EXHIBIT 21

Turkey Point Units 6 & 7

SITE CERTIFICATION APPLICATION

0838-7584

FPL

JUNE 2009

E9.3.7 Biological and Physical Environment of the Corridor Area

E9.3.7.1 Land Use/Vegetation

The existing land use and vegetation cover types (generally 5 acres or larger in size) were identified for the East Preferred Corridor and classified using FDOT's Florida Land Use, Cover and Forms Classification System (FLUCFCS) published in 1999 as modified by SFWMD (2004). SFWMD used Categories II, III, and IV to identify land uses and vegetation types within SFWMD's boundaries. The classifications were obtained from SFWMD GIS data and overlaid on aerial photographs. Additionally, FPL performed field surveys in preparation for the environmental resource permit (ERP) informational data submittal for this Project in many areas of the East Preferred Corridor for which FPL had access (Golder Associates, Inc. [GAI], 2009). The FLUCFCS coverages were mapped/revised in the field to reflect current conditions. These data were then used to supplement those from SFWMD. The land use and vegetation classifications that occur within the corridor and the 0.5-mile area adjacent to either side are shown in Figure 9.1.0-4 (Map Sheets 1 through 20) (vegetation/land cover maps) at the end of this Section E9.0. Table E9.3.7-1 lists the various land use and vegetation categories identified within the East Preferred Corridor. Descriptions of the major land use and vegetation classifications that occur within this corridor are provided in the following subsections. For more detailed descriptions of those coverages that also occur on-Site, refer to Section 3.3.5.

Land Use

Most of the land use/cover classifications that occur along the East Preferred Corridor reflect significant human-induced changes within the landscape. That is, much of the historical vegetation that occurred along the corridor and in the region has been cleared for residential, agricultural, or industrial uses. Table E9.3.7-1 lists land uses that were identified within the East Preferred Corridor based on the SFWMD-modified FLUCFCS.

Urban and built-up land uses (100 series classifications) consist of lands primarily occupied by man-made structures and associated activities. Included in this category are low-, medium-, and high-density single-family units; rural residential units; units under construction; mobile home units; and low- and high-rise multiple dwelling units. This category also includes commercial and services, retail sales and services, other light industrial, institutional, educational facilities, recreational, parks and zoos, and open land. These categories dominate the corridor north of the Davis substation all the way to the Miami substation.

TABLE E9.3.7-1
LAND USE AND VEGETATION CLASSIFICATIONS OCCURRING WITHIN EAST PREFERRED CORRIDOR

Number	Land Use Designation
111	Low Density: Fixed Single Family Units
118	Low Density: Rural Residential
119	Low Density: Under Construction
121	Medium density: Fixed Single Family Units
131	High Density: Fixed Single Family Units
132	High Density: Mobile Home Units
133	High Density: Low Rise Multiple Dwelling Units
134	High Density: High Rise Multiple Dwelling Units
140	Commercial and Services
141	Retail Sales and Services
155	Other Light Industrial
170	Institutional
171	Educational Facilities
180	Recreational
185	Parks and Zoos
190	Open Land
211	Improved Pastures
212	Unimproved Pastures
214	Row Crops
222	Fruit Orchards
223	Other Groves
241	Tree Nurseries
242	Sod Farms
243	Ornamentals
251	Horse Farms
261	Fallow Cropland
310	Herbaceous (Dry Prairie)
320	Upland Shrub and Brushland
330	Mixed Rangeland
411	Pine Flatwoods
420	Upland Hardwood Forests
422	Brazilian Pepper
510	Canals
511	Ditches
512	Channelized River, Stream, Waterway
530	Reservoirs
534	Reservoirs < 10 acres
612	Mangrove Swamps
612/617	Mangrove Swamps/Mixed Wetland Hardwoods
612/619	Mangrove Swamps/Exotic Wetland Hardwoods
612 B	Dwarf Mangroves
617	Mixed Wetland Hardwoods

TABLE E9.3.7-1
LAND USE AND VEGETATION CLASSIFICATIONS OCCURRING WITHIN EAST PREFERRED CORRIDOR
(Continued, Page 2 of 2)

Number	Land Use Designation
619	Exotic Wetland Hardwoods
630	Wetland Forested Mixed
641	Freshwater Marshes
642	Saltwater Marshes
651	Tidal Flats
744	Fill Areas: Highways and Railways
810	Transportation
812	Railroads
814	Roads and Highways
831	Electric Power Facilities
832	Electrical Power Transmission Lines

Sources: FDOT, 1999.
SFWMD, 2004.
GAI, 2009.

The agricultural land uses (200 series classifications) make up the majority of land use along the East Preferred Corridor from the Clear Sky substation to Davis substation and mostly consist of pasture and tree/ornamental nurseries. Areas of improved pasture are typically dominated by bahia grass (*Paspalum notatum*), Bermuda grass (*Cynodon dactylon*), carpetgrasses (*Axonopus* spp.), smutgrass (*Sporobolus indicus*), and occasionally pangola grass (*Digitaria eriantha*). Pastures that have become overgrown usually contain the same species as found in improved pasture but also typically have become colonized by old field species including dog fennel (*Eupatorium capillizolium*), slender goldenrod (*Euthamia caroliniana*), blackberries (*Rubus cuneifolius* and *R. trivialis*), broomsedges (*Andropogon* spp.), bluestems (*Schizachyrium* spp.), paspalums (*Paspalum* spp.), manyflower marshpennywort (*Hydrocotyle umbellata*), coinwort (*Centella asiatica*), and southeastern sunflower (*Helianthus agrestis*). Other agricultural land uses within the corridor include sod farms, fruit orchards, other groves, horse farms, row crops, and fallow cropland.

Barren land (700 series classifications) has little or no vegetation and limited potential to support vegetative communities. Fill areas for highways and railways fall into this category and are present within the East Preferred Corridor.

Transportation, communication, and utilities (800 series classifications) consist of land primarily occupied by manmade facilities, which are necessary for movement of people and goods, airwave communications, power generating, and water supply and treatment plants. Specifically, this category includes existing transportation, railroads, roads and highways, electric power facilities, and electrical power transmission lines.

Vegetation

Although most of the areas within the East Preferred Corridor have been altered by the various land uses described previously, a variety of plant communities of varying quality exist within the corridors. Descriptions of the upland communities (300 and 400 series classifications), aquatic communities (500 series classifications), and wetland communities (600 series classifications) found within the corridor are presented in the following subsections. Most of the natural communities described in the following paragraphs occur from the Turkey Point Units 6 & 7 Site to Davis substation. For more detailed descriptions of these coverages that occur in the on-Site portions of the corridor, refer to Section 3.3.5 of this SCA.

Upland Communities

Upland communities found within the corridor range from less disturbed communities to areas vegetated by a variety of nuisance or weedy shrubs and/or herbs (Brazilian pepper [*Schinus terebinthifolius*]- and Australian pine [*Casuarina equisetifolia*]-dominated areas). The upland communities that exist within the East Preferred Corridor are summarized in the following paragraphs.

Herbaceous (Dry Prairie)—310

This plant association is dominated by a variety of herbs and may include scattered clumps of shrubs. Typical herbs include broomsedges, bluestems, bahia grass, wire grass (*Aristida stricta* var. *beyrichiana*), crabgrasses (*Digitaria* spp.), love grasses (*Eragrostis* spp.), dog fennel, sweetbroom (*Scoparia dulcis*), slender goldenrod, smutgrass, finger grass (*Eustachys petraea*), buttonweeds (*Spermacoce* spp.), paspalums, witchgrasses (*Dichanthelium* spp.), and blackberries. Shrubs are often present but not dominant. They include Brazilian pepper, saw palmetto (*Serenoa repens*), wax myrtle (*Myrica cerifera*), and groundsel tree (*Baccharis halimifolia*). This community is similar to unimproved pasture and likely represents former pasture that has not been used in some time.

Upland Shrub and Brush Land—320

This plant association exists where historical plant cover was cleared for grazing or other uses and allowed to go fallow. These areas are dominated by a variety of weedy or adventive shrubs including wax myrtle, groundsel tree, Brazilian pepper, winged sumac (*Rhus copallina*), saw palmetto, and immature cabbage palm (*Sabal palmetto*). Herbs are usually abundant and similar to those described for herbaceous (dry prairie).

Mixed Rangeland—330

This classification describes a mixture of weedy shrubs and herbs where shrubs and herbs comprise at least one-third of the total cover. Typical shrubs include Brazilian pepper, wax myrtle, saw palmetto, and groundsel tree. Herbs include broomsedges, bahia grass, finger grass, beggarticks (*Bidens alba*), dog fennel, sweetbroom, and slender goldenrod.

Pine Flatwoods—411

The pine flatwoods community is rare within the East Preferred Corridor and was mapped in a few isolated locations, as well as in the vicinity of the Miami Metro Zoo. Typically, a scattered to dense canopy of slash pine (*Pinus elliottii*) with an understory dominated by saw palmetto exists in pine flatwoods with a variety of herbs growing in open spaces between clumps of saw palmetto.

Pine rockland community is a variant of a pine flatwoods community. It is unique to the area because it grows on weathered outcrops of limestone, often supporting a distinct flora. Rockdale Pineland Park supports one such community and is located outside the East Preferred Corridor but within 0.5 mile.

Upland Hardwood Forests—420

This is a catchall designation for upland hardwood forests that are not easily classified under the classifications as defined by FLUCFCS. Generally, these areas are a mixture of live oak (*Quercus virginiana*), laurel oak (*Quercus hemisphaerica*), and water oak (*Quercus nigra*) that is second-growth on land cleared in the past.

Rockland hammock community is a variant of an upland hardwood community. It is a unique community because it grows on limestone outcrops, often supporting a distinct flora. Rockland hammock is the advanced successional stage of pine rockland. Pine rockland community is similar to rockland hammock, and differs only by canopy trees consisting mostly of pines instead of hardwoods. Simpson Park and Vizcaya Museum and Gardens support rockland hammock communities. Both occur within 0.5 mile of the corridor. However, based on current aerial photography, other areas reported by FNAI prior to 1975 seem to have since been developed.

Brazilian Pepper—422

This association is dominated by the exotic Brazilian pepper with lesser amounts of other shrubs including groundsel tree and wax myrtle. Herbs are usually uncommon in the interiors of these areas where the cover of Brazilian pepper completely shades the ground but are abundant at the margins of these communities. Common herbs usually include smutgrass, dog fennel, bahia grass, John Charles (*Hyptis verticillata*), and cottonweed (*Froelichia floridana*). Vines are usually present, especially muscadine grape (*Vitis rotundifolia*) and peppervine (*Ampelopsis arborea*). This type of community normally becomes established on fallow land, berms, or other disturbed areas where the native vegetation was destroyed.

Aquatic and Wetland Communities

Four aquatic communities occur within the East Preferred Corridor and include canals, ditches, channelized river/stream/waterway, ditches, reservoirs, and reservoirs less than 10 acres. No natural aquatic communities exist within the corridor. Most are vegetated by a variety of floating or emergent

herbs, many of which are considered nuisance species by the Florida Exotic Plant Pest Council. Categories or classifications of aquatic habitats that occur within the East Preferred Corridor are described in the following paragraphs.

Forested and herbaceous wetlands in the East Preferred Corridor are comprised of 10 different associations. Of these, mangrove swamps, mixed wetland hardwoods, and freshwater marsh/wet prairie associations are the most prevalent. The quality of wetlands ranges from those exhibiting expected floristic and structural characteristics providing valuable wildlife habitat to those that have been so impacted by drainage or location within/next to intensive agricultural or developed areas that inherent functional values such as wildlife habitat, water quality, and flood attenuation have been severely degraded. The extensive drainage system (canals/ditches) that has been constructed in the region has drastically altered the historical hydrology of the wetland communities in the corridors with a concomitant change to structure and functional attributes. This is often manifested by the proliferation of transitional or even upland species, as well as nuisance exotics in many wetlands within the region.

Canals/Channelized River, Stream, Waterway—510/512

Several canals are crossed by the East Preferred Corridor. Manmade canals associated with the existing Turkey Point Plant industrial wastewater facility are located in the extreme south portion of the corridor. Vegetation in this system includes submerged, rooted marine plants, primarily widgeon grass and marine algae, as well as terrestrial woody vegetation along the berms such as Brazilian pepper, Australian pine, wild sage (*Lantana involucrata*), and buttonwood (*Conocarpus erectus*). Other canals located along the remainder of the corridor are typically vegetated by a variety of floating and emergent hydrophytes. Common plants include water lettuce (*Pistia stratiotes*), water hyacinth (*Eichhornia crassipes*), galingale (*Cyperus odoratus*), Cuban bulrush (*Scirpus cubensis*), primrose willow (*Ludwigia* sp.), Mexican primrose willow (*Ludwigia octovalvis*), smartweeds (*Polygonum* spp.), torpedo grass (*Panicum repens*), duck potato (*Sagittaria lancifolia*), pickerelweed (*Pontederia cordata*), and common reed (*Phragmites australis*). Most of the linear waterways are periodically maintained by the spraying of herbicides to maintain flow. Much of the vegetation in these canals is considered nuisance species, either native or exotic. The banks (spoil areas) along these linear water bodies are also dominated by weedy, often nuisance, native and exotic plants. The species observed adjacent to canals include elephant grass (*Pennisetum purpureum*), largeflower Mexican clover (*Richardia grandiflora*), beggarticks, cottonweed, camphorweed (*Heterotheca subaxillaris*), finger grass, bahia grass, Brazilian pepper, immature cabbage palm, wax myrtle, guinea grass (*Panicum maximum*), swamp flatsedge (*Cyperus ligularis*), southern beeblossum (*Gaura angustifolia*), and numerous others.

Ditches—511

Ditches are usually smaller and shallower than canals and generally contain/convey less water than canals. They are often located adjacent to roads and are typically vegetated with a mixture of nuisance/exotic species such as Brazilian pepper, cattail (*Typha domingensis* and/or *latifolia*), parrot feather (*Myriophyllum aquaticum*), torpedo grass, primrose willow, and wild taro (*Colocasia esculenta*), as well as native species including arrowhead (*Sagittaria lancifolia*), water spangles (*Salvinia minima*), mosquitofern (*Azolla caroliniana*), and beggarticks.

Reservoirs—530

This classification is used to describe open water areas that have been created from borrow pits. Generally, they are square or rectangular deepwater pits with cattails and/or primrose willow growing at the margins. They are often bordered with spoil piles vegetated with species listed previously under the description of spoil areas for canals.

Reservoirs <10 acres—534

This classification further narrows the reservoirs (530) land use into a category of reservoirs that are less than 10 acres in size.

Mangrove Swamps—612

This community type is located in some of the undeveloped portions of the Turkey Point plant property. Dominant species present in these coastal hardwood communities usually include red (*Rhizophora mangle*), black (*Avicennia germinans*), and white mangrove (*Laguncularia racemosa*); buttonwood; sea grape (*Coccoloba uvifera*); leather fern (*Acrostichum* spp.); cankerberry (*Solanum bahamense*); and cocoplum (*Chrysobalanus icaco*).

Mangrove Swamps/Mixed Wetland Hardwoods—612/617

This category describes mangrove swamps intermixed with hardwood wetland community species. Plant species commonly encountered in this association are a combination of those described in mangrove swamps (612) and mixed wetland hardwoods (617).

Mangrove Swamps/Exotic Wetland Hardwoods—612/619

This category describes mangrove swamps that have been invaded by exotic hardwoods. Species typical of this community include red, black, and white mangrove, buttonwood, Brazilian pepper, sea

grape, Australian pine, poisonwood, leather fern, cankerberry, rubber vine (*Rhabdadenia biflora*), and cocoplum.

Dwarf Mangroves—612 B

Patches of the dwarf mangrove community are located within the undeveloped portions of the existing Turkey Point plant property and contain mangroves less than 24 inches in height, stunted in response to decreased nutrient availability and increased salinity (McKee, 1996). Approximately 90 percent of the red mangroves are characteristic of the dwarf mangrove community, while approximately 10 percent are large individuals located adjacent to tidal creeks. Buttonwood is a common subdominant canopy component, along with occasional white and black mangroves. Additional vegetative species observed within the dwarf mangrove community include occasional Brazilian pepper, Australian pine, seaside oxeye, grey nicker (*Caesalpinia bonduc*), groundsel tree, and cordgrass (*Spartina* sp.).

Mixed Wetland Hardwoods—617

Most of these community types occur south of where the East Preferred Corridor crosses Florida's Turnpike. Mixed wetland hardwood forests are typically dominated by sweet bay (*Magnolia virginiana*, swamp laurel oak (*Quercus laurifolia*), and swamp red bay (*Persea palustris*) in association with other hardwoods including buttonwood, Australian pine, cocoplum, red mangrove, Brazilian pepper, and Carolina willow (*Salix caroliniana*). The shrub stratum is typically sparse, comprised of scattered individuals of wax myrtle and buttonbush (*Cephalanthus occidentalis*), among others. The stratum density varies with degree of shading. Typically, lizard's tail (*Saururus cernuus*), pickerelweed, beakrushes (*Rhynchospora* spp.), royal fern (*Osmunda regalis*), and swamp fern (*Blechnum serrulatum*) are found. These forests are characteristically flooded or saturated for much of the year, drying only for short periods during the dry winter season. Construction of ditches and canals has shortened the hydroperiod of many of these forests.

Exotic Wetland Hardwoods—619

Areas dominated by Brazilian pepper are classified as exotic wetland hardwoods. Subdominant species include primrose willow, wild taro, Johnson grass (*Sorghum halepense*), and beggarticks.

Wetland Forested Mixed—630

This association is similar floristically and structurally to mixed wetland hardwoods (617), with the notable exception that either pond cypress (*Taxodium ascendens*) or slash pine comprise at least one-

third of the canopy cover. These coverages occur in the southernmost portions of the East Preferred Corridor.

Freshwater Marshes—641

Freshwater marshes occur in some locations within the East Preferred Corridor. They are dominated by a wide assortment of herbaceous plant species growing on sandy or organic soils in areas of variable water depths and inundation regimes. Species characteristic of the marshes in the study area include sawgrass (*Cladium* spp.), pickerelweed, maidencane (*Panicum hemitomon*), fireflag (*Thalia geniculata*), cattails, smartweeds, and sedges (*Cyperus haspan*, *C. odoratus*, and *C*. spp.). In more disturbed areas, primrose willows, Brazilian pepper, poisonwood (*Metopium toxiferum*), Australian pine, musky mint (*Hyptis alata*), silktree (*Albizia julibrissin*), nettletree (*Trema micranthum*), and torpedo grass are abundant. The best quality marshes exhibit zonation and a variety of desirable, native herbs. Many marshes within the East Preferred Corridor have been impacted by drainage and agricultural practices to varying degrees.

Saltwater Marshes—642

Saltwater marshes consist of non-woody, salt-tolerant plant species such as needlerush (*Juncus roemerianus*), bushy seaside oxeye (*Borrichia frutescens*), saltmeadow and saltmarsh cordgrass (*Spartina patens* and *S. alternifolia*), and glassworts (*Salicornia* spp.). Saltwater marshes' extent and vegetative composition depend on factors such as salinity, tidal range and duration, wave energy, and topographic relief.

Tidal Flats—651

Small areas of this vegetative community occur in the corridor at the Turkey Point plant property. Vegetative cover is sparse in the tidal flat area due to the high salinity and routine fluctuations in water levels. Species present in this area include saltwort, sea oxeye, daisies, woody glasswort, and dwarf glasswort.

E9.3.7.2 Affected Waters and Wetlands

Surface water bodies and wetlands that are crossed/included within the East Preferred Corridor were identified using SFWMD land cover mapping, 2007 aerial photographs, hydrologic information from Miami-Dade County GIS and SFWMD, and field surveys conducted for this Project (GAI, 2009).

Water Bodies

Major water bodies crossed by the corridors are listed in Tables E9.3.7-2 and E9.3.7-3, which list those for the East Preferred Corridor from the Clear Sky substation to Davis substation and between the Davis substation and Miami substation, respectively. According to Section 62-302.400, F.A.C., there are no designated Florida Class I or II waters within the East Preferred Corridor. Most of the waters crossed by the East Preferred Corridor are considered Class III waters, which means they are of sufficient quality to support fish and wildlife populations.

Wetlands

Wetlands within and 0.5 mile of the corridor, as identified by SFWMD (2004) and updated by FPL in many areas where access was available (GAI, 2009), are identified in maps presented in Figure E9.1.0-4. Descriptions of the wetland communities are found in Section E9.3.7.1

E9.3.7.3 Ecology

The East Preferred Corridor crosses some significant wetland habitats north of the Site, but natural upland habitats are limited and usually small. Therefore, it is expected that plants and wildlife found in these corridor areas will be those adapted to wetland cover types or man-induced habitats such as nurseries, agricultural operations, disturbed areas, low-density residential, etc., especially south of the Davis substation area. From the Davis substation to Miami substation, the residential and transportation uses increase dramatically and limit habitats to primarily ruderal areas and parks. Some of these remnant isolated uplands are pine rockland communities, which are unique and may harbor certain listed species.

Wildlife species typically found in Miami-Dade County will be expected to occur in the East Preferred Corridor since it covers typical natural habitats found in the county. FPL conducted ecological surveys of the corridor areas as part of the fieldwork to develop the information typically required for an ERP application. A summary of the ecological resources for this Project can be found in Section 3.3.6 and Appendix 10.7.1.

Based on FPL's findings along accessible areas of the corridor and near the Turkey Point plant property, common wildlife species are generally comprised of wetland-dependent species.

TABLE E9.3.7-2
WATER BODIES CROSSED BY THE EAST PREFERRED CORRIDOR BETWEEN CLEAR SKY AND DAVIS SUBSTATIONS

Water Body	Jurisdiction	Comments
Existing Turkey Point cooling canals of the industrial wastewater facility	FPL	On FPL Turkey Point plant property
BNP	FDEP	Outstanding Florida Water
Florida City Canal	Miami-Dade County	Crosses the East Preferred Corridor at Palm Drive
L-31E Canal	SFWMD	Intersects the East Preferred Corridor at SW 328th Street
North Canal	SFWMD	Intersects the East Preferred Corridor at SW 328th Street
C-103 (Mowry) Canal	SFWMD	Crosses the East Preferred Corridor at SW 320th Street
Unnamed canal	Unknown	Crosses the East Preferred Corridor at SW 312th Street
Military Canal	SFWMD	Crosses the East Preferred Corridor at SW 300th Street
Princeton Canal	SFWMD	Crosses the East Preferred Corridor at Moody Drive and again both east and west of Florida's Turnpike and again north of U.S. 1
C-102 Extension Canal	SFWMD	Crosses the East Preferred Corridor at SW 134th Avenue
Black Creek Canal	SFWMD	Crosses and then runs adjacent to the East Preferred Corridor from SW 176th Street to CSX Railroad.

TABLE E9.3.7-3
WATER BODIES CROSSED BY THE EAST PREFERRED CORRIDOR BETWEEN DAVIS AND MIAMI SUBSTATIONS

Water Body	Jurisdiction	Comments
Cutler Drain (C-100 Canal)	SFWMD	Crosses the East Preferred Corridor at SW 112th Court; adjacent to the corridor between SW 112th Court and SW 117th Avenue
C-100A Canal	SFWMD	Crosses the East Preferred Corridor at the corridor intersection with U.S. 1 and again crosses the corridor just north of SW 108th Street
C-2 (Snapper Creek) Canal	SFWMD	Included within the East Preferred Corridor north of Dadeland Mall from Palmetto Expressway east to U.S. 1
Coral Gables Canal	City of Coral Gables	Crosses the East Preferred Corridor south of Dickinson Drive and again south of Riviera Drive
Miami River (C-6 Canal)	SFWMD, USACE, U.S. Coast Guard	Crosses the East Preferred Corridor just south of Miami substation
Biscayne Bay Aquatic Preserve (Miami River)	FDEP	Designated part of Biscayne Bay Aquatic Preserve system

Common bird species include a variety of herons and egrets, terns, sandpipers, gulls, and birds of prey such as bald eagle (*Haliaeetus leucocephalus*), red-shouldered hawk (*Buteo lineatus*), snail kite (*Rostrhamus sociabilis*), and American kestrel (*Falco sparverius*).

Upland bird species commonly observed include the northern cardinal (*Cardinalis cardinalis*), turkey vulture (*Cathartes aura*), mockingbird (*Mimus polyglottos*), and mourning dove (*Zenaida macroura*).

Common mammals found include opossum (*Didelphis virginiana*), white-tailed deer (*Odocoileus virginianus*), marsh rabbit (*Sylvilagus palustris*), and raccoon (*Procyon lotor*).

Reptiles include Carolina anole (*Anolis carolinensis*), eastern diamondback rattlesnake (*Crotalus adamanteus*), and American crocodile (*Crocodylus acutus*), which occurs in the existing Turkey Point cooling canals of the industrial wastewater facility.

Amphibians include various frogs and treefrogs (*Rana* sp. and *Hyla* spp.) and the southern toad (*Bufo terrestris*).

Since much of the East Preferred Corridor from the Clear Sky substation to Davis substation is relatively undeveloped, these species are expected to occur there.

North of the Davis substation to Miami substation, the natural habitats are severely diminished due to urban development and transportation corridors. Therefore, wildlife species expected to be found consist of ruderal- and urban-adapted species, such as the cardinal or mockingbird. The exotic monk parakeet (*Myiopsitta monachus*) is also a common species in the urbanized areas of Miami-Dade County. Wetland-dependent species will be uncommon in this portion of the East Preferred Corridor except along canals crossed by the corridor.

Threatened and Endangered Species

Floral and faunal species listed by USFWS as endangered, threatened, or proposed for listing; Florida Fish and Wildlife Conservation Commission (FWC) as endangered, threatened, or of special concern; and Florida Department of Agriculture and Consumer Services (FDACS) as endangered or threatened were evaluated for their potential to occur along the East Preferred Corridor. Sources included FPL's field surveys, as well as information contained in Section 3.3.6 and Appendix 10.4. Known occur-

rences of listed species within 1,500 ft of the East Preferred Corridor are illustrated in Figure E9.1.0-4 on Map Sheets 1 through 20.

The FNAI database also was used to identify known occurrences of listed species throughout Miami-Dade County (FNAI, 2009). It should be noted that FNAI records can be based on collections made years ago. It is possible that many of the occurrences reflected in FNAI records may no longer exist, having been eliminated by subsequent development or natural events (hurricanes, fires). However FNAI data are discussed in the following subsections. Where available, other listed plant species data are also presented in Appendix 10.4.

Plant Species

A total of 173 regulated plant species or subspecies is known to occur within Miami-Dade County in habitats similar to those found within the study area. All were evaluated for the potential to occur within the East Preferred Corridor or within the vicinity of it. Table E9.3.7-4 lists the plants known to occur within the region that were evaluated for the likelihood of occurrence within the East Preferred Corridor.

Five plants on the comprehensive list for the county are designated by USFWS as endangered, one is listed as threatened, and eight are listed as candidates for listing (those plants that have sufficient information on biological vulnerability to support proposing to list the species as endangered or threatened). In the eastern study area, *Linum arenicola*, listed as a candidate for federal listing, was observed within the boundaries of the corridor during field surveys. Several individuals are located within the corridor between SW 328th Street and SW 334th Street north of the Turkey Point plant property. It should be noted that these individuals occur on an existing FPL-maintained right-of-way, indicating those managed habitats are suitable for the plants.

For the East Preferred Corridor, a total of 27 plant taxa listed by FDACS are either present within the boundaries of the corridor based on FPL field surveys and/or FNAI records or are known based on FNAI records to occur within 1,500 ft of the East Preferred Corridor. Nine species or subspecies/varieties are recorded as occurring within the corridor. Of these, two are listed as state endangered: *Linum arenicola* and *Trema lamarckianum*. Seven are listed as threatened: *Angadenia berteroi*, *Bletia purpurea*, *Crossopetalum ilicifolium*, *Melanthera parvifolia*, *Pteris bahamensis*, *Solanum donianum*, and *Thelypteria augescens.* Eighteen additional plants have been documented as occurring within 1,500 ft of the corridor according to FNAI records. Of these, twelve are listed as state-

EXHIBIT 21

TABLE E9.3.7-4.
COMPREHENSIVE LIST OF RARE, THREATENED, OR ENDANGERED PLANT TAXA FOUND IN MIAMI-DADE COUNTY AND THEIR POTENTIAL TO OCCUR WITHIN 1,500 FT OF THE EAST PREFERRED CORRIDOR

Scientific Name	Common Name	Federal Status*	State Status†	Habitat Preference	Likelihood of Species Occurrence within Corridor‡
Acoelorraphe wrightii	Paurotis palm	—	T	Swamps, everglades, and hammocks	L
Acrostichum aureum	Golden leather fern	—	T	Mangrove swamps, saltmarshes, and limestone sinks	M
Actinostachys pennula	Ray fern	—	E	Swamps	L
Adiantum melanoleucum	Fragrant maidenhair fern	—	E	Limestone sinks in rockland hammocks	L
Adiantum tenerum	Brittle maidenhair fern	—	E	Limestone sinks in rockland hammocks	L
Aeschynomene pratensis	Meadow jointvetch	—	E	Marl prairies, cypress domes, and swales	L
Aletris bracteata	Bracted colic-root	—	E	Rocky pine savannahs	L
Alvaradoa amorphoides	Everglades leaf lace	—	E	Pine rocklands, transition zone between pine rocklands and rockland hammocks	L
Amorpha herbacea var. *crenulata*	Crenulate lead-plant	E	E	Rockland hammocks and pine rocklands	L-M
Anemia wrightii	Wright's pineland fern	—	E	Limestone outcrops in moist hammocks, pine rocklands, and prairies	L
Angadenia berteroi	Pineland golden trumpet	—	T	Pinelands	H-P
Argythamnia blodgettii	Blodgett's wild-mercury	C	E	Open gaps in pine rocklands, rockland hammocks, and coastal berms	L
Asplenium dentatum	American toothed spleenwort	—	E	Limestone outcrops in moist hammocks	L
Asplenium serratum	American bird's nest fern	—	E	Cypress swamps and moist hardwood hammocks	L
Asplenium verecundum	Modest spleenwort	—	E	Limestone outcrops in rockland hammocks	L
Basiphyllaea corallicola	Rockland orchid	—	E	Openings in pine rocklands, leaf litter, and in moist hardwood hammocks	L-M
Beloglottis costaricensis	Costa Rican ladies'-tresses	—	E	Hardwood hammocks	L
Bletia purpurea	Pine pink	—	T	Pine rocklands; stumps and tree bases, and cypress swamps	H-P
Bourreria cassinifolia	Smooth strongbark	—	E	Pine rocklands	L
Bourreria succulent	Bahama strongbark	—	E	Hardwood hammocks	L
Brickellia mosieri	Florida brickell-bush	C	E	Pinelands	L-M§
Byrsonima lucida	Locustberry	—	T	Pine rocklands, hardwood hammocks	L
Calyptranthes pallens	Spicewood	—	T	Hardwood hammocks	L
Calyptranthes zuzygium	Myrtle-of-the-river	—	E	Rockland hammocks - coastal strand	L
Catopsis berteroniana	Powdery catopsis	—	E	Hardwood hammocks, mangroves, and hardwood trees in pinelands	L
Catopsis floribunda	Many-flowered catopsis	—	E	Hardwood hammocks	L
Chamaesyce deltoidea ssp. *adhaerens*	Hairy deltoid spurge	E	E	Pine rocklands	L
Chamaesyce deltoidea ssp. *Deltoidea*	Deltoid spurge	E	E	Pine rocklands	L
Chamaesyce deltoidea ssp. *pinetorum*	Pinelands spurge	C	E	Pine rocklands	L
Chamaesyce garberi	Garber's spurge	T	E	Pinelands and dunes	L-M§
Chamaesyce pergamena	Southern Florida sandmat	—	T	Pine rocklands	L

EXHIBIT 21

TABLE E9.3.7-4.
COMPREHENSIVE LIST OF RARE, THREATENED, OR ENDANGERED PLANT TAXA FOUND IN MIAMI-DADE COUNTY AND THEIR POTENTIAL TO OCCUR WITHIN 1,500 FT OF THE EAST PREFERRED CORRIDOR
(Continued, Page 2 of 6)

Scientific Name	Common Name	Federal Status*	State Status†	Habitat Preference	Likelihood of Species Occurrence within Corridor‡
Chamaesyce porteriana	Porter's broad-leaved spurge	—	E	Pine rocklands, rockland hammocks, coastal rock barrens, and marl prairies	L
Chaptalia albicans	Sunbonnets	—	T	Pinelands	L
Chrysophyllum oliviforme	Satinleaf	—	T	Hardwood hammocks and pinelands	L
Coccothrinax argentata	Silver palm	—	T	Pine rocklands and dunes	M§
Colubrina cubensis var. floridana	Cuban snake-bark	—	E	Pine rocklands, rockland hammocks on Miami rock ridges, and Everglades Keys	L
Colubrina elliptica	Soldierwood	—	E	Hardwood hammocks	L
Crossopetalum ilicifolium	Christmas berry	—	T	Pinelands	H-P
Crossopetalum rhacoma	Maidenberry	—	T	Pinelands, hardwood hammocks	L
Croton humilis	Pepperbush	—	E	Hardwood hammocks	L
Ctenitis sloanei	Florida tree fern	—	E	Hardwood hammocks, often on limestone outcrops	L
Ctenitis submarginalis	Brown-hair comb-fern	—	E	Swamps and wet hardwood hammocks	L
Cynanchum blodgettii	Blodgett's swallowwort	—	T	Hardwood hammocks	L
Cyperus filiformis	Wiry flatsedge	—	E	Dry, sandy open areas	M
Cyrtopodium punctatum	Cowhorn orchid	—	E	Cypress swamps, scrub cypress strands, coastal hammocks, rarely terrestrial in rock pinelands, and marl prairies	L
Dalbergia brownei	Browne's Indian rosewood	—	E	Margins of hardwood hammocks and mangroves	L
Dalea carthagenensis var. *floridana*	Florida prairie clover	C	E	Pine rocklands and rockland hammocks, coastal uplands, and marl prairies	L
Digitaria filiformis var. *dolichophylla*	Caribbean crabgrass	—	T	Rock pinelands	L
Digitaria pauciflora	Few-flowered fingergrass	C	E	Rock pinelands	L
Drypetes lateriflora	Guiana plum	—	T	Hardwood hammocks	L
Eltroplectris calcarata	Spurred neottia	—	E	Mesic hardwood hammocks and rockland hammocks	L
Elytraria caroliniensis var. *angustifolia*	Narrow-leaved Carolina scalystem	—	N	Wet pinelands	L
Epidendrum amphistomum	Dingy flowered star orchid	—	E	Swamps	L
Epidendrum floridensis	Florida star orchid	—	E	Cypress and hardwood swamps	L
Epidendrum nocturnum	Night-scented orchid	—	E	Cypress swamps, moist hardwood hammocks, and mangroves	L
Epidendrum rigidum	Stiff flower star orchid	—	E	Swamps and moist hammocks	L
Erithalis fruticosa	Black torch	—	T	Coastal hammocks and dunes	L
Ernodea cokeri	Coker's beach creeper	—	E	Pine rocklands, dunes	L
Eugenia confusa	Tropical ironwood	—	E	Hardwood hammocks	L-M§
Eugenia rhombea	Red stopper	—	E	Rockland hammocks	L

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TABLE E9.3.7-4.
COMPREHENSIVE LIST OF RARE, THREATENED, OR ENDANGERED PLANT TAXA FOUND IN MIAMI-DADE COUNTY AND THEIR POTENTIAL TO OCCUR WITHIN 1,500 FT OF THE EAST PREFERRED CORRIDOR
(Continued, Page 3 of 6)

Scientific Name	Common Name	Federal Status*	State Status†	Habitat Preference	Likelihood of Species Occurrence within Corridor‡
Evolvulus convolvuloides	Bindweed dwarf morning-glory	—	E	Pine rocklands	L
Exostema caribaeum	Princewood	—	E	Pine rocklands and rockland hammocks	L
Galactia smallii	Small's milk pea	E	E	Pine rocklands	L
Galeandra bicarinata	Two-keeled helmet orchid	—	E	Hardwood hammocks	L
Glandularia maritima	Coastal vervain	—	E	Dunes, coastal pinelands	L
Gossypium hirsutum	Wild cotton	—	E	Coastal hammocks, beaches, disturbed sites, and shell mound spoil piles	L
Govenia floridana	Florida govenia	—	E	Hardwood hammocks	L
Guzmania monostachia	Fakahatchee guzmania	—	E	Swamps and wet hardwood hammocks	L
Habenaria nivea	Snowy platanthera	—	T	Wet pinelands, prairies, and wet ditches	L
Harrisia simpsonii	Simpson's prickly apple	—	E	Shell mounds, xeric coastal hammocks, and scrubby flatwoods	L
Hibiscus poeppigiii	Poeppig's rosemallow	—	E	Hardwood hammocks	L
Hippomane mancinella	Manchineel	—	E	Coastal berms and hammocks	L
Hypelate trifoliata	White ironwood	—	E	Pine rocklands and rocklands	L
Ilex krugiana	Krug's holly	—	T	Pinelands and hardwood hammocks	L
Ionopsis utricularioides	Delicate violet orchid	—	E	Cypress swamps and citrus groves	L
Ipomoea microdactyla	Wild potato morning glory	—	E	Pine rocklands	L-M§
Ipomoea tenuissima	Rocklands morning glory	—	E	Pine rocklands	L-M§
Jacquemontia curtisii	Pineland jacquemontia	—	T	Pinelands	L-M§
Jacquemontia pentanthos	Skyblue clustervine	—	E	Pine rocklands and disturbed edges, areas of rockland hammocks, and coastal rock barrens	L
Jacquinia keyensis	Joewood	—	T	Coastal hammocks	L
Koanophyllum villosum	Villose fennel	—	E	Hammocks and pinelands	L
Lantana canescens	Small-headed lantana	—	E	Transition zones between rockland hammocks and pine rocklands	L
Lantana depressa var. *depressa*	Florida lantana	—	E	Rock pinelands	L-M§
Lantana depressa var. *floridana*	Atlantic Coast Florida lantana	—	E	Dry, open dunes and sandy ridges, primarily along coasts	L-M§
Leiphaimos parasitica	Ghost plant	—	E	Hardwood hammocks	L
Licaria triandra	Gulf licaria	C	E	Hardwood hammocks	L-M§
Linum arenicola	Sand flax	C	E	Pine rocklands, marl prairies, and adjacent disturbed areas	H-P
Linum carteri var. carteri	Carter's small-flowered flax	C	E	Pine rocklands	L-M§
Linum carteri var. smallii	Carter's large-flowered flax	—	E	Pine flatwoods, pine rocklands, and adjacent disturbed areas	L-M§
Lomariopsis kunzeana	Holly vine fern	—	E	Wet hardwood hammocks, limestone outcrop in wet hardwood hammocks	L

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TABLE E9.3.7-4.
COMPREHENSIVE LIST OF RARE, THREATENED, OR ENDANGERED PLANT TAXA FOUND IN MIAMI-DADE COUNTY AND THEIR POTENTIAL TO OCCUR WITHIN 1,500 FT OF THE EAST PREFERRED CORRIDOR
(Continued, Page 4 of 6)

Scientific Name	Common Name	Federal Status*	State Status†	Habitat Preference	Likelihood of Species Occurrence within Corridor‡
Manilkara jaimiqui ssp. *emarginata*	Wild dilly	—	T	Hardwood hammocks	L
Maytenus phyllanthoides	Florida mayten	—	T	Coastal hammocks and dunes	L
Melanthera parvifolia	Small-leaved melanthera	—	T	Old coral reefs, limestone, pine forests	H-P
Mesadenus lucayana	Florida Keys ladies'-tresses	—	E	Dry calcareous hardwood hammocks and coastal middens	L
Microgramma heterophylla	Climbing vine fern	—	E	Hardwood hammocks, limestone outcrops in hardwood hammocks	L
Myrcianthes fragrans	Simpson stopper	—	T	Coastal hammocks; rarely, inland hardwood hammocks	L
Nephrolepis biserrata	Giant sword fern	—	T	Swamps and wet hardwood hammocks	L
Ocimum campechianum	Wild basil	—	E	Disturbed sites	M
Odontosoria clavata	Wedgelet fern	—	E	Rock pinelands and rockland hammocks, often on limestone	L
Oncidium floridanum	Florida dancinglady orchid	—	E	Pine rocklands, rockland hammocks, mangroves, and cypress swamps	L
Oncidium undulatum	Muleear orchid	—	E	Mangrove swamps, cypress swamps, and hardwood hammocks	L
Ophioglossum palmatum	Hand fern	—	E	Wet hammocks, epiphytic on sabal palmetto	L
Opuntia stricta	Erect pricklypear	—	T	Shell middens, dunes, and coastal hammocks	L
Paspalidium chapmanii	Coral paspalum	—	E	Hardwood hammocks, prairies, and disturbed sites	M
Passiflora pallens	Pineland passionflower	—	E	Rockland hammocks, coastal berms, and strand swamps	L
Passiflora sexflora	Everglades Key passion-flower	—	E	Hardwood hammocks	L
Pavonia paludicola	Mangrove mallow	—	E	Hardwood hammocks	L-M
Peperomia humilis	Low peperomia	—	E	Shell mounds and limestone outcrops in mesic hardwood hammocks, coastal berms, and cypress swamps	L
Peperomia obtusifolia	Blunt-leaved peperomia	—	E	Rockland hammocks, wet hardwood hammocks, and strand swamps	L
Phyla stoechadifolia	Southern frog-fruit	—	E	Wet pinelands and glades	L
Picramnia pentandra	Bitter bush	—	E	Hammocks	L-M§
Pithecellobium keyense	Black bead	—	T	Coastal hammocks and strands	L
Poinsettia pinetorum	Pineland spurge	—	E	Pine rocklands	L-M§
Polygala smallii	Tiny polygala	E	E	Pine rocklands, scrub, sandhills, and open coastal spoil piles	L
Polystachya concreta	Greater yellowspice orchid	—	E	Cypress swamps, hardwood hammocks, and mangroves	L
Ponthieva brittoniae	Britton's shadow-witch	—	E	Rock pinelands and rockland hammocks	L
Prosthechea boothiana var. *erythronioides*	Dollar orchid	—	E	Hardwood hammocks and mangroves	L
Prosthechea cochleata var. *triandra*	Clamshell orchid	—	E	Swamps, mangroves, and hardwood hammocks	L
Prunus myrtifolia	West Indian cherry	—	T	Rock pinelands and rockland hammocks	L
Psidium longipes	Mangrove berry	—	T	Pine rocklands and rockland hammocks	L-M§
Psychotria ligustrifolia	Bahama wild coffee	—	E	Pine rocklands and rockland hammocks	L

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TABLE E9.3.7-4.
COMPREHENSIVE LIST OF RARE, THREATENED, OR ENDANGERED PLANT TAXA FOUND IN MIAMI-DADE COUNTY AND THEIR POTENTIAL TO OCCUR WITHIN 1,500 FT OF THE EAST PREFERRED CORRIDOR
(Continued, Page 5 of 6)

Scientific Name	Common Name	Federal Status*	State Status†	Habitat Preference	Likelihood of Species Occurrence within Corridor‡
Pteris bahamensis	Bahama brake	—	T	Pine rocklands and edges of rockland hammocks	H-P
Pteroglossaspis ecristata	Giant orchid	—	T	Sandhills, scrubs, pine flatwoods, and pine rocklands	L
Reynosia septentrionalis	Darlingplum	—	T	Hardwood hammocks and margins of mangroves	L
Rhipsalis baccifera	Mistletoe cactus	—	E	Rockland hammocks and mangroves	L
Rhynchosia parviflora	Small-leaf snoutbean	—	T	Pinelands and beaches	L
Roystonea elata	Florida royal palm	—	E	Wet hardwood hammocks, swamps, and cypress sloughs	L
Sachsia polycephala	Bahama sachsia	—	T	Rock pinelands	L
Sacoila lanceolata var. *paludicola*	Fahkahatchee ladies'-tresses	—	T	Wet hardwood hammocks, cypress swamps, and middens	L
Savia bahamensis	Bahama maidenbush	—	E	Coastal thickets, pine rocklands, and rockland hammocks	L
Schaefferia frutescens	Florida boxwood	—	E	Rockland hammocks	L
Scleria lithosperma	Florida Keys nutrush	—	E	Pine rocklands and rockland hammocks	L
Scutellaria havanensis	Havana skullcap	—	E	Rock pinelands	L
Selaginella eatonii	Eaton's spikemoss	—	E	Moist limestone outcrops in rock pinelands and rockland hammocks	L
Senna mexicana var. *chapmanii*	Bahama senna	—	T	Rock pinelands, rockland hammocks, and dunes	L
Smilax havanensis	Everglades greenbrier	—	T	Rock pinelands and rockland hammocks	L
Solanum donianum	Mulle in nightshade	—	T	Coastal hammocks and dunes, marl prairies, edges or roads in mangroves	H-P
Spiranthes laciniata	Lacelip ladies-tresses	—	T	Hypericum-sedge wetlands, marshes, open cypress swamp	L
Spiranthes longilabris	Longlip ladies'-tresses	—	T	Wet prairies and pine rocklands	L
Spiranthes torta	Southern ladies'-tresses	—	E	Pine rocklands and marl prairies	L
Stylosanthes calcicola	Pineland pencil flower	—	E	Pine rocklands, marl prairies, and transitional areas between them	L
Swietenia mahagoni	West Indies mahogany	—	T	Coastal strands, rockland hammocks, and hammocks also naturalized in disturbed areas from cultivated trees	L
Tectaria fimbriata	Least halberd fern	—	E	Limestone outcrops in rockland hammocks	L
Tectaria heracleifolia	Broad halberd fern	—	T	Limestone outcrops in rockland hammocks	L
Tephrosia angustissima var. angustissima	Devil's shoestring	—	E	Pine rocklands	L
Tephrosia angustissima var. *corallicola*	Rockland hoary-pea	—	E	Pine rocklands	L
Tephrosia angustissima var. *curtisii*	Coastal hoary-pea	—	E	Coastal strands	L
Tetrazygia bicolor	Florida clover ash	—	T	Rock pinelands and rockland hammocks	L
Thelypteris augescens	Abrupt tip maiden fern	—	T	Rockland hammocks	H-P
Thelypteris patens	Grid-scale maiden fern	—	E	Rockland hammocks	L
Thelypteris reptans	Creeping maiden fern	—	E	Limestone sinks in rockland hammocks	L
Thelypteris reticulata	Lattice-vein fern	—	E	Wet hardwood hammocks and cypress swamps	L

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TABLE E9.3.7-4.
COMPREHENSIVE LIST OF RARE, THREATENED, OR ENDANGERED PLANT TAXA FOUND IN MIAMI-DADE COUNTY AND THEIR POTENTIAL TO OCCUR WITHIN 1,500 FT OF THE EAST PREFERRED CORRIDOR
(Continued, Page 6 of 6)

Scientific Name	Common Name	Federal Status*	State Status†	Habitat Preference	Likelihood of Species Occurrence within Corridor‡
Thelypteris sclerophylla	Stiff-leaved maiden fern	—	E	Rockland hammocks	L
Thelypteris serrata	Toothed maiden fern	—	E	Cypress swamps and slough floodplains	L
Thrinax morrisii	Brittle thatch palm	—	E	Rockland hammocks and rock pinelands	L
Thrinax radiata	Florida thatch palm	—	E	Coastal thickets on limestone	L-M§
Tillandsia balbisiana	Twisted wildpine	—	T	Hammocks	M
Tillandsia fasciculata var. *densispica*	Cardinal airplant	—	E	Cypress swamps and hardwood hammocks	L
Tillandsia flexuosa	Banded wildpine	—	T	Cypress swamps and hardwood hammocks	L
Tillandsia utriculata	Giant wildpine	—	E	Hardwood hammocks, pinelands, and scrub	M
Tillandsia variabilis	Leatherleaf airplant	—	T	Cypress swamps and hardwood hammocks	L
Tournefortia hirsutissima	Chiggery grapes	—	E	Hammocks	L
Tragia saxicola	Pineland noseburn	—	T	Rock pinelands	L-M§
Trema lamarckianum	Lamarck's trema	—	E	Hardwood hammocks and shell middens	H-P
Trichomanes krausii	Kraus' bristle fern	—	E	Rockland hammocks	L
Trichomanes punctatum ssp. *floridanum*	Florida filmy fern	—	E	Rockland hammocks, shell middens, limestone sinks, and limestone boulders	L
Tripsacum floridanum	Florida gama grass	—	T	Rock pinelands	L-M§
Vallesia antillana	Tearshrub	—	E	Rockland hammocks	L
Vanilla barbellata	Worm-vine orchid	—	E	Mangroves, coastal hardwood hammocks, pine rocklands, rockland hammocks, and road banks	L
Vanilla inodora	Mexican vanilla	—	E	Wet rockland hammocks	L
Vanilla phaeantha	Leafy vanilla	—	E	Cypress swamps and moist hammocks	L
Zanthoxylem coriaceum	Biscayne pricklash	—	E	Coastal hammocks	L
Zephyranthes simpsonii	Simpson's zephyrlily	—	T	Wet flatwoods and prairies	H§

*Listing by USFWS. E = endangered. T = threatened. C = candidate for listing.
†Listing by FDACS. E = endangered. T = threatened.
‡L = low. M = medium. H = high. P = present in corridor. PE = possibly extinct.
§Species rated L, M, or H for occurrence due to presence within 1,500 ft of the corridor. L-M indicates optimal habitat lacking or limited; H indicates abundant optimal habitat is present.

Sources: USFWS, http://ecos.fws.gov/tess_public//pub/stateListing.jsp?state=FL&status=listed, 2009.
FDACS Regulated Plants: Section 5B-40.0055, F.A.C.

endangered: *Brickellia mosieri*, *Picramnia peltandra*, *Licaria triandra*, *Linum carteri* var. *carteri*, *Linum carteri* var. *smallii*, *Poinsettia pinetorum, Thrinax radiate*, *Lantana depressa* var. *floridana*, *Chamaesyce garberi*, *Eugenia confusa*, *Ipomoea microdactyla*, and *Ipomoea tenuissima*. Six are listed as threatened: *Coccothrinax argentata*, *Jacquemontia curtissii*, *Psidium longipes*, *Zephyranthes simpsonii*, *Tripsacum floridanum*, and *Tragia saxicola*. Figure E9.1.0-4 (Map Sheets 1 through 20) depicts the locations of FNAI-listed plant species occurrences within 1,500 ft of the East Preferred Corridor.

Wildlife Species

State- or federally listed wildlife species, potentially occurring in Miami-Dade County, are depicted in Table E9.3.7-5. Also shown in Table E9.3.7-5 are the species' current status and their likelihood for occurrence in the East Preferred Corridor.

Amphibians

Gopher Frog (*Rana capito*)—The gopher frog is a species of special concern as identified by FWC. This amphibian is typically considered a commensal species to the gopher tortoise. Therefore, habitat requirements tend to be xeric upland habitats that support gopher tortoise populations. Therefore, along the East Preferred Corridor, there is a low likelihood this species may be present due to a general lack of suitable habitats for gopher tortoises.

Reptiles

American Alligator (*Alligator mississippiensis*)—The alligator is listed by USFWS as threatened due to similarity of appearance to the American crocodile and a species of special concern by FWC. This reptile will be present in wetlands and water bodies along the East Preferred Corridor.

American Crocodile (*Crocodylus acutus*)—This federally threatened/state-endangered species successfully inhabits the canals and berms located within the existing Turkey Point cooling canals of the industrial wastewater facility. This canal system is part of the federally designated critical habitat for the crocodile. The East Preferred Corridor does not cross the primary crocodile habitat areas of the Turkey Point plant property.

Florida Pine Snake (*Pituophis melanoleucus mugitus*)—The Florida pine snake prefers well-drained sandy soils associated with upland pine areas. Its likelihood of occurrence is considered low because of the lack of suitable habitat.

TABLE E9.3.7-5
STATE OR FEDERALLY LISTED WILDLIFE SPECIES POTENTIALLY OCCURRING WITHIN THE EAST PREFERRED CORRIDOR
(Page 1 of 2)

Common Name	Scientific Name	Designated Status		Likelihood of Occurrence within East Preferred Corridor
		USFWS	FWC	
Amphibians				
Gopher frog	*Rana capito*	—	SSC	Low, and only in areas where gopher tortoise burrows may be found
Reptiles				
American alligator	*Alligator misissippiensis*	T(S/A)	SSC	Likely in wetlands all along the corridor
American crocodile	*Crocodylus acutus*	T	E	Present on the Turkey Point plant property, existing Turkey Point cooling canals of the industrial wastewater facility
Florida pine snake	*Pituophis melanoleucus mugitus*	—	SSC	Low, primarily along coastal areas with well-drained soils
Rim rock crowned snake	*Tantilla ooliticus*	—	T	Moderate, could be found in sandy or rocky upland habitats found along the corridor
Eastern indigo snake	*Drymarchon corais couperi*	T	T	High in suitable habitats; FNAI records indicate observations near the corridor north of Turkey Point
Gopher tortoise	*Gopherus polyphemus*	—	T	Low due to range and minimal habitats present
Birds				
Bald eagle	*Haliaeetus leucocephalus*	—	—*	Moderate likelihood of foraging in suitable habitats along the southern portion of the East Preferred Corridor; no known nests near the East Preferred Corridor, but has been observed near the Site
Snail kite	*Rostrhamus sociabilis plumbeus*	E	E	Low because of the lack of habitat
Southeastern American kestrel	*Falco sparverius paulus*	—	T	Low because of known range in Florida
Florida burrowing owl	*Speotyto cunicularia floridana*	—	SSC	Moderate in open lands along corridor; FNAI (2009) reports historical observation near Dadeland Mall east of corridor
White-crowned pigeon	*Patagioenas leucocephala*	—	T	Present, found in hammocks with fruit trees; has been observed on the Turkey Point plant property
Cape Sable seaside sparrow	*Ammodramus maritimus mirabilis*	E	E	Unlikely, found in certain marshes near Shark Slough in the lower ENP
Florida sandhill crane	*Grus canadensis pratensis*	—	T	Low, most suitable habitat is west of corridor
Limpkin	*Aramus guarauna*	—	SSC	Low; suitable habitat is minimal
Little blue heron	*Egretta caerulea*	—	SSC	Likely in suitable wetlands along the corridor; observed on the plant property
Peregrine falcon	*Falco peregrinus*	—	E	Low, but possible near open water
Snowy egret	*Egretta thula*	—	SSC	Likely in suitable wetlands along the corridor; observed on the plant property

TABLE E9.3.7-5
STATE OR FEDERALLY LISTED WILDLIFE SPECIES POTENTIALLY OCCURRING WITHIN THE EAST CORRIDOR
(Page 2 of 2)

Common Name	Scientific Name	Designated Status		Likelihood of Occurrence within East Preferred Corridor
		USFWS	FWC	
Tricolored heron	*Egretta tricolor*	—	SSC	Likely in suitable wetlands along the corridor; observed on the plant property
White ibis	*Eudocimus albus*	—	SSC	Likely in suitable wetlands along the corridor; observed on the plant property
Wood stork	*Mycteria americana*	E	E	Likely foraging in suitable wetlands along corridor; observed on the plant property; closest known colonies are more than 13 miles to the west in the ENP
Piping plover	*Charadrius melodus*	T	T	Low, sandy beaches along coast
Reddish egret	*Egretta rufescens*	—	SSC	Low, normally along coast and mangrove islands
American oystercatcher	*Haematopus palliatus*	—	SSC	Low, found on beaches and coastal sandbars
Brown pelican	*Pelecanus occidentalis carolinensis*	—	SSC	Low for most of the corridor, perhaps flying over canals nearer the plant property; observed on the plant property
Roseate spoonbill	*Platalea ajaja*	—	SSC	Low to moderate, could be found foraging in wetlands along the corridor
Black skimmer	*Rhynchops niger*	—	SSC	Low, found on the coast
Least tern	*Sterna antillarum*	—	T	Low, found on sandy or gravel habitats along the coast; they have been recorded from the existing Turkey Point industrial wastewater facility cooling canal berms south of the corridor (FNAI, 2009)
Mammals				
Florida bonneted (mastiff) bat	*Eumops glaucinus floridanus*	—	E	Moderate; could be found roosting in trees or buildings along the corridor
Florida manatee	*Trichechus manatus latirostris*	E	E	Low, primarily found along the coast and some of the canals north of the Turkey Point plant property; reported by FNAI (2009) to formerly have congregated in Coral Gables Canal
Florida mouse	*Podomys floridanus*	—	SSC	Unlikely, found in more central/northern Florida in dry sandy habitats; usually associated with gopher tortoise burrows
Everglades mink	*Mustela vison evergladensis*	—	T	Unlikely due to known range
Florida black bear	*Ursus americanus floridanus*	—	T	Unlikely along corridor; more likely found west of the Study Area
Florida panther	*Puma concolor coryi*	E	E	Unlikely along the corridor

Note: E = endangered. T = threatened.
SSC = species of special concern. T(S/A) = threatened due to similarity in appearance to a federally listed species.

*The eagle has recently been delisted by FWC with the adoption of the Bald Eagle Management Guidelines found in Section 68A-16.002, F.A.C. It is included here due to the regulatory protection still afforded it.

Sources: FWC, 2008.
FNAI, 2009.

Rim Rock Crowned Snake (*Tantilla ooliticus*)—This snake occupies a wide variety of habitats in southern Florida and, therefore, is considered to have a moderate likelihood of occurrence. Some of the pine rockland habitats found along the corridor could serve as potential habitats. An old record of occurrence exists for the corridor north of U.S. 1 along SW 27th Avenue (FNAI, 2009).

Eastern Indigo Snake (*Drymarchon corais couperi*)—This distinctive large, bluish-black snake can occur in suitable habitats throughout Florida. It has a wide range of habitat preferences and prey species. Often considered as a gopher tortoise commensal, it can be found in xeric habitats, but uses more mesic habitats as well. It has a moderate likelihood to occur along the East Preferred Corridor within these habitat types. FNAI (2009) lists a record of this individual less than 1 mile from the East Preferred Corridor. The indigo is listed as a threatened species by both USFWS and FWC.

Gopher Tortoise (*Gopherus polyphemus*)—The gopher tortoise's range in Florida extends into northern Miami-Dade County. The gopher tortoise is currently listed as a threatened species by FWC, but its likelihood along the East Preferred Corridor is considered low.

Birds

Bald Eagle (*Haliaeetus leucocephalus*)—The bald eagle was delisted by USFWS and FWC within the past year. It is still included here because of special rules protecting it (Section 68A-16.002, F.A.C.). The eagle is making a comeback in population numbers in the United States, and eagle nests are becoming more common in Florida. No known nests exist near the East Preferred Corridor, but it is possible the bird could be found foraging along the southern half of the corridor. An individual bald eagle was observed along the northwest corner of the industrial wastewater facility just west of the East Preferred Corridor.

Snail Kite (*Rostrhamus sociabilis plumbeus*)—Often called the Everglades snail kite, this bird is listed as endangered by USFWS and FWC. Its habitat requirements are also specific. It prefers freshwater marsh systems with distinct vegetation profiles. Since its primary food source is the apple snail (*Pomacea paludosa*), hydrological regime is critical to both the food source and nesting of this bird. It may occur in some of the marsh systems along the southern portion of the corridor, but, overall, its likelihood of occurrence is considered low.

Southeastern American Kestrel (*Falco sparverius paulus*)—This subspecies of the American kestrel is a common resident of open land habitats throughout Florida south to the Lake Okeechobee area. It has been documented in Miami-Dade County and is state-listed as threatened by FWC. The more northern subspecies migrates here in the winter months, but the southeastern kestrel breeds here in summer. Since it prefers open habitats for foraging, it is commonly seen alongside road and transmission line rights-of-way. However, due to its known range and relative few documented occurrences in the county, its likelihood of occurrence is considered low.

Florida Burrowing Owl (*Speotyto cunicularia*)—The small Florida burrowing owl is listed as a species of special concern by FWC. It is most common in central Florida and lives in burrows in sandy soils associated with cattle pastures, prairies, and sandhills. It has a moderate likelihood of occurrence in open, drier habitats along the East Preferred Corridor. FNAI (2009) reports one historic observation near the corridor in the vicinity of the Dadeland Mall.

White-Crowned Pigeon (*Patagioenas leucocephala*)—This state-listed threatened bird forages in fruit-bearing trees in hardwood hammocks in southern Florida. It has been observed at the Turkey Point plant property; therefore, its presence is likely in other suitable habitats along the East Preferred Corridor.

Cape Sable Seaside Sparrow (*Ammodramus maritimus mirabilis*)—This endangered, ecologically isolated bird is restricted to the marl prairies of Big Cypress National Preserve and the ENP. Therefore, it is unlikely to occur in the East Preferred Corridor.

Florida Sandhill Crane (*Grus canadensis pratensis*)—This large bird is state-listed as threatened by FWC. It commingles with the greater sandhill crane, which migrates to Florida. Sandhills prefer shallow marshes for nesting and wet prairies and pastures for foraging. It would more likely be found farther west in the county, so its likelihood of occurrence is considered low for most of the East Preferred Corridor.

Limpkin (*Aramus guarauna*)—The secretive limpkin is listed as a species of special concern and is found in suitable habitats throughout most of the state. It prefers large, slow-moving watercourses, such as the Everglades. Therefore, its likelihood of occurrence is low in the East Preferred Corridor.

Little Blue Heron (*Egretta caerula*)—This wading bird is listed as a species of special concern by FWC and is found in suitable wetlands throughout Florida. They prefer freshwater habitats for foraging. This heron is likely to be found in suitable habitats along the East Preferred Corridor and has been observed near the Site.

Peregrine Falcon (*Falco peregrinus*)—This state-listed endangered migratory bird winters in Florida. It is often seen over coastlines or large water bodies, where it hunts waterfowl. Since these habitats are generally absent from the East Preferred Corridor, the peregrine falcon's likelihood of occurrence in much of the corridor is low, but it could be observed near the Turkey Point plant property.

Snowy Egret (*Egretta thula*)—Snowy egrets, like the other wading birds discussed, are listed as a species of special concern by FWC. This bird is widely distributed in Florida in both fresh and saltwater systems. It is likely to occur in wetlands along the East Preferred Corridor. It was observed near the Site.

Tricolored Heron (*Egretta tricolor*)—The tricolored heron (formerly called Louisiana heron) is a species of special concern as listed by FWC. It likes estuarine habitats, but can be found foraging in almost any wetland system. It is likely to be found along the East Preferred Corridor. It was observed near the Site.

White Ibis (*Eudocimus albus*)—The white ibis is one of the most common wading birds in Florida, but it is listed as a species of special concern by FWC. Large flocks of this bird are often seen foraging in shallow marshes or wet pastures. The white ibis is likely to occur along the East Preferred Corridor. It was observed near the Site.

Wood Stork (*Mycteria americana*)—The wood stork is an endangered species listed by both USFWS and FWC. This large bird prefers nesting in cypress swamps, and some of the largest nesting areas in Florida occur in the Corkscrew Swamp Sanctuary well west of the study area. The closest known wood stork colonies occur within the ENP approximately 13 miles west of the East Preferred Corridor. Certainly the wood stork could be found foraging in suitable habitats along the East Preferred Corridor. They were observed foraging near the Site.

Piping Plover (*Charadrius melodus*)—This federal- and state-listed threatened bird occurs on sandy beaches along the Atlantic Coast. Therefore, its likelihood of occurrence in the East Preferred Corridor is considered low.

Reddish Egret (*Egretta rufescens*)—This state-listed bird is a species of special concern, more coastal than the other egrets, and, while it could be occasionally observed along the southern portion of the East Preferred Corridor near the Site, its likelihood of occurrence is considered low.

American Oystercatcher (*Haematopus palliatus*)—This state-listed coastal bird is a species of special concern and may be found around the Turkey Point plant property, but its likelihood of occurrence along the remainder of the East Preferred Corridor is considered low.

Brown Pelican (*Pelecanus occidentalis carolinensis*)—This state-listed coastal bird is a species of special concern and may be found flying over or near the Turkey Point plant property, but its likelihood of occurrence for the East Preferred Corridor is considered low.

Roseate Spoonbill (*Platalea ajaja*)—This state-listed species of special concern forages and nests in estuarine systems of South Florida. It may be found occasionally foraging inland along the East Preferred Corridor.

Black Skimmer (*Rhynchops niger*)—This state-listed species of special concern is primarily found along undisturbed coastlines of Florida. There is a low likelihood of its occurrence along the corridor.

Least Tern (*Sterna antillarum*)—The least tern is state-listed as threatened and is usually found near the coast where they nest on sandy or gravel surfaces. While they have been previously recorded on the berms of the existing Turkey Point cooling canals within the industrial wastewater facility, their likelihood of occurrence in the corridor is low.

Mammals

Florida Bonneted (Mastiff) Bat (*Eumops glaucinus floridanus*)—This state-listed endangered bat typically roosts in trees or buildings. It is known to occur in Miai-Dade County, so there is a moderate likelihood it could be found along the East Preferred Corridor.

Florida Manatee (*Trichechus manatus latirostris*)—This endangered mammal occurs along the coast and perhaps in some of the canals connecting to the coast. USFWS designates much of coastal Miami-Dade County as federal critical habitat for this animal. FNAI (2009) reports a former manatee congregation area in the Coral Gables Canal, which crosses the East Preferred Corridor. However, its likelihood of occurrence in or near the transmission corridor is generally considered low. In any event, transmission lines will span waterbodies likely to support manatees.

Florida Mouse (*Podomys floridanus*)—This state-listed species of special concern is likely only to be found in northern Miami-Dade County in sandy, well-drained soils. Along the East Preferred Corridor, its likelihood of occurrence is considered unlikely.

Everglades Mink (*Mustela vison evergladensis*)—This threatened species is a subspecies of the southeastern mink. It is found in a variety of wetlands in and around the Everglades. Its likelihood of occurrence is therefore considered unlikely in the East Preferred Corridor.

Florida Black Bear (*Ursus americanus floridanus*)—The Florida black bear is currently listed as threatened by FWC. This large mammal is known to occur west of the study area and prefers large swamps and dense thickets. It is unlikely this animal occurs along the East Preferred Corridor because of the lack of large swamp systems and presence of high-density development.

Florida Panther (*Puma concolor coryi*)—The panther is listed by USFWS and FWC as endangered. This large cat prefers most natural vegetation communities of south Florida. Its primary range includes southwest Florida and the western Everglades. The panther's range in this area makes it unlikely to occur along the East Preferred Corridor.

E9.3.7.4 Other Environmental Features

There are no other environmental features to address that have not been addressed in the previous sections.

E9.4 Effects of Right-of-Way Preparation and Transmission Line Construction

E9.4.1 Construction Techniques

Construction phases will typically consist of right-of-way clearing (where required), access road and structure pad construction (where necessary), line construction, and right-of-way restoration. The fol-

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TABLE W9.3.7-5.
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Scientific Name	Common Name	Federal Status*	State Status†	Habitat Preference	Likelihood of Species Occurrence within Corridors‡
Acoelorraphe wrightii	Paurotis palm	—	T	Swamps, everglades, and hammocks	L
Acrostichum aureum	Golden leather fern	—	T	Mangrove swamps, saltmarshes, and limestone sinks	L
Actinostachys pennula	Ray fern	—	E	Swamps	L
Adiantum melanoleucum	Fragrant maidenhair fern	—	E	Limestone sinks in rockland hammocks	L
Adiantum tenerum	Brittle maidenhair fern	—	E	Limestone sinks in rockland hammocks	L-M
Aeschynomene pratensis	Meadow jointvetch	—	E	Marl prairies, cypress domes, and swales	H-P
Aletris bracteata	Bracted colic-root	—	E	Rocky pine savannahs	L
Alvaradoa amorphoides	Everglades leaf lace	—	E	Pine rocklands, transition zone between pine rocklands and rockland hammock	L
Amorpha herbacea var. *crenulata*	Crenulate lead-plant	E	E	Rockland hammocks and pine rocklands	L-M
Anemia wrightii	Wright's pineland fern	—	E	Limestone outcrops in moist hammocks, pine rocklands, and prairies	L
Angadenia berteroi	Pineland golden trumpet	—	T	Pinelands	H-P
Argythamnia blodgettii	Blodgett's wild-mercury	C	E	Open gaps in pine rocklands, rockland hammocks, and coastal berms	L
Asplenium dentatum	American toothed spleenwort	—	E	Limestone outcrops in moist hammocks	L
Asplenium serratum	American bird's nest fern	—	E	Cypress swamps and moist hardwood hammocks	L
Asplenium verecundum	Modest spleenwort	—	E	Limestone outcrops in rockland hammocks	L
Basiphyllaea corallicola	Rockland orchid	—	E	Openings in pine rocklands, leaf litter, and in moist hardwood hammocks	L
Beloglottis costaricensis	Costa Rican ladies'-tresses	—	E	Hardwood hammocks	L
Bletia purpurea	Pine pink	—	T	Pine rocklands; stumps and tree bases and cypress swamps	H-P
Bourreria cassinifolia	Smooth strongbark	—	E	Pine rocklands	L
Bourreria succulenta	Bahama strongbark	—	E	Hardwood hammocks	L
Brickellia mosieri	Florida brickell-bush	C	E	Pinelands	H-P
Byrsonima lucida	Locustberry	—	T	Pine rocklands, hardwood hammocks	H-P
Calyptranthes pallens	Spicewood	—	T	Hardwood hammocks	L
Calyptranthes zuzygium	Myrtle-of-the-river	—	E	Rockland hammocks - coastal strand	L
Catopsis berteroniana	Powdery catopsis	—	E	Hardwood hammocks, mangroves, and hardwood trees in pinelands	L
Catopsis floribunda	Many-flowered catopsis	—	E	Hardwood hammocks	L
Chamaesyce deltoidea ssp. *adhaerens*	Hairy deltoid spurge	E	E	Pine rocklands	L
Chamaesyce deltoidea ssp. *deltoidea*	Deltoid spurge	E	E	Pine rocklands	L
Chamaesyce deltoidea ssp. *pinetorum*	Pinelands spurge	C	E	Pine rocklands	H-P
Chamaesyce garberi	Garber's spurge	T	E	Pinelands and dunes	L
Chamaesyce pergamena	Southern Florida sandmat	—	T	Pine rocklands	L

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Scientific Name	Common Name	Federal Status*	State Status†	Habitat Preference	Likelihood of Species Occurrence within Corridors‡
Chamaesyce porteriana	Porter's broad-leaved spurge	—	E	Pine rocklands, rockland hammocks, coastal rock barrens, and marl prairies	L-M
Chaptalia albicans	Sunbonnets	—	T	Pinelands	H-P
Chrysophyllum oliviforme	Satinleaf	—	T	Hardwood hammocks and pinelands	L
Coccothrinax argentata	Silver palm	—	T	Pine rocklands and dunes	H-P
Colubrina cubensis var. floridana	Cuban snake-bark	—	E	Pine rocklands, rockland hammocks on Miami rock ridges, and Everglades Keys	L-M
Colubrina elliptica	Soldierwood	—	E	Hardwood hammocks	L
Crossopetalum ilicifolium	Christmas berry	—	T	Pinelands	H-P
Crossopetalum rhacoma	Maidenberry	—	T	Pinelands, hardwood hammocks	L
Croton humilis	Pepperbush	—	E	Hardwood hammocks	L
Ctenitis sloanei	Florida tree fern	—	E	Hardwood hammocks, often on limestone outcrops	L
Ctenitis submarginalis	Brown-hair comb-fern	—	E	Swamps and wet hardwood hammocks	L
Cynanchum blodgettii	Blodgett's swallowwort	—	T	Hardwood hammocks	H-P
Cyperus filiformis	Wiry flatsedge	—	E	Dry, sandy open areas, shell ridges	L
Cyrtopodium punctatum	Cowhorn orchid	—	E	Cypress swamps, scrub cypress strands, coastal hammocks, rarely terrestrial in rock pinelands, and marl prairies	L
Dalbergia brownei	Browne's Indian rosewood	—	E	Margins of hardwood hammocks and mangroves	L
Dalea carthagenensis var. *floridana*	Florida prairie clover	C	E	Pine rocklands and rockland hammocks, coastal uplands, and marl prairies	L
Digitaria filiformis var. *dolichophylla*	Caribbean crabgrass	—	T	Rock pinelands	L-M
Digitaria pauciflora	Few-flowered fingergrass	C	E	Rock pinelands	L-M
Drypetes lateriflora	Guiana plum	—	T	Hardwood hammocks	L
Eltroplectris calcarata	Spurred neottia	—	E	Mesic hardwood hammocks and rockland hammocks	L-M
Epidendrum amphistomum	Dingy flowered star orchid	—	E	Swamps	L
Epidendrum floridensis	Florida star orchid	—	E	Cypress and hardwood swamps	L
Epidendrum nocturnum	Night-scented orchid	—	E	Cypress swamps, moist hardwood hammocks, and mangroves	L
Epidendrum rigidum	Stiff flower star orchid	—	E	Swamps and moist hammocks	L
Erithalis fruticosa	Black torch	—	T	Coastal hammocks and dunes	L
Ernodea cokeri	Coker's beach creeper	—	E	Pine rocklands, dunes	L-M
Eugenia confusa	Tropical ironwood	—	E	Hardwood hammock	L
Eugenia rhombea	Red stopper	—	E	Rockland hammocks	L
Evolvulus convolvuloides	Bindweed dwarf morning-glory	—	E	Pine rocklands	L

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Scientific Name	Common Name	Federal Status*	State Status†	Habitat Preference	Likelihood of Species Occurrence within Corridors‡
Exostema caribaeum	Princewood	—	E	Pine rocklands and rockland hammocks	L
Galactia smallii	Small's milk pea	E	E	Pine rocklands	L
Galeandra bicarinata	Two-keeled helmet orchid	—	E	Hardwood hammocks	L
Glandularia maritima	Coastal vervain	—	E	Dunes, coastal pinelands	L
Gossypium hirsutum	Wild cotton	—	E	Coastal hammocks, beaches, disturbed sites, and shellmound spoil piles	L
Govenia floridana	Florida govenia	—	E	Hardwood hammocks	L
Guzmania monostachia	Fakahatchee guzmania	—	E	Swamps and wet hardwood hammocks	L
Habenaria nivea	Snowy platanthera	—	T	Wet pinelands, prairies, and wet ditches	L
Harrisia simpsonii	Simpson's prickly apple	—	E	Shell mounds, xeric coastal hammocks, and scrubby flatwoods	L
Hibiscus poeppigiii	Poeppig's rosemallow	—	E	Hardwood hammocks	L
Hippomane mancinella	Manchineel	—	E	Coastal berms and hammocks	L
Hypelate trifoliata	White ironwood	—	E	Pine rocklands and rocklands	L
Ilex krugiana	Krug's holly	—	T	Pinelands and hardwood hammocks	H-P
Ionopsis utricularioide	Delicate violet orchid	—	E	Cypress swamps and citrus groves	L
Ipomoea microdactyla	Wild potato morning glory	—	E	Pine rocklands	L-M
Ipomoea tenuissima	Rocklands morning glory	—	E	Pine rocklands	H-P
Jacquemontia curtisii	Pineland jacquemontia	—	T	Pinelands	H-P
Jacquemontia pentanthos	Skyblue clustervine	—	E	Pine rocklands and disturbed edges, areas of rockland hammocks, and coastal rock barrens	L
Jacquinia keyensis	Joewood	—	T	Coastal hammocks	L
Koanophyllum villosum	Villose fennel	—	E	Hammocks and pinelands	H-P
Lantana canescens	Small-headed lantana	—	E	Transition zones between rockland hammocks and pine rocklands	L
Lantana depressa var. *depressa*	Florida lantana	—	E	Rock pinelands	H-P
Lantana depressa var. *floridana*	Atlantic Coast Florida lantana	—	E	Dry, open dunes and sandy ridges, primarily along coasts	L
Leiphaimos parasitica	Ghost plant	—	E	Hardwood hammocks	L
Licaria triandra	Gulf licaria	C	E	Hardwood hammocks	L-M
Linum arenicola	Sand flax	C	E	Pine rocklands, marl prairires, and adjacent disturbed areas	M-H
Linum carteri var. carteri	Carter's small-flowered flax	C	E	Pine rocklands	L-M
Linum carteri var. smallii	Carter's large-flowered flax	—	E	Pine flatwoods, pine rocklands, and adjacent disturbed areas	M
Lomariopsis kunzeana	Holly vine fern	—	E	Wet hardwood hammocks, limestone outcrops in wet hardwood hammocks	L
Manilkara jaimiqui ssp. *emarginata*	Wild dilly	—	T	Hardwood hammocks	L

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Scientific Name	Common Name	Federal Status*	State Status†	Habitat Preference	Likelihood of Species Occurrence within Corridors‡
Maytenus phyllanthoides	Florida mayten	—	T	Coastal hammocks and dunes	L
Melanthera parvifolia	Small-leaved melanthera	—	T	Old coral reefs, limestones, pine forests	H-P
Mesadenus lucayana	Florida Keys ladies'-tresses	—	E	Dry calcareous hardwood hammocks and coastal middens	L
Microgramma heterophylla	Climbing vine fern	—	E	Hardwood hammocks, limestone outcrops in hardwood hammocks	L
Myrcianthes fragrans	Simpson stopper	—	T	Coastal hammocks; rarely, inland hardwood hammocks	L
Nephrolepis biserrata	Giant sword fern	—	T	Swamps and wet hardwood hammocks	L
Ocimum campechianum	Wild basil	—	E	Disturbed sites	L-M
Odontosoria clavata	Wedgelet fern	—	E	Rock pinelands and rockland hammocks, often on limestones	L
Oncidium floridanum	Florida dancinglady orchid	—	E	Pine rocklands, rockland hammocks, mangroves, and cypress swamps	L
Oncidium undulatum	Muleear orchid	—	E	Mangrove swamps, cypress swamps, and hardwood hammocks	L
Ophioglossum palmatum	Hand fern	—	E	Wet hammocks, epiphytic on sabal palmetto	L
Opuntia stricta	Erect pricklypear	—	T	Shell middens, dunes, and coastal hammocks	L
Paspalidium chapmanii	Coral paspalum	—	E	Hardwood hammocks, prairies, and disturbed sites	M
Passiflora pallens	Pineland passionflower	—	E	Rockland hammocks, coastal berms, and strand swamps	L
Passiflora sexflora	Everglades Key passion-flower	—	E	Hardwood hammocks	L
Pavonia paludicola	Mangrove mallow	—	E	Hardwood hammocks	L
Peperomia humilis	Low peperomia	—	E	Shell mounds and limestone outcrops in mesic hardwood hammocks, coastal berms, and cypress swamps	L
Peperomia obtusifolia	Blunt-leaved peperomia	—	E	Rockland hammocks, wet hardwood hammocks, and strand swamps	L
Phyla stoechadifolia	Southern frog-fruit	—	E	Wet pinelands and glades	H-P
Picramnia pentandra	Bitter bush	—	E	Hammocks	L
Pithecellobium keyense	Black bead	—	T	Coastal hammocks and strands	L
Poinsettia pinetorum	Pineland spurge	—	E	Pine rocklands	H-P
Polygala smallii	Tiny polygala	E	E	Pine rocklands, scrubs, sandhills, and open coastal spoil piles	L
Polystachya concreta	Greater yellowspice orchid	—	E	Cypress swamps, hardwood hammocks, and mangroves	L
Ponthieva brittoniae	Britton's shadow-witch	—	E	Rock pinelands and rockland hammocks	L
Prosthechea boothiana var. *erythronioides*	Dollar orchid	—	E	Hardwood hammocks and mangroves	L
Prosthechea cochleata var. *triandra*	Clamshell orchid	—	E	Swamps, mangroves, and hardwood hammocks	L
Prunus myrtifolia	West Indian cherry	—	T	Rock pinelands and rockland hammocks	L
Psidium longipes	Mangrove berry	—	T	Pine rocklands and rockland hammocks	L
Psychotria ligustrifolia	Bahama wild coffee	—	E	Pine rocklands and rockland hammocks	L
Pteris bahamensis	Bahama brake	—	T	Pine rocklands and edges of rockland hammocks	H-P

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Scientific Name	Common Name	Federal Status*	State Status†	Habitat Preference	Likelihood of Species Occurrence within Corridors‡
Pteroglossaspis ecristata	Giant orchid	—	T	Sandhills, scrubs, pine flatwoods, and pine rocklands	L
Reynosia septentrionalis	Darlingplum	—	T	Hardwood hammocks and margins of mangroves	L
Rhipsalis baccifera	Mistletoe cactus	—	E	Rockland hammocks and mangroves	L
Rhynchosia parviflora	Small-leaf snoutbean	—	T	Pinelands and beaches	H-P
Roystonea elata	Florida royal palm	—	E	Wet hardwood hammocks, swamps, and cypress sloughs	L
Sachsia polycephala	Bahama sachsia	—	T	Rock pinelands	H-P
Sacoila lanceolata var. *paludicola*	Fahkahatchee ladies'-tresses	—	T	Wet hardwood hammocks, cypress swamps, and middens	L
Savia bahamensis	Bahama maidenbush	—	E	Coastal thickets, pine rocklands, and rockland hammocks	L
Schaefferia frutescens	Florida boxwood	—	E	Rockland hammocks	L
Scleria lithosperma	Florida Keys nutrush	—	E	Pine rocklands and rockland hammocks	L
Scutellaria havanensis	Havana skullcap	—	E	Rock pinelands	L-M
Selaginella eatonii	Eaton's spikemoss	—	E	Moist limestone outcrops in rock pinelands and rockland hammocks	L
Senna mexicana var. *chapmanii*	Bahama senna	—	T	Rock pinelands, rockland hammocks, and dunes	L
Smilax havanensis	Everglades greenbrier	—	T	Rock pinelands and rockland hammocks	L
Solanum donianum	Mulle in nightshade	—	T	Coastal hammocks and dunes, marl prairies, edges or roads in mangroves	H-P
Spermacoce terminalis	Everglades Keys false button-weed	—	T	Pine rocklands	H-P
Spiranthes laciniata	Lacelip ladies-tresses	—	T	Hypericum-sedge, marshes, and open cypress swamps	L
Spiranthes longilabris	Longlip ladies'-tresses	—	T	Wet prairies and pine rocklands	L
Spiranthes torta	Southern ladies'-tresses	—	E	Pine rocklands and marl prairies	M
Stylosanthes calcicola	Pineland pencil flower	—	E	Pine rocklands, marl prairies, and transitional areas between them	H-P
Swietenia mahagoni	West Indies mahogany	—	T	Coastal strands, rockland hammocks, and hammocks also naturalized in disturbed areas from cultivated trees	L
Tectaria fimbriata	Least halberd fern	—	E	Limestone outcrops in rockland hammocks	L
Tectaria heracleifolia	Broad halberd fern	—	T	Limestone outcrops in rockland hammocks	L
Tephrosia angustissima var. angustissima	Devil's shoestring	—	E	Pine rocklands	L
Tephrosia angustissima var. *corallicola*	Rockland hoary-pea	—	E	Pine rocklands	L
Tephrosia angustissima var. *curtisii*	Coastal hoary-pea	—	E	Coastal strands	L
Tetrazygia bicolor	Florida clover ash	—	T	Rock pinelands and rockland hammocks	H-P
Thelypteris augescens	Abrupt tip maiden fern	—	T	Rockland hammocks	H-P
Thelypteris patens	Grid-scale maiden fern	—	E	Rockland hammocks	L
Thelypteris reptans	Creeping maiden fern	—	E	Limestone sinks in rockland hammocks	L
Thelypteris reticulata	Lattice-vein fern	—	E	Wet hardwood hammocks and cypress swamps	L

EXHIBIT 21

TABLE W9.3.7-5.
COMPREHENSIVE LIST OF RARE, THREATENED, OR ENDANGERED PLANT TAXA FOUND IN MIAMI-DADE COUNTY AND THEIR POTENTIAL TO OCCUR WITHIN 1,500 FT OF THE WEST PREFERRED/SECONDARY CORRIDORS
(Continued, Page 6 of 6)

Scientific Name	Common Name	Federal Status*	State Status†	Habitat Preference	Likelihood of Species Occurrence within Corridors‡
Thelypteris sclerophylla	Stiff-leaved maiden fern	—	E	Rockland hammocks	L
Thelypteris serrata	Toothed maiden fern	—	E	Cypress swamps and slough floodplains	L
Thrinax morrisii	Brittle thatch palm	—	E	Rockland hammocks and rock pinelands	L
Thrinax radiata	Florida thatch palm	—	E	Coastal thickets on limestone	L
Tillandsia balbisiana	Twisted wildpine	—	T	Hammocks	M
Tillandsia fasciculata var. *densispica*	Cardinal airplant	—	E	Cypress swamps and hardwood hammocks	L
Tillandsia flexuosa	Banded wildpine	—	T	Cypress swamps and hardwood hammocks	L
Tillandsia utriculata	Giant wildpine	—	E	Hardwood hammocks, pineland, and scrubs	M
Tillandsia variabilis	Leatherleaf airplant	—	T	Cypress swamps and hardwood hammocks	L
Tournefortia hirsutissima	Chiggery grapes	—	E	Rockland hammocks, cypress swamps	L
Tragia saxicola	Pineland noseburn	—	T	Rock pinelands	H-P
Trema lamarckianum	Lamarck's trema	—	E	Hardwood hammocks and shell middens	H-P
Trichomanes krausii	Kraus' bristle fern	—	E	Rockland hammocks	L
Trichomanes punctatum ssp. *floridanum*	Florida filmy fern	—	E	Rockland hammocks, shell middens, limestone sinks, and limestone boulders	L
Tripsacum floridanum	Florida gama grass	—	T	Rock pinelands, hammock edges	H-P
Vallesia antillana	Tearshrub	—	E	Rockland hammocks	L
Vanilla barbellata	Worm-vine orchid	—	E	Mangroves, coastal hardwood hammocks, pine rocklands, rockland hammocks, and road banks	L
Vanilla inodora	Mexican vanilla	—	E	Wet rockland hammocks	L
Vanilla phaeantha	Leafy vanilla	—	E	Cypress swamps and moist hammocks	L
Zanthoxylem coriaceum	Biscayne pricklash	—	E	Coastal hammocks	L
Zephyranthes simpsonii	Simpson's zephyrlily	—	T	Wet flatwoods and prairie	H

*Listing by USFWS. E = endangered. T = threatened. C = candidate for listing.
†Listing by FDACS. E = endangered. T = threatened.
‡L = low. M = medium. H = high. P = present in corridor. PE = possibly extinct.

Sources: USFWS, http://ecos.fws.gov/tess_public//pub/stateListing.jsp?state=FL&status=listed, 2009.
FDACS Regulated Plants: Section 5B-40.0055, F.A.C.

P9.3 Corridor

P9.3.1 Corridor Selection

The corridor for the reclaimed water pipelines was selected to utilize, to the greatest extent practicable, existing infrastructure in order to minimize environmental impacts. Because of the location of the South District Wastewater Treatment Plant, the majority of the corridor is within an existing FPL-owned transmission right-of-way and other FPL-owned property, with about 6.5 miles or about 70 percent in FPL fee ownership.

The north portion of the corridor allows several alternate routes for the reclaimed water pipelines from the South District Wastewater Treatment Plant to the existing FPL transmission right-of-way and includes areas where the pipelines could be located within existing roadways (e.g., SW 97th Avenue, SW 102nd Avenue, SW 248th Street/Coconut Palm Drive). Within the FPL transmission right-of-way, the pipelines would lie along an existing patrol road in the transmission right-of-way. At SW 344th Street/Palm Drive, the reclaimed water pipeline corridor will follow the existing FPL Turkey Point Plant access road.

P9.3.2 Corridor Description

The reclaimed water pipeline corridor varies in width from 500 ft to one mile. The first 2.5 miles of the reclaimed pipeline corridor extends from the South District Wastewater Treatment Plant to the existing FPL-owned transmission right-of-way. Figure P9.0.0-3 shows five potential alternate routes under consideration within the one-mile-wide reclaimed water pipeline corridor from the South District Wastewater Treatment Plant to the FPL transmission right-of-way. There are two canal crossings along these routes [i.e., the Black Creek Canal (C-1) and the Goulds Canal].

From the existing FPL transmission right-of-way, the reclaimed water pipeline corridor narrows to 500 ft and continues south for approximately 4.5 miles, collocated with the existing FPL transmission right-of-way and adjacent road and canal rights-of-way, until just south of SW 328th Street/North Canal Drive. Along this segment, the corridor crosses the Princeton (C-102), Military, unnamed, Mowry (C-103), and Homestead (North) Canals.

South of SW 328th Street/North Canal Drive, the 500 ft corridor extends about two miles, south and then generally southeast, to the FPL reclaimed water treatment facility. This segment of the corridor follows L-31E Canal to SW 344th Street/Palm Drive, where it crosses the L-31E Canal. The corridor