Presentation Outline

Define
Avoidance & Minimization

Review
State & Federal Regulation & Laws

Identify
Environmental resources: natural, cultural, social, & physical
Examples
Transportation & the environment

Create
Composite Map

Discuss
Questions & approach
AVOIDANCE

“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
### Minimization

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

<table>
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<tr>
<th>Condition</th>
<th>Action</th>
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| 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 **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 **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 National Historic Preservation Act of 1966, was passed primarily to acknowledge the importance of protecting our nation’s heritage by preserving historical and archaeological sites.

Administered by the State Historic Preservation Office (SHPO)

The purpose of the National Historic Preservation Act is:
- Set Federal Policy for preserving our Nation’s Heritage
- Establish a Federal-State and Federal-Tribal Partnership
- Establish a National Register of Historic Places and Landmarks
- Requires a Qualified State Historic Preservation Officer
- Charges Federal Agencies with Responsible Stewardship

All properties over 50 years old

State Historic Preservation Office (SHPO) Evaluation

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.
Springs

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

Source: Florida Dept. of Environmental Protection, March 2019
Avoid spring heads completely
Conserve conveyance to water bodies
Minimize impacts to aquifer recharge areas
Minimize impacts to spring protection zones
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
Wetland Type | Counties (acres) | Total (acres)
--- | --- | ---
Estuary/Ocean | 27,766 | 27,766
Freshwater | 284,875 | 434,626
Lakes | 699 | 1,549
Rivers | 812 | 2,027

- 40% of Taylor County is wetlands
- 43% of Lafayette County is wetlands

Source: U.S. Fish and Wildlife Service, October 2018
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
Threatened & Endangered Species

1. West Indian Manatee
2. Piping Plover
3. Red Knot
4. Red-cockaded Woodpecker
5. Wood Stork
6. Eastern Indigo Snake
7. Gopher Tortoise
8. Sandhill Crane
9. Atlantic Sturgeon
10. Miccosukee Gooseberry
11. Suwannee Moccasin Shell
12. Loggerhead Sea Turtle
13. Frosted Flatwoods Salamander
14. Florida Salt Marsh Vole
15. Florida Scrub-Jay

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!!!

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

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.
Historic Resources

Source: National Register of Historic Places, April 2019

- **Jefferson County**
  - 23 NRHP Sites

- **Madison County**
  - 8 NRHP Sites

1. Bishop Burkart House
2. Letchworth Mounds Archaeological Site
3. Lloyd Bond House
4. Lyndhurst Plantation
5. Bishop-Andrews Hotel
6. Chandler Holmes Smith House

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, and buildings to the maximum extent feasible
Example: State Road 20 house relocation
  - Relocated & refurbished
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<td>Florida Natural Areas Inventory</td>
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### Additional Avoidance & Minimization GIS Layers

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Composite GIS Map Concept

Overlay several layers on one map

Identify opportunities & constraints
Managed Conservation Lands
- State Parks
- National Parks
- Water Management District Lands

Florida Forever Lands
Water Quality GIS Map

- Spring Locations
- Open Waters
- Spring Priority Focus Areas
- Aquatic Preserve Boundaries
- Outstanding Florida Waters

Legend
- Springs
- Open Water
- Aquatic Preserves
- Outstanding Florida Waters
- Springs Priority Focus Areas
Prime Farmland

Agricultural Lands
Florida Ecological Greenways Network
- Managed Conservation Lands
- Spring Priority Focus Areas
- Florida Ecological Greenways
- Critical Habitats
- Agricultural Lands
FloridaMCORES.com