

Table 9-A7.3-1
Features Included on Regional Screening Maps
230-kV CCRE Corridor

Feature	Description
Residences	Identification of existing residential areas within the study area based on the FLUCCS 110-139 class definition areas and Land Use/Land Cover maps
Major Developments	Identification of approved Developments of Regional Impact within the study area
Existing PEF Transmission Lines	Identification of existing PEF transmission lines within the study area
Other Existing Linear Facilities	Identification of other existing linear facilities (existing and committed major public roads, major canals and existing railroads) within the study area
Conservation Lands and Parks	Identification of conservation lands and parks (using federal, state, and local government data sources and available online data) in the study area
Wetlands	Identification of wetlands within the study area using the FLUCCS Land Use/Land Cover 600-654 class definition areas
National Register of Historic Places	Identification of NRHP sites within the study area
Threatened and Endangered Species	Identification of the location of threatened and endangered species within the study area based on the FNAI database
Airports	Identification of any licensed public or private airports and heliports registered with FAA and/or FDOT within the study area
Agriculture and Rangelands	Identification of agriculture and rangelands within the study area using FLUCCS Land Use/Land Cover 200-330 class definitions

Notes:

PEF	Progress Energy Florida
FLUCCS	Florida Land Use Cover and Forms Classification System
GIS	Geographic Information Systems
FNAI	Florida Natural Areas Inventory
FAA	Federal Aviation Administration
FDOT	Florida Department of Transportation
NRHP	National Register of Historic Places

Table 9-A7.3-2
Quantitative Evaluation Criteria
230-kV CCRE Corridor

Criterion	Description
Airports	A count of each airport within the corridor segment and within 20,000 feet of the corridor segment centerline ¹ and a count of each heliport within the corridor segment and within 5000 feet of the corridor segment
Archaeological Resources	A count of archaeological resource site locations within or in close proximity to the corridor segment ²
Commercial and Services Land Uses	Commercial and services land uses identified by the 140-149 FLUCCS (except 148 class definition) class definition series from the FLUCCS Land Use/Land Cover maps.
Community Facilities	A count of community facilities within the corridor segment ³
Conservation Lands and Parks	Area of conservation lands and parks within the corridor segment
Cost	The U.S. dollar amount estimated to construct the proposed transmission line within the corridor segment
Eagle Nests	A count of eagle nest locations within the corridor segment and within 1500 feet of the corridor segment centerline
Existing PEF Transmission Lines	Length of the corridor segment within or in close proximity to an existing PEF transmission line
Flood Plain	Area of a 100-year flood plain within the corridor segment
Forested Wetlands	Area of forested wetland areas within the corridor segment
Future Residential Land Use	Area of local government comprehensive plan adopted future land use map designated as residential within the corridor segment.
Herbaceous Wetlands	Area of herbaceous wetland areas within the corridor segment
Historic Resources	A count of historic resource site locations within the corridor segment ⁴
Industrial and Extractive Land Uses	Industrial and extractive land uses identified by the 150-166 FLUCCS class definition series from the FLUCCS Land Use/Land Cover maps.
Other Existing Linear Facilities	Length of existing and committed major public roads and existing railroads within the corridor segment
Parcels	A count of parcels within the corridor segment
Residences	A count of residences within the corridor segment
Schools	A count of existing and proposed public and existing private schools within the corridor segment ⁵
Threatened and Endangered Species	A count of protected species (flora and fauna) locations within the corridor segment (not including eagle nests)
Upland Forests	Area of upland forested areas within the corridor segment

¹ Airports are measured from the closest runway. Airports and heliports are identified by FAA and/or FDOT.

² Archaeological resource sites were approximated by adding a 500-foot radius to the resource site locations.

³ Community facility sites were approximated by adding a 100-foot radius to each community facility location.

⁴ Historic resource sites were approximated by adding a 500-foot radius to the resource site locations.

⁵ Existing schools were measured from school parcel boundaries; proposed school sites were approximated by adding a 500-foot radius to school locations.

Table 9-A7.3-3
Easement, Title and Crossing Approvals Anticipated to
Be Required for Transmission Line Construction
230-kV CCRE Corridor

ROADS

Citrus County	Affected Agency	Type of Approval
BASSWOOD AVE	Citrus County	Right-of-Way Utilization
BITTERROOT DR	Citrus County	Right-of-Way Utilization
CR 488 (W DUNNELLON RD)	Citrus County	Right-of-Way Utilization
N BULL TOWNSEND PT	Citrus County	Right-of-Way Utilization
N CHABAUD TER	Citrus County	Right-of-Way Utilization
N FLAME VINE WAY	Citrus County	Right-of-Way Utilization
N FORSYTHIA WAY	Citrus County	Right-of-Way Utilization
N SHANNON AVE	Citrus County	Right-of-Way Utilization
US 19/SR 55 (SUNCOAST)	FDOT	Utility
W ANTHRACITE TER	Citrus County	Right-of-Way Utilization
W CLARIKA CT	Citrus County	Right-of-Way Utilization
W DIAMOND T LN	Citrus County	Right-of-Way Utilization
W HEATH CT	Citrus County	Right-of-Way Utilization
W POWERLINE ST	Citrus County	Right-of-Way Utilization

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TABLE 9-A7.3.4
Land Use and Habitats

FLUCCS Code	Description	Acreage
<u>LAND USE</u>		
110	Residential, Low Density	38.59
120	Residential, Medium Density	0.69
130	Residential, High Density	1.59
160	Extractive	177.18
170	Institutional	10.46
810	Transportation/Roads and Highways	19.33
830	Utilities	94.05
	TOTAL ACREAGE	341.89
<u>UPLAND HABITATS</u>		
211	Improved Pastures	443.37
320	Shrub and Brushland	7.62
412	Longleaf Pine-Xeric Oak	141.06
421	Xeric Oak	6.75
434	Hardwood-Conifer Mixed	560.07
441	Coniferous Plantations	102.49
	TOTAL ACREAGE	1,261.37
<u>AQUATIC HABITATS</u>		
520	Lakes	0.62
530	Reservoirs	0.82
	TOTAL ACREAGE	1.44
<u>WETLAND HABITATS</u>		
615	Stream and Lake Swamps (Bottomland)	13.36
630	Wetland Forested Mixed	1.73
641	Freshwater Marshes	106.08
643	Wet Prairies	0.77
	TOTAL ACREAGE	121.94
TOTAL ACREAGE IN THE 230-KV CCRE CORRIDOR		1,726.64

Table 9-A7.3-6
Important Wildlife Species Reported in Citrus County That Can Reasonably Be Expected to Occur
230-kV CCRE Corridor

Scientific Name	Common Name	Status				Probability of Occurrence in 230-kV CCRE Corridor and Typical Habitat
		Federal	State	F.A.C. Rule 39-1		
FISH						
<i>Acantharchus pomotis</i>	Mud Sunfish	N	N	Game	Low	Vegetated sloughs, lakes, and pools and backwaters of creeks and small to medium rivers
<i>Ambloplites ariommus</i>	Shadow Bass	N	N	Game	Low	Brushy and vegetated, gravel-bottomed, sand-bottomed and mud-bottomed pools of creeks and small to medium rivers
<i>Centrarchus macropterus</i>	Flier	N	N	Game	Moderate	Swamps, vegetated lakes, ponds, sloughs and backwaters and pools of creeks and small rivers
<i>Cichla ocellaris</i>	Peacock Bass	N	N	Game	Low	In rapids and quiet waters with medium depth and rocky substrates
<i>Lepomis auritus</i>	Redbreast Sunfish	N	N	Game	Low	Rocky and sandy pools of creeks and small to medium rivers; rocky and vegetated lake margins
<i>Lepomis gulosus</i>	Warmouth	N	N	Game	Moderate	Vegetated lakes, ponds, swamps, quiet water areas of streams
<i>Lepomis macrochirus</i>	Bluegill	N	N	Game	High	Lakes, ponds, reservoirs and sluggish streams
<i>Lepomis megalotis</i>	Longear Sunfish	N	N	Game	Moderate	Dense vegetation in small lakes, ponds and slow moving rivers and streams
<i>Lepomis microlophus</i>	Redear Sunfish	N	N	Game	Moderate	Ponds, swamps, lakes, small to medium rivers
<i>Lepomis punctatus</i>	Spotted Sunfish	N	N	Game	Moderate	Heavily vegetated ponds, lakes, pools of creeks and small to medium rivers, and swamps
<i>Micropterus salmoides floridanus</i>	Black Bass	N	N	Game	Moderate	Clear non-flowing waters of upper estuaries, rivers, lakes, reservoirs, and ponds
<i>Morone chrysops</i>	White Bass	N	N	Game	Moderate	Lakes, ponds and pools of small to large rivers
<i>Morone chrysops x Morone saxatilis</i>	Sunshine Bass	N	N	Game	Moderate	Lakes, ponds and pools of small to large rivers
<i>Morone saxatilis</i>	Striped Bass	N	N	Game	Low	Rivers
<i>Pomoxis nigromaculatus</i>	Black Crappie	N	N	Game	High	Lakes, ponds, sloughs, and backwaters and pools of streams
AMPHIBIANS						
<i>Rana capito</i>	Gopher Frog	N	SSC	N	High	Sandhill and scrub with isolated wetlands or large ponds; commensal with gopher tortoises
REPTILES						
<i>Alligator mississippiensis</i>	American Alligator	T (SA)	SSC	N	High	Most permanent bodies of fresh water, including marshes, swamps, lakes, and rivers
<i>Drymarchon couperi</i>	Eastern Indigo Snake	T	T	N	High	Broad range of habitats, from scrub and sandhill to wet prairies and mangrove swamps
<i>Gopherus polyphemus</i>	Gopher Tortoise	N	T	N	High	Dry upland habitats, including sandhills, scrub, xeric oak hammock, and dry pine flatwoods; also pastures, old fields
<i>Pituophis melanoleucus mugitus</i>	Florida Pine Snake	N	SSC	N	High	Sandhill, old fields and pastures, sand pine scrub, scrubby flatwoods
<i>Stilosoma extenuatum</i>	Short-tailed Snake	N	T	N	High	Sandhill, xeric hammock, sand pine scrub

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BIRDS						
Anatidae (family)	Geese, Ducks	N	N	Game	High	Freshwater marshes, lake margins, wet prairies
Aphelocoma coerulescens	Florida Scrub-jay	T	T	N	Low	Low-growing oak scrub habitat
Aramus guarauna	Limpkin	N	SSC	N	High	Freshwater marshes, swamps, springs, spring runs, pond, river, and lake margins
Athene cunicularia floridana	Florida Burrowing Owl	N	SSC	N	Moderate	Dry prairie, sandhill, pastures
Colinus virginianus	Northern Bobwhite	N	N	Game	High	Brushy pastures, open woodlands
Corvus spp.	Crows	N	N	Game	High	Forested areas, pastures, suburban areas
Egretta caerulea	Little Blue Heron	N	SSC	N	High	Freshwater lakes, marshes, swamps, and streams, cypress
Egretta thula	Snowy Egret	N	SSC	N	High	Wetlands, streams, lakes, and swamps, manmade impoundments, ditches
Egretta tricolor	Tricolored Heron	N	SSC	N	High	Wetlands, ditches, pond and lake edges, coastal areas
Eudocimus albus	White Ibis	N	SSC	N	High	Freshwater and brackish marshes, salt flats, forested wetlands, wet prairies, swales, man-made ditches
Falco peregrinus	Peregrine Falcon	N	E	N	High	Open land near rivers and lakes, suburban areas
Falco sparverius paulus	Southeastern American Kestrel	N	T	N	High	Open pine habitats, woodland edges, prairies, pastures
Fulica americana	American Coot	N	N	Game	High	Open ponds, marshes, coastal inlets, bays
Gallinago gallinago	Common Snipe	N	N	Game	High	Freshwater marshes, ponds, fields
Gallinula chloropus	Common Moorhen	N	N	Game	High	Freshwater marshes, ponds
Grus canadensis pratensis	Florida Sandhill Crane	N	T	N	High	Prairies, freshwater marshes, and pastures
Haliaeetus leucocephalus	Bald Eagle	N	T	N	Moderate	Coastal areas, bays, rivers, lakes, or other bodies of water
Meleagris gallopavo osceola	Florida Wild Turkey	N	N	Game	High	Oak woodlands, pine-oak forests
Mycteria americana	Wood Stork	E	E	N	High	Cypress strands and domes, mixed hardwood swamps
Picoides borealis	Red-cockaded Woodpecker	E	SSC	N	Low	Mature pine woodlands
Platalea ajaja	Roseate Spoonbill	N	SSC	N	High	Tidal flats, coastal and freshwater marshes
Rallidae (family)	Rails	N	N	Game	High	Freshwater marshes, coastal salt marshes, ditches
Scolopax minor	American Woodcock	N	N	Game	Moderate	Moist woodlands, thickets near open fields
Zenaida asiatica	White-winged Dove	N	N	Game	High	Open fields, shrubland, residential areas
Zenaida macroura	Mourning Dove	N	N	Game	High	Open fields, residential areas
MAMMALS						
Canis latrans	Coyote	N	N	Furbearer	High	Forested areas, pastures

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<i>Didelphis virginiana</i>	Virginia Opossum	N	N	Furbearer	High	Forested uplands, forested wetlands, residential areas
<i>Lynx rufus</i>	Bobcat	N	N	Furbearer	High	Large forests, swamps, hammocks
<i>Lutra canadensis</i>	River Otter	N	N	Furbearer	Low	Rivers, creeks, lakes, ponds, swamps
<i>Mephitis mephitis</i>	Striped Skunk	N	N	Furbearer	High	Brushy fields, weedy pastures, disturbed areas, residential areas
<i>Odocoileus virginianus</i>	White-tailed Deer	N	N	Game	High	Pine flatwoods, pine-oak forests, hammocks
<i>Peromyscus floridanus</i>	Florida Mouse	N	SSC	N	High	Xeric upland communities with sandy soils, including scrub, sandhill, and ruderal sites
<i>Procyon lotor</i>	Raccoon	N	N	Furbearer	High	Forested uplands, forested wetlands
<i>Sciurus carolinensis</i>	Eastern Gray Squirrel	N	N	Game	High	Forested uplands, urban areas
<i>Sciurus niger shermani</i>	Sherman's Fox Squirrel	N	SSC	N	High	Sandhills, pine flatwoods, pastures and other open, ruderal habitats with scattered pines and oaks
<i>Spilogale putorius</i>	Eastern Spotted Skunk	N	N	Furbearer	High	Brushy fields, weedy pastures, disturbed areas, residential areas
<i>Sylvilagus floridanus</i>	Eastern Cottontail	N	N	Game	High	Brushland, weed and briar patches, abandoned fields, areas fringing cultivated fields
<i>Sylvilagus palustris</i>	Marsh Rabbit	N	N	Game	High	Wet bottomlands, swamps, marshes, hammocks
<i>Ursus americanus floridanus</i>	Florida Black Bear	N	T	N	Low	Forested uplands, forested wetlands

Notes: Source:
N = Not Listed FNAI, FNAI Search, 2001
T = Threatened FNAI, FNAI Tracking List, 2008
E = Endangered
SSC = Species of Special Concern
T(SA) = Threatened due to similarity in appearance to a federally listed species
F.A.C. = Florida Administrative Code

Table 9-A7.5-1
Maximum Calculated EMF
230-kV CCRE Transmission Lines

Right-of-Way (ROW) Configuration	ROW Width (ft)	Electric Field (kV/m)			Magnetic Field (mG)	
		Within ROW	Left Edge ² of ROW	Right Edge ² of ROW	Left Edge ² of ROW	Right Edge ² of ROW
Typical tangent monopole with vertical configuration on 100-ft right-of-way	100	2.7	0.44	0.44	77.09	77.09
Typical tangent monopole with vertical configuration on 1325-ft right-of-way	1325	9	0.66	0.02	118.45	14.04
Florida EMF Rule limit for new 230-kV transmission line		8	2.00	2.00	150	150

¹ The Maximum Current Rating of the proposed 230-kV line is 3000 amperes per phase.

² Left and right side of ROW looking toward Citrus.

Table 9-A7.5-2
Maximum Calculated Audible Noise
230-kV CCRE Transmission Lines

Right-of-Way Configuration	L₅₀*
	(dBA)
Typical tangent monopole with vertical configuration on 100-ft right-of-way	39
Typical tangent monopole with vertical configuration on 1325-ft right-of-way	49

*Maximum audible noise occurs during rain or other wet weather conditions.
Noise levels will be lower during dry weather conditions.
All calculated values are rounded up to the nearest whole number.