

PART 2, CHAPTER 9

WETLANDS AND OTHER SURFACE WATERS

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PART 2, CHAPTER 9

WETLANDS AND OTHER SURFACE WATERS

9.1 OVERVIEW

Pursuant to **23 United States Code (U.S.C.) § 327** and the implementing Memorandum of Understanding (MOU) executed on December 14, 2016, the Florida Department of Transportation (FDOT) has assumed Federal Highway Administration's (FHWA's) responsibilities under the **National Environmental Policy Act (NEPA)** for highway projects on the State Highway System (SHS) and Local Agency Program (LAP) projects off the SHS. In general, FDOT's assumption includes all highway projects in Florida whose source of federal funding comes from FHWA or which constitute a federal action through FHWA. This includes responsibilities for environmental review, interagency consultation and other activities pertaining to the review or approval of **NEPA** actions. Consistent with law and the MOU, FDOT will be the Lead Federal Agency for highway projects with approval authority resting in the Office of Environmental Management (OEM).

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 aim to restore and maintain 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 and 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 (FDEP) and the Water Management Districts (WMDs). When it is determined that there are unavoidable adverse impacts to wetlands, compensatory mitigation is required pursuant to **33 Code of Federal Regulations (CFR) Part 325 and 332, 40 CFR Part 230, and Section 373.4137, Florida Statutes (F.S.)**.

9.1.1 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 **CWA** 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 FDEP and the five WMDs. The Florida Fish and Wildlife Conservation Commission (FWC) advise the FDEP 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 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.

9.1.2 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 U.S. Department of Transportation (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)
 - 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 Part 777. FHWA's Environmental Policy Statement (1990, amended 1994)**, provides that FHWA will "participate to the fullest extent permitted by law, in funding mitigation and enhancement activities required by Federal, State, and local statutes and regulations for project related impacts to the natural environment, neighborhoods, and communities."

Documentation of agency coordination and relevant agreements must be a part of the wetland section of the **Natural Resource Evaluation (NRE)** and summarized in the Environmental Document. The integration of the **NEPA** process with **Section 404(b)(1) Guidelines** of the **CWA** is desirable ([Section 9.2.6](#)).

For non-federal projects, documented as State Environmental Impact Reports (SEIRs), the process should 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. Districts should prepare the SEIR similar in scope and format to an EIS. For more information about developing SEIRs, see [Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery](#).

9.1.3 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. See [Part 1, Chapter 2, Class of Action Determination for Highway Projects](#) for project types qualifying for EST screening. [Figure 9-1](#) 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 the Environmental Technical Advisory Team (ETAT) comments made for the "Potential Navigable Waterways" and "Wetlands and Surface Waters" issues and coordinate with appropriate District staff (e.g. Environmental Manager, Permits Coordinator). 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, FDEP and WMDs) are especially important. The results of the screening can help the District identify the level of evaluation that may be needed, if permits may be necessary, and whether potential mitigation opportunities in the project area exist. The report may state specifically that a wetland evaluation in the **NRE** 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 Recommendations" and "Anticipated Permits" sections. At

the beginning of the Project Development and Environment (PD&E) process, it is important to contact the commenting agencies 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. Wetland evaluations and impact analyses conducted during the PD&E phase are detailed in the Wetland Evaluation section of the **NRE**. The **NRE** 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 **NRE** 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 (CEs), EA with Finding of No Significant Impacts (FONSI), and Final Environmental Impact Statements (FEISs) as described in [Section 9.2.4.1](#) and [Section 9.2.4.3](#). Potential wetland involvement must also be identified in the public hearing advertisement and presentation as described in [Section 9.2.5](#).

9.2 PROCEDURE

9.2.1 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 Manual, Topic No. 650-000-002](#)). The Advance Notification (AN) package may be distributed electronically as part of the programming screening event in the EST ([Part 1, Chapter 3, Preliminary Environmental Discussion and Advance Notification](#)) or when commencing the PD&E Study.

Wetland information is included in the Preliminary Environmental Discussion (PED) section of the Fact Sheet and includes the District’s initial identification of potential involvement with wetland resources within the project. The PED should also identify the location of potential jurisdictional wetlands (as defined by the FDEP, WMD, and/or the USACE) and provide a description of how the wetlands will 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](#)).

9.2.2 Wetland Evaluation

The wetland evaluation is recorded in the Wetland Evaluation section of the **NRE**, which is a FDOT technical report that documents protected species and habitat, wetlands and other surface waters, and Essential Fish Habitat issues to support the Environmental

Document. Each wetland and other surface water with potential involvement is identified and evaluated. The District should consider commentary from the ETAT with wetland jurisdictional responsibility when preparing the **NRE**.

The Wetland Evaluation section of the **NRE** 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, Florida Land Use Cover Classification System (FLUCCS), USFWS National Wetland Inventory, United States Geological Survey (USGS) Topographic maps, aerial photographs (1"=100 ft.). All data sources must be documented in the **NRE**. Include any pertinent maps identifying the wetlands in the project area.
2. The identification of surface waters in the project area. Boundaries may be identified with the aid of data sources listed in item 1 above and/or any other available data sources and be field verified. All data sources must be documented in the **NRE**. Include maps of the surface waters in the project area.
3. 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; The Florida Wetlands Delineation Manual, 1995; and Rule 62-340, F.A.C., Delineation of the Landward Extent of Wetlands and Surface Waters** 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.
4. 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.
5. 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 of the Rivers and Harbors Act/Section 404 of the **CWA** 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
6. 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** of the **CWA** permitting process (See FDOT's [Cumulative Effects Evaluation Handbook](#)).
 7. A discussion of practicable measures to minimize harm to each wetland site. Minimization could involve measures included in FDOT's [Standard Specifications for Road and Bridge Construction](#).
 8. 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.
 9. 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.
 10. A discussion of consultation and coordination with the USACE, USFWS, EPA, NMFS, FDEP, WMDs and other appropriate federal, state, and local agencies concerning the impacts of the proposed project on wetlands. For the final **NRE**

include the outcome of draft review and coordination. Where issues are identified, reach a resolution with each respective agency, if possible. Document resolution in the final **NRE**.

The District must submit the draft **NRE** to OEM for review prior to submitting to the appropriate agencies for coordination/consultation. The District will update the **NRE** to reflect agency coordination/consultation. The contents of the **NRE** should be summarized and included in the Environmental Document and the final **NRE** should be retained in the project file. See [Part 2, Chapter 16, Protected Species and Habitat](#) for additional guidance on preparing the **NRE**.

9.2.3 Conceptual Mitigation Plan

9.2.3.1 Federal Highway Administration Policy and Funding

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:

1. Avoiding the impact altogether by not taking a certain action or parts of an action
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action
5. 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 the lead agency has 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 Part 777***.

9.2.3.2 Wetland Mitigation

During project development, FDOT considers a project’s location and design to reduce wetland impacts. The first step in mitigating 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 amount 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 permitting 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.***, is included in [**Part 1, Chapter 12, Environmental Permits.**](#)

For projects which cannot be mitigated through a permitted mitigation bank or the WMDs due to credit or site availability, respectively, FDOT will propose alternative mitigation and the general type(s) of mitigation (creation, restoration, enhancement, or preservation) to be used in the conceptual mitigation plan.

Early resolution of state and federal permit agencies' concerns and joint agreement on appropriate mitigation is promoted by OEM. 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 compensatory mitigation for unavoidable impacts through the use of standard statements (see [Section 9.2.4](#)). If additional project-specific information (e.g., site selection, conceptual planning) is available on the individual mitigation project to be used, 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. FDOT District's should review mitigation information available on FDEP, WMD and USACE websites ([Figure 9-2](#)). 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.

9.2.4 Documentation

The Environmental Document includes a summary of the **NRE** 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 3, Engineering Analysis](#)).

9.2.4.1 Categorical Exclusions

Categorical Exclusions (CEs) may have wetland involvement so long as there are no significant wetland impacts. 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.

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 Categorical Exclusion Checklist, Form No. 650-050-12** ([Part 1, Chapter 2, Class of Action Determination for Highway Projects](#)). 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 standard statement and a "Wetlands Finding." This information should be added to the wetland section (Section 3.C.1) of the **Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11**.

Wetland mitigation 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 of Chapter 373, F.S., and 33 U.S.C. §1344.

The "Wetlands Finding" must reference **EO 11990** and 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 3.C.1. Wetlands) of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11*** with detailed information contained in the project file.

9.2.4.2 Environmental Assessment and Environmental Impact Statement

9.2.4.2.1 Environmental Analysis Section

The Environmental Analysis section of an EA or EIS should include an overall description of the wetland environment within proposed project alternatives. Documentation includes:

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

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 ***NRE***, including the UMAM or other functional assessment, are summarized in the wetland section of the Environmental Analysis 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)
 - 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 CFR § 332**
 - b. Creation of new wetlands from upland areas
 - c. Acquisition of private wetlands for preservation, restoration or enhancement
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 for the purposes of public information. The standard statement is included in the Environmental Analysis 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 of Chapter 373, F.S., and 33 U.S.C. §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.

9.2.4.3 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, FEIS/Record of Decision (ROD), 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:

*In accordance with **EO 11990**, The Department has undertaken all actions to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities. Nonetheless, the Department has determined that there is no practicable alternative to construction impacts occurring in wetlands. Any unavoidable impacts to wetlands will be mitigated to achieve no net loss of wetland function.*

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 project does not impact any wetlands, and, therefore, Executive Order 11990 does not apply.

The "Wetlands Finding" statement must be placed in the Environmental Analysis section of the EA with FONSI or FEIS. It also is added to the Executive Summary of a FEIS if one is prepared separately from the ROD ([Part 1, Chapter 9, Final Environmental Impact Statement](#)).

Documentation of coordination with applicable agencies (e.g., letters, meetings, emails) should be included in the Appendix.

9.2.4.4 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 **NRE**, including the UMAM or other functional assessment and conceptual mitigation, are summarized in the wetland section (**Block 3.C.1. Wetlands and Other Surface Waters**) of the **State Environmental Impact Report Form, Form No. 650-050-43** ([Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery](#)).

9.2.5 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 provide an opportunity for public comment.

9.2.6 Merging the NEPA Process and Section 404 of CWA

It is the policy of the FHWA and USACE to reduce inefficiencies under the **CWA** for transportation projects requiring a **Section 404** permit. This policy is documented in the **2015 Red Book Synchronizing Environmental Reviews for Transportation and Other Infrastructure Projects**. The **NEPA/404** merger expedites project delivery for transportation projects and allows FDOT and the USACE to coordinate common elements under **NEPA** as both agencies are required to evaluate alternatives, assess impacts to resources, and balance resource impacts prior to making a **NEPA** decision. Information gathered during the FDOT's **NEPA** process is coordinated with the USACE to ensure compliance with both agency's requirements.

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

9.2.6.1 Process

The **NRE** 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 the USACE's regulatory requirements in accordance with the **Section 404(b)(1)** Guidelines. The **NRE**, including the UMAM or other functional assessment, will be contained in the project file. Based on the information in the **NRE** a "Wetlands Finding" is included in the **NEPA** document. The **NRE** 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 **NRE** 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 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 9.2.2](#). 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 is 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 FDEP/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 **NRE** will be documented. Coordination with federal, state and local regulatory agencies is necessary to the point that the environmental permits are achievable.

9.2.7 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.

9.2.8 Re-evaluation

Any change of wetland impacts or mitigation strategies after approval of the Environmental Document must be documented in the appropriate phase re-evaluation or design change re-evaluation. Refer to [Part 1, Chapter 13, Re-evaluations](#) for more information.

9.2.9 Design and Construction

Wetland impacts and mitigation established during the PD&E Study and/or agency coordination must be addressed through the permitting process. Wetland mitigation may become permit conditions, or actions/activities required to advance the project and/or require action from the contractor to implement. Wetland impact review during Design and compliance during Construction consists of the following:

1. Review mitigation specific to wetlands - Coordinate with appropriate environmental staff to ensure wetland mitigation is 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 - Verify that completed final design plans and specifications incorporate required mitigation into the bid documents.
7. Compliance during Construction - Ensure that the Construction Office verifies compliance with wetland mitigation, permit conditions and other commitments, as appropriate have been incorporated into the final design.
8. Construction Final Acceptance - Ensure that the wetland mitigation, as appropriate is 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 ([Construction Project Administration Manual \(CPAM\), 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 regulatory compliance as the project advances. Additional minimization actions can be conducted during the project Design phase. These additional actions may need to be addressed in permitting.

9.3 REFERENCES

Clean Water Act of 1972

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

Endangered Species Act of 1973, as amended 1978, 1979 and 1982

FHWA. Environmental Policy Statement. Thomas D. Larson, April 20, 1990, amended 1994

FHWA. Synchronizing Environmental Reviews for Transportation and Other Infrastructure Projects: 2015 Red Book. FHWA Publication No. FHWA-HEP-15-047. https://www.environment.fhwa.dot.gov/strmlng/Redbook_2015.pdf

Federal Register, Vol. 65, No. 251, December 29, 2000. Mitigation of Impacts to Wetlands and Natural Habitat. 23 CFR 777

FDOT. Construction Project Administration Manual. Topic No. 700-000-000

FDOT. Cumulative Effects Evaluation Handbook, 2012
<http://www.dot.state.fl.us/emo/pubs/CEE/CEE-Handbook-2012-1218.pdf>

FDOT. Efficient Transportation Decision Making (ETDM) Manual, Topic No. 650-000-002 <http://www.dot.state.fl.us/emo/pubs/etdm/etdmmanual.shtm>

FDOT. Florida Land Use, Cover and Forms Classification System (FLUCCS). January 1999

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

Memorandum of Agreement Between FHWA and FDOT Concerning the State of Florida's Participation in the Surface Transportation Project Delivery Program Pursuant to 23 U.S.C. 327, December 14, 2016.
<http://www.fdot.gov/environment/pubs/Executed-FDOT-NEPA-Assignment-MOU-2016-1214.pdf>

Presidential Executive Order 11990. Protection of Wetlands, May 23, 1977

Rivers and Harbors Act of 1899

Rule Chapter 62-340 Florida Administrative Code (F.A.C), Delineation of the Landward Extent of Wetlands and Surface Waters

Rule Chapter 62-345 F.A.C., Uniform Mitigation Assessment Method

Section 373.019, Florida Statutes (F.S.), Definitions

Section 373.4137, F.S., Mitigation Requirements for Specified Transportation Projects

Title 33 CFR § 320.4, General Policies for Evaluating Permit Applications.

http://www.ecfr.gov/cgi-bin/text-idx?SID=2bd9905827b72ddd21ecf34c76714286&mc=true&node=pt33.3.320&rgn=div5#se33.3.320_14

Title 33 CFR Part 325, Processing of Department of the Army Permits

<http://www.ecfr.gov/cgi-bin/text-idx?SID=2bd9905827b72ddd21ecf34c76714286&mc=true&node=pt33.3.325&rgn=div5>

Title 33 CFR Part 328, Definition of Waters of the United States

<http://www.ecfr.gov/cgi-bin/text-idx?SID=2bd9905827b72ddd21ecf34c76714286&mc=true&node=pt33.3.328&rgn=div5>

Title 33 CFR Part 332, Compensatory Mitigation for Losses of Aquatic Resources

<http://www.ecfr.gov/cgi-bin/text-idx?SID=2bd9905827b72ddd21ecf34c76714286&mc=true&node=pt33.3.332&rgn=div5>

Title 40 CFR Part 230, Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material

<http://www.ecfr.gov/cgi-bin/text-idx?SID=2bd9905827b72ddd21ecf34c76714286&mc=true&node=pt40.27.230&rgn=div5>

Title 40 CFR § 423.11, Specialized Definitions

http://www.ecfr.gov/cgi-bin/text-idx?SID=b09fd47cef5e508a6b7915dc7ae96db4&mc=true&node=pt40.31.423&rgn=div5#se40.31.423_111

Title 40 CFR § 1508.20, Mitigation

http://www.ecfr.gov/cgi-bin/text-idx?SID=b09fd47cef5e508a6b7915dc7ae96db4&mc=true&node=pt40.37.1508&rgn=div5#se40.37.1508_120

Title 30 U.S.C. Part 1344, Permits for Dredged or Fill Material

U.S. Army Corps of Engineers (USACE), Corps of Engineers Wetland Delineation Manual. Wetlands Research Program Technical Report Y-87-1, 1987

USACE, Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region. Version 2.0, November 2010

USACE, Compensatory Mitigation for Losses of Aquatic Resources, April 2008

U.S. Department of Transportation (USDOT) Order 5660.1A. Preservation of the Nation's Wetlands, August 24, 1978

USDOT, Federal Highway Administration. Report No. FHWA-IP-90-010. A Guide to Wetland Functional Design, July 1990

USDOT, Federal Highway Administration, October 30, 1987. Guidance for Preparing and Processing Environmental and Section 4(f) Documents, FHWA Technical Advisory T6640.8A

9.4 FORMS

Re-evaluation Form, Form No. 650-050-29*

[State Environmental Impact Report Form, Form No. 650-050-43](#)

Type 1 Categorical Exclusion Checklist, Form No. 650-050-12*

Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11*

*To be completed in [SWEPT](#)

9.5 HISTORY

04/14/1999, 11/20/2009, 4/24/2013, 8/22/2016

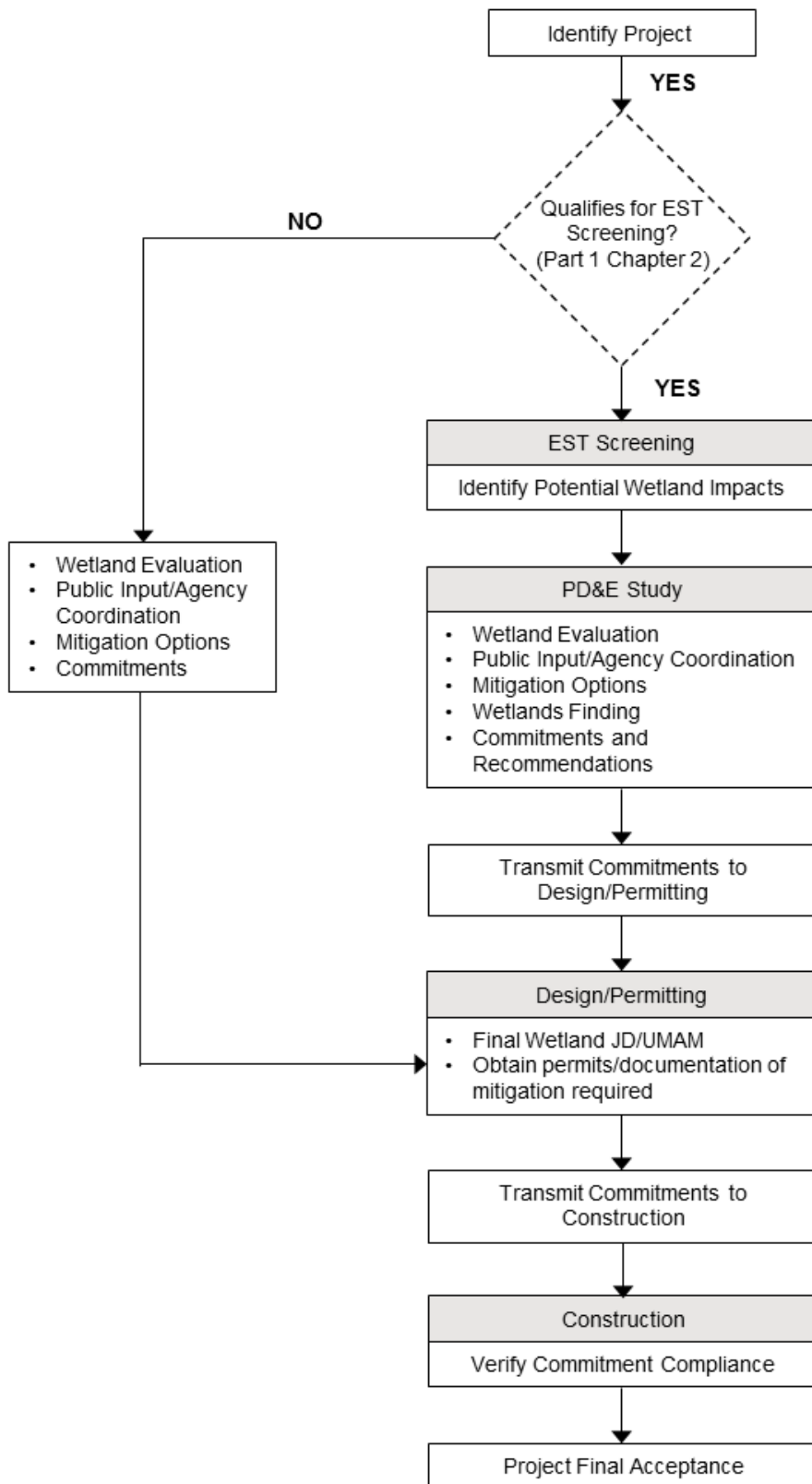


Figure 9-1 Wetland Evaluation Process

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.swfwd.state.fl.us/projects/mitigation/>

St. Johns River

<http://webapub.sjrwmd.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 9-2 FDEP, WMDs, and USACE Mitigation Information