive Summary

- FPL's proposed Eastern 230 kV Transmission Corridor, proposed to route power from two new nuclear power plants proposed for construction at Turkey Point, would occupy an economically critical segment of the US 1 corridor stretching from the Falls to Brickell that currently lacks such transmission lines. Since the mid 1990's, the US 1 Corridor north from Broward to St. Lucie County had become the cornerstone of the South Florida Region's strategy of compact growth, *"Eastward, Ho!"* and has been incorporated into the South Miami-Dade Watershed Study of 2007. These studies form the basis of the current anti-sprawl and compact growth policies of the South Florida Region. (Section 1).

- The introduction of high voltage transmission lines on 105 ft high, 4-foot diameter, concrete poles from the Falls to Brickell on US 1 inserts a major disamenity or blockage into this gateway to Miami and into its rapidly growing southern neighborhoods. Addition of aboveground transmission lines shatters the strategy of compact growth, changes the nature of the urban corridor, and will produce severe and deleterious economic effects. Projected economic consequences of FPL's proposed transmission lines on the existing and future economy of the US 1 corridor have not been included in the combined operating license application (COLA) for Turkey Point nuclear reactors 6 & 7. This report details the probable consequences on the existing economy.

- FPL's proposed US 1 transmission line corridor directly affects a minimum of 173,000 people or 7.2% of the county's residents (derived from the ZIP Code map, Figure 2.2 and Table 2.1). But seen as the gateway to the South Miami-Dade Watershed region and areas to the North including the City of Miami, Coral Gables, South Miami, Pinecrest, and Palmetto Bay, the area is a portal and corridor for almost a million people or 38% of the county's residents (Table 2.2).

- The value of the 4,091 parcels (buildings and land) within two blocks on both sides of the transmission line route was assessed at $4.03 billion in 2010, including FPL Corridor Option 1 at Brickell, 16th to 136 Street SW, and FPL's proposed corridor around Dadeland (Table 3.3).

- We examined the literature on effects of transmission line proximity on property values. Overall we found a high degree of concordance between surveys of real estate professionals and statistical analyses by academicians, with industry consultants consistently publishing lesser effects. Real estate professionals reported a 10.3% decline, academicians a 12.6% decline, and industry consultants a 2.7% decline. A detailed regression study of an area with an urban density most comparable to that found along US 1 revealed a 10% decline in value (Des Rossiers, 2002; Table 4.2).

- We have applied an array of loss rates: 5%, 10%, 20%, and 34% to reflect the range of findings from studies done in other regions. **Based on the literature, our best conservative estimate is to expect a minimum of 10% property loss from construction of transmission lines on US 1**, but losses as high as 20% could occur as this value was found in the higher income neighborhoods of Montreal in the study by Des Rossiers (2002). The 10% and 20% loss rates applied to the FPL transmission line corridor would create declines in property values of $400 and $800 million respectively.

- **At a 10% property loss rate, local municipalities would lose an aggregate of $9.3 million in property taxes annually** (Table 5.1)**. Total revenue losses would be approximately $24.5 million annually**.

- **The 10% property value loss rate translates into a total job loss ranging from 4,382 to 8,040 jobs,** depending on the labor-intensity of the job sectors that are most affected. **The economic cost of the average expected job loss is $300 million per year.**

- We note two anecdotal cases of urban power lines in South Florida associated with economic loss and urban blight:

  1. A set of power lines occupy the portion of West 63rd St., North Miami Beach that fronts 6205 Laguna Path, a 4 story, $1.5 million townhouse, part of the Aqua project on Allison Island that was purchased in 2005 prior to construction, on the basis of the promoter's models and drawings. Once built, however, the owner realized that the spectacular living room view of the channel was marred by the powerlines and poles in the center stage. The owner has therefore kept the property off the market due to the severe penalty caused by the disamenity of visible aboveground power lines.

  2. The State Road 7 / US 441 corridor in Broward County has, since 2004, been designated as a growth corridor by the both County and the South Florida Regional Planning Council. However, the transmission lines along the route may have effectively turned investors away (Section 6).

- **Our best prediction of economic loss to municipalities along the proposed US 1 corridor is severe: approximately $400 million in property losses, $300 million a year in household income from job losses, and $25 million a year in losses to municipal revenue.**

- **We caution that the *path* proposed by FPL to transmit the energy needed for economic growth in the region will likely become both the assassin and graveyard of economic activity and growth, a *"corridor to nowhere".***

Economic Impacts of the FPL Transmission Lines in the US 1 Corridor

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Section 1. History of the Corridor: Between Ocean and Swamp

The growth of Miami in the past decades has been an alternating clash between "sprawl-and-spread" growth, on the one hand, and "compact-and-compressed" growth with higher densities, on the other. One would think that Miami, a city constrained between the ocean and the swamp, would have been forced to grow upward, not outward. Geography alone would dictate that compactness and density would win over sprawl.

The record shows otherwise: indeed, of Florida's counties on the lower East coast, Miami-Dade is already the most densely populated with 8.4 people per urban acre, more than Broward with 7.2 inhabitants per acre. (See Table 1.1, col. 3, lines 1-2.) But the average for the nine South Florida counties is half Miami-Dade's density or 4.8 people per urban acre.

More important than density is a measure of the historical "responsiveness" of urban land absorption as the population grows. Economists call this responsiveness "the elasticity of demand for urban land with respect to urban population growth" and we measure it in terms of the percentage change in land relative to the percent change in urban population for a given time period and county. We computed the elasticities for a number of counties using two comparable land use studies done in 1988 and 1995 (Table 1.1, col. 4). The value for Miami-Dade is 0.910, or almost unity, which means that historically, a 10% increase in urban population has been associated with a 9.1% increase in urban land occupancy. Note that the elasticity value for Miami-Dade is the highest of all the counties in Table 1.1. Indeed, only the values for St. Martin (0.76) and for the lower West coast counties (0.88) approach Miami-Dade's "sprawl tendency."

This sprawl tendency means simply that Miami-Dade incorporated 44.5 thousand new urban acres from 1995 to 2010 to accommodate its growing population (Table 1.1, col. 9). This kind of land-intensive growth expresses itself in the periodic wars to push the Urban Development Boundary westward and to fill in ecologically precarious lands, reduce parklands, and build on any kind of open space. Palm Beach County took 44.6 thousand acres, and that, with a lower elasticity (0.55) but a higher rate of population growth (33% vs. 20% for Miami-Dade). But on Florida's lower West coast, the

population of the four sprawl-setting counties grew by 108% (Table 1.1, col. 7) and transformed 284 thousand acres into urban land.

Clearly, with these historical parameters, the continued growth of the cities in their traditional manner is unsustainable. If the historical tendencies are not checked, the future of the Everglades is doomed as the cities seek more and more of the marshy land to fill in and build upon.

In the southern suburbs of Miami, however, developers had learned early to make peace with precarious coastal lowlands due to the high water table, frequent floods, the exuberance of the hurricanes, and the multitude transversal creeks and canals, simply in order to capitalize on the sheer beauty of the place. Dan Williams' South Dade Watershed Project (1995) offered a planner's visualization of the region, which could work neatly with another approach that could be realized in South Florida. The Governor's Commission for a Sustainable South Florida, which started to meet monthly in the mid-nineties, began to promote a more compact development by pushing *eastward*, not westward, in order to remove pressure on the agricultural lands and on the water collection areas of the Everglades. As the Everglades were to be "re-hydrated" and water levels raised, the adjacent cities would require great flood protection and better drainage. The built area would have to be kept back, intensified, filled in, and the economic impetus to sprawl – the reward for converting freshwater marshland into houses – would have to be kept in check (see SF Regional Planning Council 1996, and Burchell 1999).

At the same time, researchers were showing that the "sprawl-model" by which most of Florida had been developed was merely shifting the costs of infrastructure from the private developer (who took his profit up front) to the counties and municipalities who then had to tax the new residents to cover *their* new costs. Burchell computed the detailed costs of sprawl for New Jersey (2000), most major U.S. cities (2002), and the saving that South Florida could realize by compact development (2003). A special six-volume study was completed in 2002 on the retention of the agricultural land and those strategies and policies that would keep the South Dade farmer in business (Degner & Morgan, eds., 2002).

Miami-Dade County, together with the other agencies, sponsored a million dollar South Miami-Dade Watershed Study (2007) which today offers a clear plan which

comprehends and builds on these earlier visions. The drive to sprawl could be checked, the farm lands protected, and the Urban Development Boundary held, all by focusing development on the US 1 corridor which had several distinct advantages: a rapid transit system; an exclusive busway; the high coastal ridge to minimize flooding in view of future sea level rise; home to a variety of income groups and land uses.

A series of charettes propelled the ideas: the cities and towns would become focal points for development along the corridor: Coral Gables, South Miami, Kendall, Pinecrest, Palmetto Bay, Cutler Bay – and the small towns too – Leisure City, Naranja, Princeton, Goulds, Cutler Ridge, Perrine —and the endpoints, Florida City and Homestead. With commercial, residential, and industrial growth concentrated along the straight and naturally elevated US 1 corridor, the remaining agricultural lands and open spaces would be retained and the urban infrastructure consolidated. The Plan (2007) was widely publicized and the collaborating towns and cities along the route began laying the groundwork for new city-centers, higher densities, and more compact zoning.

Into this setting enter the FPL transmission lines. They clash, head-on, with two decades of work by the local communities and county planners. Along this very route are to be strung the three 230 KV lines with 80' to105' high concrete poles every 300 ft., held in place by guyed wires where needed. Possibly three or more "underbuilt" lines are to be strung lower down the poles. The poles themselves measure almost 4 feet in diameter, such that the hands of two grown men hugging the poles on opposite sides barely reach one another. The poles dwarf the neighboring buildings, hospital, shops and schools; they block the sidewalks if they are placed near the curb to suspend the lines over the roadway.

What are the economic impacts of running the lines from the Falls up US 1 to Brickell? What would the true cost be to the society which has already launched itself onto a risky but rational venture of compact growth along that very corridor?

General References for Chapter 1: Introduction to the Issues

Arranged Chronologically:

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Section 2. Population in the FPL Corridor

How many people will be affected directly by FPL's proposed transmission line corridor on US 1?

We used three sources for deriving population figures:

1) ZIP Code zones along the route.
2) Miami-Dade Planning and Zoning Dept. Projections from the year 2000 onwards for minor statistical areas.
3) South Miami-Dade Watershed Study estimates and projections for the region.

The IMPLAN file for Miami-Dade County provides economic information on population and business activity for all 79 ZIP Codes of Miami-Dade County. We have selected the eight ZIP Codes through which FPL's proposed Eastern Corridor passes (see accompanying Map 2.1). The population of the "ZIP Code corridor" is almost 207,000 persons living on 49 square miles, making for a density of 4,218 people per square mile; Table 2.1, lines 2-4, col. 1). This population constitutes 8.6% of the County's total population, living on 2.5% of the land area, creating a density that is 3.4 times the countywide average (Table 2.1, col.3, lines 2-4).

Almost 160,000 people are employed in the corridor, or 11.1% of the County's total workforce. Total personal income is $12.6 billion, which is 14% of the county total. Household income averages $145,000, or 145% of the countywide average of $100,322 (Table 2.1, lines 7-8, cols. 1-3).

By extending the US1 corridor all the way to Homestead (Table 2.1, col. 4), we add more area and more families. The entire corridor encompasses 16% of the county's population, households, and workforce (Table 2.1, lines 2, 5, 6) and 21% of its total personal income. The overall population density of the entire corridor is lower than the FPL Eastern corridor on US 1, but is still 2.2 times the countywide average, and household income averages $127,000, which is 127% of the countywide average.

In summary, then, the ZIP Code corridor is the narrowest economic area around the FPL proposed Eastern corridor and encompasses 9% of the population, 11% of the jobs, and 14% of the county's personal income. Its density is 3.4 times higher than the county

average, and household incomes average 45% higher than the county average. It is the high-end corridor into Miami.

A statistical "cut" of the corridor, which is broader than the ZIP Code file, is provided by the Miami-Dade County "minor statistical areas" (Table 2.2.). According to this measure, the population of the FPL Corridor was 349,000 in 2000 or 15.5% of the county, projected to reach 402,000 by 2015. The addition of five more statistical areas for the "southern extended" corridor adds another 176,000 people, totaling 23% of the County's population in 2000 and projected to reach 38% of the County by 2025. (Table 2.2, line 9).

The broadest boundary around the FPL proposed Eastern corridor on US 1 is drawn by the South Miami-Dade Watershed Study (Table 2.2, line C), which views the entire region as a single unit of almost a million people or 38% of the County's population.

In summary, the ZIP Code file gives the narrowest number of people in the zone, or 207,000 or 8.6% of the county's population. The County's Planning and Zoning "Statistical Areas" draws a larger corridor boundary with 349,000 people or 15.5% of the county, and the Watershed Study comprehends an even larger area with about a million people or 38% of the county.

But in addition to the sheer number of people living in the corridor area, our concern now turns to the economic value likely to be affected by the addition of new above-ground transmission lines on the corridor in question.

Section 3. The Value of Corridor Property

We divided the FPL Corridor Route into 13 segments, from SW 16th to SW 136 St., plus Option 1 at Brickell and the "noose" around Dadeland. We examined a total of 4,091 properties on two blocks on both sides of the transmission line route. We noted their CLUC (land use codes), address, square footage, value of land, value of building, and total market value (see sample in Table 3.1).

The variety of land uses is broad. In the sample of properties shown in Table 3.1 which refer to SW 26-36 Streets, on both sides of US 1, we recorded 21 different land uses, including commercial, industrial, institutional, residential, and many vacant properties. These data could be valuable research tool for identifying potential areas for land use improvements in the corridor (see Table 3.2 for a summary of the Land Use Codes found in the sample properties).

We have found that the total market value for all land and buildings, two blocks on both sides of US 1 is $4,031,771,963 just over $4.03 billion (Table 3.3.)[1].

This estimate raises three further questions, only one of which will we attempt to answer in this report. The first and most important question is, "What is the impact of the transmission lines on the value of these properties and the economic activity they generate?"

The second question is not explored here, but is extremely important nonetheless. If the current value of local properties has already lost perhaps half of their value in the recent economic meltdown, then to what extent will the future (and presumably recovering) value be affected by FPL's proposed transmission lines on the US 1 corridor? This question assumes that the recovery continues, as FPL assumes, and which is the entire basis of the need for the new transmission lines in the first place (e.g., Statement of Need, approved by the Public Service Commission on 11 April 2008).

Third, what is the loss of investment in expansion and new construction that would be scheduled for the high-density corridor that now, with the transmission lines, might be deterred and seek other places if not other counties? What is the cost of returning to the

[1] The team of University of Miami graduate students participating in this project were: Vania Baker, Meisha Brisbane, Ali Bustamante, Sephanie Cazobon, Patricia Guia-Martini, Andrej Lampe, Carl Mbao, Meissa Meade, Martha Rodriguez, Mathieu Root, Sarah Slater and Lina Sokol. Edward Laird constructed a 40 ft. array of panels using aerial photographs of the entire proposed US 1 Corridor. Mr. Laird also created a full-size cardboard replica of the base segment of a typical 4 ft. diameter transmission line pole.

sprawling, non-compact growth pattern if high-rise residential and business construction shuns the transmission line corridor?

In the absence of published studies of the impact of transmission lines on property values in Florida, we shall turn now to a detailed review of the published literature and their findings.

Section 4. Literature review of the decline in property value adjacent to transmission lines.

Two types of studies have been applied to measure the economic impacts of transmission lines on property value: the questionnaire-survey and statistical regression analysis. The former asks questions of industry experts and buyers of property. The latter uses data of sales and detailed records of the characteristics of those properties.

One type of direct survey inquires as to the magnitude of the loss or gain due to transmission lines, and a second asks simply if is the properties experience a loss or gain of value. Among the responses to the questionnaires sent to appraisers, real estate professionals, and purchasers overwhelmingly cite transmission lines as a disamenity, that is, a downward influence on price. (Table 4.1, cols. 6-7). Only one survey found no effect (Table 4.1, line 6). The average loss for the 12 reporting cases was 10.3%.

Among the 11 surveys inquiring simply if there was a gain or loss due to transmission lines, (without estimating the magnitude of that loss or gain), an average of 57% of respondents reported a loss; in 3 studies, 46% of the respondents said "no loss, no gain," and 2 surveys, 10.5%, reported gains, usually due to larger parcel sizes or to the recreational amenities and low traffic associated with transmission line easements (Table 4.1, cols. 11-13, bottom line).

In the statistical regression analysis, the researchers use multivariate statistical techniques to measure the "contribution" of the transmission line to the value of the house. This variable itself may get redefined into other dimensions: distance from the transmission line, front or rear sighting, noise, plus the wide array normal variables, such as year of construction, rooms, lot size, and other amenities.

But these observations appear, and measurements can be "made", only when the houses are sold. What if the house cannot be sold, as may occur if the owner is unwilling or unable to take the market loss and chooses to hold on to his otherwise "devalued" property? In such cases, the "loss of value" is never realized, the measurement is never made, and the "observation" never appears in the data set. Moreover, the "loss" of housing or commercial construction foregone due to the transmission line is not recorded in these data. For this reason, empirical data sets may provide an overly optimistic estimate of actual property values adjacent to transmission lines.

Including all eighteen regression studies, the mean recorded loss attributable to transmission line proximity was 6.4% (Table 4.2, line 22, col. 7; Table 4.3). However, we consider the possibility of bias within these studies. For instance, studies published in peer-reviewed journals are universally considered more reliable than those published without peer review. Likewise, studies performed by industry consultants are likely to find outcomes favorable to industry because a consulting firm stands to be hired again if its results favor the industry's interest. We analyzed the literature for evidence of these two potential biases, journal type and author employment (Table 4.3).

We found that studies by industry consultants reported significantly lower mean (average) property devaluations from transmission line proximity than studies by academics, 2.7% vs. 12.6% (p=0.004, Table 4.3). For non-statisticians, the Fisherian significance value, "p=0.004" can be interpreted to mean that elves rolling dice would only obtain a difference in mean roll scores as extreme or more extreme than the difference in reported devaluation means no more than four times in a thousand. In other words, such an extreme difference between the author groups (industry consultant vs. academic) is extremely unlikely to have been obtained by chance alone, and thus likely has an underlying cause. We posit this cause to be financial conflict of interest experienced by industry consultants.

Examining the effect of journal type, we found that the non-peer-reviewed literature reported a lesser decline on average than the peer reviewed literature, 4.25% vs. 8.6%. While the difference is not statistically significant (t-test, 1-tailed, unequal variance, t=1.38, p=0.09), one data point falls more than three standard deviations beyond the mean, the accepted statistical standard for outlier exclusion; a study prepared by the University of Quebec for Hydro-Quebec found transmission line proximity associated with a 17% decline in property value. Omitting this statistical outlier from this analysis, the mean value decline in non-peer-reviewed literature is a 2.67% and the difference between peer-reviewed and non-peer-reviewed literature is statistically significant (t=2.18, p=0.03). Even within the peer-reviewed literature, industry consultants reported significantly lower devaluations than academics, 2.3% vs.13.3% (t=2.99, p=0.01).

Which group of studies is most accurate? The question is resolved by the corroboration of the academic regression studies by the real estate professional

questionnaire surveys. Surveys of real estate professionals reported an average 10.3% loss of property values due to transmission line proximity, a figure in concordance with the 12.6% average reported in the academic studies, and much higher than the 2.7% reported by industry consultants. We place confidence in the concordance between the realtor surveys and the academic regression studies.

Seeking studies most geographically and economically similar to US 1, we imagined the ideal study in which urban property values along a major thoroughfare were measured before and after the construction of a high-voltage transmission line. It hasn't been published yet. Most published studies analyzed corridors that pass through small towns between major cities, but the study by Des Rossiers (2002) examined the city of Brossard in the Greater Montreal Area (Table 4.2, line 7), a region directly comparable to the urban character of FPL's proposed US 1 corridor. That city of 69,000 is smaller than our corridor of 207,000 people (as measured by the ZIP Code areas, Table 2.1 above), but Brossard's density of 4,059 people per sq. mile is very similar to our corridor's density of 4,218 people per sq mile. Des Rossiers (2002) used a sample of 507 single-family houses sold between 1991 and 1996, but the high-voltage transmission line corridor was itself two miles long and 200 ft. wide, and not built alongside a major thoroughfare: their 315 kV lines were run on high pylons down the middle of its exclusive corridor, whereas US 1 would feature 230 kV lines situated along the roadway. Des Rossiers' study is outstanding in the number of variables tested (62), the numerous geographical and class divisions of the city, the number of models tested, and the forms of the equations fitted. In Brossard, Des Rossiers found transmission line proximity produced on average a 10% loss of residential property value and a maximum loss of 20% in certain locations. An earlier of another Quebec site (Table 4.2, line 7, Université du Quebec, 1982) found a maximum of 34% value loss.

The concordance between Des Rossier's study (10% loss), the realtor surveys (10.3% loss), and the academic regression studies (12.6% loss) give us confidence that **10% is a reliable and conservative figure for the property value loss within two blocks of FPL's US 1**. Below we apply a range of property loss rate projections to the property corridor: 5%, 10%, 20%, and 34%, then select 10% for our remaining calculations.

In our review of 42 studies, important questions arise, for example:

1) For how long does the disamenity last? One year? Ten years? Some studies found that prices "normalized" after 20 years.

2) Over what distance is the disamenity "effective"? One block? Two blocks? 200 meters? The literature shows that distance depends on the field of vision, the height of the towers, and intervening structures and foliage.

3) Some studies report no loss of sale price, but rather a longer time period to sell the property at the asking price. Such an economic effect fails to show up in the regression analysis but requires the conversion of the lost time into the price variable.

4) Literature shows that the *perception* of the disamenity is itself the "real" cause of lost value, so that, for example, developers of upscale restaurants, car dealerships, hospitals, and daycare centers are likely to avoid the transmission line corridor altogether.

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Section 5. Value of Property and Job Loss in Miami-Dade County

5.1 Loss in property values

In Section 3 above, we identified property valued $4.03 billion in the two-block corridor along the FPL's preferred route. At loss rates of 5%, 10%, 20%, and 34%, respectively, the corresponding losses in property values are $203 million, $403 million, $803 million, and $1.37 billion for the respective loss rates (Table 5.1, lines A.1-A.4.). The corresponding losses of property tax revenues (valued on the Miami-Dade County millage rate of 22.992) range from $4.6 to $31.5 million annually (Table 5.1, lines B.1-B.4.). **At the "best-estimate" loss rate of 10%, the projected property value loss from transmission lines on US 1 is $403 million, roughly twice FPL's upper estimate of $200 million required to underground these lines.**

5.1 Loss in municipal revenues

A property value loss of 10% translates to annual property tax losses of $9.3 million (Table 5.1, B)**.** The losses in other municipal revenues are more difficult to model, but we can make an approximation. Ad-valorem taxes in South Miami constitute 38% of annual municipal revenues, so assuming the hit to property value affects other activities such as construction and retail by a proportional amount, we can assume **that total annual revenues lost would be $24.5 million** ($9.3 million / 0.34). Loss rates of 20% would produce annual ad-valorem tax loss of $18.6 million and total revenue losses of $49 million. **At a 10% value loss, the lost municipal revenues alone would exceed the cost of undergrounding in eight years, and at 20% value loss, municipal revenue losses would exceed the undergrounding costs in four years.**

5.2 Job Losses

How do property value losses affect the number of jobs in the economy? How does "dollar property loss" translate into "job loss"? Fortunately economists have developed two standard models for measuring economic impacts of different "events" or policy changes, IMPLAN (Impact Analysis for Planners) and REMI (Regional Economic Modeling, Inc.; see IMPLAN.com and REMI.com). Both are excellent analytic tools;

each gives a different dimension of the economy, and both must be used to obtain a complete projection of economic impacts. IMPLAN measures the impacts for a single time period. It assumes the full "loss" ripples through the economy all at once. It collapses or consolidates all the economic effects into a single "solution," even if the effects take years to work themselves out and occur at different points in time. IMPLAN deals primarily with the backward or production linkages, with the inter-industry connections, and also with the consumption effect of workers' spending as a result of an impact or policy change. These effects are specified as "direct, indirect, and induced" effects on jobs; their sum is the total job impact. IMPLAN gives us an "X-ray" of the economy. Alter one economic entity, such as land value, and IMPLAN will trace which other components are connected to it and quantitatively how much value flows from one economic entity to another. REMI (Regional Economic Modeling, Inc.) is analogous to a video MRI of the patient yesterday, today, tomorrow, and for the next 40 years. The REMI model measures the interactions between the interconnected economic components. This modeling system includes "blocks" that trace flows and relationships between output, capital and labor demand, population and labor supply, wages, prices, and profits, and market shares (see the sketch of the economic pieces in Figure 5.1). Both tools give the analyst significant insights into the impacts of a disamenity.

Once the real estate market "recognizes" the disamenity and prices react, say, by a decline of 10%, what is the next step? Do the homeowners and business owners see themselves as "poorer," and if so, how is that expressed? If prices and appraisals fall, then taxes will fall and government spending will fall. But the private citizen's reaction to losing 10% of the value of his house may vary widely. The aggregate loss in the Miami-Dade economy of $403 million, almost a half billion dollars when the lines are completed, spread across 4,000 property owners, may lead to different scenarios. How will individuals, families, and businesses express this loss? Will they cut spending across the board, invest less, or save more? Will they cut discretionary spending on restaurants, jewelry, and travel, or insist on cuts in social services, such as nursing care and education? The precise responses of different property owners to declining property values determines how the value losses resonate through the economy.

5.2a IMPLAN Job Loss

We use IMPLAN as a fast "X-ray" guide to these alternatives, designing alternative programs to evaluate the impact of different levels of value reductions (5%, 10%, 20%, and 34%) on different arrays of sectors (Table 5.2, lines A 1-6). **At 10% property devaluation,** the affected neighborhoods along the corridor **would experience from 4,382 to 8,040 jobs lost,** with the precise number depending on the economic sectors present and affected by spending reductions (Table 5.2). For instance, if just the real estate sector and government-spending take the full hit, then a total of 4,382 jobs will be lost at the 10% property loss level (Table 5.2, col. 2, line A). But if the cut in sector spending hits air travel, private colleges, and retailing (Table 5.2, line 2), then 5,170 jobs will be lost. The most service-intensive "basket" of cuts is our last scenario (Table 5.2, col. 2, line 6) which reduces $403 million in spending on private education, real estate, nursing care facilities, food and drinking places, and jewelry manufacturing. In this case, 8,040 jobs would be lost.

All the numbers above assume that the effects are compressed into a single year. We must now turn to REMI and play out similar scenarios with a more complex regional economic model and for a longer time span.

5.2b REMI Job Loss

The basic REMI model for Miami-Dade County gives results that are similar to the IMPLAN findings. At a 10% property loss, REMI finds the first year reduction in jobs of 3,790, compared to the IMPLAN loss of 4,382 jobs. (Table 5.3, line A). But REMI allows us to keep the disamenity in place for a number of years and watch as its "unattractiveness" disappears. The underlying assumption entered into REMI is that the disamenity causes an initial drop in value, then people gradually get used to the disamenity and business as usual returns. In a low quality economic area (e.g., industrial, used motor homes, fast food), the assumption of a disappearing disamenity may be founded. In upscale retail and residential areas, however, the desired development may simply move to a location lacking the disamenity, to be replaced by activities of lower economic value. In the former scenario (gradually returning value), the number of lost jobs declines gradually to 3,056 in five years (2015) and to 2,132 in ten years (2020). If

the disamenity lasts 30 years, then the impact is still a loss of 838 jobs by 2040. The length and depth of the trough (job loss) due to the disamenity is shown in Graph 5.1 for the 10% rate. Under the second scenario, if the jobs return at all they would be at lower pay grades.

The depth of the trough might also vary, as we discovered already from our IMPLAN experiments. For a five-year disamenity, if only the real estate sector is affected, then the REMI model finds that 2,586 jobs per year will be affected *for each year*, falling to 2,142 jobs per year in five years. (Table 5.3, line B1) If the business service sector takes the hit (line B2), then 7,536 jobs will be affected, falling to about 6,000 jobs in 5 years. If, however, nursing takes the hit, then 10,680 jobs per year will be lost, falling to 8,238 jobs by 2015 (line B3). If the disamenity lasts long and affects the service or health industries, then the impact on jobs could be quite severe.

5.3 Economic Effect of Job Loss

Let us calculate the economic cost of jobs lost from a 10% property value decline. We assume average income is $50,166, half the countywide family total income of $100,322. We assume the expected job loss number is the average value in Table 5.2, 5955 jobs. **The annual cost of the job loss is $298,738,530, approximately $300 million.**

Recognize that these loss figures do not include the effects of transmission lines on the recovery of property values and jobs lost in the recent economic hyper-recession. Nor do these loss figures include the cost in future development desired for the US 1 corridor. Nor do these loss figures include the extreme cost of infrastructure needed to service the urban sprawl that would result from failure to create density along this corridor. Actual costs to the region could be an order of magnitude higher than those projected in this study.

The potential gains of value to society from enhanced electrical transmission must be fairly offset by the economic losses from citing aboveground transmission lines on the US 1 corridor.

Section 6. Epilogue - Stories of the Special Case: a Corridor to Nowhere

The entire US 1 development strategy, a decade of collaborative planning and action on the part of local and county government, is jeopardized by FPL's transmission line project, and the anti-sprawl program of compact growth along the corridor is likewise threatened. As a prologue, we provide two cautionary case studies that will never be featured in the regression analysis literature.

In 2005 Howard Taft and Charles Gelman bought a 4-floor town house at 6205 Laguna Path, a part of the famous Aqua Project on Allison Island in North Miami Beach. They paid $1.4 million prior to construction on the basis of models and architectural renderings. Their corner lot was to have a corner window and a spectacular view of the bay channel. However, after it was built, the frontage was marred by a spectacular view of poles and power lines running up West 63rd Street. The owners replaced the corner picture window with opaque glass that lets in light but no images. To this day, the prices Taft and Gelman have been offered for the property, even by the current tenants, is far below the market value of comparable properties that lack power lines in front. The owners have been unwilling to sell at the "disamenity" price, thus the property will not appear among data on disamenity losses.

The second case is another transmission corridor that, perhaps, gives us a glimpse of what US 1 with transmission lines might come to look like. In Broward County, State Road 7 / US 441 had been targeted as a "future growth corridor" by the South Florida Regional Planning Council. About 17.5% of Broward's residents reside within a mile of the transmission lines. In 2004, the Urban Land Institute (ULI) identified five major development centers along the corridor and forecast growth of office space, retailing, hotels, and new residences in a study commissioned by the SR 7 / US 441 Collaborative. Yet the corridor never developed and remains a semi-moribund zone. Is it because of the landfill along part of the route? The casino? The remains of an old incinerator site? Or maybe it is the miles of high-voltage transmission wires that parallel and cross the route?

We find it ironic indeed that the very conveyance of the energy needed for economic growth can itself prevent the same growth. Siting a new transmission corridor though a developing urban region may create a graveyard monument to the economic potential it destroyed, a corridor to nowhere.

Table 1.1
Measures of Sprawl and South Florida Appetite for Land, 1995-2010

		1995			1988-1995	2010	1995-2010			
		Urban Pop. (thou.)	**Urban Land** (thou acres)	**Density** (People/ acre	**Land-Pop. Elasticity**	**Urban Pop** (thou.)	**Pop. abs. chnge.** (thou.)	**% chge pop.**	**% chge land**	**new urban land** (thou. ac.)
		1	2	3	4	5	6	7	8	9
A. Lower East Coast (LEC)										
1	**M-Dade**	**2,085**	**248**	**8.4**	**0.910**	**2,496**	**411**	**19.7**	**17.9**	**44.5**
2	Broward	1,438	199	7.2	0.532	1,748	310	21.6	11.5	22.8
3	Palm Beach	995	250	4.0	0.546	1,320	325	32.7	17.8	44.6
	Sum (3 counties)	4,518	697	6.5	0.693	5,564	1,046	23.2	16.1	111.9
B. Upper East Coast (UEC)										
4	Martin	114	50	2.3	0.763	146	32	28.1	21.4	10.7
5	St. Lucie	173	73	2.4	0.137	278	105	60.7	8.3	6.1
	Sum (2 counties)	287	123	2.3	0.286	424	137	47.7	13.7	16.8
C	**Lwr. E. Coast (5 counties)**	**4,805**	**820**	**5.9**	**0.637**	**5,988**	**1,183**	**24.6**	**15.7**	**128.7**
D. Lower West Coast (LWC) (Collier, Glades, Lee, Hendry)										
	Sum (4 counties)	620	300	2.1	0.879	1,289	669	107.9	94.8	284.4
E	**Sum: 9 counties**	**5,425**	**1,120**	**4.8**	**1.080**	**7,277**	**1,852**	**34.1**	**36.9**	**413.1**

Sources and Methods:

col. 1: Population 1995 from BEBR, Fla. Statistical Abstract 2002, Table 1.20.
col.2: Urban land 1995 from SFWMD GIS Data, CD-ROM #1, "Land Use, National Wetlands Inventory", West Palm Beach, 1997.
col. 3: Computed col.1/col. 2.
col. 4: Elasticity from Weisskoff 2005, Econ of Everglades Restoration. Table 4.2, p. 87. See computations there.
Elasticity is defined as the % change in land divided by the % change in population.
col. 5: Population from BEBR, Table 1, http://www.bebr.ufl.edu/content/census-population-counts-county-and-city-florida-2000-2010-new
col.6 = col. 5 - col. 1.
col. 7 = (col. 5 - col. 1)/(col. 1)
col. 8 = col 4 * col. 7.
col. 9 = col. 8 * col. 2

Table 2.1 IMPLAN Socio-Economic Data of the FPL Corridor by Zip Codes Narrow and Extended, 2008 Data.

	FPL Corridor	M-D County	% FPL/ County col 1/col 2	Entire Corridor to Homestead	% Entire Corr/County col 4/col 2
	1	2	3	4	5
1 **Number of Zip Codes***	8	79	10.1	14	17.7
2 **Population**	206,682	2,398,245	8.6	387,150	16.1
3 **Area (sq.miles)**	49	1,945	2.5	137	7.0
4 **Density (pop/sq mi)**	4,218	1,233	342.1	2,816	228.4
5 **Employment**	159,527	1,441,182	11.1	223,096	15.5
6 **No. households**	87,078	901,127	9.7	147,673	16.4
7 **Total personal income (bill. $)**	$12.649	$90.402	14.0	$18.754	20.7
8 **Income per household $**	$145,257	$100,322	144.8	$126,999	126.6
9 **No. IMPLAN sectors****	222	384	57.8	245	63.8

Notes:
* Zip codes for FPL Corridor are: 33129, 30, 33, 43, 46, 56, 58, & 76.
Zip codes for the rest of the US1 Corridor include: 33157, 189, 170, 032, 033, & 030.

* *The IMPLAN model has potentially 440 producing sectors, but not all are found in any single area. The number of sectors in any given region indicates the number of inter-industry linkages operating in the region.

Source: IMPLAN zip-code data files for Miami-Dade County, 2008.

Table 2.2 Projecting Population Growth and Expansion in the Corridor: M-D P&Z Dept. and South Miami-Dade Watershed Study.

	A. Miami Dade Planning & Zoning Minor Statistical Areas	2000	2015	2025	Abs.Chge	% Change
		1	2	3	4	5
1	FPL Corridor				**2000-2025**	**2000-2025**
	5.2	55,893	79,106	92,559	36,666	65.6
	5.3	120,126	128,766	131,814	11,688	9.7
	5.5	80,111	88,586	96,165	16,054	20.0
	5.6	32,431	35,188	36,720	4,289	13.2
	5.7	25,346	28,104	30,131	4,785	18.9
	5.8	35,040	42,501	48,629	13,589	38.8
2	**Total: FPL Corridor**	**348,947**	**402,251**	**436,018**	**87,071**	**25.0**
3	South Extension:					
	7.1	41,575	76,248	99,332	57,757	138.9
	7.2	39,327	58,490	73,199	33,872	86.1
	7.3	32,367	43,205	50,854	18,487	57.1
	7.4	48,364	104,187	146,118	97,754	202.1
	7.5	14,636	36,024	49,979	35,343	241.5
4	**Total: South Extension**	**176,269**	**318,154**	**419,482**	**243,213**	**138.0**
5	Sum Entire Corridor	525,216	720,405	855,500	330,284	62.9
6	Total: Miami-Dade County	2,253,362	2,724,623	3,046,081	792,719	35.2
7	**% FPL Corridor/ County**	**15.5**	**14.8**	**14.3**	**11.0**	
8	**% So. Extension only/County**	**7.8**	**11.7**	**13.8**	**30.7**	
9	**% Entire Corridor/County**	**23.3**	**26.4**	**28.1**	**41.7**	
B	**Watershed Project Region**	952,779	1,033,751	1,161,016	208,237	21.9
	% of County:	**38.2%**	**37.9**	**38.1**		

Sources:

A. Miami-Dade County, Dept of Planning and Zoning, Research Section, Population Estimates and Projections, Feb. 2008.

B. South Miami-Dade Watershed Study, 2007, Table 2.1, p. 2.6.

Table 3.1
Sample Appraisal Valuation of "Power Line Properties", 26-36 St., Two blocks in, both sides of US1

	Folio No.	Cluc	Property Address	Adj Sq Footage	lot size	Land	Building	Market Value
1	01-4116-117-0010	47		0	5.17 Acres	1,466,380	0	1,466,380
2	01-4116-038-0010	34	2900 SW 28 LN	11,214	25,432 SQ FT	$1,525,920	$256,518	$1,782,438
3	01-4116-038-0020	81	2940 SW 28 LN	0	12,129 SQ FT	$727,740	0	$727,740
4	01-4116-038-0070	12	2950 SW 28 LN	2,175	6,250 SQ FT	$375,000	$99,823	$474,823
5	01-4116-076-0020	37	2990 SW 28 LN	81,533	29,185 SQ FT	$1,751,100	$3,041,190	$4,792,290
6	01-4116-037-0350	2	2902 SW 27 LN	1,916	10,167 SQ FT	$66,086	$119,062	$185,148
7	01-4116-037-0351	1	2966 SW 27 LN	1,015	6,696 SQ FT	$43,572	$58,575	$102,147
8	01-4116-037-0360	1	2978 SW 27 LN	1,797	8,122 SQ FT	$52,820	$112,473	$165,293
9	01-4116-037-0370	1	2990 SW 27 LN	1,074	8,432 SQ FT	$55,310	$63,204	$118,514
10	01-4116-035-0320	3	2796 SW 30 AVE	1,741	4,500 SQ FT	$40,162	$61,032	$101,194
11	01-4116-035-0330	3	3010 SW 27 LN	1,961	4,500 SQ FT	40,162	$64,864	$105,026
12	01-4116-035-0331	3	3020 SW 27 LN	1,918	4,500 SQ FT	$40,162	$63,253	$103,415
13	01-4116-035-0340	3	3036 SW 27 LN	3,394	9,000 SQ FT	$80,325	$139,482	$219,807
14	01-4116-035-0350	3	3040 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
15	01-4116-035-0360	3	3050 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
16	01-4116-035-0370	3	3060 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
17	01-4116-035-0380	3	3070 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
18	01-4116-035-0390	3	3074 SW 27 LN	1,834	4,500 SQ FT	$40,162	$64,293	$104,455
19	01-4116-035-0400	3		1,834	4,500 SQ FT	$40,162	$64,293	$104,455
20	01-4116-035-0401	3	3090 SW 27 LN	1,304	3,375 SQ FT	$30,122	$46,732	$76,854
21	01-4116-035-0410	3	3094 SW 27 LN	1,293	3,137 SQ FT	$27,998	$46,347	$74,345
22	01-4116-035-0590	13	3001 SW 28 LN	6,934	10,620 SQ FT	584,100	$21,360	$605,460
23	01-4116-035-0580	81	3015 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
24	01-4116-035-0570	81	3025 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
25	01-4116-035-0560	81	3035 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
26	01-4116-035-0530	32	3029 SW 28 ST	3,660	6,750 SQ FT	$371,250	$1,000	$372,250
27	01-4116-035-0510	36	3051 SW 28 ST	3,380	4,500 SQ FT	$247,500	$56,519	$304,019
28	01-4116-035-0500	81	3055 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
29	01-4116-035-0490	81	3057 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
30	01-4116-035-0480	81	3061 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
31	01-4116-035-0470	81	3071 SW 28 ST	0	2,250 SQ FT	$123,750	$0	$123,750
32	01-4116-035-0440	37	3075 SW 28 ST	3,850	6,750 SQ FT	$371,250	$90,960	$462,210
33	01-4116-035-0420	81	3085 SW 28 ST	0	5,963 SQ FT	$327,965	$0	$327,965
34	01-4116-035-0430	37	3099 SW 28 ST	5,339	3,038 SQ FT	$167,090	$165,911	$333,001
35	01-4116-038-0350	13	3010 SW 28 LN	6,550	12,300 SQ FT	$738,000	$401,627	$1,139,627
36	01-4116-038-0420	34	2801 SW 31 AVE	16,824	11,650 SQ FT	$699,000	$405,774	$1,104,774
37	01-4116-038-0260	11	3000 SW 28 LN	51,312	27,973 SQ FT	$1,678,380	$2,848,215	$4,526,595
38	01-4116-038-0270	41	3044 SW 28 LN	4,568	6,250 SQ FT	$375,000	$203,017	$578,017
39	01-4116-038-0330	37	3054 SW 28 LN	98,373	25,000 SQ FT	$1,500,000	$7,000,000	$8,500,000
40	01-4116-038-0340	37	2851 SW 31 AVE	82,863	26,809 SQ FT	$1,608,540	$5,491,460	$7,100,000
41	01-4116-036-0010	42	2805 SW 32 AVE	36,424	9.91 ACRES	$2,916,776	$504,399	$3,421,175
42	01-4116-017-0100	2	3201 SW 29 ST	2,360	7,494 SQ FT	$48,711	$153,510	$202,221
43	01-4116-017-0090	2	2890 SW 32 AVE	2,620	6465 SQ FT	$42,582	$170,892	$213,474
44	01-4116-017-0080	2	2880 SW 32 AVE	2,200	6,465 SQ FT	$42,582	$141,488	$184,070
45	01-4116-017-0130	2	2883 SW 32 CT	2,260	13,899 SQ FT	$90,107	$129,475	$219,582
46	01-4116-017-0120	2	2893 SW 32 CT	1,886	7,584 SQ FT	$49,597	$117,211	$166,808
47	01-4116-017-0300	1	2892 SW 32 CT	883	4,276 SQ FT	$27,879	$50,717	$78,596
48	01-4116-017-0310	1	3261 SW 29 ST	612	2,695 SQ FT	$17,518	$36,064	$53,582
49	01-4116-017-0290	2	2886 SW 32 CT	1,194	6,949 SQ FT	$45,053	$71,964	$117,017
50	01-4116-017-0281	1	2876 SW 32 CT	1,157	6,949 SQ FT	$45,053	$71,907	$116,960
51	01-4116-017-0280	1	2870 SW 32 CT	1,752	6,949 SQ FT	$45,053	$97,303	$142,356
52	01-4116-017-0350	1	2877 SW 33 AVE	1,378	6,949 SQ FT	$45,053	$82,531	$127,584
53	01-4116-017-0340	1	2887 SW 33 AVE	1,128	6,949 SQ FT	$45,053	$65,333	$110,386
54	01-4116-017-0330	2	3281 SW 29 ST	2,200	6,583 SQ FT	$42,957	$138,118	$181,075
55	01-4116-017-0320	2	3285 SW 29 ST	2,195	7,374 SQ FT	$47,931	$137,067	$184,998
56	01-4116-022-0150	2	3260 SW 29 ST	1,371	17,038 SQ FT	$71,148	$106,021	$177,169
57	01-4116-022-0140	41	3270 SW 29 ST	4,576	16,819 SQ FT	$109,324	$204,662	$313,986
58	01-4116-018-0440	1	2911 SW 33 CT	1,522	7,869 SQ FT	$51,148	$45,809	$96,957
59	01-4116-018-0430	2	2901 SW 33 CT	2,419	6,100 SQ FT	$39,820	$152,944	$192,764
60	01-4116-018-0420	2	2891 SW 33 CT	1,502	6,100 SQ FT	$39,820	$87,327	$127,147
61	01-4116-018-0410	1	2881 SW 33 CT	1,435	6,100 SQ FT	$39,820	$75,889	$115,709
62	01-4116-018-0400	81		0	9,150 SQ FT	$59,729	$0	$59,729
63	01-4116-018-0570	2	2920 SW 33 CT	2,906	10,557 SQ FT	$68,620	$177,678	$246,298
64	01-4116-018-0560	1	3351 SW 29 TER	1,182	7,540 SQ FT	$49,338	$68,230	$117,568
65	01-4116-018-0553	2	3363 SW 29 TER	1,746	6,250 SQ FT	$40,500	$114,982	$155,482
66	01-4116-018-0552	2	3369 SW 29 TER	1,892	7,622 SQ FT	$49,872	$119,275	$169,147
67	01-4116-018-0550	2	3375 SW 29 TER	1,431	3,582 SQ FT	$23,283	$87,873	$111,156
68	01-4116-018-0551	1	3373 SW 29 TER	1,150	5,434 SQ FT	$35,321	$69,840	$105,161
69	01-4116-018-0541	1	3377 SW 29 TER	2,390	7,075 SQ FT	$46,172	$154,826	$200,998
70	01-4116-018-0540	2	2935 SW 34 AVE	4,589	7,500 SQ FT	$49,150	$338,480	$387,630

71	01-4116-018-0530	1	2929 SW 34 AVE	1,426	7,500 SQ FT	$49,150	$80,212	$129,362
72	01-4116-018-0520	2	2927 SW 34 AVE	2,400	7,500 SQ FT	$49,150	$152,752	$201,902
73	01-4116-019-1390	1	2960 SW 34 AVE	1,182	6,795 SQ FT	$44,421	$68,052	$112,473
74	01-4116-019-1380	1	2950 SW 34 AVE	1,804	7,250 SQ FT	$47,593	$79,852	$127,445
75	01-4116-019-1372	2	2946 SW 34 AVE	3,339	7,250 SQ FT	$47,593	$204,667	$252,260
76	01-4116-019-1371	3	2940 SW 34 AVE	2,576	7,250 SQ FT	$47,593	$161,964	$209,557
77	01-4116-019-1430	2	2939 SW 35 AVE	2,774	7,250 SQ FT	47,593	$143,358	$190,951
78	01-4116-019-1440	2	2941 SW 35 AVE	1,378	7,250 SQ FT	$47,593	$86,963	$134,556
79	01-4116-019-1450	2	2951 SW 35 AVE	1,935	7,250 SQ FT	$47,593	$122,339	$169,932
80	01-4116-019-1460	2	2961 SW 35 AVE	2,013	7,250 SQ FT	$47,593	$124,520	$172,113
81	01-4116-019-1470	2	3441 SW 29 TER	2,241	10,572 SQ FT	$68,718	$141,039	$209,757
82	01-4116-019-1220	1	2980 SW 35 AVE	2,127	7,000 SQ FT	$45,540	$137,569	$183,109
83	01-4116-019-1230	13	2990 SW 35 AVE	6,201	7,000 SQ FT	$45,500	$488,000	$533,500
84	01-4116-019-1310	1	2965 SW 36 AVE	954	7,000 SQ FT	$45,540	$56,647	$102,187
85	01-4116-019-1320	2	2973 SW 36 AVE	2,201	7,000 SQ FT	$45,540	$137,246	$182,786
86	01-4116-019-1330	65	3555 SW 29 TER	0	14,756 SQ FT	$885,360	$18,525	$903,885
87	01-4121-002-1550	12	3621 S DIXIE HWY	4,119	13,489 SQ FT	$1,031,908	$10,000	$1,041,908
88	01-4121-002-1470	19	3501 S DIXIE HWY	1,997	12,091 SQ FT	$924,962	$1,000	$925,962
sum north side				**538,019**		**23,992,066**	**27,230,676**	**51,222,742**

South of US 1 **Table 3.1 cont.**

	Folio No.	Cluc	Property Address	Adj Sq Footage	lot size	Land	Building	Market Value
1	01-4115-041-0580	11	2600 S DIXIE HW	14,098	24,180 SQ FT	$2,418,000	$764,855	$3,182,855
2	01-4115-041-0570	11	2610 S DIXIE HWY	1,956	5,580 SQ FT	$558,000	$71,754	$629,754
3	01-4115-041-0560	11	2698 S DIXIE HWY	1,196	8,370 SQ FT	$837,000	$74,436	$911,436
4	01-4115-041-0720	11	2795 SW 27 AVE	7,691	8,356 SQ FT	$752,040	$378,300	$1,130,340
5	01-4116-078-0010	26	2775 SW 28 TER	8,647	54,979 SQ FT	5,745,306	$576,239	$6,321,545
6	01-4116-078-0020	11	2710 S DIXIE HWY	4,928	29,228 SQ FT	$2,922,800	$518,948	$3,441,748
7	01-4116-078-0030	11	2720 S DIXIE HWY	18,962	63,190 SQ FT	$5,371,150	$1,251,523	$6,622,673
8	01-4116-028-0130	13	2900 SW 28 TER	46,958	25,593 SQ FT	$1,279,650	$4,362,953	$5,642,603
9	01-4116-028-0170	3	2950 S DIXIE HWY	64,769	52,320 SQ FT	$2,333,472	$2,805,771	$5,139,243
10	01-4116-007-0250	3	2890 VIRGINIA ST	60,229	46,073 SQ FT	$2,073,285	$1,926,715	$4,000,000
11	01-4116-007-0220	1	2923 SW 30 CT	993	7,532 SQ FT	$248,556	$24,537	$273,093
12	01-4116-001-0070	65	2906 VIRGINIA ST	0	6,407 SQ FT	$42,286	$12,513	$54,799
13	01-4116-001-0080	2	2914 VIRGINIA ST	2,997	8,680 SQ FT	$286,440	122,616	$409,056
14	01-4116-007-0110	3	3050 S DIXIE HWY	14,354	17,705 SQ FT	$672,790	$774,615	$1,447,405
15	01-4116-007-0090	1	2920 SW 30 CT	1,249	6,322 SQ FT	$208,626	$70,480	$279,106
16	01-4116-027-0150	40	2901 BRIDGEPORT AVE	8,517	13,797 SQ FT	$1,034,775	$749,130	$1,783,905
17	01-4116-027-0140	13	2911 BRIDGEPORT AVE	1,828	7,500 SQ FT	$375,000	$142,162	$517,162
18	01-4116-027-0130	1	2919 BRIDGEPORT AVE	853	6,750 SQ FT	$337,500	$100	$337,600
19	01-4116-027-0320	10	2925 BRIDGEPORT AVE	1,156	3,213 SQ FT	$0	$0	$177,720
20	01-4116-027-0310	1	2923 BRIDGEPORT AVE	1,156	2,676 SQ FT	$0	$0	$177,720
21	01-4116-027-0160	13	3100 S DIXIE HWY	16,831	23,680 SQ FT	$1,894,400	$1,175,290	$3,069,690
22	01-4116-027-0220	3	2942 BRIDGEPORT AVE	3,887	20,250 SQ FT	$534,600	$58,627	$593,227
23	01-4116-048-0010	11	2999 SW 32 AVE	106,807	8.23 ACRES	$17,931,450	$10,000	$17,941,450
24	01-4116-045-0010	11	2935 MCDONALD ST	2,053	11,458 SQ FT	$973,930	$203,132	$1,177,062
25	01-4116-042-0010	62	3198 S DIXIE HWY	1,846	11,761 SQ FT	$1,058,490	$121,397	$1,179,887
26	01-4116-022-0130	11	3200 S DIXIE HWY	4,183	29,250 SQ FT	$2,632,500	$445,053	$3,077,553
27	01-4116-022-0120	3	3220 W DIXIE HWY	3,155	6,390 SQ FT	319,500	$163,494	$482,994
28	01-4116-022-0110	13	3250 S DIXIE HWY	2,573	13,292 SQ FT	$797,520	$168,508	$966,028
29	01-4116-022-0071	3	3244 W TRADE AVE	3,619	7,500 SQ FT	300,000	$173,962	$473,962
30	01-4116-022-0040	3	3250 W TRADE AVE	14,633	28,000 SQ FT	$1,260,000	$665,904	$1,925,904
31	01-4116-022-0080	3	3270 W TRADE AVE	10,812	15,000 SQ FT	$600,000	$646,040	$1,246,040
32	01-4116-022-0090	3	3280 W TRADE AVE	4,136	7,500 SQ FT	$300,000	$178,627	$478,627
33	01-4116-049-0010	3	3300 S DIXIE HWY	45,059	32,126 SQ FT	$2,730,710	$758,660	$3,489,370
34	01-4116-022-0030	1	3265 BIRD AVE	2,004	13,000 SQ FT	$650,000	$13,353	$663,353
35	01-4116-061-0010	81	3335 BIRD AVE	0	7,841 SQ FT	$392,050	$0	$392,050
36	01-4116-003-0070	81	3355 BIRD AVE	0	4,050 SQ FT	$202,500	$0	$202,500
37	01-4116-047-0030	81	3375 BIRD AVE	0	6,710 SQ FT	$335,500	$0	$335,500
38	01-4116-047-0020	13	3350 S DIXIE HWY	9,088	17,897 SQ FT	$1,521,245	$584,834	$2,106,079
39	01-4116-047-0010	19	3400 S DIXIE HWY	5,040	32,735 SQ FT	$2,946,150	$377,777	$3,323,927
40	01-4116-046-0010	26	3490 S DIXIE HWY	2,912	14,331 SQ FT	$1,218,130	$170,943	$1,389,078
41	01-4121-001-0150	1	3000 ELIZABETH ST	1,052	5,896 SQ FT	$188,672	$28,404	$217,076
42	01-4121-001-0160	1	3420 BIRD AVE	1,543	6,600 SQ FT	$211,200	$44,954	$256,154
43	01-4121-001-0180	1	3011 NEW YORK ST	1,078	6,000 SQ FT	$192,000	$30,354	$222,354
44	01-4121-002-0250	11	3490 BIRD AVE	8,738	41,101 SQ FT	$2,109,284	$605,838	$2,715,122
45	01-4121-002-0560	98	3500 S DIXIE HWY	925	45,300 SQ FT	$4,303,500	$17,399	$4,320,899
Sum south side=				514,511	0	73,100,007	21,270,197	94,725,649

Source: Miami-Dade County, County Appraiser's Files on line, Accessed Oct-Dec., 2010
http://www.miamidade.gov/pa/property_search.asp

Table 3.2
Sample of County Land Use Codes (CLUC) found in Power Line Property from Table 3.1.

Commercial	0011	Retail Outlet
	0012	Repairs, Non-Automotive
	0013	Office Building
	0019	Automotive or Marine
	0026	Service Station - Automotive
Industrial/Warehouse	0032	Light mfg and food processing
	0034	Canneries , bottler
	0036	Heavy industry or lumber yard
	0037	Warehouse or Storage
Institutional	0040	Municipal
	0041	Educational, private
	0042	Club or hall, private
	0047	Dade County
	0098	Federal
Multi-Family	0003	Multi-family 3 or more units
Not used	0062	Railroad Assessment
	0065	Parkin//vacant lot enclosed
Single Family	0001	Residential, single family
	0002	Duplex
	0010	Townhouse
Vacant	0081	Vacant land

Source: Selected from Miami-Dade County Property Appraiser's Office, Web site, from CLUC that appear in our Table 3.1, Col. 2.

Table 3.3
Summary Table of Summed Appraisal Values by Segments, Brickell to 136 St, Both Sides of US 1.

West	# prties		streets	Adj Sq Ft	Land Value	Bldg Value	sum Market v
of US 1	18	opt 1	3rd Ave, 4th St to 15th Rd	122,023	12,978,780	13,441,935	26,420,715
	109	a	16-26	505,656	26,812,968	27,426,144	56,188,017
	88	b	26-36	538,019	23,992,066	27,230,676	51,222,742
	29	c	36-46	163,032	72,688,020	6,556,191	79,244,211
	40	d'	46-56	135,598	35,702,734	7,616,392	45,744,776
	142	d''	46-56	411,448	38,493,510	30,070,002	68,563,512
	21	e	57-66	1,162,416	50,195,938	70,231,925	194,332,949
	75	f	66-76	4,555,411	118,371,353	123,369,756	553,541,109
	134	g	78-88	1,066,884	78,259,882	49,461,447	127,721,329
	27	h	86-96	2,533,060	57,525,060	30,571,005	385,096,065
	301	i	96-106	1,455,400	66,649,510	50,881,298	145,889,438
	48	j	106-116	328,413	22,569,132	8,563,183	40,706,555
	49	k	116-126	104,445	10,975,862	5,621,235	16,597,097
	25	l	126-136	322,777	22,729,183	16,437,273	38,663,800
	1,088		total above	13,282,559	624,965,218	454,036,527	1,803,511,600
	1,106	**h opt1**		**13,404,582**	**637,943,998**	**467,478,462**	**1,829,932,315**

East	# prties		streets	Adj Sq Ft	Land Value	Bldg Value	sum Market v
of US 1	49	opt 1	3rd Ave, 4th St to 15th Rd	395,204	21,393,737	19,893,141	41,749,688
	118	a	16-26	468,389	48,206,038	31,960,019	80,166,057
	45	b	26-36	514,511	73,100,007	21,270,197	94,725,649
	89	c	36-46	352,192	57,219,860	18,174,221	75,394,081
	175	d	46-56	472,020	36,126,784	21,751,656	86,839,120
	14	d'	46-56	47,921	7,822,717	5,690,738	13,513,455
	259	e	57-66	1,425,739	100,688,124	76,432,895	229,896,429
	98	f	66-76	1,757,825	229,502,100	57,371,638	370,773,738
	122	g	78-88	1,878,164	299,507,454	91,947,705	391,455,159
	23	h	86-96	516,340	79,399,934	23,202,218	102,602,152
	196	i	96-106	660,124	81,568,397	34,767,012	137,459,739
	21	j	106-116	401,699	58,510,480	20,926,779	79,437,259
	33	k	116-126	551,775	89,149,900	28,881,863	121,535,388
	13	l	126-136	517,320	81,138,049	18,102,119	99,240,168
	1,206	l above		9,564,019	1,241,939,844	450,479,060	1,883,038,394
	1,255		**total- with opt1**	**9,959,223**	**1,263,333,581**	**470,372,201**	**1,924,788,082**

Total	# prties		Adj Sq Ft	Land Value	Bldg Value	sum Market v
Dadeland	1,730					276,551,566
West	1,106	total-with opt1	13,404,582	637,943,998	467,478,462	1,829,932,315
East	**1,255**	total-with opt1	**9,959,223**	**1,263,333,581**	**470,372,201**	**1,924,788,082**
SUM:	**4,091**					**4,031,271,963**

Source & Method: The power line route was traced on Miami-Dade County Appraiser's File, and all Properties were listed, as in Appendix Table 3.1. These were then summed and presented in this Table.

Table 4.1
Review of Survey Results: Power Line Effect on Property Prices

	Study authors	Yr	Citati	Profession	Client		Survey Findings % loss	neutral	aver.	Comments	% reporting loss	eutral	gain	single aver		Geography	line feature #
	1	2	3	4	5		6	7	8	9	10	11	12	13		14	15
1	Ball 1989	1989	9	Appraisers		less than	5			devel residential						Ariz	69-230
						more than	12		20.3	com., ind.from easemt							
							44			value in easemt area							
2	Jensen & Weber	1982	9	Appraisers	Utility		0-20		10							W.Central Minn	230-400
3	NJersey	1989	9	Appraisers	Utility		0-10		5							NJ	230
4	Van Court	1988	9	Appraisers	Pub Serv Co		3		3							Colo	230
5	Jensen	1980	9	Appraisers	Utility						10-20			15		W.Central Minn	230,315,500
6	Early & Early	1988	9	Appraisers	Utility			no effect	0							NC	230
7	Mitchell	1976	9	Perception	Academic					33 on line;94 nearby				63.5		S. Ontario	230
8	Boyer	1978	9	Perception	Academic						74-79			76.5		S. Ontario	230,500
9	Real Est Counselg Gr	1984	9	Perception	n.g.					Restate professionals:	86-90			88	lower price; hard to finance; sold slowly.	NY metr	345
										Purchasers:	26-46			36	affected value		
10	Market Trends	1988	9		Utility						53			53		Phoenix, AZ	var
11	Rhodeside	1988	9	Perception	Utility						27	57	16	27		Va., WashqtnDC	var
12	Ec Consulting NW	1990	9		Utility						50			50		W. Montana	500
13	Priestly	1990	9		Utility						65	30	5	65		No. Calif	115-230
14	Kung & Seagle	1992	11		Academic						28/87*			72	*"if they had known".	Memphis, Tenn	
15	Delaney & Timmons	1992	10		Academic	US aver:	7.8-15.5		11.7							USA	
						SE US:	10.7										
16	Bond	1996	4				10			said 50% respondents						Australia	110
							5-10		10	said 46% respond.							
							10-15			said 31% respond.							
17	Jones, JC, Texas A&M	1999	4		Academic		7.6		7.6	w/i 200 yds.						St. Cloud, MN	
							4.1			by appraisers, sellers						St. Louis	
18	Devel Strategies	1995	8		RE consult											Calif.	
19	Gimmy	1994	8				18-53.8		35.9							Georgetown, TX	
20	Lower Colorado	1997	8				5-10		7.5	on all lands						Central Calif.	138
21	Pitts & Jackson	2007	3				0-5		3.5	if view		50			no effect		
							2-7			if adjacent							
22	Sims & Dent	2005	19				5-10		9	appraisers, agents							
							5-15			appraisers							
23	Rikon, Mich.	1996	8		Law journal:	Crisula Case:				"fear is as important as actual data."							
										observ:		**neu:**	**gain**	**loss**			
24	Averages of all entries:						**sum:**		**123.5**		**Sum:**	**137**	**21**	**622.5**			
25							**# cases:**		**12.0**		**# cases:**	**3**	**2**	**11**			
26							**Aver:**		**10.3**		**Aver:**	**45.7**	**10.5**	**56.6**			
	Notes:							7	8			11	12	13			

* See citations at end of chapter.
n.g.= "not given"

Table 4.2
Review of Statistical (Regression Analysis) Studies of Power Line Effect on Property Prices

					All Studies % loss			Peer Review Only % loss			Non- peer Review % loss	Sponsor				
	Study authors	Yr	Citation*	Client	close	distant	% Aver. loss	yes or no?	All	Acad	non-acad	all	Acad / Non-acad / Hybrid ?	where published?	profession	Geography	line feature
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	16
1	Colwell & Foley	79	15	Acad & utility	8.8	3.6	5.7	y	5.7		5.7		H	Appraisal Journal (prof. assoc)	Professor + broker for utility	Decatur, Ill	138
2	Colwell	90	16	Acad.			25.0	y	25.0	25.0			A	Jour of Real Est. Research (American RE Soc ARES)	Professor	Ill. Resident.	138
3	Kinnard & Mitchell	88	9	NY Power Auth			0.0	n				0.0	H	Client report, Real Est. Consultg. Group of Ct.	Professor + Consultant	NYState	345
4	Kinnard	88	9	Utility co.			0.0	n				0.0	H	Client report, Real Est. Consultg. Group of Ct.	Professor / Consultant	Me.	345
5	Kinnard, Mitchell, Webb	89	9	NY Power Auth			0.0	n				0.0	H	Client report, Real Est. Consultg. Group of Ct.	Professor + Consultant	NYState	345
6	Pacific Consulting	91	9	Utility co.			5.0	n				5.0	N	client report for Calif. Edison	Consultant	CA	115/230
7	Un. Quebec	82	9	Acad.			17.0	n				17.0	A	client report for Hydro-Quebec	Professor	Quebec	735
8	Kinnard & Dickey	95	21	Acad & consultant			5.2	y	5.2		5.2		H	Real Estate Issues, jour of Counselor of R.Est.	Professor + Consultant	CA	
9	Hamilton & Carruthers	93	13	Acad			5.0	n				5.0	A	U. Br. Columbia Report (Academic, not peer reviewed)	Professors	Vancouver	n.g.
10	Ignelzi & Priestly	91	13		1-9		4.5	n				4.5	N	consultant, Pacific Consulting Services	Consultants	Albany, CA	
11	Kinnard various	67	13		3											Hartford, CT	n.g
		84			2		1.8	n				1.8	N	Client report	Client reports	Orange City, NY	
		96			0.3											"	
		97			.2-4.0											"	
12	Hamilton & Schwan	95	13	Acad.			6.3	y	6.3	6.3			A	Land Economics	acad funded	Vancover sub	230 500
13	Cowgan & Bottemiller	96	8	Acad.	0-10		5.0	n				5.0	N	Right of Way Magazine, Trade journal for Int. Right of Way Assoc.	consultant; client: Bonneville Power Administration	Portland, Oreg	
14	Des Rossiers	02	17	Acad.	5-22		10.0	y	10.0	10.0			A	J. R. Est. Res. (ARES)	acad funded	Montreal	
15	Wolverton & Bottemiller	03	18	n.g.			0.0	y	0.0		0.0		N	Appraisal J.	co-auth is chief appraiser for Bonneville Pwr. Ad; utility financed	Portland, Vanc, Seattle	
16	Chalmers & Voorvaart	09	22	Utility co.			0.0	y	0.0		0.0		N	Appraisal J.	sponsored N.England Util; mostly rural.	rur., sub Ct MA	
17	Jackson & Pitts	10	14		2-9		-	y			-			J. R. Est. Lit..	no new data	Lit review	
18	Callanan & Hargreaves	95	13	meters: 10	27.3										Professors	Wellington, NZ	110
				30	9.1		13.9	y	13.9	13.9			A				
				50	5.4									J. Prpty. Res.(cites NZealand Valuers Journal, Wellington)			
19	Sims & Dent	05	19	semi-detach:	13.8										Professors	Scotland	275
				detach:	9.7		11.3	y	11.3	11.3			A	Urban Studies	(Scotland cases)		
				rear view:	7.1												
				front view:	14.4		AIII:		All Peer:	Peer Acad:	Peer Non-acad:	All non-peer		Sum: Non-acad peer + non-peer	All non-peer w/o Quebec	Non-peer (w/o Quebec) + non-academic	
20						sum:	115.7		77.4	66.5	10.9	38.3		49.2 (col 11 & col 12)	21.3 (col 12)	32.2 (col 11 & col 12)	
21						# cases:	18		9	5	4	9		13	8	12	
22						Average:	6.4		8.6	13.3	2.7	4.3		3.8	2.7	2.7	
	Notes:						7		9	10	11	12	13	14	15	16	

Table 4.3 - Statistical analysis of literature

Study type	Author	Journal type	n	percent value loss Mean	SD
Survey	Realtor	all	12	10.29%	9.57%
Regression	All	all	18	6.43%	6.81%
Regression	All	peer-review	9	8.60%	7.74%
Regression	All	non-peer-review	9	4.26%	5.30%
Regression	Academic	all	7	12.64%	6.90%
Regression	Industry	all	6	2.72%	2.42%
Regression	Hybrid	all	5	2.18%	2.99%
Regression	Academic	peer-review	5	13.30%	7.09%
Regression	Industry	peer-review	4	2.73%	3.15%

Statistic	Author	Journal Type	t	p
T-test	Academic vs. Industry	Peer-reviewed	2.99	0.013
T-test	Academic vs. Industry	All	3.59	0.004
T-test	All	Peer-reviewed vs. non-peer-reviewed	1.39	0.093
T-test	All	Peer-reviewed vs. non-peer-reviewed (removed outlier)	2.18	0.027

Table 5.1
Summary: Property Adjacent to the Power Lines

	Total	# properties	Adj Sq Ft	Land Value $	Bldg Value $	Sum Market Value $
	1	2	3	4	5	6
1	Dadeland	1,730				276,551,566
2	West (w/ opt 1)	1,106	13,404,582	637,943,998	467,478,462	1,829,932,315
3	East (w/opt 1)	1,255	9,959,223	1,263,333,581	470,372,201	1,924,788,082
4	**Total:**	**4,091**				**4,031,271,963**

	% loss rate:	**$ value lost:**
A. **Loss in Property Value**		
1. Lower boundary, all studies	0.05	201,563,598
2. Aver. Montreal urban, 2002	**0.10**	**403,127,196**
3. Upper boundary, 2002	0.20	806,254,393
4. Un. Quebec (1982)	0.34	$1,370,632,467
B. **Loss in Property Taxes per year***		
1. Lower boundary, all studies	0.05	4,634,370
2. Aver. Montreal urban, 2002	**0.10**	**9,268,741**
3. Upper boundary, 2002	0.20	18,537,482
4. Un. Quebec (1982)	0.34	$31,513,719
(*Miami-Dade millage rate: 22.9921)		

Source: Sum of individual property records, Miami-Dade County Property Appraiser Office, on line.

Table 5.2
Employment Impacts of 5, 10, 20, and 34% Loss of Property Value: IMPLAN Model
Various Sectors, Single Year Only

	Model	Total Jobs Lost: Direct., Indirect and Induced at 5% loss	**at 10% :**	at 20%	at 34%	IMPLAN Sector Nos.
		1	2	3	4	5
A	**Basic loss of real estate value & government spending**	2,191	**4,382**	8,764	14,899	**360, 437**
1	Money, real estate, hospital, drink & dining, retail, pharmaceutical mfg.	2,349	**4,698**	9,396	15,973	397, 413,354,360,133
2	**real estate, air travel, private colleges, retailing**	2,585	**5,170**	10,340	17,578	392, 329, 360, 332, 359
3	Boat building, performg arts, scientific research, biol prep, travel agencies	2,979	**5,958**	11,916	20,257	402, 376, 135, 291, 383
4	Museums, family care services, private hospitals, retail, home care, office physicians	3,392	**6,784**	13,568	23,066	406, 400, 397, 330, 32/25, 395,394
5	Fitness centers, food, drinking, surgical instruments, wholesale, printing	3,327	**6,654**	13,308	22,624	407, 413, 305, 319, 113
6	**Private education, real estate, nursingg facilities, food services, jewelry manufacturing**	4,020	**8,040**	16,080	27,336	391, 413, 398, 310, 360
	total	20,843	**41,686**	83,372	141,732	

Source: Computations using IMPLAN Model with Miami-Dade County Data

Table 5.3 REMI Model: Job Loss over Time: Different Scenarios and Time Periods

Model or Sector of Impact:	% value loss	Jobs Lost per Year No. yrs:	1	…	5	…	10	…	20	…	30
		Year:	2011	…	2015	…	2020	…	2030	…	2040
A General Reduction	5%		1,895		1,528	…	1,066	…	639	…	419
	10%		**3,790**		**3,056**		**2,132**		**1,278**		**838**
	20%		7,580		6,112		4,264		2,556		1,676
	34%		12,886		10,390		7,249		4,345		2,849
B Sector Impacts on Economy:											
1 Real Estate, only	5%		1,293	…	1,071						
	10%		**2,586**		**2,142**						
	20%		5,172		4,284						
	34%		8,792		7,283						
2 Business Services, only	5%		3,768	…	2,954						
	10%		**7,536**		**5,908**						
	20%		15,072		11,816						
	34%		25,622		20,087						
3 Nursing, only	5%		5,340	…	4,119						
	10%		**10,680**		**8,238**						
	20%		21,360		16,476						
	34%		36,312		28,009						

Source: REMI Model for Miami-Dade County, with 2008 Data Base, run in Dec. 2010.
See accompanying graphs

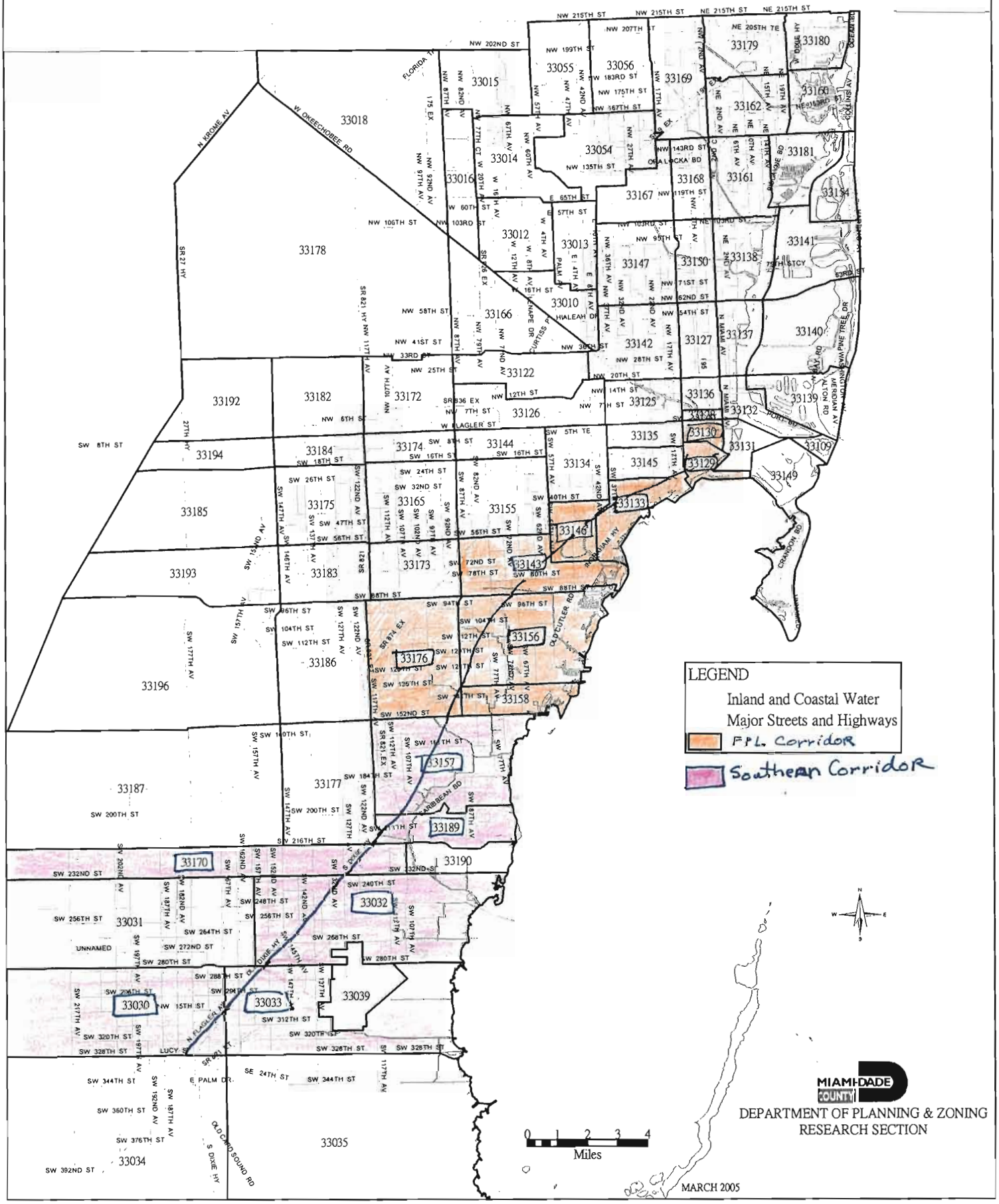


Planning Document

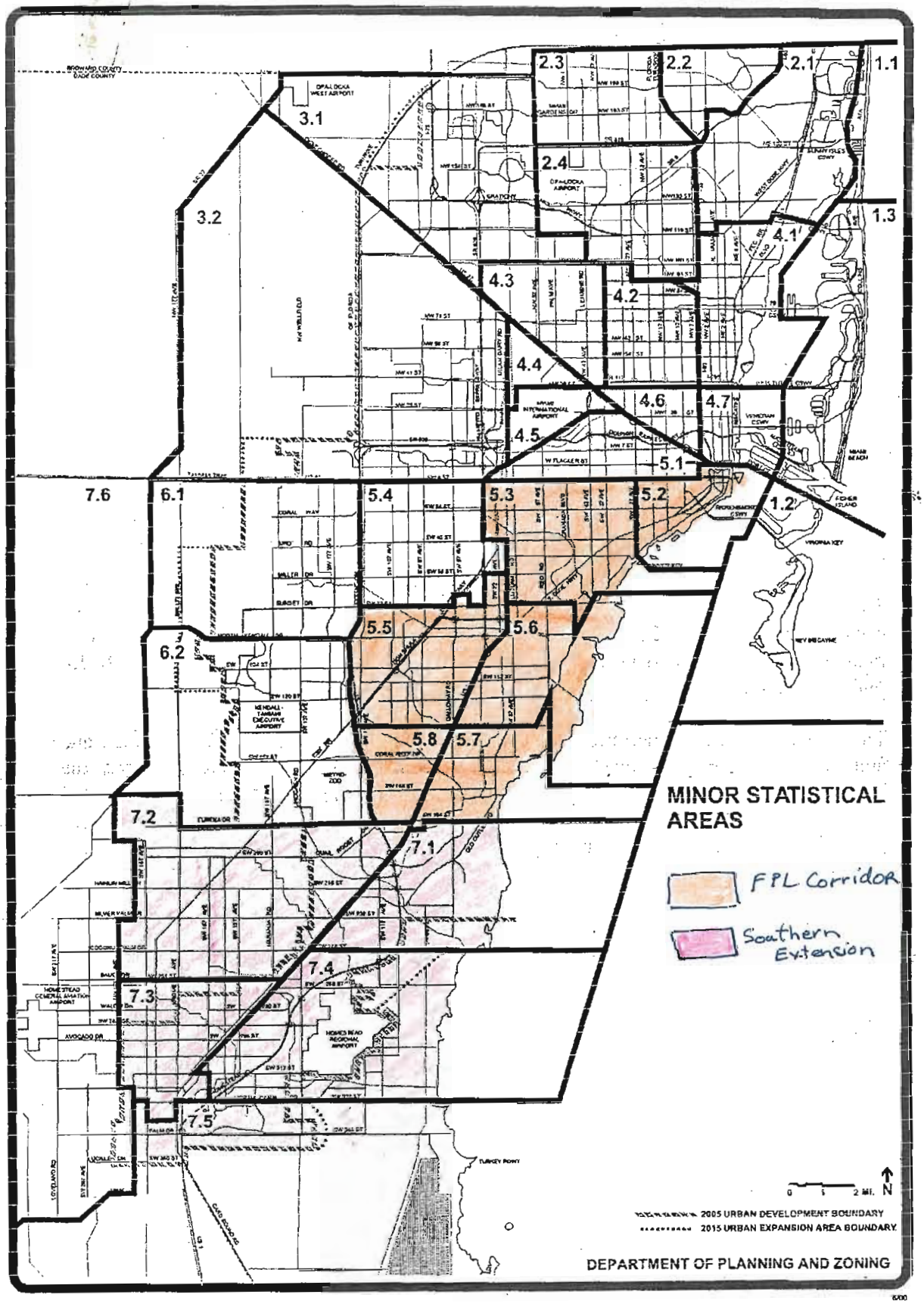
THE SOUTH DADE WATERSHED PROJECT

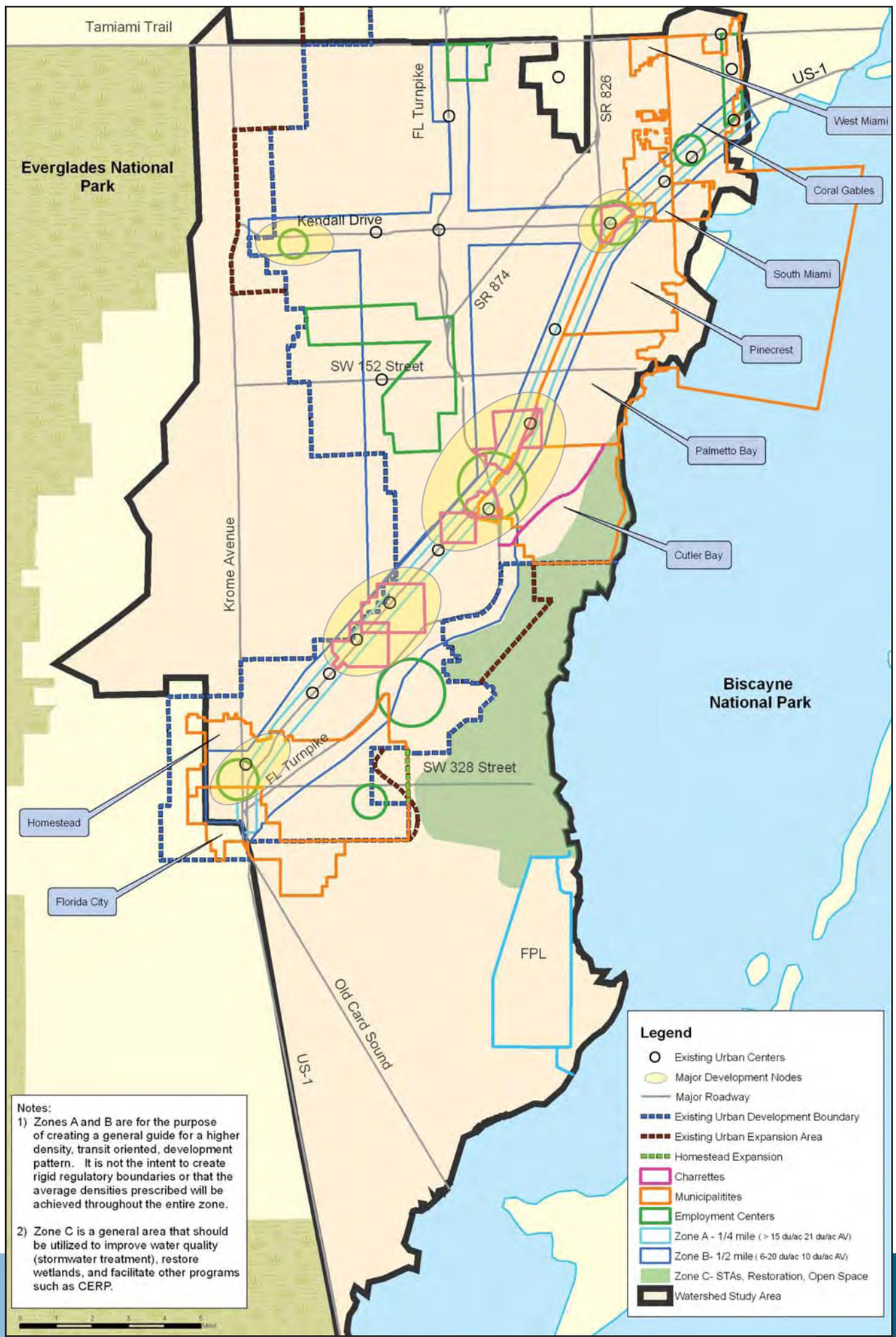
Center for Urban and Community Design, University of Miami, School of Architecture / South Florida Water Management District

MIAMI-DADE COUNTY, FLORIDA
ZIP CODE BOUNDARY



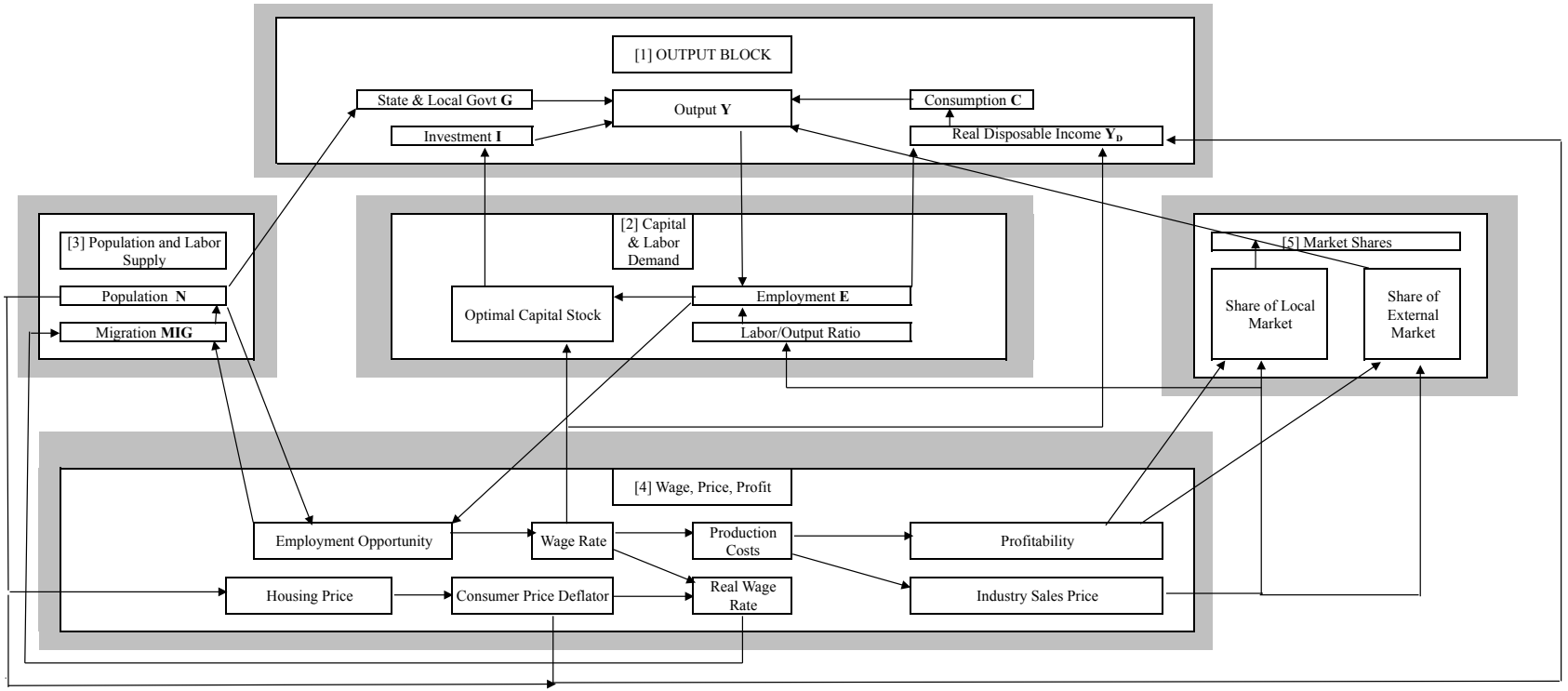
Population Projections by Minor Statistical Area





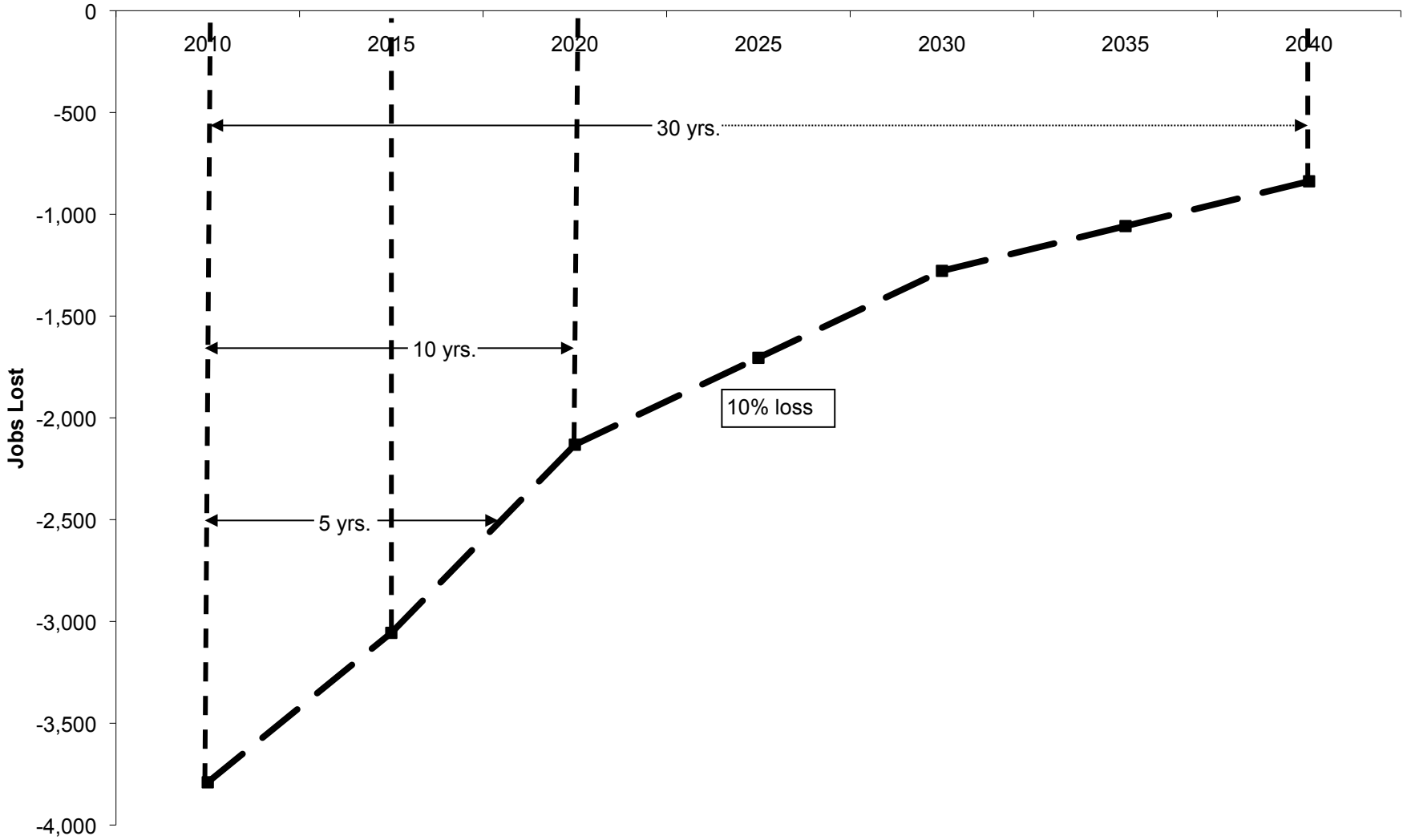
Recommended Watershed Plan Design Guide Map

Figure 5.1 The Blocks of the REMI Model and Some Connections

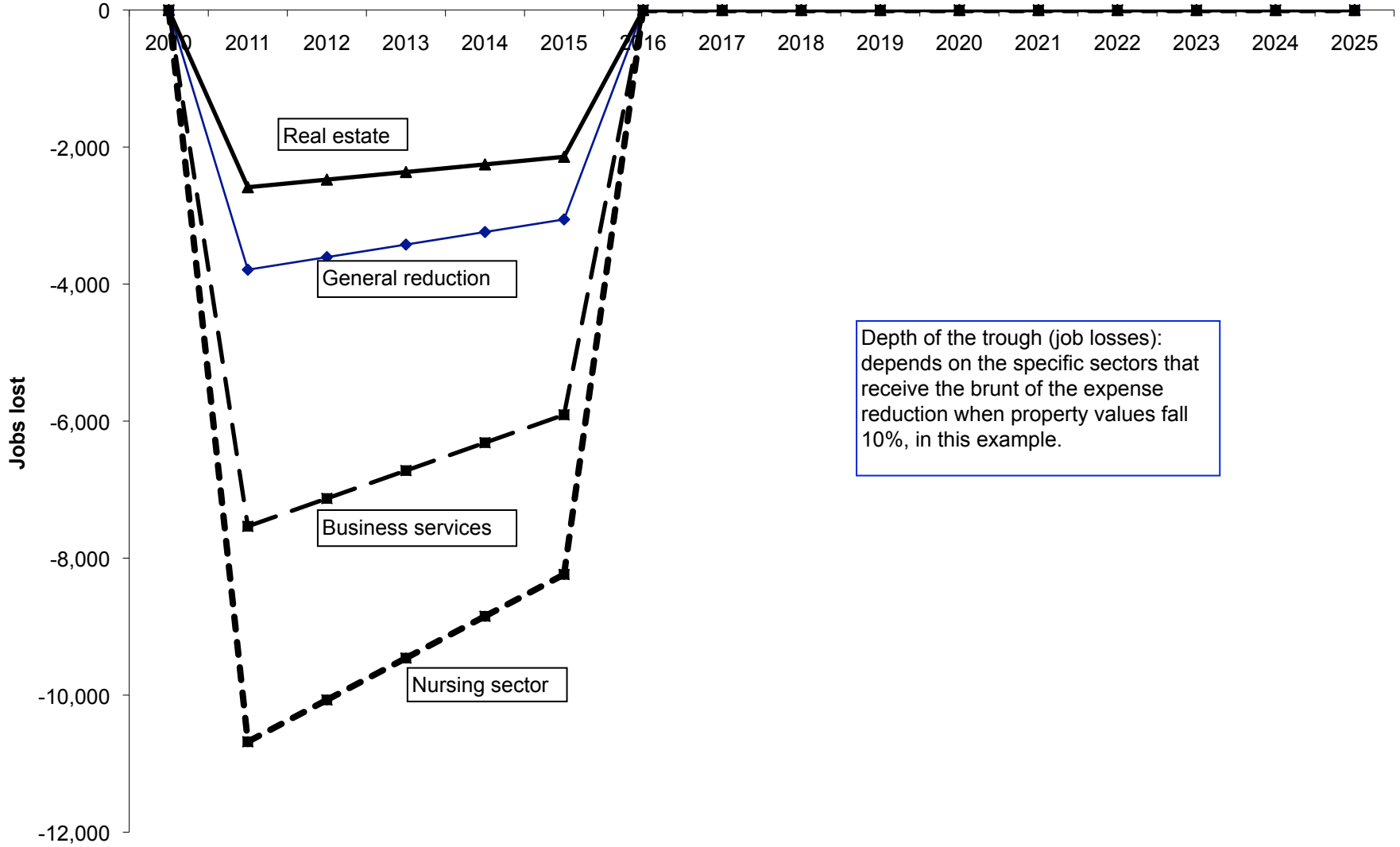


Source: Excerpted from Treyz, Regional Economic Modeling, Kluwer, 1993, p. 291.

Graph 5.1 How Long the Trough (Job Loss)?
General Reductions for Miami-Dade County, 10% Property Loss over Differing Time Spans



Graph 5.2: 10% Loss of Property Value, 5-Yr. Dis-Amenity: How deep the trough?



Appendix III-M: Village of Palmetto Bay

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE:

FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT UNITS 6 AND 7 POWER
PLANT SITING APPLICATION PA 03-45A3

CASE NO.: 09-3575 EPP
DEP OGC Case No.: 09-3107

_____/

NOTICE OF FILING AGENCY REPORT

The Village of Palmetto Bay, through its undersigned attorney, hereby submit and file their attached Agency Report

I HEREBY CERTIFY that a true and correct copy of the foregoing was furnished by U.S. mails and e-mail, this 13th of June, 2011, to all parties on the attached service list.

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RESOLUTION NO. 2011-42

A RESOLUTION OF THE MAYOR AND VILLAGE COUNCIL OF THE VILLAGE OF PALMETTO BAY, FLORIDA, RELATING TO FPL; ISSUING THE VILLAGE'S AGENCY REPORT ON FLORIDA POWER AND LIGHT TURKEY POINT UNITS 6 & 7 PROJECT SITING APPLICATION PA03-45A3 AND TRANSMISSION LINE CORRIDOR (EAST PREFERRED CORRIDOR) BETWEEN DAVIS AND MIAMI SUBSTATIONS; RECOMMENDING DENIAL OF THE APPLICATION OR IN THE ALTERNATIVE PROVIDING FOR CONDITIONS RELATING TO SAME; PROVIDING AN EFFECTIVE DATE.

WHEREAS, The Florida Electrical Power Plant Siting Act (PPSA) process includes a multi-agency review that supersedes and encompasses all state and local permits and approvals; and,

WHEREAS, Florida Power and Light (FPL) issued its application in 2009 relating to Turkey Point Units 6 and 7 under project siting application PA03-45A3, which included the transmission line siting request; and,

WHEREAS, over time, FPL has selected a transmission line corridor between the Davis Substation and the Miami Substation (the "East Preferred Corridor"), proposing to run 80-120 foot concrete tower transmission lines between SW 136 Street and downtown Miami along the bus way and Metro Rail way adjacent to US Highway 1; and,

WHEAREAS, according to the Department of Administrative Hearings (DOAH) has issued its Eighth Scheduling Order requiring affected agencies to issue their agency report on the transmission line corridor; and,

WHEREAS, any entity desiring to propose an alternate corridor for the transmission lines must submit that application to DOAH by May 15, 2011; and,

WHEREAS, Pinecrest, South Miami and Coral Gables submitted an alternate corridor by the May 15th deadline; and,

WHEREAS, the alternate corridor proposal shall be independently evaluated by the affected agencies, including all affected municipalities, and DOAH; and,

WHEREAS, the alternate corridor proposal does not affect the requirement for local agencies to provide a report as to local ordinances and regulations that are triggered by FPL's proposed "East Preferred Corridor;" and,

WHEREAS, the Governor and Cabinet are to review all agency reports and is to issue a final decision as to the corridor by September 2012, approximately a year and a half from now; and,

WHEREAS, FPL's East Preferred Corridor runs parallel to US Highway 1 and affects Palmetto Bay, Pinecrest, South Miami, Coral Gables, Miami, and unincorporated Miami-Dade County residents, businesses, and property owners; and,

WHEREAS, the agency reports allows the reviewing agencies to formally provide their input on the East Preferred Corridor; and

WHEREAS, Agency reports are required by the PPSA process for each reviewing agency after an application is found complete and the report is to address matters within the agency's jurisdiction that may potentially be affected by the proposed project, a recommendation of approval or denial of the project, and proposed conditions of certification with supporting legal authority; and,

WHEREAS, thereafter, Department of Environmental Protection is to submit a comprehensive project analysis containing the agency reports, proposed conditions of certification and recommendation on final approval of the project to the Administrative Law Judge (ALJ); and,

WHEREAS, the Village has reviewed its Comprehensive Plan (adopted by Ordinance) and its Land Development Code and has documented requirements which FPL should be conditioned to comply with should the East Preferred Corridor be implemented and the Village issues its agency recommendation to approve/deny the FPL application;

WHEREAS, the Mayor and Village Council desire to submit the attached Agency Report in compliance with DOAH deadlines.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND VILLAGE COUNCIL OF THE VILLAGE OF PALMETTO BAY, FLORIDA, AS FOLLOWS:

Section 1. The above whereas clauses are incorporated by reference into this resolution.

Section 2. The Village of Palmetto Bay incorporates by reference the attached exhibit 1, agency report.

Section 3. The Village has issued a recommendation in the attached report and recommends to DOAH and FPL the denial of FPL's application to implement the East Preferred Corridor. In the alternative, the Village recommends conditions based upon its Comprehensive Plan and Code of Ordinances should the corridor be approved.

Section 4. This resolution and the attached Village of Palmetto Bay agency report is to be transmitted to DOAH under Case NO. 09-3575-EPP.

Section 5. This resolution shall take effect immediately upon approval.

PASSED and ADOPTED this 6TH day of June, 2011.

Attest:
Meighan Alexander
Village Clerk

Shelley Stanczyk
Mayor

APPROVED AS TO FORM:

Eve A. Boutsis,
Village Attorney

FINAL VOTE AT ADOPTION:

Council Member Patrick Fiore	YES
Council Member Howard Tendrich	YES
Council Member Joan Lindsay	YES
Vice-Mayor Brian W. Pariser	YES
Mayor Shelley Stanczyk	YES

STATE OF FLORIDA
COUNTY OF MIAMI-DADE

I, Meighan Alexander, Village Clerk of the Village of Palmetto Bay, Florida, hereby certify that the attached is a true and correct copy of Resolution 2011-42, as shown in the records of the Village on file in the office of the Village Clerk.

Witness my hand and corporate seal of the Village of Palmetto Bay, FL this 13th day of June, 2011.

Meighan Alexander, Village Clerk

VILLAGE OF PALMETTO BAY AGENCY REPORT ON FLORIDA POWER AND LIGHT TURKEY POINT UNITS 6 & 7 PROJECT SITING APPLICATION PA03-45A3 AND TRANSMISSION LINE CORRIDOR BETWEEN DAVIS AND MIAMI SUBSTATIONS (FPL "EAST PREFERRED CORRIDOR")

FLORIDA DOAH CASE NO: 09-003575

DEP. OGC CASE NO.: 09-3107

1. CORRIDOR LOCATION ISSUES:

Pursuant to Section 403.526, Florida Statute, the Village of Palmetto Bay hereby submits a Final Agency Report pertaining to the Turkey Point Transmission Lines for the Proposed Preferred Route for the East Corridor. By way of background, this Agency Report is in response to a Site Certification Application filed by Florida Power and Light ("FPL") with the Florida Department of Environmental Protection ("DEP") on June 30, 2009. If the application is approved, FPL would be authorized to expand nuclear energy production at its Turkey Point facility in Miami-Dade County.

Technically the proposed FPL transmission line corridor, known as FPL's "East Preferred Corridor" does not run through the Village of Palmetto Bay, other than to provide a single guy wire within Village limits. The corridor is located just west and north of the Village of Palmetto Bay along the bus way adjacent to US Highway 1, through the cities of Pinecrest, South Miami, Coral Gables, Miami-Dade County and the City of Miami. The plan proposes 80-120 foot concrete polls, with intermittent shorter polls to provide local service to the community. The shorter poles are needed due to "drag" and safety related issues requiring shorter polls to provide local service. The transmission lines will only be necessary if the Unit 6 and 7 applications are approved.

Obviously it would have lesser impact on the surrounding environment if the line could be located within existing road rights of way and not overland. That corridor is along the main thoroughfare in Miami-Dade County, and is the center of commercial, mixed-use, and residential developments in the heart of Miami. The corridor is proposed within several high-density residential and mixed use areas, including the Dadeland mixed use area, and the County's main Metro-Rail and Bus Line. The corridor proposes to go through the heart of Miami's Commercial District, which is adjacent to or in close proximity to hospitals, single family residential, and multifamily residential units. There are residential developments that must be considered. Under the County's Master Plan, the bus line extending in the area east of US Highway 1 from Kendall to Homestead is proposed to become an elevated, above ground Metro-Rail line, continuing the existing Metro-Rail Line extending from Kendall Drive North to Downtown Miami. The existing Metro-Rail Line is at least 45 feet above ground, and would expose all travelers to electromagnetic fields from the proposed transmission lines. There has been no documentation or scientific studies distributed to the community to alleviate the concerns as to electromagnetic field exposure at that height.

Additionally, if the transmission lines are extended south of Kendall Drive to SW 136th Street (the Village's border), there is no provision indicated to ensure that the lines would not cause exposure to those traveling the bus way and/or how to deal with the extension of the Metro-Rail along that corridor, as provided in the Miami-Dade County Transit Master Plan.

Moreover, the Village is aware of an alternate corridor that is being proposed by the Village of Pinecrest and the City of Coral Gables and the economic damages analysis presented by the City of South Miami as part of that alternate corridor application. The economic detriment to the entire US Highway 1 Corridor is documented as being extensive, as seen in the City of South Miami economic report, as conducted by economist Dr. Richard Weisskoff of the University of Miami. That report is incorporated by reference herein and has been filed by the City of South Miami.

The Village is concerned about potential conflicts with existing and proposed homes and businesses in the corridor, a highly dense corridor that is one of the main thoroughfares in the County. The Village is concerned about where potential line locations could limit future development.

In order to ensure both safety and peace of mind for adjacent residential and commercial uses, the Village seeks a condition that would require FPL to show the limits of any EMF's (electro magnetic fields) to be generated by the line, along the densely populated corridor, and require compliance with all regulations relating to EMFs.

The purpose of the State Transmission Line Siting Act ("TLSA"), Sections 403.501-403.539, Florida Statutes, is to certify transmission line corridors through a centralized and coordinated planning and permitting process administered by the Florida DEP. Authority to issue the Certification Order is assigned to the Governor and Cabinet sitting as the Siting Board, after consideration of a Recommended Order issued by a Hearing Officer of the Department of Administrative Hearings. The Recommended Order includes findings of fact and conclusions of law on those matters raised at the hearing or pleadings filed, including the application. If certification is recommended, the Hearing Officer will also include any conditions of certification. If the Siting application is contested, then the Department of Administrative Hearings shall schedule a Certification Hearing.

In the instant matter, although the Power Plant Expansion Application and the transmission line application are proceeding under separate time tables, the Siting Board will issue their decision on whether to license both in one proceeding. (State Power Plant Siting Act ("PPSA"), Chapter 403, Part II, Florida Statutes).

The PPSA mandates that the affected local governments and other administrative agencies participate in the process, and further requires that they prepare an assessment report. Affected local government agencies are granted party status in the proceedings.

2. OUTSTANDING SUFFICIENCY ISSUES: No outstanding issues.

3. RECOMMENDATION FOR CERTIFICATION:

At the outset, the Village of Palmetto Bay, objects to the processing and review of the Transmission Lines Application on an earlier time line than the Power Plant Expansion Application. The Village respectfully requests that the present application be continued until such time as the Power Plant Siting application has at a minimum been determined complete. Miami-Dade County recently submitted their 5th incompleteness determination. Florida Statutes section 403.529, provides, in part, that the proposed lines "Effect a reasonable balance between the need for the transmission line as a means of providing reliable, economically efficient electric energy, as determined by the commission, under section 403.537, and the impact upon the public and the environment resulting from the location of the transmission line corridor and the construction, operation, and maintenance of the transmission lines." The South Florida Regional Planning Council has raised concerns that the criteria of section 403.529 may not have been adequately studied by FPL as to the impacts to the community, including impacts to the environment, health, economic and/or social impacts to the surrounding communities.

The Village and other reporting agencies are at a disadvantage in analyzing the application in its present posture. The Agencies are to evaluate the preferred corridor under their existing regulations to comment on whether the proposal "Effect(s) a reasonable balance between the need for the transmission line..." and "the impact upon the public and the environment resulting from the location of the transmission line corridor and the construction, operation, and maintenance of the transmission lines". (Section 403.529 (4)(e), Florida Statutes).

However, the two nuclear reactors have not been approved. If the Siting Application is withdrawn, suspended or denied, until a much later date, then the affected agencies are tied to a recommended order for a proposal that may not see the light of day. The present Village Council would be placed in the unconstitutional and impermissible position of tying the hands of a future Village Council. See, Florida Constitution Article, VIII, Section 2, and Chapter 166, Florida Statutes. FPL cannot seek permission for a transmission line on an existing plant absent a "showing and approval of need" as required under applicable statutes. FPL is placed in the position of picking and choosing when to proceed on the power plant application. Alternatively, FPL can seek to amend their application to install the transmission lines without the Nuclear Power Plant Expansion. These proceedings should be suspended until the Power Plant Application has moved forward.

The Village of Palmetto Bay respectfully requests that FPL's application be denied due to the lack of completeness, and the uncertainty of the completion of the nuclear reactor applications, for which the lines are being proposed (if no reactors then no need for the lines). The Village therefore finds that FPL's designated preferred corridor should be denied. The Village supports the Coral Gables/Pinecrest Preferred Alternate Corridor approved ("PAC"), as FPL has an existing corridor which is located primarily FPL's Right of Way, and already traverses west to east towards the Miami substation. The Village supports the PAC filed by Coral Gables/Pinecrest as it appears to be the most appropriate corridor under the criteria in Chapter

403, Florida Statutes, and FPL should invest in improving that corridor rather than attempting to blaze through a new route. Additionally, the corridor should be rejected/denied due to the findings in the South Miami Economic report prepared by economist Dr. Richard Weisskoff of the University of Miami.

Alternatively, if DEP finds that the corridor should proceed, then, the Village of Palmetto Bay finds that the FPL application [Application for certification of the proposed Florida Power & Light Company Davis and Miami Substation Transmission Line Corridor Project ("East Preferred Corridor")] meets the requirements of the Village's Codes of Ordinances, with the conditions identified below at Section 5. Staff analysis is contained herein. This recommendation is made contingent upon the conditions contained herein be satisfactorily addressed during the post-certification review process.

4. VARIANCE TO STANDARDS: The Village requests, that should the FPL proposed corridor go forward that FLP be required to underground and shield the transmission lines regardless of the cost. FPL is entitled to reimbursement for the construction expenditures and as the lines are a benefit to the entire state, FPL should be required to protect electrical power for all residents of the state by ensuring (1) that the dense residential/commercial corridor is protected; (2) that Miami-Dade County is affected most frequently by hurricane events than any other County in Florida and has faced catastrophic damage due to Hurricane Andrew, Hurricane Wilma, Hurricane Katreena, and other hurricanes over the past 20 years, which events have caused downed power lines and power outages. As such, undergrounding the transmission lines would be a benefit to all electrical providers as the lines would not be affected by wind storm events; and (3) the US Highway 1 corridor (East Preferred Corridor) would be protected from the economic downturn projected in the South Miami economic report as prepared by economist Dr. Richard Weisskoff of the University of Miami.

5. Proposed Conditions of Certification:

5.1 Definitions:

"Application shall mean the Application for Corridor Certification for the Florida Power & Light Company "East Preferred Corridor between Davis and Miami Substations" project.

"Facility" or "Project" shall mean the Turkey Point Units 6 & 7 Project and the "East Preferred Corridor" proposed by FPL between the Davis Substation and the Miami Substation under Plant Siting Application PA03-45A3, under DOAH case no.: 09-3575-EPP; and DEP OGC Case no.: 09-3107.

"Feasible" or "Practicable" shall mean reasonably achievable considering a balance of land use impacts, environmental impacts, engineering constraints and costs.

"Post-Certification Submittal" shall mean a submittal made by FPL pursuant to a Condition of Certification.

"ROW" shall mean the transmission line right-of-way to be selected by FPL within the certified corridor in accordance with the Conditions of Certification

5.2 Conditions: Access and Drainage: FPL as a post-certification submittal to the Village shall submit detailed design plans showing all access roads and drainage plans after right-of-way surveys and final design plans are completed.

5.3 Electric and Magnetic Fields: The Transmission lines shall comply with the applicable electric and magnetic field standards set forth in Chapter 62.814, FAC. The electric magnetic fields associated with any configuration developed during the final design of this project that is not shown in the application shall be provided to DEP at least 90 days prior to the start of construction, or such a shorter time period to which the DEP Siting Coordination Office agrees, as required by Rule 62-814.520(3), FAC, and provide an informational copy of same to the Village.

5.4 In the construction of the transmission line on or crossing State Road rights-of-way FPL shall (1) comply with the requirements of the FDOT's Utility Accommodation Manual (Document 710-020-001 and Rule Chapter 14-46, Utilities Installation or Adjustment, FAC); (2) place transmission line structures at crossings of State Roads in such a manner as to accommodate future road widening, (creation of Metro-Rail extension), to the extent practicable. If future widening of any road in the area of the transmission line is required, the cost of relocating the transmission lien shall be borne by the Licensee to the extent required by Section 337.403, Florida Statutes, and Rule Chapter 14-46, FAC.

5.5 A post-certification submittal to the Village shall be a final design plan showing: (1) all protected trees to be removed for the transmission line, access road and drainage installation. Protection measure for trees proposed for preservation shall be detailed. The Village has adopted the County's DERM standard for tree removals. (2) aerial photos of the transmission line location within the Village; (3) Construction timetables, phasing and construction traffic to be generated by the transmission line construction. (4) FPL confirms that it will not install any auxiliary equipment; (5) all existing and proposed easements; (6) show as existing site conditions on the final design plan and the following (a) the location of the right-of-way with respect to adjoining development, the existing zoning on adjoining property and existing land use adjacent to the right-of-way; (b) the name, location and width of existing or platted street public right-of-way within or contiguous to the right-of-way; (c) approximate location, size and depth of sewers, water mains and storm drains, and approximate location of power and phone lines; within all contiguous of the right-of-way; (d) location and size of easements for all the above ground utilities, such as electric power lines, within or adjacent to the right-of-way; (e) flood plain management information on flood zones delineated if applicable; (g) location of fire hydrants and exterior fire suppression systems supplied by portable and non-portable water sources; and (h) location, size and type of all proposed stormwater management facilities.

5.6 FPL shall employ best management practices, construction techniques, and adequate culverting in order to maintain existing drainage patters along the Certified Transmission

Line's ROW. Section 373.416 and 403.5011, Florida Statutes. FPL has provided a commitment that no storm water facilities and no facilities in a flood zone. Should such occur, supplemental information to be submitted with final design plans to the Village of the (a) gross acreage of the site; (b) all calculations and descriptions prepared by a Florida registered professional engineer need to show evidence of compliance with stormwater management including the percentage of all impervious surface located on lots; (c) if the right-of-way is located in a flood way, all calculations and descriptions prepared by a Florida registered professional engineer need to demonstrate compliance with applicable flood plain management requirements; and (d) location, description and term of any proposed easements, reservations or dedications, together with any necessary legal instruments. FPL is to comply with Chapter 15, Article III relating to "Stormwater Management." (Ord. No. 06-07, § 2(.1), 5-1-2006).

5.7 FPL is to comply with the Village of Palmetto Bay Comprehensive Plan, as delineated herein. The policies of the Comprehensive Plan were adopted via Ordinance on August 1, 2005.

5.7.1 Policy 1.1.6 of the Village's Future Land Use Element indicates that "[s]mall scale public facilities and utilities intended to serve the immediate needs of the residential community continue to be permitted on compatible sites in all residential land use categories subject to adequate design and buffering as determined by the Village." The utility corridor is not intended to serve the immediate needs of the residential community, but rather the entire state of Florida and beyond.

5.7.2 Large scaled institutional and public facilities are governed by Policy 1.1.1, and designated the area the utility is to be located, and US Highway 1 or the bus way adjacent to US Highway 1 is not designated for "Institutional and Public Facilities."

5.7.3 Policy 1.1.9 of the Future Land Use Element indicates that it is the policy to "discourage land use patterns indicative of urban sprawl in the Future Land Use Map and any amendment applications by dictating compact development, mixed-use where appropriate and efficient use of public facility capacity and resources, while protecting single family neighborhoods."

5.7.4 Policy 1.3.3 requires the Village to work with county and regional utility service providers, as needed, to help locate suitable land for expansion of their operations and services. The Village believes that the suitable land for expansion of operations and services is proposed in the Village of Pinecrest/City of Coral Gables's alternate corridor (PAC).

5.7.5 Policy 8.2.1 requires the Village to "work with officials at the FDOT, Miami-Dade County MPO, and Miami-Dade County to promote the inclusion of projects in their plans, programs and development regulations that adequately provide future capacity for moving people safely and efficiently through Palmetto Bay." Currently the bus way passes through Palmetto Bay and is proposed to be an

extension of the Metro-Rail system to Homestead. FPL has addressed the possibility of modifying the bus way to a Metro-Rail system and the effects of the transmission lines as it relates to the proximity of an elevated rail provider.

5.7.8 Additionally, the Metro-Rail and bus way extensions provide for continuous pedestrian and bicycle linkages. Policy 8.2.3 requires the Village to "Coordinate with officials ... to ensure that safe, continuous pedestrian and bicycle linkages are provided with all future projects within one-quarter mile of transit stops located within the Village to connect residents and visitors with public transit for completing higher order trips. FPL has not addressed whether the transmission line corridor will impact the "safe, continuous pedestrian and bicycle linkages". This directly impacts the Villages, Palmetto Bay and Pinecrest, transit stop at SW 136th Street and the bus way. Based upon this Policy, FPL will minimize impacts to the safe and continuous pedestrian and bicycle linkages within ¼ mile of the Village's transit stop to extent practicable and possible and will restore the conditions of the area impacted upon completion of construction. FPL shall not have permanent impacts to this area.

5.7.9 Policy 8.2.10 requires the Village to coordinate the implementation of a master landscape plan for the US 1 transportation corridor within municipal boundaries to further reinforce the character of Palmetto Bay through urban design.

5.7.10 FPL shall ensure that adjacent properties are not impacted by wind erosion, or emissions of unconfined particulate matter in accordance with Rule 62-296.320(4)(c)1., Florida Administrative Code, by taking appropriate measure to stabilize affected areas. Rule 62-296.320, Florida Administrative Code (FAC).

5.8 FPL shall coordinate with the Village during times of emergency. Sec. 14-84, of the Village's Code of Ordinances entitled "Utility Emergencies," which states that an emergency may be declared because of utility conditions when the public works director, or designee, or the authorized representative of the relevant utility certifies to the Village manager the following: (1) A condition exists or is imminent that endangers the safety, potability, quantity, availability, collection, conveyance, transmission, distribution, treatment, or storage of water or waste through or within the Village; or (2) A condition exists or is imminent that endangers the safety, quality, quantity, availability, transmission, distribution, or storage of gas or electricity through or within the Village. The Village requires FPL to submit emergency response plans to assist the Village should an emergency arise relating to local contacts for FPL, and local plan of action to ensure the safety to the community, including evacuation of the area, and/or diligent repair of downed lines and/or plants, amongst other criteria.

5.9 FPL shall comply with the Village's noise ordinance. Section 15-54 of the Village's Code of Ordinances, entitled "Maximum permissible sound" requires compliance with the Village's sound code. In short, no person shall cause, suffer, allow, or permit the operation of any source of sound in such a manner as to create a sound level that exceeds the sound level limits listed in Table 1 when measured at, across or within the real

property line of the receiving property land use designation. Sound pressure levels in excess of those established in Table 1 would constitute a noise disturbance and be in violation of this Code.

5.10 These noise limits may not be exceeded by any single incident representing the normal, usual operation of the sound source, during any three sampling intervals, the duration of which shall be no less than one-half minute, within any one-hour period.

5.11 If the sound source under investigation is a mechanical device, and is in the investigating officer's opinion emitting a sound with a steady tonal quality, the permissible sound level limits in Table 1 shall be reduced by ten dBA. The sound emissions must be comprised of a single frequency or a narrow cluster of frequencies, which may be referred to as a whine, hum or buzz. The measured sound levels of such a source must not fluctuate by more than plus or minus three dB. Such sound sources include, but are not limited to, heating, ventilating or air-conditioning units, refrigeration units and transformers.

5.12 On an ordinary basis, FPL shall comply with the Village's requirements relating to hours of work. However, should an order issue from FDOT and/or the state for evening work, the Village shall coordinate such night time operations with the Village and provide the Village with reasonable prior notice of said work. Pursuant to the noise code, operating or causing the operation of any tools used in construction, drilling, repair, alteration or demolition work between the hours of 7:00 p.m. and 7:00 a.m. on weekdays, or between 7:00 p.m. and 9:00 a.m. on weekends or Village recognized holidays in or within 50 yards of any residential area or noise-sensitive zone, except for emergency work by public service utilities or by special permit approved by the Village. All construction sites shall comply with the Village's noise code. Construction activity is limited between the hours from 7:00 a.m. [to] 6:00 p.m., Monday thru Friday. Saturday hours shall be from 9:00 a.m. to 5:00 p.m. No construction activity is permitted on Sunday -- unless superseded by state law requirements. (Ord. No. 09-24, § 1, 11-2-2009).

5.13 FPL shall comply with Sec. 29-53. Vegetation standards for proximity to electric facilities. (Ord. No. 06-04, § 1(.3), 3-6-2006). At all times during the year, FPL shall cause all vegetation to be maintained and trimmed so that no trees branches, palm fronds, vines, bushes or other vegetative matter shall be situated at any point any closer than six feet from any overhead electric utility facilities, in order to ensure that all lines are clear.

5.14 New plantings of vegetation: The Village shall monitory all future landscaping shall require to ensure compliance with the Village's Planning & Zoning Department to ensure conformance not only with the Village's landscaping plans, but also with subsection (b)(4), "Right Tree - Right Place Guidelines". No vegetation shall be planted where at mature height it may conflict with overhead electric facilities. Large trees (trees with a mature height of 30 feet or more) shall be planted no closer than a horizontal distance of 30 feet from any overhead electric facility. Medium size trees (trees with a mature height of 20 to 30 feet) shall be planted no closer than a horizontal distance of 20 feet from any overhead electric facility. Small trees and shrubs, with a mature height of less than 20 feet, may be planted adjacent to electric power facilities. Palm trees shall be planted at a distance from overhead electric facilities not less than the mature maximum frond length

plus three feet. FPL's Right Tree - Right Place Guidelines shall be used to facilitate the selection of trees to be planted in proximity to electric power facilities; and nothing herein shall be construed to permit planting of exotic species of vegetation.

5.15 FPL shall not affect the Village's public rights-of-way. Should FPL do so, it shall comply with Section 30-60.1, of the Village's Code of Ordinances. Public rights-of-way, requires that the swale area (depression in a stretch of flat land associated with drainage and is that land dedicated or designated as part of the official right-of-way) be permeable to ensure proper drainage. Any landscaping in the public rights-of-way area shall be in accordance with Division 30-100. Public rights-of-way areas shall be designed to retain runoff water in accordance with the Public Works Manual. The ground shall be graded away from the building and foundation, but not so as to cause water to drain onto adjoining property(ies) or public rights-of-way. FPL is to ensure that drainage is properly maintained within the swale areas and not causing spill over of drainage onto US Highway 1 or the bus way, but is properly maintained on the area to be utilized by FPL for the transmission line corridor.

5.16 The Village shall monitor FPL's work to ensure compliance with Section 30-60.11 relating to pre-construction and construction standards for sites provides that no construction may occur within the Village. If there is a staging area within the Village for staging of work, storing of supplies, etc., FPL shall be required to submit a site management plan shall be submitted to the Village's Building Department for review. The site management plan shall include a plan of the structure to be constructed, location of utilities, material storage location and mechanism for securing same, location of dumpsters and method of securing trash during Hurricane Season, if applicable, tree identification and protection, site grading, sidewalk protection and measures to control pedestrian access around the site, runoff control, weed control, fencing or screening, site appearance control, and a construction schedule. All construction sites shall be maintained free of debris and scrap materials. Additionally, for any work in the Village that is to occur during hurricane season (June thru November), the construction/staging site shall be maintained cleaned of loose debris and/or secured in accordance with the Village's Code of Ordinances and the Florida Building Code. All construction/staging sites readily accessible to the public not already providing site conditions that fence or wall off the area from the public, shall be enclosed with a temporary six-foot fence which shall be installed prior to starting the construction activity, unless exempt by the Village's Building Official. Construction shall be defined to include new construction of structures, additions to existing structures, renovation of existing structures, and any construction that shall include excavation or exposure of the interior of an existing structure. Construction shall not include paving or repaving of a driveway, or other re-surfacing and/or minor interior renovations or construction which is not exposed to the elements.

5.17 If a staging area is located within the Village, FPL shall be required to pull a fence permit, and the fence installed, inspected, and permit closed-out by the building department prior to initiating construction. Each site, must additionally comply with Section 1.1 [Florida Building Code], above, relating to demolition permit requirements if demolition permit is needed. The required perimeter fence shall be chain link, covered

with green or black nylon material screening the construction from view, and installed on the front, side and rear lot lines. The fence shall be installed so as not to create a public hazard and the fence gate shall be locked during nonworking hours. The fence shall remain in place through completion of construction, unless exempt by the Village's Building Official.

5.18 If a staging/construction site is located with the Village, the Village may require additional protective safeguards may be required where the Village identifies an attractive nuisance. "Readily accessible to the public" shall mean a "Level Three" alterations of existing residential buildings as defined under the Florida Building Code at section 405.1 (exceeds 50 percent of the aggregate area of the building within any 12-month period). Level One [Florida Building Code section 403.1] and Level Two [Florida Building Code section 404.1] residential alterations shall not be considered readily accessible. Levels Two and Three of Construction for commercial properties [as defined at 404.1 of the Florida Building Code] shall be considered readily accessible.

5.19 All FPL staging/construction sites within the Village shall be monitored for dust control by hosing of debris with water. All pavement, surfacing, driveways curbs, walks, buildings, utility poles, fences, and other surface structures affected by the construction operations, together with all sod and shrubs in yards, parkways, and medians shall be restored to their original conditions, whether within or outside the easement right-of-way. All replacements shall be made with new materials.

5.20 The Village adopts by reference the report of Miami-Dade County, particularly relating to Department of Environmental Resource Management (DERM) review, as DERM administers environmental programs on the Village's behalf.

5.21 The Village adopts by reference the report of South Florida Regional Planning Council as it relates to the South Florida Regional issues.

5.22 The Village adopts the economic study of the City of South Miami as conducted by economist Dr. Richard Weisskoff of the University of Miami.

5.23 In the event that the completion of the corridor for the proposed transmission line requires that FPL acquire property and/or property rights not located within Village or Miami-Dade County ROW, FPL shall comply with Chapters 361, 73 and 74, Florida Statutes, to exercise the power of eminent domain for a public purpose if necessary. Further, FPL shall fully compensate the Village for any property and/or property rights taken from it. (Supporting Regulation(s): Chapters 361, 73 and 74, Florida Statutes).

5.24 Due to safety and public health and welfare issues, FPL should either underground the facilities In the alternative, FPL should co-locate the lines with the Busway and Metro-rail system.

5.25 FPL shall minimize the impacts of the transmission line on intersection improvements by locating all proposed transmission line poles outside the ultimate configuration for all current and potential future signalized intersections. FPL should agree to a condition of certification requiring that the transmission poles be located longitudinally along the ROW outside of the intimate configuration for all currently designed and acquired future traffic infrastructure projects to the extent practicable. (Section 403.5317(2), Florida Statutes; Rule 62.17.665, F.A.C. Nonprocedural requirements-permitting, etc.).

5.26 FPL will design the proposed transmission line to meet or exceed the following safety and design standards, including but not limited to:

(a) National Electrical Safety Code (NESC), adopted by the Florida Public Service Commission (see Section 366.04, Fla. Stat., and Rule 25-6.0345(1), FAC);

(b) Occupational Safety and Health Administration (OSHA) rules providing requirements for safe minimum approach distances;

(c) American Society of Civil Engineers (ASCE) Manual 74, Guidelines for Electrical Transmission Line Structural Loading, and Standard 48-05, Design of Steel Transmission Pole Structures;

(d) FAA guidelines involving requirements in the vicinity of airports (if applicable);

(e) FDOT Utility Accommodation Manual;

(f) Chapter 62-814, Fla. Admin. Code (FDEP rule regarding electric and magnetic fields);

(g) National Electrical Reliability Corporation (NERC) standard FAC-003-1; and

(h) American National Standards Institute (ANSI) standards A300 (Part I)-2001 and Z133.1-2000.

5.27 To the fullest extent permitted by Laws and Regulations, FPL shall indemnify and hold harmless the Village of Palmetto Bay and its consultants, agents and employees from and against all claims, damages, losses, and expenses direct, indirect, or consequential (including but not limited to fees and charges of attorneys and other professionals and court and arbitration costs) arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury and (b) is caused in whole or in part by any willful or negligent act or omission of FPL, any subconsultant, or any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable,

regardless of whether or not it is caused in part by a party indemnified hereunder or arises by or is imposed by Law and Regulations regardless of the negligence of any such party.

In any and all claims against the Village of Palmetto Bay or any of its consultants, agents or employees by any employee of FPL, any subconsultant, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, the indemnification obligation under the above paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for FPL or any such subconsultant or other person or organization under workers' compensation acts, disability benefit acts, or other employee benefit acts.

In performance of the services, FPL will comply with applicable regulatory requirements, including federal, state, special district, and local laws, rules, regulations, orders, codes, criteria, and standards. It shall be the responsibility of FPL to obtain and maintain, at no cost to the Village of Palmetto Bay, any and all license and permits required to complete the services provided in the certification.

To the extent which any other similarly situated community, or other governmental entity subject to this application, seeks or obtains mitigations, accommodations, terms, benefits or other conditions of approval or agreements or concessions agreed to or granted by FPL (hereafter "conditions") the Village of Palmetto Bay seeks the same such conditions. Should FPL enter into any subsequent agreement with any other governmental entity, during the term of this project, which provides for conditions, and conditions more favorable than those contained in this agency report and/or any agreement between FPL and the Village of Palmetto Bay, then this agency report and any subsequent agreements between FPL and the Village shall be deemed to be modified to provide the Village of Palmetto Bay with those more favorable conditions. FPL shall notify the Village of Palmetto Bay promptly of the existence of such more favorable conditions, and the Village shall have the right to receive the more favorable conditions immediately. If requested in writing by the Village, FPL shall amend its agreement with the Village of Palmetto Bay, the certification, or any other applicable agreement, approval, document, permit, etc. to contain the more favorable conditions.