

CHAPTER 18 WETLANDS AND OTHER SURFACE WATERS

TABLE OF CONTENTS

18-1	OVERVIEW	18-1
	18-1.1 Waters of the United States Definition.....	18-1
	18-1.2 Wetlands and Other Surface Waters Definitions	18-2
	18-1.3 Regulation of Wetlands and Other Surface Waters.....	18-3
	18-1.4 Federal Highway Administration Wetlands Policy and Guidance	18-4
	18-1.5 FDOT Wetland Evaluation Process.....	18-6
18-2	PROCEDURE	18-7
	18-2.1 Advance Notification	18-7
	18-2.2 Wetland Evaluation	18-7
	18-2.3 Conceptual Mitigation Plan	18-10
	18-2.3.1 Federal Highway Administration Policy and Participation ...	18-10
	18-2.3.2 Determining Mitigation	18-11
	18-2.4 Documentation.....	18-12
	18-2.4.1 Categorical Exclusions	18-12
	18-2.4.2 Environmental Assessment and Environmental Impact Statement.....	18-13
	18-2.4.2.1 Affected Environment Section of Environmental Impact Statement	18-13
	18-2.4.2.2 Impacts / Environmental Consequences Sections of Environmental Assessment or Environmental Impact Statement.....	18-13
	18-2.4.3 Finding of No Significant Impact and Final Environmental Impact Statement.....	18-15
	18-2.4.4 State Environmental Impact Report.....	18-16
	18-2.5 Public Notice of Wetland Involvement.....	18-16
	18-2.6 Integrating National Environmental Policy Act and Section 404(b)(1) Guidelines.....	18-16
	18-2.6.1 Process.....	18-17
	18-2.7 Permits for Wetland Impacts	18-18
	18-2.8 Reevaluation	18-18

18-2.9	Design and Construction	18-18
18-3	REFERENCES	18-20
18-4	HISTORY	18-22

LIST OF FIGURES

FIGURE 18.1	Wetland Evaluation Process	18-23
FIGURE 18.2	DEP, WMDs and USACE Mitigation Information.....	18-24

18. WETLANDS AND OTHER SURFACE WATERS

18-1 OVERVIEW

Wetlands and other surface waters provide important and beneficial functions including: protecting and improving water quality, providing fish and wildlife habitat, and storing floodwaters. They are protected at the federal and state level because of the important functions they perform. The *Rivers and Harbors Act, Clean Water Act (CWA)*, and associated regulations set forth a goal of restoring and maintaining existing aquatic resources. This requires that agencies strive to first avoid adverse impacts, and then minimize adverse impacts, and finally offset unavoidable adverse impacts to existing aquatic resources; and for wetlands, strive to achieve a goal of no overall net loss of values and functions. This chapter provides procedures for identifying, evaluating and documenting potential wetland and other surface waters impacts associated with transportation projects. Additionally the chapter describes regulatory mitigation requirements.

At the federal level, waters of the United States (wetlands and other surface waters) are regulated by the United States Army Corps of Engineers (USACE) with support from United States Environmental Protection Agency (EPA), United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). In Florida, wetlands and other surface waters are regulated by the Florida Department of Environmental Protection (DEP) and the Water Management Districts (WMDs). It should also be noted that Broward and Hillsborough counties are delegated permitting authority by the regulatory agencies. When it is determined that there are unavoidable adverse impacts to wetlands, compensatory mitigation is required pursuant to **33 CFR 325 and 332, 40 CFR 230, and Section 373.4137, Florida Statutes (F.S.)**. This chapter also discusses coordination and interaction with the appropriate agencies throughout the process.

18-1.1 Waters of the United States Definition

The term “waters of the United States” as defined in **33 CFR Part 328** means:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide
2. All interstate waters including interstate wetlands
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters

- a. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - c. Which are used or could be used for industrial purpose by industries in interstate commerce
4. All impoundments of waters otherwise defined as waters of the United States under the definition
 5. Tributaries of waters
 6. The territorial seas
 7. Wetlands adjacent to waters (other than waters that are themselves wetlands)
 8. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of cropland by any other federal agency, for the purposes of the **CWA**, the final authority regarding **CWA** jurisdiction remains with EPA. Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of **CWA** (other than cooling ponds as defined in **40 CFR 423.11(m)** which also meet the criteria of this definition) are not waters of the United States

18-1.2 Wetlands and Other Surface Waters Definitions

The Florida Department of Transportation (FDOT) and Federal Highway Administration (FHWA) use the following wetlands definitions. These definitions include three basic elements for identifying wetlands: hydrology, vegetation, and soils.

1. Wetlands, as defined by ***U.S. Department of Transportation (USDOT) Order 5660.1A***, are "lowlands covered with shallow and sometimes temporary or intermittent waters. This includes, but is not limited to, swamps, marshes, bogs, sloughs, potholes, wet meadows, river overflows, tidal overflows, estuarine areas, and shallow lakes and ponds with emergent vegetation. Areas covered with water for such a short time that there is no effect on moist-soil vegetation are not included in the definition, nor are the permanent waters of streams, reservoirs, and deep lakes".
2. Wetlands, as stated in ***33 CFR 328.3(b)*** and as used by the USACE in administering ***Section 404*** of the **CWA**, are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a

prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas”.

3. Wetlands, as defined by **Section 373.019(27) F.S.**, are “those areas that are inundated or saturated by surface water or ground water at a frequency and a duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils. Soils present in wetlands generally are classified as hydric or alluvial, or possess characteristics that are associated with reducing soil conditions. The prevalent vegetation in wetlands generally consists of facultative or obligate hydrophytic macrophytes that are typically adapted to areas having soil conditions described above. These species, due to morphological, physiological, or reproductive adaptations, have the ability to grow, reproduce, or persist in aquatic environments or anaerobic soil conditions. Florida wetlands generally include swamps, marshes, bayheads, bogs, cypress domes and strands, sloughs, wet prairies, riverine swamps and marshes, hydric seepage slopes, tidal marshes, mangrove swamps and other similar areas. Florida wetlands generally do not include longleaf or slash pine flatwoods with an understory dominated by saw palmetto”.
4. Surface waters are defined by **Section 373.019(21) F.S.**, as waters on the surface of the earth, contained in bounds created naturally or artificially, including, the Atlantic Ocean, the Gulf of Mexico, bays, bayous, sounds, estuaries, lagoons, lakes, ponds, impoundments, rivers, streams, springs, creeks, branches, sloughs, tributaries, and other watercourses.

18-1.3 Regulation of Wetlands and Other Surface Waters

The USACE authority to regulate work in the Nations’ waters comes from **Section 10** of the **Rivers and Harbors Act of 1899**, which established permit requirements to prevent unauthorized obstruction or alteration of any navigable water of the United States, and **Section 404** of the **CWA**, which authorizes the USACE to require permits for the discharge of dredged or fill material into waters of the United States at specified disposal sites. The USACE is the federal agency responsible for permitting wetland impacts, with oversight by the EPA. The USFWS and NMFS serve in a commenting role to the USACE with respect to their jurisdictional responsibilities.

Section 404 of the **Clean Water Act** also established a state regulatory authority over wetlands as they relate to water quality impacts. In Florida, state authority over activities in surface waters and wetlands is administered by the DEP and the five WMDs. The Florida Fish and Wildlife Conservation Commission (FWC) advises the DEP and WMDs on wildlife issues as a requirement under Florida’s Environmental Resource Permit (ERP) Program.

Wetlands are one of the public interest factors identified in **33 CFR 320.4 Public Interest Review**. If a **Section 404** permit is being pursued, the public interest factors relevant to each alternative should be evaluated and balanced. Relevant factors may

include conservation, economics, aesthetics, wetlands, cultural values, navigation, fish and wildlife values, water supply, water quality, and any other factors judged important to the needs and welfare of the people.

A methodology for identifying and delineating wetlands in Florida is provided in **Rule 62-340, Florida Administrative Code (F.A.C.), Delineation of the Landward Extent of Wetlands and Surface Waters**. This methodology is a unified statewide approach to wetland and other surface water delineation and recognizes the vegetation, hydrologic, and soil features that specifically exist in Florida. The USACE uses the **Corps of Engineers Wetland Delineation Manual, 1987** and **Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region, 2010** to determine the federal wetland jurisdictional boundary. State and federal wetland boundaries may or may not match one another, so confirmation on this boundary should be obtained from each agency.

The Uniform Mitigation Assessment Method (UMAM) detailed in **Chapter 62-345 F.A.C.** is the state-wide method to determine the amount of mitigation required for regulatory permits. It is used to determine the functional value provided by wetlands and other surface waters. In some cases, the USACE's Wetland Rapid Assessment Procedure (WRAP) may need to be used in order to utilize a mitigation bank that was permitted under WRAP and not UMAM. Regulatory agency coordination is required for sites where other assessment methodologies were used.

18-1.4 Federal Highway Administration Wetlands Policy and Guidance

Presidential Executive Order (EO) 11990 entitled, "Protection of Wetlands", establishes a National Policy to "avoid to the extent possible the long and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative".

The USDOT in implementing **EO 11990** set forth its policy on wetlands in **USDOT Order 5660.1A**, Preservation of the Nation's Wetlands, which is "to assure the protection, preservation, and enhancement of the Nation's wetlands to the fullest extent practicable during the planning, construction and operation of transportation facilities and projects. New construction in wetlands shall be avoided unless there is no practicable alternative to the construction and the proposed action includes all practicable measures to minimize harm to wetlands which may result from such construction. In making a finding of no practicable alternative, economic, environmental, and other factors may be taken into account. Some additional cost alone will not necessarily render alternatives or minimization measures impracticable, since additional cost would normally be recognized as necessary and justified to meet national wetland policy objectives". More guidance on practicable alternatives is provided in **40 CFR 230.10(a)**.

To fulfill the requirements of **USDOT Order 5660.1A**, FHWA has issued a **Technical Advisory T6640.8A**, which provides guidance on the preparation of Environmental Documents, including the assessment of project impacts on wetlands.

As stated in **Technical Advisory T6640.8A**, for an Environmental Impact Statement (EIS) or an Environmental Assessment (EA) where wetland impacts may be significant, the Environmental Document should:

1. Identify the type, quality and function of wetlands involved
2. Describe the direct and indirect impacts to the wetlands that may result from the proposed alternative(s)
3. Evaluate alternatives which would avoid wetland impacts
4. Identify practicable measures to minimize harm to wetlands

In evaluating the impact of the proposed project on wetlands, the following should be addressed:

1. The importance of the impacted wetland(s)
 - a. The primary functions of the wetlands (e.g., flood control, wildlife habitat, ground water recharge, etc.)
 - b. The relative importance of these functions to the total wetland resource of the area
 - c. Other factors such as uniqueness that may contribute to the wetlands importance
2. The severity of the impact
 - a. The analysis should show the project's effects on the stability and quality of the wetland(s)
 - b. The analysis should consider the short and long-term effects on the wetlands and the importance of any loss

FHWA's policy and procedures for the evaluation and mitigation of adverse environmental impacts to wetlands and natural habitat resulting from federal-aid projects are contained in **23 CFR 777**. FHWA's **Environmental Policy Statement** (1990, amended 1994), states that FHWA will "fully participate in the costs of environmental mitigation for project impacts that are necessary to satisfy federal law while ensuring that mitigation necessitated by state law and all environmental enhancement measures represent a reasonable expenditure of highway funds".

The FDOT should reach early resolution with all federal and state regulatory agencies and regulatory review agencies regarding acceptable mitigation opportunities for a project. Coordination with all parties, including FHWA, and documentation of all coordination and agreements must be a part of the wetland section of the Environmental Document. The integration of the **National Environmental Policy Act (NEPA)** process with **Section 404(b)(1)** Guidelines is desirable (**Section 18-2.6**).

For non-federal projects, documented as State Environmental Impact Reports (SEIRs), it is recommended that the process be the same or similar to federal projects in the event that federal funding is needed at a later time or to avoid any unnecessary delay when requesting permits from federal agencies. For non-federal projects which the District determines will have a significant environmental impact, the District may opt to prepare the SEIR similar in scope and format to an EIS. For more information about developing SEIRs, see **Part 1, Chapter 10, Non-Federal Projects**.

18-1.5 FDOT Wetland Evaluation Process

Involvement with wetlands and other surface waters should be evaluated regardless of whether the project is required to meet **NEPA** or state requirements or qualifies for Environmental Screening Tool (EST) screening or not. See **Part 1, Chapter 2 Environmental Class of Action Determination** for project types qualifying for EST screening. **Figure 18.1** provides a flow chart of the wetland evaluation process. The term “wetlands” is used throughout this chapter and includes other surface waters. Other surface waters are included in the wetland evaluation.

For projects qualifying for EST screening, the District uses information from the **Programming Screen Summary Report** to determine the project’s involvement with wetlands. The analyst should review Environmental Technical Advisory Team (ETAT) comments made for the “Potential Navigable Waterways” and “Wetlands” issues and coordinate with appropriate District staff (e.g. Environmental Administrator, Permits Coordinator, etc.). It may also be helpful to review ETAT comments on other related issues such as “Coastal and Marine”, “Water Quality and Quantity”, and in some cases “Wildlife and Habitat”. Comments from agencies that regulate wetlands (such as USACE, DEP and WMDs) are especially important. The results of the screening can help the District identify the level of evaluation that may be needed, if any permits may be necessary, and whether any potential mitigation opportunities in the project area exist. The report may state specifically that a wetland evaluation or a **Wetland Evaluation Report (WER)** is needed in the “List of Technical Studies” section of the report. Other sections of the report may be useful such as the “General Project Commitments” and “Permits” sections. At the beginning of the Project Development and Environment (PD&E) process, it is important to contact the applicable agency to confirm their recommendations made during the EST screening events and to ensure wetland issues are addressed.

Regardless of the Environmental Document to be produced, wetland involvement or impacts must be addressed in the appropriate wetland section. For the purposes of this chapter, the term “wetland section” means the location where wetland involvement or impacts are discussed in the Environmental Document. The title of the wetland section varies with the Class of Action (see **Section 18-2.4**). Wetland evaluations and impact analyses conducted during the PD&E phase are detailed in the **WER**. The **WER** contains the identification and description of the potential wetland resources involved, a wetland functional assessment, and an analysis of wetland impacts for each project alternative, as appropriate. The **WER** also contains an evaluation of options for wetland impact avoidance and minimization, and compensatory mitigation opportunities for unavoidable impacts. A formal “Wetlands Finding” is required for all projects processed as Type 2 Categorical Exclusions, EA with Finding of No Significant Impacts (FONSI), and Final Environmental Impact Statements (FEISs) as described in **Sections 18-2.4.1** and **18-2.4.3**. Potential wetland involvement must also be identified in the public hearing advertisement and presentation procedure as described in **Section 18-2.5**.

18-2 PROCEDURE

18-2.1 Advance Notification

For projects qualifying for EST screening, the proposed project is entered into the EST by the Efficient Transportation Decision Making (ETDM) Coordinator (See the **ETDM Planning and Programming Manual, Topic No. 650-000-002**). The Advance Notification (AN) package is distributed electronically as part of the programming screening event in the EST (**Part 1, Chapter 3, Preliminary Environmental Discussion and Advance Notification**).

Wetland information is included in the Preliminary Environmental Discussion (PED) section of the Fact Sheet and includes the District’s initial consideration of potential involvement with wetland resources within the project. The PED should also identify the location of potential jurisdictional wetlands (as defined by the DEP, WMD, and/or the USACE) and provide a description of how the wetlands are to be evaluated in the PD&E Study. The Fact Sheet may also include a list of permits that may be required and a list of technical studies that may be needed. The AN must not draw any conclusions regarding the significance of the wetland involvement, since this would constitute a “Wetlands Finding” (**Part 1, Chapter 3, Preliminary Environmental Discussion and Advance Notification**).

18-2.2 Wetland Evaluation

The wetland evaluation is documented in the **WER**, which is a technical document (or memo) required for all projects with wetland involvement. Each wetland and other surface water with potential involvement is identified and evaluated. The District should consider commentary from the ETAT with wetlands jurisdictional responsibility when preparing the **WER**. The wetland evaluation should include:

1. The identification of existing wetlands within the project area. Available site specific data should be collected and reviewed such as, but not limited to, EST screening information, Natural Resources Conservation Service (NRCS) Soil Surveys, FDOT Florida Land Use Cover Classification System (FLUCCS), USFWS National Wetland Inventory, United States Geological Survey (USGS) Topographic maps, aerial photographs (1"=100 ft), etc. All data sources must be documented in the **WER**. Include any pertinent maps identifying the wetlands in the project area.
2. A delineation of each wetland as detailed in the **Corps of Engineers Wetland Delineation Manual, 1987; Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region, 2010;** and **The Florida Wetlands Delineation Manual, 1995** as appropriate. Boundaries may be delineated with the aid of data sources listed in item 1 above and/or any other available data sources and be field verified. Include maps of the delineated wetlands in the project area. The USACE Jacksonville District accepts a **Preliminary Jurisdictional Determination Form**. The District should contact the USACE to determine whether a preliminary form is appropriate for a project.
3. A description of wetlands in the project area according to the FLUCCS and the USFWS Classification System as described in "**Classification of Wetlands and Deepwater Habitats of the United States**". The FLUCCS should be to Level 3 only, unless sufficient information has been accumulated to accurately assign a Level 4 classification. The USFWS Classification should be to the subclass level only unless sufficient information has been accumulated to accurately identify dominant vegetation, water regime, water chemistry, or soil types. In using the USFWS Classification System, the analyst should note that a singular wetland may be identified as two or more wetland types, if there are major differences in vegetation or site hydrology. Include a map showing the location, boundaries, and classification (using both systems) of all wetland sites. Additionally, further coordination and evaluation may be required to adequately assess **Endangered Species Act** requirements.
4. An evaluation of the potential direct and indirect effects the project will have on the wetland. Wetland impacts regulated under Florida's ERP Program or USACE's **Section 10/Section 404** process need to be identified and evaluated. Identify any alternatives that avoid wetland impacts. Estimate the wetland impact acres by comparing wetland boundaries with each project alternative's footprint. The alternative footprint should include potential stormwater pond locations. Determine the significance of each alternative's impact on each wetland site, including:
 - a. Effects on flood control, erosion control, water pollution abatement, and wildlife habitat value

- b. Effect on stability and quality of the wetland system
 - c. Short-term vs. long-term effects
5. A discussion of the proposed project's potential contribution to cumulative impacts on the identified wetlands. Consider losses resulting from direct and indirect effects of the project as well as impacts resulting from other development activities in the vicinity. Keep in mind that cumulative effects considerations under **NEPA** are different than those under the ERP Program and **Section 404** permitting process (See FDOT's **Cumulative Effects Evaluation Handbook**).
 6. A discussion of practicable measures to minimize harm to each wetland site. Minimization could involve measures included in the FDOT's **Standard Specifications for Road and Bridge Construction**.
 7. A functional assessment of the wetlands in accordance with UMAM. Use these assessments to estimate the amount of wetland mitigation needed, based on functional loss and the importance of the affected wetlands to the surrounding biological community. For large scale projects when UMAM is not practicable, the District should coordinate with the appropriate regulatory agency to determine if an alternate assessment or UMAM modification can be utilized for the project. If the District intends to advance permitting activities prior to Design, a greater level of detail will be necessary. The functional assessment will be refined and finalized during permitting.
 8. A discussion of the potential mitigation options available and description of how those measures can be incorporated into the project. The mitigation discussion should provide sufficient mitigation to show that project impacts can be fully mitigated. Keep in mind that if the mitigation option being considered used a different type of functional assessment such as WRAP, the District will have to coordinate with the appropriate regulatory agencies to determine the amount of mitigation needed to offset project impacts. Document any agency coordination on those mitigation options.
 9. A discussion of consultation and coordination with the USACE, USFWS, EPA, NMFS, DEP, WMDs and other appropriate federal, state, and local agencies concerning the impacts of the proposed project on wetland systems. For the final **WER** include the outcome of draft review and coordination. Where issues are identified, reach a resolution with each respective agency, if possible. Document resolution with all federal and state agencies.

For coordination/consultation for EAs and EISs, a draft **WER** should be sent to the appropriate agencies for review before the Environmental Document is completed. The **WER** is then updated to address their comments. The final **WER** is retained within the

project file, distributed to FHWA and applicable agencies, and summarized in the Environmental Document.

18-2.3 Conceptual Mitigation Plan

18-2.3.1 Federal Highway Administration Policy and Participation

Project impacts to wetlands are addressed through the development and consideration of a project alternative(s). The Council on Environmental Quality (CEQ) requires consideration of mitigation measures as defined by **NEPA** in the development of project alternative(s) (**40 CFR 1508.20**). These measures are:

- a. Avoiding the impact altogether by not taking a certain action or parts of an action
- b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation
- c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment
- d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action
- e. Compensating for the impact by replacing or providing substitute resources or environments

Avoidance, minimization, and compensation are to be employed in sequence. First, project impacts must be avoided to the extent practicable. Second, unavoidable impacts should be minimized. Third, remaining unavoidable impacts should be mitigated through compensatory actions.

As described in the USACE's Final Rule: **Compensatory Mitigation for Losses of Aquatic Resources, 2008**, "Compensatory mitigation can be carried out through four methods: the restoration of a previously-existing wetland or other aquatic site, the enhancement of an existing aquatic site's functions, the establishment (i.e., creation) of a new aquatic site, or the preservation of an existing aquatic site".

The **USDOT Order 5660.1A, Preservation of the Nation's Wetlands, 1978** provides similar guidance regarding avoidance and minimization strategies prior to the use of compensatory mitigation for unavoidable wetland impacts. This policy requires demonstration that "there is no practicable alternative to the use of the wetlands and that all practicable measures to minimize harm to the wetlands have been included". While FDOT and FHWA have the authority to restore and enhance existing wetlands and to create new wetlands, these do not counterbalance the effects of adverse impacts

to wetlands which are avoidable or satisfy USDOT policy for the “protection, preservation and enhancement of the nation’s wetlands to the fullest extent practicable”.

FHWA will fund the appropriate compensatory mitigation as per the ***Federal Highway Administration Environmental Policy Statement, 1994*** for unavoidable impacts after it has been determined that the No-Action and the avoidance alternatives are not practical. All funding for environmental mitigation must be based on scientifically valid analysis and must show documented support of how the cost was derived to mitigate the adverse impact. In order for FHWA to participate in the funding of mitigation, the wetland analysis must meet the requirements of ***23 CFR 777***, including the UMAM or other functional assessment methodologies and/or coordination meetings with regulatory agency personnel.

18-2.3.2 Determining Mitigation

During project development, FDOT considers a project’s location and design to reduce wetland impacts. The first step in determining wetland mitigation for a project is to avoid wetland impacts. The next step is to minimize wetland impacts. Any remaining wetland impacts which cannot be avoided or minimized must be addressed with a conceptual mitigation plan, which discusses compensatory mitigation opportunities. The level of detail for the conceptual mitigation plan is determined through coordination with the appropriate regulatory agency(s) and is dependent upon the magnitude of mitigation required. These considerations should be discussed during interagency coordination and documented in the Environmental Document. During permitting, the District will coordinate with the appropriate agencies and finalize the mitigation plan.

As per ***Section 373.4137, F.S.***, compensatory mitigation of wetland impacts resulting from FDOT projects “will be funded by the Department of Transportation and be carried out by the use of mitigation banks and any other mitigation options that satisfy state and federal requirements”. Specific information concerning the procedure for implementing the provisions of ***Section 373.4137 F.S.*** are included in ***Part 1, Chapter 12, Environmental Permits.***

For those projects which cannot be mitigated through a permitted mitigation bank or the WMDs due to credit or site availability, respectively, FDOT will identify the site of proposed mitigation and the general types of mitigation (creation, restoration, enhancement, or preservation) to be utilized in the conceptual mitigation plan.

Early resolution of state and federal permit agencies' concerns and joint agreement on appropriate mitigation is promoted by FHWA and their federal counterparts. Early agreements may substantially reduce delays during the permitting process and should be documented in the Comments and Coordination section of EAs and EISs.

FDOT documents commitments to provide compensatory mitigation for unavoidable impacts through the use of standard statements (see ***Section 18-2.4***). If

additional project-specific information (e.g., site selection, conceptual planning) is available on the individual mitigation project to be utilized, then this information is also included in the Environmental Document.

The Environmental Document must describe the proposed mitigation opportunities considered and demonstrate that mitigation is available to offset impacts to wetlands. The FDOT District should review mitigation information available on DEP, WMD and USACE websites (**Figure 18.2**). This information is documented in the wetland section of the Environmental Document. District staff should coordinate with the District Permit Coordinator when considering mitigation opportunities.

18-2.4 Documentation

The Environmental Document includes a summary of the **WER** including relevant wetland information, evaluations and proposed mitigation. If there is more than one alternative, the discussion should provide adequate information to compare alternatives (**Part 2, Chapter 6, Alternatives**).

18-2.4.1 Categorical Exclusions

Categorical Exclusions (CEs) may have a wetland involvement as long as the involvement is determined not to be significant. A UMAM or other functional assessment is conducted per state and federal guidelines as appropriate, based on interagency coordination and existing permitting thresholds, for any proposed CE project involving wetlands.

A wetland involvement may be identified for projects that do not require EST screening and immediately advance to the Design phase. For these projects, provide a summary of wetland impacts, agency coordination, and mitigation (as appropriate) as supporting information to the **Type 1 and Programmatic Categorical Exclusion Checklist (Part 1, Chapter 2, Environmental Class of Action Determination)**. Should this analysis indicate a significant impact, the project cannot be processed as a CE.

For Type 2 CE projects, documentation must include a concise summary of wetland impacts, agency coordination, the UMAM or other functional assessment, and if applicable, the mitigation commitment standard statement and the "Wetlands Finding". This information should be added to the wetland section (Section 6.C.1) of the **Type 2 Categorical Exclusion Determination Form**.

Mitigation commitments should be documented by use of the following standard statement:

Wetland impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137, F.S. to satisfy all mitigation requirements of Part IV, Chapter 373, F.S. and 33 U.S.C. s.1344.

The “Wetlands Finding” must include the rationale used to reach the determination that:

1. The proposed project will have no significant short-term or long-term adverse impacts to wetlands,
2. There is no practicable alternative to construction in wetlands, and
3. Measures have been taken to minimize harm to wetlands.

This finding should be concisely summarized in the wetland section (Section 6.C.1. Wetlands) of the ***Type 2 Categorical Exclusion Determination Form (Part 1, Chapter 5, Type 2 Categorical Exclusion)*** with detailed information contained in the project file.

18-2.4.2 Environmental Assessment and Environmental Impact Statement

18-2.4.2.1 Affected Environment Section of Environmental Impact Statement

The discussion of wetlands in the Affected Environment section of an Environmental Impact Statement (EIS) is generally limited to an overall description of the wetland environment within proposed project alternatives. Documentation usually includes:

1. A description of all wetland systems in the project vicinity (i.e., size and function)
2. A map showing the relationship of the project to the wetlands identified

This section does not include an evaluation of the potential impacts of the project on these wetlands, but introduces the fundamental characteristics of the wetland systems.

18-2.4.2.2 Impacts / Environmental Consequences Sections of Environmental Assessment or Environmental Impact Statement

All documentation for EA and EIS projects involving new construction in wetlands must contain an evaluation of potential wetland impacts to the level of detail appropriate for the involvement. The results of the wetland evaluation and relevant elements of the ***WER***, including the UMAM or other functional assessment, are summarized in the wetland section of the EA or EIS. For an EA, this is called the Impacts section. For an EIS, this is the Environmental Consequences section. The following impact discussion must be included in the wetland section of the EA or EIS:

1. An identification of wetlands impacted by the proposed project alternatives using the USFWS Classification System and FLUCCS

2. A discussion of the importance of the wetlands impacted by the proposed project alternative to the surrounding biological community. This includes consideration of:
 - a. Primary functions of the wetlands (e.g., flood control, wildlife habitat, erosion control, etc.)
 - b. Relative importance of these functions to the total wetland resources of the area
 - c. Other factors, such as uniqueness, that may contribute to the wetland's importance
3. A description of the impacts of each alternative on the wetlands identified, including the area impacted per site (both directly affected by dredge and fill and indirectly affected by project activities) and the potential loss of wetland function. This includes evaluation of:
 - a. Effects on the stability and quality of the wetlands
 - b. Short-term and long-term effects on the wetlands
 - c. Significance of any wetland loss on primary functions and values
4. An identification and evaluation of alternatives which would avoid wetland impacts
5. An identification of all practicable measures used to minimize wetland impacts
6. Maps showing the location of wetlands identified in relation to each alternative under consideration including alternatives to avoid construction in wetlands
7. A discussion of conceptual mitigation efforts necessary to compensate for unavoidable impacts to wetlands, based on the results of the UMAM or other functional assessment. Mitigation measures which should be considered include:
 - a. Compensatory mitigation pursuant to **Section 373.4137 F.S.** and as appropriate, **33 U.S.C. s.1344**
 - b. Creation of new wetlands from upland areas
 - c. Acquisition of private wetlands for preservation, restoration or enhancement

All mitigation should be summarized at the end of the wetland section. Mitigation commitments must be reiterated in the Commitments and Recommendations section of the Environmental Document.

8. A discussion of agency coordination on the proposed avoidance and minimization activities and conceptual mitigation measures to limit adverse impacts

For EA or EIS projects, a standard statement is used to provide detailed information on the mitigation commitment for the purposes of public information. For EAs the standard statement is included in the Impacts section of the document. For EISs, the standard statement is included in the Environmental Consequences section. EA and EIS projects address conceptual mitigation plans through the following standard statement:

Wetland impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137, F.S. to satisfy all mitigation requirements of Part IV, Chapter 373, F.S. and 33 U.S.C. s.1344. Compensatory mitigation for this project will be completed through the use of mitigation banks and any other mitigation options that satisfy state and federal requirements.

18-2.4.3 Finding of No Significant Impact and Final Environmental Impact Statement

When there is no practicable alternative to an action which involves new construction in wetlands, the FONSI or the FEIS must contain the "Wetlands Finding" required by **EO 11990** and **USDOT Order 5660.1A**.

Approval of the FONSI or FEIS containing the "Wetlands Finding" will document compliance with the requirements of **EO 11990**. The finding must contain in summary form the following information:

1. A reference to **EO 11990**
2. A discussion of the basis for the determination that there are no practicable alternatives to the proposed action
3. A discussion of the basis of the determination that the proposed action includes all practicable measures to minimize harm to wetlands
4. A standard concluding statement as follows:

Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and the

proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

If there is no wetlands involvement on a project, a finding is still provided. The finding simply states that there is no wetland involvement and cites **EO 11990**, as provided below:

The proposed improvements do not take any wetlands, and, therefore, Executive Order 11990 does not apply.

The “Wetlands Finding” statement must be placed in the Environmental Consequences section and the Summary of a FEIS (**Part 2, Chapter 3, EIS Summary/FONSI**).

Areas of disagreement are identified in the Unresolved Issues section of the FEIS Summary and detailed in the wetland section and Comments and Coordination section of the EA with FONSI or FEIS. Documentation of coordination with applicable agencies (letters, meetings, emails, etc.) should be included in the Appendix of the FEIS.

18-2.4.4 State Environmental Impact Report

SEIRs follow the same process for wetland evaluation as federal projects. The results of the wetland evaluation and relevant elements of the **WER**, including the UMAM or other functional assessment and conceptual mitigation, are summarized in the wetland section (Block 6.C.1. Wetlands) of the **State Environmental Impact Report Sample Format (Part 1, Chapter 10, Non-Federal Projects)**.

18-2.5 Public Notice of Wetland Involvement

In compliance with **Executive Order 11990**, the public hearing advertisement for projects must include a statement informing the public of any wetland involvement on a project, as described in **Part 1, Chapter 11, Public Involvement**. In addition, FDOT’s public hearing presentation must also mention any wetland involvement for a project in order to increase public awareness of wetland impacts and invite public comment.

18-2.6 Integrating National Environmental Policy Act and Section 404(b)(1) Guidelines

Integration of **NEPA** and **Section 404(b)(1)** Guidelines is accomplished by the merger of common elements in the two decision making processes. Coordination with FHWA, USACE, EPA, USFWS, NMFS, DEP, and WMDs to the point of acceptance of these common elements will facilitate this end.

The common elements are:

1. Project Need
2. Wetlands Identification, Delineation (as coordinated with USACE or WMD), and Classification
3. Wetlands Impact Assessment
4. Alternatives Analysis
5. Avoidance and Minimization Analysis
6. Conceptual Mitigation
7. Coordination

18-2.6.1 Process

The **WER** developed during the PD&E Study provides technical information on wetland impact assessment and mitigation analysis which supports the **NEPA** decision making process. It can also provide preliminary information toward satisfying regulatory requirements in accordance with the **Section 404(b)(1)** Guidelines. The **WER**, including the UMAM or other functional assessment, will be contained in the project file. Major elements of the **WER** are abbreviated in the **NEPA** document and summarized in the “Wetlands Finding”. The **WER** also documents all coordination activities with other agencies on critical elements such as concurrence or the need for additional coordination. The common elements documented in the **WER** which are relevant to both **NEPA** and **Section 404(b)(1)** Guidelines are detailed below:

1. **Project Need** - The project need will typically contain capacity information, system linkage, transportation demand, modal interrelationships, safety information, and roadway deficiencies, etc. as supporting evidence for the project.
2. **Wetlands Identification, Delineation, and Classification** - The identification, delineation, and classification will be developed according to the procedures described in **Section 18-2.2 Wetland Evaluation**. The USACE Jacksonville District has a process for preparing preliminary jurisdictional determinations.
3. **Wetlands Impact Assessment** - The assessment of potential impacts to wetland functions will be developed using the information obtained in the identification and delineation procedure, and utilizing UMAM or WRAP.
4. **Alternatives Analyses** - Each alternative, including the No-Action alternative, will be analyzed for wetland involvement.

5. **Avoidance and Minimization Analysis** - The analysis will document practicable measures considered to avoid and/or minimize wetland impacts. The Environmental Document should clearly indicate the steps taken for avoidance and minimization of impacts in order to eliminate the need to reassess and justify project design during the permitting phase.
6. **Conceptual Mitigation Plan** - A conceptual mitigation plan for unavoidable wetland impacts will be developed in the PD&E phase and refined during the permitting process. The conceptual mitigation plan should identify the amount of mitigation necessary to replace the loss of wetland functions as identified by UMAM or other functional assessment. It should also identify mitigation opportunities that FDOT will implement to off-set adverse impacts such as the purchase of mitigation credits from a permitted mitigation bank, payment to DEP/WMD for mitigation services, development of its own mitigation site, or any other option that meets state and federal requirements. Appropriate regulatory agency coordination regarding the conceptual mitigation plan is necessary.
7. **Coordination** - Coordination on the elements contained in the **WER** will be documented. Coordination with federal, state and local regulatory agencies is necessary to the point that the permits are achievable and FHWA (or other Lead Federal Agency) participation is probable.

18-2.7 Permits for Wetland Impacts

FDOT is required to obtain authorization for wetland impacts pursuant to state and federal regulatory requirements. Refer to **Part 1, Chapter 12, Environmental Permits** for more information regarding FDOT procedures for obtaining permits and providing wetland mitigation.

18-2.8 Reevaluation

Any change of wetland impacts or mitigation strategies after approval of the Environmental Document must be documented in the appropriate phase reevaluation or design change reevaluation as per **Part 1, Chapter 13, Reevaluations**. Commitments and coordination should be contained in the Mitigation Status and Commitment Compliance section of the **Project Reevaluation Format**.

18-2.9 Design and Construction

Wetland commitments established as a result of the PD&E Study and/or agency coordination must be documented in the Environmental Document through the **Project Commitments Record Form, Topic No. 700-011-35** and transmitted to the Design and Construction Offices to be included in contract documents or be addressed through the permitting process. Follow FDOT **Project Commitment Tracking, Procedure No.**

700-011-035. Wetland commitments may be permit conditions, or actions/activities required to advance the project and/or require action from the contractor to implement. Wetland review during Design and compliance during Construction consists of the following:

1. Review Commitments and Recommendations specific to wetlands - Coordinate with appropriate environmental staff to ensure wetland commitments are addressed.
2. Plans Received – Review for completeness; identify/confirm project limits.
3. Field Review – Conduct on-site field review(s) with appropriate professionals to confirm existing wetland resources within project limits that are addressed in the plans.
4. Regulatory Agency Coordination and Permitting –The District coordinates with regulatory agencies.
5. Impact Review – Review plans and provide comments on wetlands that were identified and resolutions that should be coordinated with appropriate regulatory agencies or incorporated into the contract design plans.
6. Bid Document Review - Subsequently verify that completed final design plans and specifications incorporate required wetland resolutions into the bid documents.
7. Compliance during Construction – Ensure that the Construction Office verifies compliance with wetland commitments as well as federal and state regulations incorporated into the final design.
8. Construction Final Acceptance – Ensure that the wetland commitments (different from permit conditions) were addressed as specified in the contract plans, including modifications approved during construction. This is done by the Construction Office, but may require the Environmental Office involvement on occasion (**Construction Project Administration Manual, Topic No. 700-000-000, Chapter 12, Section 12.1**). Permit and mitigation sign-off is done through a separate process with the regulatory agency.

The District should verify commitment and regulatory compliance as the project advances. It should be noted that additional minimization actions can be conducted during the project Design phase. These additional actions will need to be included in the environmental permit applications.

18-3 REFERENCES

1. Rivers and Harbors Act of 1899.
2. Clean Water Act.
3. 33 CFR 325. Processing of Department of the Army Permits.
4. 33 CFR 332. Compensatory Mitigation for Losses of Aquatic Resources.
5. 40 CFR 230. Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material.
6. Section 373.4137, Florida Statutes. Mitigation Requirements for Specified Transportation Projects.
7. 33 CFR 328. Definition of Waters of the United States.
8. 40 CFR 423.11. Specialized Definitions.
9. U.S. Department of Transportation, Federal Highway Administration, October 30, 1987. Guidance for Preparing and Processing Environmental and Section 4(f) Documents, FHWA Technical Advisory T6640.8A.
10. Section 373.019, Florida Statutes. Definitions.
11. 33 CFR 320.4. Public Interest Review.
12. Rule Chapter 62-340 Florida Administrative Code. Delineation of the Landward Extent of Wetlands and Surface Waters.
13. U.S. Army Corps of Engineers. Corps of Engineers Wetland Delineation Manual. Wetlands Research Program Technical Report Y-87-1, 1987.
14. U.S. Army Corps of Engineers. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region. Version 2.0, November 2010.
15. Rule Chapter 62-345, Florida Administrative Code. Uniform Mitigation Assessment Method.
16. Presidential Executive Order 11990. Protection of Wetlands, May 23, 1977.
17. U.S. Department of Transportation Order 5660.1A. Preservation of the Nation's Wetlands, August 24, 1978.

18. Federal Register, Vol. 65, No. 251, December 29, 2000. Mitigation of Impacts to Wetlands and Natural Habitat. 23 CFR 777.
19. Federal Highway Administration. Environmental Policy Statement. Thomas D. Larson, April 20, 1990, amended 1994.
20. Florida Department of Transportation. Florida Land Use, Cover and Forms Classification System (FLUCCS). January 1999.
21. Cowardin *et. al.* U.S. Department of Interior - Fish and Wildlife Service. Classification of Wetlands and Deepwater Habitats of the United States. USFWS/OBS-79/31, December 1979.
22. Florida Department of Transportation. Efficient Transportation Decision Making (ETDM) Planning and Programming Manual. Topic No. 650-000-002.
23. U.S. Department of Transportation, Federal Highway Administration. Report No. FHWA-IP-90-010. A Guide to Wetland Functional Design, July 1990.
24. Endangered Species Act.
25. Florida Department of Transportation. Cumulative Effects Evaluation Handbook, 2012.
26. Florida Department of Transportation. Standard Specifications for Road and Bridge Construction, 2013.
27. 40 CFR 1508.20. Terminology and Index.
28. U.S. Army Corps of Engineers. Compensatory Mitigation for Losses of Aquatic Resources, April 2008.
29. 330 USC 1344. Permits for Dredged or Fill Material.
30. Florida Department of Transportation. Project Commitment Tracking Procedure. Topic No. 700-011-035-a.
31. Florida Department of Transportation. Construction Project Administration Manual. Topic No. 700-000-000.
32. Memorandum of Agreement between the Army and Environmental Protection Agency. February 6, 1990. The Determination of Mitigation under the Clean Water Act Section 404(b)(1) Guidelines.

18-4 HISTORY

04/14/1999, 11/20/2009

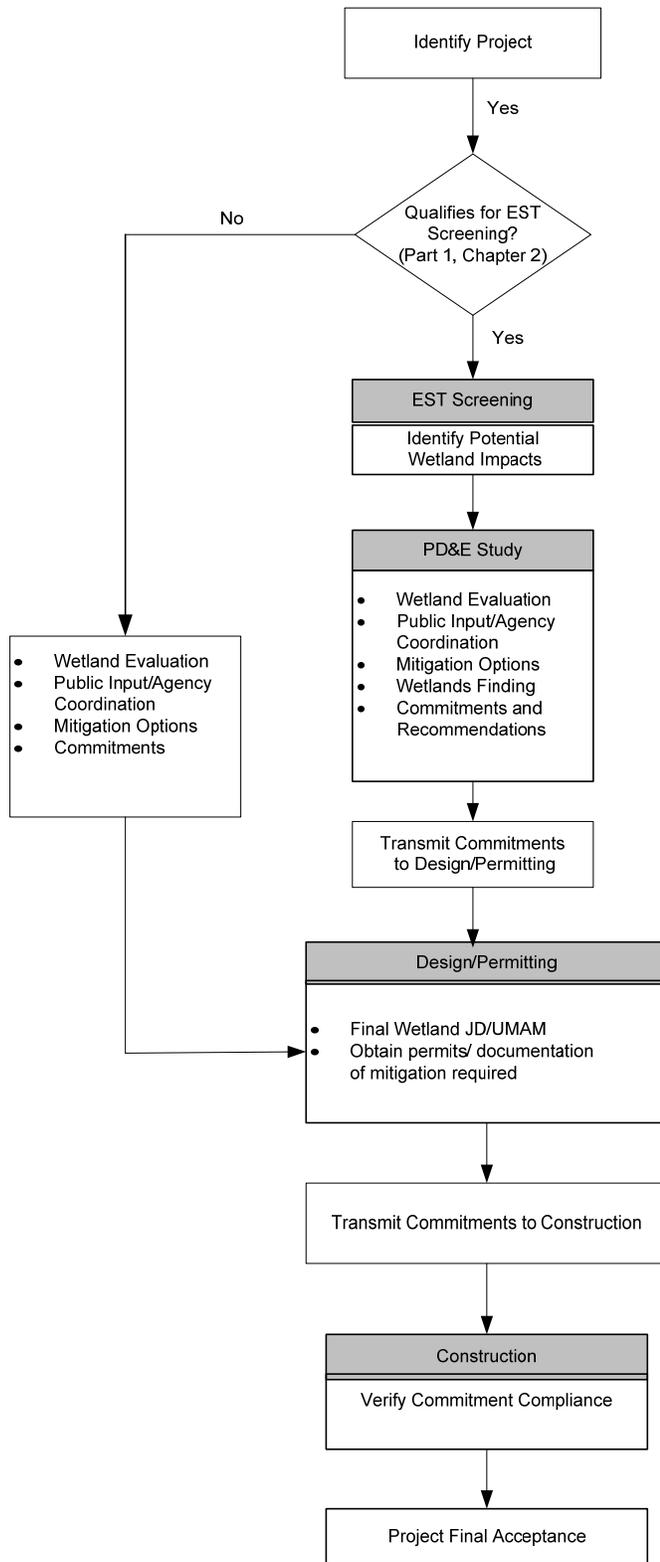


Figure 18.1 Wetland Evaluation Process

Florida Department of Environmental Protection:
<http://www.dep.state.fl.us/water/wetlands/mitigation/mitbanks.htm>

Water Management Districts:

Northwest Florida
<http://nfwmdwetlands.com/>

Southwest Florida
<http://www.swfwmd.state.fl.us/projects/mitigation/>

St. Johns River
<http://webapub.sjrwm.com/agws10/mt/Default.htm>

South Florida
<http://www.sfwmd.gov/portal/page/portal/xweb%20about%20us/extra%20land%20acquisition>

Suwannee River
<http://www.srwmd.state.fl.us/>

United States Army Corps of Engineers:
<http://geo.usace.army.mil/ribits/index.html>

Figure 18.2 DEP, WMDs and USACE Mitigation Information