



m·cores

MULTI-USE CORRIDORS OF REGIONAL ECONOMIC SIGNIFICANCE

Southwest-Central Florida Connector

Avoidance & Minimization Considerations



October 30, 2019

Define
Avoidance & Minimization

1

A light gray arrow pointing downwards from the first step to the second.

Review
State & Federal Regulation & Laws

2

A light gray arrow pointing downwards from the second step to the third.

Identify
Natural, cultural, social, and physical resources

3

Examples

Transportation and the environment

4



Create

Composite Map

5



Discuss

Questions & approach

6

“Altogether eliminating an adverse environmental impact from a transportation decision by not taking a certain action or parts of an action.”

Avoidance is the first step in the evaluation process

- Includes determining which environmental resource, at the **maximum extent possible**, cannot be impacted by transportation decisions

Avoidance alternatives

- Are those that entirely **avoid** the use of the environmental resource

Avoidance alternatives consider shifts

- Reduced footprints and other modifications in the project development to **preserve** and **protect** the environmental resource

“Reduce adverse impacts on the environment by a transportation decision by limiting the magnitude of the action and its implementation.”

If no feasible and prudent avoidance alternatives exist

- **Minimization** efforts should be pursued
- **Minimization** measures to reduce the impact to environmental resources

Evaluations based on availability, feasibility, viability, and cost

- Choosing the alternative that has **reduced** impacts

Considerations resulting in use of an environmental resource without a feasible and prudent avoidance alternative

- The alternative that will cause the **least** overall impact (after factoring in mitigation measures) must be considered

- The **purpose** of the Endangered Species Act is to *protect* and *recover* imperiled species and the ecosystems upon which they depend.
- It is administered by the U.S. Fish and Wildlife Service (USFWS) and the U.S. National Oceanic and Atmospheric Administration (NOAA) Fisheries Service.
- The FWS maintains a list of endangered species, which include birds, insects, fish, reptiles, mammals, crustaceans, flowers, grasses, and trees.
- Under the Endangered Species Act, species may be listed as either **endangered** or **threatened**.
 - "**Endangered**" means a species is in danger of extinction throughout all, or a significant portion of its range.
 - "**Threatened**" means a species is likely to become endangered within the foreseeable future.
- All species of plants and animals (except pest insects) are eligible for listing as endangered or threatened.

- The **Clean Water Act** is a U.S. Federal law that regulates the discharge of pollutants into the nation's surface waters, including lakes, rivers, streams, wetlands, and coastal areas.
- The **purpose** of the **Clean Water Act** is to *restore and maintain* clean and healthy waters.
- It is administered by the U.S. Army Corps of Engineers (USACE) and overseen by the U.S. Environmental Protection Agency (EPA).
- Proposed activities are regulated through a permitting process. An individual permit is required for potentially significant impacts.
- Prior to applying for a permit, the permittee must first show:
 - Steps have been taken to **avoid** impacts to wetlands, streams and other aquatic resources
 - Potential impacts have been **minimized**
 - A viable alternative **does not** exist that is less damaging to the aquatic environment
 - The nation's waters would **not** be significantly degraded
 - Compensation will be provided for all remaining unavoidable impacts

- The Department of Transportation Act (1966) *prohibits* the Federal Transit Administration (FTA) and other USDOT agencies from using land from publicly owned parks, recreation areas (including recreational trails), wildlife and waterfowl refuges, or public and private historic properties, unless:
 - there is **no feasible** and prudent alternative to the use of the land
 - the action includes all possible planning to **minimize** harm to the property resulting from use.
- Florida Historical Resources Act governs the use of publicly-owned archaeological and historical resources located on state property, both on land and in the water.
- Administered by the Florida Division of Historical Resources,
- The **purpose** of Florida's historic preservation program is to identify, register, *protect*, and *preserve* significant historical resources

■ National Register of Historic Places (NRHP):

- list of districts, structures, and objects deemed worthy of preservation for their historic significance



■ Eligible for the National Register

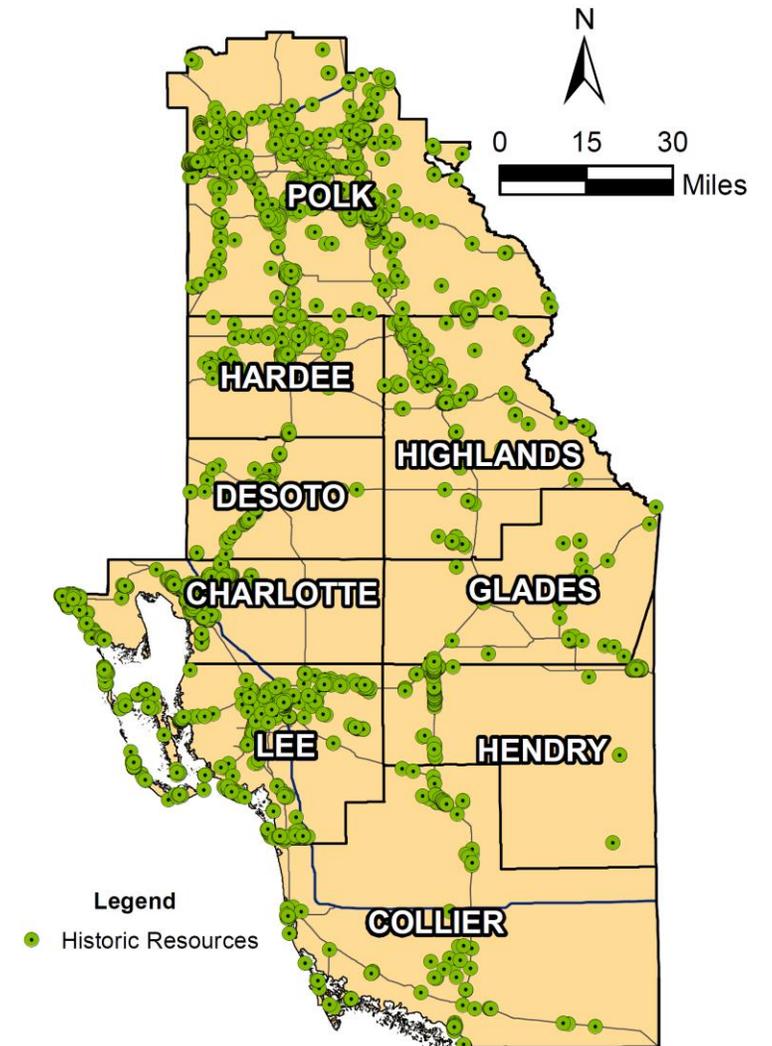
- 351 historical structures

- 14 bridges

- 7 historic cemeteries

■ Historic districts

■ Archaeological sites



- Avoid historic cemeteries completely
- Avoid any resource that is on the National Register of Historic Places
- Avoid other historic bridges, structures, buildings to the maximum extent feasible



Sanibel Island Lighthouse & Keeper's Quarters



Arcadia Historic District



Payne's Creek Massacre / Fort Chokonikla



1

American Crocodile



5

Florida Panther



9

Everglade Snail Kite



13

Bluetail Mole Skink



2

Wood Stork



6

Eastern Indigo Snake



10

Florida Grasshopper Sparrow



14

Sand Skink



3

Crested Caracara



7

West Indian Manatee



11

Ivory-Billed Woodpecker



15

Gulf Sturgeon



4

Florida Scrub-Jay



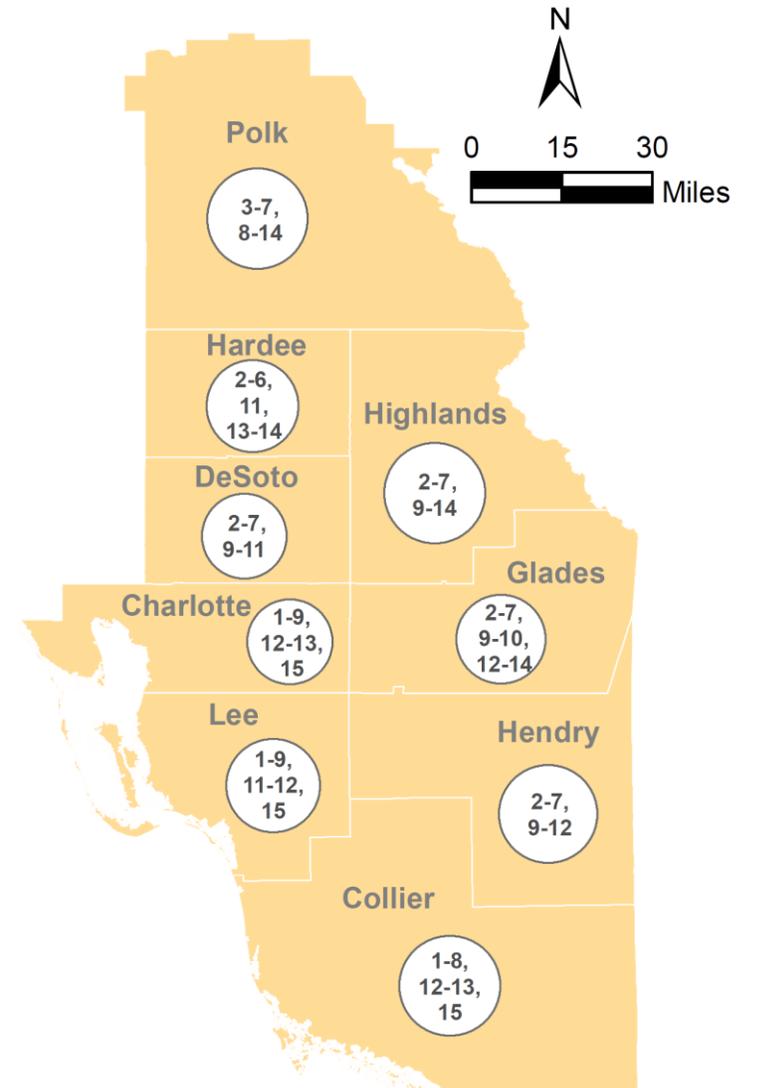
8

Florida Bonneted Bat



12

Red-cockaded Woodpecker





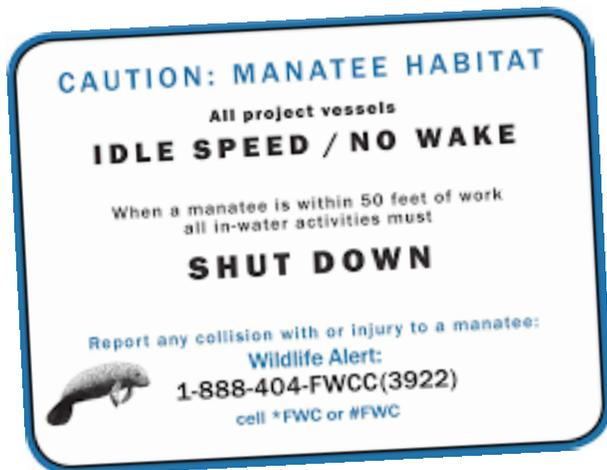
Gopher Tortoise Relocation



Bald Eagle Nest



Eastern Indigo Snake Detector Dogs



ATTENTION:
THREATENED EASTERN INDIGO
SNAKES MAY BE PRESENT ON
THIS SITE!!!



Please read the following
information provided by the
U.S. Fish and Wildlife Service
to become familiar with
standard protection measures
for the eastern indigo snake.



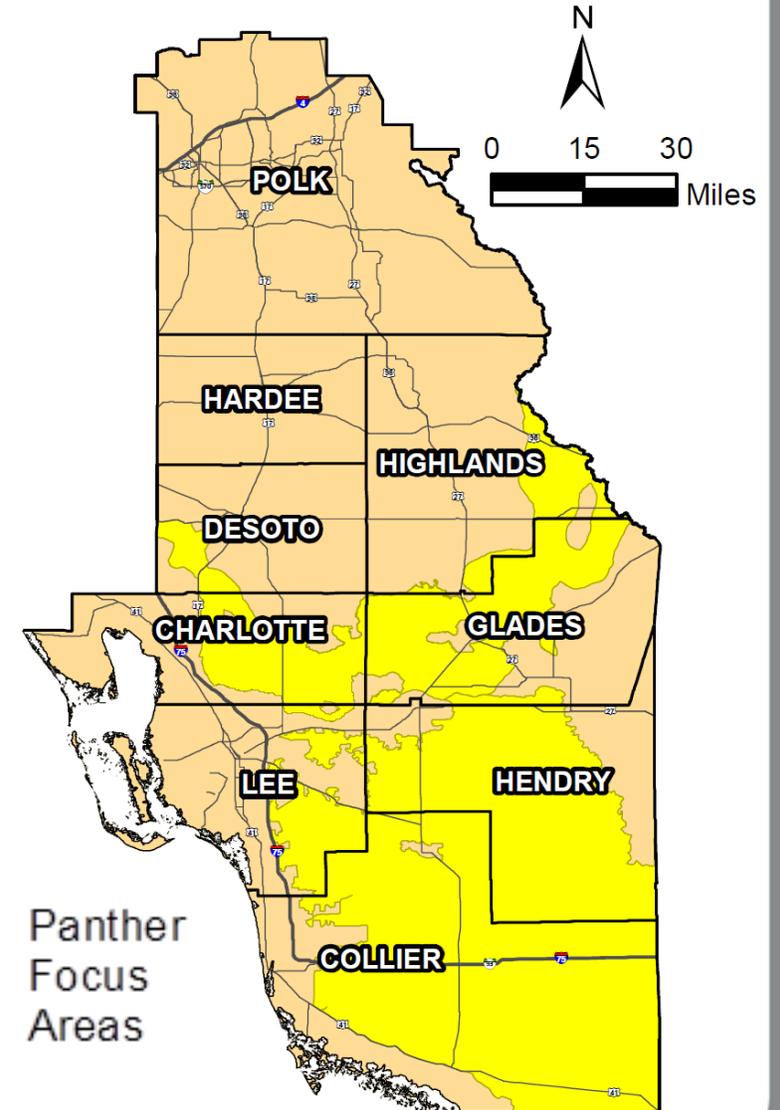
Name: Florida Panther Status: Endangered



SR 80 wildlife underpass under construction



Wildlife crossing and fencing



■ Distinct ecosystem that is flooded by water, either permanently or seasonally

■ Four Categories:

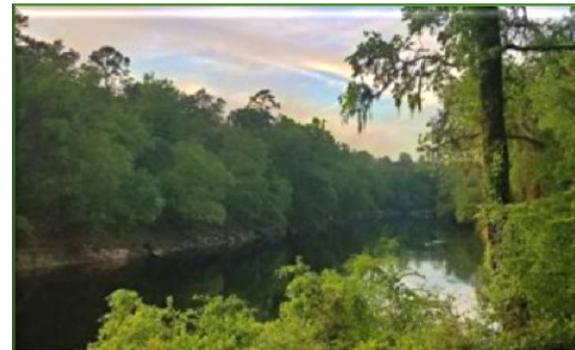
- Estuarine/Marine – wetlands associated with estuary/ocean
- Lacustrine – wetlands associated with lakes
- Riverine – wetlands associated with rivers (flowing water)
- Palustrine – freshwater wetlands



Estuarine/Marine



Lacustrine

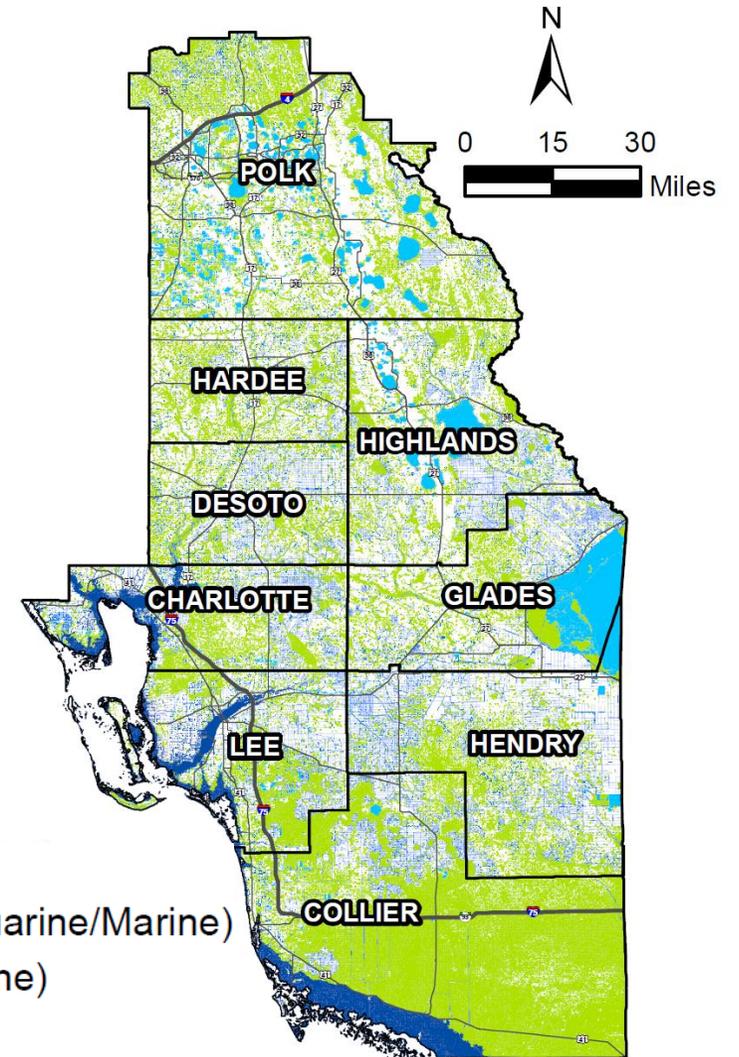


Riverine



Palustrine

- Estuary/Ocean
- Freshwater
- Lakes
- Rivers



Legend

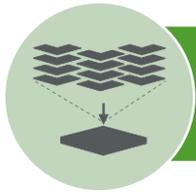
- Estuary/Ocean (Estuarine/Marine)
- Freshwater (Palustrine)
- Lake (Lacustrine)
- Rivers (Riverine)

- Avoid wetland impacts if possible
- If impacts are unavoidable, then impacts are minimized to the maximum extent feasible
- Wetland mitigation practices to be discussed at a later Task Force meeting



Description	Source
Florida Forever Lands	Florida Natural Areas Inventory
Managed Conservation Lands	Florida Natural Areas Inventory
100 Year Floodplains	FEMA
Wetlands	Water Management Districts
Agricultural Lands	Water Management Districts
Prime Farmland	Water Management Districts
Sole Source Aquifers	US Environmental Protection Agency
Spring Locations	Florida Department of Environmental Protection
Outstanding Florida Waters	Florida Department of Environmental Protection
Aquatic Preserve Boundaries	Florida Department of Environmental Protection
Surface Waters	Water Management Districts
Florida Panther Fatalities	Florida Fish and Wildlife Conservation Commission
Florida Panther Telemetry	Florida Fish and Wildlife Conservation Commission
Wildlife Crossings	Florida Department of Transportation
Florida Ecological Greenways Network	Florida Natural Areas Inventory
Critical Habitats	US Fish and Wildlife Service
Panther Focus Areas	US Fish and Wildlife Service
Strategic Habitat Conservation Areas Priorities 1 and 2	Florida Natural Areas Inventory
Wildlife Refuges	US Fish and Wildlife Service
Wildlife Management Areas	Florida Fish and Wildlife Conservation Commission

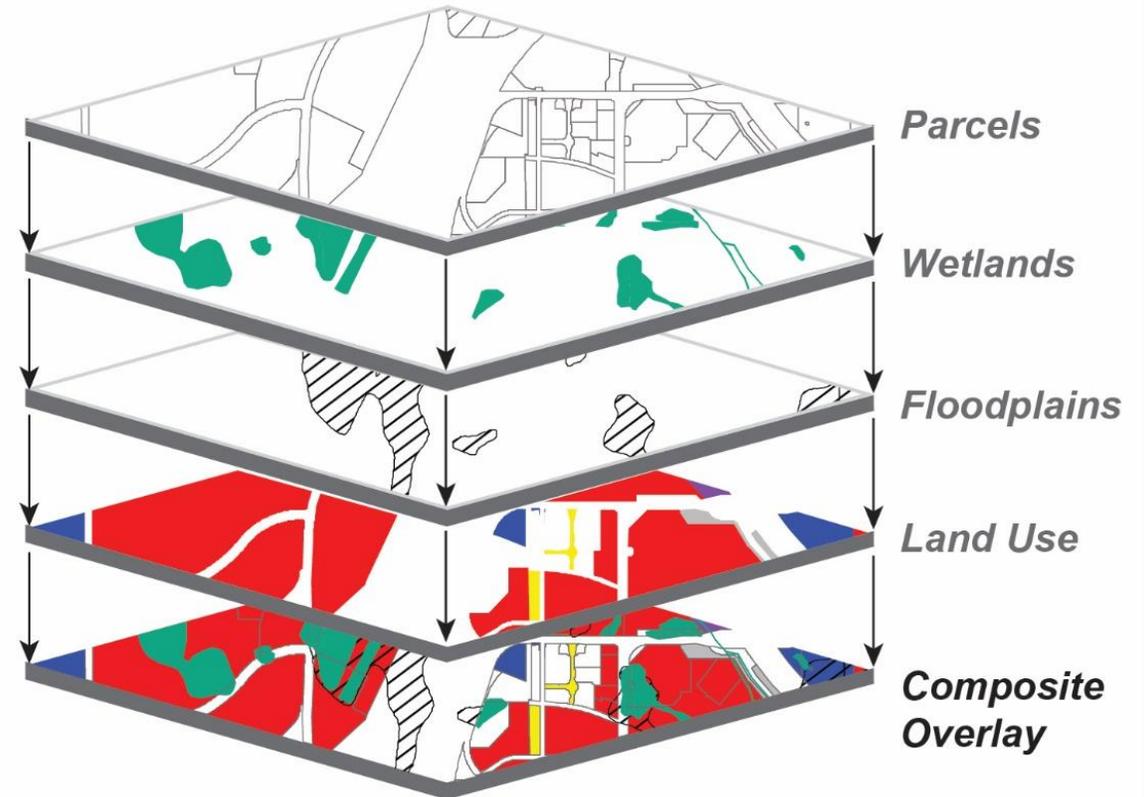
Description	Source
Active Eagle Nests	Florida Fish and Wildlife Conservation Commission
Mitigation Banks	Florida Department of Environmental Protection
Subsidence Incident Reports	Florida Department of Environmental Protection
Water Management District Lands	Water Management Districts
Wood Stork Core Foraging Areas	US Fish and Wildlife Service
Wood Stork Nesting Colonies	US Fish and Wildlife Service
USFWS Consultation Areas	US Fish and Wildlife Service
Historical Bridges	Bureau of Archaeological Research
Historical Cemeteries	Bureau of Archaeological Research
Historical Resources	Bureau of Archaeological Research
Historical Structures	Bureau of Archaeological Research
Native American Lands	University of Florida GeoPlan Center
Wading Bird Rookery Surveys	Florida Fish and Wildlife Conservation Commission
Black Bear Nuisance Reports	Florida Fish and Wildlife Conservation Commission
Black Bear Mortalities	Florida Fish and Wildlife Conservation Commission
Black Bear Ranges	Florida Fish and Wildlife Conservation Commission
Florida's Statewide Seagrass	Florida Fish and Wildlife Conservation Commission
Gulf of Mexico Essential Fish Habitats	National Oceanic and Atmospheric Administration
Navigable Waterway Network in Florida	US Department of Transportation
Cemeteries	University of Florida GeoPlan Center



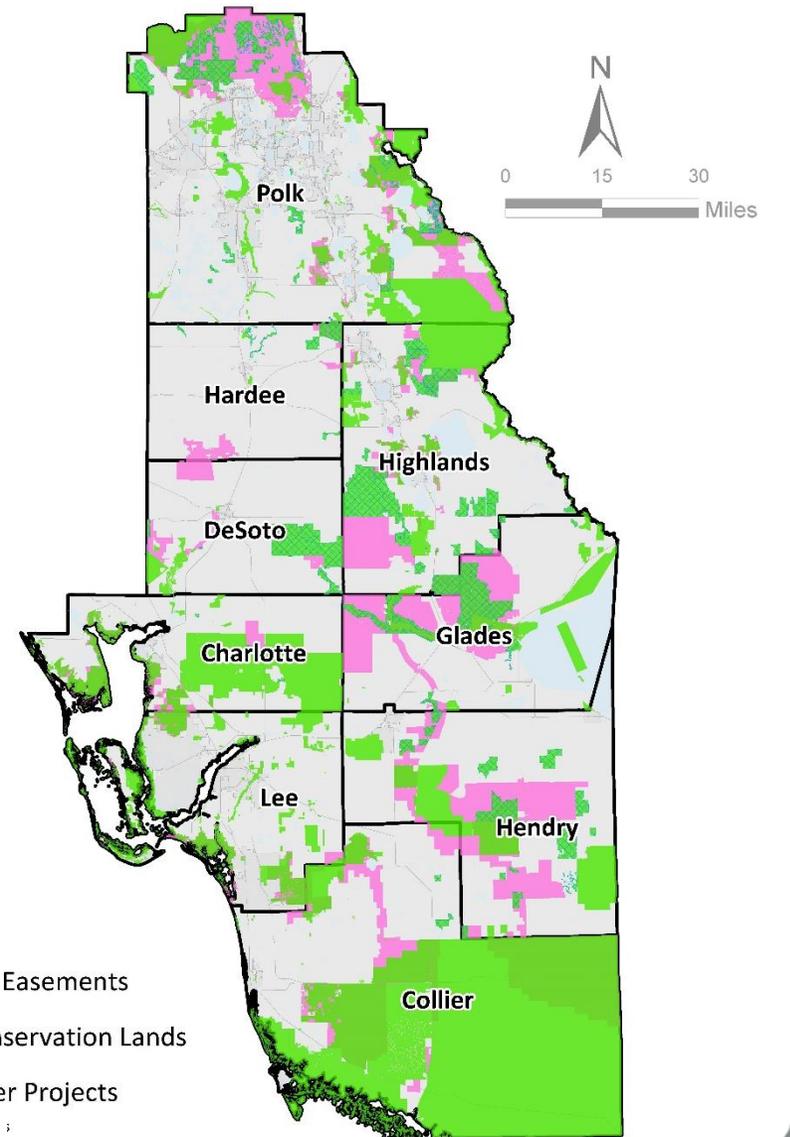
Overlay several layers on one map



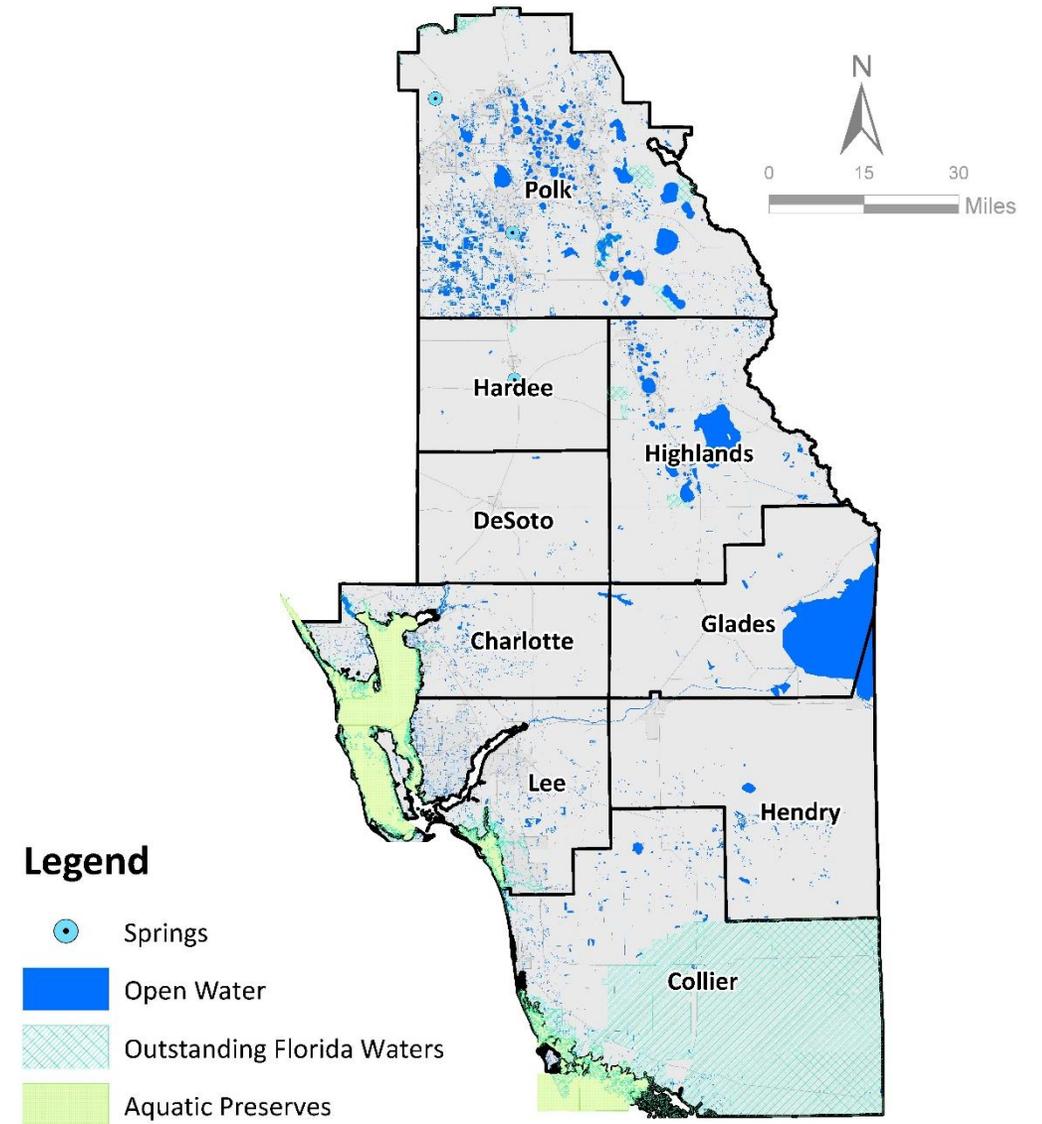
Identify opportunities & constraints



- National Parks
- State Parks
- State Forests
- Wildlife Management Areas
- Florida Forever Lands
- Conservation Easements



- Springs
- Open Water
- Outstanding Florida Waters
- Aquatic Preserves



- Farmlands of Local and Unique Importance

- Agriculture & Silviculture

- Cropland and Pasture

- Feeding Operations

- Nurseries and Vineyards

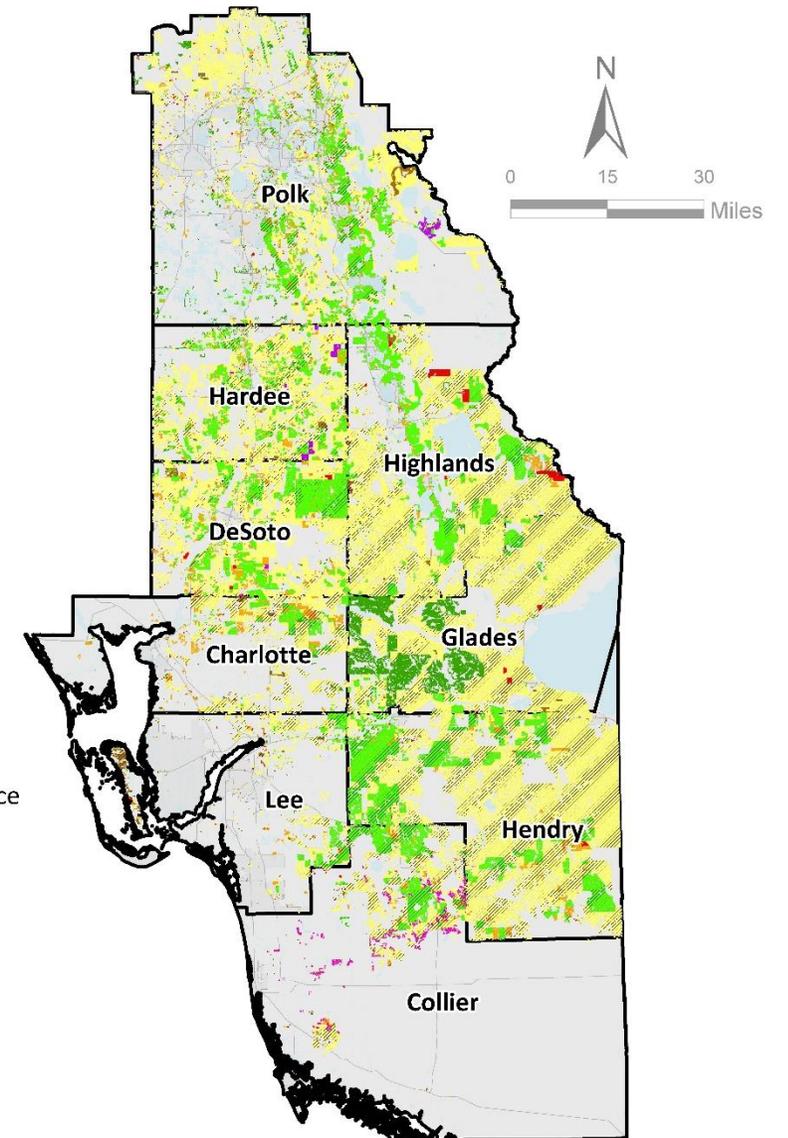
- Other Open Lands (Rural)

- Tree Crops

- Tree Plantations

Legend

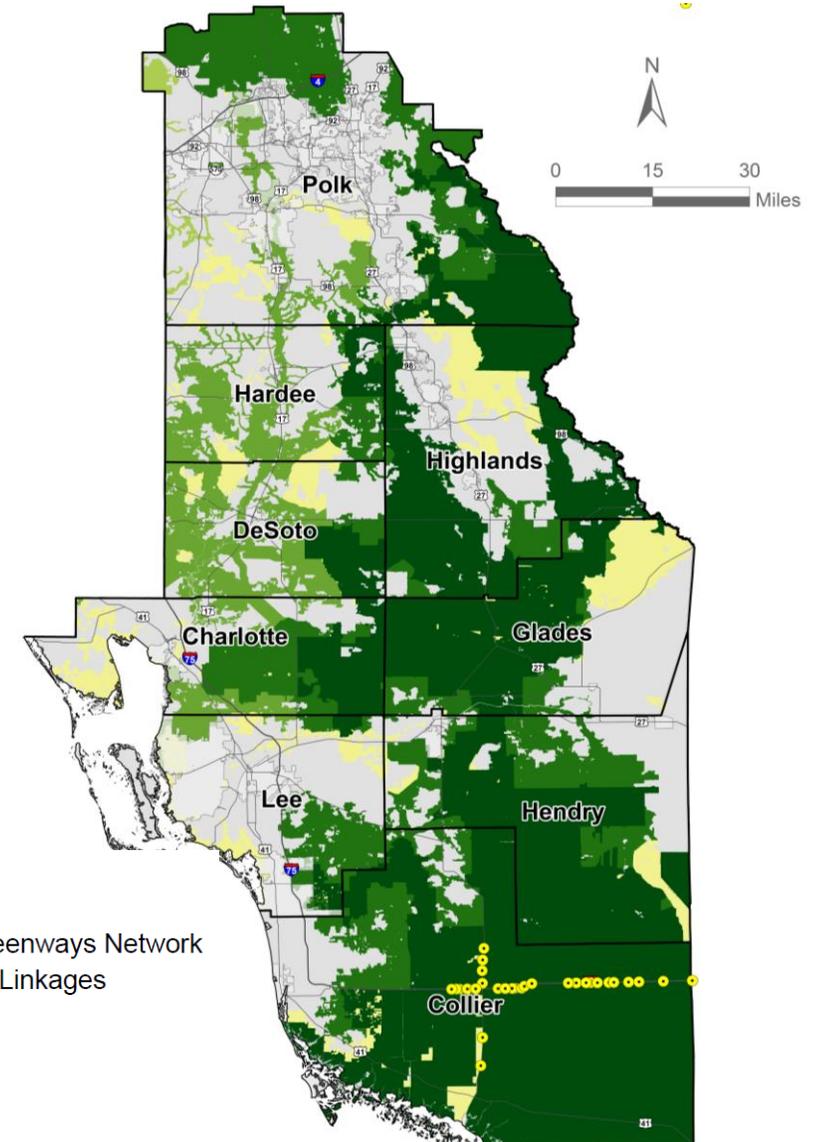
- Farmland of Local Importance
- Farmland of Unique Importance
- Cropland and Pastureland
- Tree Crops
- Feeding Operations
- Nurseries and Vineyards
- Specialty Farms
- Other Open Lands (Rural)
- Tree Plantations



- Florida Ecological Greenways Network
- Priority 1 areas are critical landscape linkages

Legend

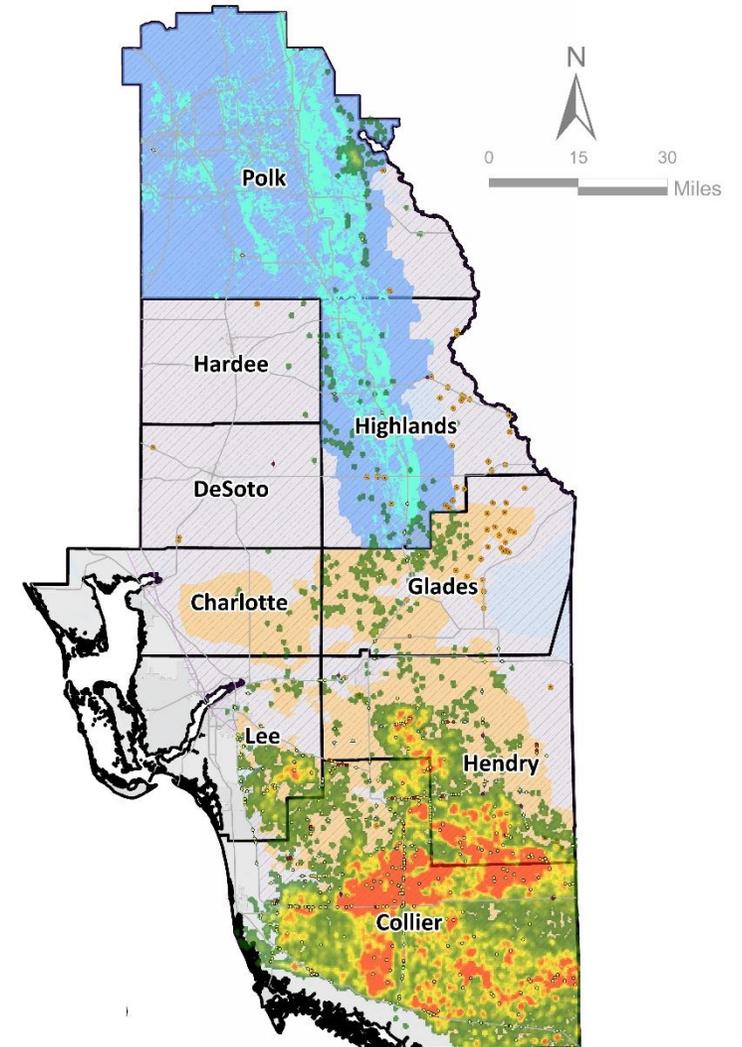
- Wildlife Crossings
- Florida Ecological Greenways Network
- Priority 1 - Critical Linkages
- Priority 2
- Priority 3
- Priority 4
- Priority 5



-  Florida Panther
-  Caracara
-  Sand and Blue-tailed Mole Skink

Legend

-  Panther Mortalities and Injuries (1972-2018)
-  Panther Vehicle Collisions from Jan 1 - Dec 31, 2017
-  Caracara Nests (2003-2015)
-  Suitable Skink Soils
-  Sand Skink Consultation Area
-  Caracara Consultation Area
-  Panther Zones
- Panther Collision Hot Spots (1972 - Dec 31, 2017)**
-  1 - 2
-  3 - 5
-  6 - 8
-  9 - 14
- Panther Telemetry - Radio Collar Locations (1981 - 2018)**
-  High
-  Low



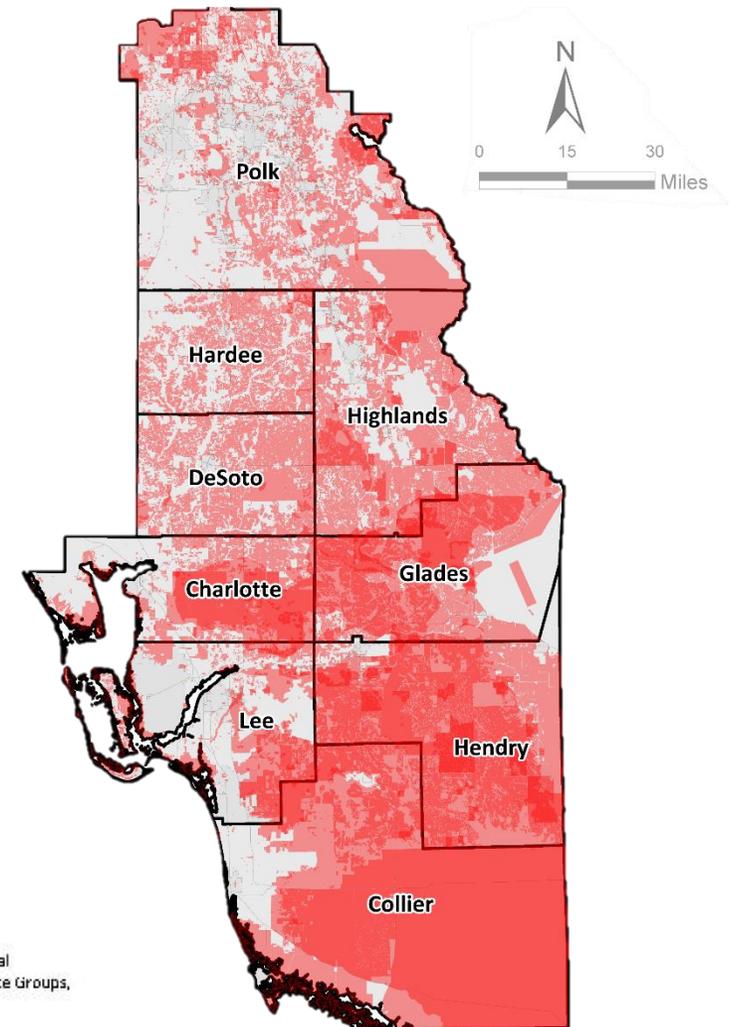
- Managed Conservation Lands
- Agricultural and Silviculture Lands
- SHPO Resource Groups (NRHP eligible and potential eligible)
- Florida Panther Focus Area

Legend

Composite Resources Overlay*

- 1 Layer
- 2 Layers
- 3 Layers
- 4 Layers

* Layers overlaid: Managed Conservation Lands, Agricultural & Silviculture, SHPO (Eligible & Potentially Eligible) Resource Groups, and Florida Panther Focus Areas





Do you have any questions?



Are we missing important layers?



What is most important to you?



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