Northern Turnpike Connector

Avoidance & Minimization Considerations

October 22, 2019
Define
Avoidance & Minimization

Review
State & Federal Regulation & Laws

Identify
Natural, cultural, social, and physical resources
Examples
Transportation and the environment

Create
Composite Map

Discuss
Questions & approach

Presentation Outline (cont.)
Avoidance is the first step in the evaluation process. It 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. They involve reduced footprints and other modifications in the project development to preserve and protect the environmental resource.

"Altogether eliminating an adverse environmental impact from a transportation decision by not taking a certain action or parts of an action."
Minimization efforts should be pursued
Minimization measures to reduce the impact to environmental resources

If no feasible and prudent **avoidance** alternatives exist

Evaluations based on availability, feasibility, viability, and cost

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

Choosing the alternative that has **reduced** impacts

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

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

- Health of our groundwater
- Support entire ecosystems
- Offer recreational opportunities such as:
  - Swimming
  - Kayaking
  - Diving

Source: Floridaspring.org; Florida Dept. of Environmental Protection, March 2019
Avoidance & Minimization in Action

- **Avoid** spring heads completely
- Conserve conveyance to water bodies
- **Minimize** impacts to aquifer recharge areas
- **Minimize** impacts to spring protection zones
- Enhance water quality within springshed recharge areas

Source: [https://www.citrusbocc.com/plandev/landdev/community/springs-of-florida.pdf](https://www.citrusbocc.com/plandev/landdev/community/springs-of-florida.pdf); floridastateparks.org
Historic Preservation

- **National Register of Historic Places (NRHP):**
  - List of districts, structures, and objects deemed worthy of preservation for their historic significance

- **State Historic Preservation Office (SHPO) Evaluation**
  - Surveys and recognizes historic properties, and reviews nominations for properties to be listed under the NRHP

- **Listed On National Registered of Historic Places (NRHP)**
  - Meets one of the four criteria: be associated with a historical event or person, have distinctive architecture/construction or likely to yield information about history
Historic Resources

- Eligible for the National Register
  - 127 historical structures
  - 7 bridges
- 4 historic cemeteries
- Historic districts
- Archaeological sites

Source: National Register of Historic Places, April 2019
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
Threatened & Endangered Species

1. Eastern Indigo Snake
2. Florida Scrub-Jay
3. Red-cockaded Woodpecker
4. Wood Stork
5. West Indian Manatee
6. Florida Salt Marsh Vole
7. Red Knot
8. Sand Skink
9. Frosted Flatwoods Salamander
10. Gulf Sturgeon
11. Loggerhead Sea Turtle

Source: US Fish & Wildlife Service, August 2018
Avoidance & Minimization in Action

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.

CAUTION: MANATEE HABITAT
All project vessels
**IDLE SPEED / NO WAKE**
When a manatee is within 50 feet of work all in-water activities must
**SHUT DOWN**
Report any collision with or injury to a manatee:
**Wildlife Alert:**
1-888-404-FWCC(3922)
cell *FWC or FWC
Wetlands

- 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
- Estuary/Ocean
- Freshwater
- Lakes
- Rivers
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

Source: ifas.ufl.edu
<table>
<thead>
<tr>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida Forever Acquired Lands</td>
<td>Florida Natural Areas Inventory</td>
</tr>
<tr>
<td>Managed Conservation Lands</td>
<td>Florida Natural Areas Inventory</td>
</tr>
<tr>
<td>100 Year Floodplains</td>
<td>FEMA</td>
</tr>
<tr>
<td>Wetlands</td>
<td>Water Management Districts</td>
</tr>
<tr>
<td>Farmland Preservation Areas</td>
<td>Marion County</td>
</tr>
<tr>
<td>Agricultural Lands</td>
<td>Water Management Districts</td>
</tr>
<tr>
<td>Prime Farmland</td>
<td>Water Management Districts</td>
</tr>
<tr>
<td>Aquifer Recharge Areas</td>
<td>Saint John’s River Water Management District</td>
</tr>
<tr>
<td>Spring Protection Zones and Spring Priority Focus Areas</td>
<td>Florida Department of Environmental Protection</td>
</tr>
<tr>
<td>Spring Locations</td>
<td>Florida Department of Environmental Protection</td>
</tr>
<tr>
<td>Outstanding Florida Waters</td>
<td>Florida Department of Environmental Protection</td>
</tr>
<tr>
<td>Aquatic Preserve Boundaries</td>
<td>Florida Department of Environmental Protection</td>
</tr>
<tr>
<td>Surface Waters</td>
<td>Water Management Districts</td>
</tr>
<tr>
<td>Wildlife Crossings</td>
<td>Florida Department of Transportation</td>
</tr>
<tr>
<td>Florida Ecological Greenways Network</td>
<td>Florida Natural Areas Inventory</td>
</tr>
<tr>
<td>Critical Habitats</td>
<td>US Fish and Wildlife Service</td>
</tr>
<tr>
<td>Panther Consultation Area</td>
<td>US Fish and Wildlife Service</td>
</tr>
<tr>
<td>Strategic Habitat Conservation Areas Priorities 1 and 2</td>
<td>Florida Natural Areas Inventory</td>
</tr>
<tr>
<td>Wildlife Refuges</td>
<td>US Fish and Wildlife Service</td>
</tr>
<tr>
<td>Wildlife management areas</td>
<td>Florida Fish and Wildlife Conservation Commission</td>
</tr>
<tr>
<td>Description</td>
<td>Source</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>Eagle Nests</td>
<td>Florida Fish and Wildlife Conservation Commission</td>
</tr>
<tr>
<td>Mitigation Banks</td>
<td>Florida Department of Environmental Protection</td>
</tr>
<tr>
<td>Subsidence Incident Reports</td>
<td>Florida Department of Environmental Protection</td>
</tr>
<tr>
<td>Water Management District Lands</td>
<td>Water Management Districts</td>
</tr>
<tr>
<td>Florida Forever Targeted Property</td>
<td>Florida Natural Areas Inventory</td>
</tr>
<tr>
<td>Florida Wood Stork Core Foraging Areas</td>
<td>US Fish and Wildlife Service</td>
</tr>
<tr>
<td>Florida Wood Stork Nesting Colonies</td>
<td>US Fish and Wildlife Service</td>
</tr>
<tr>
<td>Statewide Protected Species Consultation Areas</td>
<td>US Fish and Wildlife Service</td>
</tr>
<tr>
<td>Historical Bridges</td>
<td>Bureau of Archaeological Research</td>
</tr>
<tr>
<td>Historical Cemeteries</td>
<td>Bureau of Archaeological Research</td>
</tr>
<tr>
<td>Historical Resources</td>
<td>Bureau of Archaeological Research</td>
</tr>
<tr>
<td>Historical Structures</td>
<td>Bureau of Archaeological Research</td>
</tr>
<tr>
<td>Native American Lands</td>
<td>University of Florida GeoPlan Center</td>
</tr>
<tr>
<td>Gopher Tortoise Relocation Permit Recipient Sites</td>
<td>Fish and Wildlife Research Institute</td>
</tr>
<tr>
<td>Wading Bird Rookery Surveys</td>
<td>Florida Fish and Wildlife Conservation Commission</td>
</tr>
<tr>
<td>Black Bear Ranges Within the State of Florida</td>
<td>Florida Fish and Wildlife Conservation Commission</td>
</tr>
<tr>
<td>Florida’s Statewide Seagrass</td>
<td>Florida Fish and Wildlife Conservation Commission</td>
</tr>
<tr>
<td>Gulf of Mexico Essential Fish Habitats</td>
<td>National Oceanic and Atmospheric Administration</td>
</tr>
<tr>
<td>Navigable Waterway Network in Florida</td>
<td>US Department of Transportation</td>
</tr>
<tr>
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</tr>
</tbody>
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Composite GIS Map Concept

- Overlay several layers on one map
- Identify opportunities & constraints
Conservation Lands Composite GIS Map

- State Parks
- State Forests
- Wildlife Management Areas
- Florida Forever Acquired Lands
- Water Management District Lands
- Conservation Lands
- Spring Locations
- Open Water
- Aquatic Preserves
- Outstanding Florida Waters
- Spring Priority Focus Areas
Agriculture Composite GIS Map

- Farmland Preservation Areas
- Agriculture & Silviculture
  - Cropland and Pasture
  - Feeding Operations
  - Nurseries and Vineyards
  - Other Open Lands (Rural)
  - Tree Crops
  - Tree Plantations

Legend:
- Farmland Preservation Areas
- Agriculture & Silviculture
- Cropland and Pastureland
- Feeding Operations
- Nurseries and Vineyards
- Other Open Lands (Rural)
- Specialty Farms
- Tree Crops
- Tree Plantations
Florida Ecological Greenways Network

Priority 1 areas are critical landscape linkages

Legend

- Priority 1 - Critical Linkages
- Priority 2
- Priority 3
- Priority 4
- Priority 5

This rank represents Florida Natural Areas Inventory assessment of opportunities for statewide system of landscape hubs, linkages, and conservation corridors. Prioritization is based on factors such as importance for wide-ranging species, importance for maintaining a connected reserve network, and riparian corridors. Priority 1 is the highest and represents critical landscape linkages that are considered most important for completing a statewide ecological network of public and private conservation lands.
GIS Map created by overlaying:

- Managed Conservation Lands
- Spring Priority Focus Areas
- Critical Habitats
- Agricultural Lands
<table>
<thead>
<tr>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have any questions?</td>
</tr>
<tr>
<td>Are we missing important layers?</td>
</tr>
<tr>
<td>What is most important to you?</td>
</tr>
</tbody>
</table>