FLORIDA DEPARTMENT OF TRANSPORTATION

PROJECT DEVELOPMENT & ENVIRONMENT MANUAL

Part 2: Topics and Analysis

Office of Environmental Management

FDOT

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PROJECT DESCRIPTION AND PURPOSE AND NEED

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PART 2 CHAPTER 1

PROJECT DESCRIPTION AND PURPOSE AND NEED

1.1 OVERVIEW

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

This chapter provides guidance on developing and documenting the project description and purpose and need for the project prior to and during the Project Development and Environment (PD&E) phase. The project description briefly describes the existing facility or existing conditions, project limits, project location, and the proposed improvements so that the Lead Federal Agency, resource agencies, and the public can understand the scope of the project and its effects on the environment. The purpose and need for a project is a basis for the development of the range of reasonable alternatives required in an Environmental Impact Statement (EIS), or identification of the build alternative(s) for other Environmental Document types. Moreover, the purpose and need for the project assists the Lead Federal Agency in evaluating project alternatives and selecting a preferred alternative (see ***Part 2, Chapter 3, Engineering Analysis***).

The purpose and need for a project begins in the Planning phase and can be refined during the PD&E phase. FDOT and planning agencies [e.g., Metropolitan Planning Organizations (MPO) and Transportation Planning Organizations (TPO)] identify transportation needs during the development of their respective transportation plans based on planning data.

FDOT uses the Efficient Transportation Decision Making (ETDM) process to obtain input from resource agencies and the public on the purpose and need for projects that are screened through the Environmental Screening Tool (EST).

The purpose and need discussion in the Environmental Document provides details about the objectives of the proposed action, such as achieving transportation-related needs identified in an MPO plan. If project alternatives do not fully address the stated purpose and need, they can be eliminated from further consideration with documentation.

Further guidance regarding the development of the purpose and need can be found in ***FHWA Technical Advisory T6640.8A***, and ***FHWA Environmental Review Toolkit***.

1.2 PROCEDURE

1.2.1 Project Description

Prior to the PD&E Study, a description of the project and the logical termini is developed through the planning process and documented during the ETDM process. The project description briefly describes the project location, the existing facilities and the proposed improvements. The project description used in the PD&E Study should be similar to the one used in the ETDM process. When developing a transportation project, the logical termini are determined for the scope of both transportation improvements and environmental analysis. If the project description changes during the PD&E Study, OEM must be made aware of and agree to the proposed changes before they can be incorporated into the Environmental Document.

1.2.1.1 Development of Project Description

The project description must be written to allow a person without prior knowledge of the project to clearly understand what the project is. The project description must include the following information:

1. A brief description of the existing facility;
2. The limits of the proposed project (such as its length and logical termini);
3. The names of the City and County where the project is located;
4. A brief description of the proposed improvements (such as mode, typical section features, facility type, multi-modal features, and any major structures);
5. A brief description of pedestrian and bicycle accommodation; and
6. Navigational needs, for federally-aided or assisted projects involving bridges over waters.

A project location map illustrating the project limits should display any landmarks mentioned in describing the proposed project or action (i.e., cities, towns, rivers, airports). The EST can be used to generate this map for screened projects.

An example of a project description is provided below:

> This project involves a 3.1 mile segment of SR-XX extending north from SR-YY to SR-ZZ (Figure 1) located in City X, County Y. The proposed project improves the existing two-way, two lane roadway to a four (4) lane, divided roadway with a raised or restrictive median, and six-foot sidewalks and seven-foot bicycle lanes in both directions. Additionally, the project widens the bridge over Any Drainage District Canal which is a navigable channel.

1.2.1.1.1 Logical Termini

The establishment of a project's logical termini is an important aspect of the proposed project and serves to define the study area. The identification of logical termini should be completed during the planning process and finalized through the ETDM screening. For federal projects, the determination of logical termini is coordinated with the OEM during the Programming Screen when the purpose and need is accepted.

Logical termini are defined as the rational beginning and end points for a transportation project and serve as the basis for the area of potential effect for environmental issues/resources to be evaluated during the PD&E Study. They are often located at major traffic generators, such as an intersecting roadway. In most cases traffic generators determine the size and type of facility being proposed. The PD&E Study area generally covers a broader geographic area than the limits of the transportation improvements to ensure consideration of potential project impacts. Pursuant to ***23 Code of Federal Regulations (CFR) § 771.111(f)***, alternatives developed for Categorical Exclusions (CEs), Environmental Assessment (EAs), or EISs must:

1. Connect logical termini and be of sufficient length to address environmental matters on a broad scope.

2. Have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made.

3. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

Consideration of the items above will prevent the problem of "segmentation" which may occur when a transportation need extends throughout an entire corridor but environmental issues and transportation needs are inappropriately discussed for only a segment of the corridor.

When describing the logical termini, it is common to describe the termini points broadly, such as "the intersection at SR-XX." However, termini that may not be considered logical without further discussion are county lines, rivers, and city limits.

The logical termini presented in an Environmental Document should be consistent with the "project limits" identified in the adopted cost feasible Long Range Transportation Plan (LRTP) of the respective MPO/TPO or other planning documents in a non-MPO area. The logical termini for a project in a "Non-attainment" or "Maintenance" area for Air Quality need to be consistent with the project limits established by the MPO/TPO. Any inconsistencies need to be resolved in coordination with FDOT's District Planning Office, the MPO/TPO, and OEM.

1.2.2 Purpose and Need

The purpose and need is developed during the Planning phase for ETDM screening and may be refined during the PD&E Study if new information or needs are identified. If the purpose and need changes during the PD&E Study, OEM must be made aware of and agree to the proposed changes before they can be incorporated into the Environmental Document.

The purpose and need for a project provides the basis for developing, considering, evaluating, and eliminating alternatives. The purpose and need shapes the alternatives and in the case of an EIS assists with identification of reasonable and feasible alternatives.

The purpose and need should be clearly written in plain language, succinct and well defined to set the framework for the development and evaluation of alternatives. The purpose and need should briefly describe the project context including actions taken to date, other agencies and governmental units involved, actions pending, and schedules. In many cases the project purpose and need can be adequately explained in one or two paragraphs.

Project needs developed during the transportation planning process and identified in a statewide or metropolitan transportation plan can be the primary source of a project's purpose and need. The transportation planning process enables state and local governments and MPOs, with the involvement of resource agencies and the public, to establish a vision for a region's future transportation system, define a region's transportation goals and objectives for realizing that vision, decide which needs to address, and determine the timeframe for addressing these needs. Out of the planning process emerge proposed projects intended to meet the needs and achieve the objectives of the plan.

The purpose and need:

1. Should be a statement of the transportation problem (not a statement of a solution such as specific project alternatives);

2. Should be based on articulated planning factors and developed through a planning process pursuant to applicable federal law;

3. Should be specific enough so that the range of alternatives developed will offer real potential for solutions to the transportation problem;

4. Must not be so narrow in definition or so specific as to pre-determine a solution;

5. May reflect other priorities and limitations in the area, such as environmental resources, growth management, land use planning, and economic development; and

6. Should not list specific design criteria or standards to be met by the project.

1.2.2.1 Development of Purpose and Need

Transportation planning data developed for FDOT in non-MPO areas or for MPO/TPO LRTPs are the primary source of information used to establish the purpose and need. These data are obtained from corridor plans, subarea plans, regional models and other sources that help identify corridors and facilities where transportation improvements are needed. These data are also summarized in the Strategic Intermodal System (SIS) plan, MPO/TPO Transportation Improvement Program (TIP), and the State Transportation Improvement Program (STIP). District staff preparing the purpose and need during ETDM screening should coordinate with planning staff to obtain relevant data that support the purpose need for the project. Consistent with the conditions set forth in ***23 CFR Part 450*** and ***23 U.S.C. § 168*** planning products can be adopted or incorporated by reference into ***NEPA***.

1.2.2.1.1 Purpose

The purpose identifies the primary goals of the project and guides the alternatives that will be considered and developed in response to the established need. The purpose should be broad enough to encompass a reasonable range of alternatives for an EIS, but not so broad that it encompasses every possible alternative. Conversely, the purpose should not be so narrow as to preclude a range of alternatives that could reasonably meet the defined objectives or restrict decision-makers' flexibility in resolving conflicting interests.

An alternative that does not achieve the primary purpose of the project would be eliminated as unreasonable or not feasible. Secondary purposes do not, by themselves, provide a basis for eliminating alternatives from further study, but could be considered in the selection of a preferred alternative.

1.2.2.1.2 Need

The need for the project may arise from deficiencies, issues, and/or concerns that currently exist or are expected to occur within the project area. The need serves as the foundation for the proposed project and provides the principal information upon which the "no-build" alternative discussion is based. It establishes the rationale for pursuing the

action and is generally reflected in local, state or MPO/TPO transportation plans. The need should consist of a factual, objective description of the specific transportation problem supported by data and analysis. Detailed analysis supporting the need should be referenced in the purpose and need discussion.

The following list may assist project sponsors in the discussion of the need for the proposed action. This list is not all-inclusive. **With exception of the project status, the remaining elements are not applicable in every situation**.

1. **Project Status** - Discuss the planning status of a project documenting the progression of the project towards implementation. Due to the time elapsed between a project's Planning phase and Environmental Document approval, the status will likely require updating. Planning consistency is required to receive OEM approval. See ***Part 1, Chapter 4, Project Development Process*** for more information on documenting planning consistency at the conclusion of PD&E and the ***FDOT/FHWA Consistency Guidance*** and ***Planning Consistency for NEPA Practitioners*** for more information on planning consistency. For the specific funding scenarios to obtain approval of the Environmental Document, refer to the ***Federal Strategies for Implementing Requirements for LRTP Updates for the Florida MPOs*** prior to submitting the Environmental Document.

   In the Environmental Document, briefly discuss planning consistency information and describe how and when the project will be implemented. Briefly discuss actions taken to date, coordination with other agencies and governmental units involved, actions pending, and schedules. This information is provided as a table in a Type 2 CE or State Environmental Impact Report (SEIR) as a function of the StateWide Environmental Project Tracker (SWEPT). For an EA or an EIS, ***Part 1, Chapter 4, Project Development Process*** includes a sample table that may be used to present the project implementation information in a clear and concise manner. Summarize information contained in the planning documents including: project scope, project phases, cost, general funding sources, project description, and logical termini. Describe project implementation and document the status of the planning requirements as follows:

   a. MPO Areas:

   1. Identify which MPO the project is located in. The information provided in the Environmental Document must reference the MPO's currently adopted LRTP and TIP. Also, the Current STIP should be used since the TIP must be consistent with the STIP.

2. Project limits: Confirm that the project description in the LRTP and Environmental Document are similar. Explain any differences, such as the ***NEPA*** project is a shorter section than what is described in the LRTP or that the Environmental Document includes more than one LRTP project. If the LRTP shows that the project will be implemented in segments, then the segments must be described. Also confirm that the STIP/TIP and Environmental Document descriptions are similar, describing any differences.

3. Project Funding: Provide a narrative referencing the Cost Feasible LRTP, TIP, and Current STIP page. Document all project future phases [Design, Right of Way (ROW), and Construction], when those phases are to be funded, their anticipated costs, and the source of funds proposed to be used (e.g., state, local, federal, private or toll) which must be described in the first 10 years of the LRTP, referenced in the ***Federal Strategies for Implementing Requirements for LRTP Updates for the Florida MPOs***. If any phase is not funded, the estimated implementation dates should be provided, which can typically be found in the LRTP Needs Plan. The estimated total project cost and anticipated date of construction must also be included.

b. Non-MPO Areas:

1. In a non-MPO area, the information provided must reference the Current STIP, andacknowledge consistency with the Florida Transportation Plan. Other long range planning documents, such as SIS Cost Feasible Plan (CFP), Local Government Comprehensive Plan, or other publicly adopted plans may be used to support the project's planned implementation.

2. Project limits: Confirm that the project description in the STIP or other long range documents and Environmental Documents are similar. Explain any differences, such as the ***NEPA*** project is a shorter section than what is described or that the Environmental Document includes more than one project.

3. Project Funding: Provide a narrative referencing the Current STIP page or other transportation plan that describes all project future phases (Design, ROW, and Construction), when those phases are to be funded, their anticipated costs, and the source of funds proposed to be used (e.g., state, local, federal, private or toll).. If any phase is not funded, the estimated implementation dates should be provided. The estimated total project cost and anticipated date of construction must also be included.

In either case, if the project is going to be designed or constructed in segments, then these segments should be discussed in the Environmental Document and clearly shown on the project location map. This discussion should include the approximate implementation timeframes and estimated costs.

The LRTP, TIP, and Current STIP pages should be included in the Appendix of the Environmental Document.

When a draft Type 2 Categorical Exclusion (CE), EA or Draft Environmental Impact Statement (DEIS) is released for public availability and there are inconsistencies between the Environmental Document and the planning documents, the Environmental Document should describe the differences and the steps needed to achieve consistency and a timeframe when this will occur. After the public hearing, planning consistency must be achieved prior to approving the Type 2 CE, EA with Finding of No Significant Impact (FONSI), Record of Decision (ROD) or Final Environmental Impact Statement (FEIS)/ROD. Please refer to the ***FDOT/FHWA Consistency Guidance*** and ***Planning Consistency for NEPA Practitioners*** for additional information regarding planning consistency.

2. **System Linkage** - Is the proposed project a local, regional, or intraregional "connecting link"?

   Discuss how the proposed project fits into the existing and future local, regional and state transportation system (network) and contributes to the movement of people, goods, and services. Also discuss how the proposed project contributes to the multi-modal transportation network.

3. **Capacity** - Is the capacity of the existing facility inadequate to serve the traffic? What is the projected transportation demand? What capacity is needed? What is the Level of Service (LOS) for existing and proposed facilities?

   Discuss the capacity of the existing facility, its existing and anticipated LOS, and any operational deficiencies of the facility.

4. **Transportation Demand** - Will the project accommodate the forecasted transportation demand as shown in the adopted state and local transportation plans? Will the project meet future transportation demands based on projected population, employment growth, an increase in freight movement, or other demands on the transportation system?

   Discuss the project relationship to any statewide transportation plan or adopted urban transportation plan.

5. **Legislation** - Is there a federal, state, or local governmental mandate for the action?

   Document the need to respond to federal, state, or local government requirements.

6. **Social Demands or Economic Development** - What projected economic development/land use changes indicate the need to modify the transportation facility, network or system?

   Describe how the action will foster new employment, benefit schools, land use plans, recreation facilities. Discuss types of social and economic traffic generators, both existing and planned, which exert travel demands on the facility. For example, include businesses, neighborhoods, recreational facilities, shopping centers, new developments, and any other traffic generators which could increase travel demands on the proposed facility.

7. **Modal Interrelationships** - How will the proposed project interface with and serve to complement other modes of transportation such as airports, freight facilities, rail and port facilities, mass transit services?

   Identify the need to address other modes of transportation (e.g., airports, rail and port facilities, mass transit services, bicycle accommodations, ridesharing, special use lanes) associated with the project and discuss how the proposed action will complement other modes.

8. **Safety** - Is the proposed project necessary to correct an existing or potential safety hazard? Is the existing crash rate higher than the statewide average for similar facilities? How will the proposed project improve it?

   Discuss crashes which have occurred in the study area that may indicate a need for improvement. The discussion may include crash types, frequency, crash pattern, crash contributing causes, and the rate of crashes when compared with the statewide average for similar facilities. Identify existing high-hazard sections of the facility and how the project will address the safety problem. Discuss any traffic or transportation safety issues which are or could become a problem (e.g., hazardous material transportation).

9. **Roadway Deficiencies** - Is the proposed project necessary to correct existing roadway deficiencies? How will the proposed project address the deficiencies? Is there a deficient or substandard bridge?

   The need and rationale behind reconstructing or replacing a roadway or existing bridge **must** be provided. Provide a detailed description of the existing structure(s) and their deficiencies. Deficiencies may include substandard geometrics, load limits on structures, inadequate typical sections, poor pavement condition, inadequate drainage, and inadequate SIS roadway design standards. For bridges, the deficiencies identified may be the result of structural and functional ratings, horizontal and vertical clearances, state of repair, weight restrictions or limitations.

1.2.2.2 Purpose and Need during the ETDM Screening

The purpose and need may evolve as the project advances through the Planning phase, ETDM process, and through the PD&E phase. A project's purpose is usually first identified in the transportation plan(s), e.g., MPO LRTPs, the SIS plan and the TIP/STIP. While the purpose of a project does not change substantially over time, the need may be better defined as the project advances and more information becomes available.

OEM must provide opportunities for participating agencies and the public to provide input on the purpose and need in accordance with ***23 U.S.C. § 139(f)***, and consult with Cooperating Agencies as required by ***40 CFR § 1501.7(h)(4)***. Prior to engaging in the environmental review process, these obligations may be satisfied if agencies and the public are involved in the development of the project purpose and need during the transportation planning process. Nonetheless, FDOT accomplishes these goals through the ETDM process for all projects that are screened. The ETDM process has two screening events: the Planning and Programming Screens. See the ***ETDM Manual, Topic No. 650-000-002*** for more information on project screening.

The following briefly describes the purpose and need during the screening events:

1. Planning Screen - The Planning Screen may be the first opportunity agencies and other interested parties have to provide input on a project's purpose and need. Coordinate with the District Planning Office to obtain the project purpose as identified in the MPO/TPO LRTP and SIS Plan.

2. Programming Screen - The Programming Screen is intended to occur prior to a project's adoption into the FDOT Work Program or TIP/STIP, and/or prior to the PD&E phase. This screening helps focus the scope of the PD&E Study and can provide scoping information for an EIS, if necessary. The information for the purpose and need should be coordinated with the District Planning Office to ensure consistency. If the project was screened previously, then the purpose and need from the screening should be refined to reflect the information presented in the ***Planning Screen Summary Report*** with updated information, as appropriate. If any new information is available it should also be provided.

1.2.2.3 Purpose and Need during PD&E

The purpose and need information from the ***Programming Screen Summary Report*** is used to prepare the purpose and need for the Environmental Document. The final purpose and need developed in the PD&E should be consistent with the purpose and need found in the ***Programming Screen Summary Report***. During PD&E review the most up to date transportation plans and verify whether information supporting the purpose and need is still valid, gather new data to fill any information gaps, and refine the purpose and need if necessary. In addition, update the needs based on current data, such as traffic, crash, and existing conditions. OEM must be consulted if the project

description or the purpose and need for a project changes substantially during the PD&E Study.

According to ***40 CFR § 1502.13***, "the statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action."

1.2.2.3.1 Documentation

The location of the project description and purpose and need differs depending on the Environmental Document type:

1. **Type 2 CE** – Project description and purpose and need information is included in Section 1 (Project Information) of the ***Type 2 Categorical Exclusion Determination Form***. Planning consistency information is provided in a table in the form.

2. **EA or EIS** - Project description and purpose and need information is included in a section titled "Project Description and Purpose and Need".

3. **SEIR** – Project description and purpose and need information is included in Section 1 (Project Information) of the SEIR. Planning consistency information is provided in a table in the form.

1.3 REFERENCES

American Association of State Highway and Transportation Offices (AASHTO). Practitioner's Handbook: Defining the Purpose and Need and Determining the Range of Alternatives for Transportation Projects. August, 2016

Council on Environmental Quality. Regulation for Implementing the Procedural Provisions of the National Environmental Policy Act. 40 CFR 1500-1508. http://www.ecfr.gov/cgi-bin/text-idx?SID=f8e9363eb4cefab417d6477d717c8961&mc=true&tpl=/ecfrbrowse/Title40/40chapterV.tpl

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FHWA and FTA, January 2018, Federal Strategies for Implementing Requirements for LRTP Updates for the Florida MPOs. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/content/planning/policy/metrosupport/resources/lrtp-expectations-2018.pdf?sfvrsn=cfb8b8c6_0

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

FDOT, Efficient Transportation Decision Making (ETDM) Manual, Topic No. 650-000-002 http://www.fdot.gov/environment/pubs/etdm/etdmmanual.shtm

FDOT, Planning Consistency for NEPA Practitioners. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/pdeman/planning-consistency-for-nepa-practitioners.pdf?sfvrsn=895090ea_1

Section 339.177, Florida Statutes (F.S.)

Title 23 U.S.C. § 134

1.4 HISTORY

1/28/2003, 12/03/2012: Update combined two previous chapters (Part 2, Chapter 4, Project Description 12/6/2007 and Part 2, Chapter 5, Purpose of and Need for Action), 4/22/2014, 8/22/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 4, 1/14/2019, 7/1/2020, 7/1/2023

PART 2, CHAPTER 2

TRAFFIC ANALYSIS

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TRAFFIC ANALYSIS

2.1 OVERVIEW

2.1.1 Purpose

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

This chapter provides guidance for preparing the traffic analysis for Project Development and Environment (PD&E) Studies. Specifically, the chapter covers scoping the traffic analysis effort, traffic data requirements, analysis methodology and documentation.

Traffic analysis is an evaluation of the interaction between demand and supply of a transportation facility to determine how efficient the facility is serving the demand. This analysis forms the basis for evaluating the performance of project alternatives and design concepts based on demand, capacity, operational performance, environmental impacts, and safety concerns. Traffic analysis is one of the methods used to evaluate transportation needs during the Planning phase and PD&E Study. Additionally, traffic analysis produces data needed to support project-level environmental analyses such as noise and air quality impacts.

Traffic analysis is one of the critical activities for a PD&E Study and can impact the project schedule; the Project Manager must understand the effort associated with traffic data collection, forecasting, and analysis. Each transportation project is unique and the approach for individual projects might differ. As such, when developing the project traffic data and performing the corresponding analysis, there must always be a balance between the project's goals and objectives, available schedule and budget, and the complexity of the analysis to be performed. The Project Manager should reach an early agreement with project reviewers on the traffic analysis approach and parameters for the analysis. Such agreement is vital to project success as it helps to avoid misunderstanding between traffic analysts and reviewers of traffic analysis reports that may negatively impact the project development schedule.

This chapter references guidance from other FDOT procedures, manuals, and handbooks, along with national guidance such as the ***Highway Capacity Manual (HCM)*** and FHWA's ***Traffic Analysis Toolbox***. The chapter is intended for transportation practitioners who perform traffic analyses for FDOT projects and possess sufficient knowledge of traffic flow theory and traffic engineering including guidance documented in FDOT and national publications.

2.1.2 Definitions

The following definitions apply to terminology used in this chapter:

Annual Average Daily Traffic (AADT) - The total volume of traffic passing a point or a segment of a highway facility in both directions for one year, divided by the number of days in the year.

Average Daily Traffic (ADT) - The total traffic volume during a given period in whole days (greater than one day and less than a year) divided by the number of days in that period.

Axle Correction Factor - The factor developed to adjust axle counts into vehicle counts. It is developed from classification counts by dividing the total number of vehicle counts by the total number of axles on these vehicles.

Crash Modification Factor (CMF) – A multiplicative factor used to compute the expected number of crashes after implementing a given design element or treatment at a specific site. For example, a CMF of 0.95 for a design element would suggest that application of that element or treatment would decrease crashes by 5%.

Design Hour - An hour with a traffic volume that represents a reasonable value for designing the geometric and control elements of a facility.

Design Year - The year for which the project is designed; usually 20 years from the Opening Year, but may be any time within a range of years from the present (for restoration type projects) to 20 years in the future (for new construction type projects).

Directional Design Hour Volume (DDHV) - The traffic volume expected to use a highway segment during the design hour of the design year in the peak direction.

Directional Distribution (D Factor) - The percentage of the total two-way peak hour traffic that occurs in the peak direction.

Level of Service (LOS) - A quantitative stratification of a performance measure or measures that represents quality of service of a transportation facility measured on an A-F scale, with LOS A representing the best operating conditions from the traveler's perspective and LOS F the worst.

Model Output Conversion Factor (MOCF) - A factor used to convert the traffic volumes generated by a travel demand forecasting model in Peak Season Weekday Average Daily

Traffic (PSWADT) to AADT. The MOCF is the average of the 13 consecutive weeks during which the highest weekday volumes occur and when the sum of Seasonal Factors (SF) for those 13 weeks are the lowest. MOCF is used during model validation to convert AADT to PSWADT for the base year model network should also be used for adjusting future year model volumes from PSWADT to AADT.

Peak Season Weekday Average Daily Traffic (PSWADT) - The average weekday traffic during the peak season. Some Florida Standard Urban Transportation Model Structure (FSUTMS) traffic assignment volume represents PSWADT projections for the roadways represented in the model highway network. For ***Project Traffic Forecasting Reports***, the PSWADT should be converted to AADT using a MOCF. Although not all FSUTMS models report traffic assignment volume in PSWADT, there are currently several model outputs throughout the State that require conversion from PSWADT to AADT using MOCF.

Peak Spreading - The expansion of peak period of traffic, from the traditional one-hour peak to multi-hour peak period, as the demand to use the facility surpasses capacity.

R-Squared Value - A statistical measure, expressed as a percentage, of how well a regression model fits the real data points.

Regression Analysis - A statistical process for determining the strength of the relationship among one dependent variable and one or more independent variables.

Safety Performance Function (SPF) - A statistically derived equation that predicts the average number of crashes per year at a location as a function of traffic exposure (e.g., volumes of vehicles, bicyclists, pedestrians).

Seasonal Factor (SF) - Parameters used to adjust base counts which consider travel behavior fluctuations by day of the week and month of the year. The SF used in Florida is determined by interpolating between the Monthly SFs for two consecutive months.

Standard K (K Factor) - A factor used to convert AADT to a peak hour volume. Standard K values are statewide fixed parameters that depend on the general area types (location) and facility types (roadway characteristics). Values less than 9% typically represent a multi-hour peak period rather than a peak hour. Standard K does not apply to emergency evacuation routes and managed lanes.

Truck Factor (T_{24}) - The percentage of truck traffic during a 24-hour period.

Saturation - Traffic operating conditions in which the traffic demand is equal to or exceeds the capacity of a facility.

2.2 PROCEDURE

Traffic analysis for a PD&E Study includes developing objectives of analysis, identifying key performance measures to evaluate the project alternatives, determining analysis approach and tools to be used, determining data needs, collecting and analyzing data

and documenting the results. Procedures for traffic analysis are found in the following publications:

- ***HCM*** – Published by the Transportation Research Board (TRB), the ***HCM*** contains concepts, guidelines and methods for computing LOS for freeways, highways (two-lane and multilane), urban streets and intersections (roundabout, signalized and unsignalized).

- ***FDOT Traffic Analysis Handbook*** – The ***FDOT Traffic Analysis Handbook*** provides guidance and general requirements for the uniform application of traffic analysis tools for roadway corridor, interchange, and intersection projects.

- ***FDOT Project Traffic Forecasting Procedure, Topic No. 525-030-120*** – The ***Project Traffic Forecasting Procedure*** offers guidelines and techniques for forecasting traffic (with and without a travel demand model), calculating Annual Average Daily Traffic (AADT) from short term counts, calculating Directional Design Hourly Volumes (DDHVs), estimating intersection turning movements and calculating Equivalent Single Axle Load (ESAL) forecasts.

- ***FHWA Traffic Analysis Tools*** – The ***FHWA Traffic Analysis Tools*** is a program that produces and maintains different guidance documents which support different aspects of traffic and transportation analyses. The Traffic Analysis Tools program also provides guidance on the selection of and application of traffic analysis tools, interpretation of performance measures and other pertinent information.

- ***FDOT Traffic Engineering Manual (TEM), Topic No. 750-000-005*** – The ***TEM*** provides traffic engineering standards and guidelines to be used for SHS by FDOT. It provides guidance for signs, signals, markings and specialized traffic operational topics.

- ***FDOT Manual of Uniform Traffic Studies (MUTS), Topic No. 750-020-007*** – The purpose of the ***MUTS*** is to establish minimum standards for conducting traffic engineering studies for roads under the jurisdiction of FDOT. In addition, local government traffic engineering agencies are recommended and encouraged to use the ***MUTS*** as a guideline for conducting studies within their area of responsibility.

- ***American Association of State Highway and Transportation Officials (AASHTO) Highway Safety Manual (HSM)*** – The ***HSM*** provides a variety of methods and tools for quantitatively estimating crash frequency or severity in the project development process. The ***HSM*** assists practitioners in selecting countermeasures and prioritizing projects, comparing alternatives, and quantifying and predicting the safety performance of roadway elements.

- ***Transit Capacity and Quality of Service Manual (TCQSM), Transit Cooperative Highway Research Program Report 165*** – The ***TCQSM*** provides quantitative techniques for calculating the capacity and other operational

characteristics of bus, rail, demand-responsive, and ferry transit services, as well as transit stops, stations, and terminals.

2.2.1 Traffic Analysis Objectives

Given the importance of traffic forecasting and analysis in the PD&E Study schedule, the Project Manager should meet with the project team prior to starting the analysis to establish the traffic analysis objectives. The composition of the project team will vary depending on the type of project, but will generally include FDOT planning and PD&E staff and consultant traffic staff. The objectives of the traffic analysis must reflect the purpose and need for the project and be measurable. Measurable objectives are essential for a comparable evaluation of project alternatives.

Before establishing traffic analysis objectives, the Project Manager and project team must review the purpose and need for the project, which is documented in previously completed planning studies and the Efficient Transpiration Decision Making (ETDM) ***Programming Screen Summary Report***.

2.2.2 Level of Traffic Analysis

2.2.2.1 Traffic Analysis Scope

PD&E Studies vary in size and type, resulting in project traffic forecasting and analysis with varying levels of detail. FDOT's Project Manager should develop the scope of the traffic analysis effort based on the need for the project and the analysis objectives. The items that inform the traffic analysis scope are traffic study limits, design years, air quality and noise analysis requirements, and special components for traffic analysis, such as freight, transit, origin-destination data.

Traffic forecasts and analysis may be prepared as part of a planning study or advanced prior to the PD&E Study. Therefore, FDOT's Project Manager must review and consider previously completed traffic analysis activities when determining the scope or level of analysis needed during the PD&E phase.

The level of traffic analysis includes the methodology, analysis tools, and documentation. Decisions regarding scope and level of effort should be made in conjunction with the office responsible for the review of the traffic analysis, such as Systems Planning. These decisions should be made after reviewing any previously completed planning and traffic operational studies in the project area. Additionally, the following items must be reviewed when determining the level of effort needed to conduct traffic analysis:

- Elements that relate to the transportation problem being analyzed and the project's purpose and need.

- Traffic analyses conducted prior to the PD&E phase to determine their adequacy for inclusion in the PD&E Study as per ***23 Code of Federal Regulations (CFR)***

Part 450 and ***23 U.S.C § 168***. See ***Part 1, Chapter 4, Project Development Process*** for more guidance.

- Existing operating conditions to determine the degree of saturation and study area of influence.
- Facility type and geographic context. This includes review of current or future major traffic generators in the vicinity of the project.
- Presence of Intelligent Transportation Systems (ITS) technology.
- Proposed improvements for the project.
- Need for tolling.

The Project Manager should begin with an understanding of what level of analysis is needed and use that information to develop the data collection effort. For instance, regarding future traffic projections, a PD&E Study for a rural corridor may only require the forecast of daily traffic demand to evaluate alternatives. An express lanes PD&E Study would require the forecast of peak period traffic volumes for both general use lanes (non-tolled lanes) and for the express lanes (variable tolled lanes). Additionally, a PD&E Study for an over-saturated intersection or corridor may require extending both geographic area of analysis and analysis time periods to accommodate actual traffic demand and bottlenecks.

The Project Manager should work with the reviewers and decision makers of the traffic analysis report to understand the expected outcome of the study. This will help to reach agreement on analysis methods and assumptions early in the process which is vital to the success of the project. Additionally, the Project Manager must consider other analyses (economic, air and noise) which are dependent on the output of the traffic analysis and incorporate them into the scope.

2.2.2.2 Adopting Planning Phase Traffic Analyses

Project traffic analysis may be prepared prior to the PD&E phase as part of a corridor study, feasibility study, or Interchange Access Request (IAR) process. In addition, traffic analyses are conducted to determine transportation problems as part of a system-wide transportation needs plan. These planning studies may also be used to support the purpose and need for projects (see ***Part 1, Chapter 4, Project Development Process***). Some of the traffic operational analyses performed prior to the PD&E phase have the same level of detail as those conducted during a PD&E Study. For instance, an IAR traffic analysis for the interstate system follows a process that is agreed upon by FHWA, FDOT, and the interchange access applicant. During the project scope development stage, the Project Manager should explore opportunities to reuse or incorporate by reference detailed planning analyses (such as those prepared in support of IAR studies) in the PD&E Study.

Title 23 U.S.C. § 168 and ***23 CFR Part 450*** allow for decisions and analyses conducted during transportation planning to be used for the ***NEPA*** study. More information on how to adopt planning products is found in ***Part 1, Chapter 4, Project Development Process***. It is essential for FDOT's Project Manager to review the traffic analysis conducted during the Planning phase and determine its applicability in the PD&E Study early in the scope development stage. The Project Manager should also coordinate with planning staff when determining applicability of the planning products.

2.2.3 Performance Measures of Effectiveness

Comparative evaluation of project alternatives requires the selection of performance Measures of Effectiveness (MOEs) that fit the goals and objectives of the analysis. The traffic analysis computes MOEs that are used to quantify the existing and future operating conditions of the project. The appropriate MOEs help to compare the performance of various alternatives in achieving a project's traffic operational objectives.

One of the primary MOEs is Level of Service (LOS). However, LOS is not effective when the facility is characterized with oversaturated conditions where the demand to use the facility exceeds capacity. In urban areas, traffic analysis may result in LOS F for all alternatives, which will not help in differentiating between alternatives. Under such conditions, the Project Manager must select the appropriate MOEs based on the needs and context of the individual project. It is important that all stakeholders associated with the project agree to the MOEs selected before the project team begins the analysis, since data requirements and traffic analysis tools are closely related to MOEs.

A highway traffic analysis can also use the following MOEs:

- Throughput
- Vehicle Miles of Travel
- Volume/capacity ratio
- Travel time
- Travel speed
- Total delay at intersections
- Queue length
- Number of stops
- Density
- Travel time variance
- Travel time reliability

- Hours of congestion

Typical MOEs for safety analysis include:

- Crash frequency
- Actual crash rate
- Number of fatalities
- Crash severity level
- Economic loss

Typical MOEs for transit analysis include:

- Passenger trips
- Average headway
- Percent of population served
- Total fare box revenue
- Passenger wait time
- Travel reliability
- Vehicle loads
- Span of service

Typical MOEs for environmental/economic analyses include:

- Vehicle Miles of Travel
- Vehicle Hours of Delay
- Vehicles Hours of Travel
- Travel speed
- Mobile Source Emissions
- Number of crashes
- Travel time saving

2.2.4 Traffic Analysis Tools

Traffic analysis can vary from looking up generalized service volume tables for LOS to detailed microsimulation analysis. The tools selected for conducting the traffic analysis must correlate the complexity of the project and the magnitude of the traffic problem. Sophisticated tools and methods such as microsimulation must be used only for very complex problems such as those that require interactions of road users or involve oversaturated, congested conditions. The default tool for the analysis should be ***HCM***-based tools, as they are least complex and require less data. The traffic analyst must also consider limitations of the tools when selecting proper analysis methods that meet the project needs. The Project Manager and project team should refrain from selecting a tool that does not fit the analysis objectives.

The tools may be used for different levels of analysis:

- Generalized Service Volume Tables, found in the ***Quality/Level of Service Handbook*** and Florida's LOS Planning Software (LOSPLAN) may be used for general planning level analyses and high-level concepts screening. These tools should not be used for operational analyses.

- Analysis of locations that are not congested or do not require an understanding of interactions between various users.

- Microsimulation tools can be used to analyze areas that require an understanding of interactions between various users or transportation systems and/or experience oversaturated, congested conditions. These tools can also analyze unconventional project concepts or the performance of the entire network/system.

- ***HSM*** tools such as ***HSM Part C*** spreadsheets and the Enhanced Interchange Safety Analysis Tool (ISATe), Crash Modification Factors (CMFs), Interactive Highway Safety Design Model (IHSDM), and Safety Analyst which can be used to conduct quantitative safety analyses.

The ***Traffic Analysis Handbook*** contains guidance for selecting the proper traffic analysis tools. Depending on project conditions or needs, the analysis may use tools other than those listed in this section or discussed in the ***Traffic Analysis Handbook***. Prior to using alternative tools not listed in the ***Traffic Analysis Handbook***, the traffic analyst must submit a request and provide justification to FDOT's Project Manager.

2.2.5 Data Collection

Data required for traffic analysis depends on various factors such as project context, project limits, analysis methods, and performance MOEs. At the outset of the project, FDOT's Project Manager and project team must gather all existing available traffic information from FDOT databases, past studies, prior projects, and other analysis performed within the project area. This information is essential to obtaining general knowledge of the project area and identifying any gaps in data that would be included in

a data collection plan. Even when review of existing data indicates the data is sufficient, the project team must conduct field reviews. Field observations are necessary to confirm data and review driving characteristics and operational conditions. Aerial and satellite imagery can provide useful information about physical characteristics of the analysis area but they should not replace field reviews. The ***FDOT Manual of Uniform Traffic Studies (MUTS), Topic No. 750-020-007*** contains additional requirements for collecting data to support traffic signal warrant studies, travel time studies, and speed studies.

The data collection effort should consider all modes of transportation that exist or are planned within the project limits. ***FDOT's Complete Streets Policy, Topic No. 000-625-017*** requires that roadways accommodate all modes and users of all ages and abilities. Therefore, depending on project context, data collection should include information about transit stops, boarding and alighting, headways, pedestrian counts, and bicycle counts, as appropriate. Collection of data related to pedestrian generators and attractors should be considered in urban contexts.

The tools used to develop and analyze alternatives also affect the data collection effort. Microsimulation analyses require more detailed data than analytical methods or ***HCM***-based tools. The data collection plan for a microsimulation analysis must contemplate and include data needed for the proper calibration and validation of the model to be used in the analysis.

The data collection plan must include the traffic analysis area, which may exceed the project limits. Examples of traffic studies where the data collection plan must extend beyond the PD&E Study limits are:

- **Interchange Access Request Studies** - Interchange access requests may require analysis of the interchanges upstream and downstream of the project location and the crossroad up to one half-mile in either direction of the proposed access change. The geographic breadth of the analysis should be coordinated with the District's Interchange Review Coordinator (IRC), FHWA, and OEM (for projects on the interstate system). See ***Interchange Access Request Users Guide*** for more guidance.

- **New Corridor Studies** - New corridor studies require a general understanding of the total demand, operations, and safety for the corridor traffic analysis area, which includes roadways parallel to or intersecting with the proposed roadway.

- **Bottlenecked and Oversaturated Roadway Facilities** - The analysis area must include operational constraint points or sections (limited physical capacity) that restrict the roadway from processing the traffic demand, thus causing recurring congestion. The constraints may require extension of the analysis area beyond the predefined area of influence. Downstream bottlenecks cause queue spillbacks into the project area, while upstream bottlenecks may meter the flow and cause demand starvation within the project area.

- **Coordinated Freeways and Arterials** - Project sections or points that are part of a coordinated arterial and/or Coordinated Freeways and Arterials (CFA) network may require extension of the traffic analysis area to include coordinated signals.

- **Lane Repurposing** - Project converting (repurposing) existing lanes to dedicated bus lanes, parking lanes, or bicycle lanes may require a system or network wide analysis to evaluate the impact of traffic diverting to adjacent major roadways.

- **Projects with Transit Routes** - Transit ridership on a project is based on several factors including accessibility (a measure of how an individual can pursue a desired mode at a desired location and time). Accessibility can include park and ride lots and transfer between modes, which may be located outside the PD&E Study limits. Additionally, terminal stations where transfers take place may be located outside the PD&E Study limits.

Once the data collection plan is defined, the next step is to decide the type of information to be collected.

2.2.5.1 Types of Data Collection

The data collection effort can be divided into three categories—roadway characteristics, multimodal travel characteristics, and operations and safety characteristics. The type of traffic analysis will determine the requirement and level of detail in which elements in each category are to be collected. The following are the data elements for each category:

Roadway Characteristics

- Number of lanes
- Lane widths
- Presence of auxiliary lanes
- Length of auxiliary lanes
- Intersection types (signalized, stop controlled, roundabout, grade separated)
- Predominant land use types (existing and future) adjacent to corridor
- Roadway geometrics (curvature, intersection configuration, grades)
- Number of turn lanes
- Turn lane storage lengths
- Merge/diverge lengths
- Interchange spacing/density

- Presence of on-street parking
- Presence of transit lanes
- Presence of transit stops
- Type of transit stops (bus bays or bus stops)
- Presence of bicycle lanes
- Bicycle lane width
- Presence of sidewalks
- Sidewalk distances from travel lanes
- Shoulder widths
- Lateral and vertical clearances
- Presence of railroad crossings
- Toll plaza type (electronic vs. cash collection) and location
- Right of way map, tax map, parcel maps
- As built plans
- AADT

Multimodal Travel Characteristics

- Vehicle classification and vehicle mix
- Truck Percentages
- Turning Movements Counts
- Pedestrian Counts
- Bicycle Counts
- Boarding and alighting at transit stops or stations
- Transit Hours of Operation
- Transit Headways

- Route Ridership
- Running time information
- Utilization of special facilities (e.g., bus on freeways, transit centers, transit stops)
- Frequency of train service at railroad crossings
- Peak Hour Factors (PHF)
- Origin-Destination (OD) survey data for general vehicles and/or trucks

Operations & Safety Characteristics

- Posted Speed Limits
- Average Travel Speeds (highway and transit)
- Average Travel Times
- Signal density
- Signal Timings
- Locations of detectors and traffic signal heads
- Queue locations and queue lengths
- Number of crashes and location of crashes
- Severity of crashes (fatal, injury or property damage) and their contributing causes

FDOT and other agencies have developed the following databases containing several roadway, traffic, safety and operations characteristics, which can be used to supplement the data collection effort:

- Florida Traffic Online (FTO)
- FDOT Roadway Characteristic Inventory (RCI) Database
- Regional Integrated Transportation Information System (RITIS) at University of Maryland
- FDOT Crash Analysis Reporting (CAR) System Database
- Signal Four Analytics
- FDOT District Databases and Sources

- Metropolitan planning organization (MPO) travel demand models
- Motor and Equipment Manufacturers Association (MEMA) vehicle fleet data

2.2.5.2 Data Collection Schedule

The Project Manager should work with the project team to determine the appropriate duration of the data collection effort. Data collected over multiple days provides a higher degree of confidence and is more robust if random events like traffic crashes or equipment failure occur during part of the data collection period. Data collection cost increases with duration, therefore, the Project Manager must balance these competing considerations with the goals of the study. The project team must first review existing data sources, such as the ones from FTO, to determine 24-hour demand profiles. Demand profiles are a useful tool to estimate the duration of the data collection. In the absence of existing data, use Chapter 3 of the ***HCM*** for examples of monthly, weekly, and hourly variation in traffic volumes for rural and urban routes to determine the length of the data collection period. Chapter 6 of the FDOT ***Project Traffic Forecasting Handbook*** describes traffic adjustment factors and the variability of traffic counts.

The data collection effort should be accomplished in accordance with the FDOT ***Project Traffic Forecasting Handbook***.

The FDOT recommends that traffic counts be collected on Tuesday, Wednesday, or Thursday. To ensure the data is representative of average (typical) traffic conditions, traffic counts should not be collected during the summer or on holidays, since travel patterns during these times cannot be assumed to be representative of typical weekdays. However, for studies near recreational facilities summer or holidays may provide the traffic analyst with more accurate “typical” pattern of travel.

A 72-hour period is recommended for traffic counts. Collection of data over a 72-hour period is preferred over single-day to avoid poor and faulty data due to equipment failures, human errors, and traffic incidents, among other reasons. However, if the roadway is a typical commuter traffic route and there is adequate history (5 to 10 years) of traffic counts, a 24-hour to 48-hour count may be sufficient. A 24-hour to 48-hour traffic count must be validated against historical counts.

Classification counts from a Telemetered Traffic Monitoring Site (TTMS) or Portable Traffic Monitoring Site (PTMS) can be used as long as such site exists within the vicinity of the project. In absence of a permanent count station, 72 consecutive hours of vehicle classification counts should be collected. Counts for less than 72 hours are not recommended because of random variations that may be brought about by equipment failures, human errors, weather, special event, and traffic incidents, among other reasons.

Intersection turning movements should generally be collected during the AM and PM peak periods for at least 3 days. For urban arterials serving predominantly commuter traffic, turning movement counts less than 3 days may be sufficient, provided there is historical validation data. Typical 8-hour intersection turning movement counts are collected over a

day. The Project Manager may review the FTI traffic synopsis report and collect more than 8-hour per day if the area experiences heavy peak periods throughout a typical weekday. If heavy truck traffic is anticipated in the study area, truck counts should also be collected as part of the intersection turning movement count.

Roadways serving commercial uses, shopping centers, and schools may peak during the midday period or during the weekends. The Project Manager should review the traffic count synopsis report from the FTI DVD and/or FTO to determine if midday turning movement counts are required.

If there is no history of traffic counts, conduct 72-hour approach and departure counts at the intersection to allow extrapolation of the peak hour turning movements from the daily turning movements.

Intersection turning movement counts must include bicycle and pedestrian movements. Bicycle and pedestrian usage varies considerably with location. Peak period counts may be adequate in areas with light pedestrian/bicycle usage. Downtown areas, university campuses, and areas with heavy pedestrian and/or bicycle usage should be counted for an 8-hour period.

Crash data should be obtained for the most recent five years. If five years of crash data are not available, use a minimum of three years with a corresponding explanation.

Transit projects can vary from new fixed guideway systems to Bus Rapid Transit (BRT) projects. The data collection for such projects depends on the type of project. For areas with existing transit service, the traffic analyst should consult with the local transit agency before beginning any data collection. Transit agencies and providers are required to develop a 10-year Transit Development Plan (TDP). These TDPs usually contain a significant amount of data that can be used for transit studies, such as socio-economic data, transportation system characteristics, market research and system surveys, and public transportation service performance and trends, among other useful information. The data collection effort may vary among routes depending on the ridership. For example, low ridership routes may only require a 7 to 10-day period of data collection to capture a sufficiently robust sample of responses. Additional details about data collection activities for environmental analysis can be found in ***Part 1, Chapter 14, Transit Project Delivery***.

2.2.6 Project Traffic Forecasting

Project traffic forecasting is the process of estimating the future year traffic demand for a given project. It includes estimating daily volumes and peak hour demand volumes. Daily volumes are represented by AADT while peak hour demand is represented as Design Hour Volume (DHV). Transportation practitioners use AADT and DHV to determine geometric features of the roadway, assess operational performance of the facility, and calculate the ESALs for pavement design.

There are two options for forecasting traffic volumes:

- With a Travel Demand Model
- Without a Travel Demand Model

The ***Project Traffic Forecasting Handbook*** details FDOT's traffic forecasting process for both options. Documentation of traffic forecasts and analysis must detail the selection of the preferred forecasting method, as well as the application of said method in the analysis.

2.2.6.1 Forecasting using a Travel Demand Model

Traffic forecasting for a project must begin with the most recently adopted version of a travel demand model. This model should have been used to develop the most recent Long Range Transportation Plan (LRTP). This model represents the latest planning assumptions regarding population, employment, land use, transportation plans, and revenue, and is referred to as the "adopted model".

Before using any travel demand model, the traffic analyst must determine if the model meets the area wide validation standards established by FDOT's Systems Traffic Modeling Office and published in the ***FSUTMS-Cube Framework Phase II – Model Calibration and Validation Standards Report***.

With the development of the Florida Statewide Model, all 67 counties within Florida are covered by at least one travel demand model. The determination of the preferred model for each study is dependent on several factors, such as project location, analysis years, available data, transportation mode (e.g., freight, transit, automobile). Coordinate with the District Planning Office on the preferred travel demand model prior to commencing the traffic forecasting process and document the decision in the ***Project Traffic Assumption Form, Form No. 650-050-39*** in ***Figure 2-2***.

Finally, most of the travel demand models are validated to Peak Season Weekday Average Daily Traffic (PSWADT). The PSWADT traffic volumes generated by the model must be converted to AADT using the Model Output Conversion Factor (MOCF). In such cases, the following formula shall be applied:

$$AADT = PSWADT \times MOCF$$

Subarea or Corridor Validation

Some travel demand models may require subarea or corridor validation to improve the forecast within the project limits. Subarea validation is needed when a model meets area-wide validation standards but fails within a specific area or corridor under study. In a subarea or corridor validation, a smaller area or corridor is extracted from the regional model and the validation process is restarted with the goal of improving statistics such as demand/count ratios, Root Mean Square Error (RMSE). The subarea or corridor validation effort is not as intensive as a regional, MPO or county model validation, because it uses a smaller roadway network. Further information about the

Subarea/Corridor Validation standards can be found in the ***FSUTMS-Cube Framework Phase II – Model Calibration and Validation Standards***.

Time of Day Model

Travel demand models were originally designed to produce future travel demand at the daily level. Most of the analysis done to determine geometric requirements of roadways and intersections is done for the design hour. Until recently, the process of converting AADT to peak hour assumed that 10% of the AADT occurred during the peak hour. While this process produces reasonable results in smaller urbanized areas where the peak period is limited to one hour, it fails in highly congested urban areas where the peak period spreads beyond the typical one hour.

The broadening of traffic flow profiles to multiple-hour peak periods is referred to as peak spreading. As the traffic congestion worsens during the peak hour, many drivers either leave early or delay the trip to avoid the peak hour. In some cases, they seek an alternative route or switch modes. As a result, the traffic generally traveling during the peak hour shifts to the adjacent shoulder hours.

To address multi-hour congestion problems, many urban areas have developed a Time of Day (TOD) model that forecasts traffic for the AM peak period, midday period, PM peak period and night/rest of the day period. Most TOD models add trip assignments for all time periods together to approximate daily traffic. TOD models require traffic count data by time of day to ensure accurate validation by each period. This adds to the level of complexity for validation checks and the Project Manager should consult with District Planning Office or MPO traffic modeling staff before using the TOD model.

Additional details regarding forecasting using a travel demand model can be found in Chapter 3 of the ***Project Traffic Forecasting Handbook***.

2.2.6.2 Forecasting without Travel Demand Models

Projects located in areas without an MPO travel demand model or in areas where the Florida Statewide Model or the MPO travel demand model is not performing well may have to rely on a combination of historic traffic trends or population growth for traffic forecasting.

Historic Trend Projections

The historic trends analysis should be based on a minimum of 10 years of data. A regression analysis is performed on the most recent 10 years of traffic counts to obtain a trend equation. Any obvious outliers should be removed from the data set and an explanation provided. Only trend equations with an R-square value of at least 75% should be used to estimate the future year traffic volumes. Trend analysis is not sensitive to

capacity constraints or new capacity; therefore, care should be exercised when projected traffic demand exceeds capacity.

Growth Rates

Historic trends analysis works well for areas with stable land use, transportation network and growth patterns. In areas that are experiencing substantial growth, construction of parallel facilities and changes in land use should consider growth rates based on population and employment growth.

Once the growth rate has been determined and checked for reasonableness, it can then be applied to a given base year count and projected forward to the future analysis years.

For additional details, see Chapter 4 of the ***Project Traffic Forecasting Handbook***.

2.2.6.3 Calculating AADT and DDHV

AADT

Traffic counts are usually collected over a 48- to 72-hour period through the placement of portable traffic counters. These counters are usually rubber hoses placed across the roadway to record the number of axles.

The short-term traffic count collected over 48 to 72 hours is called the Average Daily Traffic (ADT) or “raw count”. Due to the seasonal variations in traffic, the count must be adjusted by the Seasonal Factor (SF). In addition, the traffic counter only counts the number of axles and not vehicles. The raw traffic count of ADT must be adjusted using the Axle Correction Factor (ACF):

$$\text{AADT} = \text{ADT} \times \text{Seasonal Factor} \times \text{Axle Correction Factor}$$

It is worth noting that there are methods for placing tubes in a pattern that will allow tubes to provide classification counts based on axle spacing. Therefore, the analyst should review the data before applying the ACF.

Standard K Factor

The K Factor is critical in traffic forecasts because it defines the volume of traffic for which the road is being designed. K factors are developed based on field-collected data over long periods of time. Standard K factors are established statewide for specific areas and facility types, using the data measured at permanent traffic monitoring sites, and should be applied to AADT to determine the DHV. Standard K factors less than 9.0% essentially represent multi-hour peak period (or peak spreading) rather than peak hour conditions. See Chapter 2 of the ***Project Traffic Forecasting Handbook*** for the latest FDOT Standard K factors.

D Factor

The **Directional Distribution (D Factor)** is the percentage of the total, two-way design hour traffic traveling in the peak direction. The D Factor is an essential parameter used to determine the DDHV. The D Factor is obtained from traffic counts and checked against the value listed on the FTO Website.

To determine if a D Factor is acceptable for project traffic forecasting, its value should be cross-referenced against the acceptable range of values for D Factors listed in Chapter 2 of the ***Project Traffic Forecasting Handbook***.

Design Hour Volume (DHV) and Directional Design Hour Volume (DDHV)

The DHV is the traffic volume expected to use the roadway segment during the design hour of the design year. The DHV is calculated using the following formula:

$$DHV = AADT \times K\ Factor$$

The DDHV is the traffic volume expected to use the roadway segment during the design hours of the design year in the peak direction. The DDHV is calculated using the following formula:

$$DDHV = AADT \times K\ Factor \times D\ Factor$$

T Factor (Percent Trucks)

The T Factor measures the percentage of trucks on a daily basis and is the most critical factor in pavement design. The structural design of a roadway is primarily dependent upon on the heavy axle loads generated by commercial traffic and the T Factor measures the percentage of trucks on a daily basis.

For traffic analysis, the Design Hour Truck (DHT) Factor is used to convert trucks to passenger car equivalents. The DHT is calculated by dividing the T Factor by 2 because the percentage of trucks in the traffic is not evenly distributed throughout the day.

2.2.6.4 Re-evaluating Traffic Analysis

Most of traffic forecasting and analysis should be completed during the PD&E phase. Once the traffic forecast and analysis are completed, the subsequent phases (Design and Construction) should use the same traffic data for design and operational purposes such as designing turn lanes, signal timing, or traffic control plans.

As transportation projects advance, they may require a Re-evaluation as described in ***Part 1, Chapter 13, Re-evaluations***. During the Design phase, the Project Manager and the project team must decide if the traffic forecast and analysis prepared for the project needs to be updated.

The validity of traffic forecasts and analysis depends on changed conditions brought on by:

- Substantial “macro-level” changes in the economy and driving habits since the project traffic forecast was prepared. Examples include the effects of economic recession, a substantial change in gas prices potentially affecting travel demand or implementation of an alternative travel mode.

- Substantial change in land uses or growth within the study area. For example, large scale developments, such as sector plans, approved near the study area which have the potential to change traffic generation and/or travel patterns.

- Substantial changes in the scope of work. For example, the addition of a new alternative that was not previously considered when the travel demand model or microsimulation model was developed. Model adjustment may be necessary to incorporate changes in trip patterns anticipated within the study area.

- Substantial changes in the transportation network near the study area. For example, the construction of major beltways or by-pass routes. Traffic reports prepared before and after the network was changed may contain substantial differences in trip distribution patterns.

- Adoption of a new LRTP and regional travel demand model when the project traffic forecast is more than five years old. An update of the LRTP represents the latest planning assumptions regarding population, employment and land use, and coordinates transportation planning activities within and outside of the MPO area. If the traffic forecast is more than five years old and the MPO has adopted a new LRTP, the Project Manager and the traffic analyst should perform a sensitivity analysis of revised input and model assumptions to determine the magnitude of differences from prior analyses and their effects on past project decisions.

The Project Manager should use conditions discussed above as a guide to determine the validity of previously completed traffic analysis. The project team may conduct sensitivity tests to assess the magnitude of differences from prior analyses resulting from use of new data and their effects on past decisions. The Project Manager and project team must consider any difference in the results to deliver the project decision. The focus should be on consistent conclusions from the analysis, rather than on any minor numerical differences between two different travel demand models outputs. If there is no substantial change in the traffic forecast, the study team would simply document the change and the sensitivity analysis results in the project file and proceed with the next phase of the project.

If there is a substantial change in the traffic forecast, the Project Manager must coordinate with the District Environmental Office and OEM to address the need for re-evaluating the traffic analysis for the project. The update of traffic analysis may require changes to the analysis methodology, data inputs and assumptions to update the traffic analysis to be

consistent with the latest LRTP. The Project Manager should document decisions reached with the District Environmental Office and other project stakeholders.

2.2.7 Traffic Analysis

Traffic analysis includes capacity and operational analysis to determine how well the project alternatives are meeting the project purpose and need. Detailed evaluation of project alternatives should only proceed on viable or feasible project alternatives (see ***Part 2, Chapter 3, Engineering Analysis***). Also, the same assumptions and a similar set of tools should be consistently applied to perform traffic analysis for different alternatives in a project.

Depending on the project, the analysis may use the methodologies in the ***HCM*** or a more sophisticated tool such as microsimulation to analyze the interactions between different users on an entire network.

The decision on selecting the appropriate tool for the project depends on the analysis objectives and the available resources/data. Chapter 4 of the ***FDOT Traffic Analysis Handbook*** describes the various tools available and provides guidance on selecting the proper analysis tools.

2.2.7.1 Capacity Exceeds Traffic Demand

In scenarios where the roadway capacity exceeds traffic demand, all the traffic is accommodated during the time interval under study. There is no spillback of any queues or congestion from one segment affecting adjacent segments.

In such situation, analytical tools that can compute LOS and other operational MOEs for individual segments or isolated points should be used. These tools can compute LOS for uninterrupted flow facilities, interrupted flow facilities and multimodal transportation facilities (e.g., pedestrian, bicycle, and transit). ***HCM*** guidance on how to conduct analytical analysis is available in the ***HCM*** and supporting software.

2.2.7.2 Traffic Demand Exceeds Capacity

In scenarios where the traffic demand exceeds roadway capacity, the traffic demand is not accommodated during the time interval under study. As a result, congestion and queues spillback to adjacent segments and time intervals. The analysis should analyze the entire period where traffic demand exceeds capacity and until all the congestion has dissipated.

In such scenarios, a microsimulation traffic analysis that simulates the effect of spillback queues and congestion on adjacent segments should be used. Microsimulation tools use computer models to simulate the interaction of individual users, such as cars, based on specified driver behavior factors. Microsimulation tools must be calibrated to local traffic conditions before being applied in alternatives analysis. Chapter 7 of the ***FDOT Traffic Analysis Handbook*** and ***FHWA Traffic Analysis Toolbox Volumes III and IV*** provide guidance on the development, calibration and application of microsimulation tools.

2.2.8 Safety Analysis

Safety analysis includes analyzing crash history (usually five years) within the project limits to assess the existing safety performance and evaluating the potential safety implications of a project. Depending on project context, safety assessment of the project may use ***HSM*** methodologies and tools according to the ***Highway Safety Manual Implementation Policy, Topic Number 000-500-003***. The ***HSM*** is a collection of analytical procedures and techniques for identifying the causes of crashes and developing solutions for certain types of roadways. Certain data which is compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings, or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data, per ***23 U.S.C § 148*** and ***23 U.S.C § 409***. Additional guidance for safety analysis can be found in the ***Safety Analysis Guidebook for PD&E Studies***.

2.2.8.1 Historical Crash Analysis

A historical crash analysis involves descriptive analysis of five years of crash data with respect to crash characteristics such as severity, types, frequency, rates, density, patterns, clusters, and their relationships with crash contributing causes. The results of the historical crash analysis are used to identify or confirm safety problems in the project study area. An understanding of crash characteristics along with crash contributing factors helps to determine and evaluate corrective actions or countermeasures that can be applied to the project alternatives. Crash countermeasures must be selected based on their appropriateness and effectiveness to address specific safety issues and project goals.

Historical crash analysis may be used to analyze existing conditions by comparing the crash rate of a project location to the statewide average. Locations with crash rates above the statewide average require further investigation to determine the cause of crashes and appropriate crash countermeasures. Appropriate crash countermeasures could still be determined in locations with crash rates below the statewide average.

The future conditions analysis should examine the safety performance of the alternatives based on project context which includes future traffic volumes, proposed geometrics, modal needs, and traffic control conditions as appropriate. Future conditions analysis must include a discussion of the proposed design context, traffic operational performance and users of the facility. Additionally, safety assessment for future conditions must examine how the proposed alternatives improve upon any existing or potential safety problems. This will include comparison of existing conditions safety performance to that of future no-build and future build conditions.

2.2.8.2 Quantitative Safety Analysis

Quantitative safety analysis, also known as data-driven safety analysis, is a predictive analysis that uses crash, roadway, and traffic volume data to provide reliable estimates of an existing or proposed roadway's expected safety performance in terms of crash frequency and severity. It uses ***HSM*** predictive methods that incorporate site specific characteristics and mathematical functions such as Safety Performance Functions (SPFs) and Crash Modification Factors (CMFs).

The ***HSM*** predictive methods are detailed and require a thorough knowledge and experience in their applications. The advantage of these methods is their ability to make relative comparisons between project alternatives based on the change in the number of crashes or combinations of crash severities for different contexts. Additionally, ***HSM*** methods can assist transportation analysts to quantify safety impacts associated with proposed design elements, operational treatments, or future changes in the facility. Therefore, these methods can help analysts make more informed project development decisions that weigh safety with other project goals and evaluation criteria. In some conditions, the ***HSM*** methods may not quantify the safety performance of a design element or crash countermeasure as data, research, scientific knowledge, or current best practice may not be incorporated in the ***HSM*** predictive methods. It is therefore important to understand the limitations of the ***HSM*** methods when deciding on the safety analysis approach for the project.

The ***HSM*** continues to evolve and does not offer the ability to evaluate safety performance for every project scenario or context. In some cases, the SPF may require adjustments to Florida conditions because they were developed using national data and may not reflect typical Florida conditions. Users of the ***HSM*** should refer to the State Safety Office for publication of the current Florida specific SPF calibration factors.

HSM can be used to support the following project development activities:

- Evaluate purpose and need for the project
- Develop and refine the project alternatives
- Analyze and evaluate project alternatives

The ***HSM Part C*** predictive methods can calculate historic and anticipated future safety performance of the project. ***HSM Part C*** is applicable to rural two-lane highways, rural multilane highways, suburban and urban arterials, freeways, and interchanges. ***HSM*** has specific guidance regarding how to estimate future crashes with and without safety improvements. Additionally, the human factors fundamentals published in the ***HSM*** can help traffic analysts identify safety-specific needs for a project and estimate the potential for safety improvements.

Safety performance should be included in the project goals if the project's purpose is to address a safety problem. ***HSM*** predictive methods can support evaluation of the purpose and need by predicting crashes that would occur in the project or identifying potential

countermeasures and strategies that would improve safety performance when incorporated in the project.

Development and evaluation of alternatives can use ***HSM*** predictive methods to quantify the anticipated change in crash frequency and/or severity as the result of changes in geometric features or traffic conditions. If an assessment for a safety-specific project shows that some alternatives would have a negligible or adverse effect on safety performance, those alternatives can be eliminated. Additionally, ***HSM*** predictive methods can be used to inform and evaluate project decisions on design changes implemented to address avoidance and minimization of potential impacts to environmental resources. The documentation needed to support evaluation of alternatives and environmental decision making could therefore include the information derived from the ***HSM*** methods.

Another method for quantifying safety impacts of project alternatives is a relative comparison of CMFs. This method estimates the relative magnitude of potential safety impacts based on the anticipated percent change in crash frequency based on applicable CMFs. CMFs are published in the ***HSM Part D*** and ***FHWA's Crash Modification Factors Clearinghouse website*** which include a star rating to indicate their quality. CMFs are also used to compare relative safety benefits of potential mitigation measures when selecting a treatment or strategy to address an identified safety issue. This method is relatively simple to apply, and when used appropriately can objectively support proposed improvements. CMFs are applicable to roadway segments, intersections, interchanges, special facilities, and various geometric situations.

2.2.8.3 Selecting Safety Analysis Method

The following should be considered when selecting appropriate safety analysis method for the project:

1. Capability (and limitations) of the method to answer the questions that the project is addressing

2. Data that is typically available in relation to the data required to use the safety analysis method correctly

3. Related project development tasks (such as purpose and need, interchange access, alternatives analysis, design exception) that may benefit from the same analysis method

4. The type of project and associated design or operational treatments that are the focus of safety analysis

It is important to discuss these considerations with the reviewers of the safety analysis during methodology development to set clear expectations for the level of analysis and documentation needed. The need to collect additional data to support analyses should also be discussed so that the desired safety analyses can be performed on time and within budget.

2.2.9 Environmental Analyses

Environmental impact analyses such as land use, air quality, and noise depend on the outputs of traffic forecasting and analysis. The most common traffic data required for environmental analyses are AADT, peak hour volumes, peak hour truck volumes and traffic classification. Typical MOEs from the traffic analysis that are used for environmental analyses are listed in ***Section 2.2.3***. The Project Manager should work with the District Environmental Manager and other environmental subject matter experts to determine the scale of traffic data needed for various environmental analyses.

2.2.10 Project Traffic Analysis Report

The ***Project Traffic Analysis Report (PTAR)*** documents the assumptions, methods, traffic forecasts, design traffic, and results of the traffic analysis for the project in plain language and in an easily understood format. It summarizes the data collection effort, input parameters, traffic analysis tools, existing conditions, development of future traffic forecasts, and traffic operational and safety analyses of project alternatives. The report must use the ***Technical Report Cover Page, Form No. 650-050-38*** as the cover sheet of the report. A sample ***PTAR*** cover page is provided in ***Figure 2-1***. Traffic analysis reports support decisions regarding project actions. Therefore, the report should concisely present the results of the traffic analysis in a manner that can be readily understood by a variety of audiences. Discussion of the analysis results should be focused and avoid unnecessary information. Additionally, the report should include text that discusses information presented in tables and figures (charts, maps, and diagrams). MOEs presented in tables and figures should be clear, concise, and simple. The report should include other supporting technical data and output from analysis tools in the appendices. Additionally, highly detailed information such as data used to prepare figures and tabular summaries should be placed in the appendices.

The scope of the report depends on the size and complexity of the project, and whether traffic analyses conducted prior to the PD&E phase are going to be incorporated. Regardless of the complexity, the traffic analysis report should summarize the items presented in ***Section 2.2.10.2***. The ***PTAR*** must be signed and sealed by a professional engineer in accordance with ***Chapter 471, Florida Statutes (F.S.)***.

Traffic analysis reports for projects that are not complex can include the results of traffic forecasting. The approach to documentation (i.e., one ***PTAR*** or multiple technical memoranda) should be included in the scope and agreed upon by the FDOT Project Manager and project team. For complex projects, traffic forecasting and traffic analysis may be prepared under different project tasks and teams. For such projects, it is recommended that traffic forecasting results and traffic analysis be documented in different technical memoranda or reports. See the ***Project Traffic Forecasting Handbook*** on how to prepare a ***Project Traffic Forecasting Memorandum***.

Depending on the size and complexity of the project, safety analysis may be documented either in a standalone technical memorandum or as part of the ***PTAR***.

Documentation of safety analysis should include a condition diagram depicting important site characteristics that affect safety on the project; collision diagram showing the location of the crashes; crash mapping showing relative locations or severity levels of crashes; discussion of crash types, patterns, severity levels and crash contributing factors; potential countermeasures; quantitative analysis (assumptions, method and steps followed); summary of the findings; and recommendations of the analysis. The discussion of safety analysis results should be supported with data, relevant findings, and best practices.

Quality control review for ***PTARs*** should include reviewing methods and assumptions used to develop the analysis, inputs, reasonableness of results, and completeness of the results. The review of reasonableness of traffic projections should include comparing observed (and projected) traffic volumes with historical trends, examining proposed roadway and transit network improvements, and reviewing socio economic data and land use projections. Refer to the ***FDOT Traffic Analysis Handbook*** for checklists that may aid the review process.

2.2.10.1 Traffic Analysis Assumptions

The assumptions used to prepare the traffic analysis including traffic projections should be documented so that a reviewer can easily understand the methodology, input values, and analysis results. It is essential for the Project Manager to reach consensus with the project team and lead agency regarding the assumptions during the scope development stage of the project. The ***Project Traffic Assumption Form, Form No. 650-050-39*** in ***Figure 2-2***, can be used to summarize the assumptions.

The following should be included in the traffic analysis assumptions summary as appropriate.

1. Traffic Forecasting Assumptions Summary
    a. Traffic forecast method - travel demand model, historic trend, or growth rates
    b. For the travel demand model:
        i. Date of adoption of LRTP
        ii. Model base year
        iii. Horizon year of the travel demand model
        iv. MPO website which includes documentation of the LRTP
    c. Changes in land use, economy, population, and employment since the travel demand model was built.
    d. Data Collection Year

e. Analysis years – opening year, design year and interim year (for phased projects)

f. MOCF

g. K Factor

h. D Factor

i. T Factor

2. Traffic (operational and safety) analysis assumptions summary should include:

   a. Study Area (i.e., Project limits, traffic study area, influence area)

   b. Key input parameters

   c. Calibration and validation parameters

   d. Analysis method and/or tools

   e. Analysis periods

   f. Performance MOEs

2.2.10.2 Project Traffic Analysis Report Outline

The following is an outline for the ***PTAR***. The report should have headings and subheadings to effectively delineate the sections appropriate to the level of analysis.

1. Executive Summary – Summary of analysis results.

2. Traffic Analysis Assumptions – Summary of assumptions for input parameters, analysis years, analysis methodology.

3. Introduction – Brief description of the project with a project location map and traffic analysis objectives.

4. Traffic Analysis Method – Discussion of assumptions and analysis methodology including analysis years, traffic study area, data required, analysis tools including version, and MOE.

5. Existing Conditions Analysis – Summary of balanced turning movement counts for the study intersections/interchanges under existing conditions. Summary of operational and safety analyses for the existing conditions. Microsimulation analysis should also include base model development and calibration documentation. Calibration may be submitted as a standalone document.

6. Development of future year traffic forecast – Depending on the scale of the project, this may be developed and submitted as a standalone document, in which case it should be referenced within the ***PTAR***.

7. Alternatives Analysis – Description of project alternatives, assigning of project traffic volumes to alternatives. Summary of operational and safety analyses for each project alternative.

8. Summary of Analysis Results – Discussion of advantages and disadvantages of alternatives with respect to the traffic analysis objectives and goals.

9. Appendix – Raw data used to prepare input and analysis summaries. Other supporting data/information.

2.3 REFERENCES

American Association of State Highway and Transportation Officials (AASHTO), 2010 Highway Safety Manual

FHWA, 2004. Traffic Analysis Toolbox Series. https://ops.fhwa.dot.gov/trafficanalysistools/index.htm

FHWA, 2013. Traffic Monitoring Guide. https://www.fhwa.dot.gov/policyinformation/tmguide/

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

FDOT, 2008. FSUTMS-Cube Framework Phase II – Model Calibration and Validation Standards. http://www.fsutmsonline.net/images/uploads/reports/FR2_FDOT_Model_CalVal_Standards_Final_Report_10.2.08.pdf

FDOT, 2019. Project Traffic Forecasting Handbook. https://www.fdot.gov/planning/systems/programs/sm/traffic/default.shtm

FDOT, 2019. Safety Analysis Guidebook for Project Development and Environment (PD&E) Studies. https://www.fdot.gov/safety/safetyengineering/publications-and-manuals.shtm

FDOT, 2014. Traffic Analysis Handbook. https://www.fdot.gov/planning/systems/programs/sm/traffic/default.shtm

FDOT, Efficient Transportation Decision Making Manual, Topic No. 650-000-002. http://www.fdot.gov/environment/pubs/etdm/etdmmanual.shtm

FDOT, Highway Safety Manual Implementation Policy, Topic Number 000-500-003.

FDOT, Manual on Uniform Traffic Studies, Topic No. 750-020-007. https://www.fdot.gov/traffic/TrafficServices/Studies/MUTS/MUTS.shtm

FDOT, Traffic Engineering Manual, Topic No. 750-000-005. http://www.fdot.gov/traffic/TrafficServices/Studies/TEM/TEM.shtm

Institute of Transportation Engineers (ITE), 2015. Integration of Safety in the Project Development Process and Beyond: A Context Sensitive Approach

Regional Integrated Transportation Information at University of Maryland. http://www.ritis.org

Title 23, CFR § 450, Appendix A. Linking the Transportation Planning and NEPA Processes. http://www.ecfr.gov/cgi-bin/text-idx?SID=ffd5a70592b8f07eb3d383a5e441e880&mc=true&node=pt23.1.450&rgn=div5

Transportation Research Board (TRB), 2010. Highway Capacity Manual

2.4 FORMS

Project Traffic Assumption Form, Form No. 650-050-39

Technical Report Cover Page, Form No. 650-050-38

FDOT Forms are found in the Procedural Document Library

2.5 HISTORY

7/24/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 5, 1/14/2019, 7/1/2020, 7/1/2023

PROJECT TRAFFIC ANALYSIS REPORT

Florida Department of Transportation

District X

Project Title

Limits of Project

County, Florida

Financial Management Number: XXXXX-X

ETDM Number: XXXXXX

Date

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

(Insert digital signature block)

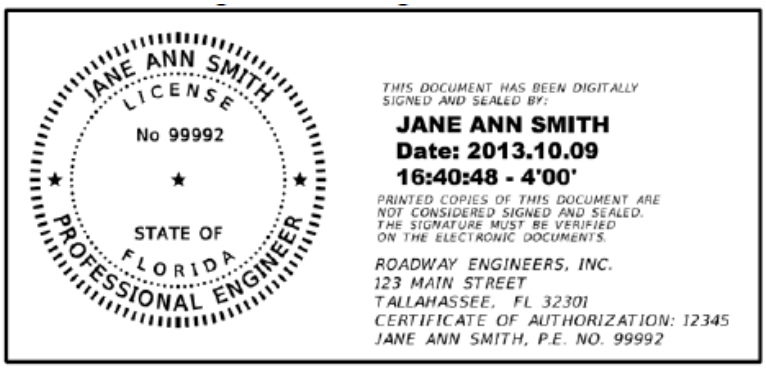

Figure 2-1 Sample Project Traffic Analysis Report Cover Page

<table>
<tr><th colspan="2">Traffic forecast for the project was developed using:</th></tr>
<tr><td>☐ Travel Demand Model</td><td>☐ Growth Rates</td></tr>
<tr><td>Type of Travel Demand Model Used:
☐ Metropolitan Planning Model
☐ Other Model
_____</td><td>Refer to appropriate section of Project Traffic Analysis Report that discusses growth rates</td></tr>
<tr><th colspan="2">Is the travel demand model based on the latest adopted Long Range Transportation Plan?</th></tr>
<tr><td>☐ YES</td><td>☐ NO</td></tr>
<tr><td>_____ Date when MPO adopted the latest Long Range Transportation Plan</td><td rowspan="4">Explain why?</td></tr>
<tr><td>_____ Base Year of Travel Demand Model</td></tr>
<tr><td>_____ Horizon Year of Travel Demand Model</td></tr>
<tr><td>Long Range Transportation Plan documentation is available at (provide web address):
_____</td></tr>
<tr><th colspan="2">Traffic Data and Factors</th></tr>
<tr><td>Standard K = _____
D Factor = _____
T_{Daily} = _____</td><td>Data Collection Year = _____
Opening Year = _____
Interim Year = _____
Design Year = _____</td></tr>
<tr><td colspan="2">Discuss any changes in land use, economics, population and employment data since the model was built</td></tr>
<tr><th colspan="2">Traffic Analysis Assumptions</th></tr>
<tr><td colspan="2">Discuss study area, data calibration/validation parameters, analysis tools, analysis periods and MOEs</td></tr>
</table>

Figure 2-2 Project Traffic Assumption Summary

PART 2, CHAPTER 3

ENGINEERING ANALYSIS

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PART 2, CHAPTER 3

ENGINEERING ANALYSIS

3.1 OVERVIEW

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

3.1.1 Purpose

This chapter contains FDOT's procedure for engineering analysis to support development of general project location and design concepts during Project Development and Environment (PD&E) Studies. The engineering analysis defines project features essential to the assessment of project impacts on the social, cultural, natural, and physical environment while also seeking to balance the extent to which project needs are addressed to ensure project costs and environmental impacts are minimized. Further, the analysis establishes necessary design considerations to support progression of the project from concept to preliminary design and eventually to final design. Engineering analysis builds upon the information developed and documented by FDOT during the Planning phase of a project.

This chapter provides guidance on engineering analysis and considerations concerning evaluation of existing conditions, selection of design parameters, development of project alternatives, analysis of alternatives, selection of the preferred alternative(s), and documentation of engineering analyses.

During the identification and evaluation of the project alternatives, the Project Manager should continuously coordinate with the various offices within the District to promote collaboration between a multi-disciplinary team including engineers and environmental specialists throughout the project development process. Continual coordination is critical to the success of the project because it helps resolve and address project issues that may affect development of project alternatives. The Project Manager also has the responsibility of engaging project stakeholders and the public throughout the project development process.

3.1.2 Definitions

Air operations area (AOA) - A portion of an airport, specified in the airport security program, in which security measures specified in this part are carried out. This area includes aircraft movement areas, aircraft parking areas, loading ramps, and safety areas, for use by aircraft regulated under ***49 Code of Federal Regulations (CFR) Part 1544*** or ***Part 1546***, and any adjacent areas (such as general aviation areas) that are not separated by adequate security systems, measures, or procedures. This area does not include the secured area.

Alignment - Refers to both horizontal and vertical placement of a transportation facility. Horizontal alignment refers to the location of the transportation facility as described by curves and tangents. Vertical alignment refers to the vertical profile of the facility (i.e., below grade, at grade, or above grade).

Alternative - A potential transportation corridor, alignment, design feature, mode, or improvement under consideration.

Alternative Corridor Evaluation (ACE) - A study process used to identify and evaluate alternative corridors for the project with regard to transportation needs and environmental issues or concerns early in the project development process. This study links planning and the environmental review process. This process is described in the ***ETDM Manual, Topic No. 650-000-002***.

Bicycle Lane - A bicycle lane (bike lane) is a portion of a curbed roadway designated for the exclusive use of bicyclists.

Corridor - Any land area designated by the state, a county, or a municipality which is between two geographic points and which is used or suitable for the movement of people and goods by one or more modes of transportation.

Design Exception - Required when existing or proposed design elements do not meet the FDOT's governing criteria and the American Association of the State Highway and Transportation Officials' (AASHTO's) new construction criteria for Controlling Design Elements.

Design Variation - Required when existing or proposed design elements do not meet FDOT's criteria.

Express Lanes - A type of managed travel lane physically separated from general use lanes, or general toll lanes, within a roadway corridor. Express lanes use congestion pricing through electronic tolling in which toll amounts are set based on traffic conditions in the express lanes.

Final Design - Any design activities following preliminary design, expressly including the preparation of final construction plans and detailed specifications for the performance of construction work, final plans, final quantities, and final engineer's estimate for construction, also referred to as Plans Specifications & Estimates (PS&E).

Local Agency Program (LAP) – A program to establish consistent and uniform practices for authorizing local agencies to use federal-aid funds provided through FDOT.

Managed Lane - Highway facilities or sets of lanes within an existing highway facility where operational strategies are proactively implemented and managed in response to changing conditions with a combination of tools. These tools include access control, vehicle eligibility, variable pricing, or a combination thereof. Managed lanes can include express lanes, high occupancy vehicle (HOV) lanes, reversible lanes, truck-only toll lanes, and vehicle-restricted lanes.

No-Action (No-Build) Alternative - The option in which the proposed project activity would not take place. The No-Action (No-Build) alternative provides the baseline for establishing environmental impacts of the build alternatives.

Preferred Alternative - The preferred alternative for a federal project is the alternative that has been approved by the lead agency.

Preliminary Design - Defines the general project location and design concept. It includes but is not limited to: preliminary engineering and other activities and analyses, such as environmental assessments, topographic surveys, metes and bounds surveys, geotechnical investigations, hydrologic analysis, utility engineering, traffic studies, financial plans, revenue estimates, hazardous materials assessments, general estimates of the types and quantities of materials, and other work needed to establish parameters for the final design.

Preliminary Engineering Report (PER) - The engineering report that documents engineering analyses and decisions made during the PD&E Study. The ***PER*** contains preliminary design plans and design parameters that support advancing the project into the final Design phase.

Reasonable Alternatives - [Term used in the Environmental Impact Statement (EIS) only] A reasonable range of alternatives that are technically and economically feasible and meet the purpose and need for the proposed action.

Transportation Management Area (TMA) - All Urbanized Areas (UZAs) with population greater than 200,000 as determined by the most recent census.

Transportation Systems Management and Operations (TSM&O) – A set of strategies to manage traffic congestion and minimize other unpredictable causes of service disruption and delay to preserve the capacity and improve the security, safety, and reliability of the transportation system.

Viable Alternatives - [Term used in Type 2 Categorical Exclusion (CE), Environmental Assessment (EA), and State Environmental Impact Report (SEIR) only] - Alternatives that address the purpose and need that can be designed and constructed from an engineering standpoint, if there is more than one alternative proposed.

Watershed Approach to Evaluating Regional Stormwater Solutions (WATERSS) – An approach for proactively looking for opportunities for innovative stormwater management projects with agencies and/or stakeholders. The ***WATERSS Process Guidebook*** contains the steps and documentation required to complete the WATERSS process.

3.2 PROCEDURE

This section describes the procedure for conducting engineering analysis during the PD&E phase. FDOT conducts engineering analyses consistent with the ***FDOT Design Manual (FDM), Topic No. 625-000-002***, and other manuals and procedures listed in ***Figure 3-1***. Engineering considerations for a project begin during the Planning phase where the project's purpose and need is defined, and continue throughout the PD&E process when conceptual and preliminary design plans are prepared. Engineering analysis and considerations include coordination with other FDOT offices within the Districts and Central Office, Federally Recognized Native American Tribes, agencies, the public, and the Lead Federal Agency as appropriate.

3.2.1 Level of Detail of Analysis

The level of detail for engineering analysis for a PD&E Study depends on the overall size and complexity of the project. It also depends on the Class of Action (COA) or type of Environmental Document for the project. Type 1 Categorical Exclusion (CE) and Non-Major State Action (NMSA) projects require a lesser level of analysis and do not require a PD&E Study. Type 2 CE, Environmental Assessment (EA), Environmental Impact Statement (EIS), and State Environmental Impact Report (SEIR) projects require a more detailed level of analysis and documentation. Regardless of the Environmental Document type, the engineering analysis must be performed to a level of detail that is sufficient to assess the effects of the alternative(s) on the social, economic, natural, cultural, and physical environment. In order to analyze multiple alternatives, the Project Manager must ensure that the alternatives are developed to the appropriate level of detail.

A ***Preliminary Engineering Report (PER)*** is prepared to document the results of engineering analysis for a SEIR, Type 2 CE, EA, or EIS. See ***Section 3.2.10.2*** for an outline of the ***PER***. If the Design phase occurs concurrently with the PD&E phase, a ***PER*** may be scaled down to present the results supporting alternatives evaluation as other preliminary design information are documented in the Design Documentation for the project. See ***Part 1, Chapter 4, Project Development Process*** for guidance on completing PD&E and Design phases concurrently.

Bridge replacement PD&E Studies do not require preparation of a ***PER***, rather the preliminary engineering analysis results for these projects may be documented in the ***Bridge Development Report (BDR)*** or ***Bridge Replacement Report (BRR)***.

3.2.2 Project Coordination

The PD&E Project Manager is responsible for timely coordination with other offices within the District and Central Office, as applicable, to ensure proper development and evaluation of project alternatives. A successful PD&E Study requires orderly and continuous coordination between planning, engineering, environmental, public involvement, and other staff from various offices.

The Project Manager must coordinate the project development efforts with OEM if FDOT is the Lead Federal Agency and OEM has approval authority. Coordination with FDOT's Structures Design Office is required for special bridge structures such as moveable bridges, historic bridges, and signature bridges. Coordination with the US Coast Guard (USCG) and US Army Corps of Engineers (USACE) is also required for permitting purposes.

For projects that are in the vicinity of a public use or military airport, the Project Manager must coordinate with the Airspace and Land Use Manager in the Department Aviation Office as early as possible in the initial phases of the project.

Prior to making commitments, the Project Manager must coordinate with appropriate staff to ensure commitments are viable and are approved by the appropriate offices. See ***Part 2, Chapter 22, Commitments*** and ***Procedure No. 650-000-003, Project Commitment Tracking***.

The following is a list of the various coordination efforts the Project Manager undertakes during the PD&E Study. All relevant project coordination should be summarized in the public involvement summary documentation (e.g., Comments and Coordination Report) and the Agency Coordination and Public Involvement section of the ***PER***.

Planning

It is the responsibility of the Project Manager to request the existing and future traffic projections, turning movements, and traffic factors from the District Planning Office. See ***Part 1, Chapter 4, Project Development Process*** for guidance on re-using data from planning studies.

Projects involving Express Lanes or tolled lanes require coordination with the Systems Planning Office, the Traffic Engineering and Operations Office in Central Office, and the Florida Turnpike Enterprise (FTE).

The Project Manager should also coordinate with District Metropolitan Planning Organization (MPO)/Transportation Planning Organization (TPO) liaison for planning consistency requirements.

Traffic Operations

Projects involving Intelligent Transportation System (ITS) and TSM&O strategies require coordination with the Traffic Operations Office.

Roadway Design

Project alternatives must be reviewed for proper application of geometric design elements including design speed, typical section details, superelevation, horizontal and vertical alignment, constructability, and maintainability. Unconventional design alternatives and innovative design concepts should be coordinated with the District Design Engineer and the District Structures Design Engineer.

During the development and evaluation of alternatives, the viable or reasonable alternatives must be reviewed for situations that would require a Design Variation or Design Exception. If a variation or exception is needed, the Project Manager must coordinate with the District Design Engineer to receive District or Central Office approval, as required.

During the development of alternatives, the Project Manager must coordinate the typical sections with the District Design Engineer. After the public hearing is completed (if held) and the preferred alternative is approved, a ***Typical Section Package*** will be signed by a the Engineer of Record a and finalized in accordance with ***FDM, Part 1, Chapter 120, Design Submittals***. The signed ***Typical Section Package*** is submitted with the final ***PER***.

Multimodal Coordination

Coordinate with the District Bicycle and Pedestrian Coordinator to discuss multimodal connectivity, and the context sensitive solutions to be considered during the development of alternatives. The Project Manager should also coordinate with the District Transit or Modal Office prior to developing multimodal alternatives.

Toll Road

For projects that are on or within the vicinity of a toll road, the Project Manager must coordinate with the FTE Environmental Management Office's Project Development Engineer or responsible authority for the toll road. Project alternatives must be reviewed for conformance to the ***General Tolling Requirements (GTR) Toll Siting 202 and 300 Toll Submittal Requirements***. Alternatives must be coordinated with FTE's Tolls Design. After a preferred alternative is selected, a ***Toll Siting Technical Memorandum (TSTM)*** is prepared per the ***GTR*** using FTE's ***Toll Siting Technical Memorandum Template***.

Structures

The Project Manager must coordinate with the District Structures Design Engineer for conceptual location and design recommendations for each bridge alternative including cost and any benefit-cost analyses used for selecting or recommending structure alternatives. The District Structures Design Engineer must approve the bridge analysis. In addition, the Project Manager must consult the District Structures Design Engineer if non-standard signs, lighting, signals, or other miscellaneous structures are under consideration.

For coastal bridge replacement projects, consideration may be given to using clean demolition materials as an artificial reef under ***Title 33 U.S.C. Chapter 35***. This consideration must be part of the coordination and consultation process with the regulatory and resource agencies as well as with other stakeholders. The ***BDR*** (see ***FDM, Part 1, Chapter 121, Bridge Project Development***) will include the approximate volume of debris and the estimated timeframe in which the material will be available.

Drainage

The Project Manager should meet with the District Drainage Engineer to explore watershed stormwater needs and stormwater pond sites when developing project alternatives.

If the project uses the WATERSS process, the Project Manager should meet with the WATERSS District Champion and District Drainage Engineer to discuss the project, broad stormwater needs, and review planning-level project characteristics that influence stormwater management strategies as the first step in the WATERSS process. Additional WATERSS coordination information is provided in FDOT's ***WATERSS Process Guidebook***.

The District Drainage Engineer should also review tidal projects to determine if coastal hydraulics will affect project design. If so, a Coastal Engineer should review the project in accordance with the ***Drainage Manual, Topic No. 625-040-002***. If the project is located within the Coastal Building Zone, as defined by ***Rule 62S-7.010, Florida Administrative Code (F.A.C.)***, the project will require a Sea Level Impaction Projection (SLIP) study and a Sea Level Rise Analysis, in accordance with ***Section 3.2.5.14***.

Freight/Port

The Project Manager must coordinate with the District Seaport Coordinator and/or District Freight Coordinator whenever the project involves a port or is part of landside port transportation or access improvements, such as highways connecting Florida's ports to their markets.

Aviation

Federal regulations promulgated by the Federal Aviation Administration (FAA) exist to protect the national airspace system and must be considered and complied with when planning, designing, and constructing a FDOT project in the vicinity of a public-use or military airport. ***FDM, Part 1, Chapter 110, Initial Engineering Design Process*** provides guidance on the required action during Design.

FAA discourages placing stormwater treatment facilities within the airport's air operation area because of their potential for being hazardous wildlife attractants. The Project Manager must coordinate with the FDOT Airport Engineering Manager when stormwater treatment facilities are proposed within the vicinity of an airport. Such coordination is essential to ensure the stormwater treatment facilities incorporate the FAA design criteria of no above-ground standing water.

Scenic Highways

The Project Manager must coordinate with the District Scenic Highway Coordinator for projects affecting designated scenic highways. If the project impacts a scenic highway and qualifies for screening, it will be identified in the Environmental Screening Tool (EST) as part of the Efficient Transportation Decision Making (ETDM) process.

Right of Way

The Project Manager should discuss Right of Way (ROW) requirements associated with the project alternatives and coordinate with the District ROW office to identify or obtain ROW cost estimates, schedules, and work effort to complete ROW activities. Issues related to open cut and fill roadway cross sections pointed in ***FDM, Part 1, Chapter 113, Right of Way Requirements*** should be discussed with the District ROW office.

Landscape

The Project Manager should discuss landscaping needs for the preferred alternative with the District Landscape Architect.

Lighting

The Project Manager should coordinate early with the local communities and stakeholders to identify the effects of project lighting. Considerations should include the impacts to neighborhoods, aesthetic impact, and impacts to sensitive species.

Wildlife

The Project Manager should discuss the need for potential wildlife crossings with the District Environmental Manager, District Drainage Engineer, District Permit Coordinator, and District Structures Design Engineer.

Permits

The determination of permits required for the project starts during the ETDM Programming Screen. Representatives from each of the environmental permit agencies comment on the general project (including potential permits from their agency). Early coordination with the District Permit Coordinator and regulatory agencies is necessary to support project permitting. For more information regarding the environmental permit process, see ***Part 1, Chapter 12, Environmental Permits***.

Utilities and Railroads

The Project Manager should begin early coordination with District Utility Office and the District Railroad Office to identify and document potential utility and railroad conflicts, see ***Part 2, Chapter 21, Utilities and Railroads***.

3.2.3 Preliminary Engineering Analysis

The key elements in performing engineering analysis during PD&E are:

1. Project purpose and need
2. Data collection
3. Existing conditions analysis
4. Future conditions
5. Design controls and criteria
6. Alternatives analysis

3.2.3.1 Project Purpose and Need

The Project Manager must review the ***Programming Screen Summary Report*** for projects that were screened through the ETDM Process. The Project Manager should also review planning documents such as the Long Range Transportation Plan (LRTP), feasibility reports, and the ***Alternative Corridor Evaluation Report (ACER)***.

Purpose and need identification generally occurs during the Planning phase of the project and is part of the ETDM screening. It is important for the Project Manager to review and understand the project's purpose and need, which drives the development of alternatives considered and evaluated during the PD&E process and documented in the Environmental Document. During the PD&E process the project's purpose and need will be further developed, however, any fundamental changes to the purpose and need, including adding or deleting any elements of need, must be approved by OEM. Refer to ***Part 2, Chapter 1, Project Description and Purpose and Need*** for more information.

3.2.3.2 Data Collection

The data collection process should consider the purpose and need for the project and the goals and objectives of the PD&E Study. Specifically, data collection should start by obtaining the data to assess and support the purpose and need for the project. When existing data is available, efforts should be made to determine any gaps in the data and approaches to fill the gaps.

3.2.3.3 Existing Conditions Analysis

The purpose of the existing conditions analysis is to document available information regarding the existing facility or corridor. Existing conditions analysis documents the inventory of roadway elements, structure elements, and environmental features of the project. It also includes review of planning issues contained in previous planning documents such as corridor feasibility studies or interchange access requests. The existing conditions analysis helps to identify or confirm design and operational

deficiencies associated with the project study area, as well as to verify, refine, and support the purpose and need for the project. It also establishes the baseline conditions for which environmental impacts are evaluated.

Existing condition analysis should consider results of the evaluation of roadway and bridges that have required repair and reconstruction activities on two or more occasions due to emergency events pursuant to ***23 Code of Federal Regulations (CFR) § 667.9***. This includes review of the Transportation Asset Management Plan (TAMP) and related evaluation reports. Additionally, coordination with the District Maintenance Office and District Pavement Engineer is essential to determine if there are reasonable alternatives to the affected portion of the roadway or bridge.

The sections below are examples of elements of existing conditions analysis. For new corridors, analysis of existing conditions requires a description of the adjacent facilities to explain how the existing transportation system is currently handling the travel demand.

3.2.3.3.1 Previous Planning Studies

Previous planning studies including the ***ACER*** that were completed to support development of the PD&E Study should be reviewed and documented in the ***PER***.

If planning decisions or products were incorporated into ***NEPA*** by reference, then

- Discuss the steps taken to incorporate them and how they were used in the PD&E study;
- Provide a brief description of the material;
- Summarize future policy assumptions used in the transportation planning process related to land use, economic development, transportation costs, and network expansion consistent with those to be used in the ***NEPA*** process;
- Discuss changes that have occurred in the area since the study was completed;
- Include titles of the previous planning reports in the List of Technical Documents.

If there are no previous planning studies completed, include a statement to that fact in the ***PER***.

3.2.3.3.2 Existing Roadway Conditions

Existing roadway conditions should be documented in the ***PER*** to reflect the following elements. Include a statement in the ***PER*** of any roadway elements that do not exist within the project limits or study area. If review of the existing conditions identifies a deficiency or substandard element, describe the findings in the appropriate subsection in the Existing Conditions section of the ***PER*** and discuss in detail in the Alternative Analysis section. If deficiencies or substandard elements remain in the preferred alternative,

discuss in the Design Variations and Design Exceptions subsection of the Preferred Alternative section of the ***PER***.

1. Roadway typical sections of each corridor within the project limits. Include dimensions of each cross-sectional element (e.g., ROW, lanes, shoulders, median, curb, sidewalk, roadside protection, drainage swales).

2. Roadway functional and context classifications. Include any other special classifications (e.g., hurricane evacuation route, Strategic Intermodal System (SIS) corridor)

3. Access management classification and standards

4. ROW of existing roadways within the project limits including extent and type of limited access and easements

5. Adjacent land use shown on a land use map

6. Pavement type, structural and operational conditions

7. Existing design speed and posted speed

8. Horizontal alignment (noting source of best available information):

    a. Deflections

    b. Horizontal curves (length, radius, and associated superelevation)

    c. Horizontal clearances

9. Vertical alignment (noting source of best available information):

    a. Grades

    b. Vertical curve components (length, K value)

    c. Vertical clearances, if applicable

10. Multi-modal facilities:

    a. Pedestrian accommodations - Sidewalks, crosswalks, Americans with Disabilities Act (ADA) accessibility, and school routes

    b. Bicycle facilities - Location, type, width, and designation

    c. Shared use paths – Location, width, and pavement type

    d. Mass transit facilities including bus and rail services – Type, locations and number of stops, transfer centers, park-and-ride facilities, bus bays

e. Freight and intermodal logistics centers

11. Intersections - Lane configuration, intersection control type, technology, and operational conditions

12. Physical or operational restrictions such as multimodal use lanes, parking, evacuation routes, fixed objects, barriers, and clear zones

13. Traffic data - Annual Average Daily Traffic (AADT), peak hour volume, Directional Design Hour Volumes (DDHV), truck percentage, pedestrian and bicycle counts, and transit data

14. Roadway operational conditions – Level of Service (LOS) and relevant performance measures such as delay, travel time, and density

15. Managed Lanes (e.g., Express or Toll Lanes) configurations, and operations within the corridor

16. Crash data - Crash rates, severity, number (frequency), types, locations, contributing causes and patterns

17. Railroad crossings - Number of tracks, number of train crossings, speed, type of train (passenger or freight), type of warning devices, operating characteristics, and railroad ROW.

18. Drainage – Drainage map depicting basins and flow patterns, floodplains and stormwater management systems including regional facilities, size and location of cross drains and box culverts along the corridor

19. Lighting - Location, type, condition, spacing, and maintaining agency

20. Utilities - Location, Utility Agency/Owner (UAO), and contact persons

21. Soils and geotechnical data - Soil map depicting soils and geotechnical data

22. Aesthetic features (e.g., scenic views, lighting, landscaping, vegetation, pavers)

23. Traffic signs – describe the existing guide signage and include location(s) of any overhead cantilever and span sign structures

24. Noise barriers and perimeter walls – type and location

25. ITS/TSM&O – Describe operational needs and infrastructure requirements. Review and summarize Concepts of Operations (ConOps) and other systems engineering documents, if applicable.

3.2.3.3.3 Existing Bridges and Structures

FDOT's Bridge Maintenance Office maintains ***Bridge Inspection Reports (BIRs)*** for every public bridge in the State of Florida. The Project Manager must obtain the recent ***BIR*** for each bridge on the existing corridor. Additionally, geotechnical and scour reports, environmental permits, and previous studies for existing bridges can be requested from the structures and environmental permits offices. If hydraulic analysis is anticipated, bridge information for each bridge upstream and downstream of the existing crossing can also be obtained. For bridges maintained by other agencies, all relevant information regarding the existing bridge should be requested from the owner of the bridges.

Evaluation of existing bridge conditions should include identification of wildlife crossing features. See ***FDOT Wildlife Crossing Guidelines***. These features include bridges, bridges with shelves, specially identified culverts, enlarged culverts or drainage culverts, and/or exclusionary devices such as fencing, walls or other barriers, or some combination of these features. The Project Manager should confirm the location of a wildlife crossing feature based on coordination with the District Environmental Manager, District Drainage Engineer, District Permit Coordinator, and District Structures Design Engineer.

A fatigue evaluation is required for existing steel bridges to provide guidance during the decision-making process regarding whether the steel bridge (or portions thereof) should remain or be replaced. Refer to the ***Structures Manual, Volume 1, Section 7.3.8, Remaining Fatigue Life Estimate for Steel Bridges, Topic No. 625-020-018*** and the ***FDM, Part 1, Chapter 121, Bridge Project Development*** for more guidance.

Document the following existing bridge elements in the ***PER***. Include a statement in the ***PER*** of any bridge elements that do not apply to the project.

1. Bridge number
2. Bridge Type
3. Typical Section
4. Facility crossed (waterway, roadway, or railroad)
5. Year structure was built and/or modified
6. Type of structure - Timber, concrete, or steel
7. Condition - Structural rating and suitability for widening or retrofitting
8. Load posting information
9. Horizontal and vertical clearances
10. Ship impact data

11. Span arrangement - Number and length of spans

12. Historical significance - i.e., ***National Register of Historic Places (NRHP)*** eligible or may be a potentially significant historic bridge (of 50 years of age or older). If a bridge is on the ***NRHP***, determine if the bridge is a critical landmark or a signature structure.

13. Geotechnical information from existing bridge borings, pile driving records, scour reports, and maintenance history where available

14. Channel data - Alignment, width, depth, and clearance requirements

15. On bridges with moveable spans - The average number of times the bridge opens per day, results of boat traffic and mast height surveys, include any special navigation (shipping/boating) requirements that will require accommodation during construction

16. Normal High Water and Mean High Water (for coastal bridges)

17. Bridge security issues

18. Remaining Fatigue Life Estimate for Steel Bridges

3.2.3.3.4 Existing Environmental Features

Existing conditions analysis must include a review of potential environmental issues in the project area that would affect development of project alternatives. This analysis requires input from environmental specialists. As such, field observations of existing environmental features must be conducted concurrently with the review of existing roadway and bridge features. Close coordination between environmental and engineering staff is essential to developing alternatives that reduce environmental impacts.

3.2.3.4 Future Conditions

Future conditions such as changes in land use, context classification, travel demand and other improvement plans should be considered and discussed in the ***PER***. Discuss how future demand volumes and design hour volumes were estimated. Reference the traffic report, or Interchange Access Request (IAR) analysis and traffic forecasting memo for more details, if applicable.

Include discussion in the ***PER*** if there are ongoing or committed projects near the project area that may impact the transportation network. This could include local, state, or federal roadway projects in the area. Any coordination regarding other projects should be documented in the public involvement summary documentation (e.g., Comments and Coordination Report) and the Agency Coordination and Public Involvement section of the ***PER***.

If the future context classification is different than the existing, the future context classification should be used when developing project alternatives. The following are questions to consider when defining future context classifications.

- Are there any planned or new developments anticipated in the project area?
- What is the local government future land use vision as identified in the Local Government Comprehensive Plan (LGCP), corridor plan, policies or other credible sources?
- Does the adopted future land use plan include specific recommendations regarding development density, building setbacks, or urban design within the project area?
- Are there locally adopted multimodal plans or policies affecting non-motorists' trips or transit?

The FDOT procedure for identifying roadway context classification is presented in the ***FDOT Context Classification Guide***.

3.2.3.5 Design Controls and Criteria

Design controls are established parameters or physical characteristics that affect the selection of criteria and standards for geometric design of project alternatives. Refer to ***FDM, Part 2, Chapter 201, Design Controls*** for further information on design controls.

Document the following design controls in the ***PER***. If a Design Control is not applicable, include a statement to that fact in the ***PER***:

1. Roadway context classification
2. Functional classification and SIS designation
3. Access management class and applicable standards
4. Design speed and Target Speed
5. Capacity and LOS Target
6. Design vehicle
7. Pedestrian and bicycle requirements
8. Physical constraints (e.g., existing ROW, approach roads, intersecting roads, railroads, major utilities)
9. Environmental constraints (e.g., public parks, historic and cultural features, wetlands, floodplains)

10. Type of stormwater management facilities (e.g., closed or open drainage systems)

11. Navigational requirements

12. Design high water, including impacts from projections

13. Design wave heights for coastal bridges, including impacts from sea level rise projections

The design controls guide the selection of the appropriate design criteria to be used in developing project alternatives. The ***FDM, Topic No. 625-000-002*** is the principal source of values for design criteria for projects on the SHS or National Highway System. The values for design criteria contained in the ***FDM*** have been accepted by FHWA. LAP projects on the State or National Highway System or off the State or National Highway Systems with an estimated construction value of $10 million or greater will use the ***FDM***. Otherwise, LAP projects on local roads will use the design criteria from the ***Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (Florida Greenbook), Topic No. 625-000-015***. LAP projects which include a vehicular bridge or pedestrian bridge over a roadway will use the ***Structures Manual, Topic No. 625-020-018*** for structure design and the ***Florida Greenbook*** for the roadway design. All other federally funded projects on local roads, and state and local funded projects on local roads use the ***Florida Greenbook***. See the ***Local Agency Program Manual, Chapter 19, Topic No. 525-010-300***, for more information Guidance on the design, location and installation of transit facilities can be found in the ***Accessing Transit Design Handbook***.

Include a table in the ***PER*** listing the relevant roadway, structure, and drainage design criteria to be used in developing project alternatives. Include references to the associated manuals, procedures and guidelines that defined the criteria.

Comparison of the existing conditions against the current design controls or criteria identifies roadway and structure elements that do not meet current standards. Such project deficiencies must be discussed, analyzed, and documented in the Design Control and Criteria section of the ***PER*** or for a bridge replacement, the ***BRR*** or ***BDR***. Analysis of project deficiencies is used to support the project purpose and need (see ***Part 2, Chapter 1, Project Description and Purpose and Need***).

3.2.4 Alternatives Analysis

Alternatives analysis is the process of developing, evaluating, and eliminating potential project alternatives based on the purpose and need for the project. Alternatives analysis involves evaluation of both engineering and environmental aspects of a project. Therefore, the Project Manager must engage both District engineering and environmental staff from the scope development stage through the alternative analysis process.

The process to develop and evaluate potential alternatives must also seek public and stakeholder input. See ***Part 1, Chapter 11, Public Involvement*** for guidance regarding public involvement for a project.

The alternatives analysis of a PD&E Study must consider the following alternatives:

1. No-Action Alternative, or No-Build Alternative
2. TSM&O Alternative
3. Multimodal Alternative
4. Build Alternative(s)

Innovative alternatives such as Connected and Automated Vehicle (CAV) technology, autonomous vehicles and tunneling should be given consideration when practicable, especially on Major Projects, as defined in ***Part 1, Chapter 4, Project Development Process***, or projects in highly congested urban areas. For more information on CAV please see ***Florida's Connected and Automated Vehicle (CAV) Business Plan***.

Some of the project alternatives developed, analyzed, and eliminated during the Planning phase of a project can be eliminated from further analysis consistent with the conditions in ***Title 23 U.S.C. § 168***. During the PD&E Study, it is the responsibility of the Project Manager to review planning studies previously completed for the project, and document the alternatives that have already been considered, screened, and eliminated through a planning process. The Project Manager must coordinate with the OEM in advance to verify any planning decision that can be adopted or incorporated by reference into the Environmental Document pursuant to ***23 U.S.C. § 168*** and ***23 CFR Part 450, Appendix A***. This coordination must occur during the scope development stage of the PD&E project. See ***Part 1, Chapter 4, Project Development Process*** for more guidance.

3.2.4.1 No-Action (No-Build) Alternative

The No-Action Alternative (or No-Build Alternative) serves as the baseline, or benchmark against which the Build Alternatives are evaluated. The No-Action Alternative is defined as the alternative in which the proposed project activity would not take place.

The engineering analysis must analyze the effects of the No-Action Alternative on the surrounding social, cultural, natural, and physical environment to the same level of detail as the build alternatives. The No-Action Alternative remains under consideration throughout the PD&E Study, including the public hearing. Both the ***PER*** and Environmental Document must include and discuss the No-Action Alternative. Discussion about impacts of the No-Action Alternative must include the impacts to surrounding areas, such as increased travel demand on the existing facility and parallel routes, impacts to multi-modal facilities, and impacts to emergency response times, amongst others. If applicable, the No-Action Alternative should include a discussion of projects already programmed in the area and if they change any of the anticipated impacts or the purpose and need of the project.

Documentation of the alternatives analysis must include advantages and disadvantages of the No-Action Alternative.

3.2.4.2 Transportation System Management and Operations Alternative

The TSM&O Alternative includes strategies with the operational objective of preserving the capacity and improving the security, safety, and reliability of the transportation system, while minimizing environmental impacts. These strategies may include upgrades or additions to the existing facility, such as ramp signals, arterial traffic management systems, traffic incident management, work zone traffic management, road weather management, traveler information services, congestion pricing, parking management, traffic control, commercial vehicle operations, transit priority signals systems, and freight management.

Prior to evaluating build alternatives, engineering analysis must demonstrate that maximization of the existing system through various TSM&O strategies will not meet the purpose and need for the project. Documentation of the TSM&O Alternative evaluation must include a ConOps and system requirements as described in ***Florida's Statewide Systems Engineering Management Plan (SEMP)***.

While TSM&O primarily relates to projects in urbanized areas, the concept of achieving maximum utilization is also important in rural areas. The TSM&O Alternative shall be discussed in the alternatives section of the ***PER*** and Environmental Document, if applicable. If the TSM&O Alternative does not meet the purpose and need for the project, the ***PER*** and Environmental Document, if applicable, must briefly explain why.

3.2.4.3 Multimodal Alternatives

When consistent with the purpose and need, the alternatives analysis should consider multimodal alternatives. The Project Manager should review the MPO LRTP, LGCP, and the Transit Development Plan, where applicable, for any multimodal projects that are planned along the corridor for possible inclusion into the project. The Project Manager should also coordinate with the District Transit or Modal Office when evaluating multimodal alternatives. Multimodal alternatives can include non-motorized facilities (for pedestrians and bicyclists) to meet the purpose and need for the project. These alternatives must include the types of facilities that are planned in the LGCP. Discussion of multimodal alternatives should include needs that are stated in the LRTP and/or LGCP.

3.2.4.4 Build Alternatives

The Build Alternatives are proposed to address the project's purpose and need. Build alternatives should seek to avoid or minimize impacts to the environment by considering issues, concerns, and opportunities identified during the Planning phase of the project.

To ensure meaningful evaluation of alternatives, **each** build alternative **must** have:

1. Logical termini and should be of sufficient length to address environmental matters and the purpose and need on a broad scope.

2. Independent utility, i.e., to function as designed and be a reasonable expenditure even if no additional transportation improvements in the area are made.

The Project Manager and project team may consider opportunities for developing hybrid alternatives that could incorporate TSM&O strategies and/or multimodal options with the build alternative to meet the purpose and need for the project. Incorporation of TSM&O strategies in the build alternative requires the Project Manager to obtain input from the District TSM&O Program Engineer early on during the alternative development process.

Design detail of the Build Alternatives should be commensurate with the information needed to define and evaluate environmental impacts and define ROW. Each alternative must be explored at a sufficient level of detail to support a reasoned choice. All alternatives under consideration must be developed to a comparable level of detail so that their comparative merits may be evaluated.

3.2.4.4.1 Development of Build Alternatives

The number of Build Alternatives to be analyzed during the PD&E Study affects the project schedule and budget. The initial number of Build Alternatives to be analyzed in detail during the PD&E Study must be relative to the size and complexity of the project. As such, only viable or reasonable Build Alternatives should be evaluated in detail.

When Planning phase corridor studies identified and documented operational strategies or improvement options that may address the needs, the Project Manager should coordinate with the District Environmental Office to determine if planning products or decisions can be reused or adopted according to ***23 U.S.C. § 168*** and ***23 CFR § 450.318*** and ***Appendix A*** of ***23 CFR Part 450 - Linking the Transportation Planning and NEPA Processes***. See ***Part 1, Chapter 4, Project Development Process*** for more guidance on linking planning and the environmental review process.

For complex projects, an evaluation of alternatives may start by high-level screening of a broad number of improvements, concepts, or TSM&O strategies to eliminate unreasonable or nonviable alternatives from further detailed analysis. The high-level screenings process can be used to quickly identify and evaluate the performance of various improvements and design concepts. FDOT design criteria and standards must be used when developing the alternatives compatible with context classification and other applicable design controls.

A Type 2 CE or SEIR must evaluate at least one Build Alternative and a No-Action Alternative. The actual number of alternatives evaluated depends on factors such as complexity of the project, environmental issues/resources, results of planning/corridor studies, and input from stakeholders and the public.

An EA must evaluate at least one Build Alternative and a No-Action Alternative. The ***FHWA Technical Advisory T 6640.8A*** notes the purpose of the EA is to determine if an EIS is required. The EA does not need to evaluate in detail all reasonable alternatives for the project and may be prepared for one or more viable build alternatives. The EA should also include a discussion of any alternative considered but eliminated prior to preparation of the EA that documents the reasons for eliminating the alternative.

An EIS must evaluate reasonable alternatives or a reasonable range of alternatives in addition to a No-Action Alternative.

Typically, EISs and complex EAs are developed through the Alternative Corridor Evaluation (ACE) process which refines the scope of the project and number of alternatives to be considered during PD&E. The ACE process is discussed in detail in the ***ETDM Manual, Topic No. 650-000-002***.

3.2.4.4.2 Alternatives Considered but Eliminated

The primary reason for eliminating an alternative from consideration is that it does not meet the project's purpose and need. Project Managers are encouraged to screen unreasonable or unviable alternatives early in the alternative development stage. The screening of alternatives determines if an individual alternative or a concept has one or more deficiencies that prevent it from being successfully implemented. The screening of alternatives is based on project purpose and need or environmental controversy based on impacts on natural, social, physical or cultural environment. Other factors that should be considered when screening the alternatives include design constraints, constructability issues, and construction costs.

Although the No-Action Alternative does not typically meet the purpose and need, it must be considered as a viable alternative throughout the study.

The ***PER*** must include a section that discusses alternatives, including associated TSM&O strategies, which were considered for the project but eliminated from detailed study (during the Planning or PD&E phase). The section should discuss descriptions of each alternative considered in the evaluation process; the methodology used for eliminating alternatives including screening criteria used; data used in evaluation; agency and public input into the evaluation process; and at what point in the process (Planning or PD&E phase) the alternatives were eliminated. The Environmental Document must briefly summarize development of alternatives and decisions made (including the reasons for eliminating alternatives from detailed analysis) during alternatives evaluation process.

3.2.5 Engineering Considerations for Build Alternatives

The following sections discuss engineering elements that are important to consider during the development of build alternatives. Include a discussion in the ***PER*** of the following engineering elements. If an engineering element does not apply, include a statement to that fact in the ***PER***.

3.2.5.1 Complete Streets

Development of Build Alternatives must consider complete streets early in the alternatives development process. See the ***Florida's Complete Streets Website*** for more information. The ***Complete Streets, Policy No. 000-625-017*** requires a context-sensitive approach to project development by accommodating all transportation users and their relationship to safety, economy, mobility, and the environment. Consideration

and integration of complete streets during the PD&E Study promotes the efficient development of a multimodal transportation system. The complete streets context classification is determined based on the ***FDOT Context Classification Guide*** and coordination with the FDOT staff to help ensure that the determination of context classification is collaborated for future approvals.

Complete streets must serve the transportation needs of users of all ages and abilities, including cyclists, pedestrians, motorists, transit riders, emergency responders, and freight handlers. Incorporation of complete streets into the project development process requires coordination with local governments, MPOs, transportation agencies, and the public.

Understanding of community context (transportation network, land use, and local priority), potential users and needs are key inputs for developing build alternatives that are complete streets oriented. The Project Manager must evaluate these key inputs during data collection, existing conditions analysis, and the alternatives development steps of the engineering analysis.

There is no single design solution for complete streets because each street and its context and travel demand are unique. For example, a complete street in an urban setting is quite different from a complete street in a rural setting; however, both streets must be designed to meet the users' needs and the transportation objectives of safety, mobility and the environment. Incorporation of complete streets may necessitate modification of design standards to allow typical sections to accommodate non-motorized traffic or allow raised medians, adequate shoulders, narrow lanes, and traffic calming features. Such modifications must follow FDOT's Design Exceptions and Design Variations process.

3.2.5.2 Pedestrians and Bicycle Accommodation

In 2010, the U.S. Department of Transportation (USDOT) issued a Policy Statement on Bicycle and Pedestrian Accommodation Regulation and Recommendations to support the development of fully integrated active transportation networks. It states:

> The DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide — including health, safety, environmental, transportation, and quality of life — transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes.

The USDOT policy encourages the State, local government, and public transportation agencies to:

1. Consider walking and cycling as equals with other transportation modes

2. Ensure that there are transportation choices for people of all ages and abilities

3. Go beyond minimum design standards

FHWA Bicycle and Pedestrian Planning, Program and Project Development provides additional guidance related to safety and accommodation of pedestrians and bicyclists.

FDOT's policy on ***Complete Streets, Policy No. 000-625-017*** is consistent with the 2010 USDOT ***Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations*** and further specifies that facilities be context-appropriate, based on existing or planned land use. Additionally, ***Section 335.065, Florida Statutes (F.S.)***, requires full consideration of bicycle and pedestrian ways along state roads and transportation facilities during planning and project development unless contrary to public safety, disproportionate cost or absence of need. Therefore, all Build Alternatives must consider pedestrian and bicycle accommodation.

Guidance on the design of pedestrian and bicycle facilities can be found in:

1. ***FDM, Part 2, Chapter 222, Pedestrian Facilities*** and ***FDM, Part 2, Chapter 223, Bicycle Facilities***

2. ***American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities***

3. AASHTO Guide for the Development of Pedestrian Facilities

4. ***Florida Greenbook*** (for off-system projects)

Pedestrian sidewalks in highly developed urban areas and near schools may require additional width based on anticipated pedestrian volumes and context. When designing pedestrian facilities, the safe crossing needs of the pedestrian must be considered, such as providing median refuge, placing crosswalks perpendicular to the roadway or to match the intersection lines at skewed intersections, and minimizing pedestrian crossing length.

For interchange design, pedestrians and bicyclists accommodation on the arterial must be considered at the beginning of the planning process and during the PD&E phase. Ramp configurations, speeds, and overall complexity can create impractical and unsafe conditions for bicyclists and pedestrians if not carefully considered throughout the design process.

Where current pedestrian or bicycle facilities or indications of use are identified, the Bicycles and Pedestrians section of the Environmental Document should discuss the current and anticipated use of the facilities, the potential impacts of the affected alternatives, and proposed measures, if any, to avoid or reduce adverse impacts to the facility and its users. Where new facilities are proposed as a part of the proposed highway project, the Environmental Document should include sufficient information to explain the basis for providing the facilities (e.g., proposed bicycle facility is a link in the local plan or

sidewalks will reduce project access impact to the community). Where the preferred alternative would sever an existing major route for non-motorized transportation traffic, the proposed project needs to provide a reasonable, alternative route or demonstrate that such a route exists. This needs to be described in the Environmental Document according to the ***FHWA Technical Advisory T6640.8A***.

3.2.5.3 Traffic Operations and Safety

Build alternatives should be evaluated for their impact on traffic operations. Traffic analysis for build alternatives includes both travel demand forecasting and capacity analysis to determine the number of through lanes, intersection control type, intersection configurations, need for auxiliary lanes, or access management. One of the primary objectives of traffic analysis is to determine if the Build Alternative will operate acceptably through the design year. Projects in urban areas require extensive traffic operational evaluations as compared to projects in rural areas because of recurring congestion and ROW constraints. Refer to the FDOT's ***Traffic Analysis Handbook*** and ***Part 2, Chapter 2, Traffic Analysis*** for further guidance on traffic operations evaluation.

Safety analysis for build conditions should occur after evaluation of crash data to determine any existing safety deficiencies and appropriate corrective measures. Evaluation of existing safety can also include a Road Safety Audit (RSA), which is an examination of safety conditions of a road by an independent audit team. Safety analysis for build conditions should analyze potential hazardous elements on the proposed project conditions and draw inferences based on interactions of these elements and users. Development of Build Alternatives must correct existing safety deficiencies. For existing and prescreened safety needs, review, select, and prioritize any of the overlapping safety needs or projects identified in FDOT's ***Safety Needs List Dashboard*** with coordination and approval of the appropriate manger determined by the District (i.e., the District Traffic Operations Engineer, District Safety Administrator, or other appropriate position according to the Districts' processes).

Intersection alternative(s) evaluation is governed by the ***Manual on Intersection Control Evaluation, Topic No. 750-010-003***.

3.2.5.4 Managed Lanes

It is the policy of FDOT to employ managed lanes on appropriate facilities that currently, or are expected in the future to, experience significant congestion in accordance with FDOT's ***Managed Lanes Policy, Policy No. 000-525-045***. Managed Lanes are highway facilities or sets of lanes where TSM&O strategies are proactively implemented and managed in response to changing traffic conditions to provide congestion relief. They are generally considered in congested urban areas with limited ROW and where the previous widening projects have not met travel demand. For this reason, the managed lanes alternative is evaluated for its ability to provide long-term mobility, managed capacity, travel time reliability, and travel options. Coordinate with the State Connected Vehicles, Arterials & Managed Lanes Engineer and Systems Management Administrator for guidance.

PD&E Studies can evaluate the Managed Lanes alternatives against the No-Action (No-Build) Alternative if the project is included in the MPO LRTP as a Managed Lanes project, or if previously completed planning or corridor studies had recommended Managed Lanes per ***Title 23 U.S.C. § 129***, ***Title 23 U.S.C. § 166***, and ***Title 23 U.S.C. § 301***.

Typically, development of initial congestion pricing concepts and the decision to apply congestion pricing is made during the Planning phase. The initial congestion pricing concepts may be refined during the PD&E phase as more data related to engineering, finance, and public factors are collected. Therefore, the Project Manager should coordinate with the Florida Turnpike Enterprise Toll Studies and Forecasting Office about the decision to use congestion pricing and the scope of tolling analysis, if required during the PD&E phase.

3.2.5.5 Access Management

Access management is a comprehensive approach to the management and regulation of driveways, medians, median openings, intersections, and freeway interchanges. The purpose of access management is to increase safety and efficiency of the transportation system by providing proper access from the SHS to abutting lands while limiting and separating traffic conflict points. It also ensures balance between accessibility and mobility while increasing the capacity of a roadway system. Access management analysis in the PD&E Study should evaluate and recommend appropriate locations for median openings and driveways, as applicable. The concept plans developed in the PD&E Study should show appropriate access management features. Changes in access management should be consistent with ***Procedure No. 625-010-021, Median Openings and Access Management***. The Project Manager should coordinate with the District Access Management Review Committee (AMRC) for any proposed deviations from the access management and median opening standards.

3.2.5.6 Interchanges on Interstate Highways

If the project includes a new interchange or a modification to an existing interchange, the Project Manager must coordinate with the District Interchange Review Coordinator (DIRC) throughout development of the project to ensure that the alternative which received safety, operational and engineering (SO&E) acceptability in the ***Interchange Justification Report (IJR)***, ***Interchange Modification Report (IMR)***, ***System Interchange Modification Report (SIMR)***, or ***Interchange Operational Analysis Report (IOAR)*** is included as one of the PD&E Study alternatives. Additionally, the Project Manager must coordinate the project schedule with DIRC such that the SO&E acceptability is obtained before the ***NEPA*** Document is sent to OEM for final approval.

To streamline project development, traffic operational analysis, safety analysis, and conceptual design analysis performed to address the requirements of the ***2017 FHWA Policy on Access to the Interstate System*** also support development and evaluation of alternatives in the PD&E Study. The Interchange Access Request (IAR) process and PD&E approval is further discussed in ***Part 1, Chapter 4, Project Development Process***. Additionally, the preliminary engineering analysis for the PD&E Study includes

the following to satisfy the FHWA Policy requirements related to social, economic or environmental impacts:

- Perform traffic and safety analyses of the No-Build conditions to demonstrate the ability or inability of the existing interchanges to adequately serve design year traffic demands or address safety needs.

- Review local roads and streets within the interchange area of influence to confirm that local road improvements will or will not satisfactorily address the design year traffic demands.

- Summarize all alternatives considered to address the need for the IAR proposal and describe why alternative solutions to the proposed access change do or do not address the need and whether the alternatives are feasible.

- List planned improvements on the interstate within the IAR proposal and discuss IAR consistent with local and regional land use and transportation plans.

- In corridors where the potential exists for future multiple interchange additions, describe other access changes that are planned in close proximity to the IAR proposal, and state any impacts the IAR proposal and planned access changes have within the context of a network plan. Additionally, summarize how the adjacent planned access changes were incorporated into the IAR evaluation.

- If a new or modified IAR is due to a new, expanded, or substantial change in current or planned future development or land use, describe coordination that has occurred to identify fiscal responsibilities and any commitments to constructing local improvements needed to assure adequate collection and dispersion of the traffic resulting from the development with the adjoining local street network and the interchange.

If the recommended PD&E Study alternative is different from the interchange concept that received SO&E acceptability, the ***IJR***, ***IMR***, or ***IOAR*** must be re-evaluated to demonstrate that the preferred alternative meets the requirements of the IAR analysis procedure prior to the final approval of the ***NEPA*** Document or design change re-evaluation. The need and scope for the IAR re-evaluation must be determined through consultation with the DIRC, Statewide Interchange Review Coordinator (SIRC), and FHWA, as appropriate. See the ***Interchange Access Request User's Guide*** for IAR re-evaluation guidance.

3.2.5.7 Intelligent Transportation Systems

If a project uses federal funds and involves ITS technologies or a system of technologies, the requirements specified in the ***Procedure No. 750-040-003, Florida Department of Transportation Systems Engineering and Intelligent Transportation System (ITS) Architecture Procedure*** must be followed. The guidelines ensure an ITS project's compliance with ***23 CFR § 940.11*** and FDOT's requirements. Authorization of federal

funds for construction or implementation of the project cannot proceed until compliance with ***23 CFR § 940.11*** is demonstrated.

23 CFR § 940.11 requires that all ITS projects funded with highway trust funds be based on systems engineering analysis and have a project level ITS architecture that is coordinated with the development of the regional ITS architecture before advancing to final design. The Project Manager must prepare a high-level project ConOps and a ***Preliminary System Engineering Management Plan (PSEMP)*** to document the results of the system engineering analysis. The ***PSEMP*** is a technical document that defines the project's system engineering process for ITS deployments from concept to system operations in Florida consistent with ***23 CFR Part 940***. ***PSEMP*** specifies systems engineering activities and what must be built to satisfy stakeholder needs. The Project Manager should coordinate with the District TSM&O Engineer or program manager and the County Engineer when developing the ***PSEMP***. Example of project alternatives that may require a ***PSEMP*** are Managed Lanes alternatives, transit alternatives, and any alternative with TSM&O strategies, because they involve ITS technologies and may be funded by federal funds.

3.2.5.8 Lane Repurposing

Lane repurposing may be incorporated into alternatives intended to reconfigure the existing cross section of the roadway to accommodate other uses and travel modes. The recovered travel lanes can be repurposed as bicycle lanes, sidewalks, landscaping, on-street parking, channelization, or bus lanes. Since a lane repurposing alternative may redistribute traffic to other adjacent roadways, a networkwide or system impact analysis should be performed. Projects considering lane repurposing as an alternative must follow the procedures in ***FDM, Part 1, Chapter 126, Lane Repurposing Projects***, for review and approval by the Chief Engineer, prior to the selection of a preferred alternative.

3.2.5.9 Landscape

Discuss any landscaping accommodations included in the build alternatives. Refer to ***FDM, Part 2, Chapter 270, Planting Designs*** for more information on planting designs.

3.2.5.10 Lighting

Discuss lighting accommodations included in the build alternatives. Considerations should include the impacts to neighborhoods, aesthetic impact, and impacts to sensitive species.

3.2.5.11 Wildlife Crossings

Discuss potential wildlife crossings associated with the build alternatives.

3.2.5.12 Permits

Summarize the anticipated permitting needs of the build alternatives.

3.2.5.13 Stormwater Management

A PD&E Study must consider how management of stormwater from the project area will meet water quality, rate, and quantity requirements of FDOT, Water Management Districts (WMDs) and the Florida Department of Environmental Protection (FDEP). The ***Drainage Manual, Topic No. 625-040-002*** contains the drainage design standards for FDOT projects.

If the project uses the WATERSS process, the Project Manager should coordinate with the WATERSS District Champion and the District Drainage Engineer to discuss watershed needs, innovative stormwater management and follow the WATERSS process. The ***WATERSS Process Guidebook*** contains the steps and documentation required to complete the WATERSS process. Stormwater management solutions developed through this process are documented in the project ***Stormwater Management Alternatives Report (SMARt)***, summarized in the ***PER***, and may be modified in future phases of the project.

For projects not using the WATERSS process, drainage decisions are documented in the ***PER*** and ***Pond Siting Report (PSR)*** or ***Conceptual Drainage Design Report***. For projects using ponds for stormwater management, a ***PSR*** is prepared, identifying potential pond sites. If the stormwater facilities are other than ponds, a ***Conceptual Drainage Design Report*** is prepared (see ***Part 2, Chapter 11, Water Resources*** and the ***Drainage Manual, Chapter 5, Topic No. 625-040-002***).

3.2.5.13.1 Drainage and Landscaping

The Project Manager should meet with the District Drainage Engineer and Landscape Architect to explore opportunities for integrating pond features with existing and proposed landscaping.

3.2.5.14 Sea Level Impact Projection (SLIP) Studies

Resiliency includes the ability of the transportation system to adapt to changing conditions and prepare for, withstand, and recover from disruption. FDOT's policy on ***Resiliency of State Transportation Infrastructure, Policy No. 000-525-053*** identifies sea level rise as a key source of risk and states that FDOT will employ strategies to avoid, mitigate, or eliminate impacts. In addition, ***Senate Bill 178*** was passed by the 2020 Florida Legislature to create ***Section 161.551, F.S.***, adding requirements for analyzing resiliency against sea level rise within the Coastal Building Zone. The regulatory requirements of this legislation were codified by FDEP into ***Chapter 62S-7, F.A.C.*** The SLIP regulation is effective July 1, 2022, wherein a state-financed constructor which is a public entity that commissions or manages a construction project that uses funds appropriated from the state on a new coastal construction structure must conduct a SLIP study and submit it to FDEP who will publish notice of the SLIP on its website for 30 days prior to construction.

3.2.5.14.1 Identifying Applicable Coastal Projects

Per ***Chapter 62S-7, F.A.C.***, FDOT must perform a SLIP study for construction of a "new coastal structure" within the Coastal Building Zone, for projects that begin construction on July 1, 2022 or after.

A "new coastal structure" is defined as a major or non-habitable major structure for which construction has not yet commenced beginning July 1, 2022. Major Structures and Non-habitable Major Structures are defined in ***Section 161.54(6), F.S.*** Projects that are for the rehabilitation or maintenance of existing structures, resurfacing and related minor improvements, such as adding a turn lane, improved lighting, upgrading traffic signals, are not considered a new coastal structure. All projects requiring a PD&E Study are required to complete a SLIP study on each alternative.

The Coastal Building Zone is defined in ***Rule 62S-7.010, F.A.C.***, as the following:

1. The land area from the seasonal high-water line landward to a line 1,500 feet landward from the coastal construction control line as established pursuant to ***Section 161.053, F.S.***, and for those coastal areas fronting on the Gulf of Mexico, Atlantic Ocean, Florida Bay, or Straits of Florida and not included under ***Section 161.053, F.S.***, the land area seaward of the most landward velocity zone line as established by the Federal Emergency Management Agency (FEMA) and shown on ***Flood Insurance Rate Maps (FIRM)***.

2. On coastal barrier islands, it shall be the land area from the seasonal high-water line to a line 5,000 feet landward from the coastal construction control line established pursuant to ***Section 161.053, F.S.***, or the entire island, whichever is less.

3. All land area in the Florida Keys located within Monroe County shall be included in the Coastal Building Zone.

3.2.5.14.2 Submitting a SLIP Study

FDEP has developed a web-based tool for performing and submitting a SLIP study. The results developed with the tool fulfills the requirements of ***Section 161.551, F.S.*** The FDEP SLIP Tool must be accessed by an approved, registered user account. Coordinate with the Project Manager for the registration account specific to each FDOT District.

The input parameters to the SLIP Tool are provided on the ***FDEP Slip Studies website*** and should be documented within the ***PER*** as part of the PD&E Study. The SLIP Tool generates a ***SLIP Study Report***, which is published on the ***FDEP Slip Studies website***. If there are changes to the preferred alternative in Design, the SLIP study will be modified and resubmitted.

Per ***Rule 62S-7 F.A.C.***, FDOT may not commence construction until notified by the FDEP that:

- The ***SLIP Study Report*** was approved as meeting the requirements of ***Section 161.551, F.S.***, and

- The FDEP 30-day publication period has finished.

3.2.5.14.3 Sea Level Rise Analysis

An analysis to determine risk related to sea level rise is conducted for projects within the Coastal Building Zone. This will identify risks related to sea level rise, flooding, and storms; assess potential impacts; and employ strategies to avoid, mitigate, or eliminate impacts.

Risk Assessment: Using the results of the SLIP study, assess performance and vulnerability of existing or proposed infrastructure relating to sea-level rise, flooding (including the average annual chance of major flood damage), inundation, storm increases, and wave damage over the life of the infrastructure (or out to a future period of 50 years, whichever is less).

Resiliency Measures: Based on the results of the risk assessment, determine if there are cost prudent, practical resiliency measures that can be considered. Include a discussion on feasibility and how these measures will affect construction and maintenance costs as well as the level of infrastructure performance.

Coordination Considerations: For projects impacted by sea level rise, the Project Manager coordinates with District's Roadway and Drainage Design Engineers when performing the SLIP study, Sea Level Rise Analysis, and developing a sea level rise design strategy that is cost-prudent and practical. The results of this analysis are documented in the ***PER***.

Design efforts to increase a project's resiliency should be discussed with regional climate resilience collaboratives, MPOs, TPOs, and local agencies to identify local initiatives and plans regarding sea level rise.

Refer to the ***Drainage Manual, Topic No. 625-040-002*** for further guidance on resiliency and sea level rise considerations.

3.2.5.15 Water Quality

A ***Water Quality Impact Evaluation (WQIE) Checklist, Form No. 650-050-37*** must be prepared for each Type 2 CE, EA, EIS or SEIR project. The WQIE focuses on surface water and ground water. The surface water evaluation should identify and document water quality issues to produce designs that are complying with the goals of the ***Clean Water Act (CWA)***, as amended. The objective of the ***CWA*** is to provide guidance for developing comprehensive solutions to prevent, reduce, and eliminate pollution of waters of the United States. The ground water evaluation, in coordination with the Environmental Protection Agency (EPA) and other regulatory agencies, should be consistent with the ***Safe Drinking Water Act (SDWA)***, as amended. The ***SDWA*** requires ground water

quality to be maintained to protect human health, the environment, and ground water resources. WQIE requirements are discussed in detail in ***Part 2, Chapter 11, Water Resources***.

3.2.5.16 Hydrology and Floodplains

Analysis of project alternatives includes hydrology and hydraulic evaluation to determine preliminary location, type, and size of major drainage crossings that may impact floodplains and floodways. Protection of floodplains and floodways is required by ***Executive Order (EO) 11988, Floodplain Management***, ***USDOT Order 5650.2***, ***Floodplain Management and Protection*** and ***23 CFR Part 650A***. The intent of these directives is to avoid or minimize highway encroachments within the 100-year (base) floodplains, where practicable, and to avoid supporting land use development which is incompatible with floodplain values.

Hydraulics evaluation involves field observations to determine or confirm needed improvements, analysis of existing and proposed drainage basins, design of cross drains and culverts, design of outfall structures, determination of special erosion control and flood control features, among other things. Hydraulics evaluation also determines and corrects roadway design profile issues that may cause roadway flooding or overtopping.

The results of hydrology and hydraulic evaluation are summarized in the ***PER*** and the Environmental Document and detailed in the ***Location Hydraulics Report (LHR)***. See ***Part 2, Chapter 13, Floodplains*** for guidance on how to prepare an ***LHR***.

3.2.5.17 Utilities and Railroads

The Project Manager should coordinate with the District Utility Engineer and District Railroad Coordinator whenever a project involves utilities and/or rail systems on the project. The goal is to identify potential existing or future conflicts with the project. Coordination requirements for potential utilities and railroad conflicts are outlined in ***Part 2, Chapter 21, Utilities and Railroads***.

3.2.5.18 Survey and Mapping

Development of the horizontal and vertical alignment of the build alternative requires topographic survey data. The Project Manager should obtain existing information on survey control points, benchmarks, and control data (e.g., vertical and horizontal datum, coordinate system). The scale of surveying and mapping required for a PD&E Study depends on the project context, project complexity, and adjacent land use intensity. The scale of surveying and mapping also depends on the scope of the preliminary engineering. Engineering analysis for build alternatives may require the following:

1. Existing aerial photographs and imagery
2. LiDAR technology
3. Previous topographic surveys and reports

4. Previous roadway corridor mapping
5. U.S. Geological Survey (USGS) topographic maps
6. ROW maps, including supporting survey and title work
7. County maps showing adjacent parcels, plats, and side streets
8. Utility locates
9. Additional topographic surveys, Digital Terrain Models (DTM) and reports

Refer to the ***Surveying and Mapping Procedure, Topic No. 550-030-101***, and ***Surveying and Mapping Handbook*** for standards and guidance for conducting surveying and mapping.

3.2.5.19 Geotechnical Investigation

Soil exploration during the PD&E phase is part of the analysis that supports location and design of project alternatives. A subsurface investigation may be required at the site of new structures, roadway construction, widening, trails, and rehabilitation locations as directed by the District Geotechnical Engineer or project scope. The scale of geotechnical investigation depends on the level of design analysis for the PD&E project and the type of soils involved. Geotechnical and subsurface investigation during PD&E involves:

1. Reviewing project requirements such as project location, alignment, structure location, structure loads, pier locations, and cut/fill area locations
2. Performing field reconnaissance of the site and existing structures to determine conditions that may affect development and construction of the project
3. Reviewing or obtaining ground survey data, aerial photography, geological information, U.S. Department of Agriculture (USDA) soil data, USGS topo maps, U.S Coast and Geodetic Survey (USCGS) maps
4. Planning and conducting field investigation and laboratory testing
5. Preparing a preliminary geotechnical report summarizing available data and providing recommendation
6. Identifying potential needs for the design investigation to address construction requirements and anticipate problems

Geotechnical and subsurface investigations must be conducted by a geotechnical engineer and the report must be signed by the engineer, in accordance with geotechnical standards, policies, and procedures (refer to the ***Soils and Foundations Handbook***).

Geotechnical and subsurface investigations may reveal evidence of contamination or solid waste/land-filling activities. This information is useful to the environmental analyst

tasked to perform contamination assessment work on the same project. When these investigations reveal contamination issues, the project geotechnical engineer should inform the Project Manager and the District Contamination Impacts Coordinator (DCIC).

3.2.5.20 Structures and Bridges

The Project Manager should include structures engineers when developing project alternatives that may require bridges, retaining walls, tunnels, culverts, or other structural elements.

3.2.5.20.1 Development of Bridge Alternatives

When the project involves a bridge or box culvert, several important factors guide the development of bridge alternatives. For existing bridges, the age, sufficiency rating, typical section, repair costs, vertical and horizontal clearance, historic significance, stormwater management, maintenance of traffic plan, and availability of a detour route determine if the bridge needs to be repaired or replaced.

For new bridges, the proposed typical section, navigation requirements, vertical and horizontal clearance requirements, location hydraulic evaluation and scour analysis, geotechnical data, ship/barge traffic, security requirements, aesthetics requirements, and bridge deck drainage considerations will guide the selection of the superstructure, substructure, and foundations.

For projects involving replacement of a bridge that is considered historic, or has substantial community value, the study must include a rehabilitation or repair alternative.

If the bridge has an existing or proposed wildlife crossing feature, coordination with the District Environmental Manager and the resource agencies is required to ensure appropriate bridge design alternatives are considered.

The purpose of the bridge analysis is to determine the general attributes for the bridge alternative(s). The bridge analysis must provide conceptual guidance for the bridge designer who will develop specific attributes of the bridge (such as bridge design and structure type) in the ***BDR***. The scope of services for the PD&E Study must specify the level of structural analysis and development for each anticipated bridge structure in the study. The District Structures Design Engineer must concur with the findings of the bridge analysis by signing the ***Typical Section Package***. See ***FDM, Part 2, Chapter 260, Bridge Structures*** for the contents of the bridge analysis and ***BDR***. Bridge replacement PD&E studies do not require preparation of a ***PER***, rather the preliminary engineering analysis results for these projects may be documented in the ***BDR*** or ***BRR***.

3.2.5.20.2 Braided Underpass Structures

Design of interchange concepts and ramp configurations must consider the three-dimensional relationship of roadway and bridge components. Such components can include the mainline, auxiliary lanes, ramps, Collector-Distributor (C-D) roads, braided (grade-separated) ramps, ramp terminal intersections, and ramp junctions. When an

interchange concept involves braided underpass structures, the Project Manager must coordinate with the District Structures Design Engineer to ensure vertical and horizontal geometry of the bridges can be structurally designed. Braided underpass structures usually carry primary roadway traffic (e.g., mainline or C-D road traffic) over secondary roadway traffic (e.g., ramp traffic). They typically consist of single-span bridges where the beams or flat slab superstructure component is not oriented parallel to traffic of the overlying roadway and a portion of the superstructure and substructure extends beyond the limits of the traffic barriers (refer to the ***Structures Manual, Topic No. 625-020-018*** for details).

3.2.5.20.3 Bridge Hydraulics

The drainage engineer must prepare an ***LHR*** for bridges over water in accordance with the procedures outlined in the ***Drainage Manual, Topic No. 625-040-002***. See ***Part 2, Chapter 13, Floodplains*** for guidance on how to prepare an ***LHR***. Depending on the level of engineering analysis during the PD&E phase, a ***Bridge Hydraulic Report (BHR)*** may be prepared to determine the hydraulic length of the bridge.

The District Drainage Engineer should review tidal projects, including impacts from sea level rise projections, to determine if coastal hydraulics is a meaningful consideration in a roadway or bridge project's design. When coastal hydraulics is essential to the project, a coastal engineer must assist in determining the level of bridge analysis effort during scoping of the PD&E phase. Conditions that typically require attention by a coastal engineer during the final Design phase are as follows:

1. Hydraulic analysis of interconnected inlet systems
2. Analysis of inlet or channel instability, either vertically or horizontally
3. Determination of design wave parameters
4. Prediction of over wash and channel cutting
5. Design of countermeasures for inlet instability, wave attack or channel cutting
6. Prediction of sediment transport or design of countermeasures to control sediment transport
7. Assessment of wave loading on bridges and other structures

3.2.5.20.4 Perimeter Walls

The request for consideration of a perimeter wall must come from the local municipality in which the project is located or from a group of directly affected residences/property owners adjacent to the project. These requests should be documented in the project file as early in the project's life as possible (i.e., during the PD&E phase of the project). If a request for perimeter wall consideration has been made, it is the responsibility of the

Environmental Office Project Manager to forward the request to the appropriate design staff/project manager to ensure complete follow through on the request.

Perimeter walls are not intended to provide any noise reduction, nor are they intended to serve as a substitute for noise barriers at locations where a noise analysis has determined that the construction of noise barriers is not feasible and cost reasonable. Perimeter walls are also not intended to be used as mitigation for environmental impacts. Perimeter walls will not be considered as a retrofit for existing conditions, and shall only be given consideration when a minimum of one of the following conditions are met:

1. Expanding the capacity of an existing highway by adding lanes to the outside of the existing travel lanes;

2. The significant alteration of the vertical or horizontal alignment of an existing highway;

3. A new highway on a new alignment;

4. The removal of existing extensive vegetation or visual barrier within the FDOT ROW;

5. Exceptions to any of the items listed above will be considered on a case by case basis by the Assistant Secretary of Engineering and Operations.

If at least one of the above conditions is met, further consideration for the construction of a perimeter wall can proceed. The following requirements must also be met:

1. Building permits for the structures on the adjacent land that would realize a benefit from the perimeter wall must be issued prior to the approval of the Environmental Document.

2. Traffic on the project roadway must be visible from the adjacent property.

3. All structures for which the perimeter wall is being considered must be immediately adjacent to the FDOT's ROW and within 150 feet of the edge of the nearest travel lane. Additionally, the perimeter wall must be constructible within the FDOT's ROW or an easement must be granted to facilitate construction, if necessary.

4. The perimeter wall must be continuous, with no openings to accommodate driveways or other access requirements.

5. The cost of the perimeter wall per adjacent land owner, shall not exceed a unit cost equal to 2/3 that of a noise barrier, based on the current cost effectiveness criteria, for Noise Barriers (see ***Part 2, Chapter 18, Highway Traffic Noise***).

6. The height of a perimeter wall is limited to eight feet.

7. During the Design phase, FDOT will use either a perimeter wall workshop and/or a public survey to determine the wishes of the adjacent property owners. The survey effort may include a mailing of information related to the perimeter wall along with a survey form to be signed and returned to FDOT. Multiple techniques to solicit input may be used, including multiple mailings, door-to-door follow up, and even telephone solicitation (as needed) to provide adequate information to allow FDOT to make an informed decision on whether the perimeter wall is desired or not. A simple majority of the adjacent property owners must support the construction of the perimeter wall.

FDM, Part 2, Chapter 264, Noise Walls and Perimeter Walls provides additional details on the requirements for consideration of perimeter walls.

3.2.5.21 Transportation Management Plan

A Conceptual Transportation Management Plan (TMP) should be prepared during PD&E and will evolve as the project progresses toward final design and construction. Conceptual TMP must include traffic control strategies and may also include additional work zone management strategies based upon the expected work zone impacts of a project. For additional guidance related to the TMP development process, see ***FDM, Part 2, Chapter 240, Transportation Management Plan***. The TMP must be discussed in the ***PER*** and may be attached for reference, including discussion of construction phasing to maintain traffic and multimodal accessibility during construction.

3.2.5.22 Constructability

The evaluation of build alternatives requires review of constructability and ability to maintain traffic during construction to uncover issues that may prevent implementation. The Project Manager must include Roadway Design Office, Structures Office, and Construction Office in the reviews of concept plans prepared for the Build Alternatives.

Discussion of constructability must be included in the ***PER***, including constructability concerns.

3.2.5.23 Construction Impacts

Impacts resulting from the actual construction of the proposed project should be discussed. A listing of general areas that may be discussed is provided below. This list is not intended to be all inclusive.

1. Air quality impacts related to open burning and dust control, see ***Part 2, Chapter 19, Air Quality***

2. Noise and vibration impacts related to construction activities, see ***Part 2, Chapter 18, Highway Traffic Noise***

3. Water quality protection related to erosion control, sedimentation, and turbidity reduction, see ***Part 2, Chapter 11, Water Resources***

4. Species and habitat protection related to construction activities, see ***Part 2, Chapter 16, Protected Species and Habitat***

5. Maintenance of traffic and detour routing for vehicular and multimodal traffic

6. Maintenance of access to businesses and residences for vehicular and multimodal traffic

7. Safety considerations

8. Public involvement and community interaction to ease disruptive effects

9. Disposal of construction materials

10. Stockpiling of construction materials and fill

11. Use of borrow areas

12. Mitigation measures proposed to reduce dredge and fill-related impacts

The ***PER*** and Environmental Document must contain a section that discusses construction impacts of the project. The discussion must include impacts which may occur, whether they are disruptive or beneficial, and measures, where feasible, to reduce the amount disruption which could result. Generally, FDOT has standard construction practices which take into consideration many of the direct impacts of construction, and provide for measures to reduce or eliminate their effects. These measures are found in the ***Standard Specifications for Road and Bridge Construction***.

There are occasions where FDOT may commit to implement specific measures, features, or activities. Such measures will become commitments by FDOT and, as such, must be incorporated in the Commitments section of the ***PER*** and Environmental Document consistent with ***Part 2, Chapter 22, Commitments*** and ***Procedure No. 650-000-003, Project Commitment Tracking***.

3.2.6 Environmental Considerations for Build Alternatives

Development of Build Alternatives must consider the environment within which the project will be built and reflect the environmental constraints identified in the project area. Therefore, the development of the Build Alternatives should begin with overlaying environmental data collected during field review on the base map. Additional information is contained in the ***Programming Screen Summary Report*** that is completed for projects qualified for ETDM screening. FDOT environmental specialists and subject matter experts are involved throughout the project development process to evaluate potential impacts and recommend impact avoidance, minimization, mitigation, or

enhancement measures. For environmental considerations refer to ***Part 2*** of this ***PD&E Manual***.

3.2.7 Value Engineering

In accordance with the ***Value Engineering Program, Topic No. 625-030-002***, all projects on the National Highway System (NHS) utilizing federal aid highway funding with an estimated total cost of $50 million or more for non-bridge projects and $40 million or more for bridge projects shall have a minimum of one ***Value Engineering (VE) Study*** performed during the development of the project prior to the completion of final design. The estimated total cost shall include all costs associated with all phases of the project, including environment, design, ROW, utilities, and construction. Projects delivered with the Design-Build method of construction are not required by federal regulation to have a VE analysis. Projects that have a potential for value improvements and do not meet the minimum criteria may also be studied.

A VE Study can be conducted either during PD&E or during Initial Engineering Design. If the VE Study is conducted during the PD&E phase, it must occur after alternatives analysis is complete and before the public hearing (if held). In addition, all VE issues/recommendations should be resolved before scheduling a public hearing. The Project Manager should coordinate scheduling of the VE Study with the District Value Engineer and make sure that the draft Environmental Document, ***PER***, Summary of Public Involvement, and other technical documents are available for review by the VE team. Recommendations from the VE Study must be incorporated in the comparative alternatives evaluation and documented in the ***PER*** and the Environmental Document.

3.2.8 Comparative Alternatives Evaluation

Each project presents a unique set of challenges and the Project Manager must carefully provide a balance between the environmental impacts, the engineering considerations and the project costs, along with public input when selecting a preferred alternative. Analysis requires a comparative evaluation to objectively assess project alternatives (including the No-Action Alternative) at the same level of detail in a matrix format. The objective of an alternatives evaluation matrix is to compare the performance of each viable alternative in meeting the evaluation criteria, and to quantify its impacts to the natural, social, cultural, and physical environment. The comparative alternative evaluation must include the No-Action Alternative (No-Build Alternative).

Alternative evaluation measures should be presented in a manner to help the public, elected officials and agencies understand the advantages and disadvantages associated with each alternative.

The following is a list of suggested items to be compared in a matrix format. The list is not meant to be comprehensive, and it should be tailored to each project.

Project Cost - The project cost should include costs associated with:

1. Design Phase

2. ROW Acquisition (cost of acquiring ROW, relocation cost and business damages, if any)
3. Construction (roadway and bridge) - including TMP
4. Construction Engineering and Inspection (CEI)
5. Wetland, Habitat and Species Costs
6. Cultural Resources Costs
7. Utility Relocation Cost
8. Operations and Maintenance Cost (for transit projects)

Purpose and Need

1. Ability to meet Purpose and Need

Social and Economic Environment

1. Number of parcels (business and residential)
2. Number of relocations (business and residential)
3. Churches, Synagogues, Mosques, Worship centers
4. Cemeteries
5. Schools
6. Hospitals, Medical Centers
7. Farmland

Cultural Environment

1. ***Section 4(f)*** Resources
2. Historic Sites and Districts
3. Archaeological Sites
4. Parks, Recreational Areas, Wildlife/Waterfowl Refuges, and Protected Lands

Natural Environment

1. Wetlands and Other Surface Waters
2. Protected Species and Habitat

3. Floodplains
4. Water Resources

Physical Environment

1. Contamination/Hazardous Waste Sites
2. Noise Receptors
3. Navigation
4. Air Quality
5. Utilities
6. Bicycles and Pedestrians

Traffic Operations and Safety

1. LOS
2. Throughput
3. Delay
4. Travel Time
5. Safety
6. Vehicles Hours Traveled/Vehicle Miles Traveled (VMT)
7. Travel Time Reliability

An evaluation matrix for multimodal projects should include multimodal measures such as increased ridership, connectivity and accessibility, reduction of modal conflicts, and change in VMT.

For freight-focused projects, the comparative evaluation matrix should include freight-related performance measures. Such measures can include diversion estimates from through town, estimated travel-time savings between port and warehouse locations, travel time improvements for port access, travel-time differentials, and reduction in the number of truck trips.

3.2.9 Preferred Alternative

The identification of the preferred alternative is based on the results of the alternatives evaluation. The District should identify the preferred alternative in the appropriate sections of the ***PER*** and the Environmental Document. Both ***PER*** and Environmental Document

should include supporting reasons for identifying the preferred alternative. The Environmental Document should briefly discuss proposed design features of the preferred alternative (see ***Section 3.2.10***). The ***PER*** should discuss in detail the preliminary design features of the preferred alternative. When the design features of the preferred alternative do not meet the designated design criteria, design exceptions or design variations must be prepared and approved per ***FDM, Part 1, Chapter 122, Design Exceptions and Design Variations***. Detail design of these features is performed during the Final Design phase, in accordance with the ***FDM, Part 1, Chapter 111, Final Engineering Design Process***.

The preferred alternative (or portion thereof) for a project, after being identified in the Draft Environmental Impact Statement (DEIS), may be developed to a higher level of detail than other alternatives in order to facilitate the development of mitigation measures or compliance with requirements for permitting. The development of such higher level of detail must not prevent FDOT from making an impartial decision as to whether to accept another alternative that is being considered in the environmental review process. The District must coordinate with the State Environmental Development Engineer prior to developing the preferred alternative to a higher level of detail than other alternatives.

If a preferred alternative is identified prior to the public hearing, it must be presented as such at the public hearing and in the Environmental Document available during the public comment period. It is normally expected that a preferred alternative is chosen prior to the public hearing. If in unusual circumstances a preferred alternative cannot be selected before the public hearing the District should coordinate with OEM. For these situations, additional public involvement after the hearing would be expected and could range from another public hearing to a meeting, or a flyer/mailer.

Once the public hearing is held and public and agency comments are considered, appropriate sections of the Environmental Document are updated to include information received from the public hearing process. Additionally, the ***PER*** is updated to include preliminary design details associated with the preferred alternative based on comments received.

3.2.9.1 Engineering Details of the Preferred Alternative

The following are elements of the preferred alternative that require detailed discussion in the ***PER***. If an element does not exist or does apply to the project, include a statement to that fact in the ***PER***.

Typical Section(s)

Discuss the proposed typical sections and include a ***Typical Section Package*** signed by the Engineer of Record, and finalized in accordance with ***FDM, Part 1, Chapter 120, Design Submittals***. The District Design Engineer, the District Traffic Operations Engineer, the District Structure Engineer (as applicable) and the District Intermodal Systems Development Manager must concur and sign the ***Typical Section Package***.

Include a copy of the approved ***Typical Section Package*** in the ***PER*** for Type 2 CEs, EAs with Finding of No Significant Impact (FONSI), EISs, and SEIRs.

Access Management

Discuss the existing access management classification(s) and any change(s) to that classification proposed by the preferred alternative. Discuss other access point changes such as medians and driveways and show the proposed changes on the concept plans. Prepare a conceptual access management plan to document access management issues and preliminary design decisions and actions reached during the PD&E phase. If a public hearing is required based on changes in access management, this hearing can be conducted concurrently with the PD&E public hearing.

Right of Way

Discuss the number of parcels, the number of relocations and the total cost estimate for the acquisition of those parcels. If a ***Conceptual Stage Relocation Plan (CSRP)*** has been developed for the project, include a reference to the plan and its conclusions. Details regarding costs for individual parcels must not be included in this discussion or elsewhere in the report. Include considerations of future land use changes around the proposed ROW.

Horizontal and Vertical Geometry

Include preliminary concept plans showing the horizontal and vertical geometry of the project.

Design Variations and Design Exceptions

Discuss any design controls and criteria that will need a design variation or design exception. Include any design variations or design exceptions which have received approval.

Multimodal Accommodations

Discuss multimodal accommodations (bicycles, pedestrians, transit), complete streets and context sensitive design solutions, such as lane repurposing, applied to the alternative.

Intersection/Interchange Concepts and Signal Analysis

Include concepts plans showing proposed intersections and/or interchange configurations. Refer to either the ***Project Traffic Analysis Report (PTAR)*** for signal timing analysis or include signal analysis in the Appendix.

Tolled Projects

Discuss the results of the ***TSTM***, if applicable.

ITS and TSM&O Strategies

Discuss ITS facilities based on the systems engineering analysis and TSM&O strategies or technologies that will be added in the preferred alternative. Confirm applicability of TSM&O strategies or technologies with the District TSM&O Program Engineer.

Landscape

Discuss landscaping accommodations for the preferred alternative as coordinated with the District Landscape Architect.

Lighting

Identify project lighting needs and design. Discuss the impacts to neighborhoods, aesthetic impact, and impacts to sensitive species.

Wildlife Crossings

Discuss wildlife crossings and coordination with appropriate District personnel and regulatory agencies.

Permits

Summarize the preferred alternative permitting needs and coordination with the District and permitting agencies.

Drainage and Stormwater Management Facilities

Discuss the type of drainage system(s) to be used for the preferred alternative. A discussion of the number and type of stormwater management systems should also be included.

Floodplain Analysis

Discuss impacts that occur to floodplains. This discussion should include whether the impacts will be parallel or perpendicular to the floodplain.

Bridge and Structure Analysis

Include a proposed typical section and bridge concept for all bridges on the project. Include the proposed superstructure and substructure for each bridge and the breakdown of cost.

Transportation Management Plan

Discuss or detail preliminary TMP that will handle all phases of construction for the preferred alternative.

Constructability

Describe construction phasing of the preferred alternative and identify any challenges with implementation of the proposed project.

Construction Impacts

Discuss all direct impacts resulting from the actual construction of the proposed project.

Special Features

Discuss any features that are not commonly associated with a transportation project. Examples could include any features included to protect or minimize impacts to the environment.

Utilities

Include a list of all the UAOs together with the contact information for each within the preferred alternative. Include a cost estimate for utility relocations.

Project Costs

Include a table summarizing project costs consistent with the Long Range Estimate (LRE). Use FDOT's LRE System for construction costs, and ROW estimates for ROW costs. Design and CEI costs may be developed based on a fixed percentage of construction cost. For a project with wetland impacts, include the cost of wetland mitigation. For a project with utility impacts, include the costs of utility relocation both directly and indirectly to FDOT.

3.2.9.2 Summary of Environmental Impacts of the Preferred Alternative

In the ***PER***, discuss the following elements of the environmental analysis and supporting technical documents that influence the development of detailed design of the preferred alternative. If an element does not exist or does apply to the project, include a statement to that fact in the ***PER.***

Future Land Use

Discuss planned land use as identified in the comprehensive plan (if available) or any other applicable plans for land use. Discuss the project's compatibility with nearby land uses, zoning (including special districts or overlays), and comprehensive plans; focus discussion on implications for the environmental effects and engineering decisions. Identify measures that will be incorporated into the project to mitigate any potential incompatibility.

Section 4(f)

Identify, by their formal name, any existing or proposed ***Section 4(f)*** protected resources, such as public parks, recreational areas, wildlife and waterfowl refuges, and any public or private historic or archaeological sites, along and/or within the study area. Focus discussion on implications for the environmental effects and engineering decisions.

Cultural Resources

Summarize findings of the ***Cultural Resources Assessment Survey (CRAS)***. Identify any significant cultural resources within the project Area of Potential Effect (APE) and assess their significance in terms of eligibility for listing on the National Register of Historic Places (NRHP).

Summarize findings of the letter submitted to the State Historic Preservation Office (SHPO) and their response. Focus discussion on implications for the environmental effects and engineering decisions.

Wetlands

Summarize the ***Natural Resource Evaluation (NRE)***. Briefly discuss the impact of the Preferred Alternative on any wetlands or other surface waters. Include approximate acreage and overall functional loss as determined in the Uniform Mitigation Assessment Methodology (UMAM). If wetlands are impacted, briefly discuss the proposed mitigation measures. List any mitigation banks, available credits and type, or other options available within the basin.

Protected Species and Habitat

Summarize the ***NRE***. Briefly discuss the effect of the Preferred Alternative on protected species and habitats. Summarize the results of any formal or informal interagency consultation. Focus discussion on implications for the environmental effects and engineering considerations.

Essential Fish Habitat

Summarize the ***NRE***. Briefly discuss the effect of the Preferred Alternative on Essential Fish Habitat (EFH). Summarize the results of any interagency consultation. Focus discussion on implications for the environmental effects and engineering considerations.

Highway Traffic Noise

Discuss land use, proposed project traffic noise levels, and any apparent solutions available to mitigate the noise at the receptor locations based on the ***Noise Study Report (NSR)***. Focus discussion on implications for the environmental effects and engineering considerations.

Contamination

Summarize the results of the ***Contamination Screening Evaluation Report (CSER)***. Identify all contamination sites and risk rating category assigned to each site. Identify the need for any Level II assessment during the Design phase.

3.2.10 Alternatives Analysis Documentation

This section provides guidance on documenting alternatives analysis in the Environmental Document and ***PER***. A Florida registered Professional Engineer (PE) must sign and seal the engineering analysis performed to support PD&E Studies in accordance with ***Chapter 471, F.S.***

3.2.10.1 Environmental Document

The Environmental Document must discuss impacts on the environment from the preferred alternative and other alternatives in a comparative form. The comparative alternatives evaluation must provide a clear basis for the decision to select the preferred alternative. The alternatives section of the Environmental Document must address the following:

1. Evaluate reasonable alternatives to the proposed action (for EISs), and, for alternatives that the agency eliminated from detailed study, briefly discuss the reasons for their elimination.

2. Discuss each alternative considered in detail, including the proposed action so that reviewers may evaluate their comparative merits.

3. Include the No-Action Alternative.

4. Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft document and identify such alternative in the final document unless another law prohibits the expression of such a preference.

5. Include appropriate mitigation opportunities and measures not already included as a part of the proposed action or alternatives.

6. Limit their consideration to a reasonable number of alternatives.

These items are required for EISs by ***40 CFR § 1502.14***.

The location of alternatives documentation differs depending on the type of Environmental Document:

1. **Type 2 CE** - Alternatives information is included in the ***PER***.

2. **EA** - Alternatives information is included in the section titled Alternatives.

3. **EIS** - Alternatives information is included in the section titled Alternatives.

4. **SEIR** - Alternatives information is included in the ***PER***.

The Alternatives section for EAs and EISs should be divided into the following sub-sections, as applicable:

1. Alternatives Development
2. Alternatives Considered but Eliminated
3. Alternatives Considered for Additional Study
4. Comparative Alternatives Evaluation
5. Preferred Alternative

Alternatives Development - Summarize any Planning phase alternative corridor reports, screening reports, and results of the ACE process as applicable. Provide a brief description of the original alternatives that were considered and the methodology used for evaluation, while referencing technical documents such as the ***PER***, ***PTAR***, and ***ACER*** for detailed information. Discuss public involvement activity as related to alternatives development.

Alternatives Considered but Eliminated - Discuss alternatives considered but eliminated from detailed analysis (include alternatives considered and eliminated during planning). Clarify why the alternatives were eliminated, what criteria were used to eliminate them, who was involved in establishing the criteria and at what point in the process the alternatives were removed.

Alternatives Considered for Additional Study - Identify the alternatives studied in detail during the PD&E Study and include a concise discussion of how and why they were selected. Describe each alternative in sufficient detail to support decision-making. Provide a clear understanding of each alternative's termini, location, costs, and major design features (i.e., number of lanes, ROW requirements, median widths, access control). See ***Section 3.2.5*** for information to consider for each Build Alternative. Present a summary of the environmental impacts of each alternative based on the information and analysis presented in the Environmental Analysis section of the Environmental Document. The information should provide a clear basis for decision-making.

Comparative Alternative Evaluation - Describe the alternatives evaluation methodology used to objectively compare all alternatives. Present comparative evaluation results (qualitative and quantitative) in a matrix form. Information in the matrix must be consistent with the Environmental Document and applicable technical reports. Describe the rationale and the factors used in the ranking of the alternatives.

Preferred Alternative - Describe the alternative which the District is recommending to OEM for Location and Design Concept Approval (LDCA). The selection of the preferred

alternative should be described in sufficient detail so the reader can understand the decision.

Below is an example of the discussion generally found in this section.

> As a result of scoping, environmental analysis, the public hearing, and interagency coordination, the alternative identified for LDCA is (alternative name), which is (alternative description) (provide location of alternative specific details and typical sections).

The Final Environmental Impact Statement (FEIS) must identify the preferred alternative and should discuss the basis for its selection [See ***23 CFR § 771.125(a)(1)***]. The FEIS must also discuss substantive comments received on the DEIS and responses thereto, summarize public involvement, and describe the mitigation measures that are to be incorporated into the proposed action.

3.2.10.2 Preliminary Engineering Report

The ***PER*** is the documentation of the engineering analysis of a PD&E Study (for bridge projects, a ***PER*** can be substituted with a ***BDR*** or ***BRR***. ***PERs*** are required to go through a Quality Assurance (QA)/Quality Control (QC) check at the District level before submittal for OEM review. During this process the ***Preliminary Engineering Report QA/QC Checklist*** is completed and then submitted to OEM with the ***PER*** for review. The OEM review team will have 30 days to review the ***PER***.

The ***FDOT Preliminary Engineering Report Outline and Guidance*** provides guidance for the preparation of the ***PER***. At a minimum, the ***PER*** should contain the following:

1. Cover Page

    a. The ***PER*** must use the ***Technical Report Cover Page, Form No. 650-050-38*** as the cover sheet of the report. A sample ***PER*** cover page is provided in ***Figure 3-2***. The cover page of the ***PER*** prepared under the authority granted by the ***NEPA*** Assignment MOU and transmittal letters associated with information packages should include the following statement:

    > *The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration and FDOT.*

2. Project Summary

    a. Project Description - Include a brief description of the project including name of the facility, location (City and County), project length, number of

interchanges and bridges and/or major features, as applicable. Must be consistent with the Project Description in the Environmental Document.

b. Purpose and Need - Include the purpose and need for the project. Must be consistent with purpose and need described in the Environmental Document.

c. Commitments - Include a list of all commitments that will be included in the Environmental Document.

d. Alternatives Analysis Summary – Provide a summary of the alternatives analysis.

e. Description of the Preferred Alternative - Include a brief description of the preferred alternative and include any design exceptions or variations.

f. List of Technical Documents – include a list of all technical documents prepared for the study.

3. Existing Conditions - Briefly discuss previous planning studies, existing roadway conditions, existing bridge conditions (if applicable) and existing environmental features as listed in ***Section 3.2.3.3.***

4. Future Conditions – List any future conditions that were considered in the development of alternatives per ***Section 3.2.3.4***

5. Design Controls and Criteria - List design controls and criteria used to develop alternatives as listed in ***Section 3.2.3.5*** Include sources of the applicable criteria.

6. Alternatives Analysis

a. Include the No-Action (No-Build) Alternative, TSM&O Alternative, Multimodal Alternative, and Build Alternative(s) per ***Section 3.2.4***.

b. Discuss the engineering considerations in the development of Build Alternative(s) per ***Section 3.2.5***. Include discussion of alternatives that have been considered but eliminated per ***Section 3.2.4.4.2***.

c. Summarize potential environmental impacts for each alternative, incorporate by reference the results of the environmental technical analyses to reduce repetition per ***Section 3.2.6***

d. Summarize the recommendations from the VE Study per ***Section 3.2.7*** in the comparative alternatives evaluation, if applicable. State if the VE Study will be performed in later project phases if not completed in PD&E.

e. Summarize the criteria used to assess the performance of the various alternatives. Include a comparative alternatives evaluation with

assumptions made during the development of the evaluation matrix per ***Section 3.2.8***.

7. Agency Coordination and Public Involvement – Summarize the agency coordination and public involvement including dates for meetings and hearing(s) held for the project. Also summarize coordination with ongoing or committed projects near the project area. Include a reference to the project's comment and coordination documentation. Refer to ***Section 3.2.2*** for more information on project coordination. Refer to ***Part 1, Chapter 11, Public Involvement*** for public involvement requirements.

8. Preferred Alternative - Discuss the engineering details and environmental impacts of the preferred alternative as outlined in ***Section 3.2.9***.

3.3 REFERENCES

AASHTO, August, 2007. Practitioner's Handbook. Defining the Purpose and Need and Determining the Range of Alternatives for Transportation Projects. https://environment.transportation.org/resources/practitioners-handbooks/defining-the-purpose-and-need-and-determining-the-range-of-alternatives-for-transportation-projects/

Chapter 62S-7, F.A.C. Public Financing of Coastal Construction "Slip Study Rule" https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62S-7

Executive Order (EO) 11988, Floodplain Management

FAA, 2005, Wildlife Hazard Management at Airports

FHWA, 1987, FHWA Technical Advisory. T6640.8A, Guidance for Preparing and Processing Environmental and Section 4(f) Documents. https://www.environment.fhwa.dot.gov/projdev/impta6640.asp

FHWA, 2010, FHWA Order 6640.1A. FHWA Policy on Permissible Project Related Activities during the NEPA Process. https://www.fhwa.dot.gov/legsregs/directives/orders/66401a.cfm

FHWA, 2010, Integrating Freight into NEPA Analysis. https://ops.fhwa.dot.gov/publications/fhwahop10033/nepa.pdf

FHWA, 2017, Policy on Access to the Interstate System. https://www.fhwa.dot.gov/design/interstate/170522.cfm

FHWA, 2019, FHWA Bicycle and Pedestrian Planning, Program and Project Development. https://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/guidance_2019.cfm

FHWA, NEPA and Transportation Decision Making, Development and Evaluation of Alternatives. https://www.environment.fhwa.dot.gov/projdev/tdmalts.asp

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

FDEP, Slip Studies website. https://floridadep-slip.org/AboutSLIPStudies.aspx

FDOT, 2005. Florida's Statewide Systems Engineering Management Plan (SEMP). https://www.fdot.gov/traffic/its/projects-deploy/semp.shtm

FDOT, 2019, Florida's Connected and Automated Vehicle (CAV) Business Plan. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/traffic/doc_library/pdf/fdot-cav-business-plan-2019.pdf?sfvrsn=45b478ff_0

FDOT, 2021, WATERSS Process Guidebook. http://www.fdot.gov/environment/publications.shtm

FDOT, Florida's Complete Streets Website. https://experience.arcgis.com/experience/77c7386c09924809bf8c08476eab9da8/

FDOT, FDOT Wildlife Crossing Guidelines. https://www.fdot.gov/environment/protected-species-and-habitat

FDOT, FTE Toll Siting Technical Memorandum (TSTM) Template. https://floridasturnpike.com/business-opportunities/design/tolls-design/

FDOT, Local Agency Program Manual, Topic No. 525-010-300. https://www.fdot.gov/programmanagement/LAP/LAP-TOC.shtm

FDOT, Preliminary Engineering Report QA/QC Checklist. https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Ffdotwww.blob.core.windows.net%2Fsitefinity%2Fdocs%2Fdefault-source%2Fenvironment%2Fpubs%2Fper-qc-checklist_032023.docx%3Fsfvrsn%3D4ea26392_2&wdOrigin=BROWSELINK

FDOT, Procedure No. 650-000-003, Project Commitment Tracking. https://pdl.fdot.gov/

FDOT, Resiliency of State Transportation Infrastructure, Topic No. 000-525-053. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/planning/policy/resilience/resiliency_policy_000-525-053.pdf?sfvrsn=4dae64fd_2

FDOT, Value Engineering Program, Topic No. 625-030-002. https://pdl.fdot.gov/

Section 161.053, F.S., Coastal construction and excavation; regulation on county basis. https://www.flsenate.gov/Laws/Statutes/2021/0161.053

Section 161.54(6) F.S., Definitions. https://m.flsenate.gov/Statutes/161.54

Section 161.551, F.S. Public financing of construction projects within the coastal building zone. https://www.flsenate.gov/Laws/Statutes/2021/0161.551

Section 335.065, F.S., Bicycle and pedestrian ways along state roads and transportation facilities. https://m.flsenate.gov/statutes/335.065

Title 23 CFR § 667.9, Consideration of evaluations. https://www.ecfr.gov/current/title-23/chapter-I/subchapter-G/part-667?toc=1

Title 23 CFR Part 450, Planning Assistance and Standards. https://www.ecfr.gov/cgi-bin/text-idx?SID=41629bc4699d654b4164d357da2329e0&mc=true&node=pt23.1.450&rgn=div5

Title 23 CFR Part 650A, Location and Hydraulic Design of Encroachments on Flood Plains. https://www.ecfr.gov/current/title-23/chapter-I/subchapter-G/part-650

Title 23 CFR Part 771, Environmental Impact and Related Procedures. https://www.ecfr.gov/cgi-bin/text-idx?SID=41629bc4699d654b4164d357da2329e0&mc=true&node=pt23.1.771&rgn=div5

Title 23 CFR Part 940. Intelligent Transportation System Architecture and Standards. https://www.ecfr.gov/current/title-23/chapter-I/subchapter-K/part-940

Title 40 CFR Part 230. Guidelines for Specification of Disposal Sites for Dredged or Fill Material. https://www.ecfr.gov/cgi-bin/text-idx?SID=41629bc4699d654b4164d357da2329e0&mc=true&node=pt40.27.230&rgn=div5

Title 40 CFR §§1500-1508. Council on Environmental Quality. https://www.ecfr.gov/cgi-bin/text-idx?SID=41629bc4699d654b4164d357da2329e0&mc=true&tpl=/ecfrbrowse/Title40/40chapterV.tpl

Title 23 U.S.C. § 129, Toll roads, bridges, tunnels, and ferries https://uscode.house.gov/view.xhtml?req=granuleid:USC-2010-title23-section129&num=0&edition=2010

Title 23 U.S.C § 166, HOV Facilities. https://www.gpo.gov/fdsys/pkg/USCODE-2010-title23/pdf/USCODE-2010-title23-chap1-sec166.pdf

Title 23 U.S.C. § 168, Integration of planning and environmental review

Title 23 U.S.C. § 301, Freedom from Tolls

Title 33 U.S.C. Chapter 35, Artificial Reefs

USDOT Order 5650.2, Floodplain Management and Protection

USDOT, 2010, United States Department of Transportation Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations. https://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/policy_accom.cfm

3.4 FORMS

Technical Report Cover Page, Form No. 650-050-38

Water Quality Impact Evaluation Checklist, Form No. 650-050-37

FDOT forms are found in the Procedural Document Library.

3.5 HISTORY

1/12/2000, 10/16/2013, 8/25/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 6, 1/14/2019, 7/1/2020, 7/1/2023: WATERSS Process, SMARt Report, SLIP study

Engineering analyses, design concepts, and accompanying reports should be prepared consistently with the latest edition of the following documents:

1. FDOT Design Manual (FDM), Topic No. 625-000-002
2. Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways (Florida Greenbook), Topic No. 625-000-015
3. Structures Manual, Topic No. 625-020-018
4. Approval of New or Modified Access to Limited Access Highways on the State Highway System (SHS), Topic No. 000-525-015
5. Level of Service Targets for the SHS, Topic No. 000-525-006
6. Median Openings and Access Management, Procedure No. 625-010-021
7. Manual on Uniform Traffic Studies (MUTS), Topic No. 750-020-007
8. Drainage Manual, Topic No. 625-040-002
9. FDOT Drainage Design Guide
10. Utility Accommodation Manual, Rule 14-46.001, F.A.C.
11. CADD Manual, Topic No. 625-050-001
12. Standard Plans for Road and Bridge Construction, Topic No. 625-010-003
13. Complete Streets, Topic No. 000-625-017
14. Americans with Disabilities (ADA) Requirements for Access to Department Facilities, Topic No. 625-020-15
15. Transit Corridor Program, Topic No. 725-030-003
16. FDOT Right of Way Procedures Manual, Topic No. 575-000-000
17. FDOT Standard Specifications for Road and Bridge Construction
18. Project Traffic Forecasting, Procedure No. 525-030-120
19. FDOT Quality/Level of Service Handbook
20. FDOT policy on Landscape, Policy No. 000-650-011
21. FDOT Traffic Engineering Manual (TEM), Topic No. 750-000-005

Figure 3-1 Manuals, Procedures, and Design Guides, and to Establish Project Development Design Controls and Criteria

22. 2023 Managed Lanes Guidebook
23. FDOT Context Classification Guide
24. Surveying and Mapping Procedure, Topic No. 550-030-101
25. FDOT Surveying and Mapping Handbook
26. FDOT Soils and Foundations Handbook
27. FDOT Interchange Access Request User's Guide
28. FDOT Traffic Analysis Handbook
29. Manual on Intersection Control Evaluation, Topic No. 750-010-003
30. FDOT Preliminary Engineering Report Outline and Guidance - 2023
31. FDOT Managed Lanes Policy, Policy No. 000-525-045
32. Florida Department of Transportation Systems Engineering and Intelligent Transportation System (ITS) Architecture Procedure, Procedure No. 750-040-003
33. General Tolling Requirements (GTR) Florida's Turnpike
34. WATERSS Process Guidebook

The engineering analysis may also use national publications such as:

1. Highway Capacity Manual (HCM)
2. American Association of the State Highway and Transportation Officials (AASHTO) A Policy on Highway Geometric Design (AASHTO Green book)
3. AASHTO Highway Safety Manual (HSM)
4. NCHRP Report 672, Roundabouts: An Informational Guide
5. AASHTO Guide for the Development of Bicycle Facilities
6. AASHTO Guide for the Development of Pedestrian Facilities
7. Manual on Uniform Traffic Control Devices (MUTCD)

Figure 3-1 Manuals, Procedures, and Design Guides, and to Establish Project Development Design Controls and Criteria (Page 2 of 2)

PRELIMINARY ENGINEERING REPORT

Florida Department of Transportation

District X

Project Title

Limits of Project

County, Florida

Financial Management Number: XXXXX-X

ETDM Number: XXXXXX

Date

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration and FDOT.

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

Lan B. Solo
2018.10.14 16:42:26 -4'00'

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

ROADWAY ENGINEERS, INC.
123 MAIN STREET
TALLAHASSEE, FL 32301
LAN B. SOLO, P.E. NO. 99994

Figure 3-2 Preliminary Engineering Report Sample Cover Page

PART 2, CHAPTER 4

SOCIOCULTURAL EFFECTS EVALUATION

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PART 2, CHAPTER 4

SOCIOCULTURAL EFFECTS EVALUATION

4.1 OVERVIEW

4.1.1 Purpose

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

This chapter contains the FDOT's procedures for evaluating six sociocultural effects (SCE) issues throughout the transportation project delivery process. Farmland is also considered a Social and Economic issue; however, it follows a different process for analysis provided in ***Part 2, Chapter 6, Farmland*** and is not included in the six SCE issues discussed in this chapter. The SCE evaluation process, illustrated in ***Figure 4-1***, identifies and addresses potential effects of transportation projects on communities and community resources. The SCE evaluation process is collaborative, involving government agencies, the public, and other stakeholders, to ensure that community values and concerns receive consideration during project delivery and that no population groups are disproportionately affected. Note, in some state and federal policies, SCE evaluation is called "Community Impact Assessment."

FDOT proactively engages with communities in delivering transportation projects. The SCE evaluation process supports legal requirements during project development to consider and account for sociocultural resources that may be affected by project activities.

The SCE evaluation process assesses social, economic, land use changes, mobility, aesthetics effects, and relocations, including potential issues associated with Civil Rights, other nondiscrimination laws, and Environmental Justice. Project benefits and effects on communities are assessed in the SCE evaluation with special consideration for minority, low-income, and other potentially underrepresented populations (see examples in ***Table***

4-1). Information gathered through the SCE evaluation process is carried forward and used to support decision-making throughout project delivery.

Table 4-1 Examples of Potentially Underrepresented Populations

Demographic Characteristics	Legal Authority for Protection from Discrimination
Race, color, or national origin	Title VI of the Civil Rights Act
Disability	Americans with Disabilities Act and Rehabilitation Act
Age	Age Discrimination Act
Gender	23 United States Code (USC) 324
Limited English Proficiency	Executive Order (EO) 13166
Minority and low income	EO 12898 (Environmental Justice)
Handicap, age, race, color, sex, or national origin	23 Code of Federal Regulations (CFR) 771

4.1.2 Sociocultural Effect Issues

The SCE evaluation focuses on the six sociocultural issues listed in ***Table 4-2***. The table also includes examples of topics evaluated for each of the six issues. The issues are described in ***Section 4.2.4***. For additional information, see the ***SCE Issue Sheets*** located on FDOT's ***SCE Evaluation Process Website***. See ***Section 4.4*** for the internet address to all web sites and links used in this chapter.

Table 4-2 Sociocultural Effects Evaluation Issues

Social
- Demographics
- Community Cohesion
- Safety/Emergency Response
- Community Goals
- Quality of Life
- Special Community Designations

Economic
- Business & Employment
- Tax Base
- Traffic Patterns
- Business Access
- Special Needs Patrons

Land Use Changes
- Land Use – Urban Form
- Local Plan Consistency
- Open Space
- Sprawl
- Focal Points

Mobility
- Modal Choices
  - Pedestrian
  - Bicyclists
  - Transit
- Transportation Disadvantaged
- Connectivity
- Traffic Circulation
- Public Parking

Aesthetic Effects
- Noise/Vibration
- Viewshed
- Compatibility

Relocation Potential
- Residential
- Non-Residential
- Public Facilities

4.1.3 Application

The SCE evaluation process typically starts at the earliest planning stages of a project and continues throughout the project delivery process. Each successive phase builds on the data, analysis, and results of previous SCE evaluations to achieve the particular objectives of the project phase. The level of analysis required to determine potential project effects varies according to project phase, project nature and scope, level of potential controversy, and potential for project effects. Projects qualifying for screening through the Efficient Transportation Decision Making (ETDM) process receive early consideration of sociocultural effects during the Planning phase. Project types qualifying for ETDM screening are identified in the ***ETDM Manual, Topic No. 650-000-002***.

4.1.3.1 Planning Phase

In the Planning phase, projects qualifying for ETDM screening are evaluated for sociocultural effects in the Planning Screen (when a Planning Screen is conducted) and Programming Screen.

The objectives of the Planning Screen are to consider project feasibility; focus the issues to be addressed during the Programming Screen; and allow for early identification of potential avoidance, minimization, and mitigation opportunities. The Planning Screen is ideally performed for projects being considered for adoption in the Metropolitan Planning Organization (MPO)/Transportation Planning Organization (TPO) Long Range Transportation Plan (LRTP). It is also performed for some projects that have not been previously screened but are included in an LRTP.

The Programming Screen builds upon the Planning Screen evaluation (if conducted) to further identify, refine, and understand potential project issues while supporting the development of a scope of service to complete the detailed analysis during the Project Development and Environment (PD&E) Study. Not all Programming Screen projects are preceded by a Planning Screen review. See the ***ETDM Manual, Topic No. 650-000-002*** for more information about the Planning and Programming Screens.

4.1.3.2 PD&E Phase

The SCE evaluation process is an important part of the PD&E Study to comply with Council on Environmental Quality (CEQ) regulations ***40 Code of Federal Regulations (CFR) §§ 1500-1508***, which requires federal agencies to consider the environmental impacts of their actions in the decision-making process. The SCE evaluation process also applies to non-federal projects. The level of assessment during PD&E depends on the potential for significant impacts, as defined by ***40 CFR §§ 1500-1508***.

4.1.3.3 Updating SCE Evaluations in Subsequent Phases

Project development for a transportation project may span several years and communities potentially impacted by the project may change over time. Therefore, potential

sociocultural effects are updated at each phase of project delivery. Typically, in the design phase, community information and concerns are gathered through public involvement activities identified in the ***Community Awareness Plan (CAP)***. These activities vary depending on the community context, the nature and scope of the project, and the potential for adverse project effects. If commitments have been made, they are tracked according to FDOT ***Procedure No. 650-000-003, Project Commitment Tracking*** and documented in the Environmental Document (see ***Part 2, Chapter 22, Commitments*** for more information).

4.2 PROCEDURE

The major steps in the SCE evaluation process, shown in ***Figure 4-1***, include:

Step 1 - Review Project Information

Step 2 - Define the Study Area

Step 3 - Prepare Community Information

Step 4 - Evaluate Sociocultural Effects

Step 5 - Identify Solutions to Project Impacts

Step 6 - Document Results

An important consideration throughout the SCE evaluation process is the potential for project effects on potentially underrepresented population groups protected under ***Title VI of the Civil Rights Act of 1964 (Title VI)***, the President's Executive Order (EO) on Environmental Justice ***(EO 12898)***, and related nondiscrimination statutes and regulations. The following definitions apply to these nondiscrimination protections:

- **Disabled/Handicapped Person** - Any person who (a) has a physical or mental impairment that substantially limits one or more major life activities, (b) has a record of such an impairment, or (c) is regarded as having such an impairment.

- **Minority** - Black or African American, Hispanic, Asian American, American Indian/Alaskan Native, and Native Hawaiian or Pacific Islander.

- **Limited English Proficient (LEP) persons** - Persons for whom English is not their primary language and who have a limited ability to read, write, speak, or understand English. It includes people who reported to the U.S. Census that they speak English “less than very well” (i.e., speak English well, not well, or not at all). It also refers to people of low basic literacy. See the ***FDOT Limited English Proficiency Guidance*** document for more information.

- **Low-Income** - A person whose median household income is at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines. These

guidelines are updated annually and are available at the HHS website (see ***Section 4.4*** for the website address).

The SCE evaluation process incorporates the goals of Environmental Justice throughout the transportation planning and project development process. These goals, as articulated in the US Department of Transportation's (USDOT) ***Environmental Justice Strategy (USDOT, 2016)***, include:

1. Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.

2. Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.

3. Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Considerations and guidance to address these concerns are included in the discussion of each of the SCE evaluation process steps in the following sections of this Chapter. More information about addressing these issues is available on FDOT's ***SCE Evaluation Process Website***.

All six steps of the SCE evaluation process apply whether the evaluation occurs during the Planning Screen, Programming Screen, or PD&E phase. However, the activities within each step may vary. Generally, as a project transitions from the ETDM screening to the PD&E phase, the SCE issues receive more detailed consideration. The level of effort in each step is tailored to the project phase, nature and scope, and study area characteristics, including conditions that may have changed between project phases. ***Table 4-3*** compares the activities that may occur to support SCE evaluations in Planning Screens, Programming Screens, and PD&E Studies. SCE updates occur in subsequent phases. Activities during those phases will vary depending on the community context, the nature and scope of the project, and potential for adverse project effects.

Table 4-3 Comparison of SCE Evaluations in ETDM Process and PD&E Phase

STEP 1 REVIEW PROJECT INFORMATION		
Planning Screen	*Programming Screen*	*PD&E Study*
• Review current data [e.g., Environmental Screening Tool (EST) data] • Perform community outreach • Review prior public input • Conduct field review	• Review Planning Screen Summary Report/Issues and Recommendations (if conducted) • Review current data (e.g., EST data) • Identify/fill data gaps • Perform community outreach with local planners and community leaders • Review prior public input • Conduct field review	• Review Final Programming Screen Summary Report or other project information, if available • Identify/fill data gaps • Identify affected populations for Public Involvement Plan outreach • Conduct field review
STEP 2 DEFINE THE STUDY AREA		
Planning Screen	*Programming Screen*	*PD&E Study*
• Review field review notes • Review EST buffers • Review additional data • Select appropriate study areas (EST buffers) to evaluate SCE issues	• Review field review notes • Review EST buffers focusing on project alternative(s) • Review updated data • Select appropriate study areas (EST buffers) to evaluate SCE issues	• Review/update field review notes • Review available project information • Review ETDM screening study areas • Refine study area to account for project alternative(s) moving forward
STEP 3 - PREPARE COMMUNITY INFORMATION		
Planning Screen	*Programming Screen*	*PD&E Study*
• Review compiled material • Acquire additional community data • Create Sociocultural Data Reports (SDR)	• Review data from previous SCE evaluation, if completed • Acquire additional data • Create or update SDRs	• Review data from previous SCE evaluation • Verify community boundaries, community desired features and demographic data • Create or update SDR
STEP 4 - EVALUATE SOCIOCULTURAL EFFECTS		
Planning Screen	*Programming Screen*	*PD&E Study*

• Identify resources and level of importance
• Assess potential effects:
  ○ Direct effects
  ○ Indirect effects
	• Identify resources and level of importance
	• Assess potential effects:
	  ○ Direct effects
	  ○ Indirect effects
		• Identify resources and level of importance
		• Evaluate alternatives and no-build
		• Review PD&E phase public input
		• Assess effects:
		  ○ Direct effects

○ Cumulative effects considerations (optional) • Assign Degrees of Effect • Review ETAT comments • Assign Summary Degree of Effect	○ Cumulative effects considerations (optional) • Assign Degrees of Effect • Review ETAT comments • Assign Summary Degree of Effect • Determine PD&E Study scope	○ Indirect effects ○ Cumulative effects (as needed) • Assess severity of impacts
STEP 5 - IDENTIFY SOLUTIONS TO PROJECT IMPACTS		
Planning Screen	*Programming Screen*	*PD&E Study*
• Identify potential solutions to project effects or project enhancements • Identify potential recommendations to address potential effects	• Review potential solutions/enhancements identified in Planning Screen • Identify potential solutions to project effects or project enhancements • Document recommendations to address potential effects	• Review potential solutions/ enhancements from previous screenings • Work with affected communities to identify viable solutions • Focus outreach on most affected populations and neighborhoods • Recommend methods to avoid, minimize, or mitigate project effects or enhance the project
STEP 6 - DOCUMENT RESULTS		
Planning Screen	*Programming Screen*	*PD&E Study*
Record potential effects in EST: • Direct effects • Indirect effects • Cumulative effects Create Summary Report	Record/update potential effects in EST: • Direct effects • Indirect effects • Cumulative effects Create Summary Report	Document: • Project File • Environmental Document • Conceptual Stage Relocation Plan (CSRP) • SDR • SCE evaluation

The remainder of ***Section 4.2*** focuses on SCE evaluations conducted during PD&E and subsequent phases. For more information about SCE evaluations in the ETDM process, see the ***Practical Application Guides for SCE Evaluations: ETDM Process***.

In the PD&E phase, project detail is developed to the level necessary to accurately assess and address potential project effects on the natural, cultural, physical, and social environments and support project decisions. The PD&E Study considers the potential environmental impacts of a project and the community's need for safe and efficient transportation. The SCE evaluation is the portion of the study that considers potential effects, both positive and negative, on the sociocultural (or human) environment. It also addresses Environmental Justice, Civil Rights, and related issues.

The SCE evaluation supports the development of an Environmental Document. Information on the various types of Environmental Documents is provided in ***Part 1, Chapter 2, Class of Action Determination for Federal Projects***, and ***Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery***. The level of assessment and documentation varies by project depending on the:

- Scale and complexity of the project
- Level of controversy involved
- Potential for significant impacts
- Degree and quality of information available from previous activities

SCE evaluations are conducted for projects with minimal or no impact potential to those with greater impact potential. While SCE issues are considered, they are not usually evaluated in detail for projects with minimal or no impact. ***Table 4-4*** compares the difference between SCE evaluations for these different types of projects.

Table 4-4 SCE Evaluations Vary Based on Impact Potential

Projects with Minimal or No Impact Potential	Projects with Greater Impact Potential

• These projects might include:
  ○ Type 1 Categorical Exclusion (CE)
  ○ Non-Major State Action (NMSA)
• Typically, do not qualify for ETDM screenings
• SCE evaluations typically focus on:
  ○ Local traffic patterns
  ○ Property access
  ○ Community cohesiveness
  ○ Planned community growth or land use patterns
• SCE evaluations include sufficient detail to rule out any significant community impacts
	• These projects might include:
	  ○ Screened Type 2 CE
	  ○ Environmental Assessment (EA)
	  ○ Environmental Impact Statement (EIS)
	  ○ State Environmental Impact Report (SEIR)
	• SCE evaluations include detailed evaluation of issues of concern and methods to avoid, minimize, or mitigate potential project impacts
	• Level of analysis and documentation will vary based on the project context and intensity of effects
	• The project SCE evaluation will build upon the Sociocultural Data Report

In the PD&E phase, further evaluation of sociocultural effects may be unnecessary if:

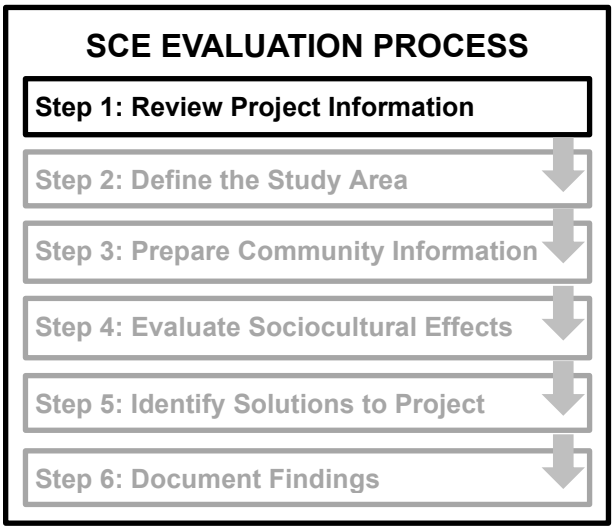
- SCE evaluation process steps for each SCE issue (identified in ***Section 4.1.2***) were adequately completed and potential sociocultural effects were adequately considered and documented during Planning;
- Conditions in the project area have not changed appreciably since the prior SCE evaluation, and

- A community concern is not identified during PD&E.

Any SCE issue that was not adequately evaluated and documented during Planning must be evaluated in the PD&E phase. Each of the six SCE issues ***(Table 4-2)*** must be discussed in the Environmental Document to show when and how they were considered in project decision-making.

Each step of the SCE evaluation process is described in the following subsections. Refer to the ***ETDM Manual, Topic No. 650-000-002*** and FDOT's ***SCE Evaluation Process Website*** for additional information regarding techniques and methodologies to support the SCE evaluation.

4.2.1 Step 1: Review Project Information



Information from an earlier project phase or acquired in preparation for the PD&E Study can help determine the level of analysis for the SCE evaluation. For some projects, this information may indicate previously identified community concerns or topics requiring additional consideration such as potentially underrepresented populations in the project vicinity.

During this step, existing project information is supplemented and verified through community outreach, field review of the project area, and data obtained from other sources, as necessary.

4.2.1.1 Collect and Review Project Information

Establish a preliminary understanding of the project and potential impacts by reviewing current project information and information from previous phases (if applicable). Current information will include the project description and purpose and need, Preliminary Environmental Discussion (PED), personal knowledge of the project area, and, in some cases, contextual information including Geographic Information System (GIS) data analyses and maps from sources such as the Environmental Screening Tool (EST) or other GIS-based analysis tools. Information from previous project phases may also include agency and public commentary. Use available project information to:

- Understand the purpose and need of the project to identify anticipated benefits for the affected community.

- Define a preliminary study area for the SCE evaluation.

- Identify any changes in the project area since the prior project phase.
- Identify need for additional/updated information and targeted community outreach to enhance understanding of the project area and potential sociocultural effects.
- Determine the appropriate level of analysis for the SCE evaluation.
- Recognize community issues/preferences identified in prior project phases so adequate attention can be devoted to these results during the PD&E phase.
- Support subsequent project phases.

In determining the appropriate level of analysis and need for additional information for the SCE evaluation process, consider if the project would:

- Require large amounts of Right of Way (ROW).
- Displace a large number of people.
- Disproportionately affect a potentially underrepresented population group.
- Cause a substantial increase or decrease in traffic through an area.
- Conflict with local government comprehensive plans.
- Impact community facilities, such as schools, parks, or churches.
- Impact historic districts or community landmarks.
- Adversely affect aesthetic features, such as a canopy road or scenic vista.
- Disrupt or divide a neighborhood.

Projects may have received consideration of sociocultural effects during the ETDM process. The results of the Programming Screen are documented in a ***Programming Screen Summary Report***, available in the EST. For more details about using the EST, refer to the ***EST Handbook***. In addition, the following guidance documents are available on FDOT's ***SCE Evaluation Process Website*** to help users find information on the EST:

- ***Environmental Screening Tool Project Information*** includes instructions on locating general project information.
- ***Defining Context - Useful Environmental Screening Tool Information*** identifies material which may help establish a contextual overview of the project area.

Following the ETDM screening, additional project information may be obtained from the PD&E Project Manager.

For projects that do not qualify for ETDM screening, the District may use GIS analyses functionality (Area of Interest Tool) in the EST to enable a preliminary review of existing information. Other information may be available from the Project Manager or District Planning Office.

4.2.1.2 Gather Community Information

Begin gathering community information describing the sociocultural context of the project area including community facilities/services; presence of certain population groups; and indications of community values, concerns, and preferences. Sources for this information may include:

- Most recent U.S. Census Bureau data (e.g., American Community Survey)
- EST [e.g., the ***Sociocultural Data Report (SDR)*** or Area of Interest Tool]
- City/county/regional planners within government planning, transit, economic development, housing, and other departments
- Community plans or studies and related public involvement (e.g., neighborhood plan, redevelopment plan, public infrastructure/service plan, and corridor study)
- County property appraiser (e.g., parcel data)
- State licensing agencies (e.g., social service agency and business data)
- Bureau of Economic and Business Research (BEBR)
- Commercially available data sources (e.g., employment data)
- Local historical society (if the project is in a historic district or historically significant area)
- PD&E Project Manager/team

Review the demographic data to help identify where potentially underrepresented populations are located. In order to support the Environmental Justice assessment of disproportional effects, make reasonable efforts to identify the presence of distinct minority and/or low-income communities residing both within and in proximity to the proposed project. Identify those minority and/or low-income groups who use or are dependent on the natural and community resources within the project area.

4.2.1.3 Support the PD&E Public Involvement Plan

Share information about population groups and potential meeting venues in the project area with the PD&E public involvement coordinator to support the development of the PD&E ***Public Involvement Plan (PIP)***. To fulfill the ***PIP's*** purpose in verifying community concerns and preferences for alternatives, inform the public involvement coordinator of any special community outreach needs to support the SCE evaluation. If a project was evaluated during a previous phase, the project information may indicate a population group or neighborhood that should be a focus of the ***PIP***. Close coordination between the PD&E team's SCE analyst and public involvement coordinator throughout the SCE evaluation process will help maximize effectiveness and minimize duplication of efforts in obtaining public input.

Identify community contact sources to assist in determining whether potentially underrepresented populations live, work, or receive services in the project area. If any of these populations have been identified, contact the local government and area leadership organizations for input about the best ways to involve them in the SCE evaluation process. Examples of best practices for reaching potentially underrepresented populations include:

- Identifying community leaders who are willing to help identify common meeting places for people in their communities.
- Conducting a variety of activities to reach people at different times of day and during non-work hours. Also, consider methods for increasing participation of people who may work non-traditional hours.
- Ensuring workshops and hearings are located within safe walking distances from public transit stops.
- Providing information in appropriate languages for those with limited English proficiency.
- Providing information on FDOT websites and social media accounts.

For more information about the development of the ***PIP*** and public involvement techniques, see ***Part 1, Chapter 11, Public Involvement*** and the ***FDOT Public Involvement Handbook***.

4.2.1.4 Conduct Field Review

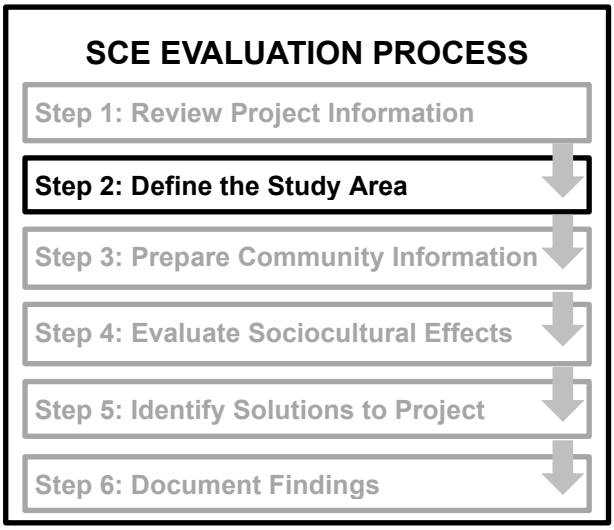
Visit the project area to get a first-hand look. The field review allows observation of the physical conditions in the project area and how people use the project corridor or site. Pay particular attention to indications of low-income areas or communities of minority populations. In preparation for the field review, coordinate with the MPO/TPO, local government planners, and neighborhood groups to identify community/neighborhood boundaries (e.g., local government jurisdiction, delineated neighborhood, and residential

subdivision); special districts (e.g., school, legislative, historic, redevelopment, and employment); and community focal points, history, and goals. When possible, include PD&E team members representing other disciplines and MPO/TPO/local government staff knowledgeable about the project area to participate in the field review.

During the field review, check the currency and accuracy of the information already identified:

- Inconsistencies between the information and field conditions
- Additional community features or characteristics
- Additional information needed to support the SCE evaluation

View aerial maps to detect community resources, physical features, land use, and other features in the project area. Photograph features in the project area that could be affected by the project, including the existing transportation facility, roadway intersections, community resources, and human activity. Create a photo log as a supplement to the field review notes to enhance the information for the SCE evaluation and PD&E Study documentation. Additional resources are available on FDOT's ***SCE Evaluation Process Website***.



4.2.2 Step 2: Define the Study Area

The study area for the SCE evaluation defines the geographic area encompassing the project alternatives and communities/community resources that may be affected by the project. If developed in a previous phase, the study area is further refined in the PD&E phase to encompass only those project alternatives moving forward and potentially affected communities/community resources.

4.2.2.1 Review Field Notes and Project Information

Review field notes, if available, and project information to become familiar with the area encompassing the project alternatives and potentially affected communities/community resources. During the PD&E phase, the study area boundary will reflect the community context and potential sociocultural effects. Make refinements to the study area as needed to delineate a preliminary study area for the SCE evaluation.

4.2.2.2 Define SCE Evaluation Study Area

The study area for the SCE evaluation may differ from the PD&E project area. The study area may extend beyond the immediate project area depending on the nature of the project, affected communities, and SCE issue. The evaluation of relocation potential, for example, will likely require a finer level of analysis than the evaluation of land use effects. Consider that community cohesion could span a single neighborhood, multiple neighborhoods, or even a small town. An understanding of the characteristics of the community will assist in determining the extent of the study area.

When establishing the study area boundaries, the area should be large enough to include the area likely to experience effects and neither dilute or inflate an affected minority population and/or low-income population. The study area should initially include the potentially underrepresented populations adjacent to the project and should not be adjusted to exclude these communities.

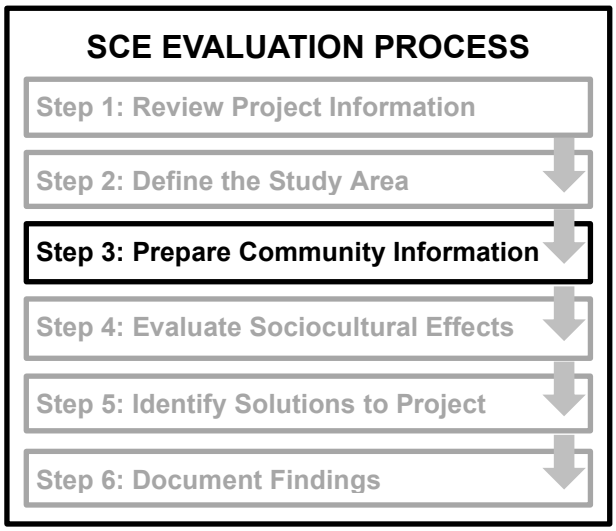
Using maps depicting the conceptual layout of the project alternatives and information collected during Step 1, delineate the area encompassing the communities/community resources having potential for effects. Describe existing conditions, including physical barriers (e.g., highways, waterways, and open spaces), activity centers, special districts and designations, average home values, neighborhood or block boundaries, selected demographic characteristics, and community input. Other sources of information include:

- Newspaper and business journal archives
- Community organization websites
- FDOT staff (e.g., District government liaisons)

Document the methodology used in defining the study area relative to Environmental Justice, Civil Rights and other related issues.

4.2.3 Step 3: Prepare Community Information

Community information for the SCE evaluation describes the history, present physical and sociocultural characteristics, and future trends in the study area for use in identifying and assessing sociocultural effects. The compiled information is organized, verified, and summarized for each SCE issue as it relates to specific communities and population segments in preparation for Steps 3-6, including community outreach activities. At this point, identify any population groups in the study area that require additional consideration under Civil Rights, other nondiscrimination laws, and Environmental Justice.



4.2.3.1 Supplement the Community Data

In this step, supplement the community information previously gathered as needed to identify:

- Community/neighborhood boundaries
- Demographic characteristics of communities within the study area, including minority, low-income, limited English proficiency, elderly, or other population subgroups
- Community focal points including service areas and user groups
- Community value placed on community focal points and resources

The type and extent of community information needed for the SCE evaluation depends on the potential for sociocultural effects. If the project was evaluated in a previous phase, focus on updating previously collected data and collecting more detailed data, as appropriate. If a community narrative was prepared, it may provide insights on community values, concerns, and preferences. Building on previous evaluations to deepen the understanding of potential sociocultural effects in the PD&E phase is particularly important.

If community data from a previous phase is unavailable, substantial time has elapsed or change has occurred within the project area, acquire or update the information needed to identify and evaluate potential sociocultural effects.

Community Information for SCE Evaluation - The type and extent of community information collected will depend on the potential for project effects.

Demographic Information - Analyze the most recent data available from the U.S. Census Bureau to identify:

- Demographic characteristics of the county where the project is located and communities within the study area (Note: Initially look at a 1-mile buffer area for rural areas and a ¼-mile buffer area for urban areas).

- Percentage of each population group relative to the total population of the study area and the county/counties and municipality/municipalities where the project is located, as appropriate.

- Population groups that may be underrepresented in the project development process based on race, color, national origin, age, gender, religion, economic status, and disability present within the study area.

- Number of census blocks adjacent to the project with proportionately large potentially underrepresented populations.

- Any of the potentially underrepresented population groups representing a small proportion of the census block group population but having a concentrated presence in a smaller geographical unit (i.e., census block).

Community Focal Points - An inventory of the places that are important to the community, such as:

- Schools
- Religious facilities
- Community centers
- Parks
- Fire stations
- Law enforcement facilities
- Government buildings
- Healthcare facilities
- Cultural facilities
- Civic centers
- Social service facilities
- Intermodal facilities
- Business districts
- Theme parks
- Major attractors/multi-use facilities
- Bridges
- Cemeteries
- Historic places
- Other significant quality-of-life features

Community/Neighborhood Boundaries - Community/neighborhood boundaries are geographic areas with similar characteristics (e.g., land use, property values, or demographic character) or divided from other areas by natural or constructed boundaries (e.g., water bodies or major roads). Areas of interest that are not official community boundaries, but delineated specifically for the SCE evaluation, should be verified through community outreach.

4.2.3.2 Summarize Community Information

When the community information for the evaluation is collected, it should be summarized in a spreadsheet or other informal report. Indicate whether minority, low-income, or other

potentially underrepresented populations are located in the study area. List any readily identifiable groups or clusters of minority or low-income persons in the study area.

The CEQ's ***Environmental Justice Guidance under NEPA*** states: "Minority populations should be identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority percentage in the general population or other appropriate unit of geographic analysis" ***(CEQ, 1997)***. However, it is important to understand that Environmental Justice determinations are based on effects, not population size. It is essential to consider the comparative impact of an action among different population groups. A very small minority or low-income population in the project study area does not eliminate the possibility of a disproportionately high and adverse effect on these populations.

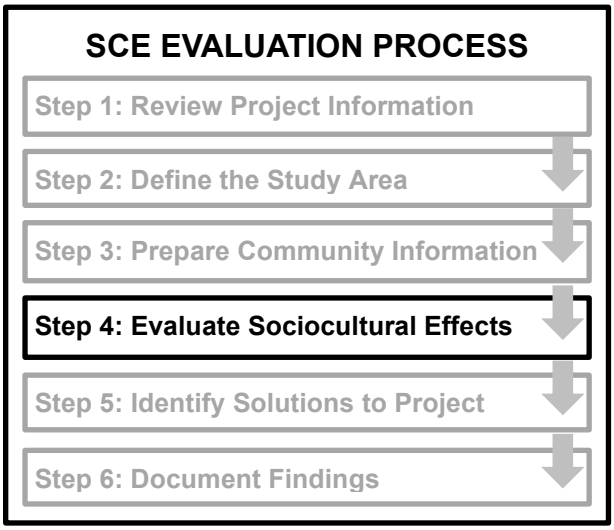
Depending on the complexity of the project and potential for adverse impacts, the summary format may vary. For example, more complex projects such as Environmental Assessments (EAs) or Environmental Impact Statements (EISs) will usually include the following:

- Narrative describing community characteristics, such as population demographics, socioeconomic history and community values, valued resources, and plans for the future
- Visual map or map series depicting physical characteristics, such as neighborhood boundaries, land uses, public facilities, and commercial/employment centers
- Tables, charts, and graphs summarizing important results, such as the presence of population groups, employment, and trends

4.2.4 Step 4: Evaluate Sociocultural Effects

The inventory of community data and public commentary are examined relative to each SCE issue to evaluate potential project effects. Three general types of effects are evaluated:

- **Direct effects** are caused by the action and occur at the same time and place.
- **Indirect (or secondary) effects** are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable.



- **Cumulative effects** result from the incremental effects of an action when added to other past, present, and reasonably foreseeable actions regardless of which agency or person undertakes the action.

The SCE evaluation also analyzes interrelationships among the SCE issues and how various considerations contribute to the avoidance, minimization, or mitigation of project impacts. This analysis becomes a part of the section of the Environmental Document that discusses potential effects of the project. Details about the analysis may also be provided in a ***SCE Technical Memorandum***. See ***Section 4.3*** for guidance about documenting the SCE evaluation results.

Project issues identified during previous project phases and review of current data and local knowledge are assessed relative to the project alternative(s), including the no-build alternative (refer to ***Part 2, Chapter 3, Engineering Analysis*** for further guidance on procedures relative to project alternatives). The SCE evaluation is documented in the appropriate Environmental Document in accordance with Part 1 of the PD&E Manual.

4.2.4.1 Identify Community Resources and Level of Importance

Identify potentially affected community resources and the level of importance placed on those resources by the community. The SCE Considerations included in ***Table 4-5*** provide guidance on identifying community resources relative to the six SCE issues (***Table 4-2***).

4.2.4.2 Perform Community Outreach

Community outreach should be performed throughout the public involvement process to provide opportunity for input on the project, verify community data, and identify community concerns and preferences for project alternatives/features. The focus of PD&E phase community outreach is specific to community groups and neighborhoods with potential for project effects. The methods and level of community outreach should be tailored to the specific community, the nature of the project, and the potential for project effects. Special considerations may be necessary to effectively involve potentially underrepresented populations.

Coordinate with the PD&E public involvement coordinator to identify any special community outreach needs for the SCE evaluation that could be accommodated during ***PIP*** activities (e.g., outreach materials tailored to a limited English proficient population). Suggest refinements to the ***PIP*** to ensure adequate participation of affected community groups and neighborhoods.

More information on community outreach for PD&E projects is provided in ***Part 1, Chapter 11, Public Involvement*** .

4.2.4.3 Assess Potential Direct Effects

Assess the potential for both positive and negative direct effects from the project on the community and area of effect. An example of a direct effect is increased customer exposure to a grocery store due to a higher level of vehicle traffic on a widened road. The widened road might also make it more difficult for a local transportation-disadvantaged population to walk across the road to access the grocery store.

Use information from any previous project phases, community data, community commentary, and the SCE considerations listed in ***Table 4-5*** to assist in identifying direct effects for each SCE issue. Also refer to the ***Practical Application Guides for SCE Evaluation: PD&E***, and ***SCE Evaluation Aids*** available on FDOT's ***SCE Evaluation Process Website***.

If an evaluation of direct effects was performed in a previous phase, verify those results and update as needed. If considerable time has passed since the prior evaluation, conditions have changed appreciably in the project area, or additional impacts are identified, additional study may be required in the PD&E phase.

Social

Determine the potential for effects on community groups and community resources. Analyze the demographics of the study area and the potential for disproportionate impacts on populations addressed in ***Title VI*** and related nondiscrimination statutes. Consider whether the project could influence a significant influx or departure of residents. Look for signs of community cohesion. Assess the quantity and quality of human interaction and potential for the project to create/eliminate barriers to interaction. Be alert to potential changes in the environment affecting the safety of pedestrians, bicyclists, and motorists, and delivery of emergency services. Consider whether the project complements or detracts from the community's goals or special designations (e.g., community redevelopment area). Investigate the community's history, community goals, community focal points, unique attributes, and quality of life features to help identify potential project effects. The team members preparing the Cultural Resources Assessment Survey for the PD&E Study may be able to provide information about the community's history.

Useful information for this evaluation includes census data, public commentary, field review notes, local planner interviews, established community/neighborhood boundaries, community plans, special designations, and datasets for emergency services, transportation facilities, and community focal points.

Economic

Identify potential project effects on economic activity in the study area, local area, and region. Note potential project effects on business and employment activity in the study area, including industries with special needs (e.g., freight distributor) or significance (e.g., regional employer). Identify economic-oriented land uses/designations, economic

development plans/goals, special designations (e.g., truck routes), and community development priorities in the study area. Consider potential impacts on the local government tax base. Identify changes to routes, access, parking, or visibility that could benefit or impair businesses, employment centers, or community facilities. Note transportation modes serving special needs populations and identify potential effects on these populations, including any disproportionate economic effects.

Useful information for this assessment includes public commentary, field review notes, local planner interviews, community plans (e.g., local strategic economic development plan), datasets for existing/future land uses, special designations (e.g., community redevelopment area, enterprise zone, or brownfield), major employers, and freight-related features.

Land Use Changes

Verify that the project is consistent with local and regional land use and transportation plans. Evaluate the project's consistency with the physical character of the area and applicable community plans. Consider the project's compatibility with the community's land use vision and existing/planned land use patterns and urban form. Review the local government comprehensive plan(s) and any special area plans to assess the project's consistency with community goals. Evaluate the potential for changes in the acreage devoted to recreational/open space and rural lands. Assess the project's potential to facilitate or deter urban sprawl. Analyze the potential for effects on unique community features (e.g., historic landmarks/structures, water features, parks, landscaping, and natural vegetation) and agricultural lands not protected under the ***Farmland Protection Policy Act (FPPA) of 1981*** and ***7 CFR Part 658*** (see ***Part 2, Chapter 6, Farmland***).

If the project is due to a new, expanded, or substantial change in current or planned future development or land use, verify and document that appropriate coordination has occurred between the development and proposed transportation improvements.

Useful information for this evaluation includes public commentary, field review notes, local planner interviews, community plans (e.g., local government comprehensive plan), planned and approved development information, datasets for existing/future land uses, and special designations (e.g., overlays, brownfields, and historic districts).

Mobility

Identify potential project effects on mobility and accessibility in the study area with emphasis on non-driving population groups (i.e., elderly, young, disabled, and low-income individuals). Identify existing and planned transportation modes (e.g., pedestrian, bicycle, transit, and vehicle) and services (e.g., public bus routes, school bus routes, and transportation disadvantaged services), and examine the project's relationship to those modes and potential for effects. If a transportation-disadvantaged population is present in the study area, consider potential effects on the transportation system serving this population. Examine the travel behavior of residents, workers, shoppers, and others in

the study area; and, evaluate how the project could impede or enhance mobility and accessibility. If changes to existing travel patterns, traffic circulation, or accessibility are envisioned, consider who might benefit or be impacted as a result. Identify if tolling is being considered and potential effects on low-income communities ***(Environmental Justice and Tolling: A Review of Tolling and Potential Impacts to Environmental Justice Populations)***. Identify potential effects on public parking.

Useful information for this evaluation includes public commentary, field review notes, local planner interviews, census data, transportation plans, community plans, and datasets for mobility features and community focal points.

Aesthetic Effects

Assess the project's compatibility with the community's aesthetic values such as noise, vibration, and physical appearance. Examine the type and intensity of project impacts on noise sensitive sites (e.g., residential areas, hotels, nursing homes, and parks); vibration sensitive sites (e.g., residential uses, eye clinics, dentist offices, and hospitals); special viewsheds and vistas; community focal points; historic structures, districts, and landmarks; and community character (e.g., existing and planned streetscaping, highway beautification, canopy roads, and development patterns). See ***Part 2, Chapter 5, Aesthetic Effects*** for further guidance on evaluating aesthetic effects.

Useful information for this evaluation includes public commentary, field review notes, local planner interviews, community plans, special designations, and datasets for historical/archeological sites, healthcare facilities, and points of interest.

Relocation Potential

Identify residences, businesses, and institutional or community facilities that may require relocation to accommodate the project. Some facilities such as hospitals, sports arenas, and those involving industrial activities can be difficult to relocate. Estimate the number of parcels located in the project right of way that are occupied by residential, non-residential, institutional, and other community facility uses.

Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§ 3601-3619) guarantees each person equal opportunity in housing.

Useful information for this evaluation includes public commentary; field review notes; right of way maps; property appraiser parcel information; ***Conceptual Stage Relocation Plan (CSRP)***; and datasets for existing land use, points of interest, and historical structures/archaeological sites. See ***Section 4.3.4*** for more information about the ***CSRP*** and how to include the information it contains into the Environmental Document.

4.2.4.4 Assess Potential Indirect Effects

Assess the potential for both positive and negative project-related indirect effects on the community, greater local area, and region. Indirect effects are caused by other actions

that have an established relationship or connection to the project. These related actions would not or could not occur without the original project. For example, the displacement of an anchor tenant in a business complex as a result of a new road alignment could cause other tenants in unaffected buildings to relocate.

Use information from any previous project phases, community data, community commentary, and the SCE considerations listed in ***Table 4-5*** to assist in identifying indirect effects. Methods for analyzing indirect effects include quantitative methods, such as travel demand models and integrated land use and transportation models, and qualitative methods, such as scenario writing, focus groups, and expert panels. Additional guidance for evaluating indirect effects is available on the ***American Association of State Highway and Transportation Officials (AASHTO) Center for Environmental Excellence*** website (See ***Section 4.4*** for website).

4.2.4.5 Assess Potential Cumulative Effects

Consider whether project effects, when combined with the effects of other actions, will contribute to cumulative effects on a community. Cumulative effects can result from individually minor but collectively significant actions taking place over time. If a Cumulative Effects Evaluation (CEE) is indicated, it is important to document the consideration of cumulative effects and the rationale for determining the level of analysis. Refer to the ***FDOT Cumulative Effects Evaluation Handbook*** for considerations and guidance.

4.2.4.6 Describe Project Effects

Information from the previous steps helps to identify the potential for project effects on the community/community resources, the community's values/desires, and the public's reaction to the proposed project. The next step in the process is to use this information, along with public input, to describe the project effects for each of the six SCE issues. Consider both positive effects (benefits) and adverse effects (burdens). When potentially underrepresented populations are in the affected area, describe the effects relative to these populations. Describe project effects in terms of the following factors:

- Magnitude - size or amount of effect
- Geographic extent - how widespread the effect may be
- Duration and frequency - whether the effect is a one-time event, intermittent, or chronic

When characterizing effects, consider the project context. Effects may vary depending on the setting, or context, of the project. Community input will help with this assessment.

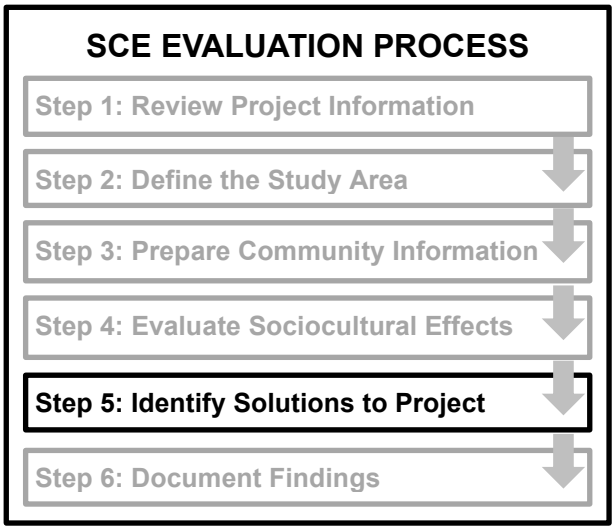
4.2.4.7 Identify Effects on Minority and Low-income Populations

If minority or low-income populations are in the affected area, determine if there are potential adverse effects to those populations. For the purposes of Environmental Justice, other potential effects, not just the six SCE issues, may need to be considered. Coordinate with other members of the PD&E project team to obtain information about other potential effects. The ***USDOT Order 5610.2C***, defines adverse effects as: "the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness or death; air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organizations; increased traffic congestion, isolation, exclusion or separation of minority or low-income individuals within a given community or from the broader community; and the denial of, reduction in, or significant delay in the receipt of, benefits of DOT programs, policies, or activities."

When evaluating whether a potential effect is "adverse," consider input from the affected community. What one group perceives as an adverse effect may be considered a benefit by another group. It is also possible for different individuals within a community to perceive the effect differently. Some may see it as a benefit, others as a burden. A robust ***PIP*** will assist with this part of the assessment. See ***Part 1, Chapter 11, Public Involvement*** for more information about public involvement.

4.2.5 Step 5: Identify Solutions to Project Impacts

One of the functions of the PD&E phase SCE evaluation is to recommend methods to avoid, minimize, or mitigate potential project impacts or enhance the project's fit in the community. Recommendations to address potential project impacts may be carried forward from previous project phases or may originate during the PD&E phase.



4.2.5.1 Review Previous Recommendations

Review any recommendations made during a previous project phase to address project impacts or enhance the project. Evaluate whether the recommendations are still acceptable in light of any changes the community may have experienced since the previous project phase. This information will be the starting point for further discussion with the community about the project.

4.2.5.2 Work with Communities to Evaluate/Devise Solutions

Work with project stakeholders to solicit input from affected communities on transportation solutions and design features to address project impacts. This can happen through targeted group meetings with project stakeholders, homeowners' associations, and affected businesses. The range of solutions to address adverse project impacts fall into the following four categories:

1. **Avoidance** - Alterations to the project so that an adverse effect does not occur (e.g., minor alignment shifts or reduced cross-sections to avoid a community resource)

2. **Minimization** - Modifications to the project to reduce the severity of the effect (e.g., timing construction to coincide with the tourism off-season)

3. **Mitigation** - Actions to alleviate or offset an effect or replace a protected resource (e.g., replacement of impacted property or facilities)

4. **Enhancement** - Additional desirable or attractive features added to the project to make it fit more harmoniously into the community (e.g., landscaping to complement the existing or planned community aesthetics, placement of crosswalks, refuge areas, and transit stops to improve pedestrian mobility and accessibility)

Consider avoidance solutions first, moving sequentially to other approaches if initial solutions appear unviable (e.g., creates other impacts or is inconsistent with the project purpose and need, community preferences, or FDOT standards and requirements). Regardless of approach, coordination with appropriate FDOT offices (e.g., Design, Construction, ROW) must take place and any commitments must be documented consistent with ***Procedure No. 650-000-003, FDOT Commitment Tracking*** and ***Part 2, Chapter 22, Commitments***.

4.2.5.3 Focus Outreach on Affected Populations and Neighborhoods

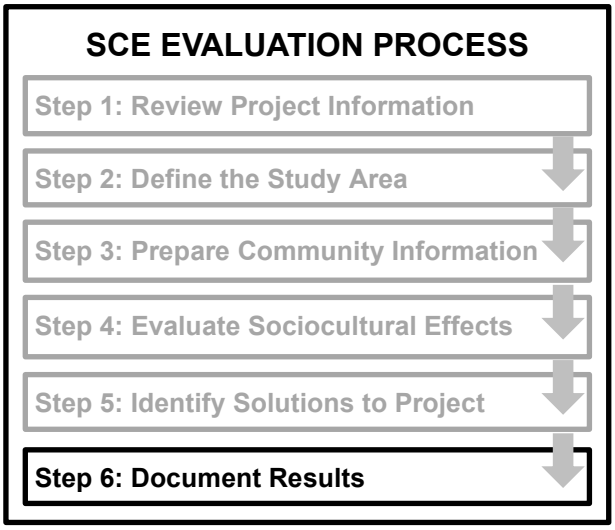
Obtain public input on potential project solutions through community outreach. Focus outreach on populations and neighborhoods that may be potentially affected by the project. Refer to ***Part 1, Chapter 11, Public Involvement***.

4.2.5.4 Document Solutions to Project Impacts

Work with the PD&E Project Manager and team to identify solutions to project impacts, incorporating community values and preferences as appropriate and feasible. When considering project commitments to address sociocultural effects, refer to ***Part 2, Chapter 22, Commitments*** and FDOT ***Procedure No. 650-000-003, Project Commitment Tracking***, for requirements.

4.2.6 Step 6: Document Results

Refer to ***Section 4.3*** for instructions about documenting the SCE evaluation results.



4.2.7 Identify Disproportionately High and Adverse Effects

If the effects remain adverse after mitigation is considered, then a determination must be made whether those effects are disproportionately high and adverse with respect to minority and/or low-income populations. This sub-step is not necessary if minority or low-income populations are not affected by the project.

Per ***USDOT Order 5610.2C***, a disproportionately high and adverse effect on a minority or low-income population means the adverse effect is predominantly borne by such population or is appreciably more severe or greater in magnitude on the minority or low-income population than the adverse effect suffered by the non-minority or non-low-income population. Compare the impacts on the minority and/or low-income populations with respect to the impacts on the overall population within the project area. Consider the results of the SCE evaluation as well as other topics such as air, noise, water pollution, hazardous waste, and construction.

If there are no disproportionately high and adverse effects on minority and/or low-income populations once mitigation and benefits are considered, that determination should be stated in the document. This completes the Environmental Justice evaluation.

If there is a disproportionately high and adverse effect on minority or low-income populations, after taking benefits and mitigation into account, evaluate whether there are practicable mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effects [***USDOT Order 5610.2C***]. When determining whether these options are possible, take into account the social, economic, and environmental effects as well as the cost of the options. Use appropriate outreach techniques to seek input from the affected communities. Consistent with ***USDOT Order 5610.2C***, federal projects with disproportionately high and adverse effects will only be approved if further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effects are not practicable.

In addition, ***Title VI*** prohibits discrimination on the basis of race, color, and national origin. Accordingly, a project that results in a disparate impact to one of these groups may be carried out only if: 1) there is a substantial legitimate justification for the project; and 2) there are no reasonable alternatives that would be less adverse on protected population.

See FHWA's ***Guidance on Environmental Justice and NEPA*** and ***FTA circular 4702.1B*** for specific guidance regarding these factors.

4.2.8 Updating SCE Evaluations in Subsequent Phases

Projects are re-evaluated in accordance with ***23 CFR Part 771*** to document changes in the project design, project limits, scope, or environmental impacts since approval of the Environmental Document. Communities may change over time and potential effects and the community's perception of those effects may also change. Therefore, the SCE evaluation is reviewed during Re-evaluation. ***Part 1, Chapter 13, Re-evaluations*** provides more information on Re-evaluations.

If there are changes in the affected community, they are described in the Re-evaluation. Typical activities include:

- **Desktop data analysis** - Compare the previous SCE evaluation results with current information.

- **Windshield survey** - Review aerial photographs and drive through the project area to identify new community features or changes in the community characteristics.

- **Public Involvement** - Identify any new community concerns and potential solutions during public involvement activities conducted after approval of the Environmental Document and through the ***CAP***. If potentially underrepresented populations will be affected by the project due to project changes, special considerations may be necessary to fully engage the community. See ***Part 1, Chapter 11, Public Involvement*** for more information about public involvement.

4.3 DOCUMENTATION

In the PD&E phase, the SCE evaluation results, recommendations, and supporting information (e.g., EST-generated ***SDR***) are used to update the project file and prepare appropriate sections of the Environmental Document. Information from the ***CSRP*** or memorandum (See the ***Right of Way Procedures Manual, Topic No. 575-000-000***), which supports the evaluation of potential relocation effects, is also used to prepare the Environmental Document.

4.3.1 Update Project File

Appropriate information for the project file includes:

- Information compiled and assessments performed for the SCE evaluation (e.g., demographic data, maps, analyses—including the ***CSRP***—and public comments)

- Community outreach materials (e.g., contact lists, description of activities, project information handouts, and correspondence)

4.3.2 Prepare Environmental Document

Summarize the results and recommendations of the SCE evaluation in the appropriate sections of the project's Environmental Document. If a separate ***SCE Technical Memorandum*** is prepared (see ***Figure 4-2*** for a sample outline), summarize the results in the Environmental Document. These memorandums may be used at any time and are recommended when there are substantial concerns about community effects.

When preparing a separate ***SCE Technical Memorandum*** for federal highway projects the cover page should use the ***Technical Report Cover Page, Form No. 650-050-38*** which includes the following statement:

> *The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration and FDOT.*

Documentation of the SCE evaluation in the Environmental Document varies by Environmental Document type and complexity of the project. Results of the SCE evaluation are documented in the Environmental Document as described below.

4.3.2.1 Type 1 Categorical Exclusions or Non-Major State Actions

Minimal documentation on sociocultural effects is required for Type 1 Categorical Exclusions (CEs) and Non-Major State Actions (NMSA). Guidance on preparing the ***Type 1 Categorical Exclusion Checklist*** is found in ***Part 1, Chapter 2, Class of Action Determination for Federal Projects***. If there are relocations for a Type 1 CE project, the District should contact OEM. The appropriateness of proceeding with the action as a CE, given relocations, must be documented. If relocation is required, document that the ***Uniform Relocation Act*** will be followed. For NMSAs, the SCE evaluation results are recorded on the ***Non-Major State Action Checklist*** found in the StateWide Environmental Project Tracker (SWEPT) and detailed in ***Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery***. Include the ***SDR*** in the file and summarize it in the Type 1 CE or NMSA if applicable.

4.3.2.2 Type 2 Categorical Exclusions

The Environmental Document for a Type 2 CE is the ***Type 2 Categorical Exclusion Determination Form***. This form is prepared using SWEPT. For additional information on the components of a Type 2 CE, see ***Part 1, Chapter 5, Type 2 Categorical Exclusion***.

Environmental Analysis - The six SCE issues are documented in the Social and Economic section of the ***Type 2 Categorical Exclusion Determination Form***. The evaluation may be incorporated directly into a Type 2 CE rather than requiring a separate ***SCE Technical Memorandum*** or report. Include a reference to any supporting data sources (e.g., EST-generated ***SDR***).

Summarize required minimization and mitigation actions or features that were developed in response to community impacts. Include summaries and analyses of community outreach and public involvement activities that supported the SCE evaluation. Describe ideas implemented in the preferred alternative that addressed community concerns.

To record that the project has fully considered effects to minorities and other groups under the ***Civil Rights Acts of 1964***, other nondiscrimination laws and regulations, and Environmental Justice the following standard statement is included on the cover page of the ***Type 2 Categorical Exclusion Determination Form***:

> *This project has been developed without regard to race, color, national origin, age, sex, religion, disability, or family status.*

4.3.2.3 Environmental Assessments

Environmental Analysis - Summarize the results of the SCE evaluation in the Social and Economic sub-section. The summary should be commensurate in scope with the impact analysis result and should provide sufficient information to briefly describe the communities and community resources that have the likelihood to be impacted by the project; descriptions of foreseeable impacts to the six SCE issues; and recommended avoidance, mitigation, minimization, or enhancement actions.

To record that the project has fully considered effects to minorities and other groups under the ***Civil Rights Acts of 1964***, other nondiscrimination laws and regulations, and Environmental Justice the following standard statement must be included in this section of the document:

> *This project has been developed without regard to race, color, national origin, age, sex, religion, disability, or family status.*

The processing of an EA and a Finding of No Significant Impact (FONSI) are discussed in ***Part 1, Chapter 6, Environmental Assessment*** and ***Part 1, Chapter 7, Finding of No Significant Impact***.

4.3.2.4 Environmental Impact Statements

Executive Summary - To record that the project has fully considered effects to minorities and other groups under the ***Civil Rights Acts of 1964***, other nondiscrimination laws and regulations, and Environmental Justice the following standard statement must be included in this section of the document:

> *This project has been developed without regard to race, color, national origin, age, sex, religion, disability, or family status.*

Environmental Analysis - Provide a concise summary of the existing sociocultural environment for each of the six SCE issues in the Social and Economic sub-section of the Environmental Analysis section of the EIS by using the compiled community information for the project. Include information demonstrating that special populations have received full consideration. Summarize the potential adverse community impacts for each alternative and strategies for resolving adverse impacts in this sub-section. A separate section addressing Environmental Justice is recommended for projects where this may be an issue. If any of the SCE issues has a significant impact, it should be clearly described in this section. Indicate project features developed in conjunction with community outreach and coordination with government agencies, private groups, and the public.

EISs addressing a significant SCE issue typically include a separate ***SCE Technical Memorandum***. See ***Figure 4-2*** for a recommended outline.

See ***Part 1, Chapter 11, Public Involvement*** for additional information related to ***Title VI*** and ***Americans with Disabilities Act (ADA)*** compliance. Refer to ***Part 1, Chapter 8, Draft Environmental Impact Statement***, and ***Part 1, Chapter 9, Final Environmental Impact Statement*** for more information about preparing EISs.

4.3.2.5 State Environmental Impact Reports

Environmental Analysis - The evaluation completed for the six SCE issues is summarized in the Social and Economic section of the SEIR. This information may be incorporated directly into a SEIR rather than requiring a separate ***SCE Technical Memorandum*** or report. Include a reference to any supporting data sources (e.g., EST-generated ***SDR***).

Summarize the potential for the project to affect these issues as provided in ***Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery***. Summarize required minimization and mitigation actions or features that were developed in response to community impacts. Include summaries and analyses of community outreach and public involvement activities that supported the SCE evaluation. Describe ideas implemented in the preferred alternative that addressed community concerns.

To record that the project has fully considered effects to minorities and other groups under the ***Civil Rights Acts of 1964***, other nondiscrimination laws and regulations, and Environmental Justice the following standard statement is included on the cover page of the SEIR:

> *This project has been developed without regard to race, color, national origin, age, sex, religion, disability, or family status.*

4.3.2.6 Documentation for Nondiscrimination Considerations

When minority or low-income population groups will be adversely affected by the project, it is often addressed in a separate section of the Social and Economic sub-section titled Social of the Environmental Document. Otherwise, it may be incorporated into the discussion of the six SCE issues as appropriate. In either case, the documentation should include the following:

1. **Briefly describe *EO 12898***. See the example below.

> **EXAMPLE**
>
> **Describing Executive Order 12898 in the Environmental Document**
>
> "Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations, signed by the President on February 11, 1994, directs federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law."

2. **Provide Demographic Information** - The characteristics of the population in the study area, including those identified in ***Table 4-1***, should be listed in a table and compared to a larger reference community such as the county, census tract, or traffic analysis zone. The discussion should also describe the method used to identify minority and low-income populations (e.g., analysis of Census data, minority business directories, direct observation, or a public involvement process).

   When minority or low-income populations are not identified or affected by the proposed project, the Environmental Document should reflect that determination (see example text below).

EXAMPLE

Determination of No Involvement

"Based on the demographic assessment above, no minority or low-income populations are identified or affected. This project complies with Executive Order 12898 and FHWA 6640.23A."

When minority or low-income populations have been identified but will not be adversely affected by the proposed project, the Environmental Document should reflect that determination (see example text below).

EXAMPLE

Determination of No Adverse Effects

"Although minority or low-income populations have been identified that may be affected, the environmental analysis described above demonstrates that they will not be adversely affected in accordance with the provisions of Executive Order 12898 and FHWA 6640.23A."

3. **Explain Coordination, Access to Information, and Participation** - In the appropriate section of the Environmental Document, discuss the major proactive efforts used in the project to ensure meaningful opportunities for public participation, including activities to increase participation of low-income and minority populations. Include in the document the views of the affected populations about the project and any proposed mitigation, and describe what steps are being taken to resolve any controversies that exist. Document the degree to which the affected groups of minority and/or low-income populations have been involved in the decision-making process related to the alternative selection, impact analysis, and mitigation.

4. **Describe Project Effects** - Summarize the direct, indirect, and cumulative effects of the project on the community. References to other sections in the Environmental Document can be cited, as appropriate. The beneficial and adverse effects on the overall population and on minority and low-income populations, in particular, need to be addressed under the applicable social & economic, cultural, natural, or physical topics.

   Discuss what measures are being considered for alternatives to avoid or mitigate the adverse effects. Any activity that demonstrates sensitivity to special needs should be highlighted, such as accommodations for transit dependency and/or addressing the

need for translators. For projects that travel through predominantly minority and low-income and predominantly non-minority and non-low-income areas, compare mitigation and environmental enhancement actions that affect each group.

If the effects remain adverse after mitigation is considered, then a determination must be made whether those effects are disproportionately high and adverse with respect to minority and/or low-income populations.

In selecting the preferred alternative, the Environmental Document should include a discussion of the magnitude and distribution of disproportionately high and adverse human health or environmental effects on minority and low-income populations for all alternatives. If there are no disproportionately high and adverse effects on minority and/or low-income populations once mitigation and benefits are considered, that determination should be stated in the document (see example below).

EXAMPLE

Determination of No Disproportionately High and Adverse Effects

"Based on the above discussion and analysis, the project will not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of E.O. 12898 and FHWA Order 6640.23A."

5. **Document Decision to Proceed when Disproportionately High and Adverse Effects Exist, if applicable** - When there is a disproportionately high and adverse effect on minority or low-income populations, the Environmental Document should describe how the impacted populations/communities were involved in the decision-making process. The document also needs to identify what practicable mitigation commitments have been made. In addition, if the affected population is a minority population protected under ***Title VI (42 U.S.C. §§ 2000d – 2000d-7)***, the document must include the following determinations, as appropriate:

    - There is a substantial need for the project, based on the overall public interest; and
    - Alternatives that would have less adverse effects on protected populations have either:
        - Adverse social, economic, environmental, or human health impacts that are more severe; or
        - Would involve increased costs of an extraordinary magnitude

For Environmental Documents prepared for the Federal Transit Administration (FTA), refer to ***Part 1, Chapter 14, Transit Project Delivery*** and ***FTA's Circular 4703.1, Environmental Justice Policy Guidance for FTA Recipients (FTA, 2012)***.

4.3.3 Conceptual Stage Relocation Plan

When relocations are anticipated for a project regardless of Environmental Document type, information regarding residences, businesses, and institutional or community facilities that may be relocated will be obtained and incorporated into the Environmental Document. A ***CSRP*** is prepared in accordance with ***Chapter 9*** of the ***Right of Way Procedures Manual, Topic No. 575-000-000***. The plan should include data about the demographics of the households and businesses being relocated, replacement property, and relocation assistance. For projects requiring minor relocation needs, a memorandum detailing the required relocation information may be prepared instead of a ***CSRP***. If there are no relocatees, or if relocation assistance is not going to be provided on the project, then a ***CSRP*** is not required.

The information from the ***CSRP*** or memorandum must be incorporated into the appropriate sections of the Environmental Document to address anticipated relocation effects. The ***CSRP*** or memorandum is then placed in the project file. If the ***CSRP*** includes information that may be exempt from public records, the document should be identified as "potentially exempt" in the SWEPT project file.

Information about relocations is updated during a Re-evaluation as the project progresses, consistent with ***Part 1, Chapter 13, Re-evaluations***.

4.3.4 Considerations for Evaluating Relocation Effects

Listed below are some important points to keep in mind in developing the information from the ***CSRP*** or memorandum for inclusion in the Relocation Potential section of the Environmental Document:

- Relocation information must be quantifiable (i.e., a general statement such as "There are sufficient resources available for residential relocatees" is not acceptable as quantifiable data).

- The ***CSRP*** or memorandum must document the sources of information used in developing the plan. Since most of the information provided in the ***CSRP*** or memorandum is secondary source information, the data are estimates. Ensure that the information provided in the Environmental Document is accurate, timely, and adequate with respect to identifying and discussing relocation effects within the project area.

- Pertinent data in the ***CSRP*** or memorandum is summarized and discussed in the Environmental Document. If relocations are anticipated, indicate the number and type of relocatees (residents, tenants, businesses, institutions or

community facilities), and discuss the relocation impact to groups protected by nondiscrimination laws. If there is relocation potential, indicate whether comparable replacement housing is available.

- A brief discussion of Last Resort Housing must be provided when comparable replacement housing is not available. ***Section 4.3.4.1*** provides standard information to be incorporated into the Environmental Document.

- A brief summary of FDOT's Relocation Assistance Program must also be provided. ***Sections 4.3.4.2*** and ***4.3.4.3*** provide standard information to be incorporated into the Environmental Document depending on whether there is involvement with relocatees.

- If "functional replacement" pursuant to ***23 CFR § 710.509*** may be provided, the results of discussions and decisions concerning "functional replacement" must be included in the Environmental Document. Any commitments must also be listed in the appropriate sections. See ***Procedure No. 650-000-003, FDOT Commitment Tracking***.

4.3.4.1 Last Resort Housing

When comparable replacement housing is not available, the following standard paragraph must be included in the Relocation Potential section of the CE, EA, or EIS:

> *Comparable replacement housing for sale or rent is not available in the area. In accordance with U.S.C. Title 42 Chapter 61 Section 4626, replacement housing of last resort will be used to assure that comparable decent, safe, and sanitary housing will be made available to a displaced person when such housing cannot otherwise be provided within the person's financial means.*

For a SEIR, include the following standard paragraph in the Relocation Potential section:

> *Comparable replacement housing for sale or rent is not available in the area. In accordance with Section 421.55, Florida Statutes, Relocation of displaced persons, replacement housing of last resort will be used to assure that comparable decent, safe, and sanitary housing will be made available to a displaced person when such housing cannot otherwise be provided within the person's financial means.*

4.3.4.2 Information Required When a Relocatee is Involved

The following standard information must be included in the Relocation Potential section of a CE, EA, or EIS when there is involvement of a relocatee:

> *In order to minimize the unavoidable effects of Right of Way acquisition and displacement of people, a Right of Way and Relocation Assistance Program will be carried out in accordance with Section 421.55, Florida Statutes, Relocation of displaced persons, and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).*

For a SEIR, include the following standard information in the Relocation Potential section:

> *In order to minimize the unavoidable effects of Right of Way acquisition and displacement of people, the Florida Department of Transportation will carry out a Right of Way and Relocation Assistance Program in accordance with Section 421.55, Florida Statutes, Relocation of displaced persons.*

4.3.4.3 Information Required When There are No Relocations

The following standard information must be included in the Relocation Potential section of a Type 2 CE, EA, or EIS whenever the proposed action does not involve a residential or business relocation:

> *The proposed project, as presently conceived, will not displace any residences or businesses within the community. Should this change over the course of the project, a Right of Way and Relocation Assistance Program will be carried out in accordance with Section 421.55, Florida Statutes, Relocation of displaced persons, and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).*

For a SEIR, include the following standard information in the Relocation Potential section:

> *The proposed project, as presently conceived, will not displace any residences or businesses within the community. Should this change over the course of the project, the Florida Department of Transportation will carry out a Right of Way and Relocation Assistance Program in accordance with Section 421.55, Florida Statutes, Relocation of displaced persons.*

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4.6 HISTORY

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Table 4-5 SCE Considerations

Social

1. What are the demographics of the potentially affected population?
2. What displacements of population, if any, would be expected as a result of the project?
3. Would any increases or decreases in population be expected as a result of the project?
4. Would any displacement of minority populations be expected as a result of the project?
5. Are there any disproportionate effects on special populations?
6. Have minority populations previously been affected by other public projects in the area?
7. Would the project result in any barriers dividing an established neighborhood(s) or would it increase neighborhood interaction?
8. What changes, if any, in traffic patterns through an established neighborhood(s) would be expected as a result of the project?
9. Would any changes to social relationships and patterns be expected as a result of the project?
10. Would the project result in any loss, reduction or enhancement of connectivity to a community or neighborhood activity center(s)?
11. Would the project affect community cohesion?
12. Would the project result in the creation of isolated areas?
13. Would any increase or decrease in emergency services response time (fire, police, and EMS) be expected as a result of the project?
14. Does the project affect safe access to community facilities?
15. Would any changes in social value be expected as a result of the project?
16. Would the project be perceived as having a positive or negative effect on quality of life?
17. Have community leaders and residents had opportunities to provide input to the project decision-making process in the present and/or past?
18. Have previous projects in this area been compatible with or conflicted with the plans, goals and objectives of the community?
19. Is the proposed project consistent with the community vision?
20. Are transportation investments equitably serving all populations?

Economic

1. Would any changes to travel patterns be expected that would eliminate or enhance access to any businesses?
2. Would any increases or decreases in traffic through traffic-based business areas be expected?

Table 4-5 SCE Considerations (Page 2 of 3)

3. Would any changes in travel patterns be expected that would result in a business or district being bypassed?
4. Would access for special-needs patrons increase or decrease as a result of the project?
5. Would any increase or decrease in business visibility for traffic-based businesses be expected as a result of the project?
6. Would the loss of any businesses be expected as a result of the project?
7. Would any increases or decreases in employment opportunities in the local economy be expected as a result of the project?
8. Would regional employment opportunities be enhanced or diminished as a result of the project?
9. What is the effect of the project on military installations?
10. Would any real property be removed from the tax roles as a result of the project?
11. Is it likely that taxable property values would increase or decline as a result of the project?
12. Would changes in business activities increase or decrease the tax base?

Land Use Changes

1. Would the project result in a change in the character or aesthetics of the existing landscape?
2. Would the amount of recreation/open space be expected to increase or decrease as a result of the project?
3. Would the project be compatible with local growth management policies?
4. Would the project be compatible with adopted land use plans?

Mobility

1. Would access to public transportation facilities be increased or reduced as a result of the project?
2. Would pedestrian mobility be increased or decreased as a result of the project?
3. Would non-motorist access to business and service facilities be increased or reduced as a result of the project?
4. How does the project affect intermodal connectivity?
5. Would any change in connectivity between residential and nonresidential areas be expected as a result of the project?
6. What are the expected changes to existing traffic patterns as a result of the project?
7. Would a change in any public parking areas be expected as a result of the project?
8. Would access for transportation disadvantaged populations be affected?

Table 4-5 SCE Considerations (Page 3 of 3)

Aesthetic Effects

1. Are there noise or vibration sensitive sites near the project?
2. Is the project likely to affect a vista or viewshed?
3. Does the project blend visually with the area?
4. Is the project adjacent to any community focal point?
5. Is the project likely to be perceived as being compatible and in character with the community's aesthetic values?
6. What feature(s), if any, of the project might be perceived by the community as inconsistent with the character of that community?

Also see requirements in Part 2, Chapter 5, Aesthetic Effects.

Relocation Potential

1. Would any displacement of residences and/or dwellings be expected as a result of the project?
2. Would any displacement of non-residential land uses be expected as a result of the project?
3. Do any potentially displaced non-residential uses have any unique or special characteristics that are not likely to be reestablished in the community?
4. Would any displacement of community or institutional facilities be expected as a result of the project?

See additional requirements in Section 4.3.4, Considerations for Evaluating Relocation Effects.

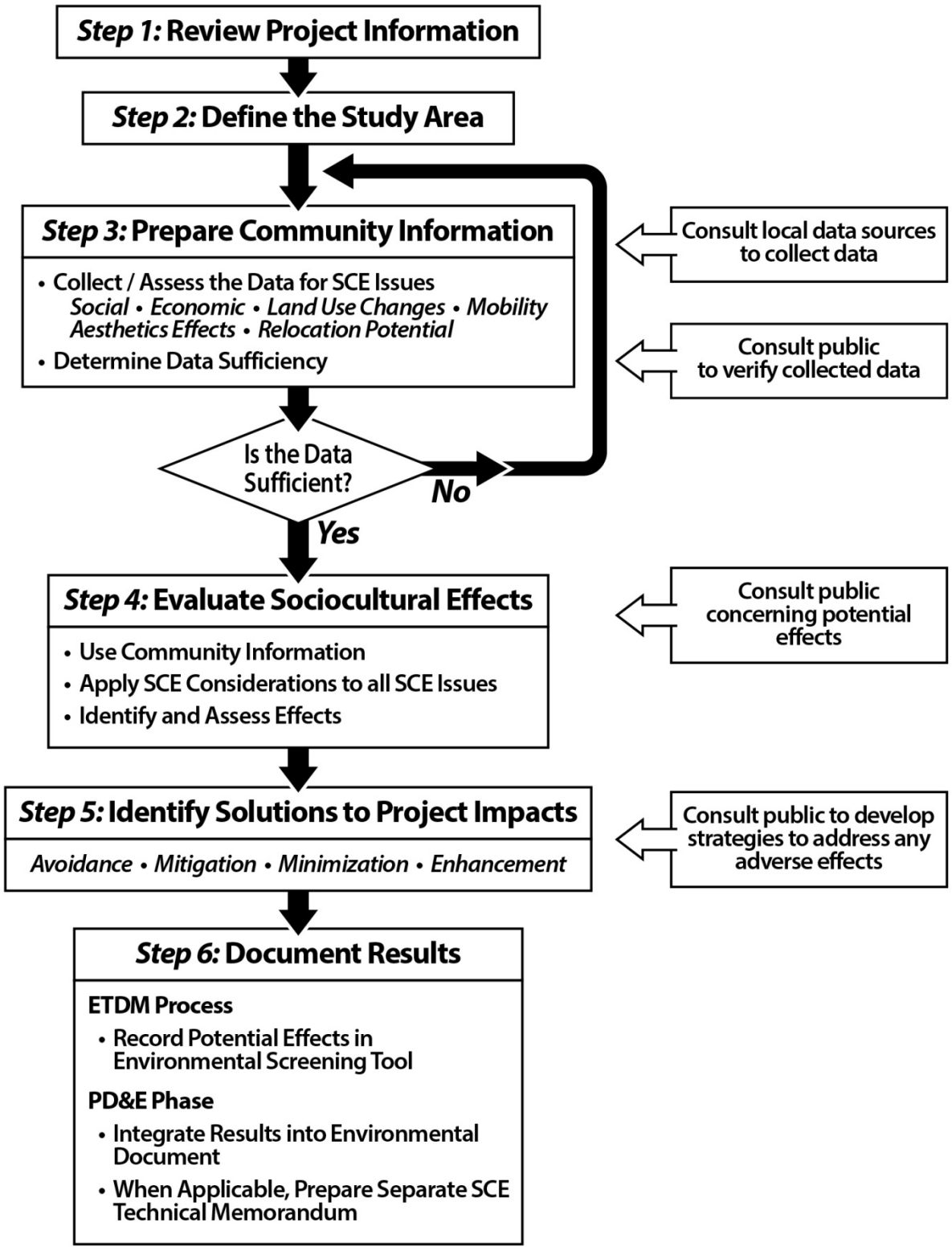

Figure 4-1 SCE Evaluation Process Diagram

SCE Technical Memorandum

I. Introduction
   A. Project Summary
      - Project Purpose and Need
      - Conceptual Alternatives

II. Community Characteristics Summary and Map

III. Potential Effects
   A. Social
      - Demographics
      - Community Cohesion
      - Safety
      - Community Goals/Quality of Life
      - Special Community Designations
   B. Economic
      - Business and Employment
      - Tax Base
      - Traffic Patterns
      - Business Access
      - Special Needs Patrons
   C. Land Use Changes
      - Land Use – Urban Form
      - Plan Consistency
      - Growth Trends and Issues (past and present)
      - Focal Points
      - Agricultural lands not protected under the FPPA
   D. Mobility
      - Mobility Choices
      - Accessibility
      - Connectivity
      - Traffic Circulation
      - Public Parking
   E. Aesthetic Effects
      - Noise/Vibration
      - Viewshed
      - Compatibility
   F. Relocation Potential
      - Residential
      - Non-Residential
      - Public Facilities

IV. Recommendations and Commitments
   A. Recommendations for Resolving Issues
   B. Project Commitments

V. Environmental Justice, Civil Rights, and Related Issues
   A. Protected Populations in Study Area
   B. Coordination and Participation
   C. Summary of Project Effects
   D. Mitigation and Enhancement Actions
   E. Findings Regarding Disproportionate Adverse Effects

VI. Appendices
   A. Data Sources
   B. Public Involvement Summary and Analysis

Figure 4-2 Recommended SCE Technical Memorandum Outline

PART 2, CHAPTER 5

AESTHETIC EFFECTS

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PART 2, CHAPTER 5

AESTHETIC EFFECTS

5.1 OVERVIEW

5.1.1 Purpose

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

Transportation actions can affect communities and influence aesthetic qualities. The FDOT ***Landscape, Policy No. 000-650-011*** was created to conserve, protect, and enhance Florida's natural resources and scenic beauty when planning, constructing, and maintaining the State Transportation System. FDOT considers Aesthetic Effects (AE) during project development because it influences community cohesion, community values, and can affect the travel experience. As such, FDOT identifies practical and feasible opportunities to improve project aesthetics during project delivery.

This chapter contains FDOT's procedures for evaluating AE during project delivery. The chapter also includes special considerations for outdoor advertising (ODA) and scenic highways. AE can be either positive or negative and should be evaluated based on the existing and proposed context of the project area. The aesthetic qualities of a community or area are defined by a combination of visual resources and other qualities that define the character of that community. The evaluation of AE should address the community's aesthetic ideals while producing an affordable, biddable, constructible, and maintainable design.

The AE process assesses the existing aesthetic context of the project area, evaluates a proposed project's aesthetic effects, and determines the most appropriate opportunities for enhancement within the project area by:

1. Developing transportation facilities that are compatible with the surrounding natural and/or man-made environment;

2. Balancing transportation design concepts with the community vision;

3. Selecting appropriate design approaches, materials, forms, styles, scale, color, pattern and texture; and

4. Acommodating existing and proposed landscapes.

5.2 PROCEDURE

The evaluation of AE begins in the Planning phase with data collected as part of the Efficient Transportation Decision Making (ETDM) process. The evaluation continues through the Project Development & Environment (PD&E) process and into the Design and Construction phases (***Figure 5-1***).

An AE evaluation for a proposed transportation project should meet the following objectives:

1. Identify current aesthetic resources (e.g., Florida Scenic Highways, other special roadway designations, existing forested areas, wildflower areas, trees, landscape, community features, stormwater ponds and drainage features, bridge structures and other architectural features);

2. Analyze and categorize the aesthetic resources that could be affected;

3. Assess the value of the aesthetic resources to the community or study area;

4. Assess potential impacts; and,

5. Identify potential avoidance, minimization, mitigation and enhancement measures.

The typical considerations that should be weighed as part of an AE evaluation are summarized in ***Table 5-1***.

Table 5-1 Typical Aesthetic Effects Considerations

CHARACTER	Used to understand the aesthetic resources unique to the studied community and its environment(s). Each of the following may be identified and described before any value and/or impact assessments begin: adjoining architectural styles; adjoining land uses; available transportation modes; corridor width and alignment; context classification; level of (historical) maintenance; lighting; common materials; visual rhythms, patterns, forms, lines, colors and textures; vegetation; and vehicle speed; sounds; odors; and vibrations.
COMPATIBILITY	These base considerations may be evaluated in the land use context proposed: access; community cohesiveness; existing design characteristics; planned growth and land use patterns; sense of ownership /public boundaries; traffic patterns/congestion; design compatibility with community setting; and color and materials coordination (with evident patterns).
COMMUNITY VALUES	To utilize in understanding how the transportation project can contribute to public perceptions, and will inform the determination of the intensity of potential AE impact. May include the following: community goals; cultural significance; gateways and focal points; local plan consistency; open space; quality of life; safety; and special community designations.

SENSITIVE AREAS	Many of these contribute subtly to a community's identity and may need to be considered in the broader Community Values context (level of sensitivity to each): areas of recognized beauty; bicycle routes; commercial centers; historic or other culturally-important resources; parks and recreation areas; pedestrian facilities; public facilities (hospitals, colleges, universities); public parking areas (and access to them); residential areas; specific historic or cultural features; transit facilities; and specially designated water bodies.
VISUAL FEATURES	These are usually rated as very important and highly valuable by communities. They should be considered in the context of potential for both short- and long-term impacts of the project. They may include: scenic spaces (views and vistas); tree cover; natural shade/shadow patterns; vegetation and screening; water bodies; light features and evident lighting levels; other natural green spaces; recognized safety features; visual clutter (if present); and, simplicity and attractiveness of signage.

5.2.1 Efficient Transportation Decision Making Screening Evaluations

Projects qualifying for screening through the ETDM process receive early consideration of AE during the sociocultural effects (SCE) evaluation (***Part 2, Chapter 4, Sociocultural Effects Evaluation***). Additional information regarding SCE evaluations can be found on FDOT's ***SCE Evaluation Process Website***. The results of the SCE evaluations conducted during the ETDM Planning and Programming Screens provide descriptions of the existing visual resources, experiences and features that could be affected (both positively or negatively) by the proposed transportation project, including forested areas, wildflower areas, trees, landscaping and other aesthetic features. The evaluation should include input provided by the public, local planning organizations, and the Environmental Technical Advisory Team (ETAT). The AE evaluation builds upon information gathered during the SCE evaluation, and is used to determine the level of effort necessary to adequately address aesthetic issues during the PD&E Study. The level of effort and expertise required are dependent upon the context, complexity and scope of the project and its potential for effects.

Generally, evaluating AE during ETDM includes describing the following information in the Preliminary Environmental Discussion (PED):

1. Planning Screen Evaluation – When conducted, identification of existing visual resources and features that could be affected or improved by the proposed transportation project, including forested areas, wildflower areas, trees, landscaping, scenic views, and other aesthetic features and the identification of issues related to aesthetics.

2. Programming Screen Evaluation - provide commentary about effects, summarize scoping recommendations, and identify public concerns to further understand the extent of potential aesthetic impacts and to determine methods for further evaluation during the PD&E phase.

5.2.2 Project Development & Environment

The AE evaluation during the PD&E phase builds upon previous planning and programming screening information by filling information gaps, analyzing issues of

concern identified in ETDM, gathering public or community input, and completing the appropriate level of analysis.

5.2.2.1 Aesthetics Effects Evaluation

The AE evaluation should be tailored to the context, scope, complexity and public comments associated with the project. The District may use the ***Guidelines for the Visual Impact Assessment for Highway Projects*** for methods for determining the level of AE evaluation. The typical AE considerations presented in ***Table 5-1*** should be considered during each step of the AE evaluation. If the District determines the evaluation completed during ETDM screening efforts is sufficient to address aesthetic issues, then effects should be summarized in the Environmental Document and include evaluation in the project file within the StateWide Environmental Project Tracker (SWEPT). These steps are not necessarily followed in this order, and may also be combined.

PD&E projects that require AE evaluation should follow the steps below.

Step 1: Describe Existing Conditions - The study area is determined by the District and will vary depending on the project context, resources involved, visual effects, and potential project impacts. Once the study area has been defined, the District will describe the existing aesthetic characteristics, such as existing forested areas, wildflower areas, trees, special highway designations and landscape.

This step may include using AE information available on the Environmental Screening Tool (EST) Area of Interest (AOI) tool, the SHS Video log, aerial photography, Roadway Characteristics Inventory (RCI), and other online tools. The analysis should include field reviews to verify data collected during the desktop review.

Step 2: Evaluate Effects - This evaluation should identify the effects a project may have on the visual resources and qualitative physical characteristics of a study area.

Using the typical AE considerations in ***Table 5-1***, assess the positive and negative effects of the project on the study area's aesthetic resources. The interrelationship of effects varies with the type of transportation action and the affected community. The District should coordinate with appropriate program specialists (e.g., cultural resources, landscape architecture, scenic highways, water quality, noise, air quality) to determine how the project affects these areas from an aesthetic perspective. The District should describe the effects providing sufficient information to determine their magnitude. If there are multiple alternatives, provide sufficient information to differentiate between them (including the no-build alternative) when possible.

Step 3: Determine Impacts - Based on knowledge of the affected area and the impact analysis, the District must determine if the perceived AE is significant. Significance of the impact will vary with the setting of the proposed action and the surrounding area. To determine significance, the severity of the aesthetic impact should be examined in terms of the type, quality and sensitivity of the aesthetic resource involved; the location of the proposed project; the duration of the impact (short or long term); and the community's

value of the aesthetic resource. The determination of impacts is documented in the Environmental Document.

Step 4: Recommend Measures to Resolve AE Issues - As a project moves through the PD&E process and AE are identified, the District considers potential solutions to address effects or enhance the aesthetics of the proposed transportation project. In keeping with FDOT's ***Complete Streets, Policy No. 000-625-017***; consideration of solutions that would make the project fit the needs of the community may be warranted. The District should consider both standard and unique aesthetic enhancements based on community input. The District should coordinate with other District offices to determine if a potential solution is feasible. There may be engineering, financial and maintenance reasons that make a potential solution not feasible.

Methods for resolving negative aesthetic effects associated with a transportation project can include: **avoidance, minimization, mitigation,** and **enhancement measures**, for example, the preservation of existing forested areas, wildflower areas, or relocation of trees, landscape and other aesthetic features. Measures should consider short-term effects (during construction), and long-term effects as appropriate. The District considers the effects of these measures on the community and determines whether the approach supports the project's purpose and need. The public is given the opportunity to provide input on measures to avoid, minimize or mitigate adverse AE, or measures to enhance aesthetics through the public involvement process (***Part 1, Chapter 11, Public Involvement***).

Application of aesthetic enhancements that are to be considered on structural elements, such as bridges and noise or retaining walls, should reflect documented community desires. Possible options for a project should be identified, and evaluated for safety, constructability, maintainability and costs. Project enhancements may need to be funded and maintained by local government agencies.

Aesthetic features should avoid conflicts with permitted ODA.

5.2.2.2 Commitments

Prior to finalizing any aesthetic commitments, the District must coordinate with the District Design, Construction, Maintenance and other offices as appropriate, to ensure that FDOT standards are considered and that proposed commitments are feasible. Some aesthetic enhancements may require a local agreement before such commitments can be made. AE commitments are documented and tracked according to ***Part 2, Chapter 22, Commitments*** and ***Procedure No. 650-000-003, Project Commitment Tracking***.

5.2.2.3 Documentation

The AE evaluation findings are documented in the appropriate Environmental Document as described below:

1. **Type 2 Categorical Exclusions (CE)** - The AE evaluation should be a brief summary documented in the ***Type 2 Categorical Exclusion Determination Form***. In some cases the summary can serve as the AE evaluation depending on the projects involvement with AE. The AE summary should present the impact analysis and recommend avoidance, minimization, mitigation, and enhancement measures. Additional supporting information should be included in the SWEPT project file, if applicable. It is recommended that these documents be placed within the Aesthetic Effects folder in SWEPT.

2. **Environmental Assessments (EA) and Environmental Impact Statements (EIS)** - The AE evaluation is summarized in the AE section of the EA or EIS. The AE summary should present the impact analysis and recommend avoidance, minimization, mitigation, and enhancement measures.

3. **State Environmental Impact Report (SEIR)** - The results of the AE evaluation are included in the SEIR. The AE summary should present the impact analysis and recommend avoidance, minimization, mitigation, and enhancement measures.

5.2.2.4 Re-evaluation

If major design changes have taken place since approval of the Environmental Document, the Re-evaluation must assess changes to AE per ***Part 1, Chapter 13, Re-evaluations***. Changes in AE will need to be documented and may need to be coordinated with other internal offices and the community.

5.2.3 Outdoor Advertising

ODA regulations are found in ***Chapter 479, Florida Statutes (F.S.)***, and in ***Chapter 14-10, Florida Administrative Code (F.A.C.)***. When there are existing permitted ODA signs and when there is a potential to impact the location of ODA signs or their view zones, the District must review the ODA permit status, and the (ODA) view zones, as early as possible during project development. The District should coordinate with FDOT's Outdoor Advertising Office (OAO), as appropriate, as issues with the anticipated blocking of the view of or impacts to ODA signs are identified. Consideration of the view of or impacts to ODA signs being affected by the proposed project should be carried throughout project delivery as summarized below:

1. **ETDM Screenings** – During the screening process, current permitted sign locations can be identified utilizing the EST or the OAO website and confirmed by contacting the OAO as needed. The District should begin to consider how the view or disposition of the permitted sign could be affected by the proposed project. Consider for example, whether a sign is conforming or non-conforming (coordinate with OAO). Also note if any community preferences have been identified regarding the role of ODA in the proposed project.

2. **PD&E –** Identify or confirm the presence of existing signs and their permit status. Determine how each sign and/or its view zone is affected by the proposed project. Continue coordination with OAO, and the District Right of Way (ROW) Office as appropriate.

3. **Re-evaluation–** The District should initiate or continue coordination with OAO to identify or confirm existing signs and their permit status along with the status of any plans for proposed signs. The District should also update any pertinent signage related commitments as appropriate and advise the PD&E staff of any changes. Review design plans and consider view zones (see ***FDOT Design Manual, Part 1 Chapter 127, Topic No. 625-000-002***).

5.2.4 Florida Scenic Highways and Other Specially Designated Highways

There are four types of specially designated highways: local, state, national and legislative. Each designation may have different levels of protection, preservation, and public involvement.

The intent of the Florida Scenic Highways Program (FSHP) is to protect and to promote awareness of community resources that are valued by Florida's residents and tourists. These can include scenic, natural, historic, cultural, recreational and archaeological resources in accordance with the ***Florida Scenic Highways Program Guidance; July 2016*** and FDOT ***Procedure No. 650-050-005, Florida Scenic Highways Program***.

The AE evaluation of potential project impacts to Florida Scenic Highways includes identification of intrinsic qualities or resources that are present on the project corridor and a determination of how a proposed project will potentially affect these resources. This evaluation also considers community preferred opportunities to conserve or enhance scenic highway qualities.

The District should, when practical and feasible, identify opportunities to avoid, minimize, or mitigate impacts to the documented resources on scenic highways. Accommodation of scenic resources on a designated highway within the limits of a project may require the application of flexibility in highway design through use of appropriate Design Exceptions and Design Variations. Each Florida Scenic Highway is associated with a Byway Organization and a Byway Management Plan (BMP). The concept of Context Sensitive Solutions (CSS) allows for collaboration with the Byway Organization and other corridor stakeholders and should be considered during the development of projects.

Consideration of designated scenic highways affected by the proposed project should be carried throughout project delivery as summarized below:

1. **ETDM Screenings –** Contact the District Scenic Highways Coordinator (DSHC) for identification of designated Florida Scenic Highways. The District should also review the ***FDOT Legislatively Designated Scenic & Historic Highways Report***

which identifies many of the scenic and historic highways and provides limitations on altering these highways. Use guidance in ***Part 2, Chapter 8, Archaeological and Historical Resources*** to evaluate historic highways designated by special legislation. The presence of locally designated scenic or historic highways should be coordinated with the local authorities.

2. **PD&E Evaluation –** The District should confirm results from the ETDM screenings to determine whether the proposed project would impact these resources. Additionally, the District, in coordination with the DSHC should become familiar with the regulations and BMP for a designated scenic or historic highway. Based on a review of scenic or historic highway legislation, the District will be able to coordinate with the District Scenic Highways Coordinator and District Environmental Manager to evaluate the regulations and potential impact of the project on the designated corridor.

   Review the project setting to determine which scenic highway intrinsic qualities exist and analyze project data to determine potential impacts. The scenic highway evaluation should include an assessment of potential opportunities for FDOT to help fulfill goals identified in the BMP or partner on resource related issues. The evaluation should also recognize the relationship between existing intrinsic qualities on the scenic highway and community goals and objectives for the corridor as expressed in the BMP. The AE section of the Environmental Document should discuss whether the project has the potential to affect the scenic or historic highway.

   If the project impacts the resources of a scenic highway, the byway organization and the public can provide additional input to identify ways to avoid, minimize or mitigate adverse impacts or identify aesthetic enhancements during the public involvement process (***Part 1, Chapter 11, Public Involvement***). The Byway Organization's vision, goals and objectives as outlined in the BMP may be considered to collaboratively identify, preserve, maintain, or enhance the intrinsic qualities or resources while maintaining safety and mobility. Commitments are documented and tracked in accordance with ***Part 2, Chapter 22, Commitments*** and ***Procedure No. 650-000-003, Project Commitment Tracking***.

3. **Re-evaluation –** The District should work with the DSHC or District Environmental Manager to reconfirm/identify the presence of designated Florida Scenic Highways or other specially designated highways within the project boundaries. For Florida Scenic Highways, continue coordination with the Byway Organization through the DSHC providing updates on project status and AE commitments.

5.3 REFERENCES

American Association of State Highway and Transportation Officials (AASHTO) Highway Subcommittee on Design Task Force for Environmental Design. June 1991. A Guide for Transportation Landscape and Environmental Design

FDOT. FDOT Design Manual, Topic No. 625-000-002

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

FDOT. Project Commitment Tracking, Topic No. 650-000-003

FDOT. Complete Streets, Topic No. 000-625-017

FDOT. Landscape Policy No. 000-650-011

FDOT. Florida Scenic Highways Program Guidance, July 2016. https://floridascenichighways.com/

FDOT. Florida Scenic Highways Program, Topic No. 650-050-005

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

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

FHWA. January 2015. Guidelines for the Visual Impact Assessment of Highway Projects, Washington D.C., Publication No. FHWA-HEP-15-029

FHWA. June 1997. Flexibility in Highway Design, Publication No. FHWA-PD-97-062; HEP-30/7-97(10M)E

FHWA. May 1999. Procedures for Considering Environmental Impacts, Order 5610.4, Docket No. EP-1, Notice 5

USDOT. November 1980. Aesthetics in Transportation, Contract No. DOT-OS-90040; Report No. DOT.OST.P-20.30, U.S. Government Printing Office, Washington D.C.

5.4 HISTORY

2/15/1999, 11/14/2012, 9/30/2014, 8/7/2015, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 15, 1/14/2019, 7/1/2020, 7/1/2023

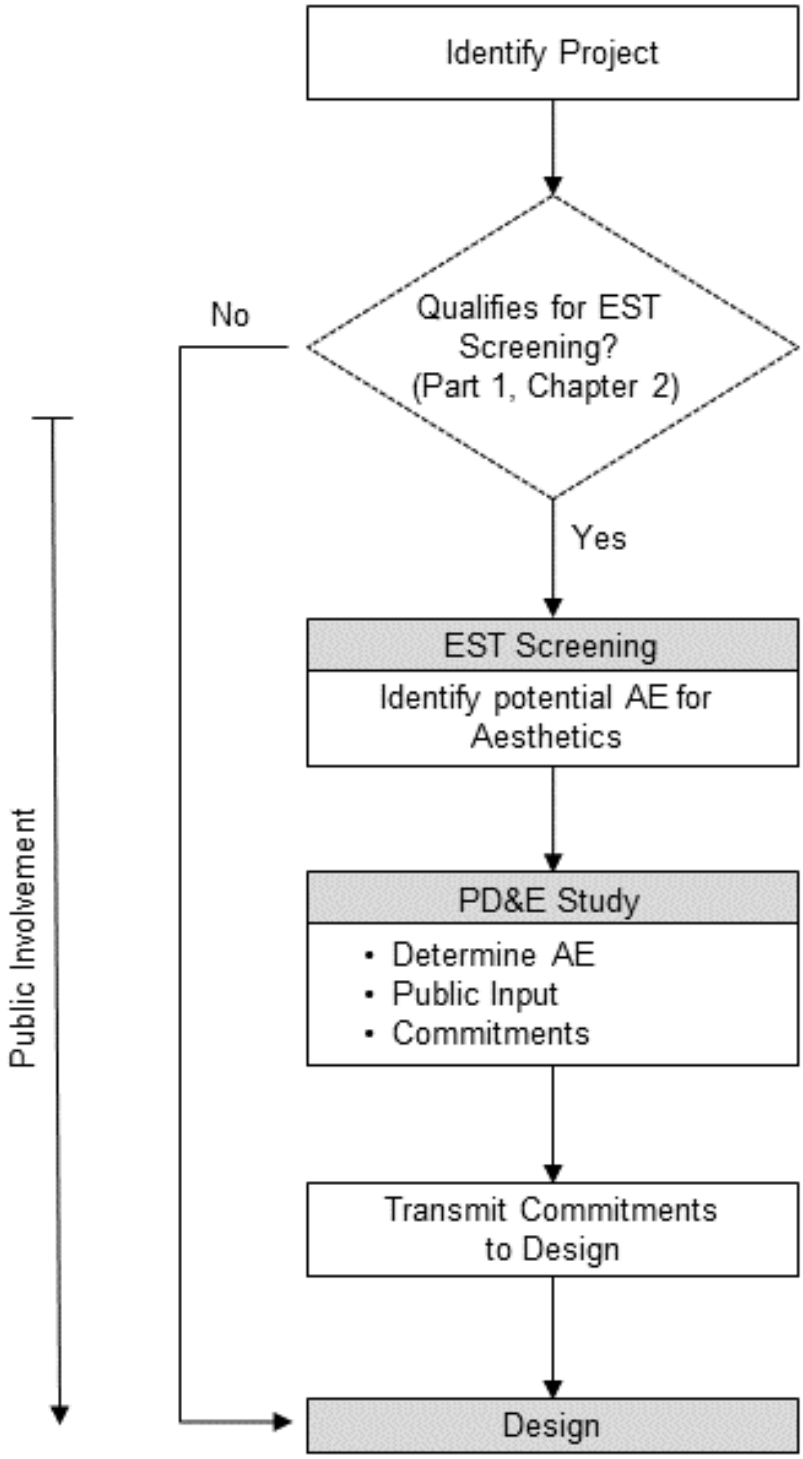

Figure 5-1 Aesthetic Effects Process Flow Chart

PART 2, CHAPTER 6

FARMLAND

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FARMLAND

6.1 OVERVIEW

6.1.1 Purpose

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

This chapter outlines the procedure for evaluating project impacts on farmland (see ***Figure 6-1***). The ***Farmland Protection Policy Act (FPPA) of 1981, 7 U.S.C. §§ 4201–4209 (***regulations located at ***7 CFR Part 658)***, was established to minimize the conversion of farmland to nonagricultural uses by federal programs or by projects using federal assistance. The Natural Resources Conservation Service (NRCS), an agency under the United States Department of Agriculture (USDA), is responsible for ensuring that ***FPPA*** is implemented.

The term "farmland" as used in this chapter means prime or unique farmlands as defined in ***7 CFR § 658.2(a)***, or farmland that is determined by the appropriate state or unit of local government agency or agencies with concurrence of the USDA Secretary to be farmland of statewide or local importance. ***FPPA*** requirements apply to farmlands even if not in active use as cropland. Qualifying farmlands can be forest land, pastureland, cropland or other land, but not land already in or committed to urban development or water storage. For agricultural lands not falling under these protections see ***Part 2, Chapter 4, Sociocultural Effects Evaluation***.

Potential effects on farmlands may be identified in the Preliminary Environmental Discussion (PED) of the Planning or Programming Screens during the Efficient Transportation Decision Making (ETDM) process (see the ***Efficient Transportation Decision Making Manual, Topic No. 650-000-002***). However, a farmland evaluation occurs later in the project development process after Right of Way (ROW) needs have been identified.

The ***FPPA*** applies only to projects which are completed by a federal agency or completed with financial assistance from a federal agency. Non-Major State Actions (NMSA) and State Environmental Impact Reports (SEIR) are not subject to the provisions of the ***FPPA*** as there is no federal involvement.

6.2 PROCEDURE

The farmland evaluation starts by determining if the project is subject to the ***FPPA***. For projects screened through the ETDM process, Environmental Technical Advisory Team (ETAT) comments for the "Farmlands" issue in the ***Programming Screen Summary Report*** should be reviewed. Comments by NRCS may state specifically that the project may affect farmland. While screening information is preliminary, it is useful in determining the scope of the Project Development and Environment (PD&E) Study. Farmland evaluation during PD&E requires coordination with the NRCS.

Figure 6-1 shows the process that Districts must use to document a farmland evaluation for a project. Most FDOT projects will be linear or corridor type projects requiring use of the ***Farmland Conversion Impact Rating for Corridor Type Projects Form NRCS-CPA-106***; other projects such as parking areas, buildings, or rest areas require use of the ***Farmland Conversion Impact Rating Form AD-1006***.

During the PD&E Study, the District must follow the steps listed below:

1. Determine whether the project is excluded from coordination with NRCS as discussed in ***Section 6.2.1***; No further evaluation of Farmlands is required if the project is not subject to provisions of ***FPPA***. However, agricultural lands not falling under these protections may still need to be evaluated with the Sociocultural Effects Evaluation (***Part 2, Chapter 4, Sociocultural Effects Evaluation***). Documentation of projects excluded from coordination with NRCS is provided in ***Section 6.2.2***;

2. Complete the appropriate Farmland Conversion Impact Rating Form for projects requiring coordination with NRCS as discussed in ***Section 6.2.4***; and

3. Evaluate and document projects requiring coordination with NRCS to determine whether they have farmland involvement and are subject to the provisions of ***FPPA*** as discussed in ***Section 6.2.5***.

Form NRCS-CPA-106 is completed for linear or corridor type projects that may convert farmland into nonagricultural use. It is anticipated that most projects will use this form. ***Form AD 1006*** is used for all other proposed projects (e.g., parking areas, buildings, rest areas) that may convert farmland to nonagricultural use. The District completes Parts I and III of ***Form NRCS-CPA-106*** or ***Form AD 1006*** and sends the form to the State Soil Scientist with the NRCS for farmland involvement determination. See ***Section 6.3*** for a link to these forms; copies are also provided in ***Figure 6-2*** and ***Figure 6-3***, respectively.

If NRCS determines the project does not involve farmlands, then the ***Form NRCS-CPA-106*** or ***Form AD 1006*** will be returned to the District. The District will include the Form in the project file within the StateWide Environmental Project Tracker (SWEPT) and document the information in the project's Environmental Document. No further evaluation is required.

If NRCS determines the project involves farmlands, then NRCS will complete Parts II and IV of ***Form NRCS-CPA-106*** or ***Form AD 1006*** and compile a total point score on Part V of the Form before it is returned to the District. The District will then complete Part VI of the Form and add the total points in Parts V and VI to determine the suitability of the site for protection as farmland.

6.2.1 Projects Excluded from Coordination with NRCS

The following project categories **do not** require coordination with the NRCS:

1. Project activities not subject to provisions of ***FPPA***:

    a. Federal permitting and licensing;

    b. Projects planned and completed without the assistance of a federal agency;

    c. Small acreage (i.e., 10 acres or less per linear mile or 3 acres where there is a project for an existing bridge or interchange) projects where a statewide, local, or tribal land evaluation site assessment (LESA) system has been approved by the State Conservationist. Acreage includes both direct and indirect conversions. These exemptions are to encourage improvements to existing highways, instead of new construction.

    For additional exemptions see, ***NRCS FPPA Manual***.

2. Projects situated **entirely** within urbanized areas on the Census Bureau maps **with no farmlands located adjacent to a project corridor**. Maps for urbanized areas are located in each District's planning section and include urbanized areas listed in ***Table 6-1***. See ***Section 6.3*** for a link to the ***U.S. Census Bureau Mapper***.

Table 6-1 Urbanized Areas in Florida (U.S. Census Bureau 2022)

Brooksville - Spring Hill	Bonita Springs – Naples	Cape Coral (includes Ft. Myers)
Deltona	Ft. Walton Beach	Gainesville
Homosassa Springs – Beverly Hills – Citrus Springs	Jacksonville	Kissimmee
Lady Lake – The Villages	Lakeland	Leesburg – Eustis
Miami (includes Boca Raton, Delray Beach, Ft. Lauderdale, Hialeah, Hollywood, Pompano Beach, West Palm Beach)	North Port – Punta Gorda	Ocala
Orlando	Palm Bay – Melbourne	Palm Coast – Daytona Beach – Port Orange
Panama City	Pensacola	Port St. Lucie
St. Augustine	Sarasota – Bradenton	Sebastian – Vero Beach
Sebring – Avon Park	Tallahassee	Tampa – St. Petersburg (includes Clearwater)
Titusville	Winter Haven	Zephyrhills

Note that the land use designation on the maps takes precedence over actual land use (i.e., lands currently being used for agricultural purposes but shown on the map as non-agricultural are considered as non-agricultural).

6.2.2 Documentation of Projects Excluded from Coordination with NRCS

Projects are excluded from coordination with NRCS if they fall within the categories listed in ***Section 6.2.1***; however, documentation is still required in the Farmland section of the applicable Environmental Document as follows:

a. Projects not subject to ***FPPA*** provisions:
This project is not subject to the provisions of the Farmland Protection Policy Act of 1981 because (State the reason).

b. Projects located in urbanized areas:

Lands within the project vicinity do not meet the definition of farmland as defined in 7 CFR § 658 and the provisions of the Farmland Protection Policy Act of 1981 do not apply because the entire project area is located in the urbanized area of (Name of urban area) with no designated farmlands adjacent to the project corridor.

6.2.3 Projects Requiring Coordination with NRCS

The following projects require the completion of ***Form NRCS-CPA-106*** as specified in ***Section 6.2.5***, and coordination with the NRCS.

1. Projects situated **entirely** within urbanized areas on the Census Bureau maps **with designated farmlands adjacent to the project corridor**. These maps are located in each District's planning section and include those urbanized areas listed in ***Table 6-1***.

2. All non-urbanized areas.

These areas may have been identified during the Programming Screen; however, it is recommended that the urbanized area maps be reviewed during the PD&E phase when ROW needs have been conceptually defined.

6.2.4 Completion of the Farmland Conversion Impact Rating Form

For projects which are not excluded from coordination with the NRCS per ***Section 6.2.1***, the District will complete ***Form NRCS-CPA-106*** or ***Form AD-1006*** after ROW needs have been conceptually defined.

6.2.4.1 Initial Evaluation - Completion of Parts I and III

The initial evaluation consists of the District completing Parts I and III of ***Form NRCS-CPA 106*** or ***Form AD-1006,*** as described below, and submitting the form to the NRCS, which completes Part II. Note, descriptions are specific to ***Form NRCS-CPA-106*** and similar to ***Form AD 1006***.

PART I

Name of Project:

Provide the local name of the project and Financial Management number (e.g., SR-7, Volusia Avenue, 79060-1514).

Type of Project:

Provide type of the project such as new construction, widening, or intersection improvements.

Date of Land Evaluation Request:

Provide the month, day, and year when Parts I and III are completed.

Federal Agency Involved:

Enter FDOT per ***23 U.S.C. §327*** and the ***FDOT/FHWA MOU***, or other Lead Federal Agency when the project is not a highway project whose source of federal funding comes from FHWA or which do not constitute a federal action through FHWA.

County and State:

Enter county and state (Florida) where project is located.

PART III

A. Total Acres to be Converted Directly:

Provide an estimate of the number of farmland acres of additional ROW required for each project alternative.

B. Total Acres to be Converted Indirectly:

Provide the estimated number of acres for each alternative that would be unusable for farmland due to access restriction.

C. Total Acres in Corridor:

Provide an estimate of the total number of acres of existing plus additional ROW required for each alternative.

6.2.4.2 Actions Taken After Completion of Parts I and III

Upon completion of Parts I and III, the District must send ***Form NRCS-CPA 106*** or ***Form AD-1006*** and a project location map (preferably GIS shapefiles of project boundaries and alternatives) to the Soil Scientist. The NRCS prefers to receive these forms by email. The Soil Scientist's email address may be obtained by calling the phone number below. Should hard copies be necessary, the forms should be sent to:

State Soil Scientist
USDA - Natural Resources Conservation Service
2614 NW 43rd Street
P.O. Box 141510
Gainesville, FL 32614-1510
(352) 338-9535

NRCS will either complete Parts II, IV, and V or mark a NO in Part II indicating that no farmlands are involved. NRCS will respond within 10 working days of receipt unless a site visit or land evaluation system design is needed (up to 30 working days are allowed if a land evaluation must be completed or a site visit must be made). If more than 10 days are required, NRCS will notify the agency of the need for additional time.

Where NRCS fails to provide its response within the required period and if further delay would interfere with construction activities per ***7 CFR § 658.4(a)***, the proposed project can proceed as though the site were not farmland. The Environmental Document must contain a statement that NRCS failed to provide land evaluation information within the required period, allowing the agency to proceed as if the site were not farmland.

If no farmland involvement is indicated on the form then provide the appropriate documentation in the Environmental Document as shown in ***Sections 6.2.5.1***.

If farmland involvement is indicated on the form, then refer to ***Section 6.2.4.3*** for direction on completing Parts VI and VII of the form. Once ***Form NRCS-CPA 106*** or ***Form AD-1006*** has been updated, the District will send a copy of the completed form to the NRCS.

6.2.4.3 Final Evaluation - Completion of Parts VI and VII

PART VI

Part VI contains corridor assessment criteria to be completed by the District. These criteria assess the impact of each specific design alternative within a project corridor alignment for conversion of farmland. See ***7 CFR § 658.5(c)*** for an explanation of assessment and scoring criteria.

Upon assigning points to all criteria, add all the points and write the total in the row with the heading **TOTAL CORRIDOR ASSESSMENT POINTS**.

PART VII

Relative Value of Farmland (From Part V):

Enter the relative value of farmland to be converted indicated in Part V.

Total Corridor Assessment (From Part VI or a local site assessment):

Enter the total site assessment points from Part VI.

6.2.4.4 Actions Taken After Completion of Parts VI and VII

The total number of points indicated in Part VII is used to determine the site assessment given to farmland involved as stated below:

1. Corridors receiving a total score of **less than 160** points need not be given further consideration.

2. Corridors receiving a total score of **160 points or more** require stronger consideration for protection of farmland and additional coordination with NRCS. Return the form to NRCS, who will make a determination of adverse impact for the project. The NRCS response will include a recommendation of ways to minimize the adverse impact.

The NRCS recommendation for minimizing the adverse effects to protected farmland should be considered during alternative evaluation. The alternative with the lowest number of points should be selected. In the event this alternative is not selected, the Environmental Document should discuss the reasons.

6.2.5 Documentation of Projects Requiring Coordination with NRCS

Documentation of the assessment of farmland in a Type 2 Categorical Exclusion (CE), Environmental Assessment (EA) or Environmental Impact Statement (EIS) will be in the form of standard statements, except where farmlands are involved. The following standard statements or documentation are to be included in the Environmental Document, depending on the level of involvement.

6.2.5.1 Projects with No Farmland Involvement

For Type 2 CE, EA, and EIS projects with no farmland involvement, the following standard statements should be included in the Farmland section:

a. In urbanized areas:

> *Through coordination with the Natural Resources Conservation Service, it has been determined that the project area which is located in the urbanized area of (Name of urban area) does not meet the definition of farmland as defined in 7 CFR Part 658. Therefore, the provisions of the Farmland Protection Policy Act of 1981 do not apply to this project.*

b. In non-urbanized areas:

> *Through coordination with the Natural Resources Conservation Service, it has been determined that no farmlands as defined by 7 CFR Part 658 are located in the project vicinity.*

Coordination documents with NRCS or ***Form NRCS-CPA-106*** or ***Form AD-1006*** indicating no involvement should be referenced in the Farmlands section of the Environmental Document and included in the Appendix and the project file within SWEPT.

When applicable, the standard statements should also be included in the Final Environmental Impact Statement (FEIS) Executive Summary.

6.2.5.2 Projects with Farmland Involvement

The following information is to be discussed in the Farmland section of the Environmental Document, regardless of whether the project is a Type 2 CE, EA, or EIS:

1. Quantification of farmland involvement
2. Coordination with NRCS
3. Viable alternative corridors
4. Project impacts and mitigation

The Environmental Document must document the assessment and coordination processes, and provide the rationale for decisions made during the farmland evaluation. In addition, the Environmental Document should address any farmland issues that may have been raised by the ETAT during the project's ETDM Screening and address any comments received through project development, the public involvement process, or public hearing, as applicable.

Coordination documents with NRCS or ***Form NRCS-CPA-106*** or ***Form AD-1006***, should be referenced in the Farmlands section and included in the Appendix. The completed NRCS form and supporting documentation should be included in the project file within SWEPT. It is recommended that these documents be placed in the Farmland folder.

When a FEIS is prepared separately from a Record of Decision (ROD), the FEIS Executive Summary should summarize the extent of farmland involvement, reference consultation documentation and coordination efforts with the NRCS, and discuss whether or not mitigation is proposed. Appropriate text references should be provided.

6.3 REFERENCES

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

FDOT, Efficient Transportation Decision Making (ETDM) Manual, Topic No. 650-000-002

NRCS Farmland Conversion Impact Rating Form (AD-1006). https://www.nrcs.usda.gov/sites/default/files/2022-06/AD1006.pdf

NRCS Farmland Conversion Impact Rating Form for Corridor Type Projects (NRCS-CPA-106). https://forms.sc.egov.usda.gov/efcommon/eFileServices/eForms/NRCS-CPA-106NRCS-CPA-106.PDF

NRCS, Farmland Protection Policy Act Manual http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/

U.S. Census Bureau, Florida 2010, 2010 Census of Population and Housing, Pgs. 29-33, issued September 2012

U.S. Census Bureau Mapper. http://tigerweb.geo.census.gov/tigerweb/

USDA, Farmland Protection Policy Act, 7 CFR Part 658

6.4 HISTORY

6/26/2000, 9/14/2005, 5/11/2010, 7/14/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 28, 1/14/2019, 7/1/2020, 7/1/2023

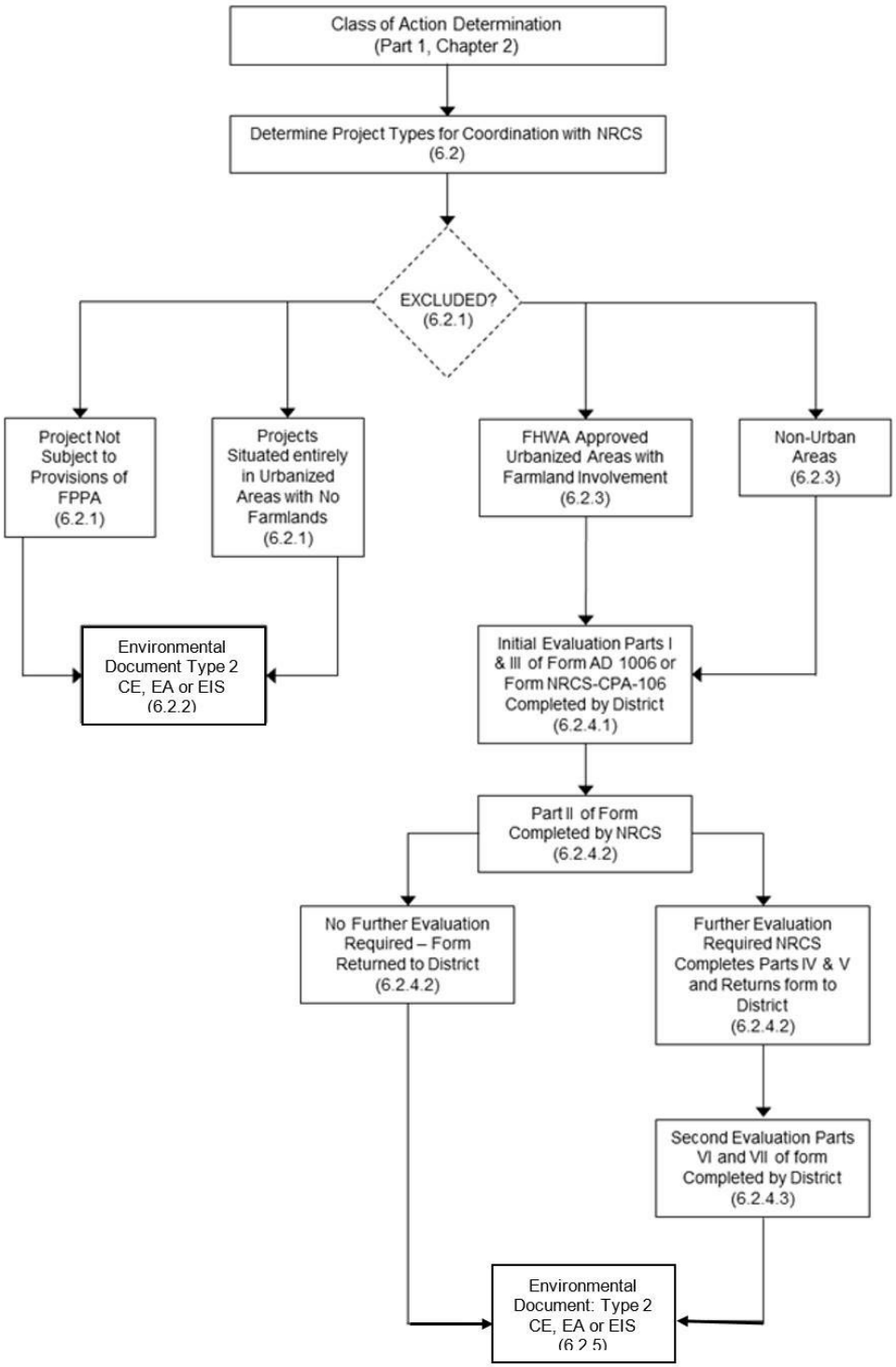

Figure 6-1 Farmland Evaluation Process

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request	4. Sheet 1 of _____
1. Name of Project	5. Federal Agency Involved	
2. Type of Project	6. County and State	
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS	2. Person Completing Form
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☐ NO ☐		4. Acres Irrigated | Average Farm Size
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: %	7. Amount of Farmland As Defined in FPPA Acres: %
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS

PART III *(To be completed by Federal Agency)*		Alternative Corridor For Segment _____			
		Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly					
B. Total Acres To Be Converted Indirectly, Or To Receive Services					
C. Total Acres In Corridor					
PART IV *(To be completed by NRCS) Land Evaluation Information*					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide And Local Important Farmland					
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value					
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*					
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15				
2. Perimeter in Nonurban Use	10				
3. Percent Of Corridor Being Farmed	20				
4. Protection Provided By State And Local Government	20				
5. Size of Present Farm Unit Compared To Average	10				
6. Creation Of Nonfarmable Farmland	25				
7. Availablility Of Farm Support Services	5				
8. On-Farm Investments	20				
9. Effects Of Conversion On Farm Support Services	25				
10. Compatibility With Existing Agricultural Use	10				
TOTAL CORRIDOR ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	0	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

Clear Form

Figure 6-2 Form NRCS-CPA-106

NRCS-CPA-106 *(Reverse)*

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

Figure 6-2 Form NRCS-CPA-106 (Page 2 of 2)

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request		
Name of Project	Federal Agency Involved		
Proposed Land Use	County and State county and state		
PART II *(To be completed by NRCS)*	Date Request Received By NRCS	Person Completing Form:	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? YES ☐ NO ☐ *(If no, the FPPA does not apply - do not complete additional parts of this form)*		Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount of Farmland As Defined in FPPA Acres: %	
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site				
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide Important or Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)				

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)				
2. Perimeter In Non-urban Use	(10)				
3. Percent Of Site Being Farmed	(20)				
4. Protection Provided By State and Local Government	(20)				
5. Distance From Urban Built-up Area	(15)				
6. Distance To Urban Support Services	(15)				
7. Size Of Present Farm Unit Compared To Average	(10)				
8. Creation Of Non-farmable Farmland	(10)				
9. Availability Of Farm Support Services	(5)				
10. On-Farm Investments	(20)				
11. Effects Of Conversion On Farm Support Services	(10)				
12. Compatibility With Existing Agricultural Use	(10)				
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	0	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	0	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES ☐ NO ☐
Reason For Selection:		
Name of Federal agency representative completing this form:		Date:

(See Instructions on reverse side) **Form AD-1006 (03-02)**

Figure 6-3 Form AD-1006

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map, or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

Figure 6-3 Form AD-1006 (Page 2 of 2)

Federal Highway Administration, Technical Advisory T 6640.8A, Guidance for Preparing and Processing Environmental and Section 4(f) Documents. https://www.environment.fhwa.dot.gov/legislation/nepa/guidance_preparing_env_documents.aspx

Natural Resources Conservation Service (NRCS) Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/

U.S. Department of Agriculture (USDA), 2017. Agricultural Handbook 18, Soil Survey Manual. https://www.nrcs.usda.gov/resources/guides-and-instructions/soil-survey-manual

USDA NRCS National Soil Survey Handbook. https://www.nrcs.usda.gov/resources/guides-and-instructions/national-soil-survey-handbook

Figure 6-4 Farmland Information Sources

PART 2, CHAPTER 7

SECTION 4(f) RESOURCES

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PART 2, CHAPTER 7

SECTION 4(f) RESOURCES

7.1 OVERVIEW

7.1.1 Background and Guidance

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and the Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA, or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

This chapter outlines FDOT's procedures governing the use of land from publicly owned parks and recreation areas, wildlife and waterfowl refuges, and publicly or privately owned historic sites by Federal Aid Highway projects in the State of Florida. These requirements are currently codified at ***23 U.S.C. § 138*** and ***49 U.S.C. § 303***. They originated in ***Section 4(f)*** of the ***Department of Transportation Act of 1966 (Pub. L. 89-670, 80 Stat. 931)*** and, as a result, practitioners commonly refer to this subject matter as ***Section 4(f)***. The resource types listed in the law are referred to as ***Section 4(f)*** protected properties and the use of land from any one of these resources by a transportation project is referred to as a ***Section 4(f)*** use. ***Section 4(f)*** regulations only apply to the U.S. Department of Transportation (USDOT) and its agencies, i.e., FHWA, Federal Aviation Administration (FAA), Federal Transit Administration (FTA), and Federal Railroad Administration (FRA). FHWA and FTA adopted rules under ***23 Code of Federal Regulations (CFR) Part 774*** to implement the requirements of the federal statutes.

If one of the USDOT agencies other than OEM (as set forth in the ***NEPA Assignment MOU***) is the Lead Federal Agency, then the District must consult with that agency to determine the applicability of ***Section 4(f)*** and the approval option to be pursued by the agency. OEM remains available as a resource to the Districts during the ***Section 4(f)*** evaluation and determination process. This chapter focuses on projects where FHWA funding or approval is required. Other agency approvals are not documented using the StateWide Environmental Project Tracker (SWEPT) ***Section 4(f) Tool***. For projects where FTA is the Lead Federal Agency see ***Part 1, Chapter 14, Transit Project Delivery***.

Section 4(f) requires OEM to make specific findings when transportation projects require the use of land from a ***Section 4(f)*** protected property. During the planning and

development of transportation facilities OEM may approve the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic or archeological site of national, State, or local significance only when the following conditions are met:

- There are no feasible and prudent avoidance alternatives to the use of land; and
- The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the proposed use.

Or

- The use of the property will have a *de minimis* impact as defined in the statutes and regulations.

This chapter focuses on the processes associated with the development of highway projects funded by the FHWA that have the potential to "use" lands from any property designated or functioning as a ***Section 4(f)*** resource as set forth in the statues and implementing regulations, including actions which, though not requiring the acquisition of lands from the property, could significantly impair the function of the property for its protected purposes (see ***Figure 7-1***). Also, this chapter addresses the conversion of park and recreational properties funded wholly or in part under ***Section 6(f)*** of the ***Land and Water Conservation Fund Act (LWCFA) (16 U.S.C. § 4601-4 et seq., 36 CFR § 59)***, as well as other federal and state encumbrances and requirements which may overlap with ***Section 4(f)***.

FDOT is the Lead Agency for environmental review of FHWA funded highway projects in Florida. For transportation projects funded by the Office of Federal Lands Highway, FTA, FRA, or FAA, those agencies will act as the Lead Agency for ***Section 4(f)*** analysis. In these situations, the District will contact the OEM Project Delivery Coordinator (PDC) and work with the officials of the lead transportation agency. ***Section 4(f)*** processes, evaluations, and alternative analyses vary depending upon on the type of transportation project being developed. In addition, certain approval options are not available for projects which are not FHWA funded transportation projects. For example, the ***Nationwide Programmatic Section 4(f) Evaluations*** discussed in this chapter are not available to other agencies within the USDOT.

Regardless of which USDOT agency is the Lead Agency, the basic requirements set forth in the statutes for the approval of a project using ***Section 4(f)*** protected lands are the same.

7.1.2 Definitions

All possible planning ***(23 CFR § 774.17)*** - All reasonable measures identified in the ***Section 4(f)*** Evaluation to minimize harm or mitigate for adverse impacts and effects must be included in the project.

De minimis* Impact *(23 CFR § 774.17) -

- For parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* impact is one that is minimal and the use of the protected property is one that will not adversely affect the features, attributes, or activities qualifying the property for protection under ***Section 4(f),*** and the Official With Jurisdiction (OWJ) has concurred with this finding.

- For projects using land from historic properties, a *de minimis* impact finding means that OEM has determined, in accordance with ***36 CFR Part 800***, that no historic property is affected by the project or that there is no adverse effect to the historic property in question and that the State Historic Preservation Officer (SHPO) or, as appropriate, the Tribal Historic Preservation Officer (THPO) has concurred with this determination.

Feasible and prudent avoidance alternative *(23 CFR § 774.17)* - An alternative that avoids using the ***Section 4(f)*** property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the ***Section 4(f)*** property.

Officials with Jurisdiction *(23 CFR § 774.17)* - The entities and individuals who own and/or administer the property are considered the OWJ.

- For public parks, recreation areas, and wildlife and waterfowl refuges, the OWJ are the officials of the agency or agencies that own or administer the property in question and who are empowered to represent the agency on matters related to the property.

- For historic properties (including archaeological sites), the OWJ are the SHPO, or, if the property is located on Tribal Land, the THPO.

    - When the property is located on Tribal Land but the relevant Federally Recognized Native American Tribe (Tribe) has not assumed the responsibilities of the SHPO, then a representative designated by the Tribe shall be recognized as an OWJ in addition to the SHPO.

    - When the Advisory Council on Historic Preservation (ACHP) is participating in consultation concerning a property under ***Sections 110 or 106 of the National Historic Preservation Act (NHPA)*** (***16 U.S.C. § 470***), the ACHP is also an OWJ.

    - When the historic property is a National Historic Landmark (NHL), the designated official of the National Park Service (NPS) is also an OWJ over the resource for the purposes of ***Section 4(f)***.

    - When a historic property is also a public park, recreation area, wildlife or waterfowl refuge, or when the historic site is located within the boundaries of such lands, the OWJ include the appropriate officials for historic

properties as well as the officials of the agencies that own or administer the park, recreation or wildlife and waterfowl refuge lands.

Significance *(23 CFR Part 774)*

- For public parks, recreation areas, or wildlife and waterfowl refuges, significance means that in comparing the availability and function of the property in question to similar properties in the area, the resource plays an important role in meeting the park, recreational, or refuge objective of the community it serves. Except for certain multiple use land holdings, significance determinations apply to the entire property, not just to the portions being acquired for the transportation project. Significance determinations of these types of publicly owned lands are made by the OWJ over the property. In the absence of a determination by the OWJ, the property will be presumed to be significant for the purposes of ***Section 4(f)*** [see ***23 CFR § 774.11*** and ***FHWA Section 4(f) Policy Paper***, Question 1A].

- For historic properties, significance normally means that the historic resource is either listed in or eligible for listing in the National Register of Historic Places (NRHP) in accordance with ***36 CFR Part 63*** (regulations for Determinations of Eligibility for Inclusion in the NRHP*)* or is otherwise determined significant by the Lead Federal Agency during the consultation process with the OWJ over the historic resource as required under ***36 CFR Part 800*** and ***23 CFR Part 774*** [see definition of historic site in ***23 CFR § 774.17*** and ***FHWA Section 4(f) Policy Paper***, Question 2A].

Use *(23 CFR § 774.17)* - The “use” of a ***Section 4(f)*** resource occurs when a project:

- permanently incorporates land from a ***Section 4(f)*** property into a transportation facility; or

- requires a temporary occupancy of land within a ***Section 4(f)*** property that is adverse in terms of the statute’s preservation purpose [see criteria in ***23 CFR § 774.13(d)*** or the ***FHWA Section 4(f) Policy Paper***, Question 7]; or

- has proximity impacts that, while not incorporating land from a protected property and which includes all possible measure to minimize harm, still results in a substantial impairment of the activities, features, and attributes which qualify the property for protection under ***Section 4(f)***. [i.e., constructive use (***23 CFR § 774.15***)].

7.2 SECTION 4(f) PROPERTIES AND EVALUATIONS

7.2.1 Substantive Requirements of Section 4(f)

Section 4(f) requires agencies of the USDOT to perform a substantive review as part of its decision-making process whenever approving a proposed project’s use of a protected property. Congress intended ***Section 4(f)*** to bar unnecessary conversions of the property

types identified in the statutes into transportation facilities. This "preservationist intent" allows agencies of the USDOT to use lands from a protected property when:

- the use of the property is so negligible as to represent a *de minimis* impact to the protected resource;

Or

- there is no prudent and feasible alternative to the use of the land and
- the proposed project includes all possible planning to minimize harm to the protected property resulting from the use of the land.

If the ***Section 4(f)*** resources cannot be avoided, FDOT's goal is to reduce the project impacts to the ***Section 4(f)*** protected property to a level where the impacts are *de minimis*, or "so minimal as to not constitute a use within the meaning of ***Section 4(f)***." If the impacts cannot be reduced to the level of *de minimis*, and one of the five nationwide ***Programmatic Section 4(f) Evaluations*** cannot be applied to the situation, FDOT must process the use of a protected property through an ***Individual Section 4(f) Evaluation***. FDOT may only approve the use of a ***Section 4(f)*** protected property through the ***Individual Section 4(f) Evaluation*** once it has demonstrated that there are no prudent and feasible alternatives to the use of land and that the project includes all possible planning to minimize harm to the property.

In situations where there are no feasible and prudent avoidance alternatives and there are two or more alternatives requiring the use of ***Section 4(f)*** property, FDOT may approve only the alternative which results in the least overall harm as defined in the regulations at ***23 CFR § 774.3(c)(1)*** and in ***FHWA Section 4(f) Policy Paper***, Section 3.3.3.2.

7.2.2 Applicable Projects

Section 4(f) applies to all FDOT transportation projects that utilize federal aid funds or require the approval of a USDOT agency, and involve the "use" of a ***Section 4(f)*** property or resource. For the ***Section 4(f)*** statute to apply, the project must meet all the following criteria:

1. Must be a transportation project that utilizes federal aid funds; or
2. Must require an approval from FDOT in order to proceed;
3. Must require the use of land from property protected under ***Section 4(f)*** [*see* ***23 U.S.C. § 138(a)*** and ***49 U.S.C. § 303***]; and
4. None of the exclusions, exceptions, or rules set forth in the statutes, regulations, or USDOT policies apply to the project or the property (see the FDOT's ***Section 4(f) References and Guides Website*** or ***Section 7.2.3.1*** and ***Section 7.3.3***).

Examples of situations where ***Section 4(f)*** would not apply include, but are not limited to:

- A transportation project constructed solely using state or local funds, and not requiring OEM approval;
- A project intended to address a purpose that is unrelated to the movement of people, goods, and services from one place to another (i.e., not a transportation purpose);
- A project to be located adjacent to a ***Section 4(f)*** property, causing only minor proximity impacts to the ***Section 4(f)*** property (i.e., no constructive use); and
- A project that will take land from a privately-owned park, recreation area, or refuge.

7.2.3 Section 4(f) Protected Resources

For clarity in determinations and approvals, it is best to divide ***Section 4(f)*** resources into two categories: (1) publicly owned parks, recreation areas, and wildlife or waterfowl refuges, and (2) significant historic and archaeological properties in public or private ownership. ***Section 4(f)*** only applies to publicly owned parks, recreation areas, and wildlife and waterfowl refuges that have been determined to be significant. ***Section 4(f)*** does not apply to privately owned parks, recreation areas, and wildlife or waterfowl refuges even if such areas are open to the general public. ***Section 4(f)*** applies to significant historic and archeological sites regardless of ownership.

Except in cases of certain multiple use land holdings, ***Section 4(f)*** applies to the entire resource, not just the portion being used by the proposed project. For details about multiple use land holdings and ***Section 4(f)*** applicability, see ***Section 7.2.3.1***.

To be considered a ***Section 4(f)*** protected resource, a property must meet the following criteria:

A. **For Public Parks and Recreation Areas**

- Must be publicly owned which refers to ownership by local, state or federal government (this can also include permanent easements and long-term leases or other public proprietary interests)
- Must be open to the public during normal hours of operation
- The major purpose must be for park or recreation activities
- Must be designated or functioning as a significant park or recreational area

B. **For Wildlife and Waterfowl Refuge**

- Must be publicly owned which refers to ownership by local, state or federal government (this can also include permanent easements and long-term leases or other public proprietary interests)

- Must be open to the public unless public access is restricted for the protection of refuge habitat, function, or species
- The major purpose must be for wildlife or waterfowl refuge functions
- Must be designated or function as a significant wildlife or waterfowl refuge

C. **For Historic Sites**

- Must be eligible for listing or is listed in the NRHP unless OEM determines that the application of ***Section 4(f)*** is otherwise appropriate.

For more detail related to determining when a property represents one of these ***Section 4(f)*** protected site types, see the Questions and Answers numbered 1 through 6 in Part II of the ***FHWA Section 4(f) Policy Paper*** which can be accessed from FDOT's ***Section 4(f) References and Guides Website***.

7.2.3.1 Additional Considerations when Identifying Section 4(f) Properties

The ***FHWA Section 4(f) Policy Paper*** provides guidance regarding the applicability of ***Section 4(f)*** to a variety of property types. This is not an all-inclusive list. If the practitioner believes there is a property that is also protected under ***Section 4(f)*** not listed here, please refer to the ***FHWA Section 4(f) Policy Paper*** or contact the PDC. See ***Section 7.6*** for a link to the ***FHWA Section 4(f) Policy Paper***.

A. **Historic Districts** - When a project uses land from an individually eligible property within a historic district, or a property that is a contributing element to the historic district, ***Section 4(f)*** is applicable. All elements within historic districts are presumed to be contributing resources to the district unless FDOT, in consultation with the SHPO/THPO, determines that the element is not contributing. When a project requires land from a non-historic or non-contributing property lying within a historic district, and does not use other land within the historic district that is considered contributing to its historic significance, there is no direct ***Section 4(f)*** use of the historic district.

B. **Wild and Scenic Rivers** - Certain portions of designated Wild and Scenic Rivers may be protected under ***Section 4(f)***. However, designation as a Wild and Scenic River, Study River, or listing on the Nationwide Rivers Inventory does not in itself confer ***Section 4(f)*** protections. Only those portions of the river or the river corridor which function as, or are designated as being significant publicly owned park or recreational areas, significant wildlife or waterfowl refuge areas, or which are significant historic sites are protected under ***Section 4(f)***. In certain cases, the river may be designated under the ***Wild and Scenic Rivers Act (WSRA) (16 U.S.C. § 1271 et seq.*** and ***36 CFR § 297.3)*** as a recreational river or is identified as a recreational resource in the river management plan. If a river meets either of those two conditions and it is publicly owned, then the river is protected under ***Section 4(f)*** as well as under the ***WSRA***. When determining the applicability of ***Section***

4(f) to portions of designated Wild and Scenic Rivers or Study Rivers, contact the PDC to discuss ***Section 4(f)*** applicability, see ***Part 2, Chapter 12, Wild and Scenic Rivers*** and the ***Overview of the Wild and Scenic Rivers System*** on FDOT's ***Section 4(f) References and Guides Website***.

C. **School Playgrounds** - Publicly owned school playgrounds, running tracks, and ball fields that provide recreational opportunities for the public during non-school hours may qualify as ***Section 4(f)*** properties.

D. **Trails and Shared Use Paths** - ***Section 4(f)*** applies to publicly owned shared use trails, paths, bikeways, or sidewalks (or portions thereof) designated or functioning primarily for recreation, unless the OWJ determines that it is not significant for such purpose [***FHWA Section 4(f) Policy Paper***, Question 15] or when an exception to ***Section 4(f)*** applies under ***23 CFR § 774.13(f)***.

E. **Golf Courses** - ***Section 4(f)*** applies to golf courses that are owned, operated, or managed by a public agency for the primary purpose of public recreation, and that are determined to be significant by the OWJ. Golf courses that are owned by a public agency but are managed and operated by a private entity may still be subject to ***Section 4(f)*** requirements depending on the operating agreement. Golf courses listed in the NRHP are treated as other historic sites as described above.

F. **Museums, Aquariums, and Zoos** - Publicly owned museums, aquariums and zoos are not subject to ***Section 4(f)*** unless they are significant historic sites. These facilities will need to be evaluated on a case-by-case basis to determine if they provide additional park and recreational opportunities and if that is their primary purpose, which would make them subject to ***Section 4(f)***.

G. **Fairgrounds** - When fairgrounds are open to the public and function primarily for public recreation, ***Section 4(f)*** applies to those portions of the land determined significant for park or recreational purposes (see the Public Multiple Use Land Holdings discussion below). A fairground may also qualify as a historic site which would require consideration under ***Section 4(f)***.

H. **Bodies of Water** - ***Section 4(f)*** applies to lakes and rivers, or portions thereof, which are contained within the boundaries of a park, recreation area, refuge, historic site or adjacent to publicly owned lands to which ***Section 4(f)*** otherwise applies.

I. **Public Multiple Use Land Holdings** - Public multiple use land holdings, by definition, are comprised of multiple areas that serve different purposes. Generally, these properties are large and are usually established by legislation to serve a variety of functions, some of which are protected by ***Section 4(f)*** and some of which are not. For these kinds of properties (frequently these are State or National Forests, large tracts of conservation lands, or Water Management District properties), ***Section 4(f)*** does not apply to those areas within a multiple-use public property which are significant historic sites or that function primarily for any purpose other than significant park, recreation or refuge purposes. For example,

within a National Forest, there could be some areas that qualify as ***Section 4(f)*** resources (e.g., campgrounds, trails, picnic areas) while other areas, such as those utilized for timber sales or mineral extraction, would not. Coordination with the OWJ and examination of the management plan for the area will be necessary to determine if ***Section 4(f)*** should apply to an area of a multiple-use property that would be used by a transportation project.

J. **Planned Facilities** - ***Section 4(f)*** applies to a planned facility when a public entity owns the property and has formally designated and determined it to be significant for park, recreation area, or wildlife and waterfowl refuge purposes. Evidence of formal designation could be the inclusion of the planned facility in an approved City or County Master plan. The key is whether the planned facility is presently publicly owned, presently formally designated for ***Section 4(f)*** purposes, and presently significant. A simple expression of interest in developing a property, or a plan to purchase privately held land to develop a property does, not suffice to consider the property to be a planned facility.

K. **Jointly Planned Rails to Trails Projects** - A ***January 1996 MOU between the Florida Department of Environmental Protection (FDEP) and FDOT and Concurred in by FHWA*** established an automatic joint planning provision for planned Rails to Trails project corridors which may intersect or exist alongside a highway corridor. In accordance with this MOU, FDEP and FDOT will jointly plan Rail to Trail projects which may coincide with a planned transportation project to accommodate the recreational and highway objectives of both agencies. When such planning occurs, the requirements of ***Section 4(f)*** are satisfied.

7.2.3.2 Leases and Easements

A property may be considered publicly owned for ***Section 4(f)*** purposes if the land is being managed for a significant recreational or refuge purposes under a long-term lease or easement. The following should be considered when examining the applicability of ***Section 4(f)*** to a property subject to lease or easement: the purpose, terms, property management, parties involved, termination clauses, and other restrictions as set forth in the lease or easement agreement.

Additionally, FDOT has easements, such as drainage and ROW easements, for transportation facilities that cross through property protected under ***Section 4(f)***. If there is an existing ROW easement, the property is already part of the transportation facility due to the easement encumbrance, and is not subject to ***Section 4(f)*** protection.

If a project is proposing a new easement across an existing ***Section 4(f)*** property, then it could constitute a “use” within the meaning of ***Section 4(f)*** and require a ***Section 4(f)*** determination. Historic property boundaries are established based upon historical records, settings, and characteristics of the historic resource or archaeological site. These boundaries may extend into existing or proposed ROW and easements, and ***Section 4(f)*** approval may be required for transportation projects involving historic properties. When a new easement is proposed through a ***Section 4(f)*** protected historic property, the

Section 4(f) evaluation is triggered by the conversion of land into a transportation facility rather than by the simple acquisition of said land.

Any questions on ***Section 4(f)*** applicability to a lease or easement should be referred to OEM and the Office of General Counsel (OGC).

7.2.3.3 Tribal Properties and Section 4(f)

Federally recognized Native American Tribes (Tribes) are sovereign nations and the lands owned by them are not generally considered publicly owned within the meaning of ***Section 4(f)***. However, if a potential ***Section 4(f)*** resource is identified on Tribal Lands that serves a public function and is open to the general public, the property will need to be evaluated for ***Section 4(f)*** applicability (***FHWA Section 4(f) Policy Paper***, Question 1D). In cases involving tribal trust lands, the Bureau of Indian Affairs (BIA) is contacted to determine if they should participate in any required consultations.

Also, Traditional Cultural Places (TCPs) may be subject to the provisions of ***Section 4(f)*** if the TCP is eligible for listing in or is listed in the NRHP [see ***FHWA Section 4(f) Policy Paper***, Question 6]. SHPO will also comment on TCP involvement. For the requirements related to TCPs under ***Section 106***, see ***Part 2, Chapter 8, Archaeological and Historical Resources***.

Questions regarding whether tribally owned property is protected under ***Section 4(f)*** and how to proceed should be referred to the OEM and the OGC.

7.2.4 Overview of Section 4(f) Analysis

Section 4(f) analysis includes the following:

1. Identification of properties which may represent ***Section 4(f)*** resources.

2. Initial consultations between the District and the appropriate OWJ regarding potential ***Section 4(f)*** properties, including requesting the OWJ to provide and/or concur with a statement of significance. If the property is not significant, then the project does not require an approval under ***Section 4(f)***.

3. Identification and documentation of the findings of “use” or “no use” of ***Section 4(f)*** resources. When there is no use of lands protected by ***Section 4(f)***, then the project does not require an approval under ***Section 4(f)***.

4. Documentation of the appropriate ***Section 4(f)*** approval option when an approval under ***Section 4(f)*** is required.

FDOT recognizes the following types of documentation for ***Section 4(f)*** applicability and approval (see ***Section 7.3***):

Applicability of *Section 4(f)* to a project

- No ***Section 4(f)*** Involvement – there are no existing or formally planned ***Section 4(f)*** properties within or adjacent to the project area, or properties exist but there is no temporary or permanent acquisition of land from a potentially protected resource and no meaningful proximity impacts to the property.

- No Use – ***Section 4(f)*** properties exist within or adjacent to the project area, but the proposed project has no use of the properties within the meaning of ***Section 4(f)*** (see ***Section 7.3.2***, ***Section 7.3.4***, and ***Section 7.3.5.4***).

- Exceptions and Exemptions – situations and circumstances regarding specific actions or properties that are not subject to the requirements of ***Section 4(f)*** when meeting the conditions identified in the Statutes, regulations, or policies as discussed in ***Section 7.3.3***.

Approvals of the use of a *Section 4(f)* property

- ***De minimis*** – a ***Section 4(f)*** use that is so inconsequential that it will have no adverse effects on the attributes, features, or activities of the ***Section 4(f)*** property.

- ***Programmatic Section 4(f) Evaluation*** – a timesaving, procedural option that allows transportation officials to approve certain minor uses of ***Section 4(f)*** properties for projects meeting specific conditions without completing an ***Individual Section 4(f) Evaluation***.

- ***Individual Section 4(f) Evaluation*** – the standard, full ***Section 4(f)*** Evaluation and approval that is prepared when the use of a ***Section 4(f)*** property does not meet the ***Programmatic Section 4(f) Evaluation*** criteria and exceeds the definition of a *de minimis* impact.

- **Constructive Use** – occurs when the transportation project does not incorporate land from a ***Section 4(f)*** property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under ***Section 4(f)*** are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished.

Pursuant to the ***NEPA Assignment MOU***, if a determination of Constructive Use is anticipated on a project, the District must notify OEM to initiate consultation with FHWA. Both the applicability and approval for a Constructive Use can only be made in consultation with FHWA Headquarters in Washington D.C. For more detail on Constructive Use, see ***Section 7.3.5.4***.

7.2.5 Coordination with the Officials with Jurisdiction

The ***Federal-Aid Highway Act of 1968*** requires consultation with the OWJ over the ***Section 4(f)*** property when the use of a protected property is anticipated and/or more

information is needed regarding the purpose and function of a property. The OWJ is the federal, state, or local agency official that owns or administers a ***Section 4(f)*** property or represents an agency on matters related to the property.

For public parks, recreation areas, and wildlife and waterfowl refuges, the OWJ is the official(s) of an agency or agencies that own and/or administer the property in question and who are empowered to represent the agency on matters related to the property.

The OWJ for historic sites is the SHPO/THPO (in some cases the NPS and the ACHP may also serve as OWJ), and significance for historic sites is based upon listing in, or eligibility for listing in the NRHP. Most coordination with the OWJ for historic sites (including archaeological sites) within the ***Section 4(f)*** process takes place parallel to the coordination required by ***Section 106***. ***Sections 106 and 4(f)*** are different laws which require different findings and include different considerations. However, decisions and findings made while following one of these processes often serve to guide the decisions and findings of the other.

When coordinating with the OWJ regarding a project and its impacts, FDOT must have a clear understanding of the property, its designated purpose, and its management plan. Coordination with the OWJ will confirm the purpose of the property and its significance to the community, and whether the property is protected under ***Section 4(f)***. If the property is determined to meet the criteria for protection under ***Section 4(f)***, additional coordination with the OWJ will follow as appropriate.

When requesting a determination of significance from the OWJ over the property, FDOT must define the term significance for the purposes of ***Section 4(f)***. Therefore, when providing the coordination letter to the OWJ for parks, recreation areas, and wildlife and waterfowl refuges, the District must include the following statement:

> *Significance means that in comparing the availability and function of the [name of the recreation area, park or wildlife and waterfowl refuge area] with the [appropriate function of the recreational, park and refuge] objectives of that community, the land in question plays an important role in meeting those objectives.*

In the absence of a determination of significance from the OWJ, FDOT presumes the property to be significant and the District continues the ***Section 4(f)*** process [***23 CFR § 774.11(c)***]. All determinations of significance, whether stated or presumed, are subject to review by OEM for reasonableness pursuant to ***23 CFR § 774.11***. When OEM changes a determination of significance, the basis for this change will be included in the project file and discussed in the environmental documentation for the proposed action.

For historic and archaeological sites, the determinations of significance for historic properties generally occurs when the OWJ, FDOT, and other appropriate consulting parties agree with the findings contained in the ***Cultural Resources Assessment Survey (CRAS) Report*** completed pursuant to the requirements of ***Section 106*** of the ***NHPA***. If the OWJ does not respond within 30 days of the receipt of the ***CRAS Report***, FDOT may presume that the OWJ has concurred with the findings made in the report ***[36***

CFR § 800.3(c)(4)]. The ***CRAS Report*** identifies the historic resources which are either listed in or eligible for listing in the NRHP, and are therefore considered significant under ***Section 4(f)***.

Once FDOT has determined there is a use of land protected by ***Section 4(f)*** by the proposed transportation project, the District can work with the OWJ over the property to identify measures to avoid using land from the property or to minimize harm to the protected resource resulting from the "use" of the property. The District will prepare and send a letter (on FDOT letterhead) to the OWJ for concurrence. This letter includes a description of the property and its significance, anticipated impacts resulting from the project's use of the protected property, the FDOT's determination that ***Section 4(f)*** applies to the use of the property, and any measures to minimize harm to the protected resource. The agreed upon minimization/mitigation measures will be incorporated as environmental commitments in the Environmental Document (see ***Part 2, Chapter 22, Commitments***). After the OWJ has been notified of the "use", the District must continue coordination to identify measures to minimize/mitigate harm to the property and to determine which of the available approval options is the most appropriate analysis for the action. OEM is available to review draft OWJ correspondence prepared by the District or LAP agencies.

7.2.6 Standard Statement for NEPA Assignment and Section 4(f) Documentation

Technical memorandums, reports or other documents prepared for a project in which OEM serves as the Lead Agency under the ***NEPA*** Assignment Program must include the following statement:

> *The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.*

7.3 PROCEDURE

The procedural and documentation requirements outlined below are to be used for ***Section 4(f)*** analysis and file documentation.

7.3.1 Process and Documentation

FDOT uses the ***Section 4(f) Tool*** in SWEPT to record ***Section 4(f)*** applicability determinations and approval decisions, along with documentation supporting these decisions. When determining ***Section 4(f)*** applicability, the ***Section 4(f) Tool*** directs the preparer to provide information about the property and its relationship with each project alternative. The results of the ***Section 4(f) Tool*** are saved in the project file and attached to the Environmental Document. Documentation and processing requirements vary depending on the type of ***Section 4(f)*** property in question, however, all situations which

involve ***Section 4(f)*** property will necessitate some degree of documentation: either in the Environmental Document, a ***Section 4(f)*** Evaluation, or the project file.

- If ***Section 4(f)*** is clearly 'Not Applicable,' or the project has 'No Involvement' with a protected property, the District may, at their discretion, utilize the ***Section 4(f) Tool*** to document the relationship between the resource and project area. If the 'Not Applicable'/'No Involvement' determination is not recorded in the ***Section 4(f) Tool***, the District must document the determination in the project file.

- If ***Section 4(f)*** is clearly applicable, proceed with the steps in the ***Section 4(f) Tool*** and submit the resource documentation for OEM review and concurrence or approval, as necessary.

- If, at any point, the applicability or outcome of ***Section 4(f)*** is unclear, coordinate with OEM to determine the appropriate course of action.

For projects requiring an ***Individual Section 4(f) Evaluation***, the appropriate document is completed outside the ***Section 4(f) Tool*** (see ***Section 7.3.5.3)***.

7.3.1.1 Initial Section 4(f) Review

Within FDOT's Efficient Transportation Decision Making (ETDM) process, certain projects qualify for screening through the Environmental Screening Tool (EST). For projects not qualifying for screening through the EST, FDOT environmental staff has the option to review the project against the geographic information contained in the Area of Interest (AOI) Tool to determine if the proposed project may impact potential ***Section 4(f)*** protected properties. For more information on ETDM and qualifying projects for screening, see FDOT's ***ETDM Manual, Topic No. 650-000-002***.

Once an undertaking is established, to initiate the assessment of potential ***Section 4(f)*** involvement, District environmental staff should gather preliminary information to examine the following questions:

- Will the transportation project require funds or approvals from FHWA or other USDOT agency?

- Are there any ***Section 4(f)*** properties as defined in ***23 CFR § 774.11*** within or adjacent to the project area?

- Is it anticipated that the project will require any temporary occupancy or permanent incorporation of a ***Section 4(f)*** property during the project?

- Is it anticipated that the project's proximity impacts, as defined in ***23 CFR § 774.15***, could substantially impair the protected activities, features, or attributes that qualify the property for protection under ***Section 4(f)*** in a way that would meaningfully reduce or eliminate the value of the property in terms of its ***Section 4(f)*** purpose and significance?

It may be difficult to determine if a property is protected by ***Section 4(f)*** or if the proposed project involves a use of the protected property. In these cases, the District should coordinate with OEM to determine the applicability of ***Section 4(f)*** to a resource and/or project.

For situations where there is no involvement with properties protected by ***Section 4(f)*** or if the non-applicability is obvious, the decision may be recorded in the ***Section 4(f) Tool*** at the discretion of the District, and the supporting documentation may be simple and minimal. If the District utilizes the ***Section 4(f) Tool*** to document the resource/project relationship, the record must include the determination that there will be:

1. no acquisition or occupation of land from the protected property on either a temporary or permanent basis,

2. no meaningful proximity impacts to protected properties, and

3. no impacts to the access and usage of protected properties.

If, however, the determination is based upon the application of exemptions or regulatory interpretations, or if the determination is otherwise more complex, the decision must be recorded through the ***Section 4(f) Tool*** in SWEPT.

For Type 1 Categorical Exclusions (CEs), the District will provide the decision on the level of involvement in the ***Type 1 Categorical Exclusion Checklist*** and attach sufficient documentation. Projects requiring a ***Nationwide Programmatic Section 4(f) Evaluation*** or an ***Individual Section 4(f) Evaluation*** as described in ***Section 7.2.4*** must be processed as Type 2 CE or higher Class of Action (COA).

For an Environmental Impact Statement (EIS) or Environmental Assessment (EA) with Finding of No Significant Impact (FONSI), if the District determines that ***Section 4(f)*** is 'Not Applicable', the following standard statement should be included in the Environmental Document with the appropriate supporting documentation:

> *The proposed project [Project ID number and name] does not involve a use of any property that qualifies for protection under Section 4(f) of the USDOT Act of 1966, as amended.*

If the status of a property in terms of ***Section 4(f)*** changes, or if a permanent acquisition or a temporary occupation of a protected property is found to be necessary subsequent to the original 'No Use' or 'No Involvement' determination, the District must notify OEM and develop the proper documentation for the approval of the project. Similarly, if subsequent analysis indicates that there may be meaningful proximity impacts to the property resulting from the project, the District must notify the OEM.

7.3.1.2 Section 4(f) Resource Mapping

It is crucial to clearly depict the relationship between the project and the potential ***Section 4(f)*** resource. A map of each resource should be created regardless of the level of ***Section 4(f)*** documentation. The map should be at an appropriate scale to clearly depict

the relationship between the resource and the project. When preparing a resource map, the following items should be shown and clearly labeled:

- Boundaries of any potential ***Section 4(f)*** properties in or adjacent to the project area (historic boundaries may differ and should also be depicted)
- Location of elements (activities, features, and attributes) contributing to the significance of each potential ***Section 4(f)*** property
- Areas of permanent and/or temporary impacts, measured in acres
- Boundaries of the existing and proposed ROW or any Temporary Construction Easements

7.3.2 Not Applicable and No Use Determinations

Districts must include the determination as to whether ***Section 4(f)*** does or does not apply in the project file and in the appropriate Environmental Document. These **'Not Applicable'** decisions, along with sufficient supporting documentation, are recorded in the ***Section 4(f) Tool*** The output of the ***Section 4(f) Tool*** is included as an attachment for all COAs. The complexity and detail of the supporting documentation may vary based upon the complexity of the project and its relationship with protected resources. In all cases, the supporting documentation must be clear and must present sufficient information to show that ***Section 4(f)*** does or does not apply.

A **'No Use'** determination is one where a project has no permanent acquisition of land from a ***Section 4(f)*** property, no temporary occupancies of land that are adverse in terms of the statute's preservation purpose, and no proximity impacts which significantly impair the protected functions of the property. This determination is similar to the determination of **'Not Applicable'**, but it may require more detailed or nuanced supporting information and documentation.

When a **'No Use'** determination is made, documentation in the project file or in the ***Section 4(f) Tool*** should include the following:

1. Map of sufficient scale to show the project activities, the ***Section 4(f)*** resource boundaries, the protected activities, features, and attributes, and the existing and proposed ROW or any Temporary Construction Easements;
2. Description of the ***Section 4(f)*** protected property;
3. An explanation of the relationship between the property and the project;
4. A record of the communication with the OWJ, if applicable; and
5. An explanation why the requirements of ***Section 4(f)*** do or do not apply to the project or the property involved.

When completing a ***Type 1 Categorical Exclusion Checklist*** check the appropriate option for ***Section 4(f)*** and follow the instructions provided in the form. For Type 2 CEs, EAs, and EISs the determination is also included in the ***Section 4(f)*** section of the Environmental Document.

7.3.3 Exceptions and Exemptions to Section 4(f) Approval

There are multiple exceptions and exemptions to the requirement for a ***Section 4(f)*** approval. Most of these are included in the regulations implementing ***Section 4(f)*** at ***23 CFR Part 774*** (revised November 2018) and ***Sections 1303 and 11502 of the Fixing America's Surface Transportation (FAST) Act of 2015***. In addition, many exceptions and exemptions are in the ***FHWA Section 4(f) Policy Paper***. For the purposes of documenting the applicability of ***Section 4(f)*** for FDOT projects under these exemptions and conditions, the appropriate legislative, regulatory, or procedural provision must be selected in the ***Section 4(f) Tool***. The verification that the selected exemption applies to the project or resource must be included.

Exceptions identified under ***23 CFR § 774.13*** to the requirement for ***Section 4(f)*** approval include, but are not limited to:

a. The use of historic transportation facilities in the following circumstances:

    1. Common post-1945 concrete or steel bridges and culverts that are exempt from individual review under ***54 U.S.C. § 306108*** (see ***Part 2, Chapter 8, Archaeological and Historic Resources*** for specific information on the ACHP Program Comment and see ***23 CFR § 774.13(a)(1)*** for the exemption from the requirements of ***Section 4(f)*** and for these bridges).

    2. Improvement of railroad or rail transit lines that are in use or were historically used for the transportation of goods or passengers, including, but not limited to, maintenance, preservation, rehabilitation, operation, modernization, reconstruction, and replacement of railroad or rail transit line elements, except for

        i. stations;

        ii. bridges or tunnels on railroad lines that have been abandoned, or transit lines not in use, over which regular service has never operated, and that have not been railbanked or otherwise reserved for the transportation of goods or passengers; and

        iii. historic sites unrelated to the railroad or rail transit lines.

    3. Maintenance, preservation, rehabilitation, operation, modernization, reconstruction, or replacement of historic transportation facilities, if FDOT concludes, as a result of the consultation under ***36 CFR § 800.5***, that:

i. such work will not adversely affect the historic qualities of the facility that caused it to be on or eligible for the NRHP, or this work achieves compliance with ***Section 106*** through a program alternative under ***36 CFR § 800.14***; and

ii. the OWJ over the ***Section 4(f)*** resource have not objected to the FDOT conclusion that the proposed work does not adversely affect the historic qualities of the facility that caused it to be on or eligible for the NRHP, or FDOT concludes this work achieves compliance with ***54 U.S.C. § 306108 (Section 106)*** through a program alternative under ***36 CFR § 800.14***.

b. Archeological sites that are on or eligible for the NRHP when:

1. FDOT concludes that the archeological resource is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place. This exception applies both to situations where data recovery is undertaken and where FDOT decides, with agreement of the OWJ, not to recover the resource; and

2. the SHPO/THPO or appropriate Tribes over the ***Section 4(f)*** resource have been consulted and have not objected to the FDOT finding.

c. Designations of park and recreation lands, wildlife and waterfowl refuges, and historic sites that are made, or determinations of significance that are changed, late in the development of a proposed action, with some exceptions

d. Temporary occupancies of land that are so minimal as to not constitute a use within the meaning of ***Section 4(f)***. The following conditions must be satisfied:

1. duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land;

2. scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the ***Section 4(f)*** property are minimal;

3. there are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;

4. the land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and

5. there must be documented agreement of the OWJ over the ***Section 4(f)*** resource regarding the above conditions.

e. Projects for the Federal lands transportation facilities described in ***23 U.S.C. § 101(a)(8)***.

f. Certain trails, paths, bikeways, and sidewalks, in the following circumstances:

1. trail-related projects funded under the Recreational Trails Program, ***23 U.S.C. § 206(h)(2)***;

2. National Historic Trails, designated under the ***National Trails System Act, 16 U.S.C. §§ 1241-1251***, with the exception of those trail segments that are historic sites any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the NRHP. The term includes properties of traditional religious and cultural importance to a Tribe that are included in, or are eligible for inclusion in the NRHP ***(23 CRF § 774.17)***;

3. trails, paths, bikeways, and sidewalks that occupy a transportation facility ROW without limitation to any specific location within that ROW, so long as the continuity of the trail, path, bikeway, or sidewalk is maintained; and

4. trails, paths, bikeways, and sidewalks that are part of the local transportation system and which function primarily for transportation.

g. Transportation enhancement activities, transportation alternatives projects, and mitigation activities, where:

1. the use of the ***Section 4(f)*** property is solely for the purpose of preserving or enhancing an activity, feature, or attribute that qualifies the property for ***Section 4(f)*** protection; and

2. the OWJ over the ***Section 4(f)*** resource agrees in writing to paragraph (g)(1) of this section.

Exemptions under the regulations and the ***FAST Act***, as well resources which do not qualify for the exemptions, are identified below:

1. ***23 CFR § 774.11(e)(2)*** - The interstate highway system is exempt from being treated as a historic resource under ***Section 4(f)*** with the exception of those individual elements of the Interstate System formally identified for ***Section 4(f)*** protection on the basis of national or exceptional historic significance.

a. Interstate highway-related facilities in Florida determined historically significant and therefore not exempt under ***Section 4(f)*** are:

(i) I-275 Bob Graham/Sunshine Skyway Bridge

(ii) I-75 Alligator Alley - Milepost range 19.6-49.3

(iii) I-75 Snake Wall

(iv) I-95 Myrtle Avenue Overpass

2. ***23 CFR § 774.11(h)*** - When a property formally reserved for a future transportation facility temporarily functions for park, recreation, or wildlife and waterfowl refuge purposes in the interim, the interim activity, regardless of duration, will not subject the property to ***Section 4(f)***.

3. ***23 CFR § 774.11(i)*** - When a property is formally reserved for a future transportation facility before or at the same time a park, recreation area, or wildlife and waterfowl refuge is established, and concurrent or joint planning or development of the transportation facility and the ***Section 4(f)*** resource occurs, then any resulting impacts of the transportation facility will not be considered a use as defined in ***23 CFR § 774.17***.

   (1) Formal reservation of a property for a future transportation use can be demonstrated by a document of public record created prior to or contemporaneously with the establishment of the park, recreation area, or wildlife and waterfowl refuge. Examples of an adequate document to formally reserve a future transportation use include:

      (i) A map of public record that depicts a transportation facility on the property;

      (ii) A land use or zoning plan depicting a transportation facility on the property; or

      (iii) A fully executed real estate instrument that references a future transportation facility on the property.

   (2) Concurrent or joint planning or development can be demonstrated by a document of public record created after, contemporaneously with, or prior to the establishment of the ***Section 4(f)*** property. Examples of an adequate document to demonstrate concurrent or joint planning or development include:

      (i) A document of public record that describes or depicts the designation or donation of the property for both the potential transportation facility and the ***Section 4(f)*** property; or

      (ii) A map of public record, memorandum, planning document, report, or correspondence that describes or depicts action taken with respect to the property by two or more governmental agencies with jurisdiction for the potential transportation facility and the ***Section 4(f)*** property, in consultation with each other.

7.3.3.1 Documentation and Coordination

The District submits an Exception/Exemption determination along with supporting documentation to OEM for concurrence via the ***Section 4(f) Tool*** in SWEPT. The submittal must verify that all conditions required by the exception or exemption are satisfied. An Exception/Exemption Determination by the District may require OWJ concurrence or no objection as outlined in ***Section 7.3.3***. The ***23 CFR Part 774*** and ***FHWA Section 4(f) Policy Paper***, Section 1.2.2 further describe situations where OWJ "no objection" or concurrence is required.

For projects classified as a Type 1 CE, the District may not approve the ***Type 1 Categorical Exclusion Checklist*** until all of the exceptions and exemptions have been concurred with by OEM in SWEPT and the determination must be referenced in the ***Type 1 Categorical Exclusion Checklist*** for ***Section 4(f)*** involvement. The output of the ***Section 4(f) Tool*** is included as an attachment.

For a Type 2 CE, check the appropriate option for ***Section 4(f)*** and follow the instructions provided in the ***Type 2 Categorical Exclusion Determination Form***. For EAs and EISs, the determination is also included in the ***Section 4(f)*** section of the Environmental Document. The output of the ***Section 4(f) Tool*** is included as an attachment to the Type 2 CE, EA, or EIS

7.3.4 "Use" under Section 4(f)

Once the District has determined the resource is protected under ***Section 4(f)***, the District, in consultation with OEM, must determine whether the project will require a transportation "use" of the protected resource.

The following sections describe uses within the meaning of ***Section 4(f)***.

7.3.4.1 Permanent Incorporation

The most common type of use occurs when land from a ***Section 4(f)*** protected resource is permanently incorporated into a transportation facility, such as a fee simple acquisition of land from the property. This definition of use also includes the acquisition of an easement for the maintenance or operation of a transportation facility or a transportation-related facility, such as maintenance easements and drainage easements.

7.3.4.2 Temporary Occupancy

A temporary occupancy occurs when a ***Section 4(f)*** protected resource is occupied, in whole or in part, for construction-related activities. A temporary occupancy results in a "use" within the meaning of ***Section 4(f)*** if the activities are considered to be adverse, even though the property is not permanently incorporated into a transportation facility.

A temporary occupancy does not always result in a ***Section 4(f)*** use. If the activity is not adverse, and if the conditions of ***23 CFR § 774.13(d)*** apply, the temporary occupancy is considered "so minimal as to not constitute a use within the meaning of Section 4(f)."

According to the requirements of ***23 CFR § 774.13(d)(5)***, OWJ concurrence with the conditions of the temporary occupancy must be obtained.

7.3.4.3 Constructive Use

Constructive use occurs when a transportation project does not incorporate land from ***Section 4(f)*** property but when the project's proximity impacts are so severe that the protected activities, features, attributes that qualify the protected resource are substantially impaired (see ***23 CFR § 774.15*** and ***Section 7.3.5.4***). In cases where the District believes that a ***Section 4(f)*** use may arise due to proximity impacts and there is no acquisition of land from the protected property, the District must inform OEM. Once OEM is informed, FDOT will determine if there is a potential for a substantial impairment to the protected property. If FDOT concludes that such a potential exists, OEM will inform FHWA-Headquarters (HQ) of the circumstances and proceed in consultation with FHWA-HQ in accordance with the ***NEPA Assignment MOU***.

7.3.5 Section 4(f) Approvals

Once FDOT has determined that a project will result in a use within the meaning of ***Section 4(f)***, the District must prepare either a *de minimis* finding, a ***Programmatic Section 4(f) Evaluation***, or an ***Individual Section 4(f) Evaluation*** for submittal to OEM. This does not apply to situations involving a determination of ***Section 4(f)*** applicability arising only from proximity impacts. When coordinating with the OWJ, external agencies, or the public, the Districts should copy the PDC on outgoing correspondence.

As set forth in ***23 CFR § 774.3***, FDOT **may not approve** the use of land from a significant publicly owned public park, recreation area, wildlife or waterfowl refuge, or any significant historic site unless it determines that:

- There is no feasible and prudent alternative to the use of land from the property; **and**

- The action includes all possible planning to minimize harm to the property resulting from such use;

Or

- The use of the property, including any measures to minimize harm (such as avoidance, minimization, mitigation or enhancement), will have a *de minimis* impact on the property.

To receive approval for the use of a property protected by ***Section 4(f)***, the District needs to submit one of the following documents to OEM:

1. a ***de minimis*** impact determination;

2. a ***Programmatic Section 4(f) Evaluation***; or

3. an ***Individual Section 4(f) Evaluation***.

Analyses of the “no prudent and feasible alternative” and the “all possible planning to minimize harm” standards are only required for approval of the individual and programmatic evaluations; it is not required for a *de minimis*. Once a determination is made that a ***Section 4(f)*** evaluation is required for a project approval, no final decisions on the alternatives or proposed actions can be made until the appropriate evaluation is completed, unless a determination is made to avoid the use of the ***Section 4(f)*** protected property.

7.3.5.1 The *de minimis* Section 4(f) Analysis

A *de minimis* impact is one that, after taking into account any measures to minimize harm (such as avoidance, minimization, mitigation, or enhancement measures), results in either:

1. a determination that the project would not adversely affect the activities, features, or attributes qualifying a park, recreation area, or refuge for protection under ***Section 4(f)***; or

2. a finding under ***36 CFR § 800***, that there are ‘No Historic Properties Affected’ by the project or that the project will have ‘No Adverse Effect’ on the historic property in question.

The impacts of a transportation project on a park, recreation area, or wildlife or waterfowl refuge that qualifies for ***Section 4(f)*** protection may be determined to be *de minimis* if the transportation use of the ***Section 4(f)*** property, together with any measures to minimize harm, such as impact avoidance, minimization, and mitigation or enhancement measures incorporated into the project, do not adversely affect the activities, features, or attributes that qualify the resource for protection under ***Section 4(f)***.

In reaching an approval of the use of a ***Section 4(f)*** protected property, the project record must reflect that the following steps were completed in the order set forth in ***23 CFR § 774.5(b)*** and as outlined below:

1. OWJ *de minimis* Notification and Initial Consultation

2. Opportunity for Public Involvement Requirement

3. OWJ Concurrence following Public Involvement

4. Approval and Documentation Process

7.3.5.1.1 OWJ *de minimis* Notification and Initial Consultation

The OWJ must be notified of the intent to pursue a *de minimis* and consulted on measures to minimize harm. For parks, recreation areas, and wildlife and waterfowl refuges, the District must notify the OWJ that the activities, features, and attributes qualifying the property for ***Section 4(f)*** protection will be the basis for a *de minimis* impact determination [***23 CFR § 774.5(b)***]. This notice must also inform the OWJ that there will be an opportunity for the public to comment on the project in relation to the protected resource.

For historic properties, the OWJ over the historic property (usually the SHPO or THPO) must be informed of the intent to make a *de minimis* impact determination should they concur with a finding of 'No Historic Properties Affected' or 'No Adverse Effect' to the property in question in accordance with ***36 CFR Part 800***. This notification of the intent to pursue a *de minimis* determination is typically included in the ***Transmittal Letter*** accompanying the submission of the cultural resource document presenting the ***Section 106*** project effects analysis and finding.

The ***Letter of Agreement (LOA)*** between FDOT and SHPO, appended to and referenced in the ***Programmatic Agreement Among the Federal Highway Administration, the Florida Department of Transportation, the Advisory Council on Historic Preservation, and the Florida State Historic Preservation Officer Regarding Implementation of the Federal-Aid Highway Program in Florida [Section 106 Programmatic Agreement (PA)]***, programmatically informs the SHPO and the ACHP that such a finding may result in FDOT approving the use of the property as *de minimis*. On a project-by-project basis, the ***Transmittal Letter*** accompanying the ***Section 106*** project effects analysis, most typically a ***Case Study Report***, contains a signature block for SHPO concurrence on the ***Section 106*** effects finding as well as the *de minimis* statement (see ***Part 2, Chapter 8, Archaeological and Historic Resources***).

Because neither the Tribes nor the NPS are signatories to the ***Section 106 PA***, in cases where either a THPO or a tribal ***Section 106*** official is acting as an OWJ (or in cases where the NPS is acting as an OWJ) FDOT must ensure that those officials are informed in writing that a concurrence with either a "No Historic Properties Affected" or "No Adverse Effect" finding means that FDOT may pursue a *de minimis* approval for the use of those properties. The ***Transmittal Letter*** accompanying review documents submitted to the THPO or tribal official should include this statement and request input from the THPO or tribal official but should not contain a concurrence signature block. As with other *de minimis* approvals, the concurrence of these officials to those findings must be in writing.

7.3.5.1.2 Opportunity for Public Involvement Requirements

For a *de minimis* determination involving parks, recreation areas, or wildlife and waterfowl refuges, an opportunity for public review and comment must be provided in a manner appropriate to the nature of the resource and the public it serves [***23 CFR § 771.111(h)(2)(viii)*** and ***23 CFR §774.5(b)(2)(i), (ii)***]. For these *de minimis* determinations, no additional public involvement outside the regular ***NEPA*** process is required (***Part 1, Chapter 11, Public Involvement***). However, during public involvement for the project, the public's opinion must be specifically requested on the effects of the proposed impact on the activities, features, and attributes of the protected property. If a proposed action does not normally require public involvement, such as for certain minor projects covered by a Type 1 CE, an opportunity for the public to review and comment on the proposed *de minimis* impact determination must be provided as appropriate to the resource and prior to the d*e minimis* and Type 1 CE approvals. Similarly, if the need for a *de minimis* is identified after a public hearing, an opportunity for the public to review and comment on the proposed *de minimis* impact determination must be provided; the approach and methods for this public involvement should be determined in coordination with OEM. In all cases, the public opportunity for review and comment must occur prior to the formal

opinion of the OWJ. OEM is available to review public involvement text to ensure compliance with ***Section 4(f)*** requirements prior to distribution to the public.

For historic properties, compliance with ***Section 106*** and ***36 CFR Part 800*** satisfies the public involvement and agency coordination requirements for *de minimis* impact findings for historic and archeological properties. This is typically achieved through the ***NEPA*** public involvement process, but again, the public's opinion on project effects on the historic property(s) in terms of ***Section 106*** and ***Section 4(f)*** *de minimis* impacts must be specifically requested. To document the public involvement activities for ***36 CFR Part 800*** the *de minimis* determination will not occur until after the public hearing and comment period for Type 2 CEs, EAs, and EISs. For Type 1 CEs that involve *de minimis* approvals for historic properties, the ***Section 106*** process must be completed to make the *de minimis* determination and the *de minimis* approval coincides with the Type 1 CE approval.

7.3.5.1.3 OWJ Concurrence following Public Involvement

The OWJ, after being informed of the public comments and FDOT's intent to make a *de minimis* impact finding, must concur that the project (including all measures to mitigate and minimize harm) will not adversely affect the activities, features, or attributes that make the property eligible for ***Section 4(f)*** protection. Obtaining OWJ concurrence is required prior to the District seeking OEM concurrence with the *de minimis* finding.

The OWJ concurrence **must be in writing** [***23 CFR § 774.5(b)(2)(ii)***]. This concurrence can be in the form of a signed letter on agency letterhead, signatures in concurrence blocks on transportation agency documents or agreements provided via e-mail, or by other methods deemed acceptable by OEM.

For historic properties, SHPO will complete the provided signature block in the ***Transmittal Letter*** to render their concurrence with both the ***Section 106*** finding of either 'No Historic Properties Affected' or 'No Adverse Effect' to the property in question at the same time as acknowledging FDOT's intent to pursue a *de minimis* impact determination in compliance with ***Section 4(f)***. The precise language for the SHPO signature block is available in the ***Section 106 PA*** appended materials, and in ***Part 2, Chapter 8, Archaeological and Historical Resources***. THPO typically provides comments under separate cover on their own letterhead. Suggested language for THPO ***Transmittal Letter*** is also available in ***Part 2, Chapter 8, Archaeological and Historical Resources***.

7.3.5.1.4 Approval and Documentation Process

De minimis determinations are documented and processed via the ***Section 4(f) Tool*** and are also reported in the appropriate Environmental Document. Once steps 1 through 3 are complete, the District can complete a *de minimis* form for the affected property in the ***Section 4(f) Tool***, as directed, and coordinate the incorporation of the ***Section 4(f)*** determination into the appropriate Environmental Document.

Approval Process - Once the completed *de minimis* form and documentation is submitted through the ***Section 4(f) Tool***, the OEM Subject Matter Expert (SME) will

conduct a review to determine if the *de minimis* documentation is complete and sufficient. The SME will brief the Director of OEM about the pending *de minimis* and upon the Director's approval, the SME will concur with the submitted draft document. The ***Section 4(f) Tool*** will inform the District of OEM's concurrence with the *de minimis* documentation. The approval of the *de minimis*, however, occurs concurrent with the Director of OEM's signing and approval of the Environmental Document. For Type 2 CEs, SWEPT will automatically coordinate the Director's approval and signature of both the *de minimis* and the Environmental Document. For Type 1 CEs the District must submit the *de minimis* document to the Director of OEM for approval in coordination of the District approving the Type 1 CE.

Documentation Process - When completing the ***Type 1 Categorical Exclusion Checklist***, check the *de minimis* option for ***Section 4(f)*** and follow the instructions provided in the checklist. When completing the ***Type 2 Categorical Exclusion Determination Form*** check the appropriate option for ***Section 4(f)*** and follow the instructions provided in the form. For EAs and EISs, the determination is included in the ***Section 4(f)*** portion of the Environmental Document. In addition, any mitigation measures that were relied upon to reach a *de minimis* determination will be documented as commitments in the Environmental Document in accordance with ***Part 2, Chapter 22, Commitments***. The output of the ***Section 4(f) Tool*** is included as an attachment for all COAs.

7.3.5.2 Programmatic Section 4(f) Evaluations

Programmatic Section 4(f) Evaluations are administrative alternatives to completing an ***Individual Section 4(f) Evaluation***, but which still require appropriate findings using supporting studies and consultation. ***Programmatic Section 4(f) Evaluations*** are prepared for certain uses that meet specific criteria set forth in the conditions and findings sections of the specific programmatic evaluation.

The benefit of using a ***Programmatic Section 4(f) Evaluation*** is that the conditions for each of these have already received legal sufficiency review and have already been coordinated with the appropriate federal agencies. Therefore, these evaluations do not require an individual legal sufficiency review or coordination with the U.S. Department of the Interior (DOI), the U.S. Department of Agriculture (USDA), or the U.S. Department of Housing and Urban Development (HUD). However, if a federal agency has to take specific action under a different federal law, such as a DOI approval under ***Section 6(f) of the LWCFA***, that federal approval will still be required (see Concurrent Requirements in ***Section 7.5***; also see the discussion of Wild and Scenic Rivers in ***Section 7.2.3.1***).

The conditions vary among the programmatic types, and generally relate to:

1. the type of project or ***Section 4(f)*** property,
2. the degree of use and impact to the ***Section 4(f)*** property,
3. the evaluation of avoidance alternatives,

4. the establishment of a procedure for minimizing harm to the ***Section 4(f)*** property, and

5. coordination and agreement with the OWJ.

The five ***Nationwide Programmatic Section 4(f) Evaluations*** provided under ***23 CFR § 774.3(d)*** are only applicable to FHWA-funded projects. The ***Programmatic Section 4(f) Evaluations*** are (in order of publication):

1. Section 4(f) Statement of Determination for Independent Walkways or Bikeway Construction Projects

2. Programmatic Section 4(f) Evaluation and Approval for FHWA (Federal Aid) Projects that Necessitate the Use of Historic Bridges

3. Final Nationwide Section 4(f) Programmatic Evaluation and Approval for Federally-Aided Highway Projects with Minor Involvements with Historic Sites

4. Final Nationwide Section 4(f) Programmatic Evaluation and Approval for Federally-Aided Highway Projects with Minor Involvements with Public Parks, Recreation Lands, and Wildlife and Waterfowl Refuges

5. Nationwide Programmatic Section 4(f) Evaluation and Approval for Transportation Projects That Have a Net Benefit to a Section 4(f) Property; Section 4(f) Net Benefit Programmatic for Historic Sites, and Section 4(f) Net Benefit Programmatic for Public Parks, Recreation Lands, and Wildlife & Waterfowl Refuges

The specific applicability criteria and the required analyses for each of these evaluations can be reviewed by accessing the corresponding publication in the ***Federal Register (FR)***. The requirements for each ***Nationwide Programmatic Section 4(f) Evaluation*** are also located in the ***Section 4(f) Tool*** in SWEPT. The references section below provides links to the associated ***FR*** for each programmatic evaluation. Additional information can be found in the ***FHWA Environmental Toolkit*** linked at FDOT's ***Section 4(f) References and Guides Website*** or at the FHWA ***Section 4(f)*** web page contained in their environmental tool kit. For further information, see ***Section 7.6*** for direct references.

The District submits the ***Programmatic Section 4(f) Evaluation*** documentation to OEM through the ***Section 4(f) Tool*** in SWEPT. Once it is determined that the documentation is complete and sufficient, OEM will inform the District of their concurrence with the decision. The approval of the ***Programmatic Section 4(f) Evaluation*** is concurrent with the signing and approval of the Environmental Document. Upon approval, the District will send a signed copy of the ***Programmatic Section 4(f) Evaluation*** to the OWJ.

When completing the ***Type 2 Categorical Exclusion Determination Form***, the ***Programmatic Section 4(f) Evaluation*** is summarized in the ***Section 4(f)*** section of the document.

For EAs and EISs, results of the ***Programmatic Section 4(f) Evaluation*** are summarized in the ***Section 4(f)*** section and circulated as required based on the Environmental Document type and the specific programmatic evaluation. The approval of the ***Programmatic Section 4(f) Evaluation*** is concurrent with the signing and approval of the FONSI or Final Environmental Impact Statement (FEIS). Upon approval, the District will send a signed copy of the ***Programmatic Section 4(f) Evaluation*** to the OWJ. In addition, any mitigation measures or commitments are documented in the Environmental Document and in accordance with ***Part 2, Chapter 22, Commitments***.

Once the applicable criteria have been met, the ***Section 4(f) Tool*** will assign the appropriate standard statement to the ***Programmatic Section 4(f) Evaluation*** based on which of the five programmatic evaluations is being applied. The output of the ***Section 4(f) Tool*** is included as an attachment for all COAs.

7.3.5.3 Individual Section 4(f) Evaluations

An ***Individual Section 4(f) Evaluation*** must be completed when a project requires a use of ***Section 4(f)*** property resulting in greater than a *de minimis* impact and does not meet the conditions of a ***Programmatic Section 4(f) Evaluation*** (***23 CFR § 774.3***). The ***Individual Section 4(f) Evaluation*** documents the proposed use of ***Section 4(f)*** property for all project alternatives. ***Individual Section 4(f) Evaluations*** are prepared as standalone documents, not within the ***Section 4(f) Tool***.

Based on sufficient analysis, the ***Individual Section 4(f) Evaluation*** must find:

1. There is no feasible and prudent alternative that completely avoids the use of ***Section 4(f)*** property; and

2. The project includes all possible planning as defined in ***23 CFR § 774.17*** to minimize harm to the ***Section 4(f)*** property resulting from the transportation use [see ***23 CFR § 774.3(a)***].

7.3.5.3.1 Outline for Preparing Draft Individual Section 4(f) Evaluations

The ***Draft Individual Section 4(f) Evaluation*** must provide the analysis of project alternatives and the initial discussion and identification of avoidance, minimization, and mitigation opportunities. The Individual ***Section 4(f)*** analysis must provide the data which indicates that there is no feasible and prudent alternative which avoids using properties protected by ***Section 4(f)***. Additionally, when there is no prudent and feasible avoidance alternative and there are two or more alternatives that “use” ***Section 4(f)*** property, the individual evaluation must include a least overall harm analysis.

Draft evaluations should provide a comparative analysis of the various alternatives under consideration and should not include any preferences or recommendations. The draft is used by decision makers to select the preferred alternative. In addition, the evaluation must include an analysis for each project alternative at each ***Section 4(f)*** property location.

Formatting for the ***Individual Section 4(f) Evaluation*** is based on FHWA guidance as reflected in the ***FHWA Section 4(f) Policy Paper***.

The *Draft Individual Section 4(f) Evaluation* must include the following information:

1. appropriate statements concerning the applicability or non-applicability of ***Section 4(f)*** to the resources;

2. an identification and description of the relationships of each alternative to each location of ***Section 4(f)*** protected resources;

3. activities, features and attributes of each ***Section 4(f)*** property;

4. analysis of impacts to each ***Section 4(f)*** property by each alternative;

5. records of public involvement activities;

6. results of coordination with the OWJ for each protected property;

7. alternatives considered to avoid using the ***Section 4(f)*** property, including the analysis of the impacts caused by avoiding the ***Section 4(f)*** resource;

8. a least overall harm analysis, if appropriate;

9. all measures taken to minimize harm to the resources, including mitigation measures; and

10. comments submitted during the coordination procedures as required by ***23 CFR § 774.5*** and responses to those comments.

The following standard statement is included for the conclusion of the ***Draft Section 4(f) Evaluation***:

> *Upon final alternative selection the provision of Section 4(f) and 36 CFR Part 800 (if appropriate) will be fully satisfied.*

7.3.5.3.2 Feasible and Prudent Alternatives Analysis for Individual Section 4(f) Evaluations

The intent of the ***Section 4(f)*** statute is to avoid and, where avoidance is not feasible and prudent, to include all possible planning to minimize the harm caused by the use of the protected resource by the transportation project. When assessing the importance of protecting a ***Section 4(f)*** property, it is important to consider the relative value of its resources to the preservation purpose of the statute ***(23 CFR § 774.17)***. An avoidance "alternative analysis" [***23 CFR § 774.3(a) and (c)***] must be performed to determine if there is a feasible and prudent avoidance alternative.

7.3.5.3.2.1 Identifying a Range of Alternatives

A project alternative that avoids one ***Section 4(f)*** property by using another is not an avoidance alternative; true avoidance alternatives avoid the use of all ***Section 4(f)*** resources. A feasible and prudent avoidance alternative avoids using ***Section 4(f)*** property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the ***Section 4(f)*** property.

The alternative analysis identifies a reasonable range of project alternatives, including those that avoid using ***Section 4(f)*** property [***FHWA Section 4(f) Policy Paper***]. Depending on the project context, the potential alternatives may include the following:

- Location Alternatives - a location alternative refers to the re-routing of the entire project along a different alignment.

- Alternative Actions - an alternative action could be a different mode of transportation, such as rail transit or bus service, or some other action that does not involve construction such as the implementation of transportation management systems or similar measures.

- Alignment Shifts - an alignment shift is the re-routing of a portion of the project to a different alignment to avoid a specific resource.

- Design Changes - A design change is a modification of the proposed design in a manner that would avoid impacts, such as reducing the planned median width, building a retaining wall, or incorporating design exceptions.

For more information on developing and analyzing alternatives see ***Part 2, Chapter 3, Engineering Analysis***.

7.3.5.3.2.2 Feasible and Prudent Avoidance Analysis

The next step is to determine if each of the identified alternatives are feasible and prudent. “A feasible and prudent avoidance alternative avoids using ***Section 4(f)*** property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the ***Section 4(f)*** property” (***23 CFR § 774.17***). If it is determined an avoidance alternative is feasible and prudent and meets the purpose and need of the project, this alternative must be selected by FDOT, and the ***Section 4(f)*** evaluation process is complete.

Under ***23 CFR § 774.17*** an avoidance alternative is not considered feasible if it cannot be built as a matter of sound engineering judgement.

Under ***23 CFR § 774.17*** an avoidance alternative is not considered prudent if it results in one of the following situations:

- it compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;

- it results in unacceptable safety or operational problems;
- after reasonable mitigation, it still causes:
    - severe social, economic, or environmental impacts;
    - severe disruption to established communities;
    - severe disproportionate impacts to minority or low-income populations; or
    - severe impacts to environmental resources protected under other federal statutes;
- it results in additional construction, maintenance, or operational costs of an extraordinary magnitude;
- it causes other unique problems or unusual factors; or
- it involves multiple factors as outlined above that, while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

For more information on applying the prudent standard, see the ***FHWA Section 4(f) Policy Paper***, Sections 3.3.1 and 3.4 linked to FDOT's ***Section 4(f) References and Guides Website***. If there is more than one alternative that uses ***Section 4(f)*** property, then a Least Overall Harm Analysis of those alternatives in required (see ***Section 7.3.5.3.2.4***).

7.3.5.3.2.3 All Possible Planning to Minimize Harm

"All possible planning", as defined under ***23 CFR § 774.17***, means all reasonable measures identified in the ***Section 4(f)*** analysis to minimize harm or mitigate adverse effects to the resource resulting from the "use," were considered and documented. Impacts to the ***Section 4(f)*** property should be reduced or eliminated by including mitigation in the analysis. In addition, the mitigation measures are relied upon as part of the comparison of alternatives.

For public parks, recreation areas, and wildlife and waterfowl refuges, the measures to minimize harm may include, but are not limited to: design modifications or design goals; replacement of land or facilities of comparable value and function; or monetary compensation to enhance the remaining property or to mitigate the adverse impacts of the project in other ways. For historic sites, the measures to minimize harm normally serve to preserve the historic activities, features, or attributes of the site as agreed upon by FDOT and the SHPO/THPO, in accordance with the consultation process under ***Section 106*** (***36 CFR Part 800***).

In evaluating the "reasonableness of measures to minimize harm" under ***23 CFR § 774.3(a)(2)***, FDOT will consider the preservation purpose of the statute and the following as described in ***23 CFR § 774.17(3)***:

- the views of the OWJ;

- whether the cost of the measures is a reasonable public expenditure in light of the adverse impacts of the project on the ***Section 4(f)*** property and the benefits of the measure to the property, in accordance with ***23 CFR § 771.105(d)***;

- any impacts or benefits of the measures to communities or environmental resources outside of the ***Section 4(f)*** property.

7.3.5.3.2.4 Least Overall Harm Analysis

Least overall harm analysis is conducted to determine which of the potential feasible and prudent alternatives that "use" a ***Section 4(f)*** property have the net impact that results in the "least overall harm" in accordance with ***23 CFR § 774.3(c)(1)*** and "includes all possible planning to minimize harm to ***Section 4(f)*** property" as required by ***23 CFR § 774.3(c)(2)***. Not all uses of ***Section 4(f)*** property have the same magnitude of impact, and not all ***Section 4(f)*** properties are of the same quality; therefore, the least overall harm analysis is a qualitative analysis. When preparing and examining the alternatives which impact ***Section 4(f)*** property it is important to ensure that comparable mitigation measures are included for each alternative. The District is responsible for selecting the alternative that has the least overall harm to a ***Section 4(f)*** property. If the net harm to the ***Section 4(f)*** properties in all the feasible and prudent alternatives is equal, the District may select any one of them.

To determine which of the alternatives would cause the least overall harm, FDOT must compare the factors set forth in ***23 CFR § 774.3(c)(1)*** concerning the alternatives under consideration:

1. the ability to mitigate adverse impacts to each ***Section 4(f)*** property (including any measures that result in benefits to the property);

2. the relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each ***Section 4(f)*** property for protection;

3. the relative significance of each ***Section 4(f)*** property;

4. the views of the OWJ over each ***Section 4(f)*** property;

5. the degree to which each alternative meets the purpose and need for the project;

6. after reasonable mitigation, the magnitude of any adverse impacts to resources not protected by ***Section 4(f)***; and

7. substantial differences in costs among the alternatives.

7.3.5.3.3 Submission and Coordination of Draft Individual Section 4(f) Evaluations

The District must upload the ***Draft Individual Section 4(f) Evaluation*** in the Electronic Review and Comment System (ERC), assigning the PDC for review and comment. The PDC must add OGC and may add any other relevant reviewers. For Type 2 CEs, the ***Draft Individual Section 4(f) Evaluation*** is uploaded into ERC as a separate document. For EAs and EISs, the ***Draft Individual Section 4(f) Evaluation*** is incorporated into the EA or Draft Environmental Impact Statement (DEIS).

Once OEM has completed its review of the ***Draft Individual Section 4(f) Evaluation*** and the comments have been addressed by the District, OEM approves it for public availability and OEM circulates the document to the OWJ and DOI as well as any other appropriate agency for review and comment, such as the U.S. Forest Service and HUD. OEM will use electronic media to distribute the draft to agencies, as appropriate. It should be submitted to the DOI by email correspondence to environmental_review@ios.doi.gov. The document for review should be either attached or linked to in the email. If possible, these documents should be accessible without needing usernames or passwords. If a password is required, the password should not expire prior to the end of the comment period.

The District must wait a minimum of 45 days for receipt of comments. If comments are not received within 15 days after the comment deadline, the District may assume a lack of objection and proceed with the action (***23 CFR § 774.5***).

If any of these agencies raise issues during coordination, the District will work with OEM and the agency to resolve the issues.

7.3.5.3.4 Public Involvement Requirements for Draft Individual Section 4(f) Evaluations

There is no specific requirement to provide public notice or a public opportunity to comment on ***Individual Section 4(f) Evaluations***. However, for most projects requiring the preparation of an ***Individual Section 4(f) Evaluation***, public involvement occurs pursuant to the requirements of ***Section 339.155(5)(b), Florida Statutes (F.S.)***, and ***23 CFR § 771.111***. When public involvement is required for a proposed project which includes an ***Individual Section 4(f) Evaluation***, the Draft Evaluation should be provided along with other project information and project documents and the public involvement effort must follow the procedures set forth in ***Part 1, Chapter 11, Public Involvement***. If a situation arises where the District staff is uncertain as what level of public involvement would be appropriate, they should contact the appropriate PDC.

For those actions that do not require public review and comment under ***NEPA*** or under ***Section 339.155, F.S.***, public involvement may still be required under a concurrent law such as ***Section 106*** of the ***NHPA*** when the ***Individual Section 4(f) Evaluation*** is for the approval of the use of a historic property.

7.3.5.3.5 Final Section 4(f) Individual Evaluation Outline

When the preferred alternative uses ***Section 4(f)*** land, the ***Final Individual Section 4(f) Evaluation*** must contain:

1. Information developed in the draft evaluation.

2. A discussion of the basis for concluding that there are no feasible and prudent alternatives to the use of the ***Section 4(f)*** land. The supporting information must demonstrate that the proposed action "does not cause severe problems of a magnitude that substantially outweighs the importance of protecting the section 4(f) property" (***23 CFR § 774.17***). This language should appear in the document together with the supporting information.

3. A discussion of the basis for concluding that the proposed action includes all possible planning to minimize harm to the ***Section 4(f)*** property. The ***Final Individual Section 4(f) Evaluation*** must demonstrate that the preferred alternative is a feasible and prudent alternative with the least harm to the ***Section 4(f)*** resources after considering mitigation to the ***Section 4(f)*** resources.

4. When there is more than one alternative which uses ***Section 4(f)*** resources, a discussion of the reasons for concluding that the selected action is the alternative which results in the least overall harm must be included.

5. A summary of the formal coordination with the OWJ and the Headquarters Office of the DOI and other agencies as appropriate. Copies of all formal coordination comments and a summary of other relevant ***Section 4(f)*** comments received, and an analysis and response to any questions raised should be included.

6. Where ***Section 6(f)*** land is involved, documentation of the results of the coordination with the NPS must be included.

7. Final approval ***Section 4(f)*** language must include the following statement:

> *Based upon the above considerations, there is no feasible and prudent alternative to the use of land from the [identify **Section 4(f)** property] and the proposed action includes all possible planning to minimize harm to the [**Section 4(f)** property] resulting from such use*.

7.3.5.3.5.1 Submission of Final Individual Section 4(f) Evaluation and Legal Sufficiency Review [23 CFR § 774.7(d)]

After completion of the circulation and public comment period, the District submits the ***Final Individual Section 4(f) Evaluation*** to OEM in SWEPT.

SWEPT also provides a copy of the ***Final Individual Section 4(f) Evaluation*** to OGC for legal sufficiency review. OGC must certify that the evaluation is legally sufficient before the ***Section 4(f)*** Evaluation can be approved by the Director of OEM as part of the Environmental Document.

For FDOT processing purposes, the standard approval statement will be included on the cover page of FEIS or FONSI. The name and description of the project and the name(s) of the ***Section 4(f)*** properties being used by the project must also be included. Where the ***Section 4(f)*** approval is documented in the FEIS, the basis for the ***Section 4(f)*** approval must be summarized in the Record of Decision (ROD).

For Type 2 CE documents, the ***Final Individual Section 4(f) Evaluation*** report should be approved and uploaded into the SWEPT project file prior to approval of the Environmental Document.

The District will then electronically distribute copies of the signed ***Final Individual Section 4(f) Evaluation*** to the agencies that received the draft.

7.3.5.3.5.2 Project File Documentation

When completing the ***Type 2 Categorical Exclusion Determination Form*** with an ***Individual Section 4(f) Evaluation***, summarize the results of the evaluation in the ***Section 4(f)*** section of the form, and upload the ***Final Individual Section 4(f) Evaluation*** into SWEPT. For EAs the results of the ***Final Individual Section 4(f) Evaluation*** are included in the EA with FONSI and uploaded into SWEPT. For projects processed as an EIS, the ***Final Individual Section 4(f) Evaluation*** is included in the FEIS/ROD and uploaded into SWEPT. In addition, any mitigation measures or commitments are documented in the Environmental Document.

7.3.5.4 Constructive Use

A “Constructive Use” occurs when the transportation project does not incorporate land from a ***Section 4(f)*** property, but the proximity impacts of the project are so severe that the protected activities, features, or attributes qualifying the property for protection under ***Section 4(f)*** are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished (***23 CFR § 774.15***).

If the District believes a project may involve a Constructive Use, the District contacts OEM to verify the potential for a Constructive Use and to assess the possibility to avoid a Constructive Use. When the District and OEM believe that a Constructive Use determination may be appropriate, OEM will initiate consultation with FHWA-HQ Office of Project Development and Environmental Review in accordance with the ***NEPA Assignment MOU***.

Under ***23 CFR § 774.15***, when a Constructive Use determination is made, it is based on the following:

1. identification of the current activities, or attributes of the property which qualify for protection under ***Section 4(f)*** and which may be sensitive to proximity impacts;

2. analysis of the proximity impacts of the proposed project on the ***Section 4(f)*** resource. If any of the proximity impacts will be mitigated, only the net impact need

be considered in this analysis. The analysis should also describe and consider the impacts which could reasonably be expected if the proposed project were not implemented, since such impacts should be not attributed to the proposed project; and

3. consultation, on the foregoing identification and analysis, with the OWJ over the ***Section 4(f)*** property.

Situations describing when a Constructive Use occurs can be found at ***23 CFR § 774.15(e)*** and situations describing when a Constructive Use does not occur can be found at ***23 CFR § 774.15(f)***, both of which can be accessed via FDOT's ***Section 4(f) References and Guides Website***.

7.4 POST PROJECT DEVELOPMENT AND ENVIRONMENT

7.4.1 Late Designations, Unanticipated Discoveries, and Emergency Repairs

After the CE, FONSI, or ROD has been processed, a separate ***Section 4(f)*** approval will be required, except as provided in ***23 CFR § 774.13***, if:

1. a proposed modification of the alignment or design would require the use of ***Section 4(f)*** property; or

2. the District in consultation with OEM determines that ***Section 4(f)*** applies to the use of a property; or

3. a proposed modification of the alignment, design, or measures to minimize harm [after the original ***Section 4(f)*** approval] would result in a substantial increase in the amount of ***Section 4(f)*** property used, a substantial increase in the adverse impacts to ***Section 4(f)*** property, or a substantial reduction in the measures to minimize harm [***23 CFR § 774.9(c)(1)-(3)***].

A separate ***Section 4(f)*** approval required for a CE, FONSI, or ROD will not necessarily require the preparation of a new or supplemental ***NEPA*** document ***[23 CFR § 774.9(d)].*** Coordinate with OEM when there are changes to a project that result in changes to impacts to a ***Section 4(f)*** property.

There are times when late discoveries, late designations, or determinations of significance of ***Section 4(f)*** resources are made after the completion of the Environmental Document. When this involves a ***Section 4(f)*** resource other than an archaeological site, FDOT may allow the project to proceed without consideration under ***Section 4(f)*** if the property interest in the lands from the site was acquired prior to the change in the designation or the determination of significance as long as an adequate effort was made to identify properties protected by ***Section 4(f)*** prior to the acquisition. In cases involving a historic site, if it was reasonably foreseeable that a resource would be determined eligible for the NRHP prior to the start of construction, the resource should be treated as a significant historic site as set forth in ***23 CFR § 774.13(c)***.

In judging the adequacy of the effort made to identify properties protected by ***Section 4(f)***, FDOT will consider the requirements and standards that existed at the time of the research.

When the post-review discovery is of an archeological site, FDOT will consult with the SHPO/THPO and other appropriate parties in accordance with ***Section 106 of the NHPA*** to reach resolution regarding the treatment of the site within an expedited time frame. The decision to apply ***Section 4(f)*** to the site will be based on the outcome of the ***Section 106*** process. If the archaeological site proves significant for more than the information it contains, this late discovery will also trigger a request for an expedited ***Section 4(f)*** evaluation [***23 CFR § 774.9(e)***]. Because the DOI has a review responsibility for ***Individual Section 4(f) Evaluations*** but is not usually a party to the ***Section 106*** consultation process, the DOI must be notified and requested to provide any comments within a shortened response period (less than the standard 45 days) in regard to the treatment of the archaeological site [see ***FHWA Section 4(f) Policy Paper***, Section II, Questions 26(a) and (b) and ***23 CFR § 774.9***].

When responding to hurricanes, floods, or other natural disasters, Districts should avoid, to the maximum extent possible, using lands which may be protected by ***Section 4(f)*** for emergency repair actions and/or debris storage and materials staging areas. When using land from a known ***Section 4(f)*** protected resource, the District must notify the OWJ for that property and coordinate the action with them as much as is practicable and appropriate.

In cases where the ***Section 4(f)*** resource is a historic or archaeological site, please refer to ***Part 2, Chapter 8, Archaeological and Historical Resources*** to ensure the proper treatment of these properties under the appropriate provisions of ***Section 106*** and other, historic preservation laws.

The analysis for emergency repairs (those meant to restore essential functions in the immediate aftermath of an emergency) cannot fulfill the purpose of ***Section 4(f)*** to evaluate feasible and prudent avoidance alternatives. However, situations my arise where other ***Section 4(f)***-related documentation may be required if an activity uses a ***Section 4(f)*** property. These immediate actions to restore essential functions include the initial clearing of debris off and to the side of a roadway for emergency vehicle access.

The analysis for permanent repairs remains subject to the requirements established for an approval under ***Section 4(f)*** as set forth in ***23 U.S.C. § 138*** and ***49 U.S.C. § 303***, ***23 CFR Part 774***, this Chapter, and other appropriate guidance and procedures.

Regarding debris storage areas established for post-emergency debris, these locations are generally approved and designated prior to the emergency response actions in order to ensure their availability in the event of the storm event or other emergency.

7.4.2 Commitment Compliance

Commitments must be recorded in the Environmental Document. Project commitments are carried forward into design, ROW, and construction phases of project delivery. The

commitments and required coordination are updated per ***Procedure No. 650-000-003, Project Commitment Tracking***, ***Part 2, Chapter 22, Commitments***, and documented in the Commitment Status section of the ***Re-evaluation Form***.

Any changes to an existing commitment relating to ***Section 4(f)*** protected properties require coordination with the District Environmental Office. The District Environmental Office will inform the appropriate consulting parties and re-initiate consultation as necessary. District staff must review the commitments made to avoid, minimize and mitigate effects to ***Section 4(f)*** protected properties and ensure compliance.

7.4.3 Re-evaluations

Prior to a project advancing to the next phase, or if there are major design changes, the impacts to ***Section 4(f)*** resources are re-evaluated per ***Part 1, Chapter 13, Re-evaluations***. In addition, design changes could re-initiate consultation with the OWJ. Commitments and coordination should be contained in the Commitment Status section of the ***Re-evaluation Form*** and tracked through ***Procedure No. 650-000-003, Project Commitment Tracking***. When completing Re-evaluations in relation to ***Section 4(f)*** properties, it is important to revisit proximity impacts as well as any direct uses of protected properties to ensure full consideration of the potential changes of impacts to ***Section 4(f)*** properties.

7.5 CONCURRENT REQUIREMENTS

Due to the nature of the resources protected under ***Section 4(f)***, there are often concurrent laws requiring separate federal and/or state findings or approvals such as ***Section 106 of the NHPA***, ***Section 12(a) of the WSRA***, and ***Section 7 of the Endangered Species Act***. The majority of these concurrent requirements overlap as part of the ***NEPA*** process. Acknowledgement of and compliance with the applicable concurrent requirements for a resource must be clearly addressed in all appropriate sections of the Environmental Document and documented in the project file.

There are also certain ***Section 4(f)*** protected properties encumbered with a federal interest. For projects that propose the use of land from a ***Section 4(f)*** property purchased or improved with federal grant-in-aid funds under the ***LWCFA***, the ***Federal Aid in Fish Restoration Act (Dingell-Johnson Act)***, the ***Federal Aid in Wildlife Act (Pittman-Robertson Act)***, or other similar laws, coordination with the appropriate federal agency is required to ascertain the agency's position on the land conversion or transfer. Other federal requirements that may apply to the property should be determined through consultation with the OWJ or the appropriate federal land managing agency as outlined in ***23 CFR § 774.5(d)***. These federal agencies may have regulatory authority or other requirements for converting land to a different use. These requirements are independent of the ***Section 4(f)*** requirements and must be satisfied during the project development process. Most of these concurrent requirements also overlap within the ***NEPA*** process.

7.5.1 Section 6(f)

The most common federal encumbrance encountered when completing a ***Section 4(f)*** approval is the ***LWCFA***. State and local governments often obtain grants through the ***LWCFA*** to acquire or make improvements to parks and recreational areas. ***Section 6(f)*** of this ***Act*** prohibits the conversion of property acquired or developed with these grants to a non-recreational purpose without the approval of the NPS. ***Section 6(f)*** directs the DOI to assure that replacement lands of equal value, location and usefulness are provided as conditions to such conversions. Consequently, where conversions of ***Section 6(f)*** lands are proposed for highway projects, replacement lands will be necessary. As with most other federal encumbrances, ***Section 6(f)*** **applies to all projects and not just those that are federally funded**. A project can have ***Section 6(f)*** impacts, but ***Section 4(f)*** may not apply.

To determine whether ***LWCFA*** funding was involved in the acquisition or improvement of a ***Section 4(f)*** property, the District should consult with the OWJ or reference the lists of these grants maintained by the NPS and FDEP. See ***Section 7.6*** for a links to the appropriate NPS site and ***LWCFA*** property map. If ***LWCFA*** funds were used for acquisition or improvement, under ***36 CFR § 59.3*** the following prerequisites must be met:

- all practical alternatives to the proposed conversion must be evaluated;
- the fair market value of the property to be converted must be established by an appraisal meeting the “Uniform Appraisal Standards for Federal Land Acquisitions”;
- the replacement property must be of at least equal fair market value;
- the replacement property must be of reasonably equivalent usefulness and location to that being converted;
- the property proposed for substitution meets the eligibility requirements for ***LWCFA*** assisted acquisition;
- in the case of assisted sites that are partially rather than wholly converted, the impact of the converted portion on the remainder shall be considered. If such a conversion is approved the unconverted area must remain recreationally viable or be replaced as well;
- the Regional Office of the NPS is assured that all environmental review requirements related to the project have been met;
- the state procedures including those of the FDEP have been adhered to if the project conversion and substitution constitute any changes to the ***LWCFA*** property;
- the proposed conversion and substitution are in accordance with the recreation plans of the state and the facility.

To convert ***Section 6(f)*** properties to non-recreation uses, the OWJ over the ***Section 6(f)*** property must agree to the conversion in a letter of transmittal recommending the proposal. The conversion must meet the prerequisites and be approved by the appropriate NPS Regional Director in writing. This is accomplished through coordination with the FDEP who, in turn, seeks NPS approval of the conversion and proposed acquisition of replacement property. See FDOT's ***Section 4(f) References and Guides Website*** for additional ***Section 6(f)*** guidance. Regardless of the mitigation proposed, the ***Section 4(f)*** Evaluation and Environmental Document must include the NPS position relative to ***Section 6(f)*** conversion and analyze how the converted park land and recreational usefulness will be replaced.

If any ***Section 6(f)*** properties are identified in the project area, the District will coordinate with FDEP and notify the PDC. OEM is available for assistance with ***Section 6(f)*** coordination.

7.5.2 Acquisition and Restoration Council - Concurrent Requirement

While determining the applicability of ***Section 4(f)*** to state-owned lands or, during the coordination with the OWJ, the District may identify properties which require an approval from Florida's Acquisition and Restoration Council (ARC) before they can be converted into a transportation facility. For such properties, regardless of the applicability or non-applicability of ***Section 4(f)*** an easement from the Division of State Lands of the FDEP may be required prior to locating the project across these lands. This process is a state process and is independent from the ***Section 4(f)*** process although, when occurring on a USDOT funded or approved project, the conditions developed during the coordination for the ARC's approval may dictate the inclusion of certain minimization and mitigation efforts into the ***Section 4(f)*** document.

The District staff should coordinate with the PDC at the earliest opportunity once they become aware of the proposed acquisition from FDEP protected land. For more detail on the ARC process, see ***Part 2, Chapter 23, State-owned Upland Conservation Land Coordination***.

7.5.3 Recreational Areas and Protected Lands - Documentation of Concurrent Requirements

Documentation of compliance with some of these concurrent requirements is included in the Recreational Areas and Protected Lands section of the Environmental Document. This section documents involvement with recreational or public lands for state funded projects, federal projects with no ***Section 4(f)*** involvement, and state-owned conservation lands including those subject to review and approval by the ARC. This section of an EA or EIS also documents involvement with recreational or public lands for projects that require ***Section 6(f)*** coordination if not already addressed as a ***Section 4(f)*** resource. This section narrative includes a summary of impacts and coordination with the OWJ and/or appropriate federal or state land managing agencies (e.g., NPS, FDEP). Correspondence during this process should be included in the project file.

7.6 REFERENCES

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FDOT, Standard Specifications for Road and Bridge Construction. https://www.fdot.gov/programmanagement/implemented/specbooks/default.shtm

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Programmatic Agreement Among the Federal Highway Administration, the Florida Department of Transportation, the Advisory Council on Historic Preservation, and the Florida State Historic Preservation Officer Regarding Implementation of the Federal-Aid Highway Program in Florida, 2023. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/cultural-resources/fl-fhwa-statewide-federal-aid-highway-program-pa-2023.pdf?sfvrsn=a9b48e2b_1

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7.7 HISTORY

5/22/1998, 9/1/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 13, 1/14/2019, 7/1/2020, 7/1/2023: Integration of Section 4(f) Tool use

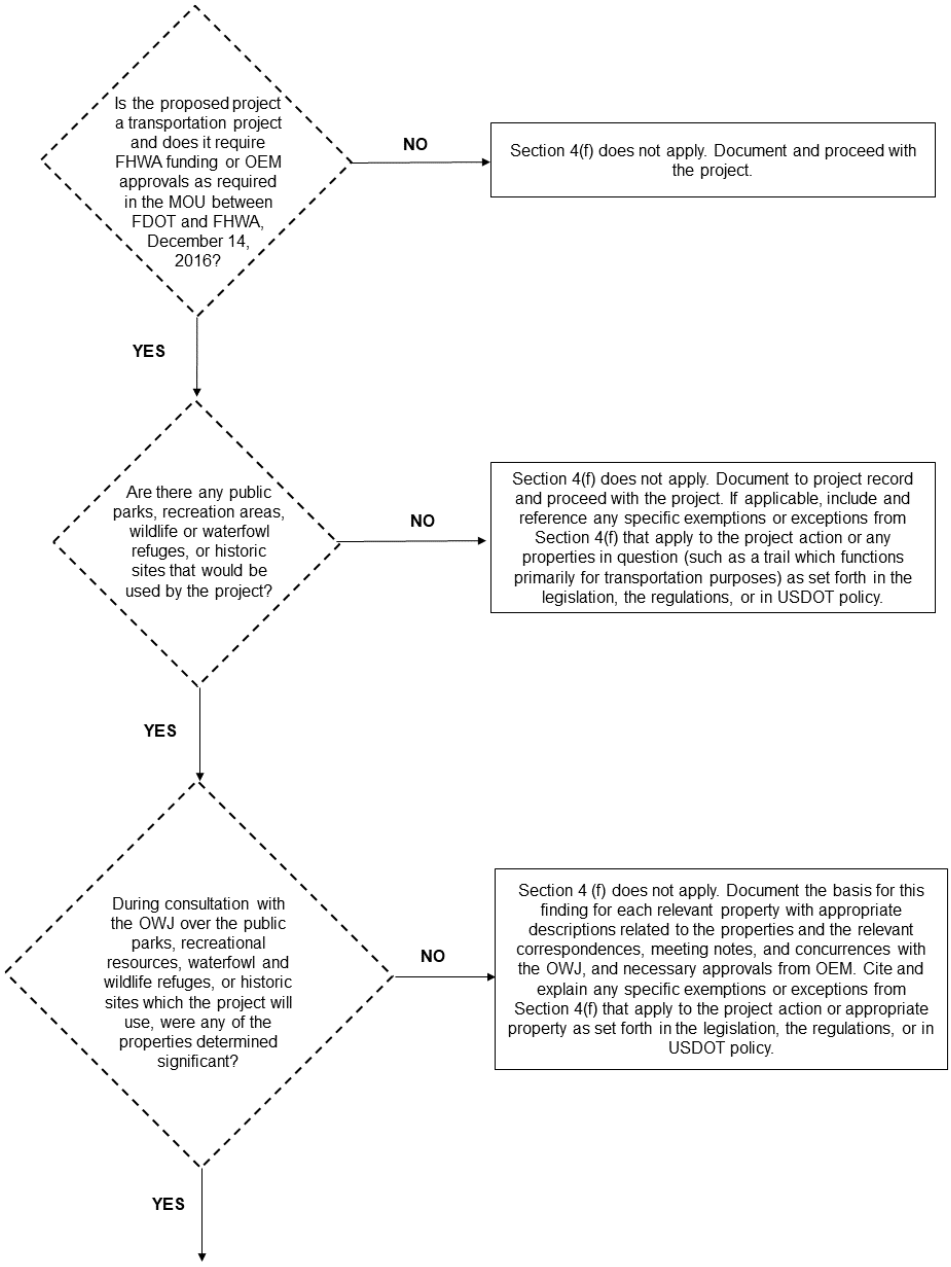
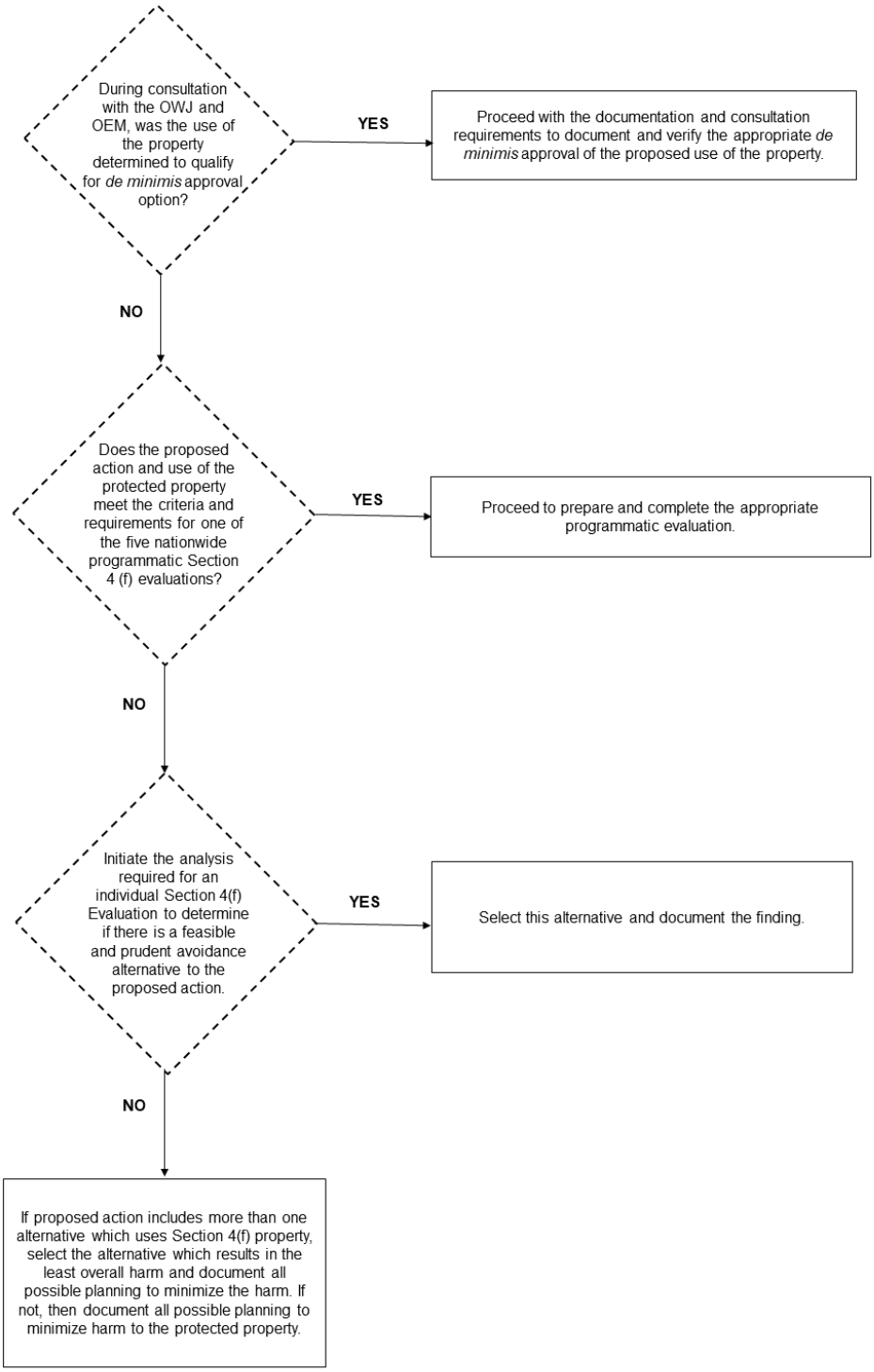


Figure 7-1 Flow Chart



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ARCHAEOLOGICAL AND HISTORICAL RESOURCES

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ARCHAEOLOGICAL AND HISTORICAL RESOURCES

8.1 OVERVIEW

8.1.1 Purpose

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

This chapter describes FDOT procedures for addressing historic and archaeological resources in the development and delivery of transportation projects. FDOT conducts surveys to locate, identify, and evaluate potential impacts on historic properties resulting from proposed projects. This assessment is prepared to comply with ***Section 106*** of the ***National Historic Preservation Act (NHPA) of 1966***, as amended, ***36 Code of Federal Regulations (CFR) Part 800***, and the ***Florida Historical Resources Act, Chapter 267, Florida Statutes (F.S.),*** all of which require the lead agencies to take into account the effects of their undertakings on historic properties.

The process for compliance with ***Section 106*** and ***Chapter 267, F.S.***, is implemented through the ***Programmatic Agreement Among the Federal Highway Administration, the Florida Department of Transportation, the Advisory Council on Historic Preservation, and the Florida State Historic Preservation Officer Regarding Implementation of the Federal-Aid Highway Program in Florida*** **[*Section 106 Programmatic Agreement (PA)*]** executed on September 27, 20 23.

Section 106 applies to all federally funded, licensed, permitted, or approved undertakings, regardless of the Class of Action (COA) established by FHWA in ***23 CFR Part 771*** for compliance with ***NEPA***, as amended. ***Section 106*** requires federal agencies to consider the effects of all federal undertakings and programs on historic properties in the planning and delivery of the proposed action or program. As a part of this effort, federal agencies must provide the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on the undertakings.

Fulfillment of ***Section 106*** must be reflected in the ***NEPA*** documentation the Lead Federal Agency or the applicant produces. The ***NEPA*** process provides a framework for all federal environmental impact documentation, and the ***Section 106*** process provides the decision-making procedure for considering effects to historic properties for all federal undertakings. Therefore, all federally funded or approved projects must comply with ***NEPA*** and the ***NHPA***.

In addition, permits from state and federal agencies also require compliance with the associated historic preservation laws. For example, most federal permits that FDOT must obtain for its projects include a documented record of compliance with the ***NHPA***. For state permits, documentation of compliance with ***Chapter 267, F.S.***, is included. Without that record, the permitting authority will be unable to permit the proposed activities.

The Florida Legislature charges each state agency of the executive branch to consider the effects of its undertakings on any historic resource that is eligible for inclusion or listed in the National Register of Historic Places (NRHP) prior to the expenditure of state funds on the undertaking. This consideration includes providing the Florida Department of State (FDOS), Florida Division of State Historical Resources (FDHR), an opportunity to comment on such an undertaking. The Director of the FDHR also serves as the Florida State Historic Preservation Officer (SHPO), as per the ***NHPA***, and reviews federal-aid projects in this same capacity. ***Section 267.031, F.S.***, specifies the authority and duties of the FDHR, and ***Chapter 1A-46, Florida Administrative Code (F.A.C.)***, specifies the criteria under which the FDHR reviews ***Cultural Resource Assessment Survey (CRAS) Reports*** and the appropriate information required within the reports. ***Section 267.12, F.S.***, and ***Chapter 1A-32, F.A.C.,*** provide the procedures to obtain a permit for archaeological investigations on state lands. In order to protect important or sensitive archaeological sites, ***Section 267.135, F.S.***, provides for the non-disclosure of archaeological site locations.

In order to avoid costly delays in the later stages of project development, the CRAS identification and evaluation effort is initiated as early in the project development process as possible. This allows FDOT to avoid or minimize adverse effects to historic properties more quickly and easily. This chapter provides the procedures for planning and performing such work during the Project Development and Environment (PD&E) phase of project delivery. For additional clarification and guidance regarding the requirements outlined in this chapter, refer to FDOT's ***Cultural Resource Management (CRM) Handbook***. Compliance with historic preservation laws requires consideration of potential effects to historic properties and good faith consultation with all of the appropriate parties.

8.1.2 Definitions

Within this chapter, "cultural resources" is a term broadly used to include all archaeological sites, as well as historic buildings, structures, objects, and districts that are typically 50 years of age or older. In this chapter, the terms "cultural resources" and "historic resources" are used interchangeably. The terms "significant cultural resource" or "historic property" are used as meaning a historic resource included in, or eligible for inclusion in, the NRHP. For consistency, the definitions contained in the regulations implementing ***Section 106*** of the ***NHPA*** (***36 CFR Part 800***) are applicable to this chapter.

As used in this Chapter, the following definitions apply:

Advisory Council on Historic Preservation (ACHP) – An independent agency of the U.S. government whose members are charged with advising the President and the Congress on matters relating to historic preservation; recommending measures to coordinate activities of federal, state, and local agencies and private institutions and individuals relating to historic preservation; and advising on the dissemination of information pertaining to such activities. The ACHP reviews the policies and programs of federal agencies in regard to compliance with the ***NHPA***.

Area of Potential Effects (APE) – The geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

Consultation – The process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the ***Section 106*** process. The ***Secretary of Interior's Standards and Guidelines for Federal Agency Preservation Programs pursuant to the National Historic Preservation Act*** provide further guidance on consultation. Throughout this chapter, consultation and coordination are used interchangeably when referring to FDOT's responsibility under ***NEPA*** Assignment and does not refer to the government-to-government consultation responsibilities retained by FHWA.

Consulting parties – Persons or groups that the federal agency consults with during the ***Section 106*** process, including, but not limited to, the ACHP, the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officers (THPOs) or tribal government officials or representatives, representatives of local governments, and individuals and organizations with a demonstrated interest in the undertaking.

Coordination – Refers to the actions, communications, collaborative efforts, and procedures that facilitate the consultation process. Throughout this chapter coordinate and coordination are used interchangeably with consult and consultation to describe the process of seeking, discussing, and considering the views of other participants during the ***Section 106*** process.

Cultural Resource Assessment Survey (CRAS) – The process of identification, documentation, and evaluation of archaeological, historical, architectural, and traditional cultural properties.

Effect/Affect – Alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the NRHP.

Evaluation – The process of determining the eligibility of a cultural resource for listing in the NRHP.

Federally Recognized Native American Tribes (Tribes) – Indian tribes [as defined in ***36 CFR § 800.16(m)***] are those tribes that possess certain inherent rights of self-

government (i.e., tribal sovereignty) and that are recognized as having a government-to-government relationship with the United States. This recognition is typically attained through treaties, acts of Congress, presidential executive orders, or other federal administrative actions or court decisions. A current list of Federally Recognized Native American Tribes (hereafter referred to as Tribes) is maintained by the U.S. Department of the Interior, Bureau of Indian Affairs. See ***Section 8.4*** for a link to the ***Tribal Leaders Directory***.

Finding – The official result of the ***Section 106*** process when referencing project effects on historic properties, also commonly called a determination of project effects. ***Section 106*** findings are limited to: 'No Potential to Cause Effects', 'No Historic Properties Affected', 'No Adverse Effect to Historic Properties', and 'Adverse Effect to Historic Properties'. The phrase 'Historic Properties Affected' may be utilized as a mid-process ***Section 106*** finding in ***CRAS Reports*** or documents, the use of which necessitates additional steps to determine whether the effects are adverse or not adverse to the historic property.

Florida Master Site File (FMSF) – A comprehensive listing of recorded cultural resources in Florida, including archaeological sites, historic structures, bridges, cemeteries, resource groups, and NRHP-listed sites. It also includes records for resources that are no longer extant.

Government-to-Government Tribal Consultation – The official process of consultation between U.S. Department of Transportation (USDOT) and tribal officials for ***Section 106*** related matters when officially requested by a Tribe. ***Section 106*** related government-to-government tribal consultation responsibilities are retained by FHWA per ***NEPA*** Assignment and therefore not addressed within this document beyond FDOT's process for notifying FHWA.

Historic property – Defined in the ***NHPA*** as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior (also referred to as significant historic resources). This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to a Tribe which meet the NRHP criteria for historical significance.

Historic resource – As set forth in ***Section 267.021, F.S.***, any prehistoric or historic district, site, building, structure, object, or other real or personal property of historical, architectural, or archaeological value, and folklife resources which may or may not meet the NRHP criteria and are generally 50 years of age or older. These properties or resources may include, but are not limited to, monuments, memorials, Indian habitations, ceremonial sites, abandoned settlements, sunken or abandoned ships, engineering works, treasure trove, artifacts, or other objects with intrinsic historical or archaeological value, or any part thereof, relating to the history, government, and culture of the state.

Integrity – The authenticity of a cultural resource's identity, evidenced by the survival of physical characteristics that existed during the resource's historic or pre-contact period.

The seven aspects of integrity are location, design, setting, materials, workmanship, feeling, and association.

Memorandum of Agreement (MOA) – The document that records the terms and conditions agreed upon to resolve the adverse effects of an undertaking upon historic properties.

Minimization – Active attempts to reduce harm to the historic property.

Mitigation – Any actions that reduce or compensate for damage or adverse effect that an undertaking may have on a NRHP-listed or eligible property. Mitigation may include project redesign, relocation, documentation, etc.

National Register of Historic Places (NRHP) – The official list of the Nation's historic properties deemed worthy of preservation per the NRHP criteria. The NRHP is maintained by the Secretary of the Interior.

NRHP criteria – The criteria established by the Secretary of the Interior for use in evaluating the eligibility of properties for the NRHP ***(36 CFR Part 60)***.

NRHP eligible – A cultural resource that meets the criteria of eligibility for listing in the NRHP, but that has not been formally nominated to be listed. For the purpose of ***Section 106*** and ***Chapter 267, F.S.***, compliance, eligible properties are treated the same as listed properties. Cultural resources determined to have **insufficient information**, where the significance has not or cannot be determined definitively, are considered potentially eligible until proven otherwise and are treated in the same manner as eligible and listed properties.

Native American – Of, or relating to, a Tribe, people, or culture that is indigenous to the United States.

No Adverse Effect – When an undertaking has an effect on a historic property, but the effect would not be harmful to those characteristics that qualify the property for inclusion in the NRHP.

No Effect – When an undertaking has no effect of any kind (either harmful or beneficial) on historic properties. This term is not an official ***Section 106*** finding or determination, but is sometimes used when discussing compliance with state regulation.

Programmatic Agreement (PA) – A document that records the terms and conditions agreed upon to resolve the potential adverse effects of a federal agency program, complex undertaking or other situations in accordance with ***36 CFR § 800.14(b)***. Pas allow federal agencies to govern the implementation of a particular agency program or the resolution of adverse effects from complex projects or multiple undertakings similar in nature through negotiation of an agreement between the agency and the ACHP. Pas can be developed on a national, statewide, or regional scope for similar or repetitive undertakings, for undertakings with repetitive effects on historic properties, or for situations where the effects to historic properties cannot be fully determined prior to the approval of an undertaking.

State Historic Preservation Officer (SHPO) – The official appointed or designated pursuant to ***Section 101(b)(1) of the NHPA*** to administer the State historic preservation program or a representative designated to act for the SHPO.

Tribal Historic Preservation Officer (THPO) – The tribal official appointed by the Tribe's chief governing authority or designated by a tribal ordinance or preservation program who has assumed the responsibilities of SHPO for purposes of ***Section 106*** compliance on Tribal Lands in accordance with ***Section 101(d)(2) of the NHPA***.

Undertaking – A project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency [as defined in ***36 CFR § 800.16(b)***], including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license or approval.

Chapter 267, F.S., does not define 'undertaking,' but ***Rule 1A-46.002 (q), F.A.C.***, defines "State undertaking" as meaning "…a project, activity or program in which a state agency of the executive branch has direct or indirect jurisdiction; those in which a state agency provides financial assistance to a project or entity; and those in which a state agency is involved through the issuance of state permits or licenses."

8.1.3 Legal Authorities

8.1.3.1 Federal Legislation

Section 106 of the ***NHPA*** of 1966, as amended, and its implementing regulations at ***36 CFR Part 800 (Protection of Historic Properties)***, as amended, requires federal agencies to consider the effects of their undertakings and programs on historic properties in the planning and delivery of the proposed action or program. Subpart B of the regulations defines how federal agencies meet the statutory responsibilities in the ***Section 106*** process, and how the steps of this process can be coordinated with reviews under other federal laws. As a part of this effort, federal agencies must provide the ACHP a reasonable opportunity to comment on the undertakings. Coordination with ACHP is addressed throughout Subpart B, and ***Appendix A to Part 800*** outlines ACHP involvement in reviewing individual ***Section 106*** cases. In addition to ***36 CFR Part 800***, ACHP has approved exemptions from the ***Section 106*** process and issued a number of official program comments addressing some broad topics. A summary of the ACHP issuances applicable to how FDOT complies with ***Section 106*** follows.

The ***Section 106 Exemption Regarding Effects to the Interstate Highway System (ACHP, March 10, 2005)*** presents guidance from ACHP for implementing the exemption from ***Section 106*** and ***Section 4(f)*** requirements created in the ***Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)*** for the bulk of the Interstate System.

The ***Program Comment for Common Post-1945 Concrete and Steel Bridges (ACHP, November 2, 2012)*** relieves FHWA and other federal agencies from the requirement under ***Section 106*** of the ***NHPA*** to consider the effects of undertakings on certain common bridges and culverts constructed of concrete or steel after 1945. The federal

agencies using the Program Comment must still complete ***Section 106*** review for the undertaking, including the identification of historic properties and consideration of effects of the undertaking on historic properties other than the common bridge itself.

The ***Program Comment to Exempt Consideration of Effects to Rail Properties Within Rail Rights-of-Way (ACHP, August 17, 2018)***, as amended June 10, 2019, relieves federal agencies from the requirement under ***Section 106*** of the ***NHPA*** to consider the effects of undertakings on historic rail properties within railroad and rail transit Right of Way (ROW). This program comment was prompted by the ***Fixing America's Surface Transportation (FAST) Act***, ***(49 U.S.C. 24202, December 4, 2015)***, which required that the Secretary of the USDOT propose an exemption of railroad rights of way from review under ***Section 106***, consistent with the exemption for interstate highways approved on March 10, 2005 ***[70 Federal Register (FR) 11928]***.

This Program Comment is comprised of an activity-based approach, and a property-based approach. The activity-based approach provides a list of activities for which no further ***Section 106*** review is required. The property-based approach establishes a process whereby project sponsors can opt to work with the relevant USDOT Operating Administrations and stakeholders to develop a list of excluded historic rail properties that would remain subject to ***Section 106*** review and exempt from review the effects of undertakings to all other historic rail properties within a designated area. The activity-based approach is immediately effective, but the property-based approach does not go into effect until USDOT publishes implementing guidance.

The ***Exemption Regarding Historic Preservation Review Process for Undertakings Involving Electric Vehicle Supply Equipment (ACHP, October 26, 2022)*** relieves FDOT from the requirement to conduct reviews under ***Section 106*** of the NHPA for effects on historic properties related to installation of certain electric vehicle supply equipment (EVSE) provided they meet the below conditions ***(87 FR 66201)***.

Except as noted below, all federal agencies are exempt from the ***Section 106*** requirements of taking into account the effects of the installation, maintenance, repair, or expansion of EVSE and Level 1, 2, or 3 [also known as Direct Current (DC) Fast Charging] charging stations, provided these:

1. Take place in existing parking facilities with no major electrical infrastructure modifications and are located as close to an existing electrical service panel as practicable;

2. Use reversible, minimally invasive, non-permanent techniques to affix the infrastructure;

3. Minimize ground disturbance to the maximum extent possible, and ensure that it does not exceed previous levels of documented ground disturbance;

4. Use the lowest profile EVSE reasonably available that provides the necessary charging capacity;

5. Place the EVSE in a minimally visibly intrusive area; and

6. Use colors complementary to surrounding environment, where possible.

Definitions applicable to this exemption presented in ***87 FR 66201*** are incorporated by reference herein.

This exemption shall not apply on Tribal Lands, or to activities that may affect historic properties located on Tribal Lands, unless the THPO, Tribe, or a designated representative of the Tribe has provided prior written notification to the ACHP that it agrees with the use of the exemption on its lands. ACHP shall provide notice on its website of any such agreements with Tribes.

While the ACHP does not expect that activities carried out consistent with this exemption will affect historic properties of religious and cultural significance to Tribes, the ACHP advises that, where the installation of EVSE may occur in a location on or near an existing archaeological site, feature, or district, or any other property with known potential significance to Tribes, FDOT should coordinate with interested Tribes to determine whether they ascribe significance to the site or property. Should a Tribe ascribe significance to the site area, FDOT should undertake a ***Section 106*** review.

Section 110 of the ***NHPA*** requires federal agencies to develop historic preservation programs to identify, evaluate, and protect historic properties that are under federal agency jurisdiction and/or potentially affected by federal actions. ***Section 110*** also requires the recording of historic properties altered, damaged, or destroyed as a result of a federal action, and the deposition of these records in the Library of Congress or other designated repository for future use and reference. Federal agencies are also instructed to consult with other federal, state, and local agencies, Tribes, the public, and other stakeholders, and to integrate historic preservation into their plans and programs and address the treatment of National Historic Landmarks (NHLs) impacted by an agency's programs and undertakings (i.e., their projects).

36 CFR Part 61 (Procedures for State, Tribal, and Local Government Historic Preservation Programs) authorizes the Secretary of the Interior to establish professional standards, techniques, and methods for historic preservation, and to guide local governments, states, and Tribes in the preservation of "historic properties" (as defined by the ***NHPA***) and the administration of historic preservation programs.

The ***Archaeological Resources Protection Act (ARPA) of 1979*** was enacted to secure the protection of archaeological resources and sites that are on public lands and Tribal Lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals.

The ***Archaeological and Historic Preservation Act of 1974 [Public Law (Pub. L.) 93-291;16 U.S.C. § 469]*** requires federal agencies to fund effects mitigation measures when their actions threaten to damage or destroy NRHP-eligible properties.

NEPA, as amended (***42 U.S.C. § 4321***) requires the examination and avoidance of potential impacts to the social and natural environment when considering approval of proposed transportation projects. In addition to evaluating the potential environmental

effects, the ***NEPA*** process prescribes interagency cooperation, public involvement, and documentation. ***Section 102(c)*** of the Act also requires the federal government to "…preserve important historic, cultural, and natural aspects of our national heritage." The level of required ***NEPA*** documentation depends largely upon the nature and degree of project impacts upon the human and natural environment. These impacts, then, determine a COA, which can include a Categorical Exclusion (CE), Environmental Assessment (EA), or Environmental Impact Statement (EIS).

Section 4(f) of the ***United States Department of Transportation Act of 1966***, and its implementing regulations at ***23 CFR Part 774*** applies whenever a project incorporates land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of a historic site of national, State, or local significance into a transportation facility. Such incorporation is referred to as a "***Section 4(f)*** use of the resource" and requires an approval under ***49 U.S.C. § 303*** and ***23 U.S.C. § 138*** prior to utilizing the land for the project.

The ***American Indian Religious Freedom Act (AIRFA) of 1978 (Pub. L. 95-341; 42 U.S.C. § 1996)*** establishes as federal policy the protection of the rights of Tribes to the free exercise of their religion, including access to sacred sites, and requires federal agencies to accommodate this policy. Amendments to ***Section 106*** of the ***NHPA*** in 1992 strengthened the interface with this ***Act*** by declaring that a federal agency must include the Tribes in the consultation process.

The ***Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (Pub. L. 101-601; 25 U.S.C. § 3001)*** addresses the proper treatment of Native American human remains and funerary and sacred objects located on federal or Tribal Lands.

Executive Order 11593: Protection and Enhancement of the Cultural Environment (1971) (3 CFR Part 154, reprinted in 16 U.S.C. § 470) requires all federal agencies to identify and take steps to avoid effects to archaeological and historic properties under their jurisdiction that are eligible for listing in the NRHP. It also requires complete documentation of NRHP-eligible properties that will be demolished as a result of the federal undertaking.

Executive Order 13007: Indian Sacred Sites (1996) requires federal agencies to protect Indian sacred sites by avoiding adverse effects to the physical integrity of such sites. It further accommodates access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners, and requires federal agencies to maintain confidentiality of information on such sites.

Executive Order 13175: Consultation and Coordination with Indian Tribal Governments (2000) affirms and strengthens the federal government's commitment to meaningful consultation with Tribes concerning federal actions, renews federal commitment to recognition of tribal sovereignty, and recognizes the government-to-government relationship between Tribes and the U.S. government. In ***September 2004, President Bush's Memorandum, Government-to-Government Relationship with Tribal Governments*** reaffirmed the policy set forth in ***Executive Order 13175***.

8.1.3.2 State Legislation

Chapter 267, F.S. is the principal state law regarding the protection of archaeological and historical resources. It contains requirements similar to those of the federal ***NHPA***. ***Chapter 267, F.S.***, declares the state policy that the historic properties in this state represent "an important legacy to be valued and conserved for present and future generations." It requires that each state agency consider the effects of an undertaking on any historic property that is eligible for inclusion in the NRHP and to consult with FDHR to ensure that effects on historic properties are considered prior to the expenditure of state funds on the project.

Section 253.027, F.S., Emergency Archaeological Properties Acquisition Act of 1988 provides a procedure to purchase archaeological and historical resources of statewide significance that are endangered by development, vandalism, or natural events.

Section 872.05, F.S., Unmarked Human Burials (2011) accords equal treatment and respect for human burials and human skeletal remains regardless of ethnic origin, cultural background, or religious affiliation. This law pertains to any human burials, human skeletal remains, and associated burial artifacts on public or private lands within Florida. It is a third-degree felony to willfully and knowingly disturb, destroy, remove, or damage any unmarked human burials.

Chapter 1A-32, F.A.C., Archaeological Research (2014) provides the criteria, notification requirements, and prohibited practices associated with archaeological research conducted on state-owned lands, including submerged lands.

Chapter 1A-44, F.A.C., ***Procedures for Reporting and Determining Jurisdiction Over Unmarked Human Burials (1992)*** establishes the procedure to follow in the event that unmarked human burials are encountered during a project.

Chapter 1A-46, F.A.C., ***Archaeological and Historical Reports Standards and Guidelines (2002)*** specifies reporting and site recording requirements.

A more detailed list of authorities governing the CRM program is available in ***Chapter 1*** and Appendix A of the ***CRM Handbook***.

8.2 PROCESS

The guiding principle of FDOT's CRM process is to identify, evaluate, and document historic resources and analyze the potential effects (if any) of its undertakings on the significant historic resources (also referred to as historic properties), whether they are federal or state-only actions. The detail and level of analysis varies depending on the type of historic property, potential for the project to affect them, and the degree or nature of the anticipated effects. Once FDOT completes this effort, FDOT develops practical ways to avoid or minimize identified effects. If the effects cannot be avoided or minimized, FDOT seeks ways to mitigate for identified adverse effects.

FDOT complies with applicable federal and state historic preservation mandates for its projects. Projects developed, funded, or assisted by FDOT, which involve a federal action, must adhere to the ***Section 106*** process. For state only funded projects that involve no federal approvals, funding sources, or actions, ***Chapter 267, F.S.***, directs the CRM process. To avoid confusion, the FDHR incorporated the ***Section 106*** process into the state's uniform compliance review program. The Director of the FDHR also serves as the SHPO; so regardless of whether an FDOT project is a federal or state-only undertaking, the state's point of contact for consultation is the same.

The primary differences between the two review processes are the involvement of OEM and the ACHP and the role of tribal governments in the consultation process under ***Section 106.*** Since OEM has designed FDOT procedures to ensure compliance with both laws and regulations through a single process, the only difference of importance for FDOT projects is the broader and more specific consultative requirements of the federal process with entities other than FDHR/SHPO.

8.2.1 Section 106 Process

The ***Section 106*** process is contained in the implementing regulations, ***36 CFR Part 800***, issued by the ACHP (incorporating amendments effective August 5, 2004). These regulations establish the four-step ***Section 106*** process. By following the four steps and applying the general requirements of ***Section 106***, FDOT ensures compliance with the other related laws and requirements. The steps established by ***36 CFR Part 800*** form the core process FDOT follows to meet its cultural resources management responsibilities.

The four steps of the ***Section 106*** process are:

- **Step One: Initiate the Section 106 Process** ***(Section 8.3.2.2)***
- **Step Two: Identify Historic Properties** ***(Section 8.3.2.3)***
- **Step Three: Assess Adverse Effects** ***(Section 8.3.2.4)***
- **Step Four: Resolve Adverse Effects** ***(Section 8.3.2.5)***

The goal of the ***Section 106*** process as stated in ***36 CFR 800.1*** is to "… accommodate historic preservation concerns with the needs of Federal undertakings through consultation among the agency official and other parties with an interest in the effect of the undertaking on historic properties…." As a result, final actions performed by federal agencies can range from avoidance to complete loss of the historic property without violating ***Section 106***, as long as:

- the agency considers the effects of the action on the property;
- evaluates all available avoidance, minimization, and mitigation options; and
- offers the consulting parties an opportunity to comment on the effects of the undertaking on historic properties.

Consultation is a key element in the ***Section 106*** process. The ***Section 106*** regulations define consultation as "the process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the ***Section 106*** process." FDOT serves as the Lead Federal Agency in most of the consultation required in this process, except for the government-to-government consultation required when requested by a Tribe affiliated with Florida. In those instances, OEM will inform FHWA of the Tribe's request. However, the normal ***Section 106*** consultation process conducted by FDOT with the Tribes is not considered government-to-government consultation. When developing the ***Section 106*** consultation effort for a proposed highway project, FDOT works closely with SHPO to identify the appropriate consulting parties and, as appropriate, informs the appropriate Tribes of projects which may affect properties of religious and cultural importance to the Tribe. Generally, FDOT considers this to include historical or archaeological resources that have obvious ties to a Tribe, or archaeological sites that have a precontact component. For specific information about consulting parties, see ***Section 8.2.1.1*** and ***Section 8.3.2.2.3***.

The consultation effort must be appropriate to the size and scale of the proposed undertaking, as well as to the scope of the federal involvement. Often, the consultation effort may depend on the nature of the historic properties located in the APE of the proposed federal action.

Title 36 CFR Part 800 requires federal agencies to seek the views of the public during the ***Section 106*** process. Normally, FDOT's public involvement process, described in ***Part 1, Chapter 11, Public Involvement***, satisfies ***NEPA***, ***Section 4(f)***, and ***Section 106*** compliance provided the timing of the identification, evaluation, and documentation of the historic properties is appropriately coordinated with the public review and comment opportunity. However, in some cases, where the historic properties are of great concern to the public, where the consultation involves large numbers of local citizens, where special considerations for Tribes must be examined, or where historic properties were identified late or were absent from the initial public review and comment opportunity, additional or different types of public involvement efforts may be necessary. The nature of the sites may also trigger additional consultations to meet the requirements of other laws such as the ***NAGPRA***, ***Chapter 872, F.S.***, or the ***AIRFA***.

8.2.1.1 Participants in the Section 106 Process

The ***Section 106*** process, and therefore FDOT's CRM process, involves several participants. The primary participants in the process include the following:

1. **FDOT** – The role of FDOT varies based upon its relationship to the proposed undertaking, the funding sources for the undertaking, and required approvals. These roles include: (1) the Lead Federal Agency per the ***NEPA*** Assignment Program, (2) being an applicant for non-FHWA federal-aid funds, (3) serving as the Lead Federal Agency for LAP projects receiving federal-aid funds for transportation projects, and/or (4) serving as the Lead State Agency for non-federal, FDOT-assisted or approved undertakings.

2. **Lead Federal Agency** – Under the ***NEPA Assignment MOU***, FDOT assumes FHWA's responsibility for ***Section 106*** for all highway transportation projects and serves as the Lead Federal Agency with the exception of government-to-government consultation with the Tribes. See ***Section 8.2.1.2*** for government-to-government specifics and other tribal coordination details. In addition, there may be instances where other agencies of the USDOT serve as the Lead Federal Agency or when other federal agencies serve as the Lead Federal Agency because they are granting a permit or approval.

3. **ACHP** – The ACHP issues the regulations to implement ***Section 106***, provides guidance on compliance with ***Section 106***, and oversees the ***Section 106*** process. The ACHP must be notified by FDOT when a project will have an adverse effect to historic properties, and the ACHP also may participate directly in the consultation process at its discretion or upon request from one of the consulting parties. The conditions under which the ACHP may participate directly in a specific circumstance are set forth in ***Appendix A to Part 800, Title 36***.

4. **SHPO** – SHPO represents the interests of Florida and its citizens in the preservation of their cultural heritage. Florida's SHPO is designated by the Florida Secretary of State, and reviews federal-aid projects, along with federal and state permitted projects. In Florida, the SHPO also serves as the Director of the FDHR, and in this capacity, reviews state-only undertakings and maintains Florida's state historic preservation plans and programs.

5. **Federally Recognized Native American Tribes (Tribes)** – There are six Tribes with cultural associations in Florida: the Miccosukee Tribe of Indians of Florida, the Mississippi Band of Choctaw Indians, the Muscogee (Creek) Nation, the Poarch Band of Creek Indians, the Seminole Tribe of Florida, and the Seminole Nation of Oklahoma. The U.S. government has a unique relationship with the Tribes as codified in treaties, the U.S. Constitution, Supreme Court rulings, and federal law.

6. ***Section 106*** **Consulting Parties** – These include the parties discussed above, as well as representatives of local governments, applicants for federal assistance, and other parties with a demonstrated interest in the effects of an undertaking on historic properties. For example, property owners and local historic preservation groups are usually specific to the project location. Projects involving NHLs normally involve the National Park Service (NPS). Projects involving publicly owned historic resources would need to include the agency owning or managing the resource.

7. **The Public** – The Lead Federal Agency must seek and consider the views of the public on the effects of its undertakings on historic properties.

8.2.1.2 Native American Consultation

Under ***36 CFR Part 800*** federal agencies must consult with Tribes regarding potential effects to historic properties that may be affected by a proposed undertaking and that may

be of religious or cultural significance to the Tribe regardless of whether the property is located on or off Tribal Lands. FDOT considers resources, both historic and archaeological, that have an obvious tie to a Tribe, or archaeological sites that have a precontact component, as having the potential for tribal interest. In accordance with ***36 CFR § 800.2(c)***, consultation with a Tribe must recognize the government-to-government relationship between the federal government and Tribes. It is FDOT's responsibility to make a reasonable and good faith effort to identify the appropriate Tribes for coordination. FDOT must consult with representatives designated or identified by the tribal government, and consultation should be conducted in a manner sensitive to the concerns and needs of the Tribe. See ***Section 8.3.2.2.3.2*** for the considerations regarding the unique relationship of the Tribes to the consideration of historic properties in FDOT's CRM and project development programs.

While FHWA cannot assign its government-to-government tribal consultation responsibilities to FDOT under the ***NEPA*** Assignment Program, the requirements in ***36 CFR § 800.2(c)*** do not preclude direct communication between project applicants and Tribes, as long as the Tribe consents to such communication. As such, FDOT will continue to coordinate and meet with the Tribes regarding projects including notification of a proposed activity and the submittal of cultural resource reports or other appropriate documents. If, at any time, a Tribe requests government-to-government consultation with FHWA, OEM will notify FHWA. However, the ***NEPA Assignment MOU*** does not prevent FDOT, FHWA, and a Tribe from agreeing to allow FDOT to carry out consultation activities on behalf of FHWA; but, FHWA would remain legally responsible for government-to-government consultation.

8.2.2 Additional Requirements and Processes

The ***Section 106*** process encompasses compliance with other laws that touch upon the treatment of historic properties. Examples of such laws are:

Federal	State
NAGPRA	***Chapter 267, F.S.***
NEPA	***Chapter 872, F.S.***
Section 4(f) of the ***USDOT Act of 1966*** (as amended)	***Chapter 1A-32, F.A.C.***
Archaeological Resources Protection Act of 1979	***Chapter 1A-46, F.A.C.***
Executive Orders, such as ***EO 13007*** on Sacred Indian Sites	

The process for compliance with ***Section 106*** is implemented through the ***Section 106 PA*** (executed, September 27, 2023). A ***Letter of Agreement (LOA)*** between FDOT and SHPO authorizes the processes and procedures outlined within the ***Section 106 PA*** to be utilized for compliance with ***Chapter 267, F.S.***, as well as compliance with ***Section 4(f)*** when SHPO is the official with jurisdiction (OWJ). The ***LOA*** is referenced in and attached to the ***Section 106 PA*** and includes the provision that all consultative efforts between FDOT and SHPO requiring regulatory or procedural acknowledgements be referenced singularly as the ***Section 106 PA*** or ***2023 PA***. The programmatic provisions address the requirements for the primary federal and state historic preservation laws only.

They do not apply to projects occurring on Tribal Lands nor do they fulfill the requirements for consultation with Tribes under ***Section 106*** or any other law. These provisions also do not exempt undertakings from meeting the requirements set forth for resources protected by other laws (such as those resources designated by the Florida Legislature as State Historic Highways) or for resources protected by laws that do not require listing on or eligibility for the NRHP.

Under the ***NEPA*** Assignment Program, FDOT assumes responsibility for compliance with ***Section 106*** of the ***NHPA*** and will continue coordination with the SHPO, other consulting parties, and the ACHP regarding cultural resource issues through formal assumption of ***Section 106*** responsibility. The District will continue to be responsible for activities stipulated in the ***Section 106 PA***, including submittal and coordination of cultural resource surveys and other analyses to OEM and to other consulting parties as appropriate.

8.2.2.1 State-Designated Historic Highways

The Florida Legislature has designated certain highways as State Historic Highways, and a current list is maintained by the FDOS. Each highway is designated by a specific law that sets the standards and guidance for its preservation and treatment. This designation is not based upon the NRHP eligibility criteria nor any other standard evaluation method used to evaluate historic properties. Rather, the designation reflects a specific importance to the local community. For some of these highways, the designation prohibits alteration of roadway dimensions and immediate surroundings as well as the expenditure of state funds on any action involving the designated highway prior to coordination and agreement with FDHR on the proposed action. These resources are identified as part of the identification and evaluation of historic properties undertaken for a proposed action, as detailed in ***Section 8.3***.

8.2.2.2 Burials, Cemeteries, and other Sites Containing Human Remains or Associated Burial Artifacts

FDOT's CRM process includes compliance with Florida's ***Unmarked Human Burials*** law in ***Section 872.05, F.S.***, which governs the treatment of human remains. For FDOT, this law usually applies to human remains encountered during project construction or during archaeological research associated with project development. When a potential for the occurrence of human remains or burial artifacts has been identified for a site or location within the construction area of a project, FDOT includes compliance with the provisions of ***Section 872.05, F.S.***, in its project development and delivery conditions.

The ***Unmarked Human Burials*** law differentiates between human remains of an individual that has been deceased less than 75 years and those of an individual deceased for 75 years or more. For those less than 75 years, the human remains come under the jurisdiction of the appropriate medical examiner. For those that are 75 years or more, the remains come under the jurisdiction of the state archaeologist. If these older remains are located on federal lands and they are associated with the cultural history of Tribes, the federal agency owning or administering the land is informed in order to ensure compliance with ***NAGPRA***. The requirements for the treatment of human remains are further addressed in FDOT's CRM procedures and in ***Section 7-1.6*** of FDOT's ***Standard***

Specifications for Road and Bridge Construction. The ACHP's ***Policy Statement on Burial Sites, Human Remains, And Funerary Objects*** issued on March 1, 2023, established a set of standards and guidelines that FDOT will seek to implement in order to provide burial sites, human remains, and funerary objects the consideration and protection they deserve.

8.3 PROCEDURE

This section describes FDOT's procedures for considering historic and archaeological resources in the development of its projects and programs. FDOT's CRM responsibilities are vested in OEM at the state level, and the District Environmental Office at the District level. Project Managers (PMs), Environmental Managers, and Cultural Resource Coordinators (CRCs) in both OEM and the District Environmental Office have responsibility for maintaining compliance with appropriate state and federal historic preservation laws, regulations, rules, and Executive Orders (EO)s. OEM establishes overall guidance, procedures, training, and assistance in project reviews, and monitors the overall performance of FDOT's CRM program. OEM assists the District PMs, Environmental Managers, and CRCs with the ***Section 106*** process as requested by the Districts, SHPO, and any other consulting party.

The primary responsibility of the District Environmental Office during the ***Section 106*** analysis is to ensure that individual projects follow the established FDOT processes and procedures. The District CRCs apply the applicable laws, regulations and procedures to the individual projects and conduct the day-to-day consultations with the appropriate parties.

In addition to staff, FDOT contracts with consultants to provide cultural resource studies and perform other tasks that require meeting the professional qualifications standards established by the U.S. Secretary of the Interior ***(FR, Vol. 62, 33708-33723)*** to perform identification, evaluation, registration, and treatment activities for historic properties. Consultants identify archaeological sites and historic resources, evaluate the identified resources in accordance with the criteria for historic significance set forth by the NPS, and apply the Criteria of Adverse Effect as defined in ***36 CFR § 800.5***. In all cases, the consultants' findings are professional recommendations.

FDOT staff or consultants performing actions to meet the requirements of historic preservation mandates must either meet or be supervised by individuals meeting the minimum criteria for archaeologists, historians, architectural historians, and other professionals as outlined in ***36 CFR Part 61*** and set forth in the Professional Qualifications Standards section of the ***Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation*** (***FR, Vol. 62, 33708-33723***) (June 20, 1997). The professional qualifications required to perform cultural resource assessments for FDOT are further described in ***Chapter 1*** of the ***CRM Handbook***.

All FDOT undertakings receive some level of cultural resources analysis, even if it is to determine there is 'No Potential to Cause Effects to Historic Properties' in the project area. This analysis is separate from, and must be made prior to, the final, ***NEPA*** decision. A project's level of involvement with historic properties has the potential to impact the

NEPA COA for the project. However, the anticipated ***NEPA*** COA does not dictate the expected level of effort necessary for ***Section 106*** compliance, nor does it substitute for an analysis of the project's potential to affect historic properties. Similarly, for state-only projects, the requirements of ***Chapters 267*** and ***872, F.S.***, apply equally to Non-Major State Actions (NMSAs), as well as State Environmental Impact Reports (SEIRs). The level of analysis and documentation for compliance with historic preservation mandates vary based upon specific project activities, but it is the findings of the analysis that are used as a part of the ***NEPA*** COA decision.

As set forth in ***36 CFR Part 800*** and recognized in the ***Section 106 PA***, the decision concerning the level of survey effort and detail necessary to meet the requirements of historic preservation laws are based upon the nature and scope of proposed projects and the location of these projects in relation to both known and unknown historic properties. Therefore, determining the appropriate level of survey requires a careful review of all activities associated with the project, as well as the potential for the occurrence of historic properties in the geographic area that the project may directly or indirectly affect.

FDOT uses the four-step process established in ***36 CFR Part 800*** as the core of its CRM compliance program for both federal and state actions. This process includes locating, documenting, evaluating, and assessing the effects on historic properties, as well as developing avoidance, minimization, and/or mitigation measures for adverse effects to significant cultural resources, all in consultation with the appropriate parties. Regardless of the funding source, similar requirements for the assessment of cultural resources apply.

For proposed federally funded or approved actions, if the undertaking includes an additional federal action [such as a U.S. Coast Guard (USCG) or U.S. Army Corps of Engineers (USACE) permit], then the federal agency taking that action must comply with ***Section 106*** of the ***NHPA***; however, in these cases those agencies will typically adopt FDOT's ***NEPA*** analysis and associated findings including those under ***Section 106*** to fulfill their requirements. For proposed state funded only projects, if the undertaking includes a federal action (such as a USCG or USACE permit), then the federal agency must comply with ***Section 106*** of the ***NHPA***. As permits are often granted only for the specific activity or location being permitted, the ***Section 106*** compliance in these situations may not relieve FDOT of its ***Chapter 267, F.S.***, responsibilities for the remainder of the proposed project.

8.3.1 Early Consideration of Archaeological and Historical Resources

Section 106 and FDOT's CRM process require consideration of historic properties in the earliest stages of project development. FDOT's Efficient Transportation Decision Making (ETDM) screening process allows Districts to use the Environmental Screening Tool (EST) to review projects to determine if projects fall into the programmatic categories established in the ***Section 106 PA***. See ***Section 8.3.2.2.2*** for additional procedures related to reviewing minor project activities.

Screening of qualifying transportation projects is required during the ETDM screening events (see ***Part 1, Chapter 2, Class of Action Determination for Federal Projects***).

The early screenings for these projects include consideration of cultural resources and loosely correlate to steps one and two of the ***Section 106*** process. The Planning Screen and Programming Screen are conducted through the EST and are briefly described below (FDOT's ***ETDM Manual, Topic No. 650-000-002***).

The screening evaluations are:

1. **Planning Screen** – This initial screening identifies possible issues/resources that need to be considered as the proposed project advances. This is the first opportunity for comments from other agencies with either responsibilities for, or consultative roles in, the ***Section 106*** process.

2. **Programming Screen** – This second screening event provides additional opportunity to scope the proposed project, identify potential project effects, and provide recommendations for technical studies, including the cultural resources survey and evaluation effort. This screening event may also present an excellent opportunity to establish contact with the interested parties for coordination of some of the early decisions regarding the CRM study, such as the identification of the appropriate consulting parties for the project and, more rarely, the delineation of the APE for the project.

Following the Programming Screen, the District produces a ***Programming Screen Summary Report***. This report includes a summary of the comments provided by the resource agencies, FDOT's transportation partners, and other interested parties, including consulting parties under ***Section 106***. The comments from those with a consultative role in the ***Section 106*** process are especially important for consideration as the District plans its PD&E Study for the proposed undertaking. In addition, comments from SHPO/THPO and the Tribes are used to develop the scope of services needed to complete the CRAS for the proposed project.

For screened projects, there may be enough information to determine if the project may affect any historic resources. In part, these screening events should be used as part of the first two steps of the ***Section 106*** process (see ***Section 8.3.2.2*** and ***Section 8.3.2.4***).

8.3.2 Archaeological and Historical Resources Considerations Prior to and during PD&E

FDOT uses the ***Section 106*** process to ensure compliance with most state and federal historic preservation regulations.

8.3.2.1 Section 106

The ***Section 106*** process is set forth in ***36 CFR Part 800***. As specified in ***Section 8.2.1***, there are four steps in the ***Section 106*** review process and, therefore, in FDOT's procedures.

Figure 8-1 provides a flow chart of this four-step process and a listing of the activities associated with each of the steps. This process is also discussed in FDOT's ***CRM***

Handbook. The ***Chapter 267, F.S.***, requirements are similar to the ***NHPA*** requirements and this same four-step process is applicable to projects that do not require federal approvals or assistance, with the exception being that no coordination with federal agencies or the ACHP is required. If it is anticipated that a federal agency will become involved later in project development, the ***Section 106*** process should be followed to avoid unnecessary delays.

Regardless of whether a project qualifies for screening (see the ***ETDM Manual, Topic No. 650-000-002***), a cultural resources evaluation is required. The level of effort involved in the ***Section 106*** evaluation is based on the potential for the project to affect historic properties, consideration of where the project occurs, and the nature of the proposed undertaking.

8.3.2.2 Step One: Initiate the Section 106 Process

This step involves the following four actions:

- Establish the undertaking
- Apply appropriate program alternative(s) and coordinate with other reviews
- Identify the consulting parties
- Create a plan to involve the public

8.3.2.2.1 Establish the Undertaking

In accordance with ***36 CFR § 800.3***, establishing the undertaking consists of a determination as to whether the proposed action constitutes an undertaking as defined in ***36 CFR § 800.16(y)***, and if so, whether it is a type of activity with a potential to cause effects to historic properties should any such properties be present. An undertaking consists of a project, activity, or program that is funded, sponsored, permitted or otherwise approved by a federal agency. Any federal involvement in this regard requires compliance with ***Section 106***; state-only undertakings require compliance with ***Chapter 267, F.S***. In some cases, an undertaking and its associated activities are so minor that it does not have potential to cause effects to historic properties, assuming historic properties are present. These actions are defined as non-construction related activities. For example, purchasing equipment, planning, and design all fall under this portion of the regulation. In accordance with ***36 CFR § 800.3(a)(1)***, if the District finds that the proposed project has 'No Potential to Cause Effects', FDOT has no further obligations under ***Section 106*** or under ***Chapter 267, F.S.***, for that undertaking. Findings of 'No Potential to Cause Effects to Historic Properties' must be recorded in the appropriate Environmental Document for the proposed project, along with the basis for the finding. All construction-related actions with a federal nexus must comply with ***36 CFR. §§ 800.4*** **to** ***800.6*** including any maintenance, new construction, and all construction related actions. Questions about applicability of ***36 CFR. § 800.3(a)(1)*** should be referred to OEM.

The ***Section 106 PA*** establishes FDOT's CRM process in Florida and identifies activities which will result in a finding of 'No Historic Properties Affected' provided that the appropriate conditions specified in the ***Section 106 PA*** are met and SHPO does not object to the finding (***Section 8.3.2.2.2***). If the undertaking is a type of activity that has potential to cause effects to historic properties, then the project proceeds to the next step in the ***Section 106*** process.

8.3.2.2.2 Apply Appropriate Program Alternative(s) and Coordinate with Other Reviews

The ***Section 106 PA*** specifies two primary considerations that govern the required level of effort for the cultural resources study and review: (1) the project location in regard to the potential for cultural resources to be present in the area of the undertaking, and (2) the specific activities associated with the development, construction, and scope of the project and their potential to affect significant cultural resources, should such resources be present.

Regarding project location, some geographic areas are unlikely to contain historic resources, while other projects are so minor in scope that unless the specific project corridor itself contains, abuts, or is a historic resource, there is very little chance the undertaking could affect historic properties. Such circumstances may minimize the level of effort needed to fulfill the requirements for identifying historic properties in the project APE. However, if the basic historicity of the area is unknown, then a determination on the potential of the proposed project to affect historic properties, no matter how minor the project is, cannot be made with any certainty without a review of the structural and archaeological environment surrounding the project. Therefore, in order to reach an accurate decision, FDOT conducts the necessary level of review.

Regarding specific activities associated with a project, the ***Section 106 PA*** defines two categories of Minor Project Activities with either minimal potential to affect historic properties or which are considered unlikely to affect historic properties. The first group includes six project activity types that have minimal potential to affect historic properties and can result in a finding of 'No Historic Properties Affected', provided the following conditions are met:

1. The undertaking is a stand-alone project;

2. The undertaking does not occur on Tribal Lands;

3. The undertaking's activities are limited to those specified in Appendix 1 of the ***Section 106 PA***;

4. The undertaking's APE does not include any historic resources; and

5. SHPO and OEM have been notified of the finding of 'No Historic Properties Affected' and the rationale for the finding via the form developed by OEM, and they have not objected to the finding within thirty (30) days of receipt of the notification.

The six project activity types specified in Appendix 1 of the ***Section 106 PA*** which may qualify for this category are:

1. Installation of fencing, signs, pavement markings, rumble strips, small passenger shelters, traffic signals, and railroad warning devices within the existing footprint of the roadbed, curbing, medians, swales, drainage structures or sidewalks where no substantial land acquisition or traffic disruption will occur

2. In kind replacement or ordinary repair of existing lighting, guardrails, traffic signals, curbs, and sidewalks

3. Activities included in the state's highway safety plan under ***23 U.S.C. § 402***

4. Preventive maintenance activities such as joint repair, pavement patching, shoulder repair and the removal and replacement of old pavement structure that does not extend beyond the horizontal or vertical extent of the original construction footprint

5. Restoration, rehabilitation, and/or resurfacing existing pavement that does not extend beyond the horizontal or vertical extent of the original construction footprint

6. Restoration and rehabilitation of an existing bridge (including painting, crack sealing, joint repair, scour repair, scour counter measures, fender repair, bridge rail or bearing pad replacement, seismic retrofit, etc.)

The second category of Minor Project Activities are considered unlikely to affect historic properties but require desktop evaluation to either verify that the project will result in 'No Historic Properties Affected' or to determine what consultation or additional efforts are needed to meet the requirements of the historic preservation laws. The following conditions must be confirmed to be true for undertakings consisting of this group of 52 project activity types (see ***Figure 8-2***):

1. The undertaking is a stand-alone project;

2. The undertaking does not occur on Tribal Lands;

3. The undertaking's activities are limited to those listed in Appendix 1 and/or Appendix 2 of the ***Section 106 PA***;

4. The undertaking's activities do not involve ground disturbance within or adjacent to a cemetery;

5. The undertaking's APE includes one or more of the following situations:

    i. There are no historic resources in the project APE;

    ii. There are historic resources that have been evaluated by SHPO as ineligible for listing on the NRHP within the last ten (10) years;

iii. There are resources that are exempt from ***Section 106*** review per the nationwide program alternatives listed in Attachment 1 of the ***Section 106 PA***; or

iv. There are linear resource segments that have been evaluated by SHPO as non-contributing, ineligible segments of a larger resource determined eligible or potentially eligible for NRHP listing or which has insufficient information for a definitive NRHP determination for the whole resource.

6. The SHPO has been notified of the finding of 'No Historic Properties Affected', and the rationale for the finding via the form developed by OEM, and they have not objected to the finding within thirty (30) days of receipt of the notification.

See ***Figure 8-2*** for the list of 52 types of project activities identified in Appendix 2 of the ***Section 106 PA***.

Reviewing Minor Project Activities

FDOT's procedure for reviewing the two categories of Minor Project Activities listed in the ***Section 106 PA***, consists of an internal review and, as appropriate, an assessment of historic resources' NRHP eligibility determinations, and notification and coordination. The ***Section 106 PA*** specifies that the internal review be conducted by qualified cultural resource staff or consultants, including an archeologist and architectural historian or historian, meeting the ***Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (36 CFR Part 61 and 48 FR 44716, September 29, 1983)***, and that they employ a multi-disciplinary approach to implement the following internal review process, as appropriate to the project:

- Determine if the project constitutes an undertaking as defined in ***36 CFR Part 800***.
- Determine if the undertaking is the type of activity which has the potential to cause effects to historic properties if such properties are present.
- Determine the project's APE.
- Review existing information (including the FMSF) on recorded properties in the APE.
- Assess the likelihood that unidentified properties exist in the APE.
- Determine the degree of existing disturbance within the APE, performing a field inspection where warranted.
- Determine whether there are historic resources or properties within the APE. If there are historic resources within the APE which have not yet been documented and evaluated for NRHP eligibility, the minor project process cannot be used and the project should be processed according to the standard ***Section 106*** process outlined in Stipulation VII of the ***Section 106 PA***.

- Assess the project's effects on any historic properties if any are present within the APE, by applying the definition of Effect in ***36 CFR § 800.16*** and the Criteria of Adverse Effect in ***36 CFR § 800.5(a)***. Minor Projects must result in 'No Historic Properties Effected***'***. If the application of the criteria of adverse effect suggests a different finding, the project must be processed according to the standard ***Section 106*** process outlined in Stipulation VII of the ***Section 106 PA***.

For projects that do not include historic resources or properties within the APE or that by their nature have minimal potential or are considered unlikely to affect historic properties, FDOT documents the finding in the StateWide Environmental Project Tracker (SWEPT) project file. This is accomplished by the District notifying SHPO of its finding of 'No Historic Properties Affected' on a ***Section 106 Program Alternative Form*** developed for minor project notifications. The State CRC must be copied on this notification, and it must be saved to the SWEPT project file. The ***Section 106 Program Alternative Form*** includes the project description, a map showing the location and area of potential effect, along with other information supporting the finding, as appropriate. Unless SHPO, OEM, or another consulting party objects to the finding, FDOT is not required to take any further action in the ***Section 106*** process.

If a Tribe expresses interest in a minor project, the District will provide the project information and supporting documentation via a ***Notification Letter*** in accordance with the communication preferences discussed on FDOT's ***Native American Coordination Website***. The Project Delivery Coordinator (PDC) and the State CRC must be copied in on these notifications and a copy of the notification and any tribal response must be saved in the SWEPT project file.

8.3.2.2.3 Identify the Consulting Parties

FDOT, in consultation with SHPO/THPO, determines which particular agencies, organizations, citizens, or tribal governments should be invited to be a consulting party for the purposes of ***Section 106,*** as set forth in ***36 CFR Part 800***.

The consulting parties may be any of the following:

1. Tribes that attach traditional religious and cultural significance to historic properties that may be affected by the undertaking.

2. Other consulting parties, which may include:

    - Applicants for federal funding assistance, permits, licenses, or other approvals.

    - Representatives of local governments with jurisdiction over the area in which the effects of an undertaking may occur.

    - Parties with legal or economic interest in the undertaking or an affected historic property.

    - Those concerned with the undertaking's effects on historic properties, such as local preservation groups, historical societies, or individual tribal members with

special knowledge or expertise in identifying properties of traditional religious and cultural significance to that Tribe.

FDOT, in consultation with SHPO/THPO, makes the final decision regarding consulting party status. Note that the ACHP is a participant in the ***Section 106*** process and may enter into the consultations at any time, particularly if there is a disagreement between two or more consulting parties, or if requested to participate by the public or any other consulting party. In addition, in the case of NHLs, the lead agency must consult with the NPS in order to comply with ***Section 110*** of ***NHPA***, as well as ***Section 106***. Once the consulting parties are identified the following procedures must be followed.

8.3.2.2.3.1 General Consultation

The ***Section 106*** process seeks input from and coordination with a broad base of partners with the goal of achieving the best possible result for all involved. When distributing general notifications and/or project communications which include multiple entities such as the public, local government officials, or Tribes, the communication to the Tribes must be provided to each appropriate Tribe separately in accordance with their stated preferences available on the ***Native American Coordination Website***. Tribes are not part of the public and should not receive public notifications such as public hearings, public meetings, alternative meetings, etc., unless expressly requested by a Tribe. The following procedures apply to general notifications and tribal consultation is outlined in greater detail in ***Section 8.3.2.2.3.2***.

1. FDOT notifies potential consulting parties. The notification includes the project description, a discussion of efforts to identify historic properties, and an invitation to participate in the ***Section 106*** process.

2. FDOT submits documentation related to identification of and effects (or no effects) to historic properties to SHPO/THPO and the consulting parties, as appropriate. If SHPO/THPO requests additional information that will assist in completing their review of eligibility and effects, FDOT provides that information in a timely manner.

3. For projects where adverse effects to archaeological or historic properties have been identified, prior to initiating consultation with SHPO/THPO and other appropriate parties on the resolution of those adverse effects, the District coordinates with OEM.

8.3.2.2.3.2 Tribal Consultation

The objective of this coordination is to conduct a good faith effort to elicit information concerning properties of traditional, historical, or religious importance to the Tribes in a sensitive manner that is respectful of tribal sovereignty. To date, six major areas of concern to the Tribes have been identified:

1. Good faith consultation

2. Government-to-government relationships

3. Confidentiality
4. Human remains
5. Archaeological sites
6. Traditional Cultural Properties

Chapter 3 of the ***CRM Handbook*** provides additional information about the major issues of concern as well as expanded details for tribal consultation. The basic steps to follow when coordinating with Tribes are outlined below.

Step 1 – FDOT initiates coordination by providing the Advance Notification (AN) in the EST) or an early ***Notification Letter*** to each Tribe with interest in the project area. The AN or ***Notification Letter*** should be addressed to the Chief or Chair of each Tribe and submitted via their preferred tribal contact (see FDOT's ***Native American Coordination Website*** for appropriate tribal contacts). These notifications should include the following:

1. A clear statement that the project is being conducted pursuant to ***Section 106*** of the ***NHPA***
2. A brief description of the project and proposed improvements
3. A map showing the location of the project and proposed improvements
4. A statement that a CRAS will be conducted and a copy of the report will be forwarded to the Tribe
5. A request for comments from the Tribe
6. The name of FDOT's designated contact for tribal comments

Two of the six Tribes, the Miccosukee Tribe of Indians of Florida and the Seminole Tribe of Florida, retain sovereign Tribal Land in Florida, and are consulted for projects occurring on their Tribal Land. However, for projects not occurring on Tribal Lands, it is appropriate to include the Tribes culturally affiliated with Florida. Some of the Tribes with cultural affiliation with Florida have expressed areas of interest. The Mississippi Band of Choctaw Indians only wish to be contacted on projects occurring in the Florida Panhandle, west of the Apalachicola River to the Alabama state line (including Escambia, Santa Rosa, Okaloosa, Walton, Holmes, Washington, Bay, Jackson, Calhoun, and Gulf Counties). If the project does not include resources located in that designated area, project information is not forwarded to the Mississippi Band of Choctaw Indians. In addition, the Muscogee (Creek) Indians geographic area of interest in Florida does not include Broward, Miami-Dade, Monroe and Collier counties. Therefore, information on projects wholly confined to those counties need not be provided to the Muscogee (Creek) Nation.

Any coordination with the Tribes on state-only projects is conducted through FDOT. The State CRC should be copied on transmittals to Tribes. If a federal permit is required for the state-only project, the Districts inform the federal permitting agencies when

consultation with the Tribes will be needed and assist those agencies in the coordination and consultation with the Tribes and SHPO/THPO, as appropriate.

Step 2 – Following initial notification, information provided by a Tribe relating to a project's historic and archaeological survey area must be considered when developing and conducting the CRAS and must be addressed as appropriate in the ***CRAS Report***. Based on the nature of the response, tribal coordination will, in general, continue in one of three avenues.

1. If a Tribe previously expressed interest in the project and/or the CRAS in response to the early notification, the District may provide the requested information directly to the Tribe and copy the PDC and State CRC on the correspondence.

2. If no Tribe has previously expressed interest in the project **and** the survey does not result in the need to initiate tribal coordination, the resulting ***CRAS Report*** is submitted to SHPO and OEM. Note: The Muscogee (Creek) Nation and Mississippi Band of Choctaw Indians have requested to receive all ***CRAS Reports*** with significant ground disturbance within their areas of interest. Significant ground disturbance in this context is categorized as all ***CRAS Reports*** processed in accordance with the standard ***Section 106*** process outlined in Stipulation VII of the ***Section 106 PA***. As with any ***CRAS Report*** anticipating adverse effects to an historic property, submittal to the appropriate Tribes is through OEM. Current areas of interest are maintained on the ***Native American Coordination Website***.

3. If no Tribe has previously expressed interest in the project **but** the survey does result in the need to initiate tribal coordination, the District will provide a draft ***Transmittal Letter*** and the final ***CRAS Report*** to OEM for distribution to the appropriate Tribes. Instances where this may be applicable are most typically with the discovery of human remains and/or funerary objects, when sensitive sites are under discussion regardless of NRHP eligibility, or when a project has the potential to 'Adversely Affect' significant pre-contact archaeological sites in which a Tribes may have an interest or claim cultural affinity. Post-contact sites without Native American cultural material or association are, generally, not within Tribes' areas of interest and would not require tribal coordination.

Sample ***transmittal letters*** for sending reports to a Tribe are provided in ***Figure 8-3*** and ***Figure 8-4.***

Step 3 – The final stage of tribal coordination is guided by the tribal interest expressed for the project and/or the nature of the tribal response received, if any.

1. If comments on the project or CRAS are received from the Tribes, the District CRC coordinates with the PDC, State CRC, and the Project Manager to address the comments, and then with the THPO or ***Section 106*** tribal representative.

2. If no comments are received, FDOT proceeds with the ***Section 106*** process.

FDOT coordination with the Tribes will be conducted electronically unless a request for hard copies has been made. The State CRC can provide direction and assistance to

assure that meaningful tribal coordination occurs throughout project development including, but not limited to, coordination on the determination of effects and any subsequent efforts to find an appropriate avoidance, minimization, or mitigation solution as appropriate. Should a Tribe request government-to-government Consultation at any point during the ***Section 106*** process, FDOT will notify FHWA per the ***NEPA Assignment MOU***.

8.3.2.2.4 Create a Plan to Involve the Public

Under historic preservation laws, public involvement activities are dependent on the nature and complexity of the project and its potential to affect historic properties. The public includes elected officials, local property and business owners, historic preservation groups, and other concerned citizens with an interest in the undertaking. Efforts to involve the public should be initiated early in the project development process and comments from the public will be solicited throughout the ***Section 106*** process.

The ***Section 106*** process to engage the public is coordinated with the ***NEPA*** public involvement procedures established in ***Part 1, Chapter 11, Public Involvement***, in accordance with ***36 CFR 800.2(d)***. Public involvement documents or presentations must mention any project involvement with archaeological and historic resources that are not exempt from disclosure. For projects involving a number of consulting parties, projects with a high degree of controversy, or projects that involve historic properties that are of a particular importance to the community, the public involvement needs may exceed those that are addressed by the procedures in ***Part 1, Chapter 11, Public Involvement***. In these cases, the Districts inform the PDC as well as the SHPO/THPO and should ensure that ***Section 106*** public involvement activities are influenced by the scale and nature of the undertaking and the historic properties involved. Districts may also consider establishing a cultural resources coordinating committee for these projects. This more organized group of affected party representatives focuses solely on the minimization and mitigation measures for adverse effects to an historic property. Typically, cultural resources coordinating committees have regular meetings to make decisions about, or get updates on, the affected historic property up to and beyond the signing of an MOA to the implementation of the mitigation stipulations and sometimes project completion.

There are times when the law requires that a particular historic property location, purpose, or nature must be kept confidential. It is the District's responsibility to ensure that sensitivities for these properties are fully respected in the public involvement efforts. To that end, the District Environmental Manager and/or CRC reviews all site information to ensure that FDOT does not inadvertently release information on sites that should remain confidential.

8.3.2.3 Step Two: Identify Historic Properties

The purpose of Step Two of the ***Section 106*** process is to identify all NRHP-listed, determined eligible, or potentially eligible archaeological sites and/or historic resources located within the project APE, as defined in ***36 CFR Part 800*** (see ***Section 8.1.2***). This is accomplished through the completion of a CRAS and its associated report. Step Two of the ***Section 106*** process includes the following four actions:

1. Determine the scope of the resource identification effort.

2. Identify historic resources (for example, archaeological sites, buildings, objects of 50 years of age or older, as defined in ***Section 267.021, F.S.***).

3. Evaluate the historic significance of the identified resources.

4. Document the historic and archaeological resources survey and evaluation effort.

8.3.2.3.1 Determine the Scope of the Resource Identification Effort

Identify the scope of the resource identification effort through the following activities:

1. Determine and document the APE.

2. Review existing information about historic properties within the project APE, including data concerning the potential for the occurrence of historic properties not yet identified. Much of these data are available at the FMSF and in the Florida Geographic Data Library (FGDL) database available in the EST.

3. Seek information from parties likely to have knowledge of, or concerns about, historic properties in the area.

4. Gather information from the appropriate Tribes about properties to which they attach religious and cultural significance while remaining sensitive to issues of tribal sovereignty, and any concerns they may have about the confidentiality of this information.

In order to meet the “reasonable and good faith effort” required by ***36 CFR § 800.4***, these decisions must be based upon: (1) the activities associated with the proposed project and (2) the potential for the occurrences of historic properties within the project APE, as well as the types of resources that may be encountered. The level of effort required for the resource identification effort normally depends on ROW needs, the extent of ground-disturbing activities, size and scope of the proposed undertaking, the area of visual intrusion of the proposed project, and the potential for the occurrence of historic properties in the project APE.

The District PM and District CRC establish the project’s APE, and when necessary, it is done in coordination with OEM and SHPO/THPO. In practice, a recommended APE is developed by the CRM professionals conducting the CRAS effort in tandem with the District PM and the District CRC. This APE is then defined in the cultural resource document, with a justification for its geographic limits (see ***Section 8.3.2.3.4*** for cultural resource document types approved for FDOT use).

In defining the APE, the full range of possible project effects is considered that could directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist, based on the scale and nature of the undertaking. Possible project effects include direct, indirect, and cumulative effects. Direct effects include ground-disturbing activities and destruction of the property or elements associated with the

property, as well as auditory and visual effects. Indirect effects are reasonably foreseeable effects which may result from the project such as changes in transportation patterns and demands, abandonment of historic properties, changes in access to or from historic properties, and other effects which may be further removed from the project in distance or time, or which may be cumulative in nature. FDOT has provided general guidance for considering cumulative effects under ***NEPA*** in FDOT's ***Cumulative Effects Evaluation (CEE) Handbook***. For historic properties, any analysis of such effects would be confined to those which may alter any of the character defining features that qualify the property for inclusion in the NRHP.

The identification of the APE should be based on the project scope and the potential to affect cultural resources; therefore, it should be sized to accommodate appropriate cultural resource investigations. Not all survey techniques are appropriate for the entire APE. For example, due to the nature of archaeological sites, how they can be affected, and the methods of identification and evaluation used, the survey efforts for these resources are different from the methods applied to other categories of historic properties. The survey effort for archaeological sites within the APE is usually focused on the area where ground disturbance may occur. In addition to the existing and proposed ROW, this includes potential temporary construction areas, staging areas, access roads, Stormwater Management Facilities (SMF), Floodplain Compensation Areas (FPC), and other project related activities which have the potential to affect historic properties. There also may be instances where proximity effects such as vibrations or destabilization of lands may affect archaeological resources beyond the proposed or existing ROW.

The survey effort for historic resources, such as historic structures, districts, and landscapes, takes into consideration direct effects like acquisition and demolition, but also factors such as potential visual and auditory effects, changes in vehicular access, and destruction of important landscapes resulting from equipment storage and other construction-related activities. Viewshed issues can be particularly important in guiding the outermost limits of the APE because above ground resources can be sensitive to alterations of their settings. The CRM professionals conducting the CRAS need to take into account both the view from the project looking outward, as well as the view from the outside looking towards the project. This is particularly appropriate in the case of elevated roadways and bridges, as well as projects that alter landscapes and approaches. As a result, the areas requiring survey and evaluation for above ground resources often extend beyond the geographic area identified for archaeological investigations. In all cases, the survey techniques and the geographic extent of these techniques within the APE must be identified in the cultural resource document.

If the scope changes during the project, the APE and the survey efforts may need to be revisited for archaeological sites and/or historic resources.

For most projects, the APE is determined by District cultural resource staff or consultants and documented in the cultural resource document. However, for multi-alternative, complex, and large projects, or for undertakings that may include a broad range of potential effects, consultation with the appropriate parties regarding the designation of the APE should be completed prior to initiating the CRAS. In cases where FDOT and SHPO, or other consulting parties, fail to agree on the establishment of the APE, OEM is

responsible for making the final determination. For additional details on delineating the APE for a proposed project, refer to ***Chapter 5*** of the ***CRM Handbook***.

As stated in ***Section 8.3.2.2.2***, the ***Section 106 PA*** provides two categories of minor project types, along with the criteria that govern the level of effort for the assessment. When the proposed undertaking fails to meet these criteria, a more intensive survey effort will be needed. For most minor project types with minimal potential to affect historic properties, the resource identification effort typically entails a desktop review (background research). As outlined in ***Section 8.3.2.2.2***, the first category of minor projects includes specified activities that are so minor they normally could affect only those historic properties directly involved or directly incorporated into the activity. When an undertaking comprised of these activities meets the program alternative conditions set forth in Stipulation V of the ***Section 106 PA*** and SHPO does not dispute the finding of 'No Historic Properties Affected', the undertaking may proceed with no further involvement of SHPO. If, however, the project activity does not meet the conditions, it should, as appropriate, be processed in accordance with either Stipulation VI or Stipulation VII of the ***Section 106 PA***.

The second category of minor projects outlined in the ***Section 106 PA*** contains activities (see ***Figure 8-2;*** Appendix 2 of the ***Section 106 PA***) that are more involved than those listed in the first category. These project activities, due to their nature and definition, are considered unlikely to affect historic properties. However, the geographic area that could be affected by these activities may be broader than the areas for the first category. Therefore, it is necessary to confirm a lack of historic resources in the immediate vicinity of the proposed undertaking by completing an appropriate level of analysis and study.

If, as a result of this desktop analysis effort, FDOT finds that the project meets the program alternative conditions set forth in Stipulation VI of the ***Section 106 PA*** and in ***Section 8.3.2.2.2***, FDOT must inform SHPO of its finding of 'No Historic Properties Affected' and include sufficient supporting information. If SHPO does not object to the finding within 30 days of notification, the project may proceed with no further involvement of SHPO. If, however, the conditions are not met, or when SHPO or another consulting party (such as a local preservation group or a permitting agency) object to the finding, then further consultation with SHPO, and the appropriate consulting party must be undertaken accordance with Stipulation VII of the ***Section 106 PA*** to complete the ***Section 106*** process. Additionally, the ***Section 106 PA*** does not address separate decisions which may be required under ***Section 106***, such as government-to-government consultation with federally recognized Tribes and FDHR review of State Historic Highways.

For projects meeting the criteria for either of the two program alternative categories set forth in Stipulations V and VI of the ***Section 106 PA*** between FDOT and SHPO (see ***Section 8.3.2.2.2***) the notification to SHPO—with a copy to the State CRC—is provided using the ***Section 106 Program Alternative Form*** developed for these minor projects. This completed form serves as the documentation to support the finding related to historic properties contained within the undertaking. Minor projects which do not meet the criteria for those program alternatives should be processed according to the standard ***Section***

106 process outlined in Stipulation VII of the ***Section 106 PA*** and ***36 CFR § 800.4(d)***, as outlined in ***Section 8.3.2.3.4***.

Unlike the undertakings meeting the program alternatives, which are generally minor projects, most major projects have a greater potential to affect historic properties. As a result, identification and evaluation surveys require a more robust effort, including preliminary background research, field reconnaissance, historical/architectural field reviews, property examinations, and systematic archaeological testing, as appropriate.

8.3.2.3.2 Identify Historic and Archaeological Resources

The purpose of the CRAS is to identify, document, evaluate, and provide the boundaries of the historic and archaeological resources in the APE and discuss the historic properties that may be affected by the proposed undertaking.

The CRAS includes a review and assessment of all previously recorded and newly identified archaeological sites and historic resources located within the project APE. A CRAS includes the following activities:

1. Complete Background Research
2. Develop a Research Design
3. Conduct an Archaeological Field Survey
4. Conduct an Historic and Architectural Resources Field Survey
5. Conduct Artifact Processing and Analysis
6. Provide for Artifact and Record Curation
7. Prepare FMSF forms

Each of these activities is described in detail in ***Chapter 5*** of FDOT's ***CRM Handbook***.

For projects occurring on state-owned lands, a research permit from the Bureau of Archaeological Research is required in accordance with ***Rule 1A-32.005, F.A.C.*** A ***Chapter 1A-32*** permit is not required for archaeological survey within FDOT's ROW. Archaeological research on federal lands requires an ***ARPA*** permit from the land managing agency.

8.3.2.3.3 Evaluate the Historic Significance of the Identified Properties

Title 36 CFR Part 60 establishes the criteria for evaluating the significance of historic resources in terms of eligibility for the NRHP. ***Title 36 CFR § 60.4*** states that

> . . .the quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures,

and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that meet at least one of the four criteria for evaluation:

A. That are associated with events that have made a significant contribution to the broad patterns of our history (e.g., events, developments); or

B. That are associated with the lives of persons significant in our past; or

C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction (e.g., architecture, engineering, or cultural trends); or

D. That have yielded, or may be likely to yield, information important in prehistory or history (e.g., research potential or value).

36 CFR § 60.4 also established a series of Criteria Considerations for evaluating the significance of resources which are not normally considered to have potential for historic significance (such as religious properties, cemeteries, properties that are not yet 50 years old, and properties that have been relocated).

The evaluation of each archaeological site and historic resource within the APE for an undertaking includes applying the NRHP Criteria for Evaluation. As indicated in the ***National Register Bulletin No. 15 (NPS, 1991, revised 1997)***, it is critical to address both significance and integrity when evaluating historic resources for eligibility and to develop specific reasons why a historic resource is or is not NRHP eligible and, if eligible, what criteria of eligibility apply to the property along with the property's character-defining features and associated elements. In order to comply with the provisions of ***Sections 106 and 4(f)***, justifiable boundaries for properties found to possess historic significance must be provided, along with any contributing landscape elements and associated structures or features that are located either within or near the proposed ROW for the project. In the case of historic districts, it is especially important to note the non-contributing features of the historic district contained within the existing and proposed ROW of the transportation corridor under study. See ***Part 2, Chapter 7, Section 4(f) Resources*** for guidance regarding evaluation of ***Section 4(f)*** resources for the purposes of compliance with ***Section 4(f) of the USDOT Act of 1966***, as amended. For further guidance on applying and reporting the NRHP Criteria for Evaluation in FDOT CRAS efforts, see ***Chapter 6*** of the ***CRM Handbook***.

In compliance with ***Section 106*** of the ***NHPA***, the information gathering and assessment effort includes parties with interests in and knowledge of the history of the area and the local value of the historic properties located in the APE. The special expertise of Tribes is included when assessing the eligibility of a property to which they may attach religious and cultural significance, even when it is not on Tribal Lands. Since Tribes may inform the OEM (or a lead federal permit agency) of their concerns directly, it is important for the

District to maintain communication with OEM (and the federal permitting agency) regarding potential tribal interests in proposed undertakings and their potential to affect historic and archeological properties. It is also important for the District to inform the CRM consultants assigned to any projects which a Tribe expresses an interest in, as appropriate, and in consideration of the confidentiality of tribal information, so that the CRM professionals completing the survey are aware of these concerns while completing the cultural resources survey efforts.

Previous determinations of eligibility and non-eligibility of historic resources from earlier surveys may need a reassessment due to the passage of time or other factors. In addition, not all eligibility determinations contained at the FMSF or summarized in the Geographic Information System (GIS) database for ETDM are accurate. Therefore, check SHPO concurrence letters and FMSF forms for accurate site evaluations prior to revisiting previously recorded cultural resources.

8.3.2.3.4 Document the Historic and Archaeological Resources Survey Effort

The approved cultural resources document types utilized by FDOT are: ***Section 106 Program Alternative Forms***, ***Notification Letters***, ***Desktop Analysis and Effects Determination Letters (Desktop Analyses)***, ***CRAS Reports***, ***CRAS Addendum Reports***, and ***Section 106 Case Study Reports***. The District sends the appropriate cultural resource document to OEM or other Lead Federal Agency, SHPO/THPO, and the other consulting parties. The ***Section 106 Program Alternative Form*** is used to document compliance with Stipulations V and VI of the ***Section 106 PA*** and is addressed in ***Section 8.3.2.3.1***. For all undertakings processed in accordance with Stipulation VII of the ***Section 106 PA***, the remaining approved document types, ***Desktop Analyses***, ***Notification Letters***, ***CRAS Reports***, and ***CRAS Addendum Reports*** must:

- Identify, define, and justify the APE;
- Record historic resources evaluated as part of the survey effort (as appropriate), provide the cultural resources team's recommendations on the historic significance of the resources encountered in the project APE; and
- Provide a preliminary assessment of the potential effects of the proposed action on any identified historic properties only when the project description and activities are detailed enough to permit such an assessment.

The ***CRAS Report*** or ***CRAS Addendum Report*** may identify two kinds of historically significant properties: those properties already listed or determined eligible for listing in the NRHP, and those newly identified and assessed as potentially eligible for the NRHP. ***Desktop Analyses*** and ***Notification Letters*** identify and discuss only previously recorded and NRHP-evaluated historic properties and do not include the identification and NRHP assessment of new resources, with one exception (see ***Section 8.3.2.8.2*** for the exception).

Considerations for reporting the findings of the CRAS include the nature of the undertaking, the historic and archaeological sensitivity of its location, the findings resulting from the survey effort, the applicability of the provisions contained in the ***Section 106 PA*** (see ***Section 8.3.2.2.2***), and the number and nature of the consulting parties. In accordance with ***36 CFR § 800.4(d)***, at the conclusion of Step 2 of the ***Section 106*** process, the FDOT, as the lead agency, moves to Step 3 of the ***Section 106*** process and makes an effect determination for the proposed undertaking. This effect determination is based on the information provided in the cultural resource document. Districts may present effects determinations along with the ***CRAS Report*** submission in the ***Transmittal Letter*** or in a subsequent submission. The project specifics will determine which type of submission is appropriate.

If the undertaking anticipates affecting historic properties, and the effects analysis did not accompany the ***CRAS Report***, it is presented within a ***Section 106 Case Study Report, Desktop Analysis,*** or tribal ***Notification Letter***. Circumstances for the applicability of each document type is outlined in ***Section 8.3.2.4***. In cases where SHPO/THPO objects or disagrees with the determination of significance contained in the cultural resource document, or if the ACHP or Secretary of the Interior requests it, FDOT obtains a determination of eligibility from the Keeper of the NRHP as set forth in ***36 CFR Part 63***.

There are two possible effects determinations:

1. ‘No Historic Properties Affected’, or

2. ‘Historic Properties Affected’

If no historic properties are present or if historic properties are present but the undertaking will not affect them, the determination is ’No Historic Properties Affected’. If, however, historic properties are present and may be affected by the undertaking, the determination is ’Historic Properties Affected‘.

The FDOT consults with SHPO/THPO and takes into account the views of any interested parties in order to meet the consultation requirements established by ***Section 106***.

When making a determination of ’No Historic Properties Affected’, FDOT must provide the following documentation to consulting parties per ***36 CFR § 800.11(d)***:

1. A description of the undertaking, specifying the federal involvement, and its APE, including photographs, maps, drawings, as necessary;

2. A description of the steps taken to identify historic properties, including, as appropriate, efforts to seek information to identify historic properties within the APE; and

3. The basis for determining that no historic properties are affected.

If, as a result of the CRAS documentation and consultation efforts, FDOT finds that there will be ‘No Historic Properties Affected’ by the proposed project, then FDOT has fulfilled its ***Section 106*** responsibilities.

For undertakings where FDOT determines historic properties may be affected by the proposed project, and SHPO/THPO and appropriate consulting parties have been consulted, FDOT proceeds to Step Three of the ***Section 106*** process, as described in ***Section 8.3.2.4***. Regardless of the ***Section 106*** effect finding, if the proposed project involves the use of any land from within the site boundaries of any property listed or eligible for listing on the NRHP (even if the land in question already lies within FDOT-owned ROW) and it is a USDOT funded or permitted action, the ***Section 4(f)*** process must be initiated (***Part 2, Chapter 7, Section 4(f) Resources***).

For projects that may affect NHLs, consultation must include the NPS and the ACHP.

Combining Effect Determinations and Eligibility Recommendations

Eligibility determinations by FDOT for the NRHP are not final until the CRAS has been coordinated and accepted by SHPO/THPO and other appropriate consulting parties.

Combining a finding of 'No Historic Properties Affected' or 'No Adverse Effect to Historic Properties' with a recommendation on the eligibility of a historic or archaeological resource is only recommended if said eligibility recommendation is obvious. This is because project effects to historic properties cannot be final until the determinations on the eligibility of the identified historic resources have been made.

In certain circumstances, the survey findings may include District recommendations on potential effects and/or potential adverse effects of the undertaking on historic properties. The potential to affect historic properties occurs when a proposed undertaking may result in the "…alteration to characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register" [***36 CFR § 800.16 (i)***]. In these circumstances, it is important to provide sufficient information on the scope and activities of the proposed undertaking, along with the cultural resource document for the SHPO/THPO or OEM to make an effect finding or to understand and comment upon the survey and its findings.

The most common situations for which the effects and eligibility determinations are combined are where there are no historic or archaeological resources occurring in the project APE or where the project meets the criteria and conditions outlined in the ***Section 106 PA***.

8.3.2.4 Step Three: Assess Adverse Effects

After determining that the proposed project may have an effect on historic properties, the next step is to apply the Criteria of Adverse Effect for the project and the involved historic properties. These criteria are defined at ***36 CFR § 800.5(a)(1)*** as follows:

> An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility

for the NRHP. Adverse effects may include reasonably foreseeable effects caused by an undertaking that may occur later in time, be farther removed in distance or be cumulative.

Adverse effects on historic properties as listed at ***36 CFR § 800.5(a)(2)*** include:

- Physical destruction or damage to all or part of the property.
- Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary of the Interior's Standards for Treatment of Historic Properties (see ***36 CFR Part 68***) and applicable guidelines.
- Removal of a property from its historic location.
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance.
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features.
- Neglect of a property that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to a Tribe or Native Hawaiian organization.
- Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

Ground-disturbing activities within significant historic properties are subject to the Criteria of Adverse Effect. Therefore, actions such as archaeological testing and excavation on NRHP listed or eligible archaeological sites, or on such sites that have previously been determined as eligible, should not be initiated without completing consultation with OEM, SHPO/THPO, and as appropriate, other consulting parties including the Tribes.

The application of the Criteria of Adverse Effect (***36 CFR § 800.5***) may result in a finding of either: (1) No Adverse Effect or (2) Adverse Effect. This determination is specific to the project, not to the historic properties. That is, where multiple historic properties are identified within a project APE, an adverse effect to one historic property is sufficient to determine an adverse effect for the project. Refer to ***Chapter 6*** of FDOT's ***CRM Handbook*** for more details about applying the Criteria of Adverse Effect.

As a rule, when a project may affect any historic properties identified in a cultural resource document (see ***Section 8.3.2.3.2***), the District prepares a project effects determination document that discusses and documents these effects. More importantly, this report contains the information required by ***36 CFR § 800.11(e)*** to support a finding of Adverse Effect or No Adverse Effect. This report needs to contain sufficient detail and illustration to support the recommended finding regarding adverse effects and to allow the consulting parties to reach independent conclusions as to the effect finding.

Section 106 determinations of 'No Adverse Effect' can be presented in a ***Desktop Analysis*** or ***Section 106 Case Study Report***. The document type chosen to present the information will depend on project specifics, the historic property(s) in question, and level of effort required to make a sound determination of project effects. Clear, uncomplicated arguments to justify an effect finding of 'No Adverse Effect to Historic Properties' may fit sufficiently in a ***Desktop Analysis***. If the analysis is more complex leading up to the 'No Adverse Effect' determination, or FDOT concludes the project will have 'Adverse Effects to Historic Properties', the information must be presented in a ***Section 106 Case Study Report***.

This ***Case Study Report*** is provided to OEM for its use in making and documenting a finding of Adverse Effect or No Adverse Effect. Once OEM makes its finding, it provides the ***Case Study Report*** and its finding to the SHPO/THPO and other consulting parties to seek their concurrence. In situations where there is an adverse effect, the ***Case Study Report*** should also enable the consulting parties to initiate discussion regarding the resolution of adverse effects.

The content and details of the ***Case Study Report*** depend on the level of involvement with historic properties, the degree of potential effects, and the complexity of the proposed undertaking and its relationship to historic resources. For projects involving the preparation of a ***Section 4(f)*** evaluation for the use of land from the affected historic property, information gathered and presented in the ***Section 4(f)*** evaluation is often used in the preparation of the ***Case Study Report*** or vice versa, language drafted for the ***Case Study Report*** may be used in the ***Section 4(f)*** document, as appropriate.

Generally, these reports are also used during the fourth step of the ***Section 106*** process (Resolve Adverse Effects) because information in the ***Case Study Report*** may be integrated into the agreement and/or commitment documents to avoid, minimize or mitigate for any adverse effects associated with the project. Finally, the ***Case Study Report*** functions as FDOT's reporting mechanism for the ACHP's project effects review assessment when this review is needed. See ***Chapter 7*** of the ***CRM Handbook*** for more detail concerning the purpose and objectives of the ***Case Study Report*** and the considerations it must address.

The ***Case Study Report*** contains graphics sufficient to illustrate the relationship of the proposed project (including all alternatives) to the affected historic property or properties, including the boundary of each NRHP listed or eligible property. It also contains enough information to illustrate all avoidance and minimization efforts that have been examined and why it is or is not practical to avoid the historic resource(s) or effects cannot be minimized further.

As set forth in ***36 CFR § 800.5(b)***, a finding of No Adverse Effect is appropriate if:

1. The effects of the undertaking do not meet the Criteria of Adverse Effect.

2. The undertaking is modified to avoid adversely affecting historic properties. For example, in the case of an archaeological site that could have been adversely affected by the project or off-project related activities, effects are avoided by

shifting the project away from the site or by excluding all project-related activities inside the boundaries of the site.

3. Conditions are imposed on the undertaking to avoid adverse effects (such as rehabilitation of a historic bridge in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties, ***36 CFR Part 68***).

When FDOT finds that a project has 'No Adverse Effect to Historic Properties', the following procedure applies:

1. FDOT provides the No Adverse Effect finding along with the pertinent information to SHPO/THPO and consulting parties, pursuant to ***36 CFR § 800.11(e)***.

2. SHPO/THPO has 30 days from receipt of the complete documentation to review the findings. Failure to respond within 30 days permits FDOT to assume concurrence, pursuant to ***36 CFR § 800.5(c)(1)***.

3. If SHPO/THPO either agrees with or does not object to the findings of effect made by FDOT and no consulting party has objected, FDOT carries out the proposed undertaking based upon the effect finding and the action as proposed.

4. In cases where FDOT determines there is No Effect or 'No Adverse Effect to Historic Properties' and has received no objections to this finding, FDOT has fulfilled its responsibilities under ***Section 106***. This completes the ***Section 106*** process.

5. In the event that SHPO or any consulting party disagrees within the 30-day review period, they must specify the reasons for disagreeing with the finding. FDOT must then consult with the party to resolve the disagreement, or request that the ACHP review the finding, pursuant to ***36 CFR § 800.5(c)(3)***.

6. If the ACHP is asked to review the finding, it has 15 days to respond. If there is no response within 15 days, FDOT may assume concurrence and proceed with the undertaking.

7. If the ACHP provides comments, FDOT must consider them when reaching a final decision on its finding of effects.

If any agreements or commitments are made to reach a finding of No Adverse Effect, they are recorded according to ***Procedure No. 650-000-003, Project Commitment Tracking*** and ***Part 2, Chapter 22, Commitments*** and carried out as the project advances. If any changes occur that may alter the effect finding, consultation with the appropriate parties must be reinitiated.

All documentation pertaining to ***Section 106*** effect findings including FDOT findings, SHPO/THPO review and/or concurrence letter(s), and applicable comments from other consulting parties and the public, is included in the appropriate Environmental Document and uploaded into the SWEPT project file (see ***Section 8.3.3.1***).

In the case of an Adverse Effect finding, FDOT documents this finding and the basis for the finding, and transmits the finding and documentation to SHPO/THPO, the ACHP, and other consulting parties. In accordance with ***36 CFR § 800.6(a)(1)***, FDOT must notify ACHP of the Adverse Effect finding by providing the documentation specified in ***36 CFR § 800.11(e)***. This notification and documentation package can be sent via the ACHP's ***Electronic Section 106 Documentation Submittal System*** (***e106***). As the Lead Federal Agency, the ***e106*** submission needs to be transmitted by OEM. As such, Districts should prepare and send the form and all supporting materials to the PDC and State CRC. The submission should be in Microsoft Word format to allow for minor editing, as necessary. Following review, OEM will forward the documentation to ACHP, copying District personnel. Once documentation is received, an automated receipt will be generated and the ACHP will have 15 days to respond.

If SHPO/THPO disagrees with the finding or another consulting party objects to the finding within the 30-day review period, the disagreeing entity must provide the reasons for the disagreement or objection. In these cases, FDOT will either consult with the appropriate parties in order to resolve the disagreement or request the ACHP to review the finding in accordance with ***36 CFR § 800.5(2)***. If no objections are received within the 30-day review period, FDOT may proceed to Step Four of the ***Section 106*** process.

8.3.2.5 Step Four: Resolve Adverse Effects

A finding of Adverse Effect requires further consultation among FDOT, SHPO/THPO, and the other consulting parties in order to resolve the adverse effects. This consultation brings together the parties to consider ways to avoid, minimize, or mitigate the adverse effects of the undertaking on the historic properties.

In conducting consultation, as well as in its efforts to engage the public, FDOT

1. Describes the proposed project and its purpose and need;
2. Clearly identifies any rules, processes, or schedules applicable to consultation;
3. Acknowledges the interests of others and seeks to understand them;
4. Develops and considers appropriate alternatives; and
5. Makes an effort to identify solutions that will leave all parties satisfied.

For most projects involving a finding of Adverse Effect, Steps Three and Four of the ***Section 106*** process are part of the same discussion(s).

In accordance with the ***Section 106 PA*** (see ***Section 8.3.2.2***) and ***36 CFR § 800.10***, the ACHP and the NPS must be consulted when the project activity involves potential effects to a NHL. The ***Notification Letter*** to the ACHP is accompanied by the same documentation required for a finding of No Adverse Effect or Adverse Effect, as called for in ***36 CFR § 800.11(e)***, though for projects involving an NHL, the emphasis on preservation will be greater.

As appropriate, FDOT provides project documentation to the consulting parties. Particular care must be taken to comply with the confidentiality provisions of ***Section 304*** of the ***NHPA*** and ***Section 267.135, F.S.***, regarding the protection of archaeological site locations within the project documentation, as applicable.

8.3.2.5.1 Minimize and Mitigate Adverse Effects

The procedures for resolving adverse effects include the following steps:

1. FDOT continues consultation with SHPO/THPO and other consulting parties to resolve the adverse effects by avoidance, minimization, or mitigation.

2. As appropriate, the ACHP is invited to participate or can decide to enter into consultation pursuant to ***Appendix A to Part 800, Title 36***. Any consulting party or the public may contact the ACHP and request its participation. The ACHP has 15 days from receipt of a request to participate to notify FDOT and consulting parties whether it will participate in the resolution process.

3. If ACHP does not participate and FDOT and SHPO/THPO reach consensus on measures to resolve adverse effects, these measures are outlined in an ***MOA***, pursuant to ***36 CFR § 800.6(b)***. In these cases, continue to Step 4 through Step 8. If FDOT and SHPO/THPO fail to agree on measures, the process skips to Step 9.

4. The District prepares a draft ***MOA*** and is responsible for coordinating with all consulting parties for review. Additional guidelines for preparing agreements are provided in ACHP's ***Guidance on Agreement Documents: Executing Agreement Documents*** and FDOT's ***CRM Handbook***.

5. Once all consulting parties agree on the ***MOA*** contents, SHPO signs the ***MOA*** and routes it back to the District. The District coordinates the ***MOA*** signature process with any external partners and then the District Director of Transportation Development who sign the ***MOA*** as concurring parties. The agreement is then routed to the Director of OEM for approval. Signatures should be obtained digitally, circumstances permitting.

6. Once signed by OEM, the executed ***MOA*** will be returned to the District for distribution. The District saves the executed ***MOA*** to the SWEPT project file and provides all signatories with a copy of the executed ***MOA***, including a copy to the State CRC for submittal to the ACHP.

7. If the ACHP is a consulting party, OEM will provide ACHP with the ***MOA*** after OEM Director signs the agreement. The ACHP will return the fully executed ***MOA*** to OEM for disbursement to the District and SHPO. The District will then disperse copies to any additional signatories.

8. If the undertaking proceeds according to the terms and stipulations of the ***MOA***, and FDOT has met all of its obligations under ***Section 106*** of the ***NHPA***, then the process skips to Step 11.

9. If FDOT and SHPO/THPO fail to agree on the terms of a MOA, FDOT shall request the ACHP to join the consultation and provide a copy of the documentation package pursuant to ***36 CFR § 800.11(g)***. If ACHP doesn't join the consultation, FDOT must forward a copy of the documentation package and request comments.

10. The ACHP has 45 days from receipt to comment (FDOT should send the request electronically or by overnight mail). The ACHP provides its comments to FDOT with copies to all consulting parties.

11. FDOT is obligated to consider and take into account the comments of the ACHP. FDOT may choose whether or not to adopt the comments, or to proceed.

12. FDOT documents the final decision in accordance with ***36 CFR § 800.7(c)(4)***, the ACHP and all consulting parties are notified, and the project proceeds.

The District is responsible for monitoring implementation of the conditions stipulated in the ***MOA***. In cases where consulting parties do not reach agreement, FDOT, SHPO/THPO, or the ACHP may decide to terminate consultation pursuant to ***36 CFR § 800.7***. Any party that terminates consultation must notify the other consulting parties in writing of their decision to and reasons for terminating consultation. Following this notification, the process varies depending on which consulting party terminated consultation [see ***36 CFR §§ 800.7(a)(1)-(4)***].

8.3.2.5.2 ACHP Participation

SHPO/THPO, a Tribe, or any other consulting party may at any time request the ACHP to participate in the consultation. The ACHP will decide on its participation within 15 days of receipt of a request pursuant to ***Appendix A to Part 800, Title 36 (Criteria for Council Involvement in Reviewing Individual Section 106 Cases)***. If a consulting party requests ACHP involvement, the District informs OEM prior to the initiation of this consultation.

If the ACHP decides to participate in the consultation process, it must notify FDOT (or the appropriate Lead Federal Agency) and the consulting parties. If the ACHP chooses to participate in the resolution of adverse effects, FDOT is responsible for coordinating consultation among all the parties, including SHPO/THPO.

New consulting parties may enter the consultation if FDOT and SHPO/THPO (and the ACHP, if participating) agree. If they do not agree and the ACHP is not a consulting party already, FDOT seeks the ACHP's opinion on the involvement of the consulting party. Any party, including applicants, licensees or permittees, that may have responsibilities under an agreement document must be invited to participate as a consulting party.

8.3.2.6 Exemption from Section 106 for Eisenhower Interstate Highway System

On March 10, 2005, the ACHP issued the Exemption Regarding Historic Preservation Review Process for Effects to the Interstate Highway System. The exemption removed

the majority of the Interstate Highway System from being considered as a historic property under ***Section 106*** of the ***NHPA***, except for those elements of the Interstate Highway System identified by SHPOs, state Departments of Transportation (DOTs), and state divisions of FHWA as being of exceptional importance.

This exemption does not apply to archaeological sites or resources that are not elements of the Interstate Highway System, even though they may be located within the ROW of the Interstate or otherwise intersect the Interstate. As a result, any undertaking (including Interstate undertakings) that may affect these non-Interstate properties must comply with the requirements of ***Section 106***.

In Florida, four (4) significant elements of the Interstate Highway System are excluded from the exemption when undertakings have the potential to affect them. These elements of the Interstate Highway System undergo the standard ***Section 106*** consultation and review processes. The four elements are:

1. Bob Graham/Sunshine Skyway Bridge, Pinellas and Manatee Counties
2. Alligator Alley, Collier and Broward Counties
3. I-75 Snake Wall, Alachua County
4. Myrtle Avenue Overpass, Downtown Jacksonville

8.3.2.7 Section 106 Program Comment on Post-1945 Common Bridge Types

At the request of FHWA, in November 2012, the ACHP issued a Program Comment that eliminates individual historic review requirements under ***Section 106*** for common post-1945 concrete and steel bridges and culverts (also referred to as post World War II common bridge types). The intent of the Program Comment is to ensure that historic bridges that are likely to be significant for preservation in place receive the attention, while the process is substantially streamlined for the more common bridge types (***77 FR 68790***). These common bridges were constructed in vast numbers after World War II using standardized plans. Although there has been little public interest in the preservation of these common bridges and culverts, FHWA was required under ***Section 106*** to consider and document the potential historic significance of any bridge approaching 50 years of age that might be affected by FHWA projects.

As part of this Program Comment, FHWA and ACHP requested the state DOTs and SHPOs submit a list of common, post-1945 bridges. FDOT, in consultation and coordination with Florida's SHPO and FHWA's Florida Division identified nineteen (19) bridges that still require evaluation and/or individual treatment under ***Section 106*** of the ***NHPA***. These bridges are listed in ***Figure 8-5***.

While the Program Comment relieves the need to individually evaluate and consider the effects of the undertaking on these common bridges, these bridges located within the project APE still must be identified in the cultural resource document that is sent to SHPO.

This documentation should note that while the bridge is historic, it is exempt from further analysis in accordance with the Program Comment for Common Post-1945 Concrete and Steel Bridges (***77 FR 68790***). FMSF forms do not need to be completed for these bridges.

8.3.2.8 Contents and Routing of Documentation Related to the Section 106 Process

The results of all cultural resources identification and evaluation efforts in support of ***Section 106*** compliance are documented in a cultural resource document which must be uploaded into the SWEPT project file. Cultural resources document types utilized by FDOT are ***Section 106 Program Alternative Forms***, ***Notification Letters***, ***Desktop Analyses***, ***CRAS Reports***, ***CRAS Addendum Reports***, and ***Section 106 Case Study Reports***.

The standard components of cultural resource documents are provided in ***Section 8.3.2.2.2***, ***Section 8.3.2.8.1*** through ***Section 8.3.2.8.4***, and Chapter 7 of the ***CRM Handbook***. Routing of cultural resource documents is discussed in ***Section 8.3.2.8.5*** and ***Section 8.3.6.6***.

8.3.2.8.1 Section 106 Program Alternative Form and Notification Letters

For projects that meet the criteria for minor projects established in the program alternatives set forth in Stipulations V and VI of the ***Section 106 PA*** (see ***Section 8.3.2.3.1*** and ***Section 8.3.2.2.2***), and result in 'No Historic Properties Affected', a notification is prepared using the ***Section 106 Program Alternative Form*** developed for those projects (see ***Section 8.3.2.2.2***). The notification must inform SHPO that FDOT has determined the proposed project meets the applicability criteria and, therefore, there are 'No Historic Properties Affected' by the undertaking. This form outlines the project action, the project category, and an explanation of the project setting sufficient to verify that it meets the applicability criteria for that category of program alternative. This ***Section 106 Program Alternative Form*** is sent to SHPO by the District, copying the State CRC. Unless SHPO objects to this finding within 30 days of receipt of this notification, the project may proceed without further consultation under ***Section 106***.

When minor projects that meet the criteria to be processed under Stipulation V and VI of the ***Section 106 PA*** involve a historic property which may be of religious or cultural importance to a Tribe (regardless of NRHP eligibility) or if a Tribe has expressed interest or requested participation in said minor project, a ***Notification Letter*** is the alternate document format used to present the project. Because the Tribes are not signatories to the ***Section 106 PA,*** all information included in the ***Section 106 Program Alternative Form*** such as the project description, the 'No Historic Properties Affected' finding, and the materials supporting this finding, must be provided to the Tribe using a ***Notification Letter*** (not to be confused with a ***Transmittal Letter*** which must accompany cultural resource documents submitted to either SHPO or THPO, with and without a signature block, respectively). ***Notification Letters*** sent to Tribes should present information for their review and comment and identify the avenue for them to respond, but they should

not include a concurrence signature block. Sufficient time must be allowed for a tribal response.

While the Tribes are most frequently the recipients of ***Notification Letters***, such letters may also be used for providing project-related updates to any agency or group participating in a ***Section 106*** consultation, reporting archaeological monitoring progress, sharing any changes that are not otherwise documented in writing, and providing other communications that do not require a concurring signature.

If the proposed action changes in such a way that it may no longer meet the program alternative criteria set forth in Stipulations V and VI the ***Section 106 PA*** (see ***Section 8.3.2.2.2***), the District will need to re-analyze the project and its potential to affect historic properties. When there are historic resources located within the APE, then consultation regarding the historic significance of these resources with SHPO and other appropriate consulting parties must be initiated. In both of these circumstances, the project should be evaluated in accordance with the standard program process as set forth in Stipulation VII of the ***Section 106 PA***.

8.3.2.8.2 Desktop Analysis and Effects Determination Letter (Desktop Analysis)

For minor projects with a minimal APE and either no or minimal involvement with cultural resources, but which do not meet the criteria established for the Stipulation V and Stipulation VI program alternatives in the ***Section 106 PA***, a ***Desktop Analysis and Effects Determination Letter (Desktop Analysis),*** pursuant to ***36 CFR § 800.4(d)(1)*** is used to notify the SHPO/THPO, OEM, and other appropriate consulting parties of the determination of 'No Historic Properties Affected'. ***Desktop Analyses*** are most often used when the APE has been adequately previously surveyed or when there are historic properties in close proximity to the undertaking; both of these circumstances require additional discussion but no additional field work. The final purpose of the ***Desktop Analysis*** document is to present straightforward project effects analysis and proposed ***Section 106*** finding when the result is 'No Adverse Effects to Historic Properties'. ***Desktop Analyses*** sent to SHPO may include a signature block for concurrence, but if sent to a Tribe include language requesting review and comment and instructions on providing said feedback, not a concurrence signature block.

If the sole reason a project does not meet the conditions to be processed as a Stipulation V or VI project is the presence of an unrecorded segment of historic aged road, a ***Desktop Analysis*** may record and evaluate the road segment in question via remote resources, and the document may discuss the 'No Adverse Effect to Historic Properties' determination. This is the only circumstance where a historic resource can be newly documented and evaluated in a ***Desktop Analysis***. If the application of the criteria of adverse effect suggests an Adverse Effect to the resource, the project must adhere to the standard ***Section 106*** process as outlined in Stipulation VII of the ***Section 106 PA***.

8.3.2.8.3 CRAS Reports and CRAS Addendum Reports

The ***CRAS Report*** and ***CRAS Addendum Report*** (***Report***) provides the identification and evaluation of the significance or non-significance of all cultural resources located in the APE for the proposed undertaking. The ***Report*** must also include graphics clearly depicting the location and limits of the project and the boundaries of the APE for both archaeological and historical resources, as well as the rationale for these APE limits and the relationship of significant historic resources to the undertaking. It includes the boundaries of the resources identified as significant, highlights the features and characteristics that contribute to the significance of each historic property, and addresses the integrity of the property. Likewise, for those resources and sites identified as not eligible for the NRHP, the ***Report*** notes why the historic resource does not meet any of the four criteria of eligibility and/or explains how the property does not retain the aspects of integrity. In addition to the significance analysis, the ***Report*** includes the appropriate data from the background research, completed FMSF forms for all evaluated resources, and proposed determinations of eligibility and expanded FMSF forms for the properties recommended as NRHP-significant.

If no historic resources are present in the project APE, then the ***Report*** discusses the applicable circumstances and presents a conclusion regarding whether additional survey work is warranted. The accompanying ***Transmittal Letter*** includes the recommended finding of 'No Historic Properties Affected' (see ***Figure 8-6*** for a sample ***Transmittal Letter***). If historic resources are located within the project APE, then findings on eligibility for the NRHP are made by FDOT, SHPO/THPO, and other appropriate consulting parties before a determination of effects on historic properties for the project can be made. There are some instances where eligibility findings and project effects determinations may be combined, but this should only be in instances where the findings are obvious (e.g., for a NRHP-eligible canal that will not be altered). If FDOT finds that none of the evaluated resources represents significant historic properties, SHPO/THPO concurs, and the consulting parties agree, then by definition, the project cannot have an adverse effect on historic properties.

The cover page for CRAS Reports, CRAS Addendum Reports, and Case Study Reports for federal projects must include the following NEPA assignment standard statement:

> *The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.*

The standard components of the ***CRAS Report*** are:

1. Executive Summary
2. Introduction (including project description and alternatives)

3. Environmental, Archaeological, and Historical Overviews

4. Research Considerations and Methodology (including definition and justification of the project APE)

5. Survey Results (archaeological and historical/architectural) and Resource Evaluations

6. Conclusions

7. References

8. Appendices, including FMSF forms, Survey Log Sheet (each FMSF form or log must be submitted as stand-alone documents in addition to being appended)

When appropriate, an abbreviated ***CRAS Report*** may be used when minor projects have a minimal APE, and the undertaking has either no or minimal involvement with cultural resources. An abbreviated ***CRAS Report*** may elect to truncate or omit sections from the above outline that are not applicable to the undertaking. Intensive Environmental, Archaeological, and Historical Overviews, item 3 above, are the components most frequently abbreviated in these instances in favor of a more targeted or project-specific content. The report must still function as a stand-alone document and any report content abbreviations or omissions must be acknowledged and justified within the document.

The ***CRAS Addendum Report*** may be used in cases such as projects where changes, expansions, or updates to the APE have occurred after concurrence was received on a ***CRAS Report***. These projects may include alignment alterations, proposed pond siting, ROW transfers, PD&E re-evaluations, and historic resources survey updates. For projects where a ***CRAS Report*** has already been prepared, the ***CRAS Addendum Report*** must reference this document, and not repeat information such as the environmental and cultural overviews.

The ***CRAS Addendum Report*** should include the following information:

1. Introductory information (e.g., project name, location, description, purpose, and need; purpose of the CRAS; definition of the project; justification for APE)

2. Results of background research for the project APE and vicinity, including the findings of the previous study, if applicable

3. Survey expectations vis-à-vis cultural resource potential

4. Archaeological and historical/architectural field survey results (including resource evaluations)

5. Conclusions

6. References

7. Appendices, including FMSF forms, Survey Log Sheet (each FMSF form or log must be submitted as stand-alone documents in addition to being appended)

In circumstances where consultation for a project under ***Section 106*** must be revisited due to project changes or other reasons that either change the APE for the project or change the potential historical value of the surrounding resources, a ***CRAS Addendum Report*** must be completed by FDOT, and coordinated with the consulting parties.

8.3.2.8.4 Case Study Reports

When a Project may affect historic properties identified in a CRAS, the District prepares an effects determination document in order to assist the consulting parties in determining if the proposed action will have an adverse effect (see ***Section 8.3.2.4***). ***Desktop Analyses*** **and** ***Section 106 Case Study Reports*** are the available document types to present the ***Section 106*** effects determination. Use of ***Desktop Analyses*** for this situation is discussed in ***Section 8.3.2.4***and ***Section 8.3.2.8.2***. The ***Case Study Report*** contains the supporting documentation as set forth in ***36 CFR § 800.11(e)***:

1. A description of the undertaking, including all viable alternatives and the preferred Build Alternative, specifying the federal involvement, and the project APE, including photographs, maps, and drawings, as necessary;

2. A description of the steps taken to identify historic properties;

3. A description of the affected historic properties, including information on the characteristics that qualify them for the NRHP (as well as historic property boundaries);

4. A description of the undertaking's effects on historic properties;

5. An explanation of why the Criteria of Adverse Effect were found applicable or not, including any conditions or future actions to avoid, minimize or mitigate adverse effects; and

6. Copies of summaries of views provided by consulting parties and the public (including public meeting agendas, handouts, newsletters, relevant slides).

FDOT is responsible for distribution to SHPO/THPO, the appropriate consulting parties, the ACHP (when participating), and the NPS (for NHLs). Whenever there is a finding of 'Adverse Effect to Historic Properties', the ACHP must be notified and provided with the finding and the ***Case Study Report***, even when the ACHP is not participating in the consultation. This documentation should be prepared by the District but sent by OEM via the ACHP's ***Electronic Section 106 Documentation Submittal System (***e106***)***.

8.3.2.8.5 Routing

With the exception of the minor project ***Section 106 Program Alternative Form*** or ***Notification Letter***, cultural resource documents submitted to the SHPO/THPO for review are accompanied by a ***Transmittal Letter***. The ***Transmittal Letter*** is prepared by

the District and includes standard summary information such as the project description, the APE, the survey findings and recommendations, and any consultation, coordination, or other related actions that may be needed should SHPO/THPO concur with the report (Example letter provided in ***Figure 8-6***). Normally, FDOT uses a concurrence signature block for CRAS transmittals containing signature and concurrence lines for SHPO (see ***Figure 8-6***). If appropriate, the signature block also informs SHPO that FDOT may apply a ***Section 4(f)*** *de minimis* approval for the use of the historic property if: (1) the project entails a use of the subject property and (2) SHPO/THPO concurs with a finding of No Adverse Effect to the historic property (see ***Part 2, Chapter 7, Section 4(f) Resources*** for more information on *de minimis* approvals). Signature blocks may also be used for ***Desktop Analyses***, when appropriate, in which case an accompanying ***Transmittal Letter*** is not necessary.

Transmittal Letters sent to the Tribes should not contain signature blocks. Pertinent information regarding FDOT's submission and requests for tribal review and comment should be contained within the body of the letter. For cultural resource documents requiring distribution to the Tribes, see ***Section 8.3.2.2.3.2*** and, as appropriate ***Section 8.3.2.2.2***.

The routing path of the final cultural resource document, from initial submittal by the consultant through review by SHPO/FDHR, is as follows:

1. The consultant prepares the cultural resource document and submits it to the District PM and/or District CRC for review.

2. The District PM/CRC reviews the report and requests changes if needed. If adverse effects to historic properties are anticipated, the District PM/CRC also provides a copy to OEM for concurrent review.

3. Once the report is acceptable to FDOT, the cultural resource document is submitted by the District CRC with a ***Transmittal Letter*** and appropriate documentation, to SHPO and other consulting parties. For cultural resource documents that require tribal comment, see ***Section 8.3.2.2.3.2***. For other consulting parties, the District may provide copies of the cultural resource document directly to them electronically and copy the PDC and the State CRC. There may be circumstances where OEM provides copies of the cultural resource document directly to consulting parties such as the ACHP, NPS, or SHPO. ***Chapter 1A-46, F.A.C.***, requires that the final deliverables from the consultant must include the requested number of copies of the report (which may vary, depending on the project), a ***Survey Log***, and a set of original FMSF forms. For historic resources and resource groups, digital photographs are included on the FMSF forms continuation sheets and are submitted as jpeg files (or current acceptable media files). The FMSF office requires paper copies of the final products for retention and a copy must be made available upon request to other consulting parties.

4. Once SHPO/THPO has reviewed and commented, the SHPO/THPO response is provided to FDOT. SHPO typically returns a signed ***Transmittal Letter*** and THPO

typically provides comments under separate cover. If SHPO/THPO objects to the findings on the significance of a historic resource, FDOT (District and OEM) discusses the finding with SHPO/THPO to resolve the objection. If the objection cannot be resolved, then information on the historical value of the resource must be submitted to the Keeper of the NRHP for a final determination of eligibility.

5. If FDOT, and SHPO/THPO (as well as other consulting parties) have concurred that historic properties occur within the APE, FDOT initiates Step 3 of the ***Section 106*** process, Assess Adverse Effects (see ***Section 8.3.2.4***). As mentioned above, submission of the cultural resource document and the effects analysis may be combined into one step, when appropriate.

6. If SHPO/THPO, FDOT, and, as appropriate, the other consulting parties concur with a finding that no historic properties occur within the APE, or with a combined finding on eligibility and 'No Historic Properties Affected' or 'No Adverse Effect to Historic Properties', this finding is retained in the SWEPT project file along with the basis for the finding and the ***Section 106*** process is complete.

7. If SHPO/THPO, FDOT, and, as appropriate, the other consulting parties concur with a finding of an 'Adverse Effect to Historic Properties', FDOT initiates Step 4 of the ***Section 106*** process, Resolve Adverse Effects (see ***Section 8.3.2.8.5*** for additional routing and content information).

8.3.2.8.6 Archaeological and Historical Resources Considerations for State-Funded Projects

The same considerations used to determine the potential to affect historic properties for federal actions are used to determine effects of non-federal actions. Therefore, the criteria established in the ***Section 106 PA*** for determining the level of assessment, review, and consultation apply to state-funded projects.

For state-funded major transportation projects, a SEIR is prepared. FDOT is the Lead State Agency, and the District is responsible for the development, review, and approval of the SEIR. The CRAS for SEIR projects follows the standard procedures established by ***Chapter 267, F.S.***, and ***Chapter 1A-46, F.A.C. Chapter 267, F.S.***, largely mirrors the requirements of ***Section 106***, but contains no requirement for consultation with Tribes beyond the normal considerations of public participation. Nonetheless, the Districts should inform the Tribes whenever a project may affect an historic resource that could be of cultural or religious importance to them. If the project changes from a state-only project to a federally funded or approved project, tribal comment will be required. See ***Section 8.3.2.2.3.2*** regarding Native American consultation for state-funded projects requiring a federal permit.

For state-funded projects, FDOT consults with FDHR to make determinations of eligibility for inclusion in the NRHP. For projects that do not include historic properties within the APE or where the undertaking has no potential to affect historic properties, FDOT documents the finding in accordance with the ***Section 106 PA*** and the standard procedures for SEIRs or NMSAs, as appropriate. FDOT notifies FDHR of its finding within

30 calendar days of completing its review. The documentation package must include a map showing the project location and APE, along with sufficient information to support and explain the finding. In accordance with the ***Section 106 PA***, unless FDHR objects within 30 days of receipt of notification, FDOT is not required to take any further action unless there is a dispute.

For projects that may adversely affect historic properties, FDOT and FDHR consult to determine the significance of the historic resources within the APE. It is important to consider the additional property types protected under ***Chapter 267, F.S***. If significant historic resources occur within the APE, then FDOT and FDHR must consult on the extent and nature of these effects and develop ways to avoid, minimize, or mitigate these effects. Generally, for state-only projects, FDOT and FDHR record these commitments through an agreement between SHPO and the District Secretary outlining the effects of the project on the resource(s) in question and the measures adopted to minimize or mitigate these effects.

The findings of the CRAS are detailed in the cultural resource document and summarized under the appropriate headings in the SEIR. In addition, the potential effects of the proposed project on the archaeological sites and historic resources within the project APE are summarized and discussed in the appropriate sections (e.g., Cultural Resources, Commitments) of the SEIR. The cultural resources document and SEIR are transmitted to the Director of the FDHR for review and comment.

The ***Non-Major State Action Checklist*** is prepared in SWEPT and provided as a visual in ***Part 1, Chapter 10, State, Local or Privately Funded Project Delivery***, and sample language for the SEIR is provided in ***Section 8.3.3.1***. The ***Transmittal Letter*** prepared by the District is essentially the same as the letter provided as outlined in ***Section 8.3.2.8.5*** and ***Figure 8-6***. However, the letter is addressed to the Director of the FDHR and only requires the Director's signature. In addition, the term "SHPO" is replaced with "Director, Division of Historical Resources" in the body of the letter.

As mentioned above, NMSA projects also require an historical and archaeological impact evaluation. Typically, detailed evaluations are not warranted because these projects are generally small in scope with minimal effects. These decisions cannot be made until the District documents the presence or absence of historic properties in the project APE. Just as the ***NEPA*** COA for a project does not dictate the level of analysis needed for historic properties, neither does the criteria for determining whether a project is a SEIR or a NMSA.

If the state-funded or assisted undertaking involves a federal permit, approval, or license, then FDOT initiates coordination with the appropriate federal agency as early in this process as possible. In some cases, it may be necessary to inform the permitting agency of any programmatic approaches applicable to the project. For the purposes of ***Section 106*** of the ***NHPA***, the permitting agency becomes the Lead Federal Agency for the permitted action.

8.3.3 Coordinating NEPA and Section 106

The regulations that implement ***Section 106*** of the ***NHPA [36 CFR § 800.3(b)]*** specifically encourage the coordination of ***Section 106*** responsibilities with the steps taken to satisfy other historic preservation and environmental laws. FDOT has adopted a streamlined approach to satisfy ***Section 106*** and ***NEPA*** compliance so that approvals are received concurrently. The ACHP's regulations ***[36 CFR § 800.8(a)]*** provide guidance on how the ***NEPA*** and ***Section 106*** processes can be coordinated. In addition, the flow chart in ***Figure 8-7*** illustrates coordination between ***NEPA*** and ***Section 106***.

NEPA documents, including an Environmental Assessment (EA) with Finding of No Significant Impact (FONSI) or a Final Environmental Impact Statement/Record of Decision (FEIS/ROD), include the information and results of the ***Section 106*** compliance efforts. This information includes a general presentation of the survey effort, a brief description of the historic properties identified, the consulting parties, the determinations of effect for the project, the consultation leading to the resolution of any adverse effects, and all commitments and agreements that supported the effect finding or the resolution of adverse effects. Any MOA developed under ***Section 106***, or (when applicable) the final comments of the ACHP, are addressed in the ROD. Under normal circumstances, the MOA is executed before the ROD is issued, and the ROD provides for the implementation of the MOA's terms and stipulations. Details concerning the information and results to be included in the ***NEPA*** documents are provided in the following section.

8.3.3.1 Reporting Cultural Resources Findings in Environmental Documents

For Type 1 and Type 2 CEs, FDOT summarizes the findings of the CRAS, as presented in the cultural resource document, in the appropriate section of the Environmental Document. In the case of Type 2 CEs, the findings and approvals related to the CRAS are submitted with the ***Type 2 Categorical Exclusion Determination Form***. For Type 1 CEs the finding of 'No Historic Properties Affected' or 'No Adverse Effect to Historic Properties', and related approvals if any, are kept with the completed ***Type 1 Categorical Exclusion Checklist*** for the proposed project. The cultural resource document is incorporated by reference into the Environmental Document and is uploaded into SWEPT along with consulting party correspondence, if necessary. It is recommended that these documents be placed within the Archaeological and Historical Resources folder in SWEPT. Any SHPO/THPO concurrence letters or MOA must be attached to the Environmental Document. In addition, commitments are documented in accordance with ***Part 2, Chapter 22, Commitments***.

Categorical Exclusions

For Type 1 and Type 2 CEs, FDOT summarizes the findings of the CRAS, as presented in the cultural resource document, in the appropriate section of the Environmental Document. The cultural resource document is incorporated by reference into the Environmental Document and is uploaded into SWEPT along with consulting party correspondence, if necessary. It is recommended that these documents be placed within

the Archaeological and Historical Resources folder in SWEPT. Any SHPO/THPO concurrence letters or MOA must be attached to the Environmental Document.

EA and DEIS

The EA and Draft Environmental Impact Statement (DEIS) also contain a summary of the CRAS. The description and evaluation of archaeological sites and historic resources identified within the project APE are included in the Environmental Analysis section. Once OEM approves the document for public availability, the District sends it to the appropriate agencies and consulting parties for review and comment. Include commitments related to the treatment of, effects upon, or disposition of historic properties in the Commitments section of these documents according to ***Part 2, Chapter 22, Commitments***. Concurrence letters and draft MOA should be included in the Appendix.

EA with FONSI or FEIS/ROD

If NRHP-listed or eligible archaeological sites and/or historic resources are identified within the project APE, the decisions made to resolve issues are addressed in the final Environmental Document. The Environmental Analysis section summarizes the potential effects (e.g., direct use, visual, noise) on NRHP-listed or eligible historic properties, as well as potential mitigation measures for the anticipated effects associated with the preferred alternative. Included in the Environmental Analysis section and/or the Comments and Coordination section, is a chronological discussion of agency coordination efforts, the determination of effects, the development of mitigation measures, and public outreach activities. Reference to all correspondence related to the ***Section 106*** process is also included. The Commitments section of both the EA with FONSI and FEIS/ROD or FEIS contains a description of the measures FDOT will use to minimize and mitigate adverse effects to the NRHP-listed or eligible historic properties. If the resolution of adverse effects includes any formal agreement such as an MOA or Conditional No Adverse Effect agreement (a finding of No Adverse Effect with conditions imposed or agreed to by the consulting parties), this document is included as an appendix in the EA with FONSI, FEIS/ROD, or FEIS.

The correspondence providing FDOT's finding on effects to historic properties; SHPO/THPO opinion on this finding; and any correspondence related to the avoidance, minimization, or mitigation of effects to historic properties, as well as the opinions of the other consulting parties, should be included in the Appendix of the Environmental Document.

SEIR

For SEIRs, the results of the CRAS are included in the Cultural Resources section, and the Commitments section discusses all commitments made in regard to cultural resource issues. The SEIR must include FDOT's determination of effects to historic resources and the FDHR's opinion as to this determination. The correspondence providing FDOT's finding on effects to historic properties; SHPO/THPO opinion on this finding; and any correspondence related to the avoidance, minimization, or mitigation of effects to historic

properties, as well as the opinions of the other consulting parties, should be included in the Appendix.

Example CRAS Summaries

The EA, EIS, and SEIR documents must include standard language describing the nature and intensity of the CRAS, a definition of the project APE, the survey methods and findings, and a description and evaluation of all archaeological sites and historic resources identified within the project APE. In the case of the SEIR, FDHR becomes the consulting agency. For state-only projects, reference state legal authorities and only FDHR is consulted unless there is a specific reason to include other consulting parties [for example, on state-owned land, the Florida Department of Environmental Protection (FDEP) should be included in the decision making].

The following are examples of text for the CRAS summary to be included in the Environmental Document. Typically, this summary language is contained in the ***CRAS/CRAS Addendum Report's*** Executive Summary and is used in the CRAS ***Transmittal Letter***.

1. Include the Project Name, Purpose of the CRAS, and applicable laws, regulations, and standards, for example:

> A Cultural Resource Assessment Survey (CRAS) of the proposed [project name], including background research and field survey, has been performed. The purpose of the survey was to locate, identify, and bound any cultural resources within the project Are of Potential Effects (APE) and to assess their significance in terms of eligibility for listing in the National Register of Historic Places (NRHP). This CRAS was conducted in compliance with Section 106 of the National Historic Preservation Act (NHPA) (Pub. L. 89-665, as amended), as implemented by 36 Code of Federal Regulations (CFR) Part 800 (Protection of Historic Properties); National Environmental Policy Act (NEPA) [Public Law (Pub. L.) 91-190]; and Chapter 267, Florida Statutes (F.S.), revised. This study was conducted in accordance with Chapter 1A-46, Florida Administrative Code (F.A.C.), Part 2, Chapter 8 of the Florida Department of Transportation (FDOT) Project Development & Environment (PD&E) Manual, and the standards contained in the Florida Division of Historical Resources (FDHR) Cultural Resource Management (CRM) Standards and Operational Manual (FDHR 2003).

2. Summarize the research methods used, for example:

> Research methods included preliminary background research, the preparation of a research design for review and approval by FDOT, State Historic Preservation Officer

(SHPO), and/or Tribes, if applicable, archaeological and historical/architectural field surveys, artifact analysis, and preparation of draft and final reports. The fieldwork was conducted between [month and year to month and year].

As appropriate, this statement includes the level of analysis for proposed or potential SMF/FPC locations.

3. Summarize the results of the background research for both archaeological sites and historic resources, for example:

   The initial review of the Florida Master Site File (FMSF), NRHP listings, and the ETDM Summary Report (Project # [xxxx]) for this project indicated that xx previously recorded archaeological sites ([FMSF numbers]) are located within or adjacent to the project APE, with another [xx] known sites located within 0.5 miles. Of the [xx] archaeological sites, [FMSF number(s)] was/were evaluated by SHPO as potentially eligible for inclusion in the NRHP; the other [xx] sites [FMSF numbers] were not evaluated by SHPO. The background research suggested a variable probability for archaeological site occurrence within the project APE.

   Background research indicated that [xx] historic resources ([FMSF numbers]) had been recorded previously within the project APE. These include [xx] [add architectural styles and composite build date range]. [Add SHPO evaluation]. A review of the relevant USGS quadrangle maps and property appraiser's website data revealed the potential for [xx] historic (*pre-circa* [date]) resources.

4. Summarize the results of the archaeological and historical/architectural field surveys, including a brief description and evaluation of all NRHP-listed or eligible historic properties identified within the project APE. Address the appropriate NRHP criteria and the relevant aspects of integrity. For example:

   As a result of archaeological field survey, cultural materials associated with [xx] of the previously recorded sites ([FMSF numbers]) were recovered. No evidence of the other [xx] sites was found. [xx] new archaeological site(s) ([FMSF numbers]) was/were identified. The total of [xx] previously recorded and newly identified sites are classified as lithic and artifact scatters. All were evaluated as not eligible for listing in the NRHP given the common nature, low research potential, and lack of any significant historical associations.

   Historical/architectural field survey resulted in the identification and evaluation of [xx] historic buildings ([FMSF

> numbers]). With one exception [Site name, FMSF number], a [add build date, type, and style] all are Masonry Vernacular and Frame Vernacular style residences constructed between circa (ca.) 1945 and ca. 1960. These historic buildings represent commonly occurring types of architecture for the locale, and available data did not indicate any significant historical associations. In addition, alterations to the historic structures and/or lack of concentrated density appear to preclude their eligibility for the NRHP either individually or collectively as a district.

For any resources determined eligible, provide the basic information on the site by extracting statements from the Determination of Eligibility or FMSF form for the property. Note the reasons the site is eligible, the characteristics that make it significant, its boundaries, etc. Include measures that have been incorporated into the proposed undertaking to avoid, minimize, or mitigate effects to the property. Example language for findings of No Involvement with Cultural Resources/'No Historic Properties Affected' (***Section 8.3.3.1.1***) and both No Adverse Effect and Adverse Effect (***Section 8.3.3.1.2***) follows.

8.3.3.1.1 No Involvement with Cultural Resources/No Historic Properties Affected

If the CRAS shows an absence of archaeological sites and/or historic resources within the project APE, or if the CRAS has identified archaeological sites and/or historic resources within the project APE but FDOT and SHPO agree that none of the sites or historic resources are eligible for inclusion in the NRHP, provide one of the following standard statements below, as applicable. The statement is included in the Cultural and Historic Resources section of the Environmental Analysis section of the EA with FONSI, FEIS/ROD, FEIS, or in other appropriate locations for other COAs:

> A Cultural Resource Assessment Survey (CRAS), conducted in accordance with 36 CFR Part 800, was performed for the project. No archaeological sites or historical resources were identified, and FDOT, in consultation with SHPO/THPO, has determined that the project will result in No Historic Properties Affected. Concurrence from SHPO/THPO was received on [date].
>
> -OR-
>
> A Cultural Resource Assessment Survey (CRAS), conducted in accordance with 36 CFR Part 800, was performed for the project, and the resources listed below were identified within the project Area of Potential Effect (APE). FDOT found that these resources do not meet the eligibility criteria for inclusion in the National Register of Historic Places (NRHP), and SHPO/THPO concurred with this determination on [date].

> Therefore, FDOT, in consultation with SHPO/THPO, has determined that the proposed project will result in No Historic Properties Affected.

Follow this paragraph with a description of the identified sites and their eligibility status.

For the SEIR, include the findings in the Cultural Resources section. Reference FDOT as the lead agency making the findings and identify the FDHR (instead of SHPO) as the concurring/consulting party.

8.3.3.1.2 No Adverse Effect or Adverse Effect to NRHP Properties

In the case where the CRAS results identify NRHP-listed or eligible archaeological sites and/or historic properties within the project APE, and where the Criteria of Adverse Effect pursuant to ***36 CFR § 800.5(a)(1)*** have been applied and the project does not meet the criteria, summarize the effects and describe the finding in the Cultural and Historic Resources section of the Environmental Analysis section of the EA with FONSI, FEIS/ROD, or FEIS, or in other appropriate locations for other COAs. The following statement is provided in the ***Type 2 Categorical Exclusion Determination Form*** or should be included in the EA with FONSI, FEIS/ROD, or FEIS:

> A Cultural Resource Assessment Survey (CRAS), conducted in accordance with 36 CFR Part 800, was performed for the project, and the resources listed below were identified within the project Area of Potential Effect (APE). FDOT found that some of these resources meet the eligibility criteria for inclusion in the National Register of Historic Places (NRHP), and SHPO/THPO has concurred with this determination. After application of the Criteria of Adverse Effect, and in consultation with SHPO/THPO, FDOT has determined that the proposed project will have No Adverse Effect on these resources.

Follow this paragraph with a description of the sites, their eligibility status, and any commitments made for the project that contributed to the No Adverse Effect finding.

In the case where project development will result in adverse effects to NRHP-listed or eligible historic resources, summarize FDOT's commitments to minimize effects in the Commitments section of the EA with FONSI, FEIS/ROD, or FEIS, as applicable. The following statement is provided in the ***Type 2 Categorical Exclusion Determination Form*** or should be included in the EA with FONSI, FEIS/ROD, or FEIS:

> The proposed project will result in unavoidable adverse effects to the resource(s) listed below, which [is/are] [listed in/eligible for listing in] the National Register of Historic Places (NRHP). FDOT and the SHPO/THPO [will execute/have executed] a Memorandum of Agreement (MOA) which outlined conditions to minimize and mitigate adverse effects

resulting from the project. Consequently, FDOT commits to the stipulations provided below as outlined in the MOA.

Follow this paragraph with a list of the specific stipulations developed.

8.3.4 Coordinating Section 106 and Section 4(f)

Often, when a project has the potential to have an adverse effect on a historic property, it also requires approval under ***Section 4(f)*** of the ***USDOT Act of 1966***, as amended.

The properties protected under ***Section 4(f)*** include significant public parks and recreational resources, wildlife and waterfowl refuges, and historic sites. For historic resources, the word "significant" means that the resource is listed in or eligible for listing in the NRHP, and these are also the resources protected by ***Section 106*** of the ***NHPA***. As a result, FDOT often combines its ***Section 106*** compliance effort with a ***Section 4(f)*** analysis. The level of the ***Section 4(f)*** analysis depends upon the type of ***Section 4(f)*** evaluation or approval that is required for the use of the property in question. There are two types of ***Section 4(f)*** evaluations (programmatic and individual) and the level of effort and coordination is different for each. There is also a third ***Section 4(f)*** approval option that requires only a finding by FDOT that the proposed project has a minor, non-adverse effect on the protected property. This is referred to as a ***Section 4(f)*** *de minimis* finding. In these cases, no ***Section 4(f)*** evaluation is required because the effects of the project on the resource are inconsequential as a matter of the law.

Districts should endeavor to schedule the ***Section 106*** and ***Section 4(f)*** identification and evaluation so that historic properties, and anticipated project interactions with them, are accurately presented to the public as part of the planned public involvement opportunities. The guidance for compliance with the requirements of ***Section 4(f)*** for historic properties is provided in ***Part 2, Chapter 7, Section 4(f) Resources***.

8.3.5 Treatment of Human Remains

Historic and prehistoric human remains are protected under ***Chapter 872, F.S.*** The treatment of human remains encountered during project construction or any other FDOT project-related activity must conform to ***Chapter 872.05, F.S.,*** the provisions of ***36 CFR Part 800.13*** and Post Review Discoveries in Stipulation X of the ***Section 106 PA,*** as well as ***Chapter 3*** of the ***CRM Handbook*** and ***Section 7-1.6*** of FDOT's ***Standard Specifications for Road and Bridge Construction***. If human remains are encountered during project-related activities (other than during an archaeological investigation), all work ceases in the area of the human burial and necessary measures are taken to secure and protect the remains, including, as appropriate, stabilization and covering. The individual(s) making the discovery [the District Project Construction Engineering Inspector (CEI) or the PM] should immediately contact the appropriate Medical Examiner. If the Medical Examiner finds that the burial may be involved in a legal investigation or represents the burial of an individual who has been dead less than 75 years, the Medical Examiner assumes jurisdiction. If the Medical Examiner finds that the burial is not involved in a legal investigation and represents the burial of an individual who has been dead 75

years or more, he or she notifies the State Archaeologist, and the FDHR assumes jurisdiction over and responsibility for the burial.

In addition, FDOT'S Native American Coordinator is notified so that the Tribes, the SHPO/THPO, as well as other appropriate consulting parties, receive the proper information and are included in the determination of effects, if applicable. For Native American human remains discovered on federal lands, the federal land managing agency is responsible for consultation under ***NAGPRA***. Also, see ***Sections 8.2.2.2*** and ***8.3.6*** for related procedures.

8.3.6 Archaeological and Historical Resources Considerations Following PD&E

Commitments developed under ***Section 106*** and all other associated federal and state laws governing the treatment or consideration of historic resources and properties are recorded in the Environmental Document. ***Part 2, Chapter 22, Commitments*** provides the process that must be followed to ensure commitment compliance for FDOT projects. Tracking project commitments follows FDOT's ***Procedure No. 650-000-003, Project Commitment Tracking***.

If either the Design or Construction Office cannot meet a commitment, they inform the District Environmental Office as soon as they are aware of that situation so that the District Environmental Office can inform the appropriate consulting parties and re-initiate the consultation.

8.3.6.1 Re-evaluations

Re-evaluations are prepared as outlined in ***Part 1, Chapter 13, Re-evaluations***. The commitments and required coordination are updated and documented in the Commitment Status section of the ***Re-evaluation Form*** and tracked according to ***Procedure No. 650-000-003, Project Commitment Tracking***. Because the status of historic properties can change over time, CRM evaluations or ***CRAS Reports*** may need to be updated, as appropriate, before advancing a proposed project into a new phase of development. For example, if the previous CRAS was completed more than ten years ago, a supplementary survey and ***CRAS Addendum Report*** may be necessary. Whenever there is a change to a project's potential to affect historic properties, consultation with SHPO/THPO and other appropriate parties is revisited and updated, as necessary. There are times when this may necessitate a change to the ***Section 106*** documentation or findings for the project, amendments to an MOA, or other changes to the commitments.

8.3.6.2 Design Considerations

Prior to making commitments concerning design elements during consultation with SHPO/THPO, the Tribes, and/or other consulting parties, the District Environmental Office must coordinate with the District Design and Construction Office to review the feasibility of such elements which may be proposed during the consultation.

In some instances, consultation results in design considerations specifically related to the project such as avoidance or minimization treatments; whereas, other instances result in mitigation activities including, recordation, as well as educational or commemorative efforts related to specific sites or types of sites, specific historical periods, specific historic communities, or research efforts to promote more robust avoidance alternatives for the future. The specific measures required for these efforts are often contained in a MOA prepared for the project (see ***Chapter 8*** of the ***CRM Handbook***).

8.3.6.3 Permitting

Environmental permits obtained by FDOT may include provisions for the protection or consideration of historic properties. These provisions arise from the general permit conditions requiring compliance with state or federal laws. However, if a commitment is made during the PD&E phase to avoid, minimize, or mitigate harm to a significant historic resource, this commitment may be contained in the permit conditions as well. Occasionally, a permitting agency may conduct its own consultations under ***Section 106*** or under ***Chapter 267, F.S.***, and include specific conditions in the permit.

8.3.6.4 Cultural Resources Considerations during Construction

If a contractor requires the use of a borrow pit, offsite staging area, or an area for offsite construction activity not proximal to the project, the contactor is required to consult with the SHPO or FDHR to ensure that no historic properties will be affected by the use of these areas ***(Section 120-6.2, Furnishing of Borrow Areas*** of FDOT's ***Standard Specifications for Road and Bridge Construction)***. A sample form for clearing an off-project construction activity is provided in ***Figure 8-8***. If previously unidentified historic properties are discovered during construction, or if unanticipated impacts to known or previously unidentified historic properties occur during construction, all construction-related activity in the vicinity of the discovery must stop, and the procedures set forth in Stipulation IX of the ***Section 106 PA*** must be followed.

8.3.6.5 Review and Compliance Requirements

Prior to the approval of the construction plans and any design modifications proposed during construction, the Construction Office reviews the plans and/or the modifications to verify that the commitments associated with the project's relationship to or effects upon historic properties, as well as federal and state regulations, are incorporated into the design and plans. These reviews require the involvement of the District Environmental Office (see ***Section 8.1***).

In addition to the plan notes and specifically outlined conditions provided with the project construction plans, the Contractor follows the provisions set forth in the most recent version of FDOT's ***Standard Specifications for Road and Bridge Construction***.

8.3.6.6 Emergency Repair Actions

To maintain compliance with ***Section 106***, ***Chapter 267, F.S.***, and ***Section 4(f)*** for emergency repair actions, the following guidelines should be adhered to. These

procedures apply only if a disaster or emergency has been declared by the President, Governor, or tribal government, or if responding to other immediate threats to life or property. In accordance with ***36 CFR § 800.12(d)***, immediate rescue and salvage operations conducted to preserve life or property are exempt from the provisions of ***Section 106***, and work can proceed without performing the notification procedures listed below.

Repair actions are categorized either as “emergency” or “permanent.” Emergency repairs are made during and immediately following a disaster to restore essential traffic, to minimize the extent of damage, or to protect the remaining facilities. Permanent repairs to restore the highway to its pre-emergency condition normally occur after the emergency repairs have been completed. For emergency repairs, compliance with ***Section 106***, ***Section 4(f)***, and other related environmental laws occurs concurrent with or after the emergency repairs have been completed. For permanent repairs, compliance is undertaken as part of the normal ***NEPA*** project development process.

1. Project forms, notifications, and other appropriate documentation should be completed at the project level, which may be based on individual or multiple ***Detailed Damage Inspection Reports (DDIRs)***.

2. The standard ***Section 106 Program Alternative Form*** may be used, if appropriate, to notify SHPO (with a copy to OEM) of the emergency repair action. Be sure to identify these actions as emergency repairs on the form. Where a District has a large number of emergency projects, provide SHPO the notification using a table, list, or spreadsheet of the emergency repair actions, and clearly identify those projects where follow-up or additional coordination will be needed in regard to archaeological or historic resources and properties. If properties that may be of religious and cultural importance to a Tribe are present within the APE, the appropriate Tribe must be notified of the action.

3. In certain situations, the proposed emergency or permanent repair may consist of an action or actions which have no potential to cause effects to historic properties when assuming historic properties are present in the project area as set forth at ***36 CFR § 800.3(a)(1)***. In these situations, see ***Section 8.3.2.2.1***, and document the finding as appropriate.

4. For all emergency repair actions not involving a historic or archaeological site (e.g., improvements within a non-historic roadway or roadway features), Stipulation V of the ***Section 106 PA*** should be used. Stipulations VI and VII can also be applied, as appropriate.

5. ***Section 106*** documentation can be completed concurrent with or after the action, but must be provided to SHPO within six months of the completion of the action. If no cultural resources are identified within the APE of the emergency repair action, ***Section 106*** obligations are fulfilled by the standard SHPO ***Transmittal Letter.***

6. If previously unidentified cultural resources are uncovered, or if unanticipated impacts to known historic properties are discovered as a result of the action, FDOT

still complies with ***Section 7-1.6*** of FDOT's ***Standard Specifications for Road and Bridge Construction***, the procedures for inadvertent discovery of human remains contained in ***Chapter 872.05, F.S.***, (see ***Section 8.3.5***), the provisions of ***36 CFR Part 800.13***, and the provisions regarding Post-Review Discoveries in Stipulation X of the ***Section 106 PA***.

7. To the maximum extent possible, Districts should avoid using land which may be protected by ***Section 4(f)*** or ***Section 106*** for emergency repair actions. Districts should avoid using land which may be protected by ***Section 4(f)*** or ***Section 106*** for debris storage and/or materials staging areas. If using a known historic or archaeological site, restoration or mitigation may be required as appropriate.

8. Although the purpose of ***Section 4(f)*** (to evaluate feasible and prudent avoidance alternatives) cannot be fulfilled after an emergency repair is completed, appropriate documentation may still be required if an activity requires the use of a ***Section 4(f)***-protected resource. If using potential ***Section 4(f)*** resource (public park, recreational area, historic property, or wildlife or waterfowl refuge), initiate appropriate consultation to ensure that the conditions of the site being utilized are restored to the same level, or better than, they were prior to the emergency event, as appropriate (see ***Part 2, Chapter 7, Section 4(f) Resources***).

9. Related emergency repair documentation is uploaded into the SWEPT project file upon SHPO concurrence or, as appropriate, when FDOT makes its final determination. If the action or any additional cultural resources coordination is completed under a new Financial Management number for the subsequent permanent repair, make a note to the original emergency repair SWEPT project file that describes where the documentation is located.

8.4 REFERENCES

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Chapter 125, Florida Statutes (F.S.), County Government. http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&URL=0100-0199/0125/0125ContentsIndex.html

Chapter 163, F.S., Intergovernmental Programs. http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&URL=0100-0199/0163/0163ContentsIndex.html

Chapter 253.027, F.S., Emergency Archaeological Properties Acquisition Act of 1988.

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8.5 HISTORY

1/12/1999, 9/7/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 12, 1/14/2019, 7/1/2020, 7/1/2023

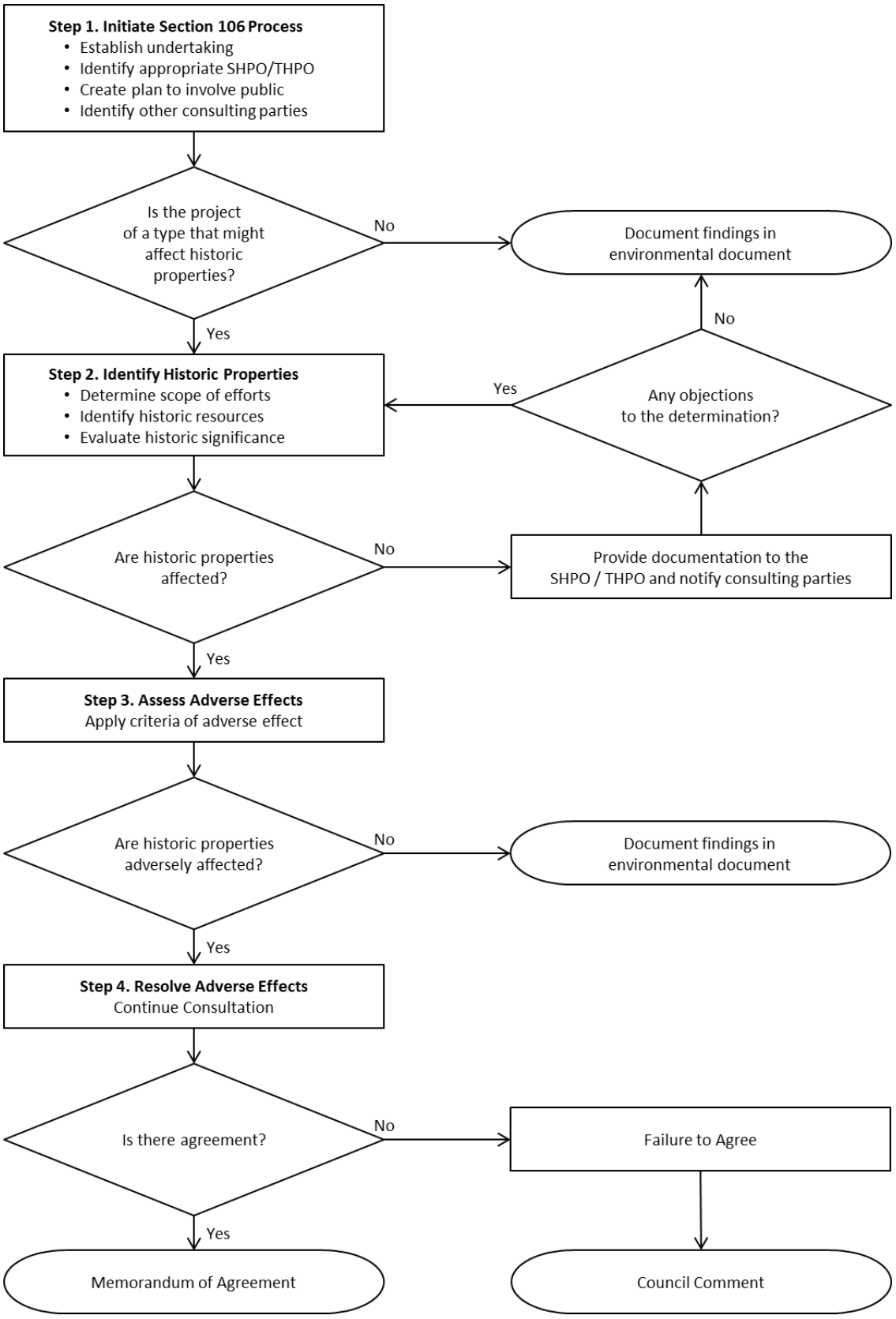

Figure 8-1 Section 106 Process

Appendix 2, Minor Project Activities Considered Unlikely to Affect Historic Properties

1. Approval of utility installations along or across a transportation facility.
2. Construction of bicycle and pedestrian lanes, paths, and facilities.
3. Transfer of Federal lands pursuant to 23 U.S.C. 107(d) and/or 23 U.S.C. 317 when the land transfer is in support of an action that is not otherwise subject to FHWA review under NEPA.
4. The installation of noise barriers, or alterations, to existing publicly-owned buildings to provide for noise reduction.
5. Landscaping within the horizontal and vertical extent of previous ground disturbance and/or the original construction footprint.
6. Emergency repairs under 23 U.S.C. 125.
7. Acquisition of scenic easements.
8. Determination of payback under 23 CFR, Part 480 for property previously acquired with Federal-aid participation.
9. Minor improvements to existing rest areas and truck weigh stations.
10. Ride-sharing activities.
11. Bus and rail car rehabilitation.
12. Alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons.
13. Program administration, technical assistance activities, and operating assistance to transit authorities to continue existing service or increase service to meet routine changes in demand.
14. Track and rail-bed maintenance and improvements when carried out within the existing ROW.
15. Purchase and installation of operating or maintenance equipment to be located within the transit facility and with no significant impacts off the site.
16. Adding or lengthening turning lanes (including continuous turn lanes), intersection improvements, channelization of traffic, dualizing lanes at intersection and inter-changes, auxiliary lanes, and reversible lanes.

Figure 8-2 Project Activity Types Identified for Stipulation VI of the Section 106 PA, Appendix 2

17. Flattening slopes; improving vertical and horizontal alignments.

18. Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.

19. Restore, replace, and rehabilitate culverts, inlets, drainage pipes, and systems including safety treatments.

20. Widening, adding roadway width and/or roadway reconstruction shoulders without adding through traffic lanes.

21. Roadway skid hazard treatment.

22. Upgrade, removal, or addition of guardrail.

23. Upgrade median barrier.

24. Install or replace impact attenuators.

25. Upgrade bridge end approaches/guardrail transition.

26. Upgrade railroad track circuitry.

27. Improve railroad crossing surface.

28. Improve vertical and horizontal alignment of railroad crossing.

29. Improve sight distance at railroad crossing.

30. Railroad crossing elimination by closure, and railroad overpass removal within ROW.

31. Clear zone safety improvements, such as fixed object removal or relocation.

32. Screening unsightly areas.

33. Freeway traffic surveillance and control systems.

34. Motorist aid systems.

35. Highway information systems.

36. Preventive maintenance activities such as joint repair, pavement patching, shoulder repair and the removal and replacement of old pavement structure.

37. Restore, rehabilitate, and/or resurface existing pavement.

Figure 8-2 Project Activity Types Identified for Stipulation VI of the Section 106 PA, Appendix 2 (Page 2 of 3)

38. Computerized traffic signalization systems.

39. Widening of substandard bridge to provide safety shoulders without adding through lanes.

40. Replacement of existing bridge (in same location) with current design criteria.

41. Transportation enhancement projects involving acquisition of historical sites and easements, or historical preservation.

42. Preservation of abandoned railway corridors, including the conversion and use for pedestrian, equestrian, or bicycle trails.

43. Rehabilitation and operation of historic transportation buildings, structures, or facilities, including railroad facilities and canals.

44. Mitigation of water pollution due to highway runoff.

45. Bridge removal.

46. Approvals for disposal of excess ROW or for joint or limited use of ROW, where the proposed use does not have significant adverse impacts.

47. Rehabilitation or reconstruction of existing rail and bus transit buildings and ancillary buildings where only minor amounts of additional land are required, and there is not a substantial increase in the number of users.

48. Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks, and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.

49. Acquisition of land for hardship or protective purposes for a particular parcel or a limited number of parcels; advance land acquisition loans under section 3(b) of the Urban Mass Transportation Act.

50. Animal crossings.

51. Changes in access controls.

52. Minor ROW acquisition for roadway and bridge projects without the addition of through traffic lanes.

Figure 8-2 Project Activity Types Identified for Stipulation VI of the Section 106 PA, Appendix 2 (Page 3 of 3)

[DATE]

[TRIBAL CONTACT NAME]
[TITLE]
[ADDRESS]

Re: [**PROJECT NAME**]
COUNTY: [Name]

Dear [TRIBAL CONTACT NAME]:

Please find enclosed one copy of the Cultural Resource Assessment Survey (CRAS) Report for the [PROJECT NAME] for your review and comment. This report documents the cultural resource survey conducted pursuant to *Section 106* of the *National Historic Preservation Act (NHPA) of 1966* (Public Law 89-665, as amended) and its implementing regulations (36 CFR Part 800: *Protection of Historic Properties*, incorporating amendments effective August 5, 2004). The objectives of this survey were to identify cultural resources within the project corridor and assess their eligibility for inclusion in the *National Register of Historic Places* (*NRHP*). As noted in the [INSERT DATE] letter from the Florida Department of Transportation (FDOT) to the [INSERT TRIBE NAME] that initiated *Section 106* consultation (see attached), this report is being forwarded to you as part of the project-specific consultation.

No archaeological sites were identified during the survey of [PROJECT NAME]. If you have any questions, please feel free to call the Director of OEM at (850) 414-4316 or State Cultural Resources Coordinator at (850) 414-5269. You may also contact [NAME, TITLE, PHONE NUMBER] for project-specific information if so desired.

Sincerely,

[NAME]
Director, Environmental Management

Enclosures

cc: [Additional tribal contacts]
[District Engineer]
[District specific contacts]
[State Cultural Resource Coordinator]

Figure 8-3 Sample Transmittal Letter to Tribes (Without Cultural Sites)

[Date]

[TRIBAL CONTACT NAME]
[TITLE]
[ADDRESS]

Re: [PROJECT NAME
COUNTY: [Name]

Dear [TRIBAL CONTACT NAME]:

Please find enclosed one copy of the Cultural Resource Assessment Survey (CRAS) Report for the [PROJECT NAME] for your review and comment. This report documents the cultural resource survey conducted pursuant to *Section 106* of the *National Historic Preservation Act* (*NHPA*) *of 1966* (Public Law 89-665, as amended) and its implementing regulations (36 CFR Part 800: *Protection of Historic Properties*, as revised January 2001 and incorporating amendments effective August 5, 2004). The objectives of this survey were to identify cultural resources within the project corridor and assess their eligibility for inclusion in the *National Register of Historic Places* (*NRHP*). As noted in the [INSERT DATE] letter from the Florida Department of Transportation (FDOT) to the [INSERT TRIBE NAME] that initiated *Section 106* consultation (see attached), this report is being forwarded to you as part of the project-specific consultation.

A total of [INSERT NUMBER] archaeological sites were identified during the survey of [PROJECT NAME]. [NOTE TYPE OF SITES AND THEIR NRHP ELIGIBILITY RECOMMENDATION, IF APPLICABLE]

We welcome any comments you may have pertaining to this project and seek your concurrence with the finding. [DETAIL FINDINGS IF APPROPRIATE] We look forward to continuing the consultation process and working with you.

If you have any questions, please feel free to call the Director of OEM at (850) 414-4316or State Cultural Resources Coordinator) at (850) 414-5269. You may also contact [NAME, TITLE, PHONE NUMBER] for project-specific information if so desired.

Sincerely,

[NAME]
Director, Office of Environmental Management

Enclosures

cc: [Additional tribal contacts]
[District Engineer]
[District specific contacts]
[State Cultural Resource Coordinator]
[PDC]

Figure 8-4 Sample Transmittal Letter to Tribes (with Cultural Sites)

Bridge Number and Name	County	Bridge Type and Year Built	Brief Description of Significance
054015 C.R. 721A / Harney Pond Canal	Glades	Prestressed Concrete slab 1958	Very early or particularly important example of its type in the state or the nation.
910001 S.R. 70 / Kissimmee River	Okeechobee/ Highlands	Steel girder 1966	Has distinctive engineering or architectural features that depart from standard bridge designs.
910009 S.R. 78/ Kissimmee River	Okeechobee	Steel girder 1964	Has distinctive engineering or architectural features that depart from standard bridge designs.
720075 SR 109 / SR 10A	Duval	Concrete Tee beam 1952	Has distinctive engineering or architectural features that depart from standard bridge designs.
720087 U.S. 1 / Miami Road	Duval	Continuous Steel girder 1968	Has distinctive engineering or architectural features that depart from standard bridge designs.
720100 S.R. 115A Flyover / S.R. 10A	Duval	Concrete Box beam 1961	Very early or particularly important example of its type in the state or the nation.
760002 S.R. 19 / Proposed Cross Florida Barge Canal	Putnam	Continuous Steel girder 1967	Associated with an event or individual. Features spans of exceptional length or complexity. Displays other elements that were engineered to respond to a unique environmental context.
580951 S.R. 399 / ICWW	Santa Rosa	Steel girder 1960	Features spans of exceptional length or complexity. Displays other elements that were engineered to respond to a unique environmental context.
460019 U.S. 98 (S.R. 30) / ICWW	Bay	Concrete girder 1965	Features spans of exceptional length or complexity. Displays other elements that were engineered to respond to a unique environmental context.
570034 U.S. 98 (S.R. 30) / ICWW	Okaloosa	Steel girder 1964	Features spans of exceptional length or complexity. Displays other elements that were engineered to respond to a unique environmental context.
880005 James H. Pruitt Memorial / S.R. A1A over Sebastian Inlet	Indian River	Prestressed concrete girder 1964	Very early or particularly important example of its type in the state or the nation.
364040 C.R. 316 / Proposed Cross Florida Barge Canal	Marion	Continuous steel girder 1969	Associated with an event or individual. Features spans of exceptional length or complexity. Displays other elements that were engineered to respond to a unique environmental context.

Figure 8-5 Florida Post-1945 Bridges Requiring Evaluation and/or Individual Treatment under Section 106

Bridge Number and Name	County	Bridge Type and Year Built	Brief Description of Significance
360055 S.R. 40 / Ocklawaha River	Marion	Continuous steel girder 1972	Associated with an event or individual. Features spans of exceptional length or complexity. Displays other elements that were engineered to respond to a unique environmental context.
904603 Bimini Drive/ Sam's Canal	Monroe	Prestressed concrete channel beam 1955 / 1982	Associated with an event or individual. Has distinctive engineering or architectural features that depart from standard bridge designs.
904604 Harbour Drive / Joe's Canal	Monroe	Prestressed concrete channel beam 1955 / 1982	Associated with an event or individual. Has distinctive engineering or architectural features that depart from standard bridge designs.
904606 Seaview Drive / Un-Named Canal	Monroe	Prestressed concrete channel beam 1955 / 1982	Associated with an event or individual. Has distinctive engineering or architectural features that depart from standard bridge designs.
870078 S.R. 826 SB Flyover to S.R. 836	Miami-Dade	Prestressed concrete box beam 1967	Very early or particularly important example of its type in the state or the nation.
None Florida Kennels Rock Bridge / driveway over Red Canal	Miami-Dade	Concrete and rock culvert 1947	Has distinctive engineering or architectural features that depart from standard bridge designs.
None Rock Bridge over Red Road Canal	Miami-Dade	Concrete and rock culvert 1947	Has distinctive engineering or architectural features that depart from standard bridge designs.

Figure 8-5 Florida Post-1945 Bridges Requiring Evaluation and/or Individual Treatment under Section 106 (Page 2 of 2)

The following is a sample ***Transmittal Letter*** to SHPO. The sample ***Transmittal Letter*** is followed by examples of the different signature blocks required for different situations.

The ***Transmittal Letter*** includes a date and is addressed to:

[DATE]

[NAME]
Director and State Historic Preservation Officer
Florida Division of Historical Resources
Florida Department of State
R.A. Gray Building
500 South Bronough Street
Tallahassee, Florida 32399-0250

Attention: Transportation Compliance Review Program

In the subject lines, provide the project name and limits, project phase (e.g., PD&E Study, pond siting), the Financial Management Number, and the Federal-Aid Project (FAP) Number, as applicable:

Cultural Resource Assessment Survey
Project Development and Environment (PD&E) Study
[PROJECT NAME]
[COUNTY], Florida
Financial Management No.: XXXXXX X XX XX
Federal Aid Project No.: XXXXXX

Description of the project:

A Cultural Resource Assessment Survey (CRAS) was conducted within the Area of Potential Effects (APE) for the above-referenced project as part of the Florida Department of Transportation's (FDOT's) proposed widening of [length] miles of [project road and limits]. The proposed improvements involve widening [road] from the existing two lanes to a four-lane, divided facility along the existing alignment. The Build alternative will require xx feet of additional right of way and will include associated curb and gutter improvements and bringing the pedestrian facilities up to the standards established in the Americans with Disabilities Act (ADA).

[Insert description of the project APE for both archaeological sites and historic resources]. This APE was defined, in consultation with the State Historic Preservation Officer (SHPO), as the existing right of way for the archaeological survey. The historical APE [insert description].

Regulatory authorities:

This CRAS was conducted in accordance with the requirements set forth in the National Historic Preservation Act of 1966, as amended, and Chapter 267, Florida Statutes (F.S.). The investigations were carried out in accordance with Part 2, Chapter 8 of FDOT's Project Development and Environment Manual, FDOT's CRM Manual, and the standards contained in the Florida Division of Historical Resources (FDHR) CRM Standards and Operations Manual. In addition, this survey meets the specifications set forth in Chapter 1A-46, Florida Administrative Code.

Figure 8-6 Sample Transmittal Letter to SHPO with Signature Blocks

Summary results of the background research:

Background research revealed that no previously recorded archaeological sites were present within the APE, and suggested that the project corridor had a generally low potential for archaeological site occurrence. No historic period archaeological sites were expected. Therefore, the corridor was subjected to a pedestrian survey and appropriate judgmental subsurface testing.

Eight previously recorded historic structures and one resource group were identified within the project APE. These resources include [describe with site names, FMSF Numbers, build dates, NRHP status, etc.]. None of the recorded residential and commercial structures were listed or determined eligible for listing in the NRHP; the resource group has not been evaluated by SHPO.

Summary results of the field surveys, including evaluations of NRHP eligibility:

No archaeological sites were identified as a result of field survey. The historical/architectural field survey indicated that four [FMSF Numbers] of the previously recorded historic structures and the resource group [FMSF Number] have been demolished. Two previously recorded [FMSF Numbers] and 14 newly recorded [FMSF Numbers] historic resources were evaluated for eligibility for listing in the NRHP. None of these resources are considered potentially eligible for listing in the NRHP.

In cases where a preliminary analysis of proposed ponds is conducted as part of the CRAS for a PD&E Study, with the results summarized in a Technical Memorandum included as an appendix to the CRAS Report, the following standard language may be added to the letter:

A preliminary analysis of 14 proposed ponds was conducted as part of this CRAS; the Technical Memorandum summarizing the results of this analysis, is included as Appendix [X]. No fieldwork was performed. A CRAS, including fieldwork, will be prepared after the preferred pond sites are selected.

If previously or newly recorded resources are found to be either listed in or determined eligible for listing in the NRHP, the transmittal letter should provide the Criteria of Eligibility (for example, “Criterion A: associated with events that have made significant

contribution to the broad patterns of our history”), along with the primary character of the property (for example, a rare example of a pre-Contact village site, a contact-period trading site, a unique or important engineering achievement, the home of an important person, or the location of an important event, an excellent representative of an important architectural style, and so on). If any of the Criteria considerations established by the NRHP are applicable to the property, provide those as well.

Summary of potential project effects to historic properties (if there is enough project and/or site detail to allow this):

Based on the results of background research and field survey, no historic properties are located within the project APE. Therefore, the project will have no involvement with any archaeological sites or historic resources that are listed, determined eligible, or considered potentially eligible for listing in the NRHP.

Or, in the case of potentially eligible resources:

Background research and field survey revealed one resource [FMSF Number and site name] which was evaluated as potentially eligible for listing in the NRHP, in accordance with Section 106 of the NHPA, as amended, and its implementing regulations. Should SHPO/THPO concur with this finding, we look forward to further consultation with SHPO/THPO to evaluate the effects of the proposed undertaking (preferred alternative) on the potentially NRHP-eligible [Property Name].

Figure 8-6 Sample Transmittal Letter to SHPO with Signature Blocks (Page 2 of 4)

Closing statement:

> The CRAS Report is provided for your review and concurrence. If you have any questions, please do not hesitate to call me at [TELEPHONE NUMBER and EMAIL ADDRESS].

In cases where the survey encountered or evaluated sites or resources that could be of cultural or religious importance to the Tribes, include a statement to that effect, along with a statement about coordination conducted with SHPO and the Tribes. Forward sufficient numbers of the CRAS and associated documents for tribal review, including the cover letters for tribal coordination. Note that the cover letter for the Tribes will not include the signature blocks.

List of enclosed documents:

> Enclosed are two copies of the CRAS Report [DATE], [NUMBER] FMSF forms [list the FMSF NUMBERS], a Survey Log Sheet, and a CD with pdf files of the CRAS Report, FMSF forms, and Survey Log Sheet.

Figure 8-6 Sample Transmittal Letter to SHPO with Signature Blocks (Page 3 of 4)

Use the following signature block to SHPO for federal actions:

The Florida State Historic Preservation Officer finds the attached Cultural Resource Assessment Survey Report complete and sufficient and ☐ concurs/ ☐ does not concur with the recommendations and findings provided in this cover letter for SHPO/FDHR Project File Number _____. Or, the SHPO finds the attached document contains _____ insufficient information. In accordance with the Programmatic Agreement among the FHWA, the FDOT, the ACHP, and the SHPO Regarding Implementation of the Federal-Aid Highway Program in Florida (2023 PA), and appended materials, if providing concurrence with a finding of ***No Historic Properties Affected*** for a whole project, or to ***No Adverse Effect*** on a specific historic property, SHPO shall presume that FDOT may pursue a *de minimis* use of the affected historic property in accordance with Section 4(f) as set forth within *23 CFR. Part 774* and its implementing authorities, as amended, and that their concurrence as the official with jurisdiction (OWJ) over the historic property is granted.
SHPO Comments:
[NAME], Director, and [DATE] State Historic Preservation Officer Florida Division of Historical Resources

Use the following signature block to FDHR for state actions:

The Florida Division of Historical Resources finds the attached Cultural Resource Assessment Report complete and sufficient and ☐ concurs/ ☐ does not concur with the determinations of historic significance provided in this cover letter and ☐ does ☐ does not find applicable the determinations of effects provided in this cover letter for SHPO/FDHR Project File Number ___ _____.
SHPO Comments:
[NAME], Director [DATE] Florida Division of Historical Resources

Figure 8-6 Sample Transmittal Letter to SHPO with Signature Blocks (Page 4 of 4)

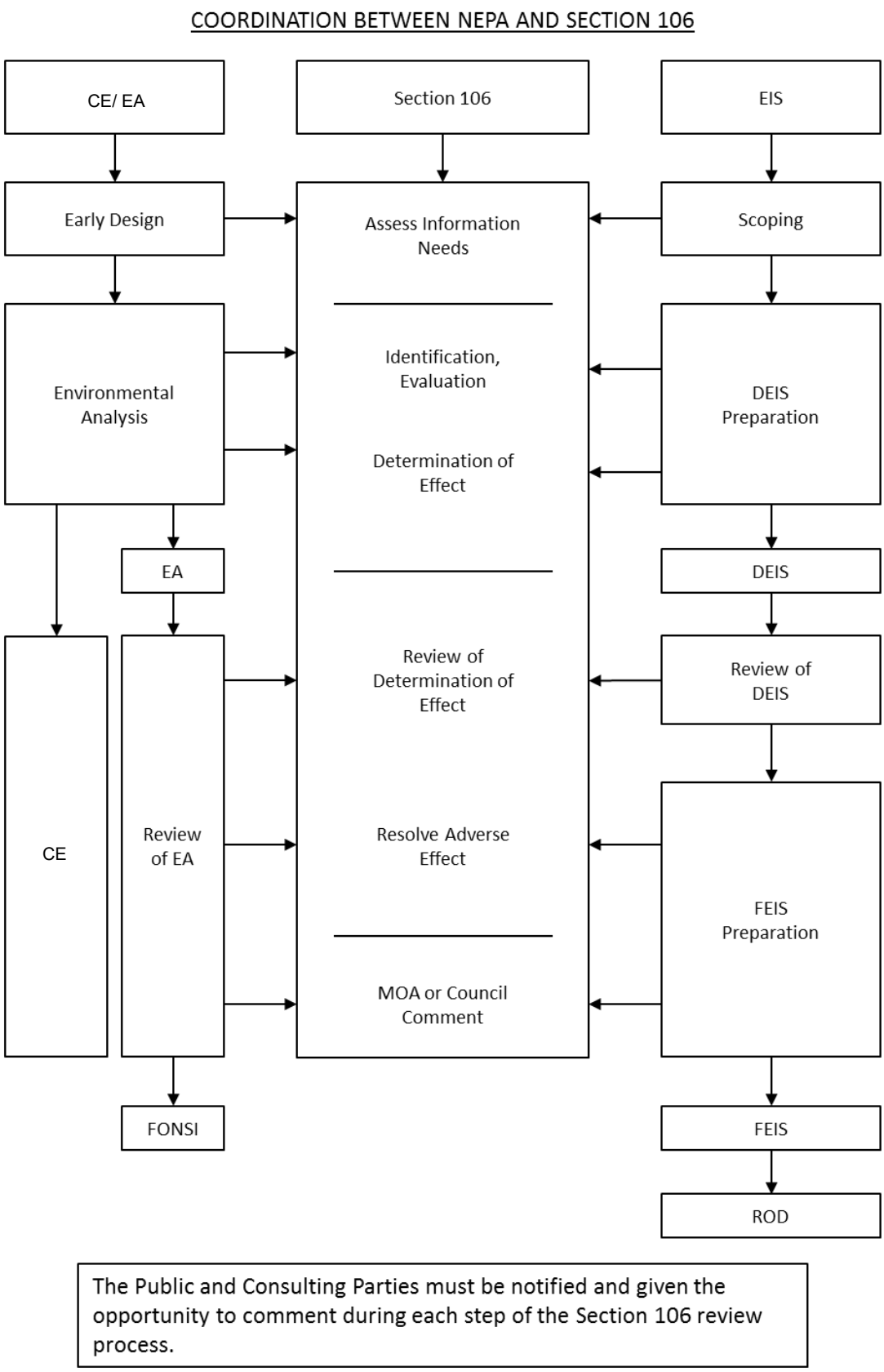

Figure 8-7 NEPA and Section 106

[Date]

[Name and Title]
Division of Historical Resources
Florida Department of State
R.A. Gray Building
500 South Bronough Street
Tallahassee, Florida 32399-0250
ATTN: Transportation Compliance Review Program

Re: Project Name, Financial Management Number XXXXX-XXXX
Contract Number XXXXXXXXX
XXX County, Florida

Dear XXX:

We propose to conduct off project highway construction activities [ADD BRIEF DESCRIPTION] for the above-referenced Department of Transportation project. The proposed off project area, which covers (ACREAGE OR DIMENSIONS), is depicted on the attached map and is located as follows:

County	_____	Township	_____	Range	_____
Section	_____	¼ Section	_____	¼ ¼ Section	_____

Please initiate an assessment of the proposed off project area to determine the possible effects of our operations on archaeological, architectural, or historic sites or properties. Please advise at your earliest convenience as to whether the project may proceed without further involvement with your agency or if a cultural resources field survey is required.

If you have any questions concerning this request, contact (CONTRACTOR'S REPRESENTATIVE) at (TELEPHONE NUMBER).

Sincerely,

NAME
ABC Construction Company
[ADDRESS]

Attachment

CC: [NAME], Director
Office of Environmental Management Florida Department of Transportation
605 Suwannee Street, MS 37
Tallahassee, Florida 32399-0450

[NAME], District Project Manager
[NAME], District Environmental Manager
[NAME], District Cultural Resource Coordinator

Figure 8-8 Contractor’s Request for a Cultural Resource Assessment

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 May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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. These require 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* ***Sections 373.4137*** and ***373.414, Florida Statutes (F.S.)****.*

This chapter includes the same terminology as provided in the Definitions Section of ***Part 1, Chapter 12, Environmental Permits***.

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. On December 22, 2020, EPA granted FDEP permitting authority under ***Section 404(g)*** of the ***CWA*** to authorize dredge and fill impacts to state regulated waters (assumed waters). FDEP administers this State 404 Program in conjunction with the Environmental Resource Permitting (ERP) program under ***Part IV of Chapter 373, F.S.***, and implements it through ***Rule 62-331, Florida Administrative Code (F.A.C.)***, and the ***State 404 Applicant's Handbook***. The USACE has retained ***Section 404*** authority for retained waters as defined in the ***State 404 Program Applicant's Handbook***. The USFWS and NMFS serve in a commenting role to the USACE and FDEP with respect to their jurisdictional responsibilities.

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) advises the FDEP and WMDs on wildlife issues as a requirement under Florida's 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 ***Chapter 62-340, 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), 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 statues and regulations for project related impacts to the natural environment, neighborhoods, and communities."

Documentation of the wetland evaluation is included in the wetland section of the ***Natural Resource Evaluation (NRE)*** or in a technical memorandum and summarized in the Environmental Document. Wetland and other surface water impacts requiring either a federal or state standard/individual permit, or a regional general permit must be documented in an ***NRE***. For projects with impacts allowable under a federal USACE Nationwide permit, or a state general 404 permit or ERP, a technical memorandum discussing wetland and other surface water impacts may be sufficient. The integration of the ***NEPA*** process with ***Section 404(b)(1) Guidelines*** of the ***CWA*** is desirable for projects requiring a USACE standard/individual permit ***(Section 9.2.6)***. More information can be found in ***Part 1, Chapter 12, Environmental Permits***.

For non-federal projects, documented as a State Environmental Impact Report (SEIR) or Non-Major State Action (NMSA), the process should be the same. For more information about developing SEIRs or NMSAs, 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***, state requirements, or qualifies for Environmental Screening Tool (EST) screening. See ***Part 1, Chapter 2, Class of Action Determination for Federal Projects*** for project types qualifying for EST screening. ***Figure 9-1*** provides a flow chart of the wetland evaluation process.

For projects that do not qualify for EST screening, a field visit or a desktop analysis using the EST's Area of Interest tool, or other mapping tools can be used to determine if a project will impact wetlands or other surface waters. This information can be documented in the ***Type 1 Categorical Exclusion Checklist*** or the ***Non-Major State Action Checklist***, as appropriate.

For projects qualifying for EST screening, the District uses information from the ***Programming Screen Summary Report*** to initially determine the project's involvement with wetlands. The analyst should review the Environmental Technical Advisory Team (ETAT) comments made for the "Navigation" 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 Resources," and in some cases "Protected Species 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 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*** or in a technical memorandum.

In accordance with ***EO 11990*** and ***USDOT Order 5660.1A***, a formal "Wetlands Finding" is required for projects processed as a Type 2 Categorical Exclusion (CE), EA with Finding of No Significant Impact (FONSI), or a Final Environmental Impact Statement (FEIS) as described in ***Section 9.2.4.1*** and ***Section 9.2.4.3***. Non-Major State Actions and SEIRs are not subject to ***EO 11990*** and do not require a "Wetlands Finding." Potential wetland involvement must also be made available for early public review through various public involvement mechanisms. If a public hearing is required for a project, wetland impacts are 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.

The AN package includes a Preliminary Environmental Discussion (PED) as part of the Fact Sheet. Wetland information is included in the PED and contains 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 waters 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 follow the ***Natural Resources Evaluation Outline and Guidance***, as applicable and include:

1. The identification of existing wetlands and other surface waters within the project area. Include maps of the wetlands and other surface waters 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***; ***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.

3. A description of wetlands in the project area according to the Florida Land Use Cover Classification System (FLUCCS) and the USFWS Classification System as described in ***Classification of Wetlands and Deepwater Habitats of the United States***.

4. An evaluation of the potential direct and indirect effects the project will have on the wetlands. Wetland impacts regulated under Florida's ERP Program, the State 404 Program, or USACE's ***Section 10 of the Rivers and Harbors Act/Section 404*** of the ***CWA*** process need to be identified and evaluated.

5. A discussion of the proposed project's potential contribution to cumulative impacts on the identified wetlands. 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***).

6. A discussion of practicable measures to avoid minimize harm to wetlands and other surface waters. Minimization could involve measures included in FDOT's ***Standard Specifications for Road and Bridge Construction***.

7. A functional assessment of the wetlands in accordance with UMAM.

8. A discussion of the potential mitigation options available and description of how those measures can be incorporated into the project.

The District must submit the draft ***NRE***, for federal projects, to OEM for review prior to submitting to the appropriate agencies for coordination/consultation. A summary of the ***NRE*** and the results of agency coordination/consultation should be included in the Environmental Document. The ***NRE*** should be retained in the project file, and it is recommended that it be placed within the Natural Resources Evaluation folder within the StateWide Environmental Project Tracker (SWEPT). 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 § 1508.1(s)***). 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***. "It is FHWA policy to 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." 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 the PD&E phase, 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 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 Environmental Documents.

FDOT documents compensatory mitigation for unavoidable impacts through discussion of mitigation options available and 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 Districts 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

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 Categorical Exclusion (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 (Part 1, Chapter 2, Class of Action Determination for Federal Projects)***. The appropriate wetland evaluation is included in the project file. 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 of the ***Type 2 Categorical Exclusion Determination Form***. The appropriate wetland evaluation is included in the project file. It is recommended that these documents be placed within the Wetlands and Other Surface Waters folder within SWEPT.

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 of the ***Type 2 Categorical Exclusion Determination Form*** 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 a description of the wetland environment within the 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

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 approximate 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 information on the mitigation for the purposes of public information. The standard statement is included in the Environmental Analysis section. EA and EIS projects should include information on the conceptual mitigation plans and add 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:

   Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that 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 wetland finding 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/ROD. 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*** or technical memorandum, including the UMAM or other functional assessment and potential mitigation options are summarized in the Wetlands and Other Surface Waters section (of the SEIR (***Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery***).

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.*

9.2.5 Public Notice of Wetland Involvement

In compliance with ***Executive Order 11990***, the FDOT "shall provide an opportunity for early public review of any plans or proposals for new construction in wetlands". This opportunity is typically accomplished through traditional public involvement procedures during the ***NEPA*** process including but not limited to public meetings, workshops, flyers, or project websites. For projects requiring a public hearing, the public hearing advertisement 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

In 1988, federal agencies including FHWA and the USACE developed a handbook titled ***Applying the Section 404 Permit Process to Federal-Aid Highway Projects***, also known as the ***Red Book***. It emphasized how the synchronization of ***NEPA*** and other federal regulatory reviews can help expedite project delivery. This handbook was updated in the ***2015 Red Book Synchronizing Environmental Reviews for Transportation and Other Infrastructure Projects***. This concurrent review by the lead transportation agency and the USACE for projects requiring a standard or individual ***Section 404*** permit can reduce duplication of analysis and allows for joint decision-making resulting in time and cost savings. 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. For transportation projects requiring a standard/individual permit, the USACE may be invited by FDOT to be a cooperating agency for the action of preparing a ***NEPA*** document. A ***NEPA/404*** merger may not be warranted for projects requiring a general permit (e.g., Nationwide or Regional General Permits) as the

consideration of alternatives is not directly applicable to general permits ***(40 CFR Part 230.7)***.

The common elements under ***NEPA*** and ***Section 404 of the CWA*** 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 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 estimated 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 included in the Environmental Document. 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

Change in wetland impacts or mitigation strategies after approval of the Environmental Document must be documented per ***Part 1, Chapter 13, Re-evaluations***.

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 impact review during Design and permit compliance during Construction consists of the following:

1. Plans Received - Review for completeness; identify/confirm project limits.

2. 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.

3. Regulatory Agency Coordination and Permitting - The District coordinates with regulatory agencies. Review mitigation specific to wetlands and coordinate with appropriate environmental staff to ensure wetland mitigation is addressed.

4. 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 documents.

5. Bid Document Review - Verify that completed final design plans and specifications incorporate required mitigation into the bid documents, as applicable.

6. Compliance during Construction - The Construction Office verifies compliance with permit conditions and commitments, as appropriate.

7. 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

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

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

Chapter 373 Part IV, F.S., Water Resources. Management and Storage of Surface Waters. http://www.flsenate.gov/Laws/Statutes/2016/Chapter373/Part_IV

Clean Water Act of 1972. https://www.govinfo.gov/content/pkg/STATUTE-86/pdf/STATUTE-86-Pg816.pdf

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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/pubs_resources_tools/publications/RedBook_2015.aspx

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

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

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FDOT. Cumulative Effects Evaluation Handbook, 2012 https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/cee/cee-handbook-2012-12183b410b4f04cf44f9ae1972577be52ba0b7f4290ddf11467fa22acded398d0508237a15c0eac844e193040a3899bb074181367d98d3424bebaf8c94900a1fc4e3d3cf79554d674a32b92c6cada8dda3b623acecd439cc41f999178af94010a78d.pdf?sfvrsn=3c5d70cd_10

FDOT. Efficient Transportation Decision Making (ETDM) Manual, Topic No. 650-000-002. http://www.fdot.gov/environment/pubs/etdm/etdmmanual.shtm

FDOT. Natural Resources Evaluation Outline and Guidance. https://www.fdot.gov/environment/protected-species-and-habitat

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. https://www.epa.gov/sites/production/files/2019-05/documents/1990_army-epa_mitigation_moa.pdf

Presidential Executive Order 11990. Protection of Wetlands, May 23, 1977. https://www.energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/Req-EO11990wetlands.pdf

Rivers and Harbors Act of 1899

Section 373.4137, F.S., Mitigation Requirements for Specified Transportation Projects. http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&URL=0300-0399/0373/Sections/0373.4137.html

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

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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 § 1508.1(s), Mitigation http://www.ecfr.gov/cgi-bin/text-idx?SID=b09fd47cef5e508a6b7915dc7ae96db4&mc=true&node=pt40.37.1508&rgn=div5#se40.37.1508_120

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USACE, Compensatory Mitigation for Losses of Aquatic Resources, April 2008 https://www.epa.gov/sites/production/files/2015-03/documents/2008_04_10_wetlands_wetlands_mitigation_final_rule_4_10_08.pdf

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9.4 HISTORY

4/14/1999, 11/20/2009, 4/24/2013, 8/22/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 18, 1/14/2019, 7/1/2020, 7/1/2023: State Section 404 Program

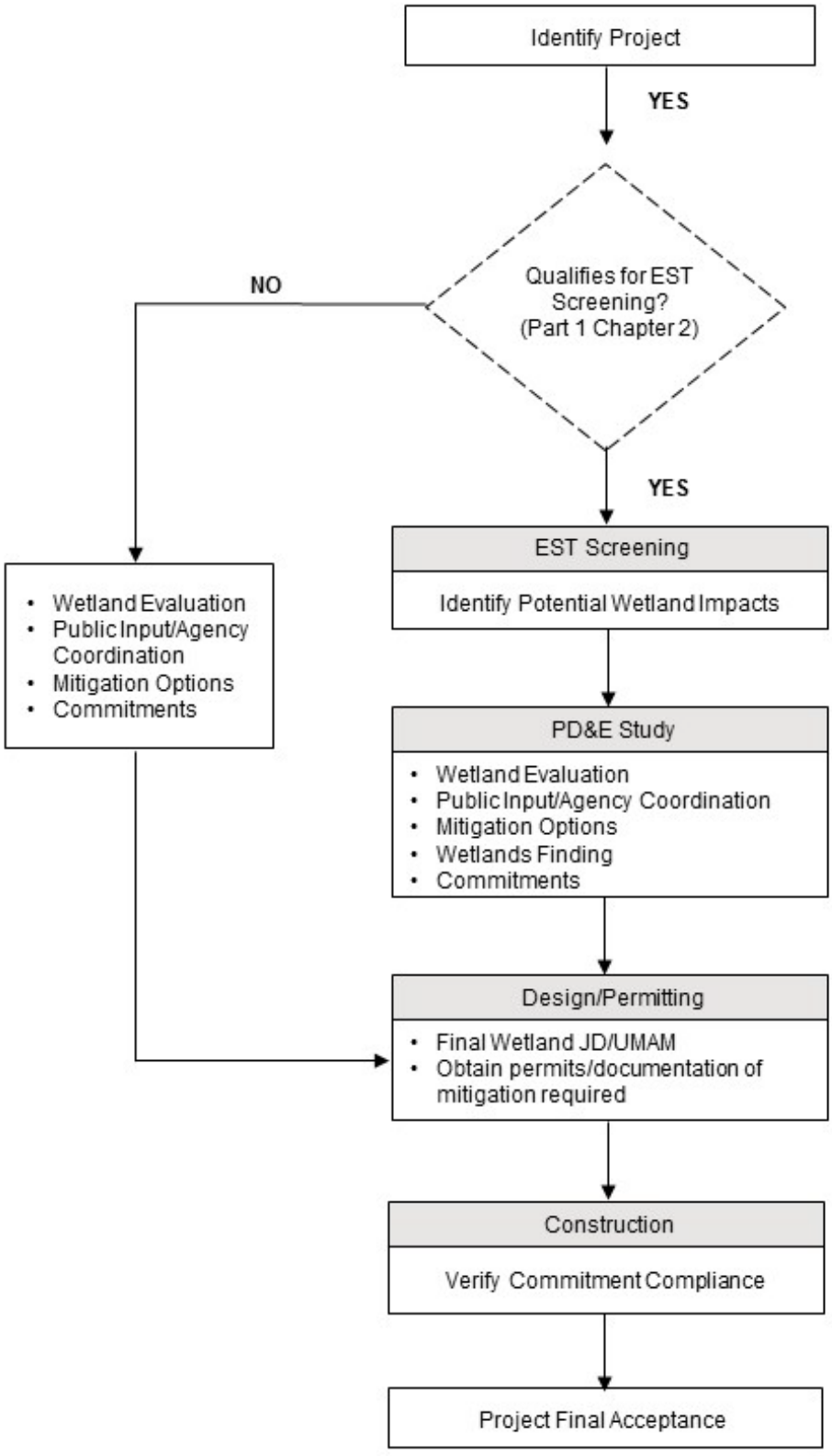

Figure 9-1 Wetland Evaluation Process

Florida Department of Environmental Protection:

https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/mitigation-and-mitigation-banking

Water Management Districts:

Northwest Florida
https://www.nwfwater.com/Water-Resources/Regional-Wetland-Mitigation-Program

Southwest Florida
https://www.swfwmd.state.fl.us/

St. Johns River
http://webapub.sjrwmd.com/agws10/mt/Default.htm

South Florida
https://www.sfwmd.gov/doing-business-with-us/mitigation-program

Suwannee River
https://www.mysuwanneeriver.com/

United States Army Corps of Engineers:

https://ribits.ops.usace.army.mil/ords/f?p=107:2

Figure 9-2 FDEP, WMDs, and USACE Mitigation Information

PART 2, CHAPTER 11

WATER RESOURCES

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WATER RESOURCES

11.1 OVERVIEW

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

This chapter provides procedures for assessing and documenting potential impacts to water resources from transportation projects to comply with ***NEPA***, the ***Clean Water Act (CWA)***, and other related federal and state environmental laws and regulations. The ***CWA*** is the primary law regulating pollution of the nation's waterways. Originally enacted in 1948 as the ***Federal Water Pollution Control Act***, it was amended in 1972 under the ***CWA*** to add programs for water quality improvements with the goal of restoring and maintaining the chemical, physical, and biological integrity of the country's water ***(33 U.S.C. § 1251 et seq)***. The ***Clean Water Act*** became the Act's common name with the amendments in 1972. The ***CWA*** made it unlawful to discharge any pollutant from a point source into navigable waters unless a permit was obtained. Additionally, the Environmental Protection Agency (EPA) has set water quality standards for contaminants in surface waters. In Florida, the Florida Department of Environmental Protection (FDEP) and five regional Water Management Districts (WMDs) implement the ***CWA*** programs under ***Chapters 403*** and ***373, Florida Statutes (F.S.)***.

Section 403.021(2), F.S., declares that it is public policy of the state to conserve the waters of the state and to protect, maintain, and improve their quality. Even though state surface water quality standards applicable to waters of the state do not apply within a stormwater management system, as provided by ***Section 373.4142, F.S.***, as long as the stormwater management system is designed, constructed, operated, and maintained for stormwater treatment in accordance with a valid permit, this statute does require FDOT to provide reasonable assurance that the water quality within its stormwater management system will not adversely impact public health, fish and wildlife, or adjacent waters. Therefore, FDOT projects are evaluated for potential impacts on water quality from stormwater runoff and are designed to address and mitigate impacts from stormwater

runoff through compliance with stormwater management plans and applicable regulatory requirements. ***Section 373.4596, F.S.***, requires FDOT projects to fully comply with state, WMD, and when delegated by the state, local government stormwater management programs.

Additionally, this chapter provides guidance on documenting water resource information and coordinating with water resource agencies and other stakeholders. The chapter does not cover impacts to wetlands and other surface waters not related to stormwater. See ***Part 2, Chapter 9, Wetlands and Other Surface Waters*** for wetland evaluation procedures.

The term "water resources" used throughout this chapter includes both surface and groundwater, aquatic preserves, Outstanding Florida Waters (OFWs), and Sole Source Aquifers (SSA). The level of water quality impact analysis depends upon the extent of potential impacts of a proposed project on surface and/or groundwater resources. Specifically, the impacts covered in this chapter are related to direct and indirect stormwater discharges from transportation projects into surface water (other than wetlands) and groundwater.

11.1.1 Definitions

Basin Management Action Plan (BMAP) – a comprehensive plan, coordinated by the FDEP, of regulatory and non-regulatory actions to meet the Total Maximum Daily Load (TMDL) for a given waterbody. BMAPs are designed to implement restoration strategies that reduce pollutant concentrations to meet a TMDL.

Designated Uses – the present and future most beneficial use of a body of water as designated by the Environmental Regulation Commission by means of the Waterbody Classification.

FDEP Group Number – the number and name assigned to waterbodies and water segments by FDEP, based on watersheds/basins that have been developed for the state and that form the basis for Basin Rotation.

Impaired Waters – surface waters that do not meet the standards set for them are determined to be "impaired" and in need of restoration. Using data from assessments, FDEP maintains a verified list of impaired Florida waterbodies. The impairments are separated into the following assessment categories:

1 Attains all designated uses.

2 Attains some designated uses and insufficient or no information or data are present to determine if remaining uses are attained.

3a No data and information are present to determine if any designated use is attained.

3b Some data and information are present but not enough to determine if any designated use is attained.

3c Enough data and information are present to determine that one or more designated uses may not be attained according to the Planning List methodology.

4a Impaired for one or more designated uses but does not require TMDL development because a TMDL has already been completed.

4b Impaired for one or more designated uses but does not require TMDL development because the water will attain water quality standards due to existing or proposed measures.

4c Impaired for one or more criteria or designated uses but does not require TMDL development because impairment is not caused by a pollutant.

4d Waterbody indicates non-attainment of water quality standards, but FDEP does not have enough information to determine a causative pollutant; or current data show a potentially adverse trend in nutrients or nutrient response variables; or there are exceedances of stream nutrient thresholds, but FDEP does not have enough information to fully assess non-attainment of the stream nutrient standard.

4e Waterbody indicates non-attainment of water quality standards and pollution control mechanisms or restoration activities are in progress or planned to address non-attainment of water quality standards, but FDEP does not have enough information to fully evaluate whether proposed pollution mechanisms will result in attainment of water quality standards.

5 Water quality standards are not attained and a TMDL is required.

Municipal Separate Storm Sewer System (MS4) – a publicly-owned conveyance or system of conveyances, such as roads with stormwater systems, municipal streets, or catch basins, that are designed or used for collecting or conveying stormwater that discharges into surface waters of the state.

Nonpoint Source – any pollutant source that cannot be considered a “point source” according to the ***CWA*** and EPA regulations. Nonpoint source pollution generally results from runoff, precipitation, atmospheric deposition, drainage, or seepage.

Numeric Nutrient Criteria (NNC) – statewide numeric nutrient standards for Florida’s waters (including springs, rivers, lakes and estuaries but excluding wetlands, tidal creeks, managed conveyances and south Florida flowing waters) established under ***Chapter 62-302.531, Florida Administrative Code (F.A.C.)*** and ***Chapter 62-302.532, F.A.C.***

Outstanding Florida Waters (OFWs) – waterbodies designated by the Environmental Regulation Commission as worthy of special protection because of their natural attributes.

This special designation is applied to certain waters and is intended to protect existing good water quality. ***(Chapter 62-302.700, F.A.C.)***.

Outstanding National Resource Waters (ONRWs) – waterbodies designated by the Environmental Regulation Commission that are of such exceptional recreational or ecological significance that water quality should be maintained and protected under all circumstances.

Point Source – any discernable, confined, and discrete conveyance from which pollutants may be discharged, such as a pipe, vessel, channel, or ditch.

Potable Water Well – any water well which supplies water for human consumption to a community water system or to a non-transient non-community water system. ***(Chapter 62-521, F.A.C.)***.

Reasonable Assurance Plan (RAP) or 4b Plan – waterbody restoration plan for waterbodies that are impaired but with control programs already in place to restore water quality standards.

Site Specific Alternative Criteria (SSAC) – an alternative surface water quality standard that can replace the criteria applicable statewide in cases where site specific information supports different numeric criteria. The SSAC must fully support and protect the designated uses of the waterbody.

Special Water – a waterbody demonstrated to be of exceptional recreational or ecological significance as listed in ***Chapter 62-302.700(9)(i), F.A.C.***

Surface Water Improvement and Management (SWIM) Program – established in 1987 as one mechanism to identify nonpoint pollutant sources and to consider a waterbody's needs as a system of connected resources rather than isolated wetlands or waterbodies. The WMDs are directly responsible for the SWIM program.

Total Maximum Daily Load (TMDL) – a scientific determination of the maximum amount of a given pollutant that a waterbody can absorb and still meet the water quality standards that protect human health and aquatic life. The FDEP is responsible for the TMDL program.

Water Quality Criteria – elements of the state water quality standards, expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports the present and future most beneficial use.

Water Quality Standards – composed of designated present and future most beneficial uses (classification of waters), the numerical and narrative criteria, including Site Specific Alternative Criteria, applied to the specific water uses or classification, the Florida anti-

degradation policy, and the moderating provisions, such as variances, mixing zone rule provisions, or exemptions.

Waterbody Classification – a classification of surface waters of the state according to designated use as established by ***Chapter 62-302.400, F.A.C.***, as follows:

Class I	Potable Water Supplies
Class II	Shellfish Propagation or Harvesting
Class III	Fish Consumption; Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife
Class III-Limited	Fish Consumption; Recreation or Limited Recreation; and/or Propagation and Maintenance of a Limited Population of Fish and Wildlife
Class IV	Agricultural Water Supplies
Class V	Navigation, Utility, and Industrial Use

Waterbody Identification Number (WBID) – unique identifiers assigned to polygons that roughly delineate the drainage basins surrounding the waterbody assessment units (drainage basins, lakes, lake drainage areas, springs, rivers and streams, segments of rivers and streams, coastal, bay, and estuarine waters in Florida). WBIDs are assigned a FDEP district as part of their attribution. Projects can be in more than one WBID.

Wellhead Protection Area – an area consisting of a 500-foot radial setback distance around a potable water well where groundwater is provided the most stringent protection measures to protect the groundwater source for a potable water well and includes the surface and subsurface area surrounding the well ***(Chapter 62-521, F.A.C.)***.

11.2 WATER RESOURCES

11.2.1 Aquatic Preserves

Section 258.37, F.S., defines aquatic preserve as “an exceptional area of submerged lands and its associated waters set aside for being maintained essentially in its natural or existing condition”. The Florida Legislature, through the ***Florida Aquatic Preserve Act of 1975 (Act), Sections 258.35 – 258.394*** and ***258.40 - 258.46, F.S.***, set aside state-owned submerged lands with exceptional biological, aesthetic, and scientific value as aquatic preserves. The Board of Trustees of the Internal Improvement Trust Fund through the FDEP Division of State Lands is responsible for the implementation, administration, and enforcement of the ***Act***, including the adoption of rules for management of aquatic preserves as found in ***Chapter 18-20, F.A.C.***

Most of the aquatic preserves are located along the coast and involve marine or estuarine environments, with the exception of a few aquatic preserves which are located inland. Many of the aquatic preserves are associated with state or federal parks and refuges. Generally, aquatic preserves designated under ***Chapter 258, F.S.***, are also considered OFWs under ***Rule 62-302.700(2)(f), F.A.C.*** (***Section 11.2.2***).

11.2.2 Outstanding Florida Waters

Section 403.061(27), F.S., grants FDEP rulemaking authority to establish a special category of waterbodies within the State, to be designated as OFWs, which shall be worthy of special protection because of their natural attributes. OFWs are listed in ***Chapter 62-302.700(9), F.A.C.***, which include:

(a) Waters within National Parks and National Memorials

(b) Waters within National Wildlife Refuges

(c) Waters within State Parks, State Wildlife Parks, and State Recreation Areas

(d) Waters within State Ornamental Gardens, State Botanical Sites, State Historic Sites, and State Geological Sites

(e) Waters within State Preserves, State Underwater Archaeological Preserves, and State Reserves

(f) Waters within Areas Acquired through Donation, Trade, or Purchased Under the Environmentally Endangered Lands Bond Program, Conservation and Recreation Lands Program, Land Acquisition Trust Fund Program, and Save Our Coast Program

(g) Waters within National Seashores

(h) Waters within State Aquatic Preserves

(i) Special Waters

11.2.3 Sole Source Aquifer

The EPA defines a sole or principal source aquifer as an aquifer that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer ***[Title 40 Code of Federal Regulation (CFR) § 149]***. These areas may have no alternative drinking water source(s) that could physically, legally, and economically supply all those who depend on the aquifer for drinking water. EPA has identified two SSAs in Florida, the Volusia-Floridan and Biscayne Aquifers.

11.3 COORDINATION

Identifying and addressing water resource impacts associated with transportation projects involve engaging various state and federal agencies, as well as other local and regional stakeholders as early as the Planning phase and Efficient Transportation Decision Making (ETDM) process using the Watershed Approach to Evaluating Regional Stormwater Solutions (WATERSS) process and tools (see ***Part 2, Chapter 3, Engineering Analysis***). The goal of early coordination is to proactively identify potential water quality and stormwater requirements and to explore opportunities for innovative stormwater solutions or joint/regional stormwater management projects with stakeholders. The District should document areas of potential cooperation and/or agreements in the ***Pond Siting Report (PSR)***, ***Stormwater Management Alternatives Report (SMARt)***, and/or the ***Preliminary Engineering Report*** (***PER)*** for future follow up as the project progresses into the Design phase.

11.3.1 Aquatic Preserves

For projects in an aquatic preserve, coordination with FDEP is needed if potential impacts to an aquatic preserve have been identified [e.g., sovereign submerged lands, right of way (ROW), in-water work]. Once ROW requirements have been defined, aerial maps depicting alternatives with ROW located within the boundary of an aquatic preserve are submitted to FDEP for review and comment. They are addressed to:

Director, Office of Resilience and Coastal Protection
Florida Department of Environmental Protection
2600 Blair Stone Rd.
Mail Station 235
Tallahassee, FL 32399-2400

A letter requesting a response from FDEP within thirty days accompanies the aerials. This letter must contain the following standard statement for federal projects:

> *The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.*

If a determination is made that the project will have no impact after coordination with FDEP, provide documentation according to ***Section 11.4.4.1.1***. If there is an impact, document according to ***Section 11.4.4.1.2***.

11.3.2 Impaired Waters

Section 303(d) of the CWA requires states to identify waters where current pollution control technologies alone cannot meet the water quality standards set for that waterbody. Every two years, states are required to submit a list of impaired waters, plus any waters that may soon become impaired, to the EPA for approval. The impaired waters are prioritized based on the severity of the pollution and the designated use of the waterbody (e.g., fish propagation or human recreation). States must establish the TMDLs of the pollutant(s) in the waterbody for impaired waters on their respective lists.

The ***Florida Watershed Restoration Act (FWRA),*** which is codified at ***Section 403.067, F.S.***, was enacted to protect waters of the state through the TMDL program as required by ***Section 303(d) of the CWA*** and ***33 U.S.C. § 1251***. The TMDL program promotes improvements in the quality of waters of the state by coordinating control of pollution from both point and nonpoint sources. TMDLs are adopted for waters identified as impaired by FDEP in accordance with ***Chapter 62-303, F.A.C.***, also known as the ***Impaired Waters Rule (IWR)***. TMDLs are adopted by law in ***Chapter 62-304, F.A.C.*** TMDLs may be implemented through BMAPs, National Pollutant Discharge Elimination System (NPDES) permits, or through other pollution reduction strategies.

BMAPs are formal plans developed by FDEP for restoring impaired waters by reducing pollutant loadings. BMAPs are developed under ***Section 403.067, F.S.***, with local stakeholders, including FDOT. BMAP obligations upon cities and counties can be costly and can serve as an incentive for local governments to seek joint/regional stormwater projects with FDOT. Examples of BMAPs are permit limits on wastewater facilities, urban and agricultural best management practices, stormwater best management practices, conservation programs, financial assistance, and revenue generating activities.

The list of TMDLs and their BMAPs can be found on the FDEP website, which is updated regularly. Projects that are located within a BMAP boundary or within the drainage basin of an impaired waterbody with established TMDLs may be subjected to meeting stricter regulatory requirements for water quality. The District Project Manager should coordinate with the Drainage and Environmental Permitting Offices to confirm what criteria/requirements would be applicable.

FDEP implements Reasonable Assurance Plans (RAPs) to restore waterbodies to meet their designated uses. Implementation of RAPs alleviates the need to establish TMDLs. ***Chapter 62-303.600, F.A.C.*** allows FDEP to omit impaired waters if pollution control programs, such as RAPs, are being implemented to restore water quality standards and are deemed sufficient to result in attainment of applicable water quality standards. The FDEP's decision shall be based on a plan that demonstrates reasonable assurance that the proposed pollution control mechanism and expected improvements in water quality in the water segment will attain applicable water quality standards. The list of adopted RAPs can be found on the FDEP website which is updated regularly. It is important to note that the BMAP and RAP boundaries generally encompass a much larger area than the area of the original TMDL or impaired waterbody.

If the project is located within and discharges into the WBID boundary of a waterbody with a BMAP or RAP, the District should coordinate with BMAP or RAP stakeholders to understand FDEP and local concerns. Such coordination may also identify the level of water quality evaluation, additional agencies and stakeholders with whom FDOT should collaborate, level of permitting required, project commitment for nutrients reductions, and whether any potential regional water resource improvement opportunities exist in the project area.

11.3.3 Sole Source Aquifers

When the project has the potential to impact a SSA, the District must coordinate with EPA's Region 4 Underground Injection Control (UIC) Section, to obtain EPA concurrence on the project in compliance with ***Section 1424(e) of the Safe Drinking Water Act (SDWA)*** and ***40 CFR § 149***. Coordination with EPA's Region 4 UIC Section should start during ETDM screening when the Advance Notification (AN) is distributed and should continue throughout the Project Development and Environment (PD&E) Study. The Preliminary Environmental Discussion (PED) should indicate if the project is within the SSA boundary and would impact the SSA.

11.3.4 Regional Stormwater Management

Coordination with regulatory agencies and other stakeholders should begin in the planning/ETDM phase and continue through PD&E and Design and can be accomplished using the WATERSS process. This is an approach for proactively looking for opportunities for innovative stormwater management projects with agencies and/or stakeholders. The ***WATERSS Process Guidebook*** contains the steps and documentation required to complete the WATERSS process. The WATERSS process provides an opportunity for assessing and utilizing options for FDOT to partner in innovative, cooperative regional stormwater management solutions and begins during the Planning phase through the ETDM process. This leads to improved environmental benefit and/or reduced stormwater management costs.

Stakeholders, identified in the WATERSS process or through other means, may be able to provide information on current drainage issues, possible innovative stormwater management solutions, and possible mitigation credits for the project. Coordination with the stakeholders is an ongoing process and should continue through the Design, Construction, and Maintenance and Operations phases. Any existing issues or possible innovative solutions which may be pursued for a project must be coordinated with other FDOT offices such as Environmental Permits, Maintenance, Environmental Management, Drainage, Legal, and others as needed.

11.4 PROCEDURE

Project impacts to water resources must be evaluated regardless of whether the project is required to meet federal and/or state environmental review requirements. The water resources evaluation should provide the information necessary to estimate potential impacts to water resources as part of the project development process in compliance with the goals and requirements of the ***CWA***, ***Chapter 373, F.S.***, and ***Chapter 403, F.S.*** The ***Water Quality Impact Evaluation Checklist, Form No. 650-050-37***, documents the technical information for the water quality impact evaluation that supports the ***NEPA*** decision making process.

11.4.1 Level of Assessment Determination

The level of assessment for water resources during the PD&E phase depends on the project's involvement with water resources, the quality of the water resources, potential impacts, and the potential implementation of non-traditional water quality treatments.

If the project is located in, over, or adjacent to a water resource designated as an OFW, aquatic preserve, or SSA, additional assessment may be needed. The location of the designated water resource may be determined by using the Environmental Screening Tool (EST). The information can also be found through the following references:

1. A list of aquatic preserves and a link to a map of their locations provided in ***Figure 11-1***. It may be necessary to confirm this determination by referencing ***Chapter 258, F.S.***

2. A list of the OFWs provided in ***Rule 62-302.700(9), F.A.C***. This list includes an identification of all OFWs by County. Some examples of OFWs include aquatic preserves, National Seashores, waters in national parks, state parks and specially designated areas.

3. The list of SSAs in Florida maintained by EPA. There are two SSAs in Florida: Biscayne Sole Source Aquifer and Volusia Sole Source Aquifer.

4. Designated water resource data layers stored in the Florida Geographic Data Library, which can be accessed through the EST independent of running an ETDM screening event.

If further assistance is needed regarding aquatic preserves and OFWs, the District should contact the FDEP Environmental Technical Advisory Team (ETAT) member. The EPA Region 4 Ground Water and UIC Section should be contacted for SSAs.

For projects that were screened through the ETDM process, water resource data as well as potential associated project impacts provided through ETAT comments are presented in the ***Programming Screen Summary Report (ETDM Manual, Topic No. 650-000-002)***. The EST includes a WATERSS tool to assist in the identification of Water Resources

and areas of water quality concerns. The summary report specifically includes Geographic Information System (GIS) data and applicable maps that identify the proximity of the proposed action to aquatic preserves, OFWs, or SSAs. ETAT comments under the Special Designations issue should identify any potential project impacts to these resources. Comments by FDEP are especially important as they may identify potential project impacts on other issues such as Wetlands and Surface Waters, and Water Resources.

The Water Quality Impact Evaluation (WQIE) documents the analysis of potential project impacts on water quality within a PD&E Study. The WQIE documentation should have sufficient detail to reflect consideration of water quality issues and coordination with regulatory agencies including any coordination meetings (see ***Section 11.3.4***).

Detailed evaluations are generally not warranted for transportation projects not qualifying for ETDM screening [typically Type 1 CEs and Non-Major State Actions (NMSAs)]. These projects have no significant environmental effects; therefore, they typically require minimal water quality evaluation.

The WQIE in the PD&E Study focuses on issues identified during the WATERSS process and/or in the ETDM Programming Screen and are documented in the ***Programming Screen Summary Report***.

In accordance with ***Part 1, Chapter 2, Class of Action Determination for Federal Projects***, qualifying projects must complete an ETDM Programming Screen; these projects may have also completed an ETDM Planning Screen. The following items should be addressed as the projects advance through the project development process:

1. **ETDM Planning Screen Evaluation** – In the PED, the District will provide a discussion about known potential project involvement with surface waterbodies and groundwater and their designations in accordance with ***Part 1, Chapter 3, Preliminary Environmental Discussion and Advance Notification***. The District will identify water resources located within the project area using online resources maintained by the FDEP and WMDs, as well as other data sources.

   Specific information identified during the screening may include:

   a. Surface Water

      1. Identification of surface waterbody to which stormwater ultimately discharges;
      2. Any special designations of receiving waterbodies (e.g., OFW, ONRW, Aquatic Preserve);
      3. Whether the project is within a permitted MS4;
      4. WBIDs in which the project is located and associated FDEP Group Number and Name;

5. WMD in which the project is located;
6. Water Control Districts or Regional Water Authorities;
7. Waterbody Classification;
8. Listing status—whether the WBID is identified as impaired, has a TMDL or is located within a BMAP or RAP boundary;
9. The appropriate numeric nutrient standard for the waterbody, if applicable; and
10. If project directly discharges to a waterbody identified as impaired [including the pollutant(s) of concern, numeric criteria, or TMDL (whichever applies)].

b. Groundwater

1. Groundwater recharge mechanism;
2. Identification of the aquifer where the project is located;
3. Identification of a SSA;
4. Potentially affected springsheds and spring protection zones;
5. Whether the potentially affected spring has a BMAP or RAP plan; and
6. Water Control Districts or Regional Water Authorities with potable water well fields.

2. **ETDM Programming Screen Evaluation** – The District will include a discussion about potential project involvement with surface and groundwater resources (based on the District's familiarity with the project area and information from the Planning Screen) in the PED and the AN Package, as appropriate. As appropriate, the District ETDM Coordinator and the District Project Manager should coordinate with other District (staff such as the District Drainage Engineer, District Environmental Permits Coordinator, and others who will be involved with the project in subsequent phases). To document pertinent information regarding affected water resources and to explore opportunities and options for stormwater management for the project. The District will coordinate as needed with the ETAT and other stakeholders throughout the ETDM screening process.

11.4.2 Water Quality Impact Evaluation

The purpose of the WQIE in the PD&E Study is to identify and characterize existing water resources in a project area, assess a project's potential impacts to water resources, identify and evaluate mitigation measures (if necessary) and document coordination that has occurred. Since water quality requirements and basin parameters affect stormwater pond size requirements and drainage criteria, the ***Water Quality Impact Evaluation***

Checklist, Form No. 650-050-37 should be completed prior to finalizing the pond siting analysis.

Project impacts to an aquatic preserve, ONRW, or OFW must also be identified in the ***Water Quality Impact Evaluation Checklist, Form No. 650-050-37***.

The District should prepare a WQIE for each alternative, as appropriate, and continue coordination with regulatory agencies and appropriate stakeholders which was initiated during planning. The appropriate level of documentation must be completed along with the appropriate conceptual drainage analysis based on the level of design detail in the PD&E Study (***Part 1, Chapter 4, Project Development Process***).

If coordination with regulatory agencies or other stakeholders is required, additional documentation in the form of a technical memo may be needed. WQIE results should be documented in the ***Water Quality Impact Evaluation Checklist, Form No. 650-050-37*** (***Figure 11-2***), briefly summarized in the Environmental Document [Type 2 Categorical Exclusion (Type 2 CE), Environmental Assessment (EA), Environmental Impact Statement (EIS), or State Environmental Impact Report (SEIR)] , and saved in the project file. The ***Water Quality Impact Evaluation Checklist, Form No. 650-050-37*** should be updated during a re-evaluation if changes have occurred to water quality status, such as the delisting of a waterbody from the verified impaired waterbody list, adoption of new TMDLs, or inclusion in a BMAP or RAP boundary, or if the project impacts to water quality have changed.

11.4.2.1 Existing Conditions

When applicable, once an ETDM summary report is completed, review the ETAT comments provided for the following issues; Water Quality and Quantity (including comments pertaining to SSAs), Coastal and Marine, Wetlands and Surface Waters, Floodplains, and Special Designations. Also review the comments to identify any innovative stormwater solutions or joint/regional opportunities suggested by ETAT members for consideration pertaining to the project. Determine the project's involvement with project specific or regional water resource issues from resource agencies' comments. Use information from the ETDM screening event to scope the water quality and stormwater evaluation efforts during the PD&E Study. The Project Manager should discuss scoping activities with other offices such as Drainage, Environmental Permits, and Maintenance.

Using the results of the ***Programing Screen Summary Report***, the existing conditions of water resources that may be affected by the proposed project can be documented.

Identify water resource basins or watershed boundaries where the project may have a direct impact on water quality and identify water resource characteristics within the basin boundaries. Review the project area for the existence of joint/regional stormwater management projects by using the WATERSS process. Joint/regional stormwater management projects may require expansion of the stormwater analysis beyond the

project's immediate hydrologic basin boundary(ies). The Project Manager should coordinate with the District Drainage Design Office to determine any additional areas associated with pond siting, water storage, hydrologic restoration, recharge or treatment. Coordination should also include the District Environmental Permits Coordinator, State Drainage Engineer, and NPDES/MS4 Coordinator to identify areas where pollutant load reduction efforts may be needed.

Data to evaluate potential water resource issues within the project area can be obtained from various sources such as the EST, of both FDEP and the relevant WMD websites, GIS water resource data, county and city water atlases, regional stormwater master plans, and flood studies.

11.4.2.2 Water Quality Impact Evaluation Documentation

The detailed results of data collection efforts and continued coordination with water resource agencies and stakeholders are documented in the ***Water Quality Impact Evaluation Checklist, Form No. 650-050-37*** (***Figure 11-2***) and summarized in the Environmental Document. If more than one project alternative is analyzed in detail, a ***Water Quality Impact Evaluation Checklist, Form No. 650-050-37*** is completed for each alternative. In cases where the project alternatives are in the same drainage basin(s), one ***Water Quality Impact Evaluation Checklist, Form No. 650-050-37*** is prepared. The results of each alternative are then compared and documented in the ***PER*** and summarized in the Environmental Document.

11.4.2.3 Stormwater Management Alternatives Report

When the WATERSS process is followed, document the results in the ***Stormwater Management Alternatives Report (SMARt)***. The ***SMARt*** summarizes the stormwater activities and resulting decisions in both the Planning and PD&E phases. The ***SMARt*** includes summaries of all coordination, results of drainage studies and all drainage alternatives considered, preferred stormwater treatment, floodplain and environmental analysis, permit considerations, and legal agreements with stakeholders. Refer to the ***WATERSS Process Guidebook*** for the ***SMARt*** template.

11.4.3 Stormwater Impacts

Stormwater impacts associated with transportation projects are addressed through permitting of stormwater management systems.

In accordance with ***Chapter 62-330.301, F.A.C.***, to obtain an approval of an Environmental Resource Permit, FDOT must provide reasonable assurance that the construction, alteration, operation, maintenance, removal, or abandonment of the project:

a. will not cause adverse water quantity impacts to receiving waters and adjacent lands;

b. will not cause adverse flooding to on-site or off-site property;

c. will not cause adverse impacts to existing surface water storage and conveyance capabilities;

d. will not adversely impact the value of functions provided to fish and wildlife and listed species by wetlands and other surface waters;

e. will not adversely affect the quality of receiving waters such that the state water quality standards will be violated;

f. will not cause adverse secondary impacts to the water resources;

g. will not adversely impact the maintenance of surface or groundwater levels or surface water flows established pursuant to ***Section 373.042, F.S.;***

h. will not cause adverse impacts to a Work of the District established pursuant to ***Section 373.086, F.S.***;

i. will be capable, based on generally accepted engineering and scientific principles, of performing and functioning as proposed;

j. will be conducted by a person with the financial, legal, and administrative capability of ensuring that the activity will be undertaken in accordance with the terms and conditions of the permit, if issued; and,

k. will comply with any applicable special basin or geographic area criteria established in ***Chapter 62-330.301(1)(k), F.A.C.***

11.4.3.1 Federal and State Stormwater Regulations and Permits

FDOT projects must adhere to federal and state regulations. This section summarizes some of those rules as well as the programs designed to aid in improving water quality and addressing stormwater aspects associated with transportation projects. Refer to ***Part 1, Chapter 12, Environmental Permits*** for more information regarding FDOT procedures for obtaining environmental permits.

FDOT transportation projects involving the construction, alteration, operation, maintenance, repair, abandonment and removal of stormwater management systems, dams, impoundments, reservoirs, appurtenant works, and works including structures, dredging and filling located in, on or over wetlands or other surface waters as defined in ***Chapter 62-340, F.A.C.***, are governed by the Environmental Resource Permit (ERP) Program under ***Chapter 62-330, F.A.C.*** ERP requirements prescribe stormwater management and vary among WMDs. Stormwater pond design criteria for slopes, berms, and clearances, in the ***Drainage Manual, Topic Number 625-040-002***, are set so as to satisfy similar WMD pond design criteria. Generally, ERP requirements regulate stormwater discharge leaving FDOT ROW. Typically, maximum post-development discharge is limited to no greater than pre-development discharge for the specified design storm events required by the WMD. However, in certain basins with historical flooding or limited stormwater conveyance infrastructure, WMDs require onsite development reductions from pre-development discharge. On FDOT transportation projects, ERPs are obtained prior to construction, typically when the drainage design is substantially complete (i.e., after Phase II design plans).

11.4.3.2 Conceptual Drainage and Pond Siting Analysis

Drainage and pond siting analysis conducted during the PD&E Study is dependent on the level of engineering and design analyses required for the PD&E project. The analysis is necessary to determine size and location for stormwater ponds and alternate stormwater management options (e.g., detention, retention, infiltration), as well as drainage concepts which are needed to ensure additional ROW beyond roadway improvements is analyzed for potential impacts to other environmental resources.

At a minimum, drainage and pond siting analysis during PD&E Study should identify the project's drainage requirements and possible challenges that may affect drainage and other design elements and determine the overall stormwater management approach. Additionally, the analysis should identify possible stormwater design concepts that mitigate stormwater runoff and estimate the general size and potential locations of stormwater management facilities (ponds) that meet regulatory requirements. Stormwater ponds are sized to meet both attenuation (quantity control) and treatment (quality control) requirements, including the special standards for OFWs and ONRWs set forth in ***62-4.242(2) and (3), F.A.C.*** Coordinate with stakeholders to determine potential regional stormwater solutions.

Drainage analysis is documented in the ***PER***, ***PSR***, and ***SMARt*** and summarized in the Water Resources section of the Environmental Document. The stormwater management facility type, size, location, and cost are documented in the ***PSR***. Projects in an urban core area where adjacent land is fully built out would not necessarily warrant preparation of a ***PSR*** if ROW is not required for treatment; in such cases, a ***Conceptual Drainage Design Report*** is prepared to document a preliminary drainage analysis and data that will support drainage design in the Design phase. The contents for the ***Conceptual Drainage Design Report*** are typically expanded during the Design phase when the stormwater management systems are designed in detail. More information on the ***PSR*** can be found in the ***Drainage Manual, Topic Number 625-040-002***.

The information presented in the ***PSR*** and ***Conceptual Drainage Design Report*** is specific to each project's (including the potential) drainage approach. The reports must include a cover page prepared using the ***Technical Report Cover Page, Form No. 650-050-38*** and be signed and sealed by a professional engineer in accordance with ***Chapter 471, F.S.*** A sample cover page is shown in ***Figure 11-2***.

11.4.3.2.1 Existing Drainage Conditions

For each project alternative being evaluated in the PD&E Study, the existing drainage conditions should be identified, as follows:

1. General drainage patterns near the project;

2. Description of the existing drainage basins with their respective outfalls (include information about name and size of basin and whether it is an open or closed

basin);

3. The receiving waterbodies, their classifications, their special designations (if appropriate), and if they are verified impaired through the FDEP's TMDL Program;

4. Previous permit information—WMD's permits and drainage connection permits;

5. Base flood elevation, tidal information, Water Control District's seasonal high water table or control elevations;

6. The land use within the project area;

7. Deficiencies in existing conditions—history of flooding, substandard clearances, scour/erosion problems;

8. The soil types within the project area;

9. Description of existing stormwater systems and stormwater management facilities including conveyance system; location and size of cross drains; location and description of bridges; location, type, and size of ponds; other stormwater facilities;

10. Known above or below ground contamination materials that have a potential to be impacted by the project and affect water quality; and

11. Information regarding historical, archeological, and environmental resources that have the potential to be impacted by the drainage of the project.

11.4.3.2.2 Proposed Drainage Conditions

The drainage analysis for proposed conditions should provide a conceptual drainage system, which appropriately includes the following items:

1. Description of the onsite drainage basins with their respective outfalls;

2. Discussion on how stormwater from offsite area will be handled;

3. WMD and FDOT requirements for water quality treatment and the rate (or volume) discharge;

4. Floodplain compensation requirements and estimated compensation volume;

5. General discussion of the preliminary proposed drainage (ditched, piped, ponds);

6. Approximate sizes and potential locations of Stormwater Management Facilities;

7. Approximate locations and sizes of cross drains (new and existing)—evaluate potential for ROW, drainage, or construction easements;

8. Treatment of existing cross drains (e.g., lengthened, type of end treatment, replaced, plugged);

9. Proposed new bridge structures;

10. Modifications to existing bridge structures and;

11. Drainage related design variations;

12. Utility conflicts;

13. Canal rework or relocation.

11.4.3.2.3 Pond Siting Analysis

For stormwater ponds requiring ROW acquisition, a pond siting evaluation is required during the PD&E Study. Location of ponds for the preferred alternative must be evaluated for potential impacts to the human, natural, cultural and/or physical environment. The Project Team should first explore innovative opportunities such as regional facilities, joint facilities, and stormwater re-use systems, through the WATERSS process. ***Chapter 9 of the FDOT Drainage Design Guide*** provides a process that can be followed during pond siting evaluation.

Stormwater pond design considerations during the PD&E Study include seasonal high groundwater table, soil permeability, tail water, maintenance, constructability, aviation safety issues, and environmental issues. When identifying the size and location of pond sites, it is important to consider the aesthetic qualities of stormwater management ponds on all FDOT projects. The ***FDOT Drainage Manual, Topic No. 625-040-002*** requires the design of stormwater management facilities to be consistent with the ***Landscape, Policy No. 000-650-011*** and integrated with existing and proposed landscaping and adjoining land uses.

11.4.4 Environmental Document

Water resource involvement or impacts are summarized in the appropriate section of the Environmental Document for the project. The Environmental Document should summarize stormwater features such as ponds, which will be implemented to address potential water resource impacts from the project's implementation. Furthermore, the Environmental Document should state whether the project will meet the criteria and requirements of stormwater quantity and water quality criteria. The ***Water Quality Impact Evaluation Checklist, Form No. 650-050-37*** and ***Sole Source Aquifer EPA Concurrence Email*** are accessible in the project file. It is recommended they be saved in the Water Quality and Quantity folder within the StateWide Environmental Project Tracker (SWEPT).

The Environmental Document should summarize involvement with or impacts to Aquatic Preserves or Outstanding Florida Waters. For all types of Environmental Documents coordination letters with FDEP are saved in the project file. It is recommended they be placed in the Aquatic Preserves and Outstanding Florida Waters folder within SWEPT.

11.4.4.1 Documenting Project Involvement with Aquatic Preserves or Outstanding Florida Waters

11.4.4.1.1 Documentation of Projects Without Aquatic Preserves Impacts

For Type 1 CE projects located in an aquatic preserve, which will have no impact on the aquatic preserve, a copy of the FDEP coordination letter(s) (if applicable) should be uploaded into the project file in SWEPT.

For a Type 2 CE, EA, EIS, or SEIR project located in an aquatic preserve, which will have no impact on the aquatic preserve, the following standard statement is included in the Aquatic Preserves and Outstanding Florida Waters section of the Environmental Document.

> *This project is within the boundaries of (Name of Aquatic Preserve). After coordination with the Florida Department of Environmental Protection, it has been determined that the project will not have an impact on the (Name of Aquatic Preserve).*

Any coordination with FDEP should be discussed in the Environmental Document and coordination letters should be referenced in the document and included in the project file in SWEPT.

Type 2 CE: The standard statement above is included in the Aquatic Preserves section of the ***Type 2 Categorical Exclusion Determination Form***. If applicable, the FDEP coordination letter(s) should be included in the project file.

EA and EIS: Include the above standard statement in the Aquatic Preserve and Outstanding Florida Waters section of the Environmental Document along with discussion of coordination with FDEP. FDEP coordination letter(s) should be placed in an Appendix.

SEIR: Select “Present” and then “Not Impacted” on the SEIR form in SWEPT. The above standard statement is included in the Aquatic Preserves and Outstanding Florida Waters section of the document. Provide justification of the decision in the summary box. If applicable, correspondence with FDEP should be referenced in the SEIR and included in the project file.

11.4.4.1.2 Documentation of Projects with Aquatic Preserve Impacts

For a Type 1 CE, impacts to an aquatic preserve would be addressed during permitting. For a Type 2 CE, EA, EIS, or SEIR project located in an aquatic preserve, which will impact the aquatic preserve, the following areas should be assessed and included in the Environmental Document.

1. Identify the aquatic preserve affected and show the location of that part of the project that may affect the aquatic preserve on a figure or map.

    a. Discuss the extent of potential impacts to the aquatic preserve.

    b. Assess the impacts that the proposed project will have on the aquatic preserve.

    c. Discuss why there is no practicable alternative to locating the project inside the aquatic preserve.

    d. Identify all measures to minimize harm to the aquatic preserve.

    e. Identify permits needed and appropriate permitting agencies.

    f. Provide results of coordination with appropriate agencies having jurisdiction over the aquatic preserve and address related ETAT comments.

Type 2 CE: Document the results of the assessment in the Aquatic Preserves section of the ***Type 2 Categorical Exclusion Determination Form***. Provide supplemental information and coordination letter(s) in the project file in SWEPT and include the FDEP coordination letter in the Appendix.

EA and EIS: FDEP coordination letter(s) and any other correspondence should be placed in an Appendix. The Aquatic Preserve and Outstanding Florida Waters section should include the results of the assessment and a discussion of coordination with FDEP.

SEIR: Select “Present” and then “Impacted” on the SEIR form in SWEPT. Identify if there is a potential for substantial impact. Provide justification of the decision and the results of the assessment in the summary box. If applicable, correspondence with FDEP should be referenced in the SEIR and included in the project file. Include the FDEP coordination letter in the Appendix.

11.4.4.1.3 Projects with Impacts to Outstanding Florida Waters

For Type 1 CE projects located in an OFW, a copy of the FDEP coordination letter(s) (if applicable) should be placed in the project file in SWEPT.

For Type 2 CE, EA, EIS, and SEIR projects located in an OFW, the following should be assessed and included in the Environmental Document.

1. Identify the OFW and provide a map or figure showing how it relates to the project,

2. Address related ETAT comments,

3. Identify potential impacts to OFWs that can be evaluated prior to permitting, including potential treatment strategies.

Type 2 CE: This information should be included in the Outstanding Florida Waters section of the ***Type 2 Categorical Exclusion Determination Form***. Provide supplemental information and correspondence with FDEP in the project file in SWEPT.

EA and EIS: Include correspondence with FDEP in an Appendix. The results of the assessment and discussion of coordination with FDEP should be included in the Aquatic Preserves and Outstanding Florida Waters section.

SEIR: Select "Present" on the SEIR form in SWEPT. Identify if there is a potential for substantial impact. Provide justification of the decision and the results of the assessment in the summary box. Correspondence with FDEP should be referenced in the SEIR and included in the project file.

11.4.4.1.4 Section 4(f) Applicability

Aquatic preserves and OFWs may be protected by ***Section 4(f)*** if their designated functions are primarily for park, recreation, or refuge purposes. Additionally, publicly owned lands in the immediate proximity of aquatic preserves or OFWs may also be protected by ***Section 4(f),*** depending on the ownership and the manner in which they are administered by the managing agency. See ***Part 2, Chapter 7, Section 4(f) Resources*** for more information on ***Section 4(f)*** Applicability. The District should determine if there are multiple-use public land holdings per ***23 CFR § 774.11(d)*** within the aquatic preserve, or OFW. ***Section 4(f)*** applies to only those portions of the aquatic preserve or OFW which are designated by statute or identified in the official management plan for the aquatic preserve or OFW and determined through coordination with the Official with Jurisdiction (OWJ) as functioning or planned for park or recreational purposes or as wildlife and waterfowl refuges or which are significant historic sites. In addition, the significance of those portions shall be made by the OWJ over the aquatic preserve, or OFW of those portions considered protected by ***Section 4(f)***.

11.4.4.2 Documenting Sole Source Aquifer Project Review

Projects with federal funding located within the boundaries of designated SSA must be planned and designed to assure they will not contaminate the aquifer. During the PD&E Study, the District coordinates with EPA's Region 4 for evaluation and concurrence online using the ***EPA Region 4 Sole Source Aquifer Project Review Form***. Concurrence is documented in an email from EPA Region 4, which serves as the official record of the EPA decision.

The District should respond to EPA's inquiries, comments, or mitigation measures before the Environmental Document is finalized. Comments raised by EPA should be addressed in the Water Resources section of the Environmental Document (or Sole Source Aquifer section of a Type 2 CE), and when applicable, avoidance or minimization measures documented in the Commitments section. The results of coordination meetings should also be summarized in the Environmental Document.

If received, the ***Sole Source Aquifer EPA Concurrence Email*** must be referenced and included in the Appendix of the final Environmental Document and the SWEPT project file.

The ***WQIE Checklist*** is included as Technical Material for a Type 2 CE or a SEIR, and is included in the SWEPT project file for all Environmental Document types.

11.4.4.3 Water Quality and Stormwater

Documentation for water quality and stormwater should be provided as follows:

Type 1 CEs and NMSAs: Verify that the project does not involve significant impacts on water resources. See ***Part 1, Chapter 2, Class of Action Determination for Federal Projects*** and ***Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery*** for more guidance.

Type 2 CE, EA, EIS, and SEIR: Major elements of the ***Water Quality Impact Evaluation Checklist, Form No. 650-050-37*** and ***PSR*** are summarized in the Water Resources section of the Environmental Document. The results of coordination meetings should be documented in the Water Resources section and, when applicable, the Commitments section. For Type 2 CEs and SEIRs, the ***Water Quality Impact Evaluation Checklist, Form No. 650-050-37*** should be included as a Technical Material.

11.4.4.4 Commitments

Water resource commitments may be related to BMAP/RAP commitments, WATERSS, stakeholder commitments, or actions/activities required to advance the project and/or require action for the Contractor to implement. Commitments may include the retrofitting of structures to increase water quality treatment; building of water quality improvement features; hydrologic enhancement; recharge or reuse projects; or continued coordination with water resource agencies or other stakeholders. Commitments must be coordinated with other District offices prior to inclusion in the Environmental Document to ensure commitments are feasible.

Commitments related to water resource issues made by the FDOT should be included in the Environmental Document consistent with ***Part 2, Chapter 22, Commitments*** and transmitted to the next phase of project development in accordance with ***Procedure No. 650-000-003, Project Commitment Tracking***.

11.4.4.5 Re-evaluation

Changes to the project which may affect impacts to water resources after approval of the Environmental Document must be documented in a ***Re-evaluation Form*** consistent with ***Part 1, Chapter 13, Re-evaluations***. Commitments and coordination, and the status of permits, should be discussed in the Water Resources, Commitment Status, and/or Status of Permits sections of the ***Re-evaluation Form***.

11.5 REFERENCES

Chapter 62-302, F.A.C., Surface Water Quality Standards

Chapter 62-303, F.A.C., Identification of Impaired Surface Waters

Chapter 62-304, F.A.C., Total Maximum Daily Loads

Chapter 62-621, F.A.C., Generic Permits

Chapter 62-624, F.A.C., Municipal Separate Storm Sewer Systems

Chapter 373, F.S., Water Resources

Chapter 403, F.S., Environmental Control

Clean Water Act of 1972. https://www.govinfo.gov/content/pkg/STATUTE-86/pdf/STATUTE-86-Pg816.pdf

EPA, EPA Region 4 Sole Source Aquifer Project Review Form https://www.epa.gov/dwssa/epa-region-4-sole-source-aquifer-project-review-form

EPA, Sole Source Aquifers, 40 CFR Part 149. https://www.govinfo.gov/content/pkg/CFR-2019-title40-vol25/pdf/CFR-2019-title40-vol25-part149.pdf

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

FDEP, Guidance on Developing Restoration Plans and Alternatives to TMDLs – Assessment Category 4b and 4e Plans, 2015. https://floridadep.gov/dear/watershed-assessment-section/documents/guidance-developing-restoration-plans-alternatives-tmdls

FDEP, Permitted MS4s in Florida.
https://floridadep.gov/water/stormwater/content/stormwater-facility-information

FDEP, Wastewater Facility Information. https://floridadep.gov/water/domestic-wastewater/content/wastewater-facility-information

FDOT, Drainage Design Guide.
https://www.fdot.gov/roadway/Drainage/Manualsandhandbooks.shtm

FDOT, Drainage Manual, Topic No. 625-040-002.
https://www.fdot.gov/roadway/Drainage/Manualsandhandbooks.shtm

FDOT, Efficient Transportation Decision Making Manual, 2019.
http://www.fdot.gov/environment/pubs/etdm/etdmmanual.shtm

FDOT, Landscape, Policy No. 000-650-011. https://pdl.fdot.gov/

FDOT, Statewide Stormwater Management Plan, 2012.
https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/maintenance/fdotstormwatermgmtplan2012.pdf?sfvrsn=858ebaa2_0

FDOT, 2021, WATERSS Process Guidebook.
http://www.fdot.gov/environment/publications.shtm

11.6 FORMS

Technical Report Cover Page, Form No. 650-050-38

Water Quality Impact Evaluation Checklist, Form No. 650-050-37

FDOT forms are found in the Procedural Document Library

11.7 HISTORY

2/25/2004, 7/27/2016, 6/14/2017: NEPA Assignment, re-numbered from Part 2, Chapter 20, and re-named Water Quality and Water Quantity, 01/14/2019: re-named Water Quality and Stormwater, 7/1/2020: re-named Water Resources, 7/1/2023: New Aquatic Preserve- Nature Coast

AQUATIC PRESERVES

1. Fort Clinch State Park
2. Nassau River - St. Johns River Marshes
3. Pellicer Creek
4. Tomoka Marsh
5. Mosquito Lagoon
6. Banana River
7. Indian River - Malabar to Vero Beach
8. Indian River - Vero Beach to Fort Pierce
9. Jensen Beach to Jupiter Inlet
10. Loxahatchee River - Lake Worth Creek
11. Biscayne Bay
12. Biscayne Bay – Cape Florida to Monroe County Line
13. North Fork: St. Lucie
14. Yellow River Marsh
15. Fort Pickens State Park
16. Rocky Bayou State Park
17. St. Andrews State Park
18. St. Joseph Bay
19. Apalachicola Bay
20. Alligator Harbor
21. St. Martins Marsh
22. Matlacha Pass
23. Pine Island Sound
24. Cape Romano - Ten Thousand Islands
25. Lignumvitae Key
26. Coupon Bight
27. Lake Jackson
28. Pinellas County
29. Estero Bay
30. Cape Haze
31. Wekiva River
32. Rookery Bay
33. Cockroach Bay
34. Gasparilla Sound - Charlotte Harbor
35. Terra Ceia
36. Guana River Marsh
37. Big Bend Seagrasses
38. Boca Ciega Bay
39. Rainbow Springs
40. Lemon Bay
41. Oklawaha River
42. Nature Coast

Detailed information on Aquatic Preserves: https://floridadep.gov/rcp/aquatic-preserve
Map showing locations of Aquatic Preserves: https://ca.dep.state.fl.us/mapdirect/?focus=conpro

Figure 11-1 Aquatic Preserves

WATER QUALITY IMPACT EVALUATION CHECKLIST

PART 1: PROJECT INFORMATION

Project Name:	
County:	
FM Number:	
Federal Aid Project No:	
Brief Project Description:	

PART 2: DETERMINATION OF WQIE SCOPE

Does project discharge to surface or groundwater? ☐ Yes ☐ No

Does project alter the drainage system? ☐ Yes ☐ No

Is the project located within a permitted MS4? ☐ Yes ☐ No
Name:

If the answers to the questions above are no, complete the applicable sections of Part 3 and 4, and then check Box A in Part 5.

PART 3: PROJECT BASIN AND RECEIVING WATER CHARACTERISTICS

Surface Water
Receiving water names:

Water Management District:

Coordination meeting date: ____/____/_____
Attach meeting minutes/notes to the checklist.

Water Control District Name(s) (list all that apply):

Groundwater
Sole Source Aquifer (SSA)? ☐ Yes ☐ No Name_____
If yes, complete Part 5, D and the EPA Region 4 Sole Source Aquifer Project Review Form

Other Aquifer? ☐ Yes ☐ No Name_____

Springs vents? ☐ Yes ☐ No Name_____

Well head protection area? ☐ Yes ☐ No Name_____

Figure 11-2 Water Quality Impact Evaluation

Groundwater recharge? □ Yes □ No Name_____

Notify District Drainage Engineer if karst conditions are expected or if a higher level of treatment may be needed due to a project being located within a WBID verified as Impaired in accordance with Chapter 62-303, F.A.C.

Date of notification: ____/____/_____

PART 4: WATER QUALITY CRITERIA

List all WBIDs and all parameters for which a WBID has been verified impaired, or has a TMDL in **Table 1**. This information should be updated during each re-evaluation as required.

Note: If BMAP or RAP has been identified in **Table 1**, **Table 2** must also be completed. *Attach notes or minutes from all coordination meetings identified in* **Table 2**.

EST recommendations confirmed with agencies? □ Yes □ No

BMAP Stakeholders contacted? □ Yes □ No

TMDL program contacted? □ Yes □ No

RAP Stakeholders contacted? □ Yes □ No

Regional water quality projects identified through coordination or the WATERSS process? □ Yes □ No

If yes, describe:

Potential direct effects associated with project construction and/or operation identified? □ Yes □ No

If yes, describe:

Discuss any other relevant information related to water quality including Regulatory Agency Water Quality Requirements.

Figure 11-2 Water Quality Impact Evaluation (Page 2 of 5)

PART 5: WQIE DOCUMENTATION

- ☐ A. No involvement with water quality
- ☐ B. No water quality regulatory requirements apply.
- ☐ C. Water quality regulatory requirements apply to this project (provide Evaluator's information below). Water quality and stormwater issues will be mitigated through compliance with the design requirements of authorized regulatory agencies.
- ☐ D. EPA Ground/Drinking Water Branch review required. ☐ Yes ☐ No
  Concurrence received? ☐ Yes ☐ No
  If Yes, Date of EPA Concurrence: ___/___/____ (Attach the concurrence letter)

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration and FDOT.

Evaluator Name (print):	
Title:	
Signature:	Date:

Figure 11-2 Water Quality Impact Evaluation (Page 3 of 5)

Table 1: Water Quality Criteria

Receiving Waterbody Name (list all that apply)	FDEP Group Number / Name	WBID(s) Numbers	Classification (I,II,III,IIIL,IV,V)	Special Designations*	NNC limits**	Verified Impaired (Y/N)	TMDL (Y/N)	Pollutants of concern	BMAP, RA Plan or SSAC

*** ONRW, OFW, Aquatic Preserve, Wild and Scenic River, Special Water, SWIM Area, Local Comp Plan, MS4 Area, Other**
**** Lakes, Spring vents, Streams, Estuaries**
Note: If BMAP or RAP has been identified in Table 1, Table 2 must also be completed.

Figure 11-2 Water Quality Impact Evaluation (Page 4 of 5)

Table 2: Regulatory Agencies/Stakeholders Contacted

Receiving Water Name (list all that apply)	Agency's Contact and Title	Date Contacted	Follow-up Required (Y/N)	Comments

Figure 11-2 Water Quality Impact Evaluation (Page 5 of 5)

POND SITING REPORT (OR CONCEPTUAL DRAINAGE DESIGN REPORT)

Florida Department of Transportation

District X

Project Title

Limits of Project

County, Florida

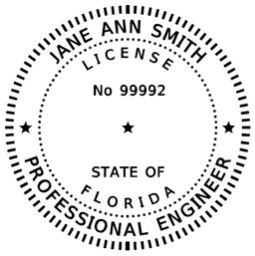
Financial Management Number: XXXXX-X

ETDM Number: XXXXXX

Date

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration and FDOT.

(Signature Block as Needed)



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:
JANE ANN SMITH
Date: 2013.10.09 16:40:48 - 4'00'
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

ROADWAY ENGINEERS, INC.
123 MAIN STREET
TALLAHASSEE, FL 32301
CERTIFICATE OF AUTHORIZATION: 12345
JANE ANN SMITH, P.E. NO. 99992

Figure 11-3 Sample Pond Siting Report Cover Page

PART 2, CHAPTER 12

WILD AND SCENIC RIVERS

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LIST OF FIGURES

PART 2 CHAPTER 12

WILD AND SCENIC RIVERS

12.1 OVERVIEW

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

This chapter provides procedures for identifying and determining effects of federal or federally permitted transportation projects on designated Wild and Scenic Rivers, Study Rivers, or rivers listed on the Nationwide Rivers Inventory (NRI). This includes determining whether the project impacts a designated Wild and Scenic River or Study River and consultation with the National Park Service (NPS) to avoid or mitigate direct and adverse effects to these resources. Guidance is also given on determining if a river is listed on the NRI and subsequent coordination with the NPS, if necessary.

12.1.1 Definitions

Eligibility - Qualification of a river for inclusion into the National Wild and Scenic Rivers System through the determination that it is free-flowing and, with its adjacent land area, possesses at least one river-related value considered to be outstandingly remarkable. This determination is made by the NPS. ***(Interagency Wild and Scenic Rivers Coordinating Council, A Compendium of Questions & Answers Relating to Wild & Scenic Rivers)***.

Nationwide Rivers Inventory (NRI) - A source list of rivers which have been determined by the NPS and other federal land managing agencies as being potentially eligible for the National Wild and Scenic Rivers System ***(Interagency Wild and Scenic Rivers Coordinating Council, A Compendium of Questions & Answers Relating to Wild & Scenic Rivers)***. Please note, these are not the same as Study Rivers.

Outstandingly Remarkable Values (ORVs) - Values among those listed in ***Section 1(b) of the Wild and Scenic Rivers Act (WSRA)*** are "scenic, recreational, geological, fish and wildlife, historical, cultural, or other similar values..." Other similar values which may be considered include botanical, hydrological, paleontological, scientific, rare landscapes, or unique attractions within a river segment. The NPS uses professional judgment to

determine whether values exist to an outstandingly remarkable degree ***(Interagency Wild and Scenic Rivers Coordinating Council, A Compendium of Questions & Answers Relating to Wild & Scenic Rivers)***. They are resources within a river corridor worthy of special protection.

River Administering Agency - One of the four federal agencies that may be charged with administration of a component of the Wild and Scenic Rivers System. These agencies are the Bureau of Land Management (BLM), NPS, U.S. Fish and Wildlife Service (USFWS), and U.S. Forest Service (USFS). ***(Interagency Wild and Scenic Rivers Coordinating Council, Wild & Scenic Rivers Act: Section 7)***. For federally designated Wild and Scenic Rivers in Florida, only the NPS is a River Administering Agency.

River Corridor - A river and the adjacent area within the boundaries of a designated Wild and Scenic River, or a river and the adjacent area within one-quarter mile of the banks of a congressionally authorized Study River.

Study River - a river and the adjacent area within one quarter mile of the banks of the river which is designated for study as a potential addition to the National Wild and Scenic River System pursuant to ***Section 5(a) of the WSRA (36 CFR §297.3)***.

Water Resources Project - any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the ***Federal Power Act (16 U.S.C Chapter 12)*** or other construction of developments which would affect the free-flowing characteristics of a Wild and Scenic River or Study River. Water resources projects may also include dams, water diversion projects, fisheries habitat and watershed restoration/enhancement projects, bridges and other roadway construction/reconstruction projects, bank stabilization projects, channelization projects, levee construction, recreation facilities, and activities that require a 404 permit from the U.S. Army Corps of Engineers (USACE) ***(Interagency Wild and Scenic Rivers Coordinating Council, Wild & Scenic Rivers Act: Section 7)***.

Wild and Scenic River - a river and the adjacent area within the boundaries of a component of the National Wild and Scenic Rivers System pursuant to ***Section 3(a) or 2(a) (ii) of the WSRA (36 CFR § 297.3)***.

12.1.2 Federally Designated Wild and Scenic Rivers and Study Rivers

The ***Wild and Scenic Rivers Act (WSRA)***, ***16 U.S.C. 1271 et seq.***, as amended, was signed into law on October 2, 1968 ***(Public Law 90-542, as amended)*** to identify and preserve select river segments and their immediate surroundings possessing "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values in free-flowing condition" for the enjoyment of present and future generations.

Wild and Scenic Rivers are designated by Congress or through an administrative action by the Secretary of the Interior to include a river already protected by a state upon the

request of that state's governor. Boundaries of designated segments generally average one-quarter mile on either bank to protect river-related values and may include tributaries. Each river is administered by a federal River Administering Agency. The NPS is the River Administering Agency for the two designated Wild and Scenic rivers in Florida.

Designated Wild and Scenic Rivers create the National Wild and Scenic Rivers System and are classified, designated, and administered as one of the following:

1. Wild River Areas: Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

2. Scenic River Areas: Those rivers or sections of rivers that are free of impoundments with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

3. Recreational River Areas: Those rivers or sections of rivers that are readily accessible by roads or railroads, that may have some development along their shorelines, and that may have undergone some impoundments or diversion in the past.

The following segments of two rivers in Florida are currently designated as Wild and Scenic Rivers:

1. **Northwest Fork of the Loxahatchee River:** From River Bend Park downstream 7.6 miles to Jonathan Dickinson State Park. The responsible agency/federal River Administering Agency is the NPS, however it is considered state-administered and Jonathan Dickinson State Park is identified as the managing agency. This river segment is located in FDOT District 4.

2. **Wekiva River:** Consists of 41.6 total miles. The Wekiva River from its confluence with the St. Johns River to Wekiva Springs. Rock Springs Run from its headwaters at Rock Springs to the confluence with the Wekiva Springs Run. Black Water Creek from the outflow from Lake Norris to the confluence with the Wekiva River. The Southeast Regional Office of the NPS is identified as the responsible/federal River Administrating Agency and the managing agency. This river segment is located in FDOT District 5.

The ***WSRA*** also identifies Study Rivers for possible inclusion in the Wild and Scenic Rivers System. These rivers, along with others identified since creation of the ***WSRA*** have been authorized by congress to be studied further for potential inclusion into the Wild and Scenic Rivers System. These Study Rivers are protected for three years from the date the President forwards the study report to Congress and are also protected during the multi-year study phase prior to formal submission of the report.

The only Study River located in Florida is the St. Marys River, which is located in FDOT District 2. The study area included the river from the headwaters of the North prong at

river mile 125.8 downstream to the confluence of Bells River at river mile 12. It was found to be not suitable for designation in 1995. Although the study report was never transmitted to Congress, the ***WSRA*** provides no expiration period in a case where the study report is not transmitted. Based on the law and current policy, the St. Marys remains in permanent Study River status, and is subject to review and determination under ***Section 7(a)*** of the ***WSRA***.

Section 7(a) of the ***WSRA***, along with the implementing rules, requires that no federal license, permit, or other authorization (federal assistance) be issued for a water resources project (defined in ***Section 12.1.1***) which would have a direct and adverse effect on the values for which a designated Wild and Scenic River or Study River was established, namely its free-flowing condition, water quality, and ORVs. Some water resources projects that are related to transportation projects include, but are not limited to: transmission lines and pipelines; bridge and other roadway construction/reconstruction projects; water conduits; bank stabilization projects; channelization projects; levee construction; reservoirs; recreation facilities, such as boat ramps or fishing piers; or dredge and fill projects that require a federal permit. Federal assistance includes federal funding of projects. The “direct and adverse” standard applies to projects within the river corridor and may apply to abutting lands that contribute to the ORVs.

Section 7(a) also precludes federal assistance to projects outside the river corridor but on the same river, or on a tributary of a designated Wild and Scenic River that have been determined to “invade the area or unreasonably diminish the scenic, recreational, and fish and wildlife values present in the area on the date of designation…”. The “invade or unreasonably diminish” standard applies to projects below (downstream), above (upstream), or on a stream tributary to the boundaries. This section provides the same protection to Study Rivers, except that the qualifying word “unreasonably” does not appear before “diminish”. The effect is to provide greater protection for study rivers during the short term study process. See ***Section 12.2.2*** for guidance on how this determination takes place during the ***NEPA*** process.

12.1.3 Rivers on the Nationwide Rivers Inventory

The NRI is a listing of rivers (or river segments), which are considered to meet eligibility criteria for the National Wild and Scenic River System based on their free-flowing status and resource values. The NRI is maintained and revised as necessary by the NPS. Listing on the NRI, or any other source list, does not represent an official determination of eligibility, and conversely, absence does not indicate a river’s ineligibility.

Rivers on the NRI are afforded some protection from the adverse impacts of federal projects until they can be studied in detail. The NRI was compiled to fulfill ***Section 5(d)(1) of the WSRA’s*** mandate that federal agencies consider impacts on potential Wild and Scenic Rivers in all agency “planning for the use and development of water and related land resources.” Under a ***Presidential Directive issued in 1979***, each federal agency, as part of its normal planning and environmental review processes, is required to take care to avoid or mitigate adverse effects to rivers in the NRI. As part of the environmental

process, consultation with the NPS is required prior to taking actions which could effectively foreclose wild, scenic, or recreational river status on rivers in the NRI.

12.1.4 Florida Wild and Scenic Designation

A segment of the Myakka River in Manatee, Sarasota, and Charlotte Counties is designated as a Florida Wild and Scenic River by ***258.501, Florida Statutes***, ***Myakka River Wild and Scenic Designation and Preservation Act*** because of its outstandingly remarkable ecological, fish and wildlife, and recreational values which are unique in the State of Florida. This segment (river area) includes the corridor of land surrounding and beneath the Myakka River between river mile 7.5 and river mile 41.5 together with a corridor including the maximum upland extent of wetlands vegetation as delineated by the Florida Department of Environmental Protection (FDEP). This segment is located in FDOT District 1, between State Road 780 in Sarasota County and the Sarasota-Charlotte County line.

The ***Myakka River Wild and Scenic River Rule, Chapter 62D-15, Florida Administrative Code (F.A.C.)*** implements a regulatory program that includes a permit program to protect and enhance the resource values identified in the ***Myakka River Wild and Scenic River Management Plan***. Activities within the river area, which may have adverse impacts on resource values are regulated by FDEP Division of Recreation and Parks and listed in ***Chapter 62D-15, F.A.C***. A Myakka Wild and Scenic River permit is required under ***62D-15.006, F.A.C***. for renovating, replacing, or expanding facilities required for utilities, bridges or roads as well as constructing or creating after the effective date of the rule, utility, bridge or road crossings in unimpacted areas. The standards for issuance or denial of a Myakka River permit is that, “no permit shall be issued unless the department finds that the proposed activity will not adversely impact resource values in the river area”.

The ***Myakka River Wild and Scenic Designation and Preservation Act*** also designates a Wild and Scenic Protection Zone which includes a corridor of uplands surrounding the river area which extends 220 feet landward from the river area. This area is managed by local governments to ensure compatibility of land development within the zone. Activities such as construction and development, earthmoving, onsite sewage disposal systems, vegetation removal, tree removal and wetland impacts within this zone may be prohibited by the ***Sarasota County Consolidated Myakka River Protection Ordinance 2008-002*** and ***City of North Port Myakka River Protection Zone Ordinance 2008-36***.

If an FDOT project is located near this segment of the Myakka River, a Myakka Wild and Scenic River permit from the FDEP will be required. Districts will coordinate with local governments as appropriate. Any coordination with FDEP or local governments should be documented in the Environmental Document.

12.2 PROCEDURE

12.2.1 Determination of Involvement

Projects with federal (FHWA) funding or federal actions (federal projects), as well as projects requiring federal permits need to be reviewed for potential impacts to Wild and Scenic Rivers, Study Rivers, and rivers on the NRI. FDOT projects that are not federal projects, with no anticipated federal permits, do not require Wild and Scenic River project review, but should be given careful consideration towards avoiding adverse environmental impacts.

It is the responsibility of the District to determine whether a project involves a designated Wild and Scenic River, Study River, or a river listed in the NRI, as early as possible in the project development process. There is involvement with a Wild and Scenic River or Study River if project activities are located within the river corridor (at within one quarter mile of the banks), across, or adjacent to (upstream, downstream, or on a tributary) the designated river segment. There is involvement with a river on the NRI if a project is located within the vicinity of the NRI segment.

Involvement is often determined during the Efficient Transportation Decision Making (ETDM) process where qualifying projects are entered into the Environmental Screening Tool (EST) by the ETDM Coordinator (***ETDM Manual, Topic No. 650-000-002***). The presence of Wild and Scenic Rivers, Study Rivers, or rivers on the NRI should be described in the Preliminary Environmental Discussion (PED) under Special Designations. This information should be included in the Wild and Scenic Rivers section.

During the Project Development and Environment (PD&E) Study, the District reviews information from the ETDM process contained in the ***Programming Screen Summary Report***, especially any Environmental Technical Advisory Team (ETAT) comments for the “Special Designations” issue. It may be helpful to also review ETAT comments on other issues such as “Water Resources.” Comments by the NPS are especially important.

Detailed evaluations are generally not warranted for projects not qualifying for ETDM screening; however, the District must determine if the project involves a river segment designated as a Wild and Scenic River, Study River, or a river listed in the NRI. These river segments can be delineated and identified using the Area of Interest (AOI) tool in the EST. Mapping tools are also available on the National Wild and Scenic Rivers System and NPS NRI websites. The NPS NRI website also includes a link to other research sources for NRI rivers. See ***Figure 12-1*** for links to these websites. No involvement with designated Wild and Scenic Rivers, Study Rivers, or rivers listed in the NRI should be documented in the Environmental Document according to ***Section 12.2.3.2.1***, and no further action is required.

If the project involves a Wild and Scenic River or Study River, consultation is needed with OEM. Through coordination, OEM may assist with impact determination, or recommend a change in Class of Action (COA). If the project may adversely affect a river segment designated as a Wild and Scenic River, Study River, or listed in the NRI, it **cannot** be

classified as a Type 1 Categorical Exclusion (CE). A Type 2 CE, Environmental Assessment (EA), or an Environmental Impact Statement (EIS) may be required, depending on the significance of the effects. If an EIS is necessary on projects that involve rivers designated as a Wild and Scenic River or as Study River, or affect a river listed on the NRI, FDOT should request NPS to be a Cooperating Agency.

12.2.2 Federally Designated Wild and Scenic Rivers and Study Rivers

12.2.2.1 Coordination and Analysis

For federal projects involving either a designated Wild and Scenic River or Study River, consultations with the NPS and managing agency must be conducted in accordance with ***Section 7*** of the ***WSRA*** (***Interagency Wild and Scenic Rivers Coordinating Council: Wild & Scenic Rivers Act: Section 7, 2004)***. The NPS will provide direction on the scope of data and analysis needed for their effects determination. Coordination with the NPS and other interested parties should occur early in the planning process to avoid or greatly minimize possible adverse consequences and to avoid delays or costs associated with projects that are unacceptable under ***Section 7***. Establishing this contact is especially important for Wild and Scenic Rivers, or Study Rivers with existing transportation systems (or those with potential for expansion) within the river corridor. See ***Figure 12-1*** for NPS contact information. There is no way to draw a clear line establishing a threshold for when a project may have an adverse effect on wild and scenic river values. Critical factors to consider are 1) the size of a river, 2) the amount and types of existing development, and 3) the outstandingly remarkable values of the river, whether the proposed project is within or outside the designated river or a congressionally authorized Study River. Therefore, projects that involve Wild and Scenic Rivers or Study Rivers (regardless of COA) should be coordinated with the NPS. River managers will provide input for the environmental analysis if requested and may recommend measures to eliminate adverse effects.

For minor activities, a simple email from the NPS will suffice to document that there is no adverse effect. Other times, a more formal adverse effects determination will be conducted. During the PD&E Study, the District conducts an analysis of potential impacts the project will have on a designated Wild and Scenic River or Study River. For each alternative under consideration, the environmental analysis will identify the potential effects on the natural, cultural and recreational values of the designated Wild and Scenic River or Study River. If the NPS determines any of the alternatives could adversely impact the values for which a river was designated, or foreclose options to designate a congressionally authorized Study River, those alternatives cannot be selected without elimination of adverse effects.

The ***NEPA*** analysis in itself does not substitute for a ***Section 7*** Determination by the NPS. The NPS is responsible for conducting the ***Section 7*** analysis and making a determination under the statue. A ***Section 7*** Determination is required when:

1. A federal project is proposed in the bed or banks of a designated Wild and Scenic River or congressionally authorized Study River, or

2. A federal project is proposed in the bed or banks of river below (downstream), above (upstream) or on a stream tributary to a designated Wild and Scenic River or congressionally authorized Study River **and** the project is likely to result in effects within a designated Wild and Scenic River or congressionally authorized Study River.

12.2.2.2 Documentation

As appropriate, the Environmental Document will document involvement with a Wild and Scenic River or Study River and include the results of coordination with the NPS and managing agency. If applicable, this should include discussion of avoiding or mitigating impacts. In this case, the final Environmental Document should identify measures that will be included in the Preferred Alternative to avoid or mitigate such impacts.

12.2.2.2.1 Projects Not Involving Designated Wild and Scenic or Study Rivers

Documentation for projects not involving rivers designated as Wild and Scenic or Study Rivers is as follows:

Type 1 CE: In the Wild and Scenic Rivers section of the ***Type 1 Categorical Exclusion Checklist***, identify that the project does not involve a river designated as a Wild and Scenic or Study River.

Type 2 CE or SEIR: Select “not present” on the Wild and Scenic Rivers section of the ***Type 2 Categorical Exclusion Determination Form*** or SEIR.

EA or EIS: Identify that the project does not involve a Wild and Scenic River or Study River and clearly state that the ***WSRA*** does not apply to this project. Clarify that project activities are not located within the river corridor (including within one quarter mile of the banks), across, or adjacent to (upstream, downstream, or on a tributary) the designated river segment. However, the scope of a study report on impacts to a river corridor is not limited to a quarter mile from the ordinary high water mark on each side of the river.

12.2.2.2.2 Projects Involving Designated Wild and Scenic or Study Rivers Without Impacts

Documentation for projects involving rivers designated as Wild and Scenic or Study Rivers which will have no impacts on the river, is as follows:

Type 1 CE: In the Wild and Scenic Rivers section of the ***Type 1 Categorical Exclusion Checklist***, identify the name of the river and in the comment box, summarize results of coordination with the NPS. Identify that there will be no direct or adverse effects on the values for which the river was designated. Correspondence with NPS should be added to the project file in the StateWide Environmental Project Tracker (SWEPT). It is recommended that these documents be placed in the Wild and Scenic Rivers folder within SWEPT.

Type 2 CE or SEIR: Select “present” and then “not impacted” on the ***Type 2 Categorical Exclusion Determination Form*** or SEIR for the Wild and Scenic Rivers category. Select Federally Designated Wild and Scenic River or Study River and identify the name of the river. This section identifies that there will be no direct or adverse effects on the values for which the river was designated. In the comment box include details to support this determination and identify if there are any other protected rivers present in the project limits. Correspondence, or an NPS ***Section 7*** Determination should be added as a Technical Material, and it is recommended that these documents be placed in the Wild and Scenic Rivers folder within SWEPT.

EA or EIS: The Wild and Scenic Rivers section should identify the name of the river or river segment that is designated as a Wild and Scenic River or Study River, identify if it is a Wild and Scenic River or Study River, and discuss the results of the analysis and coordination with the NPS. This section should identify that there will be no direct or adverse effects on the values for which the river was designated. NPS and managing agency correspondence, and the NPS ***Section 7*** Determination should be included in the Appendix along with appropriate information in the Comments and Coordination section, and it is recommended that these documents be placed in the Wild and Scenic Rivers folder within SWEPT.

12.2.2.2.3 Projects Impacting Rivers Designated as Wild and Scenic or Study Rivers

For projects with potential impacts to rivers designated as Wild and Scenic Rivers or Study Rivers, the following areas should be assessed and included in the summary in the Wild and Scenic Rivers section of the ***Type 2 Categorical Exclusion Determination Form***, SEIR, EA, or EIS.

Identify the name of the river and/or segment of the river, and identify whether it is a Wild and Scenic, or Study River. Address comments submitted by the NPS, managing agency, and other appropriate agencies and include the referenced letters in the Appendix of an EA or EIS, or as a Technical Material for a Type 2 CE or SEIR. It is recommended that these documents be placed in the Wild and Scenic Rivers folder within SWEPT. NPS completed ***Section 7*** Determination should be included in, or appended to, the project’s Environmental Document.

For each alternative under consideration, identify the potential adverse effects through coordination with the NPS. Examples of adverse impacts would be:

1. Alteration of free-flowing nature of river,
2. Alteration of the setting,
3. Deterioration of water quality, or
4. An increase in the degree of activity from the project or otherwise causing visual, noise or air quality impacts on the river corridor that would conflict with the values of a wild, scenic, or recreational river.

The final Environmental Document should identify measures that will be included in the Preferred Alternative to avoid or mitigate impacts.

12.2.3 Rivers Listed on the Nationwide Rivers Inventory

12.2.3.1 Analysis and Coordination

If the project involves a river on the NRI, further analysis is needed. The effect of proposed developments within the river corridor should be assessed in terms of severity of the effect and extent of area affected. Developments outside the river corridor which would cause visual, noise, or air quality impacts on the river corridor should also be examined.

Only proposed new construction or proposed expansion of existing developments need be considered in assessing impacts. Repair or rehabilitation of existing structures would not have a negative impact, except if the action would result in substantial expansion of the facility or if the construction process itself would cause an irreversible impact on the environment. These types of projects may involve rivers on the NRI but will not affect the river segment. For example, repaving an existing bridge over an NRI river segment is unlikely to impact the river. If the project will not affect an NRI river, provide documentation in the Environmental Document (***Section 12.2.3.2.2***), and no further action is necessary.

If the project may affect the river, then the first step is to determine if there will be an adverse effect on the natural, cultural or recreational values of the NRI segment. If it is unclear whether a project will adversely affect an NRI river segment, the NPS can provide technical assistance.

Any action which could alter the river segment's ability to meet the eligibility and classification criteria for inclusion in the National System should be considered an adverse impact. Adverse effects on NRI rivers may occur under conditions which include, but are not limited to:

1. Destruction or alteration of all or part of the free-flowing nature of river;

2. Introduction of visual, audible, or other sensory intrusions which are out of character with the river or alter its setting;

3. Deterioration of water quality; or

4. Transfer or sale of property adjacent to an NRI river without adequate conditions or restriction for protecting the river and its surrounding environment.

If a project, including one or more alternatives, could have an adverse effect on an NRI river, an EA or an EIS must be prepared, depending on the significance of impacts. NPS staff is available to assist in determining the significance or severity of the effects in connection with the project.

Guidance on determining whether the project could have adverse effects is provided in the ***Guide for Identifying Potential Adverse Effects***, which is appended to the

Procedures for Interagency Consultation to Avoid or Mitigate Adverse Effects on Rivers in the Nationwide Inventory.

If the project could have an adverse effect on the natural, cultural or recreational values of the NRI, or effectively downgrade any portion of the NRI segment, coordination with NPS is required. The ***Procedures for Interagency Consultation to Avoid or Mitigate Adverse Effects on Rivers in the Nationwide Inventory*** document identifies types of developments that generally require consultation with NPS because of the potential for adverse effects. Examples of the developments include: small bulkhead, clearing and snagging, drainage canal, culvert or outfall, rip-rap, bank stabilization or erosion control structure, small reservoir, increase in commercial navigation, dredging or filling, road, railroad, building (any type), pipeline, transmission line, bridge or ford, water well, recreation area, and change in flow regime.

The next step is to determine whether the proposed action could foreclose options to classify any portion of the NRI segment as wild, scenic, or recreational river areas. A project such as repaving is not likely to do that; however, something like a bridge replacement, concrete boat ramp, riprap, even lighting could. NPS may assist in determining whether any of the alternatives under consideration would foreclose designation by providing an analysis of the impacts on natural cultural and recreational values.

The ***Procedures for Interagency Consultation to Avoid or Mitigate Adverse Effects on Rivers in the Nationwide Inventory*** document identifies types of development that are most likely to cause adverse effects if constructed adjacent to or in close proximity to an NRI river. Examples include a major highway, impoundment, channelization, airport, or railroad yard. The developments identified almost always require consultation with NPS because: 1) effects are likely to conflict with the values of a potential wild, scenic or recreation river and 2) effects could be severe enough to foreclose designation of the affected river segment.

The last step is to incorporate mitigation/avoidance measures in the project to the maximum extent feasible within FDOT's authority. NPS may also assist in developing appropriate avoidance/mitigation measures. FDOT must avoid or mitigate projects that could foreclose the river from potential Wild and Scenic designation at some point in the future.

To coordinate with NPS, aerials depicting alternatives including conceptual right of way (ROW) limits will be submitted for review and comment to the NPS. See NPS contact information in ***Figure 12-1***.

The letter should include the following statement:

> *The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT*.

The NPS should respond to the request within 30 days. Any responses or comments received should be resolved. There are times when this may require close coordination with the NPS for certain projects where there may be either a physical or visual intrusion of the proposed project on the river. It is FDOT's responsibility to ensure that effects to NRI rivers are avoided or mitigated. Instructions on the consultation process with NPS are available in the ***Procedures for Interagency Consultation to Avoid or Mitigate Adverse Effects on Rivers in the Nationwide Inventory*** and on the NPS NRI website (***Figure 12-1***). In all cases, the responses, comments and resolutions are included and discussed in the Wild and Scenic Rivers section of the Environmental Document, as appropriate (***Section 12.2.3.2***). If NPS does not respond to a request for assistance within 30 days, proceed with preparation of the Environmental Document. Even where NPS has been unable to comment on the Environmental Document, FDOT is still obligated to avoid or mitigate projects that could foreclose the river from potential Wild and Scenic designation at some point in the future.

12.2.3.2 Documentation

As appropriate, the Environmental Document will document involvement with a river listed on the NRI and include the results of any coordination with the NPS.

12.2.3.2.1 Projects Not Involving Rivers Listed on the Nationwide Rivers Inventory

Documentation for projects not involving rivers included on the NRI, is as follows:

Type 1 CE: In the Wild and Scenic Rivers section of the ***Type 1 Categorical Exclusion Checklist***, identify that the project will not involve a river on the NRI.

Type 2 CE or SEIR: Select "not present" on the Wild and Scenic Rivers section of the ***Type 2 Categorical Exclusion Determination Form*** or SEIR.

EA or EIS: Identify that the project is not located within the vicinity of an NRI segment and clearly state that the ***WSRA*** does not apply to this project.

12.2.3.2.2 Projects Involving Rivers Listed on the Nationwide Rivers Inventory Without Impacts

Documentation for projects involving rivers included on the NRI which will have no impacts on the NRI river segment, is as follows:

Type 1 CE: In the Wild and Scenic Rivers section of the ***Type 1 Categorical Exclusion Checklist***, identify that the project will involve, but will not affect a river segment on the NRI. In the comment box identify the name of the river and include details to support this determination. Any correspondence with NPS should be added to the project file in SWEPT. It is recommended that these documents be placed in the Wild and Scenic Rivers folder within SWEPT.

Type 2 CE or SEIR: Select “present” and then “not impacted” on the ***Type 2 Categorical Exclusion Determination Form*** or SEIR for the Wild and Scenic Rivers category. Select Nationwide Rivers Inventory and identify the name of the river. This section should identify that there will be no direct or adverse effects on the natural, cultural, or recreational values of the NRI River segment. In the comment box include details to support this determination and identify if there are any other protected rivers present in the project limits. Any correspondence with NPS should be added as a Technical Material in the project file in SWEPT. It is recommended that these documents be placed in the Wild and Scenic Rivers folder within SWEPT.

EA or EIS: The Wild and Scenic Rivers section should identify the name of the river that is listed in the NRI and identify it as an NRI river. This section should summarize the analysis and discuss any coordination with the NPS. This section should identify that there will be no direct or adverse effects on the natural, cultural, or recreational values of the NRI River segment. Any NPS correspondence should be included in the Appendix along with appropriate information in the Comments and Coordination section. It is recommended that these documents be placed in the Wild and Scenic Rivers folder within SWEPT.

12.2.3.2.3 Projects Impacting Rivers Listed on the Nationwide Rivers Inventory

Documentation for projects with potential impacts to rivers on the NRI is as follows:

Type 1 CE: In the Wild and Scenic Rivers section of the ***Type 1 Categorical Exclusion Checklist***, identify that the project will affect a river on the NRI, but will not have an adverse effect on the natural, cultural, or recreation values of the NRI river segment. Identify the name of the river in the text box and include details to support this determination. Any correspondence with NPS should be added as a Technical Material in the project file in SWEPT. It is recommended that these documents be placed in the Wild and Scenic Rivers folder within SWEPT. If the project will have an adverse effect on the on the natural, cultural, or recreation values of the NRI river segment, coordination with the NPS is required and the project cannot be processed as a Type 1 CE.

Type 2 CE, SEIR, EA, EIS: The following should be included in the summary in the Wild and Scenic Rivers section of the ***Type 2 Categorical Exclusion Determination Form*** or the Wild and Scenic Rivers section of the SEIR, EA or EIS. Identify the name of the river and identify that the river is listed on the NRI. Identify any adverse impacts on natural, cultural, and recreational values. Address comments submitted by the NPS and other appropriate agencies, and reference letters included in the Appendix of an EA or EIS, or as a Technical Material for a Type 2 CE or SEIR. It is recommended that these documents be placed in the Wild and Scenic Rivers folder within SWEPT. If applicable, describe avoidance or mitigation to avoid impacts that could foreclose the river from potential Wild and Scenic designation at some point in the future.

12.2.4 Section 4(f) Applicability

Publicly-owned waters of designated Wild and Scenic Rivers, Study Rivers, or NRI rivers may be protected by ***Section 4(f)*** based upon their designated functions or the designated functions adjacent to and within sections of the designated river. Publicly owned lands in the immediate proximity of such rivers may also be protected by ***Section 4(f)***, depending on the ownership and, when publicly owned, the manner in which they are administered by the federal, state, or local government managing the land. Designation under the ***WSRA*** does not in itself create a ***Section 4(f)*** resource. However, ORVs often include consideration of surrounding areas or areas within the river which function for ***Section 4(f)*** protected purposes. In addition, the river management may include ***Section 4(f)*** functions over the length of the river or in certain areas of the river. ***Section 4(f)*** would only apply to sites that function as, or which are designated as public parks, recreation areas, wildlife and waterfowl refuges, and historic and archaeological sites. Therefore, during the consultations with the NPS for projects which are within, across, or adjacent to rivers designated as Wild and Scenic, Study Rivers, or listed in the NRI, the FDOT District must include consultations regarding the functions of the river and its surroundings in the area of the proposed project. When ***Section 4(f)*** applies to the use of property which is either within the river corridor or which represents an element of the ORVs, consultations with the official of the agency having jurisdiction over the property in question, the NPS, and other appropriate agencies will be needed to evaluate and resolve potential alterations to the protected functions of the river and the river corridor. Concurrence on the ***Section 4(f)*** finding/approval will need to fulfill the coordination and approval requirements of ***Sections 7 and 12*** of the ***WSRA***. See ***Part 2, Chapter 7, Section 4(f) Resources***, or Questions 21 B,C and D contained in the ***July 20, 2012 Section 4(f) Policy Paper*** located at FDOT's ***Section 4(f) References and Guides Website*** for more information.

12.3 REFERENCES

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12.4 HISTORY

3/15/2004, 1/8/2008, 8/15/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 23, 1/14/2019, 7/1/2020, 7/1/2023: Florida Wild and Scenic Designation section

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Nationwide Rivers Inventory website: https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm

Figure 12-1 National Park Service Contact Information and Websites

PART 2, CHAPTER 13

FLOODPLAINS

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PART 2, CHAPTER 13

FLOODPLAINS

13.1 OVERVIEW

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

This chapter outlines the procedure for evaluating project impacts on 100-year (base) floodplains, and provides guidance on how to document floodplain analysis in the Environmental Document to comply with ***23 Code of Federal Regulations (CFR) Part 771*** and applicable regulations, guidance, and Executive Orders (EOs).

Protection of floodplains and floodways is required by ***EO 11988*****:** ***Floodplain Management***; ***USDOT Order 5650.2, Floodplain Management and Protection***; and ***Federal-Aid Policy Guidance on Location and Hydraulic Design of Encroachments on Flood Plains, 23 CFR Part 650A***. The intent of these regulations is to avoid or minimize highway and land use development encroachments that reduce storage and increase water surface elevations within base floodplains. Where encroachment is unavoidable, the regulations require FDOT to take appropriate measures to minimize or mitigate impacts.

Further guidance for implementation of ***EO 11988: Floodplain Management*** can be found in the ***Guidelines for Implementing EO 11988, Floodplain Management and EO 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input***. ***EO 13690***, which established the Federal Flood Risk Management Standard, was revoked by Section 6 of ***EO 13807***, **Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure**. However, ***EO 13807*** did not revoke or otherwise alter ***EO 11988***. As such, the existing U.S. Army Corps of Engineers (USACE) guidance for ***EO 11988*** applies to planning, design, and construction of Civil Works projects, operations and maintenance activities.

Location hydraulics studies required by ***23 CFR Part 650A*** must be prepared during the Project Development and Environment (PD&E) Study commensurate with the level of

encroachment to allow consistent evaluation and identification of impacts. The results of location hydraulic studies should be documented in the ***Location Hydraulics Report (LHR)***. The ***LHR*** must be reviewed by the District Drainage Engineer to verify that all base floodplains are identified and the ***LHR*** is consistent with existing basin and floodplain management program. The results of the location hydraulic studies should be briefly summarized in the Environmental Document and considered when making the ***NEPA*** decision.

13.1.1 Definitions

Base Flood - The flood or tidal event having a one percent chance of being equaled or exceeded in any given year (commonly known as a 100-year flood). ***(44 CFR § 59.1)***

Base Floodplain - The area subject to flooding by the base flood.

Direct Effects – Impacts which occur as a direct result of an action and occur at the same time and place as the action.

Effects or Impacts – changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and include direct, indirect, and cummulative effects.

Encroachment - Activities or construction within the floodplain including fill, new construction, substantial improvements, and other development.

Floodplain - Any land area susceptible to being inundated by floodwaters from any source.

Flood Receptor -The entity that may be harmed (e.g., a person, property, habitat), by flood.

Hydraulic Capacity - Measure of the volume of water which can pass through a given structure or culvert or measure of the volume and flow of water within a watercourse.

Indirect Effects – Impacts which are reasonably foreseeable effects that occur because of an action but occur later in time or are removed from the action location.

Natural and Beneficial Floodplain Values - Include but are not limited to fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquaculture, forestry, natural moderation of floods, water quality maintenance, and groundwater recharge.

Regulatory Floodway - The floodplain area that is reserved in an open manner by federal, state or local requirements, i.e., unconfined or unobstructed either horizontally or vertically, to provide for the discharge of the base flood so that the cumulative increase in water surface elevation is no more than a designated amount [not to exceed 1 foot as established by the Federal Emergency Management Agency (FEMA) for administering the National Flood Insurance Program (NFIP)].

Risk - The consequences associated with the probability of flooding attributable to an encroachment, including the potential for property loss and hazard to life during the service life of a facility.

Support Base Floodplain Development - The process to encourage, allow, serve, or otherwise facilitate additional base floodplain development. Direct support results from an encroachment, while indirect support results from an action out of the base floodplain.

13.2 PROCEDURE

Potential floodplain impacts shall be assessed for all FDOT projects which involve activities or construction near or within the floodplain. Each project alternative should be analyzed for potential floodplain encroachment and the resulting impacts as defined in ***Section 13.1.1*** (positive and negative) must be documented in the ***LHR*** (as applicable) and briefly summarized in the Environmental Document.

Evaluation of potential floodplain impacts involves the following activities:

1. Determine if a project is located in or will affect the base floodplain.
2. Conduct early public involvement and interagency coordination.
3. Identify and evaluate practicable alternatives to locating in the base floodplain, including alternative sites outside of the floodplain.
4. Identify impacts as defined in ***Section 13.1.1*** (postive and negative) of the project on the floodplain.
5. If impacts cannot be avoided, develop measures to minimize the impacts; and measures to restore and preserve the floodplain, as appropriate.
6. Re-evaluate alternatives to determine if locating the project in the floodplain is still practicable.
7. Document the results in the ***LHR*** and Environmental Document, and present the findings to the public.

13.2.1 Determine Level of Analysis

The level of assessment and documentation for potential impacts to floodplains during the PD&E phase depends on the significance of the base floodplain encroachments. Detailed floodplain evaluations are generally not warranted for transportation projects not qualifying for screening in the FDOT's Efficient Transportation Decision Making (ETDM) Environmental Screening Tool (EST) [typically Type 1 Categorical Exclusions (CEs) and Non-Major State Actions (NMSA)], or where there is no floodplain involvement. In these projects, reviewing the Federal Emergency Management Agency (FEMA) ***Flood Insurance Rate Maps (FIRM)*** and identifying if any cross drains culverts are to be modified may be sufficient. See ***Part 1, Chapter 2, Class of Action Determination for***

Federal Projects for more guidance on how to document floodplains on Type 1 CE projects.

Transportation projects qualifying for ETDM screening generally are more complex. In accordance with ***Part 1, Chapter 2, Class of Action Determination for Federal Projects***, qualifying projects must complete the ETDM Programming Screen and may also have completed the Planning Screen.

The Project Manager should coordinate with the regulatory and resource agencies, and local agencies throughout the project development process. Coordination with these agencies is useful in identifying floodplain issues, environmental data, and local drainage or watershed specific studies in the project area. Additionally, the Project Manager should coordinate with the District staff such as District Drainage Engineer, District Permit Coordinator, District Environmental Office staff, and others who may be involved in the project.

1. **Planning Screen Evaluation** - Prepare Preliminary Environmental Discussion (PED) in accordance with ***Part 1, Chapter 3, Preliminary Environmental Discussion and Advance Notification***. Include a discussion about known potential project involvement with floodplains, drainage basins/watershed and receiving water bodies and their designations.

   Review information available in the Planning Screen regarding the location of floodplains as identified by FEMA ***FIRM,*** the locations of Special Flood Hazard Areas (SFHA), and Flood Insurance Study (FIS). Review specific information about areas of flood hazards that were provided by the Environmental Technical Advisory Team (ETAT).

2. **Programming Screen Evaluation** - Include discussion about known potential project involvement related to the floodplain, drainage basins and receiving water bodies [based on information obtained in the Planning Screen (if completed) and the District familiarity with the project area in the PED and the Advance Notification (AN), as appropriate.

   After screening is completed, review ETAT comments related to the floodplain from the ***Programming Screen Summary Report.*** Use this information to determine the level of potential floodplain impacts and how they may be evaluated and mitigated in the PD&E Study. Begin to evaluate and document existing conditions for use in the floodplain analysis.

3. **PD&E Evaluation** - Review the ***Programming Screen Summary Report*** for ETAT comments for floodplain issues as well as ETAT comments on other issues that may concern possible floodplain impact and drainage designs, such as “Coastal and Marine” and “Wetlands and Surface Waters”. The Water Management Districts (WMDs) comments may reference a recent drainage study as being the best available information, which may supersede existing floodplain maps. Verify if the modeling in the WMD drainage study was performed to certain standards, such as FEMA guidelines.

The impacts of the project on floodplain must be understood before the preferred alternative is selected. Complete the appropriate level of analysis and documentation based on the project context, anticipated impacts, and outcome of any resource agency coordination. There are four categories of encroachments as they pertain to base floodplain involvement: no involvement, no encroachment, minimal encroachment, and significant encroachment (see ***Section 13.2.2***). The Project Manager should make preliminary determination of the level of floodplain encroachment and the type of documentation necessary for ***LHR*** based on field review, ETDM screening results and consultation with the District Drainage Engineer.

Where floodplain impacts will occur, the analysis must be sufficient to determine the level of impacts and whether they will be significant. The analysis will be documented in the ***LHR***. Document floodplain commitments in the Environmental Document and transmit to the next phase of project development in accordance with ***Procedure No. 650-000-003, Project Commitment Tracking*** and ***Part 2, Chapter 22, Commitments***. See ***Section 13.2.4.3*** for documentation of floodplain impacts in the Environmental Document.

13.2.2 Location Hydraulic Studies and Report

Title 23 CFR Part 650A requires location hydraulic studies for all alternatives containing floodplain encroachments and for those actions which would support base floodplain development, commensurate with the significance of the risk or environmental impact. These studies must include discussion of the following:

1. Evaluation and discussion of the practicability of alternatives to any longitudinal encroachments

2. Discussion of the following items, commensurate with the significance of the risk or environmental impact, for all alternatives containing encroachments and for those actions which would support base flood-plain development:

    a. The risks associated with implementation of the action.

    b. The impacts on natural and beneficial floodplain values.

    c. The support of incompatible floodplain development.

    d. The measures to minimize floodplain impacts associated with the project.

    e. The measures to restore and preserve the natural and beneficial floodplain values impacted by the project.

3. Shall include evaluation and discussion of the practicability of alternatives to any significant encroachments or any support of incompatible floodplain development.

To satisfy the requirement of preparing a location hydraulic studies for all alternatives containing floodplain encroachments, FDOT requires a ***LHR*** to be prepared for any Type 2 CE, Environmental Assessment (EA), Environmental Impact Statement (EIS), or State Environmental Impact Report (SEIR) project that has a potential to encroach on the base floodplain, pursuant to ***23 CFR Part 650A***, see ***Section 13.2.2.5*** for additional information. A ***LHR*** is not typically required for Type 1 CE or for NMSAs. The ***LHR*** describes the types of construction activities near floodplains and includes a description of the measures to avoid or minimize floodplain impacts associated with the project. The District Drainage Engineer or designee must review the ***LHR*** and verify that all base floodplains are identified and the ***LHR*** is consistent with existing basin and floodplain management program. Additionally, the Project Manager or designee should consult with local natural resource and floodplain management agencies when a hydraulic study shows an impact to the floodplain.

The information contained in the ***LHR*** is site specific, but the level of floodplain analysis is dependent upon the flood risk associated with each type of encroachment. Use of detailed calculations for every drainage structure associated with a project is not usually necessary and should be avoided, unless the project is accelerated and includes design phase activities with the PD&E Study or detailed calculations are required to develop the preferred roadway alternative for a new alignment. The encroachment types are listed below:

1. **No Involvement** - No involvement means that there are no floodplains in the vicinity of the project alternatives.

2. **No Encroachment** - No encroachment means that there are floodplains in the vicinity of the project alternatives, but there is no floodplain encroachment.

3. **Minimal Encroachments** - Minimal encroachments on a floodplain occur when there is floodplain involvement but the impacts on human life, transportation facilities, and natural and beneficial floodplain values are not significant and can be resolved with minimal efforts. Normally, these minimal efforts to address the impacts will consist of applying FDOT's drainage design standards and following the WMD's procedures to achieve results that will not increase or significantly change the flood elevations and/or limits.

4. **Significant Encroachments** - A highway encroachment and any direct support of likely base floodplain development that would involve one or more of the following construction or flood related activities:

    a. A significant potential for interruption or termination of a transportation facility which is needed for emergency vehicles or which provides a community's only evacuation route

    b. A significant risk including the potential for property loss and hazard to life

    c. A significant adverse impact on natural and beneficial floodplain values

When the project causes significant encroachment on a floodplain a risk analysis is required to establish a level of risk allowable for a project area and to design the alternative to that level.

Note that even though the amount of floodplain involvement could be small, the impacts may be important or notable enough to be considered a significant encroachment.

It is possible that a project will involve more than one type of encroachment. When this occurs, it is necessary to include information that addresses each of the encroachment types in the ***LHR***.

13.2.2.1 Location Hydraulic Study

Every wetland and cross drain has an associated floodplain; however, it is not necessary to evaluate the hydraulic impacts of each one. The impacts to flood elevations and limits are minimized by designing cross drain facilities in accordance with the ***FDOT Drainage Manual, Topic No. 625-040-002***. Only those alternatives or design features that may create substantial differences in flood elevations and limits should be evaluated. For projects or alternatives that would not create substantial changes in the flood elevations, include a statement in the ***LHR*** indicating that the drainage features will be designed in accordance with the ***FDOT Drainage Manual, Topic No. 625-040-002***, and no adverse impacts to floodplains are anticipated as a result of the project. See ***Figure 13-1*** for sample statements to be included in the ***LHR*** and Environmental Document.

The expected change in flood elevations due to a project must be estimated to perform the appropriate level of risk evaluation, see ***Section 13.2.2.4***. Alternatives that avoid longitudinal encroachment of the floodplain will include evaluation and discussion of the practicability of the alternatives. New alignment alternatives usually require a preliminary evaluation to determine hydraulic capacity for anticipated bridge/culvert size. When new alignments include longitudinal encroachments, they should be analyzed to determine any increase in the base flood elevation. On existing alignments, the possibility of decreased hydraulic performance of existing structures requires an evaluation to determine the change in the base flood elevation upstream (and downstream where appropriate).

If the hydraulic evaluation determines that flood elevations will not change significantly, no further evaluation is needed and the encroachment should be minimal.

If the hydraulic evaluation shows that flood elevations will increase either upstream or downstream, a location hydraulic study must be performed on the area impacted to evaluate the potential for flood impacts. The location hydraulic study should consist of a more detailed floodplain model to size proposed structures (bridges/culverts) appropriately. The model needs to identify the downstream constraint (tailwater limitation) that is affecting the floodplain stage and limits within the project. This information needs to be documented in the ***LHR*** to demonstrate the resulting impacts have been adequately addressed by the proposed design and the constraints are outside of the FDOT's control.

Additionally, the location hydraulic study should consist of an evaluation of the floodplain to determine any increase in the number of flood receptors and the increase in damage to flood receptors that will result from any increase in flood elevations. If necessary, appropriate coordination with FEMA, and local natural resource and floodplain management agencies should be initiated to adequately assess flood impacts.

Whenever it is determined that the project will involve a regulatory floodway, the District Drainage Engineer, or designee, must coordinate with local agencies and FEMA to ensure the project will be developed consistent with local floodway plans and floodplain management programs. This coordination effort and all associated drainage work must be documented in the ***LHR*** and summarized in the Environmental Document.

The impacts of each encroachment on natural floodplain values must be evaluated. After evaluating the impacts to the floodplain, a statement explaining the significance of any encroachments will be included in the ***LHR*** for each type of construction activity in the floodplain. Similar types of floodplain construction activities should be grouped together and the significance of their floodplain encroachments addressed accordingly. ***Figure 13-1*** provides several sample statements for use in the Environmental Document. The statements may be modified to fit the project activities and flood risk identified in the ***LHR***.

13.2.2.2 Significant Encroachment

Evaluation to determine the significance of each encroachment should include assessment of construction or flood related impacts to lives, property, and transportation facilities that serve emergency vehicles or provide emergency evacuation. Additionally, the evaluation should include assessment of construction or flood related impacts to determine the potential for loss or gain to natural and beneficial floodplain values. The following floodplain values should be included in assessment:

1. Natural moderation of floods
2. Water quality maintenance
3. Groundwater recharge
4. Fish and wildlife habitat
5. Plants
6. Open space and natural beauty
7. Recreation
8. Agriculture and Aquaculture
9. Forestry

If floodplain analysis determines that the impacts to lives, property and floodplain values

cannot be avoided, the District must develop measures to minimize and mitigate the impacts to the floodplain.

13.2.2.3 Only Practicable Alternative Finding

Pursuant to ***23 CFR § 650.113***, a proposed alternative which includes a significant encroachment will not be approved unless it is the only practicable alternative. The finding of the only practicable alternative must be approved by FHWA. To obtain the finding, the District must provide the recommendation and supporting information to the District's FHWA Transportation Engineer with a copy to OEM. The only practicable alternative finding must be included in the final Environmental Document and must be supported by the following information:

1. The reasons why the proposed action must be located in the floodplain,
2. The alternatives considered and why they were not practicable, and
3. A statement indicating whether the action conforms to applicable State or local floodplain protection standards.

13.2.2.4 Risk Evaluation

Determination of floodplain encroachments should include an evaluation of flood-related risk to the project and surrounding environment. Evaluation of risk should include the following:

1. Risks to transportation infrastructure – road closure, repair costs.
2. Risks to highway users – loss of life, service disruption.
3. Risks to residents – damages, service disruption, property loss.

Typically, the level of risk is reduced through application of design standards and drainage design procedures when the project potentially encroaches into the floodplain. FDOT has established design parameters for the design frequency, backwater limitations, and limiting velocity, which are based on the importance of the transportation facility to the system and allowable risk for that facility. Additionally, design standards of other agencies that have control or jurisdiction over the waterway or facility concerned are considered in the evaluation.

To quantify the risk on project alternatives that encroach floodplains, FDOT uses risk assessment or risk analysis depending on the significance of floodplain encroachment. Risk assessment is performed for minimal encroachments while risk analysis is performed for significant encroachments that are anticipated to increase or substantially change floodplain elevations and/or limits. The cost and effort required for a risk analysis is considerably higher than for a risk assessment. Risk evaluation must be documented in the ***LHR***. The District Drainage Engineer and Project Manager must review ***LHR*** and

verify the determination of the significance of each floodplain encroachment and any risk evaluation.

Risk assessment is a subjective analysis of the risks resulting from various design alternatives, without detailed quantification of flood risks and losses. It may consist of developing the construction costs for each alternative, and subjectively comparing the risks associated with each alternative. A risk assessment is more appropriate for small structures, or for structures which size is not influenced by hydraulic constraints.

Risk analysis is an economic comparison of alternatives using expected total costs (construction costs plus risks costs) to determine the alternative with the least total expected cost to the public. It should include probable flood related costs during the service life of the facility for highway operation, maintenance, and repair, for highway aggravated flood damage to other property, and for additional or interrupted highway travel. See Chapter 4 of the ***Drainage Design Guide*** for more guidance on this evaluation.

13.2.2.5 Location Hydraulic Report

The ***LHR*** is prepared during the PD&E Study. The ***LHR*** should have headings and subheadings to effectively delineate the sections appropriate to the level of analysis. The cover page of the ***LHR*** should be prepared using ***Technical Report Cover Page, Form No. 650-050-38*** and contain the following standard statement:

> *The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT*.

A sample ***LHR*** cover page is provided in ***Figure 13-2***.

The following describes the requirements necessary for the completion of the ***LHR*** for each level of significance of encroachment.

1. **No Encroachment or No Involvement** - For projects where the level of significance for the floodplain encroachment is No Encroachment or No Involvement, a location hydraulic report is not required and the review of the project alternatives is documented in the Environmental Document and the ***Preliminary Engineering Report (PER)***.

2. **Minimal Encroachments** - If a project has minimal impacts due to floodplain encroachments, the ***LHR*** should describe the types of floodplain construction activities and measures to minimize project impact to floodplain. Any commitments made to restore and/or preserve floodplain should be documented in the Environmental Document.

The following items must be included in the ***LHR*** for all alternatives containing minimal encroachments. Each item should be discussed to a level that adequately addresses the environmental impacts and flood risks:

a. General description of the project including location, length, existing and proposed typical sections, drainage basins, and cross drains;

b. Determination of whether the proposed action is in the base floodplain;

c. The history of flooding of the existing facilities and/or measures to minimize any impacts due to the proposed improvements;

d. Determination of whether the encroachment is longitudinal or transverse, and if it is a longitudinal encroachment, an evaluation and discussion of practicable avoidance alternatives;

e. The practicability of avoidance alternatives and/or measures to minimize impacts;

f. Impact of the project on emergency services and evacuation;

g. Impacts of the project on the base flood, likelihood of flood risk, overtopping, location of overtopping, backwater.;

h. Determination of the impact of the project on regulatory floodways, if any, and documentation of coordination with FEMA and local agencies to determine the requirements for the project to be developed consistent with the regulatory floodway;

i. The impacts on natural and beneficial floodplain values, and measures to restore and preserve these values (this information may also be addressed as part of the wetland impact evaluation and recommendations);

j. Consistency of the project with the local floodplain development plan or the land use elements in the Local Government Comprehensive Plan (LGCP), and the potential of encouraging development in the base floodplain;

k. Measures to minimize flood-plain impacts associated with the project, and measures to restore and preserve the natural and beneficial flood-plain values impacted by the project.

l. A map showing project, location, and impacted floodplains. A ***FIRM Map*** should be used if available. If not, other maps (e.g., US Geological Survey (USGS), USACE, Soil Conservation Service (SCS), Bureau of Land Management, U.S. Forest Service, or best available information from the WMDs) may be used. Copies of applicable maps should be included in the appendix; and,

m. Results of any risk assessments performed.

3. **Significant Encroachments** - In addition to the items listed in the requirements for minimal encroachments, the following items must be included in the ***LHR*** for all alternatives containing significant encroachments and for those actions which would support base flood development:

    a. Measures to minimize floodplain impacts associated with the project;

    b. The practicability of avoidance alternatives to significant encroachments or support of incompatible floodplain development;

    c. The hydraulic adequacy of existing structures;

    d. The frequency of traffic interruption due to flooding for the existing facility;

    e. When replacing structures and for structures proposed as alternatives on new alignments, discuss the requirements to meet hydraulic needs for the project;

    f. Drainage problems which would result from extending or replacing existing structures in addition to downstream tailwater constraints that affect the flood elevations within the project limits;

    g. Estimate both the existing floodplain volume (capacity) and the volume of the encroachment (this information can be estimated based on USGS Maps, FIRM Maps, LiDAR maps, existing drainage maps, or best available information from the WMDs; and

    h. Flooding impacts to private property both upstream and downstream.

If the project involves a bridge structure, and if a separate ***Bridge Hydraulic Report*** (***BHR***) is not prepared during PD&E, the following items must be addressed in the ***LHR***:

1. Conceptual bridge length,

2. Conceptual scour considerations, and

3. Preliminary clearances both vertically and horizontally.

The scope of the ***LHR*** should be scaled to fit the scope and impacts of the project and should be coordinated with the District Drainage Engineer. Once the ***LHR*** is complete, its information is briefly summarized in the Environmental Document per ***Section 13.2.4***.

13.2.3 Bridge Hydraulic Report

BHRs are not normally completed during the PD&E phase of a project. However, a ***BHR*** may be prepared to determine the “hydraulic length” of the bridge or the length necessary to meet the hydraulic requirements. This is particularly important in situations where the

bridge or culvert has a history of roadway overtopping. Correcting the overtopping usually involves raising the road and providing much larger hydraulic capacity through the bridge or culvert. This situation may be appropriate for a Risk Analysis to compare the construction costs to risk costs. The construction costs should be documented in the Environmental Document. If bridge alternatives will be developed to avoid or minimize wetland impacts, then a ***BHR*** will analyze and document the costs and benefits of the additional bridge length, in accordance with Chapter 4 of the ***FDOT Drainage Manual, Topic No. 625-040-002***.

If the entire project consists of a bridge replacement with no other encroachments, then the requirements of the ***LHR*** must be included in the draft ***BHR***.

When the draft ***BHR*** is prepared during the PD&E Study, its cover page should be prepared using ***Technical Report Cover Page, Form No. 650-050-38*** and contain the following standard statement:

> *The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.*

13.2.4 Environmental Document

13.2.4.1 Type 2 Categorical Exclusion

For a Type 2 CE, summarize the project involvement with the floodplain based on the results of floodplain analysis in the Floodplains Section of the ***Type 2 Categorical Exclusion Determination Form*** and upload the ***LHR*** and/or ***BHR*** and any other supporting documentation into the project file. It is recommended that these files be placed in the Floodplains folder within the StateWide Environmental Project Tracker (SWEPT). Sample statements that can be included in the form for projects with No Encroachment can be found in ***Figure 13-1***. The summary should at least answer the following questions:

1. Is there a floodplain within the vicinity of the proposed alternative(s)?

2. Will there be an encroachment or a benefit to the floodplain as a result of the project?

3. What type of encroachment impact will the preferred alternative have on the floodplain and what is the level of encroachment?

4. What measures have been taken to minimize and mitigate floodplain impacts associated with the project?

If there is regulatory floodway involvement then the ***Type 2 Categorical Exclusion Determination Form*** must address the project's consistency with the regulatory floodway's ability to discharge the base flood without cumulatively increasing the water surface elevation more than the designated height, and demonstrate coordination with FEMA and local floodway management agencies on the consistency issue. For additional information, see ***FEMA Guidance for Flood Risk Analysis and Mapping, November 2019***.

13.2.4.2 State Environmental Impact Report

For SEIRs, include a summary of the results of the ***LHR*** and/or ***BHR*** and coordination in the Floodplains section of the SEIR. This should include justification of the decision and information to substantiate the impact determination (see ***Section 13.2.4.3***). Summarize the project involvement with floodplains and include documentation in the project file. It is recommended that these files be placed in the Floodplains folder within SWEPT.

13.2.4.3 Environmental Assessment and Draft Environmental Impact Statement

The Floodplain section for an EA or Draft Environmental Impact Statement (DEIS) must include:

1. Identification of the geographic area of the base floodplain and a determination of whether the proposed action will encroach upon the base floodplain using available reference maps. The potential references include:

    a. ***FIRM*** must be used, if available. The map reference number must be provided in the document. If the project is not in a FEMA-identified hazard area, ***FIRM*** will not be available and other sources should be used.

    b. Other maps (e.g., USGS, USACE, SCS, Bureau of Land Management, U.S. Forest Service, or best available information from the WMDs) may be used.

    c. Appropriate maps will be developed by the Drainage Engineer if no other maps are available.

2. An exhibit showing the relationship of each project alternative under study with each base floodplain and regulatory floodway involved.

3. If there is no encroachment on a base floodplain and the proposed action will not support development in the base floodplain, a statement to that effect will be provided (see ***Figure 13-1*** for sample statements).

4. If the project encroaches or supports base floodplain development within a base floodplain, discuss the following information for each proposed alternative that causes the impacts commensurate with the level of impacts:

    a. Flood risks associated with, or resulting from, the proposed action.

b. Impacts on natural and beneficial floodplain values.

c. Degree to which the action provides effects as defined in ***Section 13.1.1*** in the support of development in the base floodplain, see ***FDOT Cumulative Effects Evaluation Handbook*** as a reference for analyzing effects.

d. The potential for significant interruption or termination of community's only evacuation route or facility for emergency vehicles.

e. Measures to minimize floodplain impacts associated with each alternative.

f. Measures to restore and preserve the natural and beneficial floodplain values that are impacted.

The EA or DEIS should briefly summarize the results of the ***LHR*** and/or ***BHR***. The EA or DEIS should identify the number of encroachments and any support of incompatible base floodplain developments and their potential impacts. Where an encroachment results in substantial impacts or supports incompatible floodplain development, the EA or DEIS should provide more information on the location, impacts, and appropriate mitigation measures. The EA or DEIS should also include an evaluation and discussion of practicable alternatives to avoid or minimize such involvements.

If an alternative encroaches upon a regulatory floodway, the following questions must be addressed in the EA or DEIS:

1. Can the highway encroachment be located so that it is consistent with the regulatory floodway? or

2. Can the regulatory floodway be revised to accommodate the project? (This typically involves a FEMA map revision.)

For each alternative encroaching upon a designated or proposed regulatory floodway, the EA or DEIS should provide a preliminary indication of whether the encroachment would be consistent with, or require a revision to the regulatory floodway. Engineering and environmental analyses should be undertaken, commensurate with the level of encroachment, to allow the appropriate evaluation of impacts. Coordination with FEMA and appropriate state and local governmental agencies should be undertaken for each regulatory floodway encroachment.

13.2.4.4 Finding Of No Significant Impact and Final Environmental Impact Statement

When the preferred alternative includes significant encroachments but the human environment is not significantly affected, the finding must be provided in the Floodplain section of an EA with Finding of No Significant Impact (FONSI).

If the preferred alternative includes significant encroachments that significantly affect the human environment, the Environmental Analysis Section and the Executive Summary of

the Final Environmental Impact Statement (FEIS) must include an "Only Practicable Alternative Finding" required by ***23 CFR § 650.113*** and ***EO 11988*** (See ***Section 13.2.2.3***).

If the preferred alternative encroaches on a regulatory floodway, the FONSI or FEIS should discuss the consistency of the action with the regulatory floodway. If a regulatory floodway revision is necessary, the FONSI or FEIS should include evidence from FEMA and local or State agency indicating that such revision is acceptable.

If the project has no involvement with or is not located within a floodplain, a finding is still provided. See ***Figure 13-1*** for sample statements.

13.2.5 Public Involvement

In accordance with ***EO 11988***, the FDOT must provide public notice if there will be a significant floodplain encroachment. To comply, the District must include in its public workshop or hearing advertisements, a statement that the project involves encroachments on base floodplains and, if applicable, involvement with a regulatory floodway. At all public workshops, the District should include information concerning any anticipated floodplain encroachments. If a public hearing is held, the presentation at the public hearing must also include any anticipated floodplain encroachments.

13.3 REFERENCES

Federal-Aid Policy Guide 23 CFR § 650A.
https://www.fhwa.dot.gov/legsregs/directives/cfr23toc.htm

FEMA. Guidance for Flood Risk Analysis and Mapping, November 2019.
https://www.fema.gov/media-collection/guidance-femas-risk-mapping-assessment-and-planning

FHWA. Technical Advisory T6640.8A, Guidance for Preparation and Processing Environmental and Section 4(f) Documents.
https://www.environment.fhwa.dot.gov/projdev/impTA6640.asp

First Renewal of the Memorandum of Understanding 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, May 26, 2022.
https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

FDEP website. www.floridadep.gov

FDOT. Efficient Transportation Decision Making (ETDM) Manual, Topic No. 650-000-002.
http://www.fdot.gov/environment/pubs/etdm/etdmmanual.shtm

FDOT. Cumulative Effects Evaluation Handbook
https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/cee/cee-handbook-2012-12183b410b4f04cf44f9ae1972577be52ba0b7f4290ddf11467fa22acded398d0508237a15c0eac844e193040a3899bb074181367d98d3424bebaf8c94900a1fc4e3d3cf79554d674a32b92c6cada8dda3b623acecd439cc41f999178af94010a78d.pdf?sfvrsn=3c5d70cd_10

FDOT. Drainage Manual, Topic No. 625-040-002
https://www.fdot.gov/roadway/drainage/manualsandhandbooks.shtm

FDOT. Standard Plans for Road and Bridge Construction.
https://www.fdot.gov/design/standardplans/sprbc.shtm

Guidelines for Implementing Executive Order 11988, Floodplain Management and Executive Order 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input. January 30, 2015. https://www.federalregister.gov/documents/2015/02/04/2015-02379/establishing-a-federal-flood-risk-management-standard-and-a-process-for-further-soliciting-and

Presidential Executive Order 11988, Floodplain Management and Protection.
http://www.whitehouse.gov/the-press-office/2015/01/30/executive-order-establishing-federal-flood-risk-management-standard-and- or
https://www.fema.gov/executive-order-11988-floodplain-management-0

13.4 FORMS

Technical Report Cover Page, Form No. 650-050-38

13.5 HISTORY

1/7/2008, 8/17/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 24, 1/14/2019, 7/1/2020, 7/1/2023

Suggested Statements for Environmental Documents

The following sample summary statements may be appropriate for common types of base floodplain construction activities not resulting in significant floodplain impacts. These statements should be modified based on the results of the location hydraulic studies documented in the Location Hydraulics Report.

1- PROJECTS WHICH WILL NOT INVOLVE ANY WORK BELOW THE 100 YEAR FLOOD ELEVATION

The following statement is used when the 100-year flood elevation is available from existing information, and it is evident that project will not involve any work below the 100-year flood elevation.

Although this project is located within the limits of the 100-year floodplain, no work is being proposed below the 100-year flood elevation and, thus, this project does not encroach upon the base floodplain.

2- PROJECTS WHICH WILL NOT INVOLVE THE REPLACEMENT OR MODIFICATION OF ANY DRAINAGE STRUCTURES

These projects must be on existing alignment. They may involve a change in the profile grade elevation of a magnitude normally associated with resurfacing. There are no known drainage problems within the limits of the project, or other factors that override the need for concurrent drainage improvements.

This project will not involve the replacement or modification of any existing structures, or the addition of any new drainage structures. Thus, this project will not affect flood heights or base floodplain limits. Additionally, the project will not increase flood risks or damage; and there will be no significant change in the potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant.

3- PROJECTS INVOLVING MODIFICATION TO EXISTING DRAINAGE STRUCTURES

Work under this type of project will not involve the replacement of any existing drainage structures or the construction of any new drainage structures. Work will only involve modification of existing structures (e.g., extending cross drains, adding headwalls, or extending bridge piers). Projects that affect flood heights and flood limits, even minimally, may require further evaluation to support statements that emphasize the insignificance of the modifications.

Figure 13-1 Floodplain Statements

Modifications to existing drainage structures (SPECIFY e.g., extending cross drains, adding headwalls, or extending bridge piers) included in this project will result in an insignificant change in their capacity to carry floodwater. These modifications will cause minimal increases in flood heights and flood limits which will not result in any significant adverse impacts on the natural and beneficial floodplain values or any significant change in flood risks or damage. There will be no significant change in the potential for interruption or termination of emergency service or emergency evacuation routes as the result of modifications to existing drainage structures. Therefore, it has been determined that this encroachment is not significant.

4- PROJECTS ON EXISTING ALIGNMENT INVOLVING REPLACEMENT OF EXISTING DRAINAGE STRUCTURES WITH NO RECORD OF DRAINAGE PROBLEMS

This type of work excludes replacement activities that would increase the hydraulic performance of existing facilities. Also, there should be no record of drainage problems and no unresolved complaints from residents in the area.

The proposed structure will perform hydraulically in a manner equal to or greater than the existing structure, and backwater surface elevations are not expected to increase. Thus, there will be no significant adverse impacts on natural and beneficial floodplain values. There will be no significant change in flood risk, and there will not be a significant change in the potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant.

5- PROJECTS ON EXISTING ALIGNMENT INVOLVING REPLACEMENT OF DRAINAGE STRUCTURES IN HEAVILY URBANIZED FLOODPLAINS

These projects include work in flood sensitive, heavily urbanized floodplains, where the conditions of flooding are largely attributable to the low-lying terrain. The work does not include those replacement structures that will reduce the hydraulic performance of existing facilities or a change in the profile grade when the existing grade is overtopped by an event below the 100-year storm. Replacement drainage structures are limited to hydraulically equivalent structures in most instances.

Replacement drainage structures for this project are limited to hydraulically equivalent structures which are not expected to increase the backwater surface elevations. The limitations to the hydraulic equivalency being proposed are basically due to restrictions imposed by the geometrics of design, existing development, cost feasibility, or practicability. An alternative encroachment location is not considered since it does not meet the project's purpose and need or is economically unfeasible. Since flooding conditions in the project area are inherent in the topography or are a result of other outside contributing sources, and there is no practical alternative to eradicate flooding problems in any significant amount, existing flooding will continue, but will not increase as the result of the construction of this project.

Figure 13-1 Floodplain Statements (Page 2 of 3)

Furthermore, the project will not affect existing flood heights or floodplain limits. There will be no significant change in the potential for interruption or termination of emergency service or emergency evacuation routes as the result of construction of this project. Therefore, it has been determined that this encroachment is not significant.

In addition to the above statements, for those projects which do not involve regulatory floodways and do not support incompatible base floodplain development, the following positive statement can be added:

It has been determined, through consultation with local, state, and federal water resources and floodplain management agencies that there is no regulatory floodway involvement on the project and that the project will not support base floodplain development that is incompatible with existing floodplain management programs.

Figure 13-1 Floodplain Statements (Page 3 of 3)

LOCATION HYDRAULICS REPORT

Florida Department of Transportation
District X
Project Title
Limits of Project
County, Florida
Financial Management Number: XXXXX-X
ETDM Number: XXXXXX
Date

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

Figure 13-2 Sample Location Hydraulics Report Cover Page

PART 2, CHAPTER 14
COASTAL ZONE CONSISTENCY

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PART 2, CHAPTER 14

COASTAL ZONE CONSISTENCY

14.1 OVERVIEW

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

To resolve conflicts between competing uses in the nation's coastal zone, Congress passed the ***Coastal Zone Management Act (CZMA)*** in 1972. The ***CZMA*** sought to preserve, protect, develop, and where possible, restore and enhance the resources of the nation's coastal zone. In order to achieve its goal, Congress provided coastal states with incentives to encourage them to develop and implement comprehensive management programs which balance the need for coastal resource protection with the need for economic growth and development within the coastal zone.

The ***CZMA*** authorizes the federal government, through the Secretary of Commerce, to provide coastal states with grant-in-aid to assist with the development and implementation of their coastal management programs. Coastal states are first required to submit their management programs to the Secretary of Commerce's designee, the Director of the National Oceanic and Atmospheric Administration (NOAA), Office for Coastal Management for approval. When the state management program receives federal approval, ***Section 307*** of the ***CZMA*** provides the state with the ability to review federal activities within or adjacent to their coastal zone to determine whether the federal activity complies with the enforceable policies included in the state's approved management program.

Section 307 of the ***CZMA*** and its implementing regulations, ***15 Code of Federal Regulation (CFR) Part 930***, stipulate that all federal agency activities that affect any land or water use or natural resource of the coastal zone must be consistent, to the maximum extent practicable, with the enforceable policies of the state's federally approved management program. Federal licenses or permits, and federal financial assistance for activities affecting any land or water use or natural resource of the coastal zone are

required by ***Section 307*** to be fully consistent with the enforceable policies of state coastal management programs.

The ***Florida Coastal Management Act of 1978 [Chapter 380, Part II, Florida Statutes (F.S.)]*** authorized the state to develop a comprehensive state coastal management program based on existing statutes and rules. The Florida Coastal Management Program (FCMP) received federal approval on September 24, 1981. The Florida Department of Environmental Protection (FDEP) published a ***Florida Coastal Management Program Guide*** detailing information about the program.

The FCMP consists of a network of twenty-four statutes administered by nine state agencies and the five water management districts, designed to ensure the wise use and protection of the state's water, cultural, historic, and biological resources; to minimize the state's vulnerability to coastal hazards; to ensure compliance with the state's growth management laws; to protect the state's transportation system; and to protect the state's proprietary interest as the owner of sovereign submerged lands. ***Figure 14-1*** provides a list of statutes included in the FCMP. ***Figure 14-2*** lists the participating state agencies.

The State of Florida's review of federal activities for consistency with the ***CZMA*** is coordinated by FDEP, which serves as the lead agency for the FCMP. In accordance with ***Section 403.061(42), F.S.***, the FDEP serves as the state's single point of contact for performing the responsibilities described in ***Executive Order 12372 - Intergovernmental Review of Federal Programs***. FDEP uses the State Clearinghouse (SCH), which is located within FDEP, to facilitate the coordination process. Federal agencies and applicants are required by the FCMP to provide the SCH with a detailed description of proposed federal activities in accordance with ***15 CFR Part 930***. Proposed federal activities are distributed by the SCH to each FCMP member agency with a statutory interest in the activity (consistency reviewer). Comments provided by the FCMP agencies are used by FDEP to make a determination on behalf of the State of Florida regarding the consistency of a proposed federal action with the policies included in the FCMP.

14.1.1 Federal Consistency

As a member of the FCMP network, FDOT participates in the review of federal activities to ensure consistency with the FCMP statutes under its purview, and reviews federal activities within or adjacent to the state to ensure that the federal activity will not result in adverse impacts to the state transportation system, or FDOT's ability to perform its statutory functions. Individual federal actions are evaluated by FDOT for compliance with the applicable requirements of ***Chapter 334*** and ***Chapter 339, F.S***.

When FDOT is seeking federal funding, a determination of consistency with the FCMP may be required prior to the allocation of federal funds for the project depending on the project's Class of Action. If the project also requires a federal license or permit, a separate consistency review for federal licenses or permit applications may be required in accordance with ***15 CFR § 930, Subpart D*** and ***Section 380.23, F.S.*** Consistency reviews of projects which require permits from the U.S. Army Corps of Engineers (USACE) or the U.S. Coast Guard (USCG), or a state Environmental Resource Permit

are conducted during the permitting process. In accordance with ***Section 380.23, F.S.***, the issuance or denial of the state permit serves as the state's consistency decision for analogous USACE or USCG permits. Procedures governing the consistency review of state permits are included in ***Section 373.428, F.S***.

14.2 PROCEDURE

14.2.1 Projects Requiring a Consistency Review

Environmental Assessment (EA) and Environmental Impact Statement (EIS) projects are always, and Type 2 Categorical Exclusions (CEs) that are screened in the Environmental Screening Tool (EST), are subject to consistency review. State Environmental Impact Reports (SEIRs) do not require a federal consistency determination until time of permitting, if a permit is required. Federal consistency review is typically not required for Type 1 CE and Non-Major State Action projects. Federal consistency for these projects is completed at the time of project permitting if a permit is required.

14.2.2 Consistency Review with Advance Notification

For projects requiring the preparation of an Advance Notification (AN) Package, the District Efficient Transportation Decision Making (ETDM) Coordinator or Project Manager prepares the package in accordance with ***Part 1, Chapter 3, Preliminary Environmental Discussion and Advance Notification*** and the ***ETDM Manual, Topic No. 650-000-002***. The AN can occur during the Programming Screen or be processed separately before the Project Development and Environment (PD&E) Study. If done during screening, the completed AN package is emailed along with a Programming Screen Notice to the SCH and to each FCMP member agency with a statutory interest in the activity (consistency reviewer). The SCH may then forward the information to additional interested parties, if needed. The Federal Consistency Review Process in the EST can be found in the ***ETDM Manual, Topic No. 650-000-002***.

Issuance of the electronic notice for the Programming Screen begins a 45-calendar day comment period, to allow for the distribution, receipt, and discussion of agency responses consistent with the Programming Screen and federal consistency review. Upon notification by the District ETDM Coordinator/Project Manager, consistency reviewers are responsible for providing comments in the EST to ensure that the project complies with the statutes and requirements within their jurisdiction. Each state agency's consistency reviewer will also indicate whether the project is consistent with the FCMP.

The SCH has 15 days after receipt of all comments to complete the federal consistency review for the State of Florida. The SCH consolidates the consistency reviewers' comments, reviews the comments, and indicates a determination of the project's consistency with the FCMP in the EST. This consistency decision is based on the consistency comments, findings, or recommendations of all state agencies with a statutory interest in the project.

Should additional review time be required, a written request for a 15-day time extension must be submitted to the District ETDM Coordinator within the initial 45-day comment period. If more than a 30-day extension is required by the SCH, the project should be placed into issue resolution (***Section 14.2.4.1***) until the review is complete. The District shall not proceed with further project development before receiving a consistency determination.

FDEP's consistency determination is included in the ***Final Programming Screen Summary Report***. The Coastal Zone Consistency section of an EA, or EIS should reference this determination and include the following standard statement:

> *The State of Florida has determined that this project is consistent with the Florida Coastal Zone Management Program.*

The standard statement should also be included in the Final Environmental Impact Statement (FEIS) Executive Summary when applicable. The statement along with the date of determination is included on the ***Type 2 Categorical Exclusion Determination Form*** for projects that were reviewed by the SCH through the ETDM screening.

Whenever a project is determined to be inconsistent with the FCMP, a letter of inconsistency will be issued by the FDEP on behalf of the state. A finding of inconsistency must cite the section of the relevant statute under the reviewing agency's authority with which the project is inconsistent, and must identify actions that can be taken to resolve the conflict. However, prior to issuing a finding of inconsistency, the reviewing agency should immediately call the SCH if problems are identified. If any consistency reviewing agency indicates that the project is not consistent, this would trigger discussions with the SCH and possibly initiate the issue resolution process (see the ***ETDM Manual, Topic No. 650-000-002***). If an inconsistency letter is received, it is uploaded to the EST as support documentation for the project file.

If significant concerns are identified during the AN review, the District will be advised by FDEP of conditions of approval or the need for additional coordination. The SCH should be provided with project information of sufficient scope and detail to determine whether the project is consistent with the requirements of all applicable FCMP statutes. The requested project information should be provided as soon as the information becomes available. All issues or concerns identified during the AN review should be addressed. When ***NEPA*** documents are prepared for the project, a draft document may be used to provide the required data and information. If significant concerns are not identified during the review, additional coordination will not be required unless the nature, location, or scope of the project is substantially changed. The District is still required to comply with all conditions needed to ensure compliance with the FCMP.

14.2.3 Subsequent Consistency Review

Changes in a determination can come at any stage of project development. If after review of the AN for federal-aid projects that qualify for ETDM screening, a FCMP agency determines that the project is no longer consistent, the consistency determination may be modified.

14.2.4 Mediation of Determinations of Inconsistency

14.2.4.1 Mediation During Advance Notification

If a recommendation or determination of inconsistency with the FCMP is made by the SCH and its consistency reviewing agencies during AN, the project will go through the ETDM Issue Resolution Process, which is discussed in detail in the ***ETDM Manual, Topic No. 650-000-002***. The goal of the ETDM issue resolution process is to resolve conflicts at the agency staff level, providing as many opportunities for resolution as possible prior to elevation of the dispute within FDOT and the review agencies. Once the issue has been resolved, the issue resolution process will be documented in the EST. The ***EST Handbook*** provides additional guidance on tracking and documenting the issue resolution process.

14.2.4.2 Mediation During Subsequent Consistency Review

If a state agency determines that a project is inconsistent at a later stage of project development, the agency must provide FDEP with a written determination signed by the agency head or authorized designee which includes the following:

1. The specific statutes, rules, or regulations with which the project is in conflict; and

2. Provide for FDOT's consideration of suggested alternatives, if any, that would allow the project to be consistent with the FCMP.

Where an agency fails to identify the authority with which the project is in conflict, or the agency's objection is signed by an unauthorized individual, the determination will not form the basis of a finding of inconsistency by FDEP, the lead coastal management agency.

If FDEP receives a state agency objection or notice of a pending objection, FDOT will be advised of the basis for the objection. FDEP will work in consultation with the Governor's Office, FDOT, and the objecting agency to resolve the objection prior to the need for a formal state consistency decision. If the objection cannot be resolved, the FDEP will provide FDOT and the NOAA Office for Coastal Management with a state consistency objection letter in accordance with ***15 CFR Part 930***.

When FDOT receives a ***Letter of Inconsistency*** from FDEP, or when it is communicated via the Director level or above that a ***Letter of Inconsistency*** is anticipated, FDOT will not advance the project to the next development phase (Design) until an agreement,

allowing the objection to be lifted, is reached between the objecting agency and FDOT. The FDEP will mediate interagency disputes in an attempt to resolve conflicts. This mediation will be a tiered process, beginning with the interagency review group and continuing, if necessary, to the agency head.

If, after the FDEP mediation, an objecting agency continues to deem the project to be inconsistent, FDOT and/or the FDEP may refer the objection to the Governor for final determination in accordance with ***Section 380.23(2)(b), F.S.***

In the event of a disagreement between FDEP and FDOT regarding whether or not a federal assistance activity is subject to consistency review, FDOT may seek mediation by the Secretary of Commerce in accordance with ***15 CFR § 930.99***. In such cases, the procedures and time limits set forth in ***15 CFR § 930, Subpart G***, will apply.

14.3 REFERENCES

Chapter 334, F.S., Transportation Administration

Chapter 339, F.S., Transportation Finance and Planning

Chapter 380, Part II, F.S., Coastal Planning and Management

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

FDEP, Florida Coastal Management Program State Clearinghouse Manual. http://www.dep.state.fl.us/secretary/oip/state_clearinghouse/manual2.htm

FDEP, 2022. Florida Coastal Management Program Guide - A Guide to the Federally Approved Florida Coastal Management Program. https://floridadep.gov/sites/default/files/FCMP-Program-Guide-2022.pdf

FDOT, Efficient Transportation Decision Making (ETDM) Manual, Topic No. 650-000-002

FDOT, Environmental Screening Tool (EST) Handbook

Section 373.428, F.S., Federal Consistency

Title 15 CFR Part 930, Federal Consistency with Approved Coastal Management Programs

Title 16 United States Code 1456, Coordination and Cooperation

14.4 HISTORY

8/18/1999, 4/12/2011, 1/5/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 25, 1/14/2019, 7/1/2020, 7/1/2023

The enforceable policies of Florida's federally approved management program, the Florida Coastal Management Program, consist of the following Florida Statutes and their implementing regulations in the Florida Administrative Code. The authority derived from these statutes is applied by the state agencies charged with their implementation to ensure protection of Florida's coastal resources.

Chapter 161	Beach and Shore Preservation
Chapter 163, Part II	Intergovernmental Programs: Growth Policy; County and Municipal Planning; Land Development Regulation *Enforceable policy includes only Sections 163.3164; .3177(6)(a), (10)(h&l), & (11)(a&c); .3178(1) & (2)(d-j); .3180(2)(a-c), (5)(a&c), (6), & (8); .3194(1)(a); .3202(2)(a-h); and .3220(2)&(3)*
Chapter 186	State and Regional Planning
Chapter 252	Emergency Management
Chapter 253	State Lands *Section 253.61(1)(d) is not approved as enforceable policy*
Chapter 258	State Parks and Preserves
Chapter 259	Land Acquisitions for Conservation or Recreation
Chapter 260	Florida Greenways and Trails Act
Chapter 267	Historical Resources
Chapter 288	Commercial Development and Capital Improvements
Chapter 334	Transportation Administration
Chapter 339	Transportation Finance and Planning
Chapter 373	Water Resources
Chapter 375	Outdoor Recreation and Conservation Lands
Chapter 376	Pollutant Discharge, Prevention and Removal
Chapter 377	Energy Resources *Sections 377.06, .24(9), and .242(1)(a)5 are not approved as enforceable policy*
Chapter 379	Fish and Wildlife Conservation *Sections 379.2551 and .362 are not approved as enforceable policy*
Chapter 380	Land and Water Management *Section 380.23(3)(d)is not approved as enforceable policy*
Chapter 381	Public Health; General Provisions *Enforceable policy includes only Sections 381.001, .0011, .0012, .006, .0061, .0065, .0066, and .0067*
Chapter 388	Mosquito Control
Chapter 403	Environmental Control *Section 403.7125(2) and (3)are not approved as enforceable policy*
Chapter 553	Building Construction Standards *Enforceable policy includes only Sections 553.73 and .79*
Chapter 582	Soil and Water Conservation
Chapter 597	Aquaculture

Figure 14-1 Florida Coastal Management Program Statutes

Department of Economic Opportunity

Department of Environmental Protection

Department of Agriculture and Consumer Services

Department of Health

Department of State, Division of Historical Resources

Department of Transportation

Fish and Wildlife Conservation Commission

Florida Division of Emergency Management

Florida Department of Business and Professional Regulation, Florida Building Commission

Northwest Florida Water Management District

St. Johns River Water Management District

South Florida Water Management District

Southwest Florida Water Management District

Suwannee River Water Management District

Figure 14-2 Florida Coastal Management Program Agencies

PART 2, CHAPTER 15

COASTAL BARRIER RESOURCES

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COASTAL BARRIER RESOURCES

15.1 OVERVIEW

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

This chapter contains the procedures to determine whether a FDOT project is subject to the provisions of the ***Coastal Barrier Resources Act of 1982 (CBRA)*** which was later amended by the ***Coastal Barrier Improvement Act (CBIA) of 1990***, collectively "the Acts", found at ***16 U.S.C. §§ 3501-3510***. The chapter also details the coordination, consultation and documentation required to ensure compliance with the Acts. This chapter is only applicable to federally funded projects.

In 1982, the ***CBRA*** was signed into law ***(Pub. L. 97-348)***, to preserve the ecological integrity of areas that serve to buffer the U.S. mainland from storms and provide important habitats for fish and wildlife by prohibiting federal expenditures for the development of designated undeveloped coastal barriers and their associated aquatic habitat, including wetlands, estuaries, and inlets. The ***CBRA*** and ***CBIA*** required the U.S. Department of the Interior (USDOI) to establish the Coastal Barrier Resource System (CBRS) creating designated "units" or areas that fall under this protection. Maps showing the unit locations can be found on the U.S. Fish and Wildlife Service (USFWS) website (see ***Section 15.3*** for website). The ***CBRA*** also contains exceptions, described in ***Section 15.1.2.1***, to allow the use of federal funds on certain projects.

Three goals of the ***CBRA*** are to:

1. Minimize loss of human life by discouraging development in high risk areas;
2. Reduce wasteful expenditure of federal resources; and
3. Protect the natural resources associated with coastal barriers.

The ***CBRA*** accomplishes these goals by restricting federal expenditures and financial assistances which have the effect of encouraging development of coastal barriers, by establishing the CBRS, and by considering the means and measures by which the long-term conservation of these fish, wildlife, and other natural resources may be achieved.

15.1.1 Types of Coastal Barrier Resources

The ***CBRA*** defines an "undeveloped coastal barrier" as:

> (A) a depositional geologic feature (such as a bay barrier, tombolo, barrier spit, or barrier island) that–
>
> (i) consists of unconsolidated sedimentary materials,
>
> (ii) is subject to wave, tidal, and wind energies, and
>
> (iii) protects landward aquatic habitats from direct wave attack; and
>
> (B) all associated aquatic habitats, including the adjacent wetlands, marshes, estuaries, inlets, and nearshore waters; but only if such feature and associated habitats contain few manmade structures and these structures, and man's activities on such feature and within such habitats, do not significantly impede geomorphic and ecological processes.

Types of coastal barriers include:

1. **Bay barriers** – Coastal barriers that connect two headlands, and enclose a pond, marsh, or other aquatic habitat.

2. **Tombolos** – Sand or gravel beaches that connect offshore islands to each other or to a mainland.

3. **Barrier spits** – Coastal barriers that extend into open water and are attached to the mainland at only one end.

4. **Barrier islands** – Coastal barriers completely detached from the mainland.

The ***CBIA*** amended the ***CBRA*** by adding units to the CBRS and establishing a category identified as Otherwise Protected Areas (OPAs). OPAs are undeveloped coastal barriers within the boundaries of conservation lands, such as those reserved as wildlife refuges, parks, or areas for other conservation purposes. New construction within OPAs cannot receive federal flood insurance unless it conforms to the purposes for which the area is protected. No other restrictions are placed on federal expenditures in these areas.

In Florida, CBRS units (i.e. specific coastal barriers) have been designated along the Atlantic and Gulf Coasts. The USFWS issues maps identifying the boundaries of

CBRS units and OPAs. These maps can be found on the USFWS website (see ***Section 15.3*** for website).

15.1.2 Limitations on Federal Expenditures

The ***CBRA*** restricts most federal or financial assistance for development within the boundaries of designated coastal barrier units, except for OPAs identified on maps of the System. The ***CBRA*** defines financial assistance as "any form of loan, grant, guaranty, insurance, payment, rebate, subsidy, or any other form of direct or indirect federal assistance." ***Section 5*** of the ***CBRA (16 U.S.C. § 3504)*** provides that no new expenditures or new financial assistance may be made available under authority of any federal law for any purpose within the CBRS, including, but not limited to:

1. Construction or purchase of any structure, appurtenance, facility, or related infrastructure;

2. Construction or purchase of any road, airport, boat landing facility, or other facility on, or bridge or causeway toa CBRS unit;

3. Assistance for erosion control or stabilization of any inlet, shoreline, or inshore area, except in certain emergencies.

15.1.2.1 Exceptions to Limitations on Federal Expenditures

Exceptions to the prohibition on financial assistance are provided in ***Section 6*** of the ***CBRA (16 U.S.C. § 3505)***.

A federal expenditure is allowable within CBRS units if it meets the exceptions in ***16 U.S.C. § 3505(a)(1)-(5)***. Those applicable to FDOT include:

- Maintenance or construction of improvements to existing federal navigation channels (including the Intracoastal Waterway) and related structures (such as jetties), including disposal of dredge materials related to such maintenance or construction.

- The maintenance, replacement, reconstruction, or repair, but not the expansion, of publicly owned or publicly operated roads, structures, or facilities that are essential links in a larger network or system.

- Construction, operation, maintenance, and rehabilitation of U.S. Coast Guard (USCG) facilities and access to them.

A federal expenditure is allowable within CBRS units if it meets the exceptions in ***16 U.S.C. § 3505(a)(6)(A)-(G)*** and is also consistent with the three goals of the ***CBRA***. Those applicable to FDOT include:

- Projects for the study, management, protection, and enhancement of fish and wildlife resources and habitats, including acquisition of fish and

wildlife habitats, and related lands, stabilization projects for fish and wildlife habitats, and recreational projects.

- Scientific research, including aeronautical, atmospheric, space, geologic, marine, fish and wildlife, and other research, development, and applications.

- Maintenance, replacement, reconstruction, or repair, but not the expansion (except for U.S. Highway 1 in the Florida Keys) of publicly owned or publicly operated roads, structures, or facilities; (All highways on the federal network are essential links in a larger network or system).

- Nonstructural projects for shoreline stabilization that are designed to mimic, enhance, or restore a natural stabilization system.

15.1.3 Consultation Overview

For projects which may qualify for exception under ***Section 6*** of ***CBRA***, the consultation requirements described in the Advisory Guidelines contained in the ***48 Federal Register (FR) 45664, 10/06/1983***, must be satisfied. Under these guidelines, the USFWS must be consulted with and allowed to comment on the proposed action prior to commitment of federal funds. The USFWS will provide comments and determine if the federal action is consistent with the ***CBRA***. Consultation with USFWS is **not required** in areas identified as OPAs.

Projects which are not eligible for federal funding under ***Section 5*** of the ***CBRA*** are either removed from FDOT's Work Program or assigned for state or local funds. This determination occurs during the Planning phase (see ***Section 15.2***).

For other projects that are within, or in the vicinity of a coastal barrier resource, the consultation process is completed during the project development phase as described in this chapter. The consultation process is shown in ***Figure 15-1***.

15.2 PROCEDURE

The following procedures apply to Type 2 Categorical Exclusions (Type 2 CEs), Environmental Assessments (EAs), and Environmental Impact Statements (EISs), (***Part 1, Chapter 2, Class of Action Determination for Federal Projects***).

Since funding for a project can be rescinded by Lead Federal Agencies, it is necessary to determine, as early as possible, whether a project is located within, or in the vicinity of, a coastal barrier resource designated under the ***CBRA***. This determination should be made during the Planning and/or Programming Screens of the Efficient Transportation Decision Making (ETDM) process (***ETDM Manual, Topic No.650-000-002***).

15.2.1 Determining if Provisions of Coastal Barrier Resources Act Apply

The first step is for the District to determine if a project is subject to provisions of the ***CBRA***. During the development of the Preliminary Environmental Document (PED), the District should review the CBRS unit maps and include its initial evaluation of coastal barrier involvement for the project (***Part 1, Chapter 3, Preliminary Environmental Discussion and Advance Notification***).The results of the Geographical Information System (GIS) analysis for the ***CBRA*** data layer should be reviewed and discussed in the PED. The unit type on ***CBRA*** data layer's metadata should identify whether the area is an OPA or CBRS unit. OPAs are denoted on the unit number with a **P** after the CBRS number (e.g., FL-03**P**, P31**P**). During the screening events, the Environmental Technical Advisory Team (ETAT) will review the PED and available GIS layers in the Environmental Screening Tool (EST). At the end of the Programming Screen, the District should review the information published in the ***Programming Screen Summary Report*** with attention to any ETAT comments and degree of effect determinations for the Coastal and Marine issue. Comments by USFWS are especially important. If a proposed project is in the vicinity of or leads directly to a designated coastal barrier resource unit that is not otherwise identified as an OPA, then consultation is required with the USFWS.

If the District determines that the project is neither in the vicinity of nor leads directly to a designated coastal barrier resource unit, then no additional documentation is required other than a statement indicating that the coastal barrier resource data layer or maps were reviewed and no resources were identified within the project area.

For projects along coastal areas where the provisions of the ***CBRA*** could apply but following the appropriate review it has been determined that there is no CBRS involvement, add the following or similar statement to the Coastal Barrier Resources section of the Environmental Document:

> It has been determined that this project is neither in the vicinity of, nor leads directly to a designated coastal barrier resource unit pursuant to the ***Coastal Barrier Resources Act of 1982 (CBRA)*** and the ***Coastal Barrier Improvement Act of 1990 (CBIA)***.

For projects that are not along coastal areas, the Environmental Document does not require this statement.

If the District determines that the project is in the vicinity of or leads directly to a designated coastal barrier resource unit then the USFWS must be consulted as required in ***Section 15.2.2***. Documentation of this coordination is included in the Environmental Document according to ***Section 15.2.3***. Consultation with USFWS is not required for projects designated as OPA units.

15.2.2 Consultation Requirements

The District is responsible for preparing the following:

1. A transmittal letter, which includes the following statement:

   The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

2. A description of the proposed action.

3. A map showing the project location, the CBRS unit(s), and a reference to the appropriate CBRS unit map (see link under ***Section 15.3***).

This information is sent to the local field office of the USFWS with a copy to the District's USFWS ETAT representative. See ***Figure 15-2*** to determine the appropriate field office and mailing address.

The subject line of the transmittal letter should contain the project's ETDM Number, Financial Management Number, and Federal-Aid Project Number (if available). A statement should be made to the effect that:

> This project information package is being provided to you to initiate consultation in compliance with the ***Coastal Barrier Resources Act (CBRA)***. The subject project and its relationship to a federally-designated coastal barrier resource is described in this package.
>
> Please review the attached information and provide the District Environmental Engineer/Manager a written opinion regarding whether the project meets the exception under ***Section 6*** of ***CBRA*** within thirty (30) calendar days.

The USFWS has developed a ***Template for Interagency CBRA Consultation*** to facilitate this process.

15.2.3 Documentation in Environmental Document

Documentation in Type 2 CEs, EAs, and EISs is necessary if the project is subject to the consultation requirements of the ***CBRA***.

For Type 2 CEs – The consultation process and final determination should be briefly summarized in the ***Type 2 Categorical Exclusion Determination Form*** as appropriate based on the outcome of the consultation. Include any letters from the USFWS concerning Coastal Barrier Resources as an attachment, if applicable. The

correspondence and other documents developed during the consultation process should be contained in the project file in SWEPT and referenced in the ***Type 2 Categorical Exclusion Determination Form***. It is recommended that these documents be placed within the Costal Barrier Resources folder within SWEPT.

For an EA or EIS – The consultation process and final determination should be summarized in the Coastal Barrier Resources subsection of the Environmental Analysis section. The correspondence and other documents developed during the consultation process should be referenced and contained in the Appendix.

15.2.4 Emergency Consultation

In cases where emergency repairs may affect Coastal Barrier Resources, consultation with the USFWS is not required where an emergency threatens life, land, and property immediately adjacent to a CBRS unit ***[16 U.S.C. 3504(a)(3)]***. In this case an email notification of the activity occurring under this exemption may be emailed to ***cbra@fws.gov.*** Related emergency action correspondence is discussed in the Environmental Document and uploaded into the SWEPT project file. Permanent repairs must follow the appropriate consultation for the ***CBRA*** outlined in ***Section 15.2***.

15.3 REFERENCES

Coastal Barrier Improvement Act of 1990

Coastal Barrier Resources Act of 1982

Coastal Barrier Resources Reauthorization Act of 2000

Coastal Barrier Resources Reauthorization Act of 2005

FR, 1982. Coastal Barrier Resources Act; Delineation Criteria. FR Vol. 47, No. 158

FR, 45664, 08/06/1983

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

Public Law 97-348 – October 18, 1982

Title 16 U.S.C. §§ 3501-3510, Coastal Barrier Resources. https://uscode.house.gov/view.xhtml?path=/prelim@title16/chapter55&edition=prelim

USFWS website link to CBRS unit maps.
https://www.fws.gov/library/collections/coastal-barrier-resources-system-maps-florida

USFWS website link to CBRA consultation (including the Template for Interagency CBRA Consultation). https://www.fws.gov/service/coastal-barrier-resources-act-project-consultation

15.4 HISTORY

8/18/2000, 2/1/2011, 7/15/2016, 7/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 26, 1/14/2019, 7/1/2020, 7/1/2023

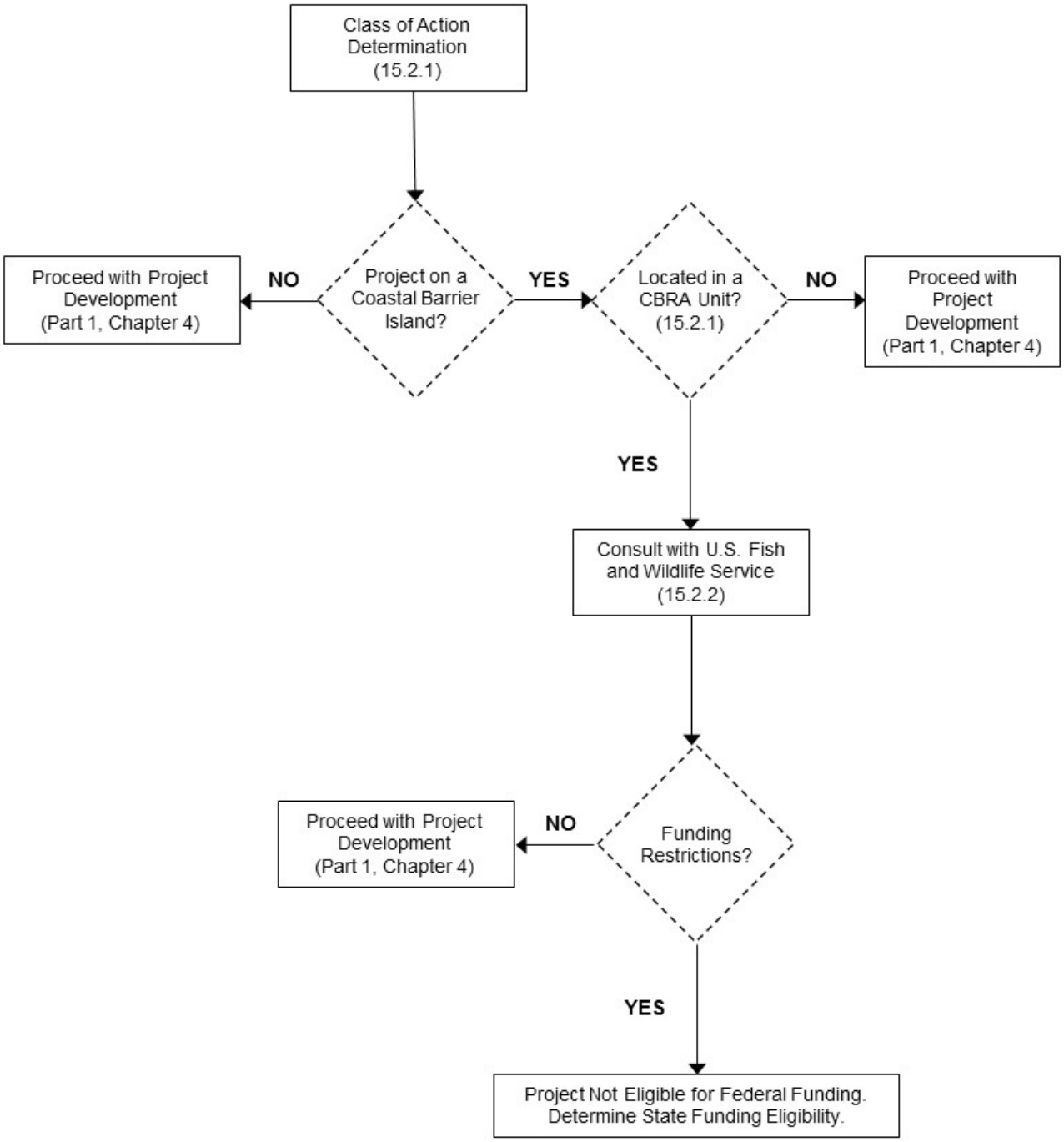

Figure 15-1 Coastal Barrier Resources Act Consultation Process

Vero Beach

[FDOT Districts 1, 4, 5, 6 (Osceola Co. only)]
CBRA Consultation
South Florida Ecological Services Field Office
1339 20th Street
Vero Beach, FL 32960
Phone: (772) 562-3909
Fax: (772) 562-4288
https://www.fws.gov/office/florida-ecological-services/visit-us/locations/vero-beach-branch-office

Panama City

(FDOT District 3)
CBRA Consultation
Panama City Ecological Services Field Office
1601 Balboa Avenue
Panama City, FL 32405
Phone: (850) 769-0552 x232
Fax: (850) 763-2177
https://www.fws.gov/office/florida-ecological-services/visit-us/locations/panama-city-branch-office

Jacksonville

[FDOT Districts 1, 2, 5, 7 (Manatee Co. only)]
CBRA Consultation
North Florida Ecological Services Field Office
7915 Baymeadows Way, Suite 200
Jacksonville, FL 32256-7517
Phone: (904) 731-3336
Fax: (904) 731-3045
https://www.fws.gov/office/florida-ecological-services/visit-us/locations/jacksonville-branch-office

Figure 15-2 United States Fish and Wildlife Service Contacts

PART 2, CHAPTER 16

PROTECTED SPECIES AND HABITAT

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PART 2, CHAPTER 16

PROTECTED SPECIES AND HABITAT

16.1 OVERVIEW

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

16.1.1 Purpose and Use

This chapter provides procedures for determining effects of transportation projects on protected species and habitat. The chapter also provides guidance on coordinating with natural resource agencies to ensure compliance with the ***Endangered Species Act (ESA) of 1973***, as amended, and the ***Florida Endangered and Threatened Species Act, Section 379.2291, Florida Statutes (F.S.)***. The term protected species is used throughout this chapter as a general term for species that are protected by law, regulation, or rule. When the term listed species is used, it refers to species that are identified as threatened or endangered at the federal or state level. This chapter also provides guidance on documenting protected species and habitat impacts, coordination with natural resource agencies, and related commitments. Guidance on consultation with natural resource and regulatory agencies, documentation, and procedures during Design (permitting) and Construction phases, as well as emergency consultation with resource agencies is also provided.

16.1.2 Definitions

Action agency – Any department or agency of the United States proposing to authorize, fund, or carry out an action under existing authorities (***Endangered Species Glossary***).

Action area - All areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action [***50 Code of Federal Regulations (CFR) § 402.02***].

Adverse modification (or destruction) of critical habitat - A direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species (***50 CFR § 402.02***).

Affect/Effect - To affect (a verb) is to bring about a change ("The proposed action is likely to adversely affect piping plovers nesting on the shoreline"). The effect (usually a noun) is the result ("The proposed highway is likely to have the following effects on the Florida scrub jay"). "Affect" appears throughout ***Section 7*** regulations and documents in the phrases "may affect" and "likely to adversely affect." "Effect" appears throughout ***Section 7*** regulations and documents in the phrases "adverse effects," "beneficial effects," "discountable effects", "effects of the action," and "no effect".

Biological Assessment (BA) - Information prepared by, or under the direction of, a Lead Federal Agency to determine whether a proposed action is likely to: (1) adversely affect listed species or designated critical habitat; (2) jeopardize the continued existence of species that are proposed for listing; or (3) adversely modify proposed critical habitat. ***BAs*** must be prepared for "major construction activities". The outcome of the ***BA*** determines whether formal consultation or a conference opinion is necessary (***50 CFR § 402.02, 50 CFR § 402.12***).

Biological Opinion (BO) - Document which includes: (1) the opinion of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) as to whether a federal action is likely to jeopardize the continued existence of listed species, or result in the destruction or adverse modification of designated critical habitat; (2) a summary of the information on which the opinion is based; and (3) a detailed discussion of the effects of the action on listed species or designated critical habitat [***50 CFR § 402.02, 50 CFR § 402.14(h)***].

Candidate species - Plant and animal taxa considered for possible addition to the List of Endangered and Threatened Species pursuant to the ***ESA***. These are taxa for which USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions [***61 Federal Register (FR) 7596-7613 (February 28, 1996)***].

Compensatory Mitigation - Serves to compensate for unavoidable impacts to species or habitat by replacing or providing substitute resources having similar functions of equal or greater ecological value.

Conference - Process of early interagency cooperation involving informal or formal discussions between a federal agency and USFWS or NMFS pursuant to ***Section 7(a)(4)*** of the ***ESA*** regarding the likely impact of an action on proposed species or proposed critical habitat. Conferences are: (1) required for proposed federal actions likely to jeopardize the continued existence of a proposed species, or destroy or adversely modify proposed critical habitat; (2) designed to help federal agencies identify and resolve potential conflicts between an action and species conservation early in a project's planning; and (3) designed to develop recommendations to minimize or avoid adverse

effects to proposed species or proposed critical habitat (***50 CFR § 402.02, 50 CFR § 402.10***).

Conservation measures - Actions to benefit or promote the recovery of listed species that are included by the federal agency as an integral part of the proposed action. These actions will be taken by the resource agency or applicant and serve to minimize or compensate for project effects on the species under review. These may include actions taken prior to the initiation of consultation, or actions which the federal agency or applicant have committed to complete in a ***BA*** or similar document.

Conservation recommendations - The Service(s)'s non-binding suggestions resulting from formal or informal consultation that: (1) identify discretionary measures a federal agency can take to minimize or avoid the adverse effects of a proposed action on listed or proposed species, or designated or proposed critical habitat; (2) identify studies, monitoring, or research to develop new information on listed or proposed species, *or* designated or proposed critical habitat; and (3) suggestions on how an action agency can assist species conservation as part of its action and in furtherance of the authorities under ***Section 7(a)(1)*** of the ***ESA; 50 CFR § 402.02***.

Constituent elements - Designated or proposed critical habitat essential to the conservation of the species. Takes into consideration both physical and biological features, including, but not limited to: (1) space for individual and population growth, and for normal behavior; (2) food, water, air, light, minerals, or other nutritional or physiological requirements; (3) cover or shelter; (4) sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and (5) habitats that are protected from disturbance or are representative of the historic geographic and ecological distributions of a species as prescribed by ***50 CFR § 424.12(b)***. **Primary constituent elements** are specific elements of physical or biological features that provide for a species' life history processes and are essential to species conservation.

Critical habitat - For listed species consists of: (1) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of ***Section 4*** of the ***ESA***, on which are found those physical or biological features (constituent elements) (a) essential to the conservation of the species and (b) which may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of ***Section 4*** of the ***ESA***, upon a determination by the Secretary that such areas are essential for the conservation of the species ***(16 U.S.C. § 1532-1533)***. Designated critical habitats are described in ***50 CFR § 17 and § 226***.

Effects of the action – All consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (***50 CFR § 402.02***).

Environmental baseline – Refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The past and present impacts of all federal, state, or private actions and other human activities in an action area, the anticipated impacts of all proposed federal projects in an action area that have already undergone formal or early ***Section 7*** consultation, and the impact of state or private actions that are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline (***50 CFR § 402.02***).

Essential Fish Habitat (EFH) - Those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. For the purpose of interpreting the definition of essential fish habitat: "Waters" include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; "substrate" includes sediment, hard bottom, structures underlying the waters, and associated biological communities; "necessary" means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and "spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle. EFH is described in ***Fishery Management Plans*** and is approved by the Secretary of Commerce acting through the National Oceanic and Atmospheric Administration (NOAA) Fisheries (***50 CFR § 600.10***).

Formal consultation - A process between USFWS or NMFS and a federal agency or applicant that: (1) determines whether a proposed federal action is likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat; (2) begins with a federal agency's written request and submittal of a complete initiation package; and (3) concludes with the issuance of a biological opinion and incidental take statement by either USFWS or NMFS. If a proposed federal action may affect a listed species or designated critical habitat, formal consultation is required (except when USFWS or NMFS concur, in writing, that a proposed action "may affect, is not likely to adversely affect" listed species or designated critical habitat) (***50 CFR § 402.02, 50 CFR § 402.14***).

Findings - A determination made by the lead agency on the level of impact a proposed action has on a resource. This determination is derived from all known information including coordination/consultation with the resource/regulatory agency.

Incidental take (federal) - Take of listed fish or wildlife species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by a federal agency or applicant, or contractors working on behalf of the applicant (***50 CFR § 402.02***).

Incidental Take (state) - Any taking otherwise prohibited, if such taking is incidental to, and not the purpose of the carrying out of an otherwise lawful activity [***Chapter 68A-27.001(5), Florida Administrative Code, (F.A.C.)***].

Incidental Take Statement (federal) - The part of a non-jeopardy ***BO*** that estimates the amount or extent of incidental take of listed species anticipated from the action subject to consultation as authorized under ***50 CFR § 402.14(i)*** and the resulting incidental take will not violate ***ESA Section 9 (16 U.S.C. § 15.38)*** take prohibitions.

Indirect effects - Those effects that are caused by or will result from the proposed action and are later in time, but are still reasonably certain to occur ***(USFWS and NMFS, 1998)***.

Informal consultation - An optional process that includes all discussions and correspondence between the Service(s) and a federal agency or designated non-federal representative, prior to formal consultation, to determine whether a proposed federal action may affect listed species or critical habitat. This process allows the federal agency to utilize the Services expertise to evaluate the agency's assessment of potential effects or to suggest possible modifications to the proposed action which could avoid potentially adverse effects. Upon receipt of a written request for concurrence, the Service shall provide written concurrence or non-concurrence within 60 days. If a proposed federal action may affect a listed species or designated critical habitat, formal consultation is required (except when USFWS or NMFS concur, in writing, that a proposed action "may affect, is not likely to adversely affect" listed species or designated critical habitat) (***50 CFR § 402.02, 50 CFR § 402.13***).

Jeopardize the continued existence of - To engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (***50 CFR § 402.02***).

Listed species (federal) - Any species of fish, wildlife or plant which has been determined to be endangered or threatened under ***Section 4*** of the ***ESA***. Listed species are found in ***50 CFR § 17.11-17.12*** (***50 CFR § 402.02***).

Listed species (state) - Animal species listed as state-designated threatened by the Florida Fish and Wildlife Conservation Commission (FWC) in ***Chapter 68A-27, F.A.C.***; plant species listed by the state as Endangered, Threatened, or Commercially Exploited on the ***Regulated Plant Index (5B-40.0055, F.A.C.)***.

Major Construction Activity - A construction project (or other undertaking having similar physical impacts) which is a major federal action significantly affecting the quality of the human environment as referred to in the ***NEPA, [42 U.S.C. § 4332(2)(C), 50 CFR § 402.02]***. Under ***NEPA*** major construction activities require Environmental Impact Statements.

May affect - The appropriate conclusion when a proposed action may pose **any** effects, detrimental or beneficial on listed species or designated critical habitat. May affect includes both “may affect not likely to adversely affect” and “may affect, likely to adversely affect” determinations. A determination of “may affect” without a “not likely to adversely affect” or “likely to adversely affect” determination should not be submitted to the Service(s) as a finding ***(USFWS and NMFS, 1998)***.

May affect, not likely to adversely affect - The appropriate conclusion when effects on listed species are expected to be discountable, insignificant, or completely beneficial. “Beneficial effects” are contemporaneous positive effects without any adverse effects to the species. “Insignificant effects” relate to the size of the impact and should never reach the scale where a take occurs. “Discountable effects” are those extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur ***(USFWS and NMFS, 1998)***.

May affect, likely to adversely affect - The appropriate finding in a ***BA*** (or conclusion during informal consultation) if any adverse effect to listed species may occur as a direct or indirect result of the proposed action or its interrelated actions or interdependent actions, and the effect is not: discountable, insignificant, or beneficial (see definition of "may affect, not likely to adversely affect"). In the event the overall effect of the proposed action is beneficial to the listed species, but is also likely to cause some adverse effects, then the proposed action "is likely to adversely affect" the listed species. If an incidental take is anticipated to occur as a result of the proposed action, a "may affect, is likely to adversely affect" determination should be made. A "may affect, is likely to adversely affect" determination requires the initiation of formal ***Section 7*** consultation ***(USFWS and NMFS, 1998)***.

Natural Resources Evaluation (*NRE*) - An FDOT technical report that provides documentation of protected species and habitat, wetland, and EFH issues to supplement the Environmental Document. The ***NRE*** may be sent to USFWS or NMFS to serve as a ***BA*** when necessary, but also includes information on state listed species and other protected species and habitat.

No effect - The appropriate conclusion when the action agency determines its proposed action will not affect a listed species or designated critical habitat (e.g., no effect whatsoever, neither detrimental nor beneficial). Concurrence from USFWS or NMFS is not required (***USFWS and NMFS, 1998***).

Primary constituent element – see Constituent Element definition.

Proposed critical habitat - Habitat proposed in the ***FR*** to be designated as critical habitat, or habitat proposed to be added to an existing critical habitat designation, under ***Section 4*** of the ***ESA*** for any listed or proposed species (***50 CFR § 402.02***).

Proposed species - Any species of fish, wildlife or plant that is proposed in the ***FR*** to be listed under ***Section 4*** of the ***ESA*** (***50 CFR § 402.02***).

Protected species - In this chapter this term is used for species that are protected by federal or state regulations such as the ***ESA***, ***Migratory Bird Treaty Act of 1918***, ***Marine Mammal Protection Act of 1972***, ***F.S.***, ***F.A.C.***, etc.

Reasonable and prudent alternatives - Alternative actions identified during formal consultation that can be implemented in a manner consistent with the intended purpose

of the action, that can be implemented consistent with the scope of the federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that USFWS or NMFS believe would avoid the likelihood of jeopardizing the continued existence of listed species or the destruction or adverse modification of designated critical habitat. These are applicable only when the Service determines an action is likely to result in jeopardy or adverse modification (***50 CFR § 402.02***).

Reasonable and prudent measures - Actions the Service(s)'s Director believes necessary or appropriate to minimize the impacts, i.e., amount or extent, of incidental take (***50 CFR § 402.02)***. These measures are considered nondiscretionary (mandatory) if a jeopardy or adverse modification opinion is to be avoided.

Service(s) - USFWS or NMFS (or both).

Take (federal) - To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct **[*16 U.S.C. § 1532(19)*]**. "Harm" is further defined by USFWS to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. "Harass" is defined by USFWS as intentional or negligent acts or omissions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering (***50 CFR § 17.3***).

Take (State) - To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct **(*Chapter 68A-27, F.A.C.*)**. The term "harm" in the definition of take means an act which actually kills or injures fish or wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. The term "harass" in the definition of take means an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding or sheltering.

Technical Assistance – any coordination between FDOT and the Service(s) outside of defined Section 7 consultation procedures, primarily when FDOT is not the action agency.

Technical memo - A brief memorandum documenting the species evaluation for projects with little to no impacts to protected species and habitat and do not require consultation with the Service(s) or coordination with FWC or the Florida Department of Agriculture and Consumer Services (FDACS).

16.1.3 Legislative Authority

Section 7(a)(2) of the ***ESA (16 U.S.C. § 1536)*** requires federal agencies to consult with USFWS or the NMFS, as appropriate, to ensure that federally funded or authorized actions are not likely to jeopardize the continued existence of federally endangered or threatened species, or result in the destruction or adverse modification of designated

critical habitat. The term “critical habitat” has a specific legal meaning and is a term defined and used in the ***ESA (16 U.S.C. § 1532)***. It pertains to specific geographic areas that contain features essential to the conservation of threatened or endangered species and may require special management and protection ***(USFWS, 2013)***. Generalized maps and detailed legal descriptions of critical habitat can be obtained through USFWS and/or ***Federal Register (FR)*** notices.

The Secretary of the U.S. Department of Interior (DOI), acting through USFWS, and the Secretary of the U.S. Department of Commerce, acting through NMFS, hereinafter referred to as the Services, are mandated to protect and conserve all forms of wildlife, plants, and marine life they find in serious jeopardy. In general, USFWS coordinates ***ESA*** activities for terrestrial and freshwater species and NMFS coordinates ***ESA*** activities for marine and anadromous species. Consultation responsibilities are shared for some species, (e.g., marine sea turtles and the anadromous Gulf sturgeon) which may be present in different habitats depending on the season or their life cycle stage.

Amendments to the ***ESA*** in 1978, 1979 and 1982 changed the consultation requirements of ***Section 7*** and established the implementing regulations (***50 CFR Part 402***). These procedures allow federal agencies to consolidate ***Section 7*** requirements with interagency cooperation procedures required by other statutes, such as ***NEPA*** (***42 U.S.C. 4321 et seq.***). ***Section 7*** requirements are met through the environmental review process, ***NEPA*** and environmental permitting.

Section 404 of the ***Clean Water Act of 1972 (CWA)*** regulates the discharge of dredged or fill material into waters of the United States. The Environmental Protection Agency (EPA) provides oversight of the ***Section 404*** program and policies, while the U.S. Army Corps of Engineers (USACE) administers the day-to-day program and is responsible for federal wetland determinations and wetland permitting. ***Section 404(g)*** of the ***CWA*** gives States [Florida Department of Environmental Protection (FDEP)] the option of assuming administration of the ***Section 404*** permit program pertaining to dredge and fill activities within waters of the United States. See ***Part 1, Chapter 12, Environmental Permits*** for more information. Impacts to wetlands and other surface waters provide a “nexus” for involvement of the Services as cooperating federal agencies, where the Services advise the USACE or other Lead Federal Agency on the potential for permitted actions to affect federally listed species and their habitat. See ***Section 16.3.3.3*** for more information on permitting.

Section 9 of the ***Rivers and Harbors Act of 1899*** and the ***General Bridge Act of 1946*** gives the U.S. Coast Guard (USCG) the regulatory authority to prevent interference of navigable waters by bridges or other obstructions. The USCG approves the location, plans, and navigable clearances of bridges through the issuance of bridge permits or bridge permit amendments. Bridge permits issued by the USCG also provide a “nexus” for involvement of the Services as cooperating federal agencies, where the Services advise the USCG on the potential for permitted actions to affect federally listed species and their habitat.

The USACE and/or USCG may be required to prepare ***NEPA*** documents for permit

issuance and may participate as a cooperating agency on a transportation project. As cooperating agencies, USACE and USCG routinely adopt FDOT's ***NEPA*** document for projects for which they provide federal permits under ***Section 404*** of the ***CWA*** or ***Section 9*** of the ***Rivers and Harbors Act of 1899***.

When two or more federal agencies are involved in an activity affecting listed species or critical habitat, one agency is designated as the lead (***50 CFR § 402***), often based on which agency has the principal responsibility for the project (***USFWS and NMFS, 1998***). For transportation projects where FDOT is preparing the ***NEPA*** document during Project Development and Environment (PD&E), FDOT serves as the Lead Federal Agency and is responsible for consulting with the Service(s) for potential impacts to listed species and critical habitat. For transportation projects where FDOT is not preparing a ***NEPA*** document, [e.g., Non-Major State Action (NMSA) or State Environmental Impact Report (SEIR)] the ***Section 7*** consultation will not be conducted until permitting and the USACE or USCG is the lead agency; however, FDOT can coordinate with the Service(s) for Technical Assistance during PD&E or prior to permitting.

Just as the federal agencies oversee the protection of certain species and resources, the Florida Constitution establishes the FWC, ***Article IV, Section 9, Fla. Const.***, entrusted to "exercise the regulatory and executive powers of the state with respect to wild animal life and fresh water aquatic life, and . . . marine life." These powers and duties are further carried out through the legislative directives enacted in ***Chapter 379, F.S.***, and embodied in the implementing regulations adopted in ***Chapter 68, F.A.C***. Similarly, FDACS oversees the protection of native plants through ***Chapter 5B-40, F.A.C.***

16.1.4 Protected Species and Habitat Evaluation Process Summary

Figure 16-1 provides a flow chart of the protected species and habitat evaluation process. Involvement with protected species and wildlife habitat is evaluated for transportation projects regardless of whether the project is required to meet ***NEPA*** or state requirements. Similarly, this evaluation should take place regardless of Class of Action (COA) or whether the project qualifies for screening through the Efficient Transportation Decision Making (ETDM) process. See ***Part 1, Chapter 2, Class of Action Determination for Federal Projects***, for project types qualifying for ETDM screening. ***Section 16.3.1.1*** provides guidance for documenting protected species and habitat evaluation for projects not qualifying for ETDM screening.

For projects that qualify for screening, species and habitat evaluation begins during the Planning or Programming Screen as explained in ***Part 1, Chapter 3, Preliminary Environmental Discussion and Advance Notification***. As part of the screening event, the District requests an official species list from the Service(s) Environmental Technical Advisory Team (ETAT) members and a list from the FWC ETAT members for state listed, or other protected species.

The District first reviews information from the ***Programming Screen Summary Report***, then gathers information from various sources to aid in the determination of potential involvement with a federally listed threatened or endangered species, proposed

threatened or endangered species, or designated or proposed critical habitat (***Section 16.3.1.2.1***) within the action area. Information should also be collected on state listed species, habitat connectivity, areas that are ecologically important, and species that are otherwise protected by regulation. This information is field verified during project development and then evaluated to determine the effects of the proposed action to each species and habitat. This evaluation on protected species and habitats is compiled into an ***NRE***, or technical memo when appropriate, and submitted to federal and state agencies for concurrence and/or review (see the ***Natural Resources Evaluation Outline and Guidance*** on FDOT's ***Protected Species and Habitat Website***). Draft ***NREs*** for federal projects are reviewed by OEM prior to the District submittal to the resource agencies. ***NREs*** for state funded projects are not required to be reviewed by OEM. Draft watermarks or notations should be removed on the ***NRE*** prior to submittal to the agencies for review. ***NREs*** are final documents prior to submittal to the resource agencies.

If federally listed species or critical habitat have the potential to be within the action area, then consultation with the Service(s) may be necessary. Consultation may be as simple as a brief informal consultation or may require a more in depth formal consultation (***Section 16.2.2.1***). In addition, if state listed species have the potential to be present within the action area, then coordination with FWC and/or FDACS is recommended.

A project requires an official federal document, called a ***Biological Assessment (BA)***, if federally listed species or critical habitat may be present in the action area that requires an Environmental Impact Statement (EIS) (***50 CFR § 402.12***) or if a project's proposed action results in a determination of "may affect, is likely to adversely affect" (see ***Section 16.1.2*** for definitions of the different effect determinations). In these cases, the District will request that OEM initiate formal consultation under ***Section 7*** of the ***ESA*** (***Section 16.2.2.1***) for federal projects. For projects where ***Section 7*** consultation will be conducted by USACE or USCG during permitting, FDOT can request Technical Assistance from the Service(s) during PD&E. An ***NRE*** can be submitted to the Services for use as a ***BA***. Formal consultation results in a ***Biological Opinion*** (***BO***) from the Services that determines whether a proposed action is likely to jeopardize the continued existence of a listed species (jeopardy), or destroy or adversely modify critical habitat (adverse modification).

Information on state listed species and valuable natural habitats should also be collected for the project. FDOT must evaluate projects for compliance with the ***Florida Endangered and Threatened Species Act of 1977*** (***Chapter 379, F.S., Chapter 68A-27, F.A.C., Chapter 5B-40, F.A.C.***). Involvement with state listed or otherwise protected species and natural areas (e.g., Strategic Habitat Conservation Areas (SHCAs), Florida Natural Areas Inventory (FNAI) rare natural communities) should be discussed. Impacts to these species and habitats should be discussed in the Environmental Document and associated technical reports (i.e., ***NRE***, technical memo).

For off-project activities associated with construction of the project the District follows the same procedures for identifying possible involvement with protected species or habitat (***Section 16.3.3.5***).

16.1.5 Key Points for Protected Species and Habitat Coordination Process

1. Engage in early, continual, and strategic coordination with resource and regulatory agencies (i.e., USFWS, NMFS, FWC, USACE).

2. For projects qualifying for ETDM screening, information from the screening should be used to prepare the scope of services for the PD&E Study and focus the protected species and habitat analysis/impact assessment.

3. Projects with protected species and habitat involvement need to be evaluated and addressed regardless of the type of Environmental Document. This evaluation should be appropriate to the scope of the project. The level of detail should be weighed according to the ecological importance and distribution of affected species and intensity of potential impacts of the project.

4. Coordinate internally with FDOT PD&E, Design, and Construction staff (as applicable) throughout the process (e.g., ETDM screening, analysis, impact assessment, making commitments). Since PD&E Studies may result in commitments developed to address the specific protected species and habitat issues of a project, it is critical that appropriate internal coordination efforts within the District occur before commitments are made.

5. Consultation may be needed with the applicable Service when federally listed species and/or critical habitat may exist within the action area. This may be informal consultation or may require the initiation of formal consultation by the Lead Federal Agency.

6. Request concurrence from the Services. Concurrence is not required for determinations of “no effect” or when use of a programmatic key or a programmatic approach indicates that a “may affect, not likely to adversely affect” determination does not require further consultation. A species key can only be used when the scope of the key is applicable to the project and all appropriate conservation measures are carried out, as required.

7. If an issue is identified during consultation that could affect completion of the consultation process, the District must inform OEM to determine the appropriate course of action.

8. The contents of the ***NRE*** are summarized in the Environmental Document, including effect determinations, dates of concurrence, and/or outcomes of consultation.

16.2 REGULATORY AGENCY PROCESS

16.2.1 Coordination/Consultation/Engagement with Agencies

Effectively addressing protected species and habitat for transportation projects depends on engaging the various federal and state resource and regulatory agencies by adhering

to the three generalized coordination principles outlined below. The key elements of successful agency coordination can be summarized as follows: **"Early, continual, and strategic coordination"**.

Early coordination - Engagement with federal and state agencies should occur as early in the project as appropriate. For projects screened through the ETDM process, official agency engagement may occur during the Planning Screen, or more commonly during the Programming Screen (see ***Section 16.3.1.2.1***). The overall goal of early engagement during the PD&E phase is to be **proactive** in identifying potentially protected species and habitat, and then **actively coordinating** with wildlife and other agencies to formulate strategies and responses that address those resources. Early coordination with agencies provides an important opportunity for the agencies to review data and analyses that have been developed, and to discuss the steps for advancing protected species/habitat coordination for the PD&E Study. It also aids in the development of alternatives and informs permitting and future phases.

Continual coordination - Continual engagement with agencies involves communication to determine the level of assessment and documentation required; confirm which species and/or habitats may be affected by the project; decide whether informal or formal ***Section 7*** consultation is required; and obtain agency confirmation for effect determinations, as appropriate. Continual coordination promotes an **ongoing dialog** between FDOT and the resource and regulatory agencies, minimizing the chances of miscommunication or misunderstandings that could delay, complicate, or compromise a project.

Strategic coordination - Each project possesses unique circumstances and "facts on the ground." Strategic coordination involves thoughtful consideration of an **overall strategy** for handling protected species and habitat throughout Planning, PD&E, Design, Construction and Maintenance.

The advantages of developing a strategic approach include:

1. Early awareness of potential protected species/habitat;
2. Avoidance/minimization of potential impacts;
3. Aids in the development of alternatives;
4. A decrease in timeframes for resource and regulatory agency approvals;
5. Supports short or long term surveys, research, species studies, which may be required;
6. Complete documentation for the administrative record; and
7. Seamless transfer of information and commitments into the Design and Construction phases.

16.2.2 Endangered Species Act Process

For federally funded, authorized, or implemented projects, ***Section 7*** of the ***ESA*** requires consultation with the Service(s) to ensure that actions are not likely to jeopardize the continued existence of federally endangered or threatened species, or result in the destruction or adverse modification of critical habitat. Data collected on federally listed species and critical habitats should be included in an ***NRE*** or technical memo per the ***Natural Resources Evaluation Outline and Guidance*** document. The ***NRE***, coordination meetings, commitments, and consultation with the Services should be summarized in the Environmental Document (***Section 16.3.2.6.2***).

It is highly recommended that the District reference the ***Endangered Species Consultation Handbook (USFWS and NMFS, 1998)***, if involvement with a federally listed species is possible.

For non-federal projects, such as SEIRs, the Districts **must** coordinate with the Service(s) if the project has the potential to affect federally listed species or critical habitat. The Districts can request Technical Assistance from the Services. In accordance with the ***Endangered Species Consultation Handbook***, "Technical assistance from the Services may take a variety of forms: it includes the species list provided by the Services, information on listed species, and candidate species, was well as names of contacts having information on other sensitive species or State listed species. The Services may recommend that the action agency conduct additional studies on species' distribution in the area affected by the action." It is highly recommended that the data collection process be the same as or similar to what is compiled for federal projects. This can be important in the event that a federal nexus (e.g., federal funding or federal permit) is identified later on in project development.

When Technical Assistance is requested, the Services may respond in several ways. If species are not likely to be present, the consultation requirement is met, and the Services may advise the District in writing. If historical records or habitat similarities suggest the species may be in the area, then some survey work may be recommended to make a more precise determination. If the species is definitely in the project area, but the Services determines it will not be adversely affected, the Services should notify the agency of that opinion.

If no federal nexus exists and listed species may be present, consultation with the Service(s) may determine that ***Section 10*** of the ***ESA***, which authorizes incidental take permit(s) and requires submittal of a Habitat Conservation Plan(s) (HCP), may apply to the project. More information on ***Section 10 of the ESA*** and how to prepare an HCP can be found in the ***Habitat Conservation Plans: Section 10 of the Endangered Species Act*** document. District staff should coordinate closely with OEM if no apparent federal nexus exists to determine if ***Section 10*** consultation may be necessary, as these consultations are usually lengthy and more complex than the ***Section 7*** process. OEM will coordinate with the Service(s) to determine the process.

16.2.2.1 Consultation With Federal Agencies

Interagency consultation with the Service(s) is an administrative review that operates in parallel with the science-based review process used for effects determinations. Overall, the information used for consultation should focus on conducting a thorough review of the effects of the alternative(s) for each listed species and/or critical habitat(s) potentially affected by the action.

Under federal law, each agency shall use the best scientific and commercial data available to complete an interagency consultation (***16 U.S.C. § 1536***). The consultation documentation should lead the reviewer (i.e., the Service) through a discussion of effects to a logical, well-supported conclusion. It is essential that FDOT, as an **action agency** (through ***NEPA*** Assignment), evaluate and summarize project effects in a logical, objective and scientific manner that clearly supports the ultimate effect determinations and consultation conclusions. For example, ***NREs*** should not only include appropriate effect determinations, but need to include sufficient supporting evidence and rationale to adequately justify these determinations.

Coordination with the Service(s) involves more than simply submitting documentation and obtaining review comments. **Early** coordination should identify listed species and/or critical habitat present in the action area, and which species and habitats have the potential to be affected by the project. **Continual** coordination requires ongoing communication with the Service(s) to document consensus, to identify areas of disagreement, and to resolve outstanding issues. **Strategic** coordination requires an evaluation of project-related listed species and habitat issues, thoughtful consideration of how to minimize project impacts to listed species and habitats, and an overall approach for conducting an efficient federal coordination/consultation process. Coordination could also include discussion on other protected species.

The coordination/consultation process must be performed for **each** listed species and/or **each** type of critical habitat within the action area that may be affected by the project. The level of federal coordination required (no consultation, informal consultation, or formal consultation) will be determined by each effect determination. ***Table 16-1*** provides a step by step process to follow for each effect determination.

The starting point for an effect determination is the environmental baseline (see ***Section 16.1.2*** for definition). The term “environmental baseline” is not synonymous with “existing conditions.” The environmental baseline “is an analysis of the effects of past and ongoing human and natural factors leading to the current status of the species, its habitat (including designated critical habitat), and ecosystem, within the **action area**” (***USFWS and NMFS, 1998***). It therefore considers not only “existing conditions,” but past activities that have already affected listed species and designated critical habitat, and any other existing/proposed private, local, state, or federal actions that are contemporaneous with FDOT’s proposed action.

The possible effect determinations are “no effect,” “may affect, not likely to adversely affect,” or “may affect, likely to adversely affect” for species or designated critical habitat

listed under the ***ESA***. For proposed or candidate species or proposed critical habitat, a determination of "is likely to jeopardize proposed/candidate species" or "adversely modify proposed critical habitat" is possible.

Species and/or critical habitat receiving a "no effect" determination are not subject to consultation, but are required to have the appropriate documentation as described in ***Section 16.2.2.1.1***. Species and/or critical habitat(s) subject to a "may affect, not likely to adversely affect" determination are handled via informal consultation unless otherwise agreed upon through a programmatic approach or effect determination key (***Section 16.2.2.1.3***). Formal consultation occurs when a "may affect, likely to adversely affect" determination is made for listed species and/or critical habitat (***Section 16.2.2.1.4***), and must be initiated through OEM. If one species has a "may affect, likely to adversely affect" determination, then the Service will likely include all potentially involved species in the formal consultation process, regardless of effect determination.

Figure 16-2 provides a flow chart for the federal coordination/consultation process. The flow chart serves as a useful aid for each listed species and/or critical habitat that may be subject to federal coordination, as an effect determination and subsequent coordination will be required for each one.

The NMFS Southeast Regional Office has procedures for action agencies to submit ***Section 7*** consultation requests electronically (***NMFS, 2013***). See ***Figure 16-3***. These requests must include all of the relevant project information necessary for the NMFS consulting biologist to clearly understand the project and its potential impacts to listed species. For projects that do not require a ***BA***, NMFS has prepared a ***Section 7 Checklist*** and accompanying guidance to aid in document preparation and submittal (***NMFS, 2013***). The District should copy the NMFS ETAT representative on the electronic submittal, or notify them of the submittal via letter (***Figure 16-4***).

Re-initiation of consultation with the Service(s) is required to occur when the ***BO*** terms and conditions are exceeded. Re-initiation may also be required after initial consultation has been completed due to changes in scope or design of the project, discovery of the presence of listed species, or the listing of new species or designation of critical habitat.

16.2.2.1.1 "No Effect" Determinations

Where FDOT determines that an action will have "no effect" on a listed species or critical habitat (see ***Section 16.1.2***), consultation with the Service(s) is not required. A "no effect" determination means no effect whatsoever (neither detrimental or beneficial) to a species or critical habitat, in the short term or long term. Although consultation is not required for a "no effect" determination, the analysis supporting it should be documented in the project file, technical memo, or ***NRE*** as appropriate and in the final Environmental Document.

16.2.2.1.2 Section 7 Consultation

When federally listed species and/or designated critical habitat have the potential to be within the action area and one of the "may affect" determinations apply, consultation with

the Service(s) is necessary. There are two types of ***Section 7*** consultation processes: informal and formal. Informal consultation is a process designed to help determine whether formal consultation is needed. In contrast, formal consultation is a required process when the effect of a proposed action is "may affect, is likely to adversely affect".

As stated in the ***Endangered Species Consultation Handbook (USFWS and NMFS, 1998, E-21)***, "The 'may affect' evaluation looks not only at effects on the entire species or local management unit, but also considers the effect on individual members of the species. If even one individual may be affected, the biologist must conclude that there is a 'may affect' situation." A "may affect" determination includes those actions that are "not likely to adversely affect" as well as "likely to adversely affect" federally listed species.

The interaction between effect determinations and consultation procedures are primarily determined by existing conditions (e.g., ecological importance and distribution of listed species, potential listed species presence), combined with the project scope and intensity of potential impacts. In some cases, formal consultation may be unavoidable, as in cases where major construction unavoidably impacts listed species that have a restricted range, or impacts designated critical habitat for a relatively long distance. However, in other cases, avoidance and minimization efforts can limit impacts to listed species and/or designated critical habitat to a degree that may change an initial "may affect, likely to adversely affect" determination (formal consultation) to a "may affect, not likely to adversely affect" determination that triggers informal consultation.

An effect determination must be reached for each listed species and/or each designated critical habitat within the action area. It takes only one "may affect, likely to adversely affect" determination to trigger formal consultation. If a project impacts only one listed species to a degree where formal consultation is required, it may be advisable to avoid or minimize the impact of a project (if possible) to an extent that justifies a "may affect, not likely to adversely affect" determination.

16.2.2.1.3 Informal Consultation

Informal consultation is initiated when federally listed species or designated critical habitat are potentially present within the project's action area and may be affected by the action. This consultation can provide FDOT the opportunity to implement project scope revisions or conservation activities prior to project implementation. If informal consultation is needed with the Service(s), documentation in the form of an ***NRE*** is developed by the District.

After OEM review of the ***NRE***, the District initiates informal consultation by submitting an ***NRE*** to the Service(s) for review along with a request for concurrence on the effect determination(s). This information should include reasons supporting the determination, any modifications to the project and/or implementation measures or commitments to reduce impacts, and, if applicable, compensatory mitigation. Upon receipt of a written request for concurrence, the Service must provide written concurrence or non-concurrence within 60 days. This timeframe may be extended upon mutual consent of all

parties, but cannot exceed 120 days. Typically, the Service(s) responds to requests for informal consultation in 30 days.

For USFWS, contact the local office in ***Figure 16-4***. Informal consultation with the NMFS is initiated by following the guidance provided in ***Figure 16-3***.

During informal consultation, the District(s) and the Service(s) work together to evaluate potential impacts on listed species and eliminate or reduce potential impacts where possible. In many cases, the ultimate effect determinations may be influenced by project modifications. FDOT and the Service(s) may engage in continual coordination to reach agreement on effect determinations and project modifications necessary to accommodate federally listed species. During informal consultation, coordination with OEM may occur as necessary.

If the Service agrees with the effect determination, it will document that agreement in a concurrence letter. If the Service does not concur with the "may affect, not likely to adversely affect" determination, the Service will send a non-concurrence letter to FDOT and FDOT must either 1) initiate formal consultation through OEM, or 2) modify the project to avoid adverse impacts. Either option will require continued coordination with the Service(s). It is also possible that the Service may not have enough information to complete consultation (see ***Section 16.2.2.1.5***).

16.2.2.1.4 Formal Consultation

Formal consultation may be required for any project regardless of the COA. FDOT and the Service(s) work together to determine if options exist that could allow the action to advance without jeopardizing the species' existence or adversely modifying or destroying critical habitat. Although OEM must initiate formal consultation, the Districts work closely with OEM and the Services throughout the formal consultation process.

The differences between informal consultation and formal consultation are that formal consultation:

1. Occurs when there is a "may affect, likely to adversely affect" determination;

2. Must be initiated by OEM;

3. Results in a ***BO*** which may determine whether the proposed activity will jeopardize the continued existence of a listed species (jeopardy) or destroy or adversely modify critical habitat (adverse modification).

In short, formal consultation is a manageable process that involves a higher level of scrutiny and analysis.

Formal consultation cannot be initiated until the ***NRE*** is completed by the District and approved by OEM. If the District determines that the action "**may affect, is likely to adversely affect**" listed species or designated critical habitat, then OEM as the action

agency initiates formal consultation. OEM, with assistance from the District, sends a written request to the Service(s) which includes an initiation package (***NRE*** for FDOT projects) describing the project and its relevance to federally listed species and habitats (see ***USFWS and NMFS, 1998, 4-4***). Once the initiation package is received, the Service has 30 working days to review the package for completeness and should provide a written acknowledgement of the consultation request to the action agency. Within the 30-day period, the Service must advise the action agency of any data deficiencies and request additional information to complete the initiation package (see ***USFWS and NMFS, 1998, 4-1***).

The formal consultation period officially begins when the Service determines that the initiation package is complete. The ***ESA*** and ***Section 7*** regulations require that formal consultation be completed within 90 calendar days **[*50 CFR § 402.14(e)*]**. The Service strives to issue the ***BO*** during the formal consultation period, but must deliver the ***BO*** to the action agency no later than 45 calendar days after the conclusion of formal consultation **[*50 CFR § 402.14(e)(3)*]**. This 45-day period is often used by the action agency and the Service to review and refine the ***BO***. The entire process can take up to 135 days to complete after the initiation of formal consultation, underscoring the need for "early, continual, and strategic coordination".

In response to a request for formal consultation and submittal of a ***BA*** (usually in the form of the ***NRE***), the Service issues a ***BO***, which is the document with the Service's opinion as to whether the project "action" is likely to jeopardize the continued existence of a federally listed species or destroy or adversely modify designated critical habitat.

In contrast to "**may affect**" determinations, where individual members of federally listed species are the focus, jeopardy is determined by the Service at the listed species population level. "The determination of jeopardy or adverse modification is based on the effects of the action on the continued existence of the entire population of the listed species or on a listed population, and/or the effect on critical habitat as designated in a final rulemaking" (***USFWS and NMFS, 1998, 4-36***).

For non-jeopardy opinions from the Service(s), the ***BO*** will contain an ***Incidental Take Statement,*** which provides exemption from the ***ESA Section 9*** prohibitions to address actions that may cause an unintentional taking of non-plant species. The ***ESA*** does not prohibit incidental take of listed plants; however, cautions may be provided in the ***BO*** on prohibitions against deliberate removal or destruction of plants. Any terms and conditions provided in the ***Incidental Take Statement*** are "non-discretionary measures that are necessary and appropriate to minimize the impact of incidental take," in order for the exemption in ***Section 7(a)(2)*** of the ***ESA*** to apply (***USFWS and NMFS, 1998, 4-49 and 4-53***). During formal consultations, the key to reaching non-jeopardy opinions is to focus on the avoidance and minimization of project impacts.

If the ***BO*** reaches a jeopardy or adverse modification conclusion, it will also include reasonable and prudent alternatives and associated reasonable and prudent measures for implementing the project to avoid jeopardy or adverse modification. Note that the Services should include the action agency and applicant in developing reasonable and

prudent alternatives and measures. Depending upon project-specific circumstances, several reasonable and prudent alternatives may exist, only one alternative may exist, or no alternatives may exist. Reasonable and prudent measures are the nondiscretionary (mandatory) actions developed for each alternative, which are necessary for a given alternative to avoid a jeopardy or adverse modification opinion. The reasonable and prudent measures developed for each of several alternatives may be the same or different, depending upon the specific alternative. In response to the Services proposed reasonable and prudent alternatives/measures, FDOT may:

1. Adopt the reasonable and prudent alternatives/measures;

2. Not advance the project;

3. Request an exemption from ***Section 7(a)(2)***;

4. Modify the action or offer reasonable and prudent alternatives/measures not yet considered, and reinitiate consultation; or

5. Proceed with the action if upon review of the ***BO***, FDOT believes that such action satisfies ***Section 7(a)(2)***.

FDOT must notify the Service(s) of its final decision on any proposed action that receives a jeopardy or adverse modification biological opinion. If FDOT adopts the reasonable and prudent measures, then these nondiscretionary actions must be incorporated into the Environmental Document as commitments.

16.2.2.1.5 Consultation Completion

For federal projects with a PD&E Study, ***ESA*** consultation is expected to be completed during the PD&E phase, and summarized in the Environmental Document as required in ***Section 16.3.2.6.2***. In some instances, consultation cannot be completed at this project phase, especially if one of the Services does not have enough information (i.e., project details may not yet be available) to concur with (or not concur with) an FDOT effect determination. In these situations, the Districts should coordinate with OEM. Together OEM and the District will determine the appropriate course of action to advance the project. When consultation cannot be completed during the PD&E phase, the Environmental Document should include a summary of the consultation to date, the reasons why it cannot be completed, documentation that the Service(s) agree to complete consultation prior to construction and that the Service(s) does not anticipate a jeopardy opinion, and any other information that may provide reasonable assurance the requirements will be fulfilled consistent with ***23 CFR § 771.133***. Commitments made during this coordination should be included in the Commitments section of the Environmental Document. An update to the commitment(s) must be provided in subsequent project Re-evaluations and ***Project Commitment Record (PCR)***.

16.2.2.1.6 Proposed and Candidate Species

Proposed species are those that are proposed in the ***FR*** to be listed under ***Section 4*** of the ***ESA***. Species and critical habitat proposed for listing may require a **conference** with the Service(s), according to ***ESA Section 7(a)(4)*** and ***50 CFR § 402.10***, if agency action is likely to jeopardize the continued existence of such proposed species or result in the destruction or adverse modification of proposed critical habitat. Informal conference is an early interagency coordination, similar to informal consultation, where the Service(s) assist in determining effects and may advise on ways to avoid and minimize adverse effects to proposed species or proposed critical habitat. Following informal conference, the Service(s) issue a conference report containing recommendations for reducing adverse effects. These recommendations are advisory until a listing becomes effective – but following the report's recommendations helps avoid future conflicts and the need to reinitiate a consultation once the species is listed or critical habitat is designated.

Formal conference must be initiated by OEM and is required when a project is likely to jeopardize the continued existence of a proposed species, or is likely to adversely modify proposed critical habitat. Formal conference procedures are the same as formal consultation. The opinion at the end of formal conference is a conference opinion and follows the contents and format of a ***BO***. When the species is listed or critical habitat is designated, the Services have the option of adopting the conference opinion as the ***BO*** for the project. OEM must request the Services to adopt the conference opinion as the ***BO*** after the species is listed or critical habitat designation is made. An ***Incidental Take Statement*** issued with a conference opinion does not become effective unless the Services adopt the conference opinion as the ***BO*** once the species is listed and/or critical habitat is designated (***50 CFR § 402.10; FHWA, 2002***).

Candidate species are not proposed for listing, but are species for which the development and publication of proposed rules for listing are anticipated. Effective candidate species conservation may reverse the species decline, ultimately eliminating the need for ***ESA*** protection. ***Section 7*** consultation is not required for candidate species though consideration of conservation measures may help to minimize project delays if a candidate species becomes federally listed before construction of a project has been completed (***FHWA, 2002***).

16.2.3 Other Federal Protections

Several species that are not federally listed and therefore not subject to ***ESA*** review may be protected by other federal regulations such as the ***Migratory Bird Treaty Act (MBTA)*** and/or the ***Bald and Golden Eagle Protection Act***. During the PD&E Study, the District should evaluate the projects potential effects on these species.

Pursuant to the ***MBTA***, it is unlawful to take, possess, buy, sell, purchase, or barter any migratory bird including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations. It should be noted that all non-exotic birds in the state of Florida are protected by the ***MBTA***. Rules promulgated under the ***MBTA (50 CFR***

Part 21) prohibit the destruction of active nests (i.e., nests which contain eggs or flightless young) without a federal permit.

The federal ***Bald and Golden Eagle Protection Act [16 U.S.C. § 668-668(d)]*** prohibits anyone from taking, possessing, or transporting a bald eagle or golden eagle, or the parts, nests, or eggs of such birds without prior authorization. This includes inactive nests as well as active nests. The USFWS has Bald Eagle Monitoring Guidelines (***USFWS, September 2007***) that provides information for applicants proposing construction activities occurring within 660 feet of an active bald eagle nest during the nesting season. See ***Part 1, Chapter 12, Environmental Permits***, for guidance on permits for the bald eagle, Florida burrowing owl, and osprey.

16.2.4 Coordination with State Agencies

The procedures for coordination with the FWC are not as rigidly prescribed as those for the federal process, but the general process, overall goals, and documentation requirements are similar. FDOT places the same emphasis on "early, continual, and strategic coordination" with FWC, to ensure that state-protected species and habitat issues are considered from the earliest planning phase and carried through the PD&E, Design, and Construction phases of the project. ***Figure 16-5*** provides a flow chart for the state protected species process.

Coordination with FWC focuses on state listed wildlife species and habitats as well as other protected species (e.g., bears, bats). In order to avoid regulatory duplication for threatened and endangered species, the following state rule applies: "Activities that result in take or incidental take of federally-designated Endangered and Threatened Species do not require a permit from the Commission when authorized by the U.S. Fish and Wildlife Service or the National Oceanic and Atmospheric Administration's National Marine Fisheries Service…" (***Rule 68A-27.007, F.A.C.)***. Some species that are federally protected may also require coordination with FWC, such as Florida manatees and sea turtles.

For projects that qualify for ETDM screening, the ETDM process initiates the project-level coordination with FWC, as FWC is represented on the ETAT that participates in the Planning and/or Programming Screens (***Section 16.3.1.2***). The FWC ETAT should provide focused comments and a list of state listed species, or otherwise protected species that should be considered/analyzed during the PD&E Study (***Section 16.3.1.2.1***).

As the coordination with FWC progresses, through the PD&E Study, issues related to particular state listed species, other protected species, and habitats are addressed, and FWC comments are documented via correspondence and/or memos. The FWC typically requests that effect determinations, similar to those made for federally listed species (***Section 16.2.2.1***, see also the ***Natural Resources Evaluation Outline and Guidance***), be made for state listed species. The coordination process continues throughout the PD&E process, and commitments to FWC (e.g., wildlife crossing, species-specific survey) are recorded in the Environmental Document. Species-specific surveys or permitting may be necessary after conclusion of the PD&E phase.

16.2.5 Listed Plant Species- Federal and State

Under federal law, activities that may impact federally-listed plant species are subject to regulation under the ***ESA***. Destruction, damage or relocation of protected plants is not prohibited unless these activities take place on federal lands or are otherwise in violation of state law on other lands.

In cases where projects may impact lands under federal jurisdiction (commonly National Forests, National Park Service lands, National Wildlife Refuges, military bases, and areas designated as critical habitat), USFWS can determine through ***Section 7*** consultation that there are no other options available and that the action will not jeopardize the continued existence of the species. In those cases, USFWS may authorize destruction of plants on federal lands.

Input from the ETAT representatives during ETDM screening should identify federally listed plant species that may occur within the action area. Coordination with the appropriate agencies for federally listed plant species is always included as part of the federal consultation process, if any listed plant species are potentially present. Should federally listed plant species be identified within the action area, they need to be considered together with listed wildlife species during consultation to avoid and minimize overall project impacts. Based on consultation with USFWS, listed plants may be transplanted to suitable habitats or removed for propagation (typically in coordination with conservation agencies) in order to avoid direct impacts.

State listed plant species are regulated by the FDACS, but state regulation only addresses the harvesting, transport, and/or sale of listed plant species. Plant species listed by the state as Endangered, Threatened, or Commercially Exploited are included on the Regulated Plant Index (***Rule 5B-40.0055, F.A.C.***). State rules do not specifically regulate or prohibit the incidental taking of state listed plants in the course of project activities, but general principles of avoidance and minimization (such as transplanting) apply to projects impacting listed plant species.

If it is determined during the preparation of the ***NRE*** or technical memo that state listed plants could be impacted by the project, the District forwards the ***NRE*** or technical memo to FDACS, Division of Plant Industries, for review. Upon evaluation, FDACS will in turn notify the Endangered Plant Advisory Council or interested native plant Nongovernmental Organizations (NGOs) to alert them to the potential for plant salvage activities. If the NGO is interested in plant conservation efforts within FDOT Right of Way (ROW), they will coordinate with the District. Once the ***NRE*** is forwarded to FDACS, and if NGOs have not expressed interest in plant conservation efforts, no additional follow up is required by the District until the project is ready to be advertised. The District notifies FDACS and the Endangered Plant Advisory Council when bids for construction projects are first advertised as indicted by ***Section 581.185(10), F.S.***, For additional guidance on state listed plants as well as non-listed plants of interest or concern to NGOs, please refer to FDOT's ***Protected Species and Habitat Website*** under the Plant Guidance Documents section.

16.3 PROCEDURE

16.3.1 Level of Assessment

The level of assessment and documentation during the PD&E phase depends on the potential for protected species and habitat impacts, the scope of the project, ecological importance and distribution of the affected species, and intensity of potential impacts of the project.

Detailed evaluations are generally not warranted for transportation projects not qualifying for screening in the ETDM Environmental Screening Tool (EST) [typically Type 1 Categorical Exclusions (CEs) and NMSAs]. See ***Part 1, Chapter 2, Class of Action Determination for Federal Projects*** for clarification on projects that qualify for screening. Projects that do not require screening, based on analysis, have no significant effects. The evaluation for these types of projects can usually be streamlined.

A higher potential for protected species and habitat involvement usually exists with transportation projects qualifying for screening [typically Type 2 Categorical Exclusion (Type 2 CE), Environmental Assessment (EA), EIS, or SEIR]. These project classifications may warrant a more detailed level of analysis and documentation. Most PD&E projects will have received prior consideration of protected species and habitat issues during the ETDM process. The results of the Programming Screen are available in a ***Final Programming Screen Summary Report***. The protected species and habitat evaluation in the PD&E Study builds on issues identified during the Programming Screen.

16.3.1.1 Projects Not Qualifying for Screening

Protected species and habitat involvement must be identified for projects regardless of the type of Environmental Document, including those that do not require EST screening and advance straight to the Design phase. For projects not qualifying for EST screening, the protected species and habitat evaluation should be in sufficient detail to ensure that the project considers protected species and habitat. If consultation is not needed with the Service(s), documentation can be in the form of a technical memo (***Section 16.3.2.4***). If informal consultation is needed with the Service(s), additional documentation in the form of an ***NRE*** is developed (***Section 16.3.2.5***). If during this coordination it is determined that formal consultation may be needed, the District must coordinate with OEM. Decisions and conditions should be documented in the project file, summarized in the Environmental Document, and addressed through incorporation into the final design plans. Documentation in the Environmental Document is as follows:

1. **Type 1 Categorical Exclusions (CEs)** - Type 1 CEs may involve listed species and critical habitat as long as the documentation demonstrates the proposed project has no significant effects on them and supports the effect determinations made. For these projects, include a summary of the evaluation of listed species and habitat impacts, agency coordination and compensation for impacts (as appropriate) in the ***Type 1 Categorical Exclusion Checklist (Part 1, Chapter 2, Class of Action Determination for Federal Projects)***. If species keys or

programmatic agreements were used to determine an effect determination for a species, then they must be referenced in the checklist. Outline the steps used in the key in the supporting documentation. If a technical memo or ***NRE*** was prepared, reference it in the checklist and include it in the project file. Agency coordination letters are also included in the project file, while concurrence letters are attached to the checklist.

2. **Non-Major State Actions (NMSAs)** - For a NMSA mark "No" on the ***Non-Major State Action Checklist*** to document that there are no listed species or critical habitat affected by the project (***Part 1, Chapter 10, State, Local or Privately Funded Project Delivery***). For these projects include a summary of the evaluation of listed species and habitat impacts, agency coordination and compensatory mitigation for impacts (as appropriate) in the project file as supporting information to the NMSA. If a technical memo or ***NRE*** was prepared reference it and include it in the project file.

3. **Type 2 Categorical Exclusions** - Some Type 2 CEs may not require screening through the EST. For these projects listed species and habitat impacts are documented as if the project was screened. See ***Section 16.3.2.6.2*** for guidance on documenting Type 2 CEs.

16.3.1.2 Projects Qualifying for Screening

Transportation projects qualifying for EST screening are generally more complex. In accordance with ***Part 1, Chapter 2, Class of Action Determination for Federal Projects***, qualifying projects must complete the ETDM Programming Screen and may also have completed the Planning Screen. As projects advance, protected species and habitat issues should be considered as follows:

1. **Planning Screen Evaluation** - Identify potential listed species and/or critical habitat within the project area that could affect the advancing of the project in a timely manner, assist with the elimination of fatally flawed alternatives, or require consideration of avoidance, minimization, or mitigation measures at this early planning stage. Protected species may also be identified during this evaluation.

2. **Programming Screen Evaluation** - Provide commentary about effects and summarize scoping recommendations to further understand the level of potential listed species and habitat impacts. Begin to prepare existing conditions for the Environmental Document. Protected species may also be identified during this evaluation.

3. **PD&E Evaluation** - Build upon previous evaluations by filling information gaps, coordinate with the Services and FWC on issues of concern identified in planning and programming screens, perform an impact assessment, and compare alternatives. Complete the appropriate level of protected species and habitat documentation based on the project and associated impacts to listed species. Document necessary commitments.

4. **Design** - Incorporate any commitments made. If there are changes or updates identified during a review of the final plans, document them in a Re-evaluation (***Part 1, Chapter 13, Re-evaluations***). Additional coordination with the Service(s) and FWC may be necessary if impacts have changed or if commitments require it (e.g., survey results will be shared prior to construction). Consultation may need to be re-initiated prior to permitting. Ensure the project meets federal and state regulations.

5. **Construction** - Verify implementation of any protected species and habitat commitments (e.g., avoidance, inclusion, installation). Verify compliance with federal and state regulations.

16.3.1.2.1 ETDM Process Contribution to PD&E

For projects qualifying for EST screening, the proposed project is entered into the EST (see the ***ETDM Manual, Topic No. 650-000-002***). The Advance Notification (AN) package may be distributed as part of the Programming Screen in the EST and includes a Preliminary Environmental Discussion (PED) (***Part 1, Chapter 3, Preliminary Environmental Discussion and Advance Notification***). Protected species and habitat information is included in the PED, reflecting the District's initial understanding of the project's potential involvement with protected species and habitat resources. The PED should also identify the location of federally designated critical habitat and provide a description of how protected species and habitat are to be evaluated in the PD&E Study. The AN may also include a list of permits and a list of technical studies that may be needed.

The District uses the EST to electronically send the AN to the Services and FWC along with other ETATs, state and federal agencies, and other organizations. If sent during the Programming Screen it initiates the project-level coordination with the Services and FWC. As ETAT members, the Services and FWC review the proposed project, respond with comments, provide a species list, and identify any critical habitat(s) within the action area. The ETAT should provide focused comments and actionable recommendations to avoid or minimize potential effects to protected species and their habitat. They should also identify potential permits, compensatory mitigation opportunities, technical studies, and other items within their jurisdiction/responsibility.

The EST reports and stores the ETAT review in the ***Programming Screen Summary Report***, which includes comments related to protected species and habitat issues as well as wildlife connectivity issues. This report provides a foundation for the District to coordinate directly with the Services and FWC. For example, the ETAT should provide a list of potential listed species and/or critical habitats that warrant further review with the Services and/or FWC, as well as information on otherwise protected species. The Districts should use this list of species as a starting point for preparing the existing conditions for the ***NRE*** (see ***Section 16.3.2.1.2***).

Information from the ETDM screening process should be used to prepare the PD&E scope of services and focus the protected species and habitat analysis/impact

assessment. During PD&E, FDOT determines the project's involvement with federally listed threatened or endangered species, proposed (under review) threatened or endangered species, or designated or proposed critical habitat from resource agency comments and information included in the ***Programming Screen Summary Report***. The Districts should review ETAT comments and Degree of Effect (DOE) determinations for the "Protected Species and Habitat" issue in the ***Programming Screen Summary Report*** as well as ETAT comments on other issues such as "Coastal and Marine," "Wetlands and Surface Waters," and "Water Resources." However, the associated DOE from the agencies is not a finding.

FDOT should focus on comments from the Services and FWC as resource experts. The ***Programming Screen Summary Report*** may identify an ***NRE*** as being needed in the "Anticipated Technical Studies" section of the report. Other sections of the report may be useful such as the "General Project Recommendations" and "Anticipated Permits" sections. Information from the screening should be used in preparing the existing conditions for the Environmental Document.

The ETDM Coordinator and Project Manager should coordinate internally with Permit Coordinators, District Environmental Offices [District Environmental Management Offices (DEMOs), Planning and Environmental Management Offices (PLEMOs)], and others who may be involved in the project following the screening.

16.3.2 PD&E Phase

16.3.2.1 Describe Existing Conditions

Upon initiating the PD&E Study, the District should coordinate with the Services and/or FWC to discuss comments from the ***Programming Screen Summary Report*** and ensure that potential protected species and habitat have not changed since the screening. The District should collect data and conduct field surveys to identify the initial existing conditions in the action area, such as the protected species and federally designated critical habitat that may occur there, as well as habitat types. Often the District can begin preparing existing conditions text before PD&E is initiated based on ETAT commentary. However, presence or absence of some species can change over time and initial screenings or surveys may be considered out of date by the Services or FWC at the time a project is scheduled to begin, if they are done too far ahead of time.

16.3.2.1.1 Identify Action Area

The action area is defined as "all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action" (***50 CFR § 402.02***) (***USFWS and NMFS 1998***). The action area boundaries for the project are established in coordination with the Services. This coordination is important, as any disagreement regarding the action area boundaries can affect subsequent listed species and habitat analyses. Coordination with other FDOT offices is suggested to determine any additional areas (e.g., maintenance of traffic) that may need to be included in the action area.

16.3.2.1.2 Identify Protected Species and Critical Habitat that May Occur in the Action Area

The species of concern identified by the Services and/or FWC during the ETDM process should form the basis of a list of species to be analyzed in the PD&E Study. During the Programming Screen, the Service(s) should provide the official species list. Coordination with the Service(s) and/or FWC in PD&E may identify additional species to be included on the list.

The Service(s) online species lists, available data sources, current literature, and species specialists may also be consulted to help identify what federally listed species may be in the action area. Include species and critical habitats "proposed" for federal listing, as well as federal "candidate" species, on the list. Federally designated critical habitat within the action area also needs to be identified.

The District should also review official lists of state listed animals regulated by the FWC and plants regulated by the FDACS using online species lists and data, as well as other data sources (***Figure 16-6***).

16.3.2.1.3 Collect Data and Map Habitat

The best and most current scientific and commercial data available should be gathered from various sources to help determine the possibility for species occurrence within the action area. Sources include the Service(s)' websites, Geographic Information System (GIS) species occurrence data, existing studies or surveys, information from past ***BOs,*** and ***NREs***, status reports and listing rules, critical habitat designations, recovery plans, habitat management guidelines, and species specific studies. Information on wide ranging or migratory species that may not be listed by state or federal regulations should be collected since migratory bird species are protected by the ***MBTA of 1918***, as amended.

Habitat maps provide a baseline for analysis of species presence/absence and potential impacts. Land covers/land uses, the presence/absence and quality of suitable habitats, and rare natural communities in the project site should be mapped and described. The presence of critical habitat, and/or SHCAs, consultation areas, and focal areas should also be identified and mapped. The habitat mapping effort should include the evaluation of various existing digital data sets and historical and recent aerial photography.

A field survey conducted by a biologist is needed to compare existing site conditions with digital data and to map the presence, extent, and configuration of existing land uses/land covers, potential habitats, and rare natural communities. Photo-interpretation and extrapolation may also prove valuable in mapping large projects, and should be based on observations during field surveys.

16.3.2.1.4 Conduct Field Surveys

Appropriate field surveys should be conducted to determine and record the presence of protected species individuals, evidence of listed species utilization, and document the presence and quality of existing habitats. Areas in which listed species (federal and state) or species' habitat is known or suspected to occur within the action area should be surveyed for individuals or signs of individuals of the listed species. The field survey may result in observations of additional, previously unidentified listed species or habitats. All observations of listed species, signs of listed species, and species' habitat should be recorded, Global Positioning System (GPS) coordinates taken, and the quality of habitats should be assessed and recorded.

It is recommended that field surveys for federally and state listed species and habitats, as well as otherwise protected species, be conducted concurrently. This survey is often conducted concurrently with field verification of habitat mapping. During this survey, plant species should be identified and recorded for each vegetative community and dominant species noted for each stratum present (e.g., canopy, subcanopy, shrub/understory, and ground cover).

Field surveys for specific species may be required and should be designed to account for life histories and behaviors (e.g., breeding, foraging, resting, migration, flowering, seeding) of the listed species that are expected to be, or could potentially be, present on a given site. Survey design should consider appropriate time of day and season of the year for species identification, as well as species' habitat quality and current site conditions including, but not limited to, recent and long-term fire and hydrologic history; recent and current climatic events (e.g., drought, flooding) and weather conditions; soil, topographic, and vegetative health or disturbances; noise levels; and typical human usage. Some listed species have agency developed or approved survey methodologies, including season-specific timeframes, which should be followed.

Consultation/coordination with the Services or FWC may identify the need to obtain quantitative data for a specific species; in those instances, a more intensive survey than is usually required may be warranted. Examples of quantitative data are percent cover for plants and population size for wildlife such as gopher tortoises. Methods for collecting quantitative data should be provided by the Services or FWC during consultation/coordination. Copies of survey results and associated field notes should be provided to the Services or FWC soon after surveys are completed. Note that some survey information, such as nest sites, may become outdated after one season. Through consultation with the Service(s) and OEM, species-specific surveys for federally listed species may be delayed until permitting to support permit issuance (***Section 16.3.3.3***). During the PD&E Study, a commitment to conduct a species-specific survey later in the process may need to be included as a commitment in the Environmental Document (***Part 2, Chapter 22, Commitments***).

16.3.2.2 On-going Agency Coordination

When federally listed species and/or critical habitat may occur within the action area, informal consultation or formal consultation may be needed with the applicable Service (***Section 16.2.2.1***). Any coordination activities with the Service(s) or ETAT members during the informal consultation process should be clearly documented in the project file.

When there is potential for involvement with state listed species, or valuable natural areas, coordination with the FWC ETAT is recommended (***Section 16.2.3***). Early coordination with FWC is advantageous to assess potential impacts to these natural resources. Coordination may save time later in the design phase when state or federal permits may be required prior to commencement of work.

When wildlife crossing features are being considered, follow the ***FDOT Wildlife Crossing Guidelines***, which were developed in coordination with USFWS and FWC. Wildlife crossing feature locations should be identified as early as possible in the project planning and development processes, and prior to project design. The guidelines note that "wildlife crossing feature(s)" may include, but are not limited to new or modified structures, such as bridges, bridges with shelves, specially designed culverts, enlarged culverts or drainage culverts and/or exclusionary devices such as fencing, walls or other barriers, or some combination of these features. The guidelines were developed for use by FDOT to evaluate the appropriateness of including wildlife crossings (upland or wetland) and associated features for proposed projects on the SHS and establish criteria to be considered during design. In cases where a FDOT District has an off-SHS project, the District will coordinate with the OEM regarding possible inclusion of any wildlife crossing features.

When making commitments to the Services or FWC to address specific protected species and habitat issues of a project, it is critical that appropriate internal coordination efforts within the District (e.g., Design, Permitting, Structures, Construction and Maintenance Offices) are completed before such commitments are made. See ***Part 2, Chapter 22, Commitments*** for more information on commitments.

16.3.2.3 Conduct Protected Species and Habitat Analysis/Impact Assessment

Protected species and habitat analysis begins with determining the potential for species occurrence in the action area, and identifying any designated or proposed critical habitat(s). The potential for species occurrence is derived by comparing the habitat mapping of the project site with known species ranges, habitat preferences, and the locations and proximity of known occurrences. This information is then used to evaluate the type and degree of potential impacts, if any, associated with the project.

The impact assessment includes comparing the species and habitat mapping data and field survey results (***Section 16.3.2.1***) (per each viable alternative as applicable), with the proposed project footprint from the plan sheets (if available) to evaluate direct, indirect, and in some instances cumulative effects to listed species and habitats (see ***Section***

16.1.2 for definitions). It is also important to consider potential project impacts related to habitat connectivity for wildlife, not just protected species, as habitat fragmentation can directly or indirectly impact multiple species. Although there are no federal or state requirements to avoid habitat fragmentation for unlisted species, this can be considered in coordination with the Services and/or FWC. If wildlife crossings are considered they must follow the ***FDOT Wildlife Crossing Guidelines***.

Since CEs are generally minor in nature and do not have significant impacts, indirect and cumulative effects assessments will generally not be warranted. There may be exceptions, which can be evaluated on a case-by-case basis. It is recommended that the District Environmental Office staff coordinate with the District Design and Permitting staff when conducting the impact assessment.

The detailed results of the protected species and habitat analysis and impact assessment are documented in an ***NRE*** or technical memo (per the ***Natural Resources Evaluation Outline and Guidance*** document) and summarized in the Environmental Document. If more than one alternative is proposed, each alternative is then compared based on impacts to protected species and habitat using the analysis performed and documented in the Environmental Document.

If designated or proposed critical habitat is identified within the action area during the ETDM process, the identified habitat(s) must be evaluated for potential impacts. The steps outlined below are taken directly from the ***ESA Consultation Handbook (USFWS and NMFS 1998)***, for determining whether a proposed action is likely to destroy or adversely modify critical habitat.

Review the status of the critical habitat as designated and the environmental baseline within the action area. The status and environmental baseline for any constituent elements or primary constituent elements may have been modified by actions considered in earlier ***BOs***.

1. Those ***BOs*** should be reviewed to determine the current baseline.

2. Evaluate the effects of the proposed action on the constituent elements of critical habitat.

3. Evaluate the cumulative effects in the action area on the critical habitat and its constituent elements.

4. Assess whether the aggregate effects of these analyses will appreciably diminish the value of the critical habitat in sustaining its role in both the survival and recovery of the species.

16.3.2.4 Technical Memo

For projects that do not require ***ESA*** consultation and have minimal involvement with state or other protected species and habitat, an abbreviated report in the form of a brief

technical memo rather than an ***NRE*** is completed and may be provided to the Service(s) and/or FWC for informational purposes. Technical memos should briefly discuss potential involvement with protected species or habitat and how this involvement is not significant. The effect determinations made must be supported in the documentation.

Any technical memo prepared for a project in which OEM serves as the Lead Federal Agency must include the following statement:

> *The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT*.

16.3.2.5 Biological Assessment and Natural Resources Evaluation

A ***BA*** is a technical report required by the Services if federally listed or proposed species or critical habitat "may be present" in the action area of a major construction activity. A major construction activity is defined as major federal projects significantly affecting the environment; therefore, all EISs require the preparation of a ***BA***. This interpretation is consistent with that of ***FHWA Memo, Management of the ESA Analysis and Consultation Process (FHWA, 2002)***. A ***BA*** is also required for EAs or CEs that have "may affect, likely to adversely affect" determinations requiring formal consultation. If a ***BA*** is required, the District should prepare a protected species and habitat section of an ***NRE*** to be submitted to the Service(s) as a ***BA***. The ***NRE*** includes information on listed, proposed, and candidate species, and associated critical or proposed critical habitat.

An ***NRE*** documents the protected species and habitat, wetlands, and Essential Fish Habitat (EFH) analysis/impact assessment. The "Protected Species and Habitat" section of the ***NRE*** is prepared to help make the determination of whether the proposed action is likely to: (1) adversely affect federally listed species or designated critical habitat; (2) jeopardize the continued existence of species that are proposed for listing; or (3) adversely modify proposed critical habitat. During informal consultation, the conclusions contained in the ***NRE*** determine the need for formal consultation or conference.

The District should consider commentary from the Services and FWC ETAT members and consult with them as necessary when preparing the ***NRE***. The contents are discretionary, and coordination with the Services and FWC is recommended to determine the depth of detail needed for the ***NRE***.

16.3.2.5.1 Content of the Natural Resources Evaluation

The ***NRE*** should include the assessment of impacts to protected species and habitat, wetlands, and EFH as separate sections and as applicable to the project. If it is determined that there is no involvement with one of these resource groups, an explanation must be provided (e.g., through field reconnaissance, desktop analysis).

Additional guidance can also be found in the ***Natural Resources Evaluation Outline and Guidance*** document.

The "Protected Species and Habitat" section of the ***NRE*** includes all state listed, federally listed threatened, endangered, proposed and candidate species and critical habitats, as well as other protected species that may be present within the action area. Information gathered from sources identified in the ***Programming Screen Summary Report*** can be used to support the preparation of the ***NRE***.

An ***NRE*** prepared for a project in which OEM serves as the Lead Federal Agency must use the ***Technical Report Cover Page, Form No. 650-050-38***. See example shown in in ***Figure 16-7***.

The content of a ***BA*** is described in ***50 CFR § 402.12(f)***. For an example ***BA*** template and instructions see the link in ***Figure 16-6***. The FHWA template may be used for the Protected Species and Habitat section of the ***NRE***.

When the Protected Species and Habitat section of the ***NRE*** is submitted to the Services as a ***BA*** the following information is included:

1. Describe the proposed project, project location, and the purpose of the action. Define the action area, which is all areas to be affected directly or indirectly by the action and not merely the immediate area involved. The description of the proposed project should include all activities related to construction and emphasize both long-term and short-term anticipated impacts on federally listed species and suitable habitat in the action area. Project and design alternatives (including construction methods) should also be addressed. This description should be brief, and not include large amounts of information copied from the Environmental Document. Discussion of existing conditions (e.g., current typical sections, land use, soils, natural features) should be included.

2. Summarize any prior coordination with the Service(s) or FWC.

3. Identify the federally listed species, proposed species, candidate species, critical habitat, and proposed critical habitat that occur, or could potentially occur within the action area (***Section 16.3.2.1***). Provide brief background information on these species in terms of overall range, population status, habitat needs, and life history requirements. Include only relevant information on the species. Details such as the species description (e.g., size, coloring) and general species information are not needed. Information (such as species lists) should be summarized in tables when appropriate. Include a summary of any prior coordination with the Service(s) or FWC.

4. Describe the methods used to determine involvement of federally listed species and critical habitat within the action area. It may be useful to rank potential involvement of each species based on probability of occurrence (e.g., low, moderate, high) and define the basis for these probabilities.

5. Discuss the results of the comprehensive field survey of the project area (***Section 16.3.2.1.4***). Include discussion of survey methodology, and provide details on: the qualifications of persons doing surveys; what types of surveys were conducted and on what species; when they were done [for how long, what dates, what seasons (breeding, spawning, nesting, fall, spring) and what times of day]; weather conditions; and how often. Describe the specific area(s) that may be affected by the project. Identify any information pertinent to the comprehensive evaluation of federally listed species and/or critical habitat impacts. Also discuss the reliability and validity of the survey and assessment and whether future studies may be required to validate and/or update the survey results. Field notes should not be appended to the ***NRE*** but may be included in the StateWide Environmental Project Tracker (SWEPT) file as supporting documentation.

6. Identify any data gaps and discuss any difficulties in obtaining data pertinent to the comprehensive survey. Any data gaps or lack of information should be explained and their effects addressed.

7. Describe the methods and results of studies that contribute information relevant to determining actual and potential impacts of the proposed project or associated activities on a federally listed species or critical habitat. Types of studies include studies of mating, nesting, reproduction, feeding, and migration of those species that may be found in the action area.

8. Evaluate the effects of the action and any cumulative effects.

    a. The ***NRE*** should describe:

        1. Effects of the action, which are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside of the immediate area involved in the action (***50 CFR § 402.02 and 402.17***).

        2. Cumulative effects of the project on a federally listed species or critical habitat. Cumulative effects are defined as “those effects of future state or private activities, not involving federal activities, that are reasonably certain to occur within the action area of the federal action subject to consultation” ***(50 CFR § 402.02)***. Note: this definition of cumulative effects is different than what is required for ***NEPA***. Guidance on evaluation of cumulative impacts to satisfy ***NEPA*** is provided in FDOT’s ***Cumulative Effects Evaluation Handbook***.

9. Discuss efforts that will be taken to avoid, minimize, or offset the effects of the action on federally listed species or critical habitat. This should include precautionary measures, design modifications, conservation measures, and special construction methods that will eliminate or reduce adverse impacts. Special conservation measures and strategies may be appropriate and necessary for the avoidance of impacts. Any planned conservation measures for candidate species should also be described ***(FHWA, 2002)***.

10. Draw conclusions on the significance of impacts to federally listed species and critical habitat within the action area.

11. Any other relevant information.

The above information is used by the District to come to an "effect" determination for each federally listed species and designated critical habitat to be included in the ***NRE*** (see ***Section 16.2.2.1***).

The ***NRE*** should also discuss potential impacts to state listed species and include effect determinations (similar to the federal determinations) for those species. The report should include information on other protected species likely to occur in the action area. The presence of natural communities, such as FWC designated SHCAs and FNAI rare natural communities, should also be identified. Any species-specific surveys or permits that may be needed later in the process should also be discussed. This analysis and any coordination with the FWC or FDACS should be included in the ***NRE***. Generally, final agency concurrence has not yet been obtained and is not summarized in the ***NRE***. The ***NRE*** is used to complete consultation and will become a supporting document to and summarized in the final Environmental Document.

The District should conduct a quality control review of the document and must submit the draft ***NRE*** to OEM for review prior to submitting to the appropriate agencies for coordination/consultation.

16.3.2.5.2 Review by Resource Agencies

After OEM review and comment resolution, the final ***NRE*** can be distributed to the Services, Cooperating Agencies, FDACS, and FWC. Informal consultation may be initiated by the District via e-mail or letter to the Service(s), requesting concurrence on the federal species effect determinations. Formal consultation will be initiated by OEM via e-mail or letter to the Service(s).

Typically, the ***NRE*** is submitted to the resource agencies prior to the submittal of the EA or Draft Environmental Impact Statement (DEIS) for public availability. Consultation should be completed prior to the public hearing when possible, or otherwise prior to Location and Design Concept Acceptance (LDCA). If consultation cannot be completed prior to LDCA, see ***Section 16.2.2.1.5***.

If the District receives comments from the Service(s), FDACS, or FWC, an ***NRE*** addendum or other correspondence (i.e., e-mail or letter) addressing the comments is prepared. An ***NRE*** should only be revised if comments from agencies are so substantial that an addendum would not suffice to address the comments. ***NRE*** addendums or revised ***NREs*** are submitted to the appropriate agency for continued consultation or coordination.

16.3.2.6 PD&E Documentation

Project documentation consists of maintaining the project file in SWEPT, completing the appropriate protected species and habitat section of the Environmental Document, and documenting project commitments.

16.3.2.6.1 Project File

The District Project Manager is responsible for collecting and maintaining the information gathered during the protected species and habitat evaluation as part of the project file. Information in the project file documents any formal or informal coordination or consultation with the agencies, the determination of effects on listed species and critical habitat, agency concurrence as well as commitments made during the PD&E Study. All assessment materials (e.g., maps, analyses, survey reports) are contained in the project file which resides in SWEPT. All technical reports (***NRE***, technical memo), agreements, and agency coordination should also be included.

16.3.2.6.2 Environmental Document

The results of the protected species and habitat evaluation are documented in the Environmental Document as described below:

1. **Type 2 Categorical Exclusions (CEs)** - Evaluation material should be briefly summarized and included in the Protected Species and Habitat section of the ***Type 2 Categorical Exclusion Determination Form***. Documentation includes a concise summary of protected species and habitat impacts and agency coordination, supported effect determinations for each species and critical habitat, and dates of agency concurrence. Any protected species and habitat related commitments should be included in the Commitments section of the form. The ***NRE*** or technical memo needs to be referenced and placed in the SWEPT project file. If a concurrence letter or ***BO*** was needed from the Services, it must be attached to the ***Type 2 Categorical Exclusion Determination Form*** and included in the project file.

2. **Environmental Assessments (EA) and Environmental Impact Statements (EIS)** - The results of the protected species and habitat analysis/listed species impact assessment detailed in the ***NRE*** or technical memo are summarized in the Environmental Document.

a. EIS Executive Summary – Federally listed species and habitat information should be included in the Executive Summary of an EIS according to ***Part 1, Chapter 8, Draft Environmental Impact Statement*** and ***Part 1, Chapter 9, Final Environmental Impact Statement***. The following standard statement must be used in the Executive Summary for EISs when a "no effect" determination is applicable:

> *It has been determined by FDOT, that the project, as proposed, will have "no effect" on any federally threatened or endangered species or designated critical habitat.*

For a Final Environmental Impact Statement/Record of Decision (FEIS/ROD) this finding is included in the ROD.

If disagreements exist, they should be identified in the Unresolved Issues and Areas of Controversy section of the FEIS Executive Summary (***Part 1, Chapter 9, Final Environmental Impact Statement***).

b. Environmental Analysis Section - The discussion of protected species and habitat in the Environmental Analysis section should include a description of protected species that may occur in the project area as well as habitat types that may be impacted by the proposed project alternatives. Documentation should also include maps showing the relationship of the project to the protected species identified and the relationship of the project to the habitat types.

This section of an EIS or EA also includes a summary of the Protected Species and Habitat section of the ***NRE*** and presents the results of the impact assessment, effect determinations, and recommended avoidance, minimization, compensation for impacts, and enhancement measures. This section should provide sufficient information on the impact assessment such that a reviewer can determine the validity of the methodology.

This section must describe the protected species and habitat impacts of the proposed project for each alternative. The information should have sufficient scientific and analytical substance to provide a comparison of alternatives, as well as provide enough information for the decision-maker to determine the alternatives that would have the least and most impact to listed species and habitat resources. This includes impacts to listed species, critical habitat, and may include wildlife habitat connectivity and other protected species. The use of charts, tables, maps, and other graphics to illustrate comparisons between the alternatives and their respective impacts should be used. The results of this section should be used in the Alternatives matrix (***Part 2, Chapter 3, Engineering Analysis***).

The following standard statement (findings) must be included in the Environmental Analysis section of an EIS or EA if federally endangered or

threatened species or critical habitat are not present in the action area:

> *This project has been evaluated for impacts on federally threatened and endangered species and designated critical habitat. A review was conducted to determine those possible threatened or endangered species which may inhabit the project area. This search resulted in findings that no federally listed species are likely to be present in the action area and no critical habitat was identified. This was determined after undertaking a listed species and habitat evaluation and a field survey of the project area by a biologist.*
>
> *The determination was made that the project will not impact any proposed threatened or endangered species, any threatened or endangered species, or affect or modify any critical habitat. A determination of "no effect" has been made, and the project is consistent with the Endangered Species Act, as amended.*
>
> The ***NRE*** (or technical memo if applicable) should be, referenced, and placed in the SWEPT project file.

c. Comments and Coordination - Correspondence with USFWS, NMFS, FWC, or other resource or regulatory agencies regarding protected species and habitat information (e.g., coordination letters, emails, meeting minutes, comments on technical reports, concurrence letters) should be included in the Comments and Coordination section of an EA or EIS, referenced in the Environmental Analysis section, and added to the SWEPT project file.

d. Commitments - Protected species and habitat commitments are documented in the Commitments section of an EA or EIS (see ***Section 16.3.2.6.3***). See ***Part 2, Chapter 22, Commitments*** for more detail on how to prepare this section of the EIS or EA.

e. Final Documents - Protected species and habitat information must be updated in the EA with FONSI, FEIS, or FEIS/ROD after the public hearing and the findings documented according to ***Part 1, Chapter 7, Finding of No Significant Impact*** or ***Part 1, Chapter 9, Final Environmental Impact Statement***.

3. **SEIR** - The results of the protected species and habitat evaluation are included in the Protected Species and Habitat Section of the SEIR. Documentation includes a concise summary of protected species and habitat impacts and agency coordination. The ***NRE*** or technical memo needs to be referenced and placed in the SWEPT project file. Any protected species and habitat related commitments should be included in the Commitments section. See ***Part 1, Chapter 10, State, Local or Privately Funded Project Delivery*** for more detail on how to prepare a SEIR.

4. **Consultation Completion** - There may be some instances when one of the Services does not have enough information to concur with, or not concur with an FDOT effect determination. In these cases, the Protected Species and Habitat section of the Environmental Document will include information as described in ***Section 16.2.2.1.5***. Associated commitments must also be provided in the Commitments section of the ***Type 2 Categorical Exclusion Determination Form***, EA or EIS. In these instances, a statement similar to the following is used:

> *Based on coordination with (insert U.S. Fish and Wildlife Service and/or National Marine Fisheries Service) to comply with Section 7 of the Endangered Species Act, FDOT commits to reinitiate consultation and provide information necessary to complete consultation on the [insert name of specie(s)] prior to advancing the project to construction. The letter from (insert U.S. Fish and Wildlife Service and/or National Marine Fisheries Service) is intended to provide reasonable assurance, per 23 CFR § 771.133, that requirements of the ESA are able to and will be met prior to construction. The status of this commitment will be updated in any subsequent project re-evaluations.*

16.3.2.6.3 Commitments

Protected species and habitat commitments may be ***BO*** or ***Incidental Take Statement*** commitments, or actions/activities required to advance the project and require action in a later project phase to implement. Commitments may include incorporating special construction provisions into the contract documents, retrofitting of structures to serve as wildlife passages, building of wildlife crossings, wildlife signage, crossing structure monitoring, protected species surveys during later phases, and continued coordination with federal and state resource agencies when consultation cannot be completed during the PD&E phase. Commitments must be coordinated with other FDOT offices to ensure each commitment is feasible.

Commitments related to protected species and habitat made by FDOT over the course of the project study are documented according to FDOT ***Procedure No. 650-000-003, Project Commitment Tracking***. See ***Part 2, Chapter 22, Commitments*** for more information. These commitments are also included in the Commitments section of the Environmental Document. Commitments may be initially identified in the ***NRE*** submitted to the resource agencies for their review. When a concurrence letter, ***BO*** or other agency correspondence modifies initial commitments, the language in the resource agency response should be the commitment listed in the Environmental Document.

At the conclusion of consultation, the Services may include conservation recommendations, which are non-binding (discretionary) suggestions provided separately from a ***BO*** or ***Incidental Take Statement (USFWS and NMFS, 1998, 4-62)***. The District should consult with District management and OEM prior to making conservation recommendations a commitment.

16.3.3 Design and Construction Phases

16.3.3.1 Re-evaluation

The following information must be documented in a Re-evaluation per ***Part 1, Chapter 13, Re-evaluations***:

1. Changes in impacts to protected species or habitats;
2. Changes in mitigation strategies;
3. Changes in listing status;
4. Results of surveys, continued coordination, or other commitments needed to be fulfilled prior to advancing the project to the next phase.

16.3.3.2 Design Considerations

Project commitments may include construction conditions for protected species, specific design requirements (e.g., the construction of wildlife crossings, or wildlife crossing features that can minimize take) or other project specific treatments (e.g., exclusionary fencing, curb heights, etc.). In some cases, special provisions or modified special provisions may need to be considered. Plan notes are only used when absolutely necessary and must be project-specific and cannot repeat specifications, permit conditions and/or design standards.

16.3.3.3 Permitting

The federal and state permitting processes, as related to protected species and habitat issues, are relatively straightforward if the project team has engaged in **"early, continual, and strategic coordination"** throughout Planning, PD&E, and Design. During PD&E these issues should have been addressed with resource agencies and project commitments made, therefore it is important that the Project Manager and Permit Coordinator coordinate during permitting. Prior to permitting, ongoing coordination and thorough documentation of resource agency decisions and commitments (if any) should have produced a well-developed basis for successful permitting.

Federal permitting authority for FDOT projects typically originates from proposed impacts to jurisdictional wetlands and/or other surface waters, or from bridge or causeway construction over navigable waters of the United States. The USACE and FDEP regulate the discharge of dredged and fill material into waters of the United States, including wetlands, under ***Section 404*** of the ***CWA***. The USCG administers the permitting program for bridge and causeway construction under a variety of statutes, including ***Rivers and Harbors Act of 1899***, the ***General Bridge Act of 1946***, and other authorities. Refer to ***Part 1, Chapter 12, Environmental Permits***, ***Part 1, Chapter 16, United States Coast Guard Projects and Navigation***, and the FDOT ***Permit Handbook***.

The issuance of federal permits requires coordination with USFWS and/or NMFS to determine if actions associated with the permitted activity will impact federally listed species, following the ***ESA Section 7*** consultation process outlined previously in ***Section 16.2.2.1***.

For federal projects where FDOT is the lead agency, FDOT will complete consultation with USFWS and/or NMFS and provide the completed consultation information (i.e., concurrence letters) to USACE and/or USCG as part of the permit application(s) to be incorporated in the regulatory agency action.

For state funded projects requiring ***ESA Section 7*** consultation as a result of federal permitting, FDOT will obtain Technical Assistance from the USFWS as part of the PD&E Study and include the results with the federal permit application(s). At the time of permitting, USACE and/or USCG will coordinate with FDOT to determine which permitting agency should act as the "lead agency" to initiate ***ESA*** consultation. As part of the permitting process, the Service(s) may request additional data, including recent species-specific field surveys, confirmation of habitat mapping and characterization, and data on any observed listed species occurrences. This information provides the "facts on the ground" that complement the PD&E Study results.

Issuance of federal permits from USACE and/or USCG is contingent upon approval from the Service(s) that the project has "no effect," or "may affect, is not likely to adversely affect" federally listed species or critical habitat, or that the action "may affect, is likely to adversely affect" one or more listed species and incidental take is authorized by an ***Incidental Take Statement*** in a ***BO***.

To ensure that ***ESA Section 7*** consultations do not delay the issuance of federal permits for transportation projects, the Districts are encouraged to conduct "early, continual, and strategic coordination" with the permitting agency, USFWS, and/or NMFS.

Issuance of a state general, individual, or conceptual Environmental Resource Permit (ERP) from FDEP or a Water Management District (WMD) requires that the activity "will not adversely impact the value of functions provided to fish and wildlife and listed species by wetlands and other surface waters" (e.g., ***Rule 62-330.301(d), F.A.C.***). As part of the state permitting procedure for the ERPs, the state permitting agency sends the permit application to other agencies (e.g., FWC and the Department of State, Division of Historical Resources). The Project Manager and Permit Coordinator should facilitate the communication of relevant resource agency decisions documented during the PD&E Study and commitments to FDEP or the WMD as part of the state permit application process.

16.3.3.3.1 Federal and State Protected Species Permits

Federal and state permits may be required for unavoidable impacts to or for take of protected species. Species protected by the federal ***ESA*** may require an Incidental Take permit from USFWS or NMFS. The FWC also requires Incidental Take permits for activities that may result in take of state listed species.

Species such as the American Bald Eagle, Florida burrowing owl and gopher tortoise are not subject to ***ESA*** review, yet may require species specific permits during project permitting. Detailed guidance on the most common protected species permit types required for transportation projects is provided in the FDOT ***Permit Handbook*** and ***Part 1, Chapter 12, Environmental Permits***.

16.3.3.4 Contractor Requirements

FDOT developed ***FDOT Contractor Requirements for Unanticipated Interaction with Protected Species*** for use by contractors when interaction with protected species is not anticipated and the following conditions exist: A "no effect" determination has been made, no commitments have been made (as described in FDOT ***Procedure No. 650-000-003, Project Commitment Tracking***), and/or no permit conditions exist. These requirements address common protected species that may be encountered on FDOT projects and provides guidance in the event that a protected species is encountered during construction activities. The Construction Project Administrator (CPA), Consultant Construction Engineering and Inspection (CCEI), Contractor, Project Manager, and Field Superintendents should be reminded of these requirements during the pre-construction meeting or at the pre-proposal meeting for Design-Build projects. A link to these requirements is provided in ***Section 7-1.4*** of the ***Florida Department of Transportation Standard Specifications for Road and Bridge Construction***.

16.3.3.5 Off-project Activities

Off-project activities performed by FDOT or Contractor could have the potential to impact protected species or critical habitat. Examples of such activities are borrow pits, disposal sites, concrete plants, asphalt plants, and material or equipment storage sites also known as staging areas. Stormwater management facilities identified in project plans should be surveyed like the rest of the project during permitting. Off-project activities are not exempt from the requirements of ***Section 7*** of the ***ESA*** or state regulations.

A field survey is required for all Contractor activities which might involve federally listed species consideration in accordance with ***Section 7-1.4*** of the ***Florida Department of Transportation Standard Specifications for Road and Bridge Construction***. Survey methods in ***Section 16.3.2.1.4*** also apply to off-project locations and are to be performed by District environmental personnel. An ***NRE*** should be completed and ***Section 7*** consultation may be requested by the Services for any activity which, through reduction of habitat or physical presence, would impact a federally listed species or critical habitat. The presence of state listed species, or otherwise protected species must also be determined in off-project impact areas. The procedures for this determination are the same as described in this chapter for the project area. Coordination may be necessary with both the Services and FWC.

16.3.3.5.1 Procedure

At the pre-construction conference, District staff must notify the CPA that it is the Contractor's responsibility to submit a written request for the District to conduct a

biological evaluation of any site where off-project activities are proposed. The District Environmental Office must notify the CPA that the Contractor request necessary biological evaluations with sufficient lead time so they may be completed without delaying the related off-project activity.

The written request should include the location of the activity (Section, Township, Range, County, City) with a map identifying haul or access roads. The project description should be identified by Financial Management Number and Contract Number. This will provide District environmental personnel the opportunity to research if any protected species are reported for the specified area. The District environmental personnel will notify the Resident Engineer and CPA of their scheduled arrival (date, time) for the evaluation of the site.

Upon completion of the field evaluation, if no species issues are identified, the District will send a written notice to the CPA stating that the contractor may proceed with the project. The District Materials Engineer and Resident Engineer should be copied. A sample letter is provided in ***Figure 16-8***. The District should notify the CPA if a potential listed species is identified in the off-project area and if ***ESA Section 7*** consultation is required. If ***ESA Section 7*** consultation is required, the District Environmental Office and CPA should coordinate with the Contractor on how to proceed.

16.3.3.6 Maintenance Activities

Maintenance activities such as roadside mowing, culvert repair/replacement, herbicide/fertilizer application, tree/shrub trimming, guardrail repair, bridge maintenance and repair typically are undertaken without impacting protected species or wildlife habitat. District Environmental Office staff should assist the Office of Maintenance when protected species issues arise (***Section 16.3.3.4***) or maintenance activities that may affect protected species or wildlife habitats are planned. Examples include:

1. Culvert repair/replacement in areas known to be inhabited by the Panama City Crawfish;

2. Mowing and or herbicide/fertilizer application on roadsides inhabited by listed plant species;

3. Bridge repair/maintenance in bridges that may be roosting sites for protected bat species;

4. Bridge repair/maintenance requiring in water work; and,

5. Tree/shrub trimming in mangrove areas

A field survey is required for maintenance activities which might involve federally listed species consideration in accordance with ***Section 7*** of the ***Florida Department of Transportation Standard Specifications for Road and Bridge Construction***. Survey methods in ***Section 16.3.2.1.4*** apply to off-project locations as well as the project area and are to be performed by District environmental personnel. An ***NRE*** or technical memo

should be completed and ***Section 7*** consultation may be requested by the Services for any activity which, through reduction of habitat or physical presence, would impact a federally listed species or critical habitat. Coordination may be necessary with both the Services and FWC.

16.4 EMERGENCY CONSULTATION

In cases where emergency actions may affect federally listed species and/or critical habitats, emergency consultation with the Services is required by ***Section 7*** of the ***ESA***, as amended (***50 CFR § 402.05***). USFWS defines an emergency to include an act of God, disasters, casualties, national defense or security emergencies, and includes response activities that must be taken to prevent imminent loss of human life or property. Consultation may be conducted informally through alternative procedures that the Service(s)'s Director determines to be consistent with the requirements of the ***ESA***. Emergency consultation procedures allow federal agencies to incorporate endangered species concerns into their response actions - they are **not** intended to interfere with emergency response efforts.

The key step in emergency consultation is early contact with the appropriate USFWS Ecological Services office. See ***Figure 16-4***. Initial emergency consultation procedures are as follows:

1. The District initiates consultation by contacting the Service(s). Written documentation of the proposed action is preferred by the Service(s) as circumstances allow.

2. The Services should respond as soon as possible (within 48 hours) by written correspondence, with recommendations to minimize the effects of the emergency response action on federally listed species or their critical habitat.

The guidelines for emergency consultation may depend upon whether the actions take place within a Presidentially-declared disaster area. A good example is provided by a USFWS Region 4 letter (***Figure 16-9***) addressed to federal agencies following Hurricane Katrina (***USFWS, 2005***):

> Within the declared disaster areas, ***Section 7(p)*** of the ***ESA*** should be interpreted to mean that restoring any infrastructure damaged or lost due to the hurricane back into the original footprint does not require ***ESA*** consultation with the Service.
>
> For storm related activities outside of the declared disaster areas, Federal agencies should use the emergency consultation procedures covered in ***50 CFR Part 402*** and in Chapter 8 of the Service's ***Section 7*** Handbook. These guidelines indicate that agencies should contact the Service by phone, the Service should offer recommendations verbally to minimize the effects of the emergency response action on listed species or their critical habitat, and the Service should follow up with written correspondence to the action agency documenting the conversation. The guidelines indicate clearly that the Service

should not stand in the way of response efforts. After the emergency is under control, the action agency initiates formal consultation if listed species were adversely affected.

Recommendations from the Services may include strategies to avoid and/or minimize incidental take, and conservation recommendations to help protect federally listed species and their habitats within the emergency action area. In their recommendations, the Services should indicate if the emergency actions may result in "jeopardy" or "adverse modification" to federally listed species or critical habitat, and if any means for reducing or avoiding this effect are apparent. ***Figure 16-10*** is an example of recommendations from USFWS concerning an emergency consultation. The District must implement and maintain the on-site protective measures that the Service(s) identified during the emergency ***Section 7*** consultation.

As soon as possible after the emergency is under control, formal consultation with the Services **must** be initiated if federally listed species or critical habitat have been adversely affected. Procedurally, the emergency formal consultation is treated like any other formal consultation by the Services, which means consultation must be initiated by OEM.

If OEM must initiate formal consultation after an emergency, the District should request OEM send the following information to the Services:

1. A description of the emergency;

2. A justification for the expedited consultation; and

3. An evaluation of the response to, and the impacts of, the emergency on affected species and their habitats. This includes documentation demonstrating how the Services' recommendations were implemented, and the results of implementation in minimizing take.

After concluding formal consultation, the Service(s) will then issue an emergency ***BO*** which documents its recommendations and the results of agency implementation of the recommendations on federally listed species. This ***BO*** also may document the actual or estimated take occurring from the emergency response actions.

The Services' emergency consultation procedures are found in the ***USFWS/NMFS Endangered Species Consultation Handbook, Sections 8.1 and 8.2***. For additional information on current emergency coordination procedures, current contact information, executive orders, and best management practices, view the OEM website or the Service(s)' websites.

Coordination with FWC in cases where emergency actions may affect state listed and/or protected species is recommended.

16.5 REFERENCES

Chapter 5B-40, F.A.C., Preservation of Native Flora of Florida

Chapter 68A-27, F.A.C., Rules Relating to Endangered or Threatened Species

CWA of 1972, as amended. https://www.epa.gov/laws-regulations/summary-clean-water-act

ESA of 1973, as amended 1978, 1979 and 1982. https://www.fws.gov/sites/default/files/documents/endangered-species-act-accessible.pdf

Fish and Wildlife Coordination Act of 1934, as amended. https://www.law.cornell.edu/topn/fish_and_wildlife_coordination_act

FHWA, 1987. Guidance for Preparing and Processing Environmental and Section 4(f) Documents. http://environment.fhwa.dot.gov/projdev/impta6640.asp

FHWA, 2002. Management of the ESA Environmental Analysis and Consultation Process. February 20, 2002 Memorandum to Division Administrators from the Director of Office of Natural Environment, FHWA. http://environment.fhwa.dot.gov/ecosystems/laws_esaguide.asp

FHWA, 2003. Designation of a Non-Federal Representative to conduct Informal Consultation Under Section 7 of the ESA. March 3, 2003 letter to Sam D. Hamilton, Regional Director of the SE Region USFWS from George Hadley/James E. St. John, Division Administrator of USDOT Federal Highway Administration

FHWA, 2003. Designation of a Non-Federal Representative to conduct Informal Consultation Under Section 7 of the ESA. February 28, 2003 letter to Roy E. Crabtree, Regional Administrator of the NMFS from George Hadley/James E. St. John, Division Administrator of USDOT Federal Highway Administration

FHWA, 2005. Endangered Species Act Legal Analysis. February 18, 2005 Memorandum to Division Administrators from the Associate Administrator for Planning, Environment, and Realty, FHWA

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

FDOT, 2019. Clarification of No Effect Determinations and Species Keys for Endangered Species. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/protected-species/use-of-species-keys-update_december2019.pdf?sfvrsn=1f24318a_2

FDOT, 2019. FDOT Lead Agency Role for Endangered Species Act Consultation. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/esa-lead-agency-consultation.pdf?sfvrsn=a3102dd6_2

FDOT, Environmental Policy, Topic No. 000-625-001. https://pdl.fdot.gov/

FDOT, Florida Department of Transportation Wildlife Crossing Guidelines. https://www.fdot.gov/environment/protected-species-and-habitat

FDOT, Project Commitment Tracking, Topic No. 650-000-003. https://pdl.fdot.gov/

FDOT, Protected Species and Habitat Website. https://www.fdot.gov/environment/protected-species-and-habitat

FDOT, Standard Specifications for Road and Bridge Construction, Florida Department of Transportation, Section 7-1.4. https://www.fdot.gov/programmanagement/Specs.shtm

Marine Mammal Protection Act of 1972, as amended. https://www.fws.gov/law/marine-mammal-protection-act

MBTA of 1918, as amended. http://www.fws.gov/laws/lawsdigest/migtrea.html

NEPA of 1969, as amended (42 USC § 4321 et seq.). http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/Req-NEPA.pdf

NMFS, 2013. How to Submit an Endangered Species Act (ESA) Section 7 Consultation Request to National Marine Fisheries Service (NMFS) Southeast Regional Office. http://sero.nmfs.noaa.gov/protected_resources/section_7/consultation_submittal/index.html

Section 163(2), F.S., Growth policy; County and Municipal Planning; Land Development Regulation Section 379, F.S., Fish and Wildlife Conservation

Section 581.185(10), F.S., Preservation of native flora of Florida

Title 23 CFR Part 771, Environmental Impact and Related Procedures. http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=3f0e8ae65ee76fc13c0bc7a240e9fc59&mc=true&r=PART&n=pt23.1.771

Title 40 CFR §§ 1500-1508, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act. http://www.ecfr.gov/cgi-bin/text-idx?gp=&SID=2844df1cb4a3af5ebaa699f42d98a60f&mc=true&tpl=/ecfrbrowse/Title40/40chapterV.tpl

Title 50 CFR § 402, Interagency Cooperation – Endangered Species Act of 1973. http://www.ecfr.gov/cgi-bin/text-idx?SID=01a705dc1f55bb4fa8236bf90e86822f&mc=true&node=pt50.11.402&rgn=div5

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USFWS, 2017. Critical Habitat: Frequently Asked Questions. https://www.fws.gov/sites/default/files/documents/critical-habitat-fact-sheet.pdf

USFWS, 2004. Endangered Species Glossary. https://efotg.sc.egov.usda.gov/references/Public/FL/ESA_Glossary.pdf

USFWS and NMFS, 1998. Endangered Species Consultation Handbook. Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act, March 1998 Final. https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

16.6 FORMS

Technical Report Cover Page, Form No. 650-050-38

16.7 HISTORY

10/1/1991, 8/26/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 27, 1/14/2019, 7/1/2020, 7/1/2023

Table 16-1 Effect Determinations

STEP	EFFECT DETERMINATIONS		
	No Effect	**May Affect, Not Likely to Adversely Affect**	**May Affect, Likely to Adversely Affect**
1.	No consultation with Services required.	District initiates informal consultation.	NRE is completed. At least one listed species receives a "may affect, likely to adversely affect" determination.
2.	Document the "No Effect" determination and justification in the Environmental Document.	District works with Service(s) to evaluate and reduce potential impacts to species and/or critical habitat.	District sends a written request to OEM, requesting initiation of formal consultation. The request includes an "initiation package" that describes the project and potential impacts.
3.	**Process complete**.	District reaches determination of "May Affect, Not Likely to Adversely Affect."	OEM initiates formal consultation with the Service(s).
4.		District sends package to Service(s) for review and concurrence, with the reasons supporting determination, and project modifications and/or commitments to reduce potential impacts.	The Service has 30 working days to review the initiation package for completeness. If incomplete, a request for additional information is issued.
5.		If Service sends a concurrence letter, District documents the concurrence and any associated commitments in the Environmental Document. **Process complete**.	OEM, District, and Service(s) work together to avoid a listed species jeopardy opinion, and/or avoid destruction or adverse modification of critical habitat, while maintaining the project purpose and viability (if feasible).
6.		If Service sends a non-concurrence letter, District must either a) request that OEM initiate formal consultation; or b) modify the project to obtain concurrence.	Formal consultation must be concluded within 90 days of receiving a complete initiation package. The BO must be delivered to the action agency (OEM) within 45 days after conclusion of formal consultation.
			If a non-jeopardy BO is issued (no jeopardy to listed species and/or no destruction or adverse modification of critical habitat exists), the Service issues an Incidental Take Statement in association with the BO. The Incidental Take Statement conditions are non-discretionary and must be included by FDOT in the Commitments documentation. **Process complete.**
			If BO reaches a jeopardy or adverse modification conclusion, it will include reasonable and prudent alternatives to avoid jeopardy and/or adverse habitat modification. OEM must notify the Service of its final decision for proceeding with the project.

Note: Please see sections 16.2.2.1.5 and 16.3.2.6.2 if the Service(s) do not have enough information to concur or not concur.

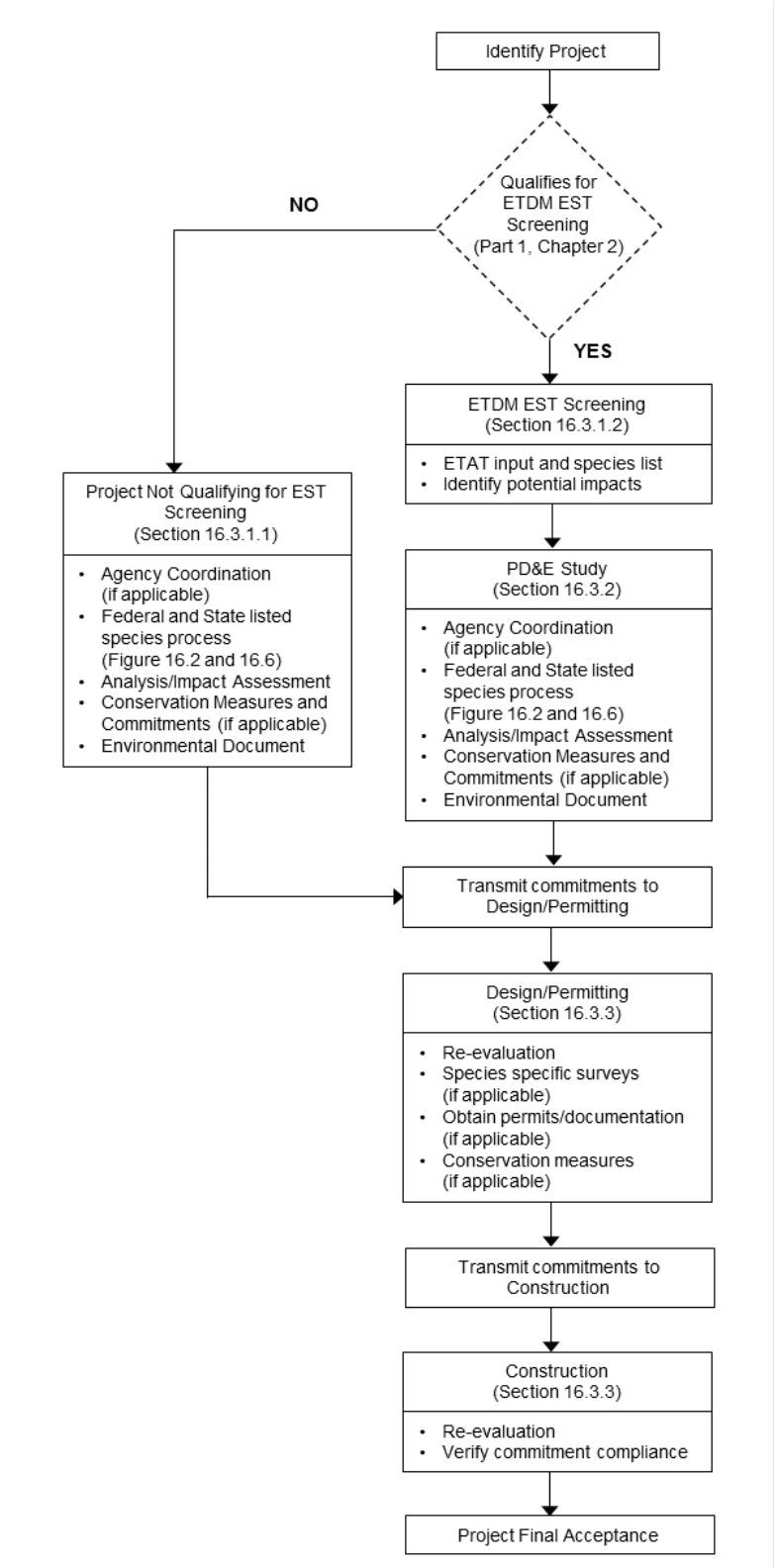


Figure 16-1 Protected Species and Habitat Evaluation Process

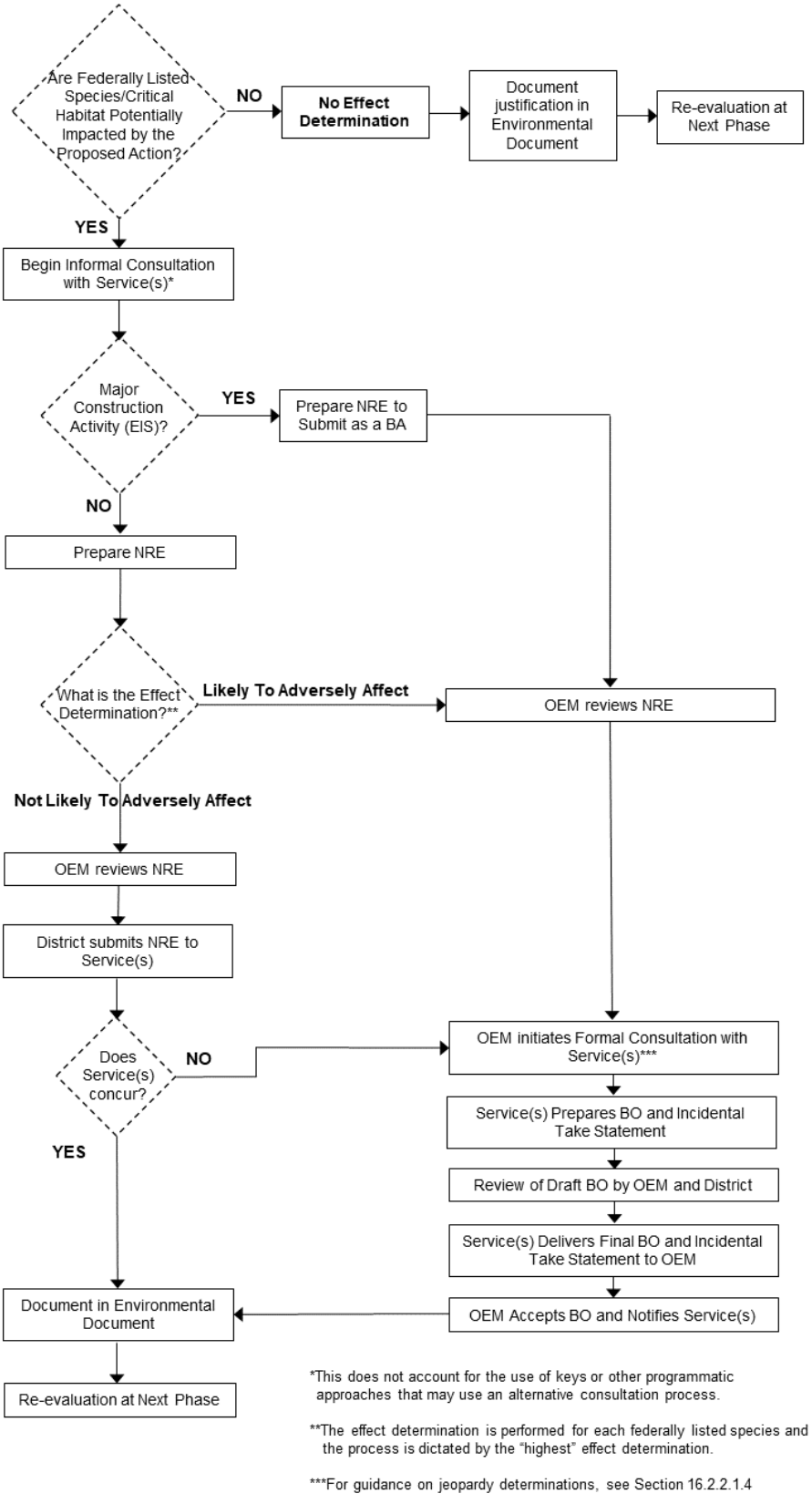


Figure 16-2 Federally Listed Species Process

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
http://sero.nmfs.noaa.gov

7/16/2013

MEMORANDUM FOR DISTRIBUTION

Ref.: How to Submit an Endangered Species Act (ESA) Section 7 Consultation Request to National Marine Fisheries Service (NMFS) Southeast Regional Office

Dear Action Agency:

NMFS Southeast Regional Office Protected Resource Division (PRD) is updating the procedures for action agencies to submit ESA Section 7 consultation requests. We are receiving a very high volume of consultation requests. To deal with this volume of requests we are trying to take advantage of more electronic processing including a new method of consultation request submittal. We also want to provide additional guidance on how you can make sure your consultation contains complete information so you don't experience further delays during our review. This letter will detail (1) where to submit a consultation request, (2) what to submit, and (3) how to track your submission.

1. Where do I submit my Section 7 consultation request?

We request that all ESA Section 7 consultation requests/packages be submitted electronically to nmfs.ser.esa.consultations@noaa.gov. Electronic submittal to this dedicated e-mail address allows us to quickly log consultation requests received into NMFS's Public Consultation Tracking System (PCTS), to assign and forward them to the appropriate PRD consultation biologist, and to keep an electronic backup of requests received. This e-mail account is capable of receiving messages with attachments up to 25MB. Send the request and all supporting documentation to nmfs.ser.esa.consultations@noaa.gov.

If there are extenuating circumstances that require information be mailed, please send to:

National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southeast Regional Office
Protected Resources Division
263 13th Avenue South
St. Petersburg, Florida 33701-5505

2. What do I need to submit?

All Section 7 consultation requests must include relevant information for the consulting biologist to clearly understand the project: its location; listed species and/or critical habitat found in the action area; a determination of the project's effects to listed species and/or critical habitat (e.g., no effect; may affect, but not likely to adversely affect; likely to adversely affect); and a clear

Figure 16-3 National Marine Fisheries Service Memorandum for Distribution

discussion of the potential routes of effects to listed species and/or their critical habitat. These "biological assessments" should be appropriate to the scope of the proposed project. By regulation, biological assessments are required under Section 7(c) of the ESA of 1973, if listed species or critical habitat may be present in the area affected by any "major construction activity" as defined in 50 CFR § 404.02: "a construction project (or other undertaking having similar physical effects) which is a major federal action significantly affecting the quality of the human environment."

For projects that are minor (i.e., do not meet the definition of "major federal actions", as defined in 50 CFR § 404.02), we have created a *Section 7 Checklist* and accompanying *Section 7 Checklist Procedures* document that lists the essential information needed by our consultation biologists to respond timely to the consultation request. This information allows us to determine the level of direct and indirect impacts a project will have on ESA-listed species and their critical habitats. Examples of direct impacts include those effects directly related to the construction of the project, including loss of foraging or refuge habitat, death of species from construction equipment interactions, impacts from turbidity, and impacts from noise generated during construction. Examples of indirect impacts are things that may happen later in time as a result of the completion of the project, including more vessel traffic that could strike listed species, more fishing that could capture listed species, and more pollution. Any additional information you provide related to the project (including submerged aquatic vegetation surveys, site photographs, engineering project design drawings, historically permitted actions, etc.) will help speed the consultation process.

Please visit our Web site (http://sero.nmfs.noaa.gov/protected_resources/section_7/) to find useful resources to assist you in your consultation request submission. Here you will find the Action Agency Consultation Package links which contain the guidance for submitting an ESA Section 7 consultation request, effects determination guidance, species and critical habitat lists, consultation tracking in PCTS, observer lists, emergency consultations, frequently requested biological opinions, and ESA policies, guidance, and regulations.

3. How do I check the status of my project in PCTS?

All projects that undergo Section 7 consultation with NMFS are entered into PCTS at https://pcts.nmfs.noaa.gov/ within a few days of receipt by PRD. For U.S. Army Corps of Engineers (USACE) projects, the easiest and quickest way to look up a project's status, or review completed ESA/EFH consultations, is to click on either the "Corps Permit Query" link (top left); or, below it, click the "Find the status of a consultation based on the Corps Permit number" link in the golden "I Want To…" window. Then, from the "Corps District Office" list pick the appropriate USACE district. In the "Corps Permit #" box, type in the 9-digit USACE permit number identifier, with no hyphens or letters. Simply enter the year and the permit number, joined together, using preceding zeros if necessary after the year to obtain the necessary 9-digit (no more, no less) number. For example, the USACE Jacksonville District's issued permit number SAJ-2013-0235 (LP-CMW) must be typed in as 201300235 for PCTS to run a proper search and provide complete and accurate results. For querying permit applications submitted for ESA/EFH consultation by other USACE districts, the procedure is the same. For example, an inquiry on Mobile District's permit SAM201301412 is entered as 201301412 after

Figure 16-3 National Marine Fisheries Service Memorandum for Distribution (Page 2 of 3)

selecting the Mobile District from the "Corps District Office" list. PCTS questions should be directed to Eric Hawk at Eric.Hawk@noaa.gov or (727) 551-5773.

If you have any questions regarding the Section 7 process or our new consultation submittal process, please contact our office at (727) 824-5312 or by e-mail at nmfs.ser.esa.consultations@noaa.gov. Thank you for your continued cooperation in the conservation of listed species.

Sincerely,

David M. Bernhart
Assistant Regional Administrator
for Protected Resources

File: 1514.22.A

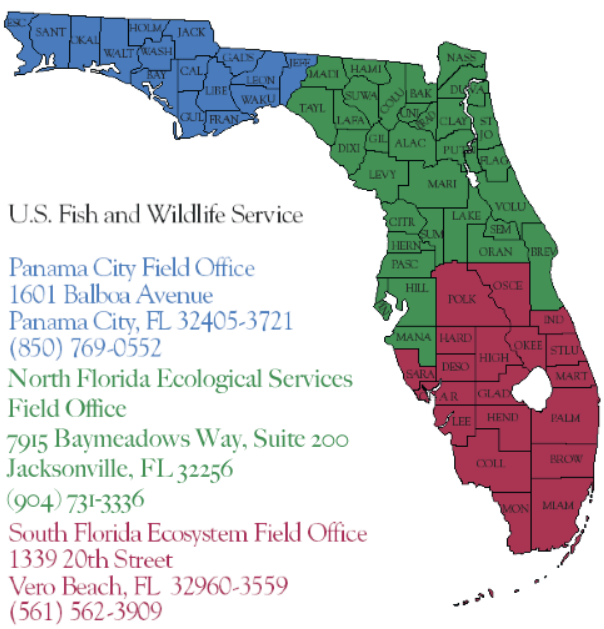
Figure 16-3 National Marine Fisheries Service Memorandum for Distribution (Page 3 of 3)

United States Fish and Wildlife Service (USFWS)

Vero Beach
[FDOT Districts 6, 4, 1, 5 (Osceola Co. only)]
Field Supervisor
South Florida Ecological Services Field Office
1339 20th Street
Vero Beach, FL 32960
Phone: (772) 562-3909
Fax: (772) 562-4288
https://www.fws.gov/verobeach/

Panama City
(FDOT District 3)
Field Supervisor
Panama City Ecological Services Field Office
1601 Balboa Avenue
Panama City, FL 32405
Phone: (850) 769-0552
Fax: (850) 763-2177
https://www.fws.gov/panamacity/

Jacksonville
[FDOT Districts 2, 5, 7, 1 (Manatee Co. only)]
Field Supervisor
North Florida Ecological Services Field Office
7915 Baymeadows Way, Suite 200
Jacksonville, FL 32256
Phone: (904) 731-3336
Fax: (904) 731-3045
https://www.fws.gov/northflorida/



National Marine Fisheries Service (NMFS)

Please notify your NMFS Environmental Technical Advisory Team (ETAT) member of electronic submittal of Section 7 consultation request/packages:

Gulf Coast: (813) 727-5379
Atlantic Coast: (561) 249-1652
Habitat Conservation Division
National Marine Fisheries Service
263 13th Ave. South
St. Petersburg, FL 33701
Phone: (727) 824-5317 Fax: (727) 824-5300

Figure 16-4 Offices Responsible for "Section 7" Consultation

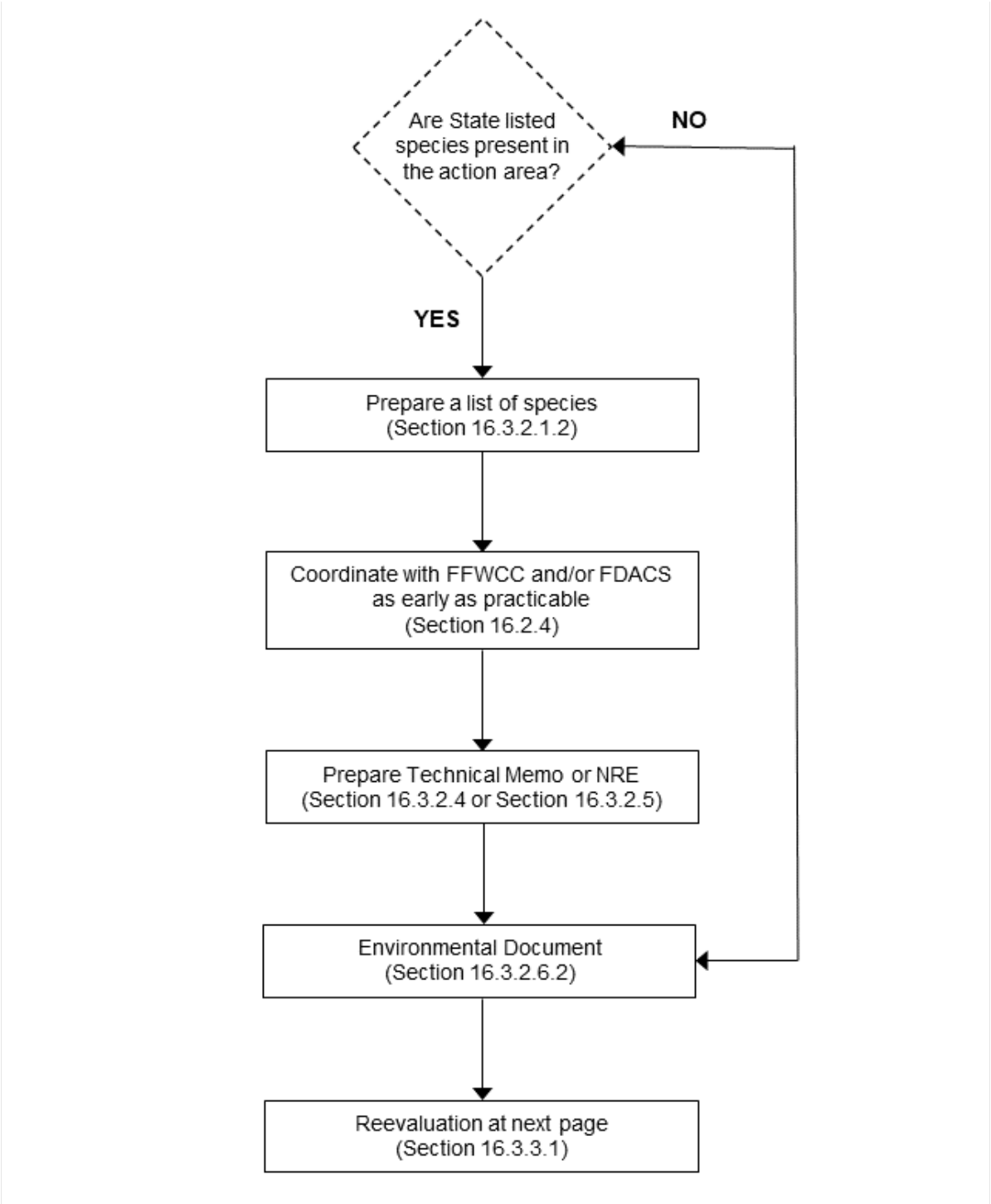


Figure 16-5 State Listed Species Process

Federally listed species information can be obtained from the following sources:

1) Terrestrial and freshwater species and critical habitat regulated by the **United States Fish and Wildlife Service (USFWS)**

- Species Lists and Recovery Plans available online at http://www.fws.gov/endangered/species/recovery-plans.html
- Federal lists by county:
  - USFWS Ecological Services Field Offices
    - Vero Beach - https://www.fws.gov/office/florida-ecological-services/visit-us/locations/vero-beach-office
    - Panama City - https://www.fws.gov/office/florida-ecological-services/visit-us/locations/panama-city-office
    - Jacksonville - https://www.fws.gov/office/florida-ecological-services/visit-us/locations/jacksonville-office
  - Contact the applicable USFWS Field Office directly (**Figure 16-4**) Also available online at: https://www.fws.gov/about/region/southeast
- Information, planning, and conservation (IPaC) decision support system at http://ecos.fws.gov/ipac/

2) Information on listed marine and anadromous species regulated by the **National Oceanographic and Atmospheric Administration, National Marine Fisheries Service (NOAA/NMFS)**

- Florida specific list at http://sero.nmfs.noaa.gov/protected_resources/section_7/threatened_endangered/index.html
- Contact NMFS directly (**Figure 16-4**)
- NMFS Section 7 checklist and accompanying Section 7 checklist procedure at http://sero.nmfs.noaa.gov/protected_resources/section_7/consultation_submittal/index.html
- The following NMFS website provides Action Agency Consultation Package links which contain the guidance for submitting an ESA Section 7 consultation request, effects determination guidance, species and critical habitat lists, consultation tracking in the Public Consultation Tracking System (PCTS), observer lists, emergency consultations, frequently requested biological opinions, and ESA policies, guidance, and regulations: http://sero.nmfs.noaa.gov/protected_resources/section_7/

Figure 16-6 Listed Species Information Sources

State listed species lists and additional information can be obtained from the following sources:

1) Animal species regulated by **Florida Fish and Wildlife Conservation Commission (FWC)**

- Contact the FWC for most up to date species lists and species action plans. Regional office contact information available at: http://myfwc.com/about/inside-fwc#DOs
- Published lists- see **Florida's Endangered and Threatened Species,** Available online at: https://myfwc.com/media/1945/threatend-endangered-species.pdf
- View an overview of the FWC's conservation model at: http://myfwc.com/wildlifehabitats/imperiled
- Check current listed species profile information on FWC's website: https://myfwc.com/wildlifehabitats/profiles/

2) Plant species regulated by the **Florida Department of Agriculture & Consumer Services (FDACS)**

- ***Regulated Plant Index FAC Ch5B-40.0055*** is available online at: https://www.flrules.org/gateway/RuleNo.asp?title=PRESERVATION%20OF%20NATIVE%20FLORA%20OF%20FLORIDA&ID=5B-40.0055
- The **Florida Statewide Endangered and Threatened Plant Conservation Program**, administered via the Florida Forest Service, has information at: http://www.floridaforestservice.com/forest_management/plant_conservation_index.html
- University of South Florida Herbarium website has distribution maps of rare plants in their Atlas of Florida Vascular Plants at: http://www.plantatlas.usf.edu

3) Species lists by County are available from **Florida Natural Areas Inventory (FNAI)**

- County Lists ***(County Occurrence Summaries)*** online at https://www.fnai.org/species-communities/tracking-main
- Species and Natural Community Summaries

The following is a link to the BA template that may be used to prepare the Listed Species and Habitat section of the NRE:

FHWA: http://www.environment.fhwa.dot.gov/esawebtool/Site/Template.aspx

Figure 16-6 Listed Species Information Sources (Page 2 of 5)

NMFS Pacific Islands:
http://www.fpir.noaa.gov/Library/PRD/ESA%20Consultation/Final%20Action%20Agency%20Consultation%20Package%20Files%20for%20website%201-12-09/Template%20for%20BA-BE%20-%201-12-09.pdf

The following organizations/agencies can be contacted for further species-specific information, expert interviews, habitat or GIS data:

Florida Department of Transportation (FDOT)

- Ecological staff at both the District and Central Office levels are experts with specific ecological and transportation experience. Often it is possible to find someone who has dealt with similar projects. Similarly, other states have expert environmental staff which may have similar experience.
- The publication, ***Florida Land Use, Cover and Forms Classification System (FLUCFCS) Handbook. 1999. Dept. of Transportation Surveying and Mapping. Thematic Mapping Section*** can be used to determine land use and existing habitat. It is downloadable at https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/content/geospatial/documentsandpubs/fluccmanual1999.pdf?sfvrsn=9881b4d0_0

Florida Fish and Wildlife Conservation Commission (FWC)

620 South Meridian Street
Tallahassee, FL 32399
(850) 488-4676

- Profiles and data for imperiled species available at: http://myfwc.com/wildlifehabitats/imperiled/
- General information for FWC GIS resources available at: http://myfwc.com/research/gis/
- GIS data for fish and wildlife habitat and fish and wildlife species locations: https://geodata.myfwc.com/
- GIS data available for marine listed species and resources: http://ocean.floridamarine.org/mrgis/Description_Layers_Marine.htm
- GIS data available for freshwater and tidal stream habitats: https://geodata.myfwc.com/search?tags=Freshwater%20Ecosystems

Figure 16-6 Listed Species Information Sources (Page 3 of 5)

FWC's Wildlife Research Laboratory
1105 S.W. Williston Road
Gainesville, FL 32601
Phone: 386-758-0525
https://myfwc.com/research/wildlife/

- A staff of wildlife biologists specializing in wildlife ecology, some with specific transportation-related experience, conduct wildlife research from this facility. Contact individuals for wildlife expertise.

Florida Natural Areas Inventory (FNAI)

1018 Thomasville Road, Suite 200-C
Tallahassee, FL 32303
(850) 224-8207
http://www.fnai.org/

- A diverse group of experts that are inventorying Florida's remaining natural areas and wildlife that can be contacted for ecological expertise
- Information available from FNAI includes species lists by county (***County Occurrence Summaries***), descriptions of natural community types ***(Natural Communities Inventory)***, GIS shapefiles of rare plants, animals, and habitat locations (***Element occurrences***), and information on Florida Managed Areas
- Many of these data can be downloaded from their website at https://www.fnai.org/publications/gis-data
- Available Publications

Florida Water Management Districts

http://www.dep.state.fl.us/secretary/watman/

- Regional Florida Water Management Districts or Counties may have ***Florida Land Use Cover and Forms Classification System (FLUCFCS)*** data layers available in GIS shapefiles

United States Department of Agriculture (USDA)

Natural Resources Conservation Service (NRCS)
State Conservationist
2614 NW 43rd Street P.O. Box 141510
Gainesville, FL 32614
(352) 338-9500

- Online soil maps and data available via the NRCS Web Soil Survey website at: http://websoilsurvey.sc.egov.usda.gov/app/HomePage.htm
- Hard copies of ***NRCS county soil surveys*** are listed at: Soil Surveys by State | Natural Resources Conservation Service (usda.gov)

Figure 16-6 Listed Species Information Sources (Page 4 of 5)

United States Fish and Wildlife Service (USFWS)

Southeast Region
Division of Endangered Species
1875 Century Blvd., Suite 200
Atlanta, GA 30345
http://www.fws.gov/endangered/
https://www.fws.gov/office/southeast-region-headquarters

- Jacksonville ES Office contacts: https://www.fws.gov/office/florida-ecological-services/contact-us
- Vero Beach ES office contacts: https://www.fws.gov/office/florida-ecological-services/contact-us
- Panama City ES Office contacts: https://www.fws.gov/office/florida-ecological-services/contact-us

USFWS's National Wetlands Inventory

- GIS data layers for ***National Wetlands Inventory (NWI)*** are available at: http://www.fws.gov/wetlands/

Universities

- Several State Universities have faculty specializing in different areas of biological and ecological sciences: Florida State University (FSU) Biological Sciences and Marine Sciences departments
- The University of Florida (UF) - Wildlife Ecology program: http://edis.ifas.ufl.edu/TOPIC_Threatened_and_Endangered_Species

Other Online Data and Information Sources

- Nature Serve: http://www.natureserve.org/
- Linking Florida's Natural Heritage Database: http://palmm.fcla.edu/feol/
- FDOT Gopher Tortoise Guidance Document: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/protected-species/final-fdot-oem-gopher_tortoise_guidance-exhibitis_9_2_2021.pdf?sfvrsn=e78798c5_2

Figure 16-6 Listed Species Information Sources (Page 5 of 5)

Natural Resource Evaluation

Florida Department of Transportation

District X

Project Title

Limits of Project

County, Florida

Financial Management Number: XXXXX-X

ETDM Number: XXXXXX

Date

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding May 26, 2022 and executed by the Federal Highway Administration and FDOT.

Figure 16-7 Sample Natural Resources Evaluation Cover Sheet

(Date)

CPA (Address)

SUBJECT : New Borrow Pit / Mixture Plant /
Construction Field Office (Name of off-site activity)
Financial Management Number : XXXXXXX
Federal-Aid Project Number : XXXXX-XXXX
Section _____, Township _____, Range _____
_____ County, Florida

Mr./Ms. _____:

A field survey was conducted in accordance with Article 7-1.4 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and in compliance with the Endangered Species Act of 1973 (amended 1978) and other Wildlife Regulations. No listed species were observed within close proximity of the proposed activities.

It is the opinion of this office that there will be no adverse impacts to federal or state protected, threatened or endangered species, or critical habitat. The contractor may proceed without further action from this office. However, if any federal or state protected, threatened or endangered species are encountered during the course of the activities, please contact our office.

If you have any questions concerning our comments, please do not hesitate to contact us.

Sincerely,

Name
District Environmental Office
Engineer/Manager

cc:
District Materials Engineer
Resident Engineer

Figure 16-8 Sample Letter to Contractor on Species Survey

In Reply Refer To:
FWS/R4/ES

Dear Federal Agencies Affected by Hurricane Katrina Response and Cleanup:

Until further notice, the Fish and Wildlife Service will consider all hurricane related Federal activities in counties and parishes in Presidentially-declared disaster areas to be disaster related (see attached maps). Section 7(p) of the Endangered Species Act (ESA) and the emergency consultation provisions of the regulations that implement the ESA (50 CFR Section 402) will be used.

Section 7 Consultation Under the Endangered Species Act

Within the declared disaster areas, section 7(p) of the ESA should be interpreted to mean that restoring any infrastructure damaged or lost due to the hurricane back into the original footprint **does not require ESA consultation** with the Service.

For storm related activities outside of the declared disaster areas, Federal agencies should use the emergency consultation procedures covered in 50 CFR section 402 and in Chapter 8 of the Service's section 7 Handbook. These guidelines indicate that agencies should contact the Service by phone, the Service should offer recommendations verbally to minimize the effects of the emergency response action on listed species or their critical habitat, and the Service should follow up with written correspondence to the action agency documenting the conversation. The guidelines indicate clearly that the Service should not stand in the way of response efforts. After the emergency is under control, the action agency initiates formal consultation if listed species were adversely affected.

Compliance with the National Historic Preservation Act

For your information and convenience, we are also including here some information regarding compliance with the National Historic Preservation Act (NHPA). The regulations to follow for compliance with section 106 of the NHPA in a disaster declaration are found at 36 CFR 800.12. The following points should be considered in working with these regulations in a disaster situation:

Immediate rescue and salvage operations conducted to preserve life or property are exempt from the provision of section 106 (36 CFR 800.12 (b)(2)(d)).

The following emergency procedures apply within 30 days of the declaration of an emergency (36 CFR.800.12 (b)(2)(d)):

Figure 16-9 Hurricane Katrina Response Letter

Agency officials and staff should contact their regional office to coordinate with their agency Preservation Officers or cultural resources staff; your agency may have a formal agreement on how to handle emergency situations for compliance with section 106 the NHPA, and can give the specific advice you will need for your agency in this recovery effort.

If your agency does not have a existing agreement or its own cultural resources staff, and has no existing agreement on how to carry out section 106 compliance in a emergency situation, follow the procedures given in 36 CFR 800.12 (b) (1) (2). These regulations require the Federal official to request comment from the State Historic Preservation Officer (SHPO), and with the Indian Tribes that may have an interest in your project area. You may contact the State Historic Preservation Office in each state for questions about specific undertakings, or general advice on compliance in this situation; they are the office that works with Federal agencies on a routine basis to assure compliance with the NHPA, and are charged with assisting the public and Federal agencies in preserving historic and cultural resources.

We suggest that you contact the appropriate SHPO for your state:

Alabama: Stacye Hathorn, Section Head, Review and Compliance: 334-230-2649

Florida: Laura Kammerer, Review and Compliance: 850-245-6333 or 1-800-847-7278

Mississippi: Department of Archives and History, 601-576-6940

Louisiana: Division of Historic Preservation, 225-342-8160

If you cannot reach the SHPO in your state, or you have other questions, you may contact us at the number below and we will be happy to assist you in finding answers to your questions.

Single, Regional Point of Contact for Questions

To facilitate and streamline our service to other agencies during the response to Hurricane Katrina, we have designated a Service regional point of contact for all inquiries related to ESA section 7 consultation, NHPA, and National Environmental Policy Act (NEPA) compliance questions. Joe Johnston and Kenneth Graham of the Ecological Services Division will serve as this point of contact. They can be reached at 1-877-485-2235, or at Joe_Johnston@fws.gov or Kenneth_Graham@fws.gov.

If you have any questions about these issues, please contact me at 404-679-4000 or Noreen Walsh, Assistant Regional Director, Ecological Services, at 404-679-7085.

Sam D. Hamilton
Regional Director
Southeast Region

Figure 16-9 Hurricane Katrina Response Letter (Page 2 of 2)

IN REPLY REFER TO:

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Field Office
1601 Balboa Avenue
Panama City, FL 32405-3721

September 29, 2004

Memorandum

To: County and Regional Planning Staff

From: Janet Mizzi, Deputy Project Leader, Panama City, FL

Subject: Beach Mouse - Post Hurricane Ivan

In the aftermath of Hurricane Ivan, questions have arisen about rebuilding activities in affected areas and compliance with the Endangered Species Act (ESA). Special interest has been directed to possible conflicts between reconstruction projects and endangered beach mice (including Perdido Key, Choctawhatchee, and St. Andrew beach mice) or other imperiled species.

The U.S. Fish and Wildlife Service (Service) has determined that demolition and reconstruction of damaged/destroyed structures should not result in "take" of beach mice if these activities **1) take place within the confines of the pre-storm structure, 2) are completed before dune habitat reclaims the pre-storm structure site, and 3) will not negatively impact dune habitat.** In these situations, it will not be necessary for affected persons to contact the Service or otherwise obtain authorization under section 10 of the ESA before beginning the demolition-reconstruction process.

Attached is guidance for the conservation of beach mice during road repair, debris removal, and reconstruction of damaged property. Please note that these are emergency provisions developed in response to the damage caused by Hurricane Ivan and may be modified as conditions change. Again, these emergency provisions only apply to demolition and reconstruction of damaged/destroyed structures within the confines of the pre-storm structure footprint. Please distribute the attachments to your building permit, road maintenance, and planning departments.

Affected persons should be aware that they are still responsible for obtaining required Federal and State permits if a '"take" will occur. People desiring to build new structures, reconstructing damaged/destroyed structures that will include impacting areas outside the confines of the pre-storm structure, or in situations other than those described above, should continue to contact the Service to determine if a section 10 Incidental Take Permit would be necessary. If you are not certain if a permit would be necessary for your demolition and/or reconstruction activities, please contact this office for assistance.

The Service has coordinated this information with the Florida Fish and Wildlife Conservation Commission. The above determination is consistent with the permitting regulations for State Endangered Species. If you have questions regarding state permitting regulations, please contact Karen Lamonte at 850/265-3676.

We are providing similar notifications to Federal agencies. If you have any questions concerning our position on these issues, please contact us at 850/769-0552. For beach related assistance, please contact Janet Mizzi at extension 247. For other areas, please contact Gail Carmody at extension 225.

Attachments

Figure 16-10 Example of Emergency Consultation

Interim Guidance for Post-Ivan Property Stabilization and Reconstruction of Damaged/Destroyed Structures In Areas with Endangered Beach Mice & Other Imperiled Species

U.S. Fish and Wildlife Service

Effective Sept.-Oct. 2004

These guidelines are intended to facilitate emergency structure repair and clean-up post Hurricane Ivan. They do not apply to the construction of new facilities or the expansion of existing structures.

Demolition and reconstruction of damaged/destroyed structures should not result in "take" of beach mice if these activities (1) take place within the confines of the pre-storm structure, (2) are completed before dune habitat reclaims the pre-storm structure site, and (3) will not negatively impact dune habitat.

Persons desiring to build new structures, reconstruct damaged/destroyed structures that will include impacting areas outside the confines of the pre-storm structure, or in situations other than those described above should contact the U.S. Fish & Wildlife Service to determine if Section 10 Incidental Take Permits would be necessary.

All activities should follow the guidance provided in the following document: Florida Department of Environmental Protection Emergency Authorization for Repairs, Replacement, Restoration, and Certain Other Measures Made Necessary by Hurricane Ivan OGC No, 04-1625.

Emergency Cleanup, Debris Removal, and Property Stabilization Activities

- No debris should be buried in place, but should be removed from beaches and dune areas.
- Equipment access to beaches should be limited to pre-Ivan designated beach access ' points. All measures should be taken to avoid impacts, to dune habitats. Avoid driving or operating heavy equipment in dune habitat. Any necessary use of pre-existing pathways or heavily degraded areas for access should be clearly marked. The U.S. Fish and Wildlife Service (USFWS) or Florida Fish and Wildlife Conservation Commission (FWC) should be contacted immediately if there are questions regarding identification of, appropriate beach access points.
- Staging/storage areas should be identified for cleanup and debris removal activities and should be located outside of existing/remaining beach mouse habitat or public park properties. The USFWS or FWC should be contacted immediately if there are questions regarding identification of appropriate staging areas.
- Parking areas should be identified for cleanup crews and should be located outside of existing/remaining beach mouse habitat or public park properties. The USFWS or FWC should be contacted immediately if there are questions regarding identification of appropriate parking areas.

9/29/04

Figure 16-10 Example of Emergency Consultation (Page 2 of 4)

- No fill material (i.e., sand) should be deposited on or removed from existing/remaining beach mouse habitat. Fill material must be free of debris, rocks, clay, or other foreign matter and should be similar in color and grain size to pre-storm beach sand.

- No sand should be bulldozed, dredged, or removed from seaward of the mean high water line (MHW) or Coastal Construction Control Line (CCCL) without authorization.

Reconstruction of Damaged/Destroyed Structures within Pre-storm Structure Footprint Activities

The following guidelines are in addition to those listed above for Emergency Clean-up, Debris Removal, and Property Stabilization. Both sets of guidelines apply to Reconstruction Activities.

- Keep reconstruction footprints (i.e., building, parking, ancillary structures, and other amenities) to pre-Ivan footprints.

- Use silt fencing to designate construction areas and keep all equipment and activities inside these areas.

- All trash should be disposed of properly in covered trash receptacles.

- Maintain all non-developed areas within the development in their natural condition. Landscape using only native dune vegetation; turf grass and/or sod should not be used.

- For areas impacted by construction, restore all habitats to their natural configuration and vegetation.

- Install "sea turtle friendly" lighting, glass, and window fixtures that reduce the direct and ambient lighting of dune habitats within and adjacent to the project site.

- Beach access over dunes should be limited to as few access points as possible and should consist of boardwalks, which should be built with top down construction where possible.

Contact Information

U.S. Fish & Wildlife Service (USFWS) - Ms. Janet Mizzi (850) 769-0552
FL Fish & Wildlife Conservation Commission - Ms. Karen Lamonte (850) 265-3676

9/29/04

Figure 16-10 Example of Emergency Consultation (Page 3 of 4)

Interim Guidance for Post-Ivan Road Construction and Maintenance In Areas with Endangered Beach Mice & Other Imperiled Species

U.S. Fish and Wildlife Service

Effective Sept.-Oct. 2004

These guidelines are intended to facilitate emergency road repair and clean-up post Hurricane Ivan. They do not apply to the construction of new roads or the expansion of existing roads.

Emergency Clean-up and Road Repair Activities

All construction should occur within or as close as possible to the footprint of the original road.

- Staging/storage areas should be identified for construction activities and should be located outside of existing/remaining beach mouse habitat or public park properties. The U.S. Fish and Wildlife Service (USFWS) or Florida Fish and Wildlife Conservation Commission (FWC) should be contacted immediately if there are questions regarding identification of appropriate staging areas.

- Parking areas should be identified for construction crews and should be located outside of existing/remaining beach mouse habitat or public park properties. The USFWS or FWC should be contacted immediately if there are questions regarding identification of appropriate parking areas.

- No clay materials should be used in construction, unless approved by the USFWS or FWC.

- No fill material should be deposited on or removed from existing/remaining beach mouse habitat. Fill material and hay bales must be clean of noxious weeds. No fertilizer or lime will be applied.

- Road shoulders should be stabilized only with native vegetation; turf grass and/or sod should not be used.

- All trash should be disposed of properly in covered trash receptacles.

- If aggregate material is needed for shoulder stabilization along the pavement edge, crushed oyster shell is the preferred material. If crushed shell is unavailable, White Bahama Rock is an acceptable material.

- Aggregate material should be placed no further than 3 feet from the pavement.

Contact Information

U.S. Fish & Wildlife Service (USFWS) - Ms. Janet Mizzi (850) 769-0552
FL Fish & Wildlife Conservation Commission (FWC) - Ms. Karen Lamonte (850) 265-3676

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Figure 16-10 Example of Emergency Consultation (Page 4 of 4)

PART 2, CHAPTER 17

ESSENTIAL FISH HABITAT

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PART 2, CHAPTER 17

ESSENTIAL FISH HABITAT

17.1 OVERVIEW

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

This chapter provides guidelines for Essential Fish Habitat (EFH) consultations with the National Oceanic and Atmospheric Administration's (NOAA's) National Marine Fisheries Service (NMFS), also referred to as NOAA Fisheries. According to the ***Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA),*** areas designated as EFH are "…those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." ***[16 U.S.C. § 1802(10)]***. The ***MSFCMA (16 U.S.C. § 1801 et. seq.)*** created regional Fishery Management Councils (FMCs) "responsible for the fisheries that require conservation and management in their region" and are required to "develop and amend Fishery Management Plans" (FMP). FMPs also provide information on Habitat Areas of Particular Concern (HAPC) within EFH areas.

In 1996 the ***MSFCMA*** was amended and set forth a mandate for NMFS and regional FMCs to identify and protect important marine and anadromous (species born in fresh water that migrate to the ocean to mature, and then return to fresh water to spawn) fish habitat, and to establish means for designating EFH. Rules to implement the EFH provisions of this Act, ***[50 Code of Federal Regulations (CFR) §§ 600.805 - 600.930]***, specify that FMP amendments be prepared to describe and identify EFH. The rules also establish procedures to promote the protection of EFH through interagency coordination. ***Section 305 (b)(2)*** of the ***MSFCMA [16 U.S.C. § 1855(b)(2)]*** states that federal agencies are required to consult with NMFS regarding projects that fund, permit or carry out activities that may adversely affect EFH. An adverse effect "means any impact that reduces quality and/or quantity of EFH" (***Preparing Essential Fish Habitat Assessments: A Guide for Federal Action Agencies. V1, 2004***). EFH consultations are required for federal projects as well as projects requiring a federal action (e.g., a federal permit), when such project may adversely affect EFH.

NMFS made a finding pursuant to ***50 CFR § 600.920(e)*** that EFH consultation requirements can be incorporated into the existing ***NEPA*** document created through the

Project Development and Environment (PD&E) process. This chapter integrates the EFH coordination and consultation process with the PD&E process for both federal and state Environmental Documents. NMFS has designated FDOT to conduct EFH consultations in Florida pursuant to ***50 CFR § 600.920(c)*** as memorialized in a ***July 19, 2000 letter to FHWA and FDOT***.

To satisfy the ***MSFCMA*** FDOT determines potential involvement with designated EFH and HAPCs for the project. If EFH may be adversely affected by the project, an ***EFH Assessment*** will be prepared (see ***Section 17.2.3.1.1***) and summarized in the Environmental Document.

17.2 PROCEDURE

17.2.1 Determination of Level of Assessment

17.2.1.1 Projects Qualifying for ETDM Screening

Projects that qualify for screening are evaluated through the Efficient Transportation Decision Making (ETDM) Environmental Screening Tool (EST) (see ***Part 1, Chapter 2, Class of Action Determination for Federal Projects*** for a list of qualifying projects). Preliminary EFH information can be found in the ***Programming Screen Summary Report***, within the Environmental Technical Advisory Team (ETAT) comments for the "Coastal and Marine" and "Wetlands and Surface Waters" issues. It may also be helpful to review ETAT comments on "Protected Species and Habitat" and "Water Resources" as well as "General Project Recommendations" and "Anticipated Permits".

Comments provided by NMFS are especially important. The "Technical Studies Anticipated" section of the ***Programming Screen Summary Report*** should state if an ***EFH Assessment*** is needed. NMFS should provide a list of the federally-managed species that the assessment should address. Generally, NMFS will assign a "no involvement" degree of effect for projects that do not have a direct or indirect effect. Projects that only have indirect effects will generally be assigned a "minimal" degree of effect in the EST. These two scenarios generally do not require an ***EFH Assessment***. If EFH may be adversely affected by a project, the NMFS will request an ***EFH Assessment*** which will be prepared following the procedure in ***Section 17.2.3***.

Information from FMPs, FMCs, and from literature review and contacts described in ***Figure 17-2*** and ***Figure 17-3*** serve as reference material for involvement determinations.

As a project advances into PD&E, it is important to address ETAT comments received during the EST screening event. FDOT may contact NMFS to discuss ETAT comments and FDOT course of action to address their comments (See ***ETDM Manual, Topic No. 650-000-002***).

17.2.1.2 Projects Not Qualifying for ETDM Screening

For projects that do not qualify for screening through the EST (see ***Part 1, Chapter 2, Class of Action Determination for Federal Projects*** for a list of qualifying projects) coordination with NMFS is still required for federal projects or projects requiring a federal action (e.g., a federal permit) that may involve EFH. To determine the level of evaluation for these projects, perform a review of FMPs, FMCs and literature to develop an Abbreviated Managed Species List and coordinate with NMFS as noted in ***Section 17.2.1.1***. If NMFS indicates that an ***EFH Assessment*** is not required, follow the procedure in ***Section 17.2.2***. If NMFS indicates that an ***EFH Assessment*** is required, follow the procedure in ***Section 17.2.3***. The ***EFH Assessment*** review and resulting project evaluation and Conservation Recommendations (when provided) would be handled during the permitting process (e.g., for Non-Major State Actions).

17.2.1.3 Request for Abbreviated Managed Species List

NMFS responds during the ETDM process with adequate information about the species involved in the project such that an ***EFH Assessment*** can begin when appropriate. In this case the species identified in the ***Programming Screen Summary Report*** response can be used to begin the ***EFH Assessment***, and an abbreviated list may not need to be requested.

For instances where NMFS has not provided adequate information to begin the ***EFH Assessment*** or for projects that did not go through EST, it is recommended that Districts create their own abbreviated lists using the Managed Species Lists available from the regional FMC and NMFS, as well as identify EFH for those species (see ***Section 17.2.1.2***). NMFS also has an interactive EFH Mapper to assist in identifying EFH (see ***Figure 17-3*** for the link). Once an abbreviated list is compiled, it is recommended that the District send a letter (which may be sent via e-mail) to NMFS requesting confirmation. Requests should be sent to the appropriate Habitat Conservation Division Florida Office listed in ***Figure 17-4***. A sample request letter is included in ***Figure 17-5***. The confirmed abbreviated list can then be used to begin the ***EFH Assessment*** (***Section 17.2.3.1.1***). NMFS confirmation of the abbreviated list will help expedite the ***EFH Assessment***.

The request to confirm an abbreviated list is not an official procedure for EFH consultation and NMFS is not required to respond. If NMFS does not respond to the request within 10 days, the District may use the abbreviated list compiled using the Managed Species Lists to begin the ***EFH Assessment***.

17.2.1.4 Fishery Management Plans

Information on EFH within the project area can be gathered from regional FMCs and NMFS. Two councils cover areas within the State of Florida: the Gulf of Mexico FMC and the South Atlantic FMC. See ***Figure 17-2*** for contact information. Each council has lists of Managed Species and EFH identified within their jurisdictional area and specific FMPs for the species they manage. NMFS' Southeast Regional Office also has FMPs and Managed Species Lists for highly migratory species, which they manage. The NMFS

Southeast Regional Office can be contacted for more site-specific information (***Figure 17-2***). EFH information from these organizations is also available online (***Figure 17-3***).

FMPs explain the physical, biological, and chemical characteristics of EFH and include information on species life history stages, species range maps as well as information on potential threats and recommended conservation and enhancement measures. The amount of information available for EFH determinations will vary depending on the species that may be affected.

FMPs also provide information on HAPC, which are habitats or habitat associations identified within EFH that are rare, particularly susceptible to human-induced degradation, especially ecologically important, or located in an environmentally stressed area. These areas are identified by the FMCs in their respective FMPs and will be discussed and addressed during the EFH consultation process (see ***Section 17.2.3.1***).

17.2.2 Actions Taken if no EFH Assessment Needed

If the project is located outside of areas where ***MSFCMA*** applies, an ***EFH Assessment*** is not required and consultation with NMFS is not required.

For projects located in areas where the ***MSFCMA*** could apply, but the project will either have no involvement with EFH or no adverse effect on EFH, it should be addressed in the Environmental Document as follows:

1. For Type 1 Categorical Exclusions (CE) include supporting information in the project file (i.e., GIS data analysis, technical memo, site visit, knowledge of the area).

2. For Type 2 CEs mark the appropriate selections on the ***Type 2 Categorical Exclusion Determination Form*** and add supporting documentation to the form and project file.

3. For Environmental Assessments (EAs), Environmental Impact Statements (EISs) or State Environmental Impact Reports (SEIRs) add the following statement to the Environmental Analysis section as appropriate:

   > *This project has been coordinated with NMFS and there is no involvement with, or adverse effect on Essential Fish Habitat; therefore, Essential Fish Habitat consultation and preparation of an Essential Fish Habitat Assessment are not required.*

17.2.3 Actions Taken if EFH Assessment is Required or NMFS Comments Need to be Addressed

NMFS will provide comments during the ETDM process for projects with potential direct effects on EFH and may comment regarding indirect effects (e.g., stormwater from a bridge over a river that would flow into a nearby estuary). These comments should be addressed during the PD&E process, but an ***EFH Assessment*** is only required when

specifically requested by NMFS or when FDOT determines that a project may adversely affect EFH.

If the District determines that a project may adversely affect EFH and/or an assessment was requested by NMFS in the ***Programming Screen Summary Report***, then:

1. Prepare an ***EFH Assessment*** as described in ***Section 17.2.3.1.1***.

2. Request consultation with NMFS and provide the ***EFH Assessment***.

3. NMFS will provide a written project evaluation which may include EFH Conservation Recommendations.

4. Respond to NMFS Conservation Recommendations, if provided, within the required timeline (***Section 17.2.3.1.2***).

5. Summarize the results in the final Environmental Document.

If NMFS receives information regarding an FDOT project that may adversely affect EFH and FDOT has not initiated EFH consultation, then NMFS may inform FDOT of the ***MSFCMA*** requirement to consult and ask FDOT to initiate EFH consultation. FDOT is not required to agree to NMFS's request; however, NMFS is required by the ***MSFCMA*** to provide EFH Conservation Recommendations, and FDOT is required to respond to these recommendations in writing regardless of whether FDOT initiated consultation.

17.2.3.1 Essential Fish Habitat Consultation

Consultation is initiated when NMFS receives an ***EFH Assessment*** and a written request for consultation, which is submitted by the District. The negotiated procedure for conducting EFH consultations is specified in the ***July 19, 2000, finding among NMFS, FHWA, and FDOT***. The key components to the consultation process include preparation of an ***EFH Assessment*** which is provided to NMFS, proposed Conservation Recommendations by NMFS, and agency response to Conservation Recommendations. It is recommended that the Districts refer to the NMFS's document ***EFH Consultation Guidance Version 1.1 (April 2004)*** for detailed information on consultations.

EFH consultation is expected to be completed during the PD&E phase. In some instances, consultation cannot be completed at this project phase, especially if NMFS does not have enough information (i.e., project details may not yet be available) to concur with (or not concur with) the effect of the project on EFH. In these situations, the Districts should coordinate with OEM. Together OEM and the District will determine the appropriate course of action to advance the project. When consultation cannot be completed during the PD&E phase, the Environmental Document should include a summary of the consultation to date, the reasons why it cannot be completed, documentation that NMFS agrees to complete consultation prior to construction, and any other information that may provide reasonable assurance the requirements will be fulfilled consistent with ***23 CFR § 771.133***. In these instances, a statement similar to the following is included in the Environmental Document:

Based on coordination with the National Marine Fisheries Service to comply with Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), FDOT commits to reinitiate consultation and provide information necessary to complete consultation on the [insert name of specie(s)] prior to advancing the project to construction. FDOT's commitment is intended to provide reasonable assurance, per 23 CFR § 771.133, that requirements of the MSFCMA are able to and will be met prior to construction and this approach is affirmed by the National Marine Fisheries Service. The status of this commitment will be updated in any subsequent project re-evaluations.

Commitments made during this coordination should be included in the Commitments section of the Environmental Document. An update to the commitment(s) must be provided in subsequent project Re-evaluations and in the ***Project Commitment Record (PCR)***.

17.2.3.1.1 Essential Fish Habitat Assessment

An ***EFH Assessment*** is an analysis of a project's potential adverse effects on EFH and if necessary, measures to avoid, minimize, or mitigate those effects. An ***EFH Assessment*** is completed if there are potential adverse effects to EFH on federal projects or for projects that require a federal action (e.g., a federal permit), regardless of Class of Action. Coordination may be needed with NMFS while preparing the ***EFH Assessment***.

The ***EFH Assessment*** should be included as a section of the ***Natural Resources Evaluation (NRE)*** instead of a stand-alone document. The ***NRE*** documents project effects on protected species and habitat, wetland, and EFH resources and can be provided to NMFS as an ***EFH Assessment***.

The ***EFH Assessment*** section of the ***NRE*** must contain:

1. Identification of EFH, HAPC(s), and managed species that may be affected. An analysis of the effects, including indirect and cumulative effects, of the project on EFH, HAPC(s), the managed species, and associated species by life history stage,

2. Proposed measures to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH, and

3. FDOT's determination regarding the effects of the project on EFH.

For projects that do not require an ***NRE*** per the ***Natural Resources Evaluation Outline and Guidance***, the District will prepare the ***EFH Assessment*** as a technical memo and should use the ***Technical Report Cover Page, Form No. 650-050-38***. See example of cover page shown in ***Figure 17-6***.

The level of detail required for project specific consultations varies depending on the degree the project may adversely impact EFH. This level of detail is based on project specific conditions such as ecological importance or sensitivity of the area, type and extent of EFH that would be impacted, and the type of activity proposed.

A detailed ***EFH Assessment*** should be prepared for projects that are expected to have substantial adverse effects. A detailed assessment should include the results of on-site inspections, the views of experts on the affected species or their habitat, literature review, an analysis of alternatives to the proposed project and other relevant information. More detail on suggested contents and examples of ***EFH Assessments*** are included in NMFS's guidance document, ***Preparing Essential Fish Habitat Assessments: A Guide for Federal Action Agencies (February 2004)***. If FDOT determines that a detailed ***EFH Assessment*** is not necessary, and NMFS does not agree, then NMFS can request additional information from FDOT in writing.

Information for the ***EFH Assessment*** should be gathered for species included in the ***Programming Screen Summary Report*** or on the Abbreviated Managed Species List (***Section 17.2.1.3***) using FMPs as explained in ***Section 17.2.1.2***. General information is available from contacts listed on ***Figure 17-2***. It may be useful to include a table of species and EFH that may be affected. The best available information must be used to determine the effects of the proposed project on EFH. FDOT's determination of effects should be clearly stated in the assessment. It is recommended that the ***EFH Assessment*** be concluded with the use of best management practices, avoidance and minimization measures, and mitigation strategies, if needed.

The District must submit the draft ***NRE*** including the ***EFH Assessment*** to OEM for review. After comment resolution with OEM, the District submits the final ***NRE*** to the appropriate agencies for coordination/consultation.

Completed ***EFH Assessments*** should be sent to the appropriate NMFS Habitat Conservation Division Florida Office (***Figure 17-4***) at least 60 days prior to a final decision on the proposed project or at least 90 days prior if substantial adverse impacts are anticipated.

17.2.3.1.2 EFH Conservation Recommendations

Once the NMFS receives the ***EFH Assessment,*** it will prepare a written project evaluation (either letter, memo, or e-mail) with EFH Conservation Recommendations, as appropriate. Conservation Recommendations, which are non-binding (i.e., discretionary), may include measures to avoid, minimize, or mitigate adverse effects on EFH. Unless a shorter timeframe is agreed to, this coordination must comply with the timelines mandated by the ***MSFCMA***. FDOT is required to respond to NMFS Conservation Recommendations within 30 days of receipt explaining how FDOT will proceed. If the signed Finding of No Significant Impact (FONSI), Record of Decision (ROD), or other final action that includes FDOT's response to Conservation Recommendations cannot be completed in 30 days and/or FDOT does not yet have a response to the Conservation Recommendations then an interim response should be sent to NMFS before the specified deadline. Sample letters are shown in ***Figure 17-7*** and ***Figure 17-8*** A detailed written response should be submitted to NMFS at least 10 days prior to taking final action (e.g., signing a FONSI or ROD). The response should include a description of measures proposed by FDOT for avoiding or mitigating the impact of the proposed activity on EFH. The response should also include the following statement:

> *The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.*

If the response is inconsistent with the NMFS EFH Conservation Recommendations, FDOT must explain its rationale for not implementing the NMFS's proposed Conservation Recommendations, including the scientific justification for the anticipated effects of the project and/or measures needed to avoid, minimize, or mitigate such effects. The NOAA Assistant Administrator for Fisheries can request a meeting with the Director of OEM to discuss the proposed project and the opportunity to resolve disagreements per ***50 CFR § 600.920(k)(2)***.

If updates to the ***NRE*** are needed, new information can be added in the form of an addenda and included in the project file. The ***NRE*** itself should not be revised to reflect the new information. Any new agency coordination/consultation letters should be included in the Environmental Document.

17.2.4 Documentation

The documentation required for each type of Environmental Document is outlined below:

Type 1 CE - A Type 1 CE may involve EFH providing the documentation demonstrates the proposed project has no significant effects. For these projects, include a summary of EFH assessment, agency coordination and compensation for impacts (as appropriate) in the ***Type 1 Categorical Exclusion Checklist*** (***Part 1, Chapter 2, Class of Action Determination for Federal Projects***). If an ***EFH Assessment*** was prepared it should be included in the project file. Agency coordination letters are also included in the project file, while concurrence letters are attached to the checklist.

Type 2 CE, EA, or EIS - The Environmental Document will be prepared and processed as described in ***Part 1, Chapter 5, Type 2 Categorical Exclusion***; ***Chapter 6, Environmental Assessment***; ***or*** ***Chapter 8, Draft Environmental Impact Statement***, and should include the following statement in the Essential Fish Habitat section of the Environmental Document, when an EFH Assessment is required:

> *An EFH Assessment has been prepared and consultation has been completed in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). It has been determined that this project [will have] [will not have] adverse effects to Essential Fish Habitat.*

SEIR - The SEIR will be prepared and processed as described in ***Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery***, and should include the following statement in the Essential Fish Habitat section of the Environmental Document, when an EFH Assessment is required:

> *An EFH Assessment has been prepared and technical assistance with the National Marine Fisheries Service (NMFS) has occurred in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA).*

The ***EFH Assessment*** section of the ***NRE*** and associated consultation or technical assistance correspondence should be summarized in the Environmental Document and the final ***NRE*** (with any addenda) and should be retained in the project file. See ***Part 2, Chapter 16, Protected Species and Habitat*** for additional guidance on preparing the ***NRE***.

When NMFS provides Conservation Recommendations these, as well as FDOT's responses, are included in the Appendix of the Type 2 CE, EA or EIS and made an addendum to the ***EFH Assessment*** section of the ***NRE***.

17.2.5 Commitments

Any Conservation Recommendations considered for inclusion as commitments in the Environmental Document must be coordinated with the appropriate FDOT offices to ensure each commitment is feasible. The District should consult with District management prior to making Conservation Recommendations a commitment. Commitments related to EFH made by FDOT over the course of project development should be documented according to ***Procedure No. 650-000-003, Project Commitment Tracking*** (see ***Part 2, Chapter 22, Commitments***). These commitments should also be included in the Commitments section of the Environmental Document.

17.2.6 Re-evaluation

The following information must be documented in a Re-evaluation when applicable per ***Part 1, Chapter 13, Re-evaluations***:

1. Changes in impacts to EFH;

2. Changes in mitigation strategies;

3. Changes in EFH designation; and

4. Results of surveys, continued coordination, or other commitments which must be met prior to advancing the project to the next phase.

17.2.7 Emergency Consultation

Consultation is required for emergency federal actions that may adversely affect EFH. These actions may include hazardous material clean-up, response to natural disasters, or actions to protect public safety. FDOT should contact NMFS early in emergency response planning, however consultation may occur after-the-fact if not practicable before the emergency action. ***NOAA's NMFS Emergency EFH/ESA section 7 Consultation Procedures for FDOT Projects*** is provided in ***Figure 17-9***.

17.3 REFERENCES

Essential Fish Habitat Findings. July 19, 2000 letter to George Hadley of FHWA and Joshua Boan of FDOT from NMFS' Rickey Ruebsamen. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/efh-finding-among-nmfs-fhwa-fdot-2000-0719.pdf?sfvrsn=cb9f6689_0

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

FDOT, Natural Resources Evaluation Outline and Guidance. https://www.fdot.gov/environment/protected-species-and-habitat

Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) https://media.fisheries.noaa.gov/dam-migration/msa-amended-2007.pdf

NMFS. September 2003. EFH: New Marine Fish Habitat Conservation Mandate for Federal Agencies. NMFS Habitat Conservation Division, Southeast Regional Office. St. Petersburg, FL

NMFS. February 2004. Preparing Essential Fish Habitat Assessments: A Guide for Federal Action Agencies. V1

NMFS. April 2004. Essential Fish Habitat Consultation Guidance. V1.1 NMFS Office of Habitat Conservation, Silver Spring, MD. https://repository.library.noaa.gov/view/noaa/4187

NMFS web site: http://sero.nmfs.noaa.gov/habitat_conservation/index.html

Title 50 CFR §§ 600.805 - 600.930. https://ecfr.io/Title-50/pt50.12.600

17.4 FORMS

Technical Report Cover Page, Form No. 650-050-38

17.5 HISTORY

8/19/2004, 11/26/2007, 8/15/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 11, 1/14/2019, 7/1/2020, 7/1/2023

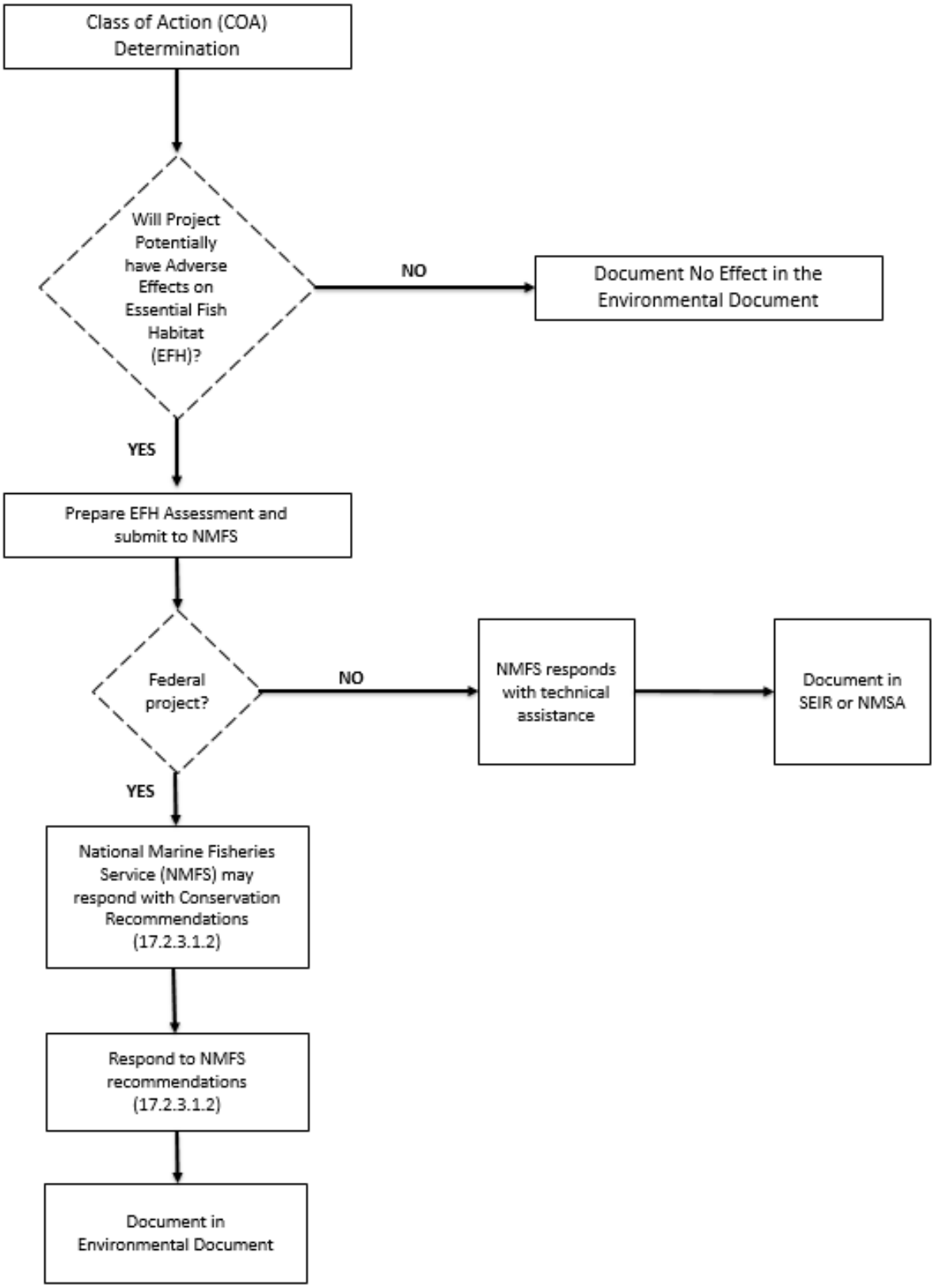

Figure 17-1 Essential Fish Habitat Process

Gulf of Mexico Fishery Management Council
2203 N. Lois Avenue, Suite 1100
Tampa, FL 33607
(813) 348-1630
(888) 833-1844 – Toll Free
Fax (813) 348-1711 http://www.gulfcouncil.org

South Atlantic Fishery Management Council
4055 Faber Place Drive, Suite 201
North Charleston, SC 29405
(843) 571-4366
(866) SAFMC-10 – Toll Free
Fax. (843) 769-4520
http://www.safmc.net

NMFS Southeast Region
NOAA Fisheries Service Southeast Regional Office (SERO)
263 13th Avenue South
St. Petersburg, FL 33701
(727) 824-5317
http://sero.nmfs.noaa.gov/

National Marine Fisheries Service (NMFS)
Southeast Fisheries Science Center (SEFSC)
75 Virginia Beach Drive
Miami, FL 33149
(305) 361-4200

https://www.sefsc.noaa.gov/

Figure 17-2 Fishery Management Councils and NMFS Contact Information

EFH information links:

General:
http://sero.nmfs.noaa.gov/habitat_conservation/index.html
NOAA Office of Habitat Conservation
http://www.habitat.noaa.gov/

Within this site there are the following helpful links:
http://www.habitat.noaa.gov/protection/efh/habitatmapper.html
https://www.fisheries.noaa.gov/national/habitat-conservation/essential-fish-habitat

NOAA Fisheries Southeast Regional Office Habitat Conservation Division
http://sero.nmfs.noaa.gov/habitat_conservation/index.html

Gulf of Mexico:
Gulf States Marine Fishery Commission EFH site
http://www.gsmfc.org/index.php
EFH Research and EFH maps
https://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper

South Atlantic:
http://safmc.net/

Magnuson-Stevens Fishery Conservation and Management Act. Public Law 94-265 as amended through October 11, 1996
https://www.fisheries.noaa.gov/resource/document/magnuson-stevens-fishery-conservation-and-management-act

Figure 17-3 Information Sources and Websites

Scientific Literature Review:

Dobrzynski, Tanya and Korie Johnson. May 2001. Regional Council Approaches to the Identification and Protection of Habitat Areas of Particular Concern. NOAA/NMFS Office of Habitat Conservation. Silver Spring, MD

Gulf of Mexico Fishery Management Council. October 1998. Generic Amendment for addressing EFH requirements in the following fishery management plans of the Gulf of Mexico. Tampa, FL

Gulf of Mexico Fishery Management Council. 1998. Public hearing draft generic amendment for addressing EFH requirements in the following fishery management plans of the Gulf of Mexico: Shrimp Fishery of the Gulf of Mexico, United States Waters; Red Drum Fishery of the Gulf of Mexico; Reef Fish Fishery of the Gulf of Mexico; Coastal Migratory Pelagic Resources (Mackerels) in the Gulf of Mexico and South Atlantic; Stone Crab Fishery of the Gulf of Mexico; Spiny Lobster in the Gulf of Mexico and South Atlantic, Coral and Coral Reef of the Gulf of Mexico (includes environmental assessment). Gulf of Mexico Fishery Management Council. Tampa, FL

* Stone Crab in no longer federally managed. Management was transferred to the State of Florida.

National Marine Fisheries Service. 1998. Highly migratory species essential fish habitat pre-draft materials for the highly migratory species fishery management plan amendment. National Marine Fisheries Service. Silver Spring, MD

National Marine Fisheries Service. February 2002. Essential Fish Habitat: A Marine Fish Habitat Conservation mandate for Federal Agencies. Gulf of Mexico Region. NMFS Habitat Conservation Division, Southeast Regional Office. St. Petersburg, FL

National Marine Fisheries Service. September 2003. Essential Fish Habitat: New Marine Fish Habitat Conservation Mandate for Federal Agencies. NMFS Habitat Conservation Division, Southeast Regional Office. St. Petersburg, FL

South Atlantic Fishery Management Council. 1998. Final habitat plan for the South Atlantic region: Essential Fish habitat requirements for Fishery Management Plans of the South Atlantic fishery Management Council: The Shrimp Fishery Management Plan, The Red Drum Fishery Management Plan, The Snapper Grouper Fishery Management Plan, The Coastal Migratory Pelagics Fishery Management Plan, The Golden Crab Fishery Management Plan, The Spiny Lobster Fishery Management Plan, The Coral, Coral Reefs, and Live/Hard Bottom Habitat Fishery Management Plan, The Calico Scallop Fishery Management Plan. South Atlantic Fishery Management Council. Charleston, SC

South Atlantic Fishery Management Council. April 2002. Final Essential Habitat Plan. Charleston, SC

Figure 17-3 Information Sources and Websites (Page 2 of 2)

FDOT Districts 1, 2 (Gulf Coast only), 3, and 7

David Rydene
National Marine Fisheries Service
Habitat Conservation Division
263 13th Avenue South
St. Petersburg, Florida 33701
(813) 727-5379
David.Rydene@noaa.gov

FDOT Districts 2 (Atlantic Coast only), 4, 5 and 6

Jen Schull
National Marine Fisheries Service
Habitat Conservation Division
400 N Congress Avenue, Suite 110
West Palm Beach, Florida 33401
(561) 249-1652
Jennifer.Schull@noaa.gov

Turnpike projects should default to project's geographic district location.

Figure 17-4 Habitat Conservation Division Contacts by FDOT District

(Date)

Mr./Ms. _____
Title
National Marine Fisheries Service
Habitat Conservation Division
Address

Dear Mr./Ms. _____:

SUBJECT: **Request for EFH Assessment Assistance**
Project title and limits
Financial Management Number: xxxxxx xx xx
Federal Project ID: xx-xxx-xxxx-(x)
County: _____

The Florida Department of Transportation (FDOT) is proposing…[Project need and description should be added.]

Attached to this correspondence is an abbreviated list of federally managed species and their EFH, as identified by FDOT as potentially being adversely affected by the proposed project. This list was developed from the _____ Fisheries Management Council and NMFS Federally Managed Species Lists, Fishery Management Plans, and associated habitat maps.

The FDOT requests that you confirm which species should be included in an EFH Assessment for this project and add information on any project specific issues that may need to be addressed in the assessment. Please place a “check mark” next to the appropriate species on the attached list(s), and return to the FDOT so that a complete and accurate EFH Assessment can be prepared. We would appreciate the courtesy of a reply within 10 days.

If you have any questions or concerns, please feel free to contact me at_____. Thank you in advance for your assistance in this matter.

Sincerely,

Name
Title

Attachments: Location Map
Abbreviated species and habitat list

Cc:
Preparer if different from the signee
Project File

Figure 17-5 Sample Letter Request for Confirmation of Abbreviated List

Essential Fish Habitat Assessment

Florida Department of Transportation

District X

Project Title

Limits of Project

County, Florida

Financial Management Number: XXXXX-X

ETDM Number: XXXXXX

Date

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

Figure 17-6 Sample Technical Memo Essential Fish Habitat Assessment Cover Sheet

(Date)

Mr./Ms. _____
Title
National Marine Fisheries Service
Address

Dear Mr./Ms. _____:

SUBJECT: **Interim Response to Conservation Recommendations**
Project title and limits
Financial Management Number: xxxxxx xx xx
Federal Project ID: xx-xxx-xxxx-(x)
County: _____

The Florida Department of Transportation (FDOT) is in receipt of the NMFS' Essential Fish Habitat Conservation Recommendations received from (commenter) in a letter dated (date). Please accept this as an interim response within the 30 day time period requested by NMFS for Essential Fish Habitat consultation. At this time FDOT is considering your Conservation Recommendations for the XXX project. FDOT will respond in detail within the final environmental document (CE, EA, EIS), or via a letter to NMFS, at least 10 days before the final agency action.

Sincerely,

Name
Title

Cc:

Preparer if different from signee
Project File

Figure 17-7 Sample Interim Response Letter

(Date)

Mr./Ms. _____
Title
National Marine Fisheries Service
Address

Dear Mr./Ms. _____:

SUBJECT: **Response to Conservation Recommendations**
Project title and limits
Financial Management Number: xxxxxx xx xx
Federal Project ID: xx-xxx-xxxx-(x)
County: _____

The Florida Department of Transportation is in receipt of the NMFS' Essential Fish Habitat Conservation Recommendations received from (commenter) in a letter dated (date). Please accept this letter as a response to NMFS Essential Fish Habitat consultation Conservation Recommendations.

[Add project specific responses including a description of measures proposed by FDOT for avoiding, mitigating or offsetting the impact of the proposed activity on EFH.]

Please note the environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

If you have any questions please feel free to contact me at_____.

Sincerely,

Name
Title

Cc:

Preparer if different from signee
Project File

Figure 17-8 Sample Response to Conservation Recommendations Letter

NOAA's National Marine Fisheries Service (NMFS)
Emergency EFH/ESA section 7 Consultation Procedures for FDOT Projects

Criteria: A bridge or road that has been washed-out and needs to be fixed/built immediately to prevent a life-threatening condition and loss of property.

1. Contact the Gulf or Atlantic NMFS Environmental Technical Advisory Team (ETAT) member representative immediately to get approval. NMFS staff will contact their immediate supervisor in NMFS Habitat Conservation Division (HCD) for approval of an emergency EFH consultation; and either the Protected Species Team Leader (Bob Hoffman) or PRD-Assistant Regional Administrator (David Bernhart) for an emergency section 7 consultation approval.

Atlantic Coast[1] (District 2, 5, 4, & 6)	*Gulf Coast* (District 1, 2, 3, &7)
Jen Schull Habitat Conservation Division National Marine Fisheries Service 400 North Congress Avenue, Suite 110 West Palm Beach, FL 33401 561-249-1652 (direct) 561-429-4168 (fax) Jennifer.Schull@noaa.gov	David Rydene, Ph.D., Habitat Conservation Division National Marine Fisheries Service 263 13th Ave South St. Petersburg, FL 33701 727-824-5317 (main) 727-824-5300 (fax) 727-824-5379 (direct) 813-992-5730 (cell) David.Rydene@noaa.gov

Please note: An approval for an emergency EFH consultation does not constitute an approval for emergency section 7 consultation on ESA-listed species and vice versa.

2. If approved, immediately provide the following information via fax or email:

- Name and phone number of FDOT's Contact person/project manager
- Complete description of the work
- Location of the project
- Pre-construction pictures
- Date
- Time

1

Figure 17-9 Emergency Consultation Procedures

3. If a "take" occurs, immediately contact NMFS Law Enforcement (LE) Hotline: 1-800-853-1964 and provide the following additional information:

- Name and phone number of the contact person
- Date
- Time
- Location
- Brief description of the location
- Brief description of the species
- Water temperature
- Pictures of the species and location

The above information could be documented on NMFS LE Chain of Custody (COC) form in the "Description of Evidence/Property" Box or noted as an attachment to the COC (see attachment).

Note: If a LE Special agent cannot arrive at the scene immediately, take lots of pictures of the species, place the species and/or plug sample of the species in a freezer unless told otherwise by LE dispatcher.

4. After the project is finished, a complete, detailed report must be provided within 30 days to NMFS. The report should include the following:

- Detailed construction activities
- List of BMPs implemented
- List of protective and conservation measures for ESA-listed species implemented
- Pre- and post-construction pictures
- Pre-and post-construction conditions
- Final construction design
- Effects analysis of the construction activities to the habitat and listed species
- An account of impacted EFH, and ESA-listed species
- Post-construction monitoring plan that includes habitat, fish, and water quality surveys/report.
- Mitigation plan to offset unavoidable impacts

2

Figure 17-9 Emergency Consultation Procedures (Page 2 of 3)

CHAIN OF CUSTODY RECORD 3/8/05				CASE CONTROL NO.
DATE/TIME OF SEIZURE:	DUTY STATION:		EVIDENCE/PROPERTY SEIZED BY:	
SOURCE OF EVIDENCE/PROPERTY (Person and/or Location) ( ) TAKEN FROM; ( ) RECEIVED FROM; ( ) FOUND AT:		DEFENDANT/COMPANY NAME:		
REMARKS:				
ITEM NOs:	DESCRIPTION OF EVIDENCE/PROPERTY (include Seizure Tag Numbers and any serial numbers):			
ITEM NOs:	FROM: (PRINT NAME, AGENCY)	RELEASE SIGNATURE:	RELEASE DATE:	DELIVERED VIA: ( ) U.S.MAIL ( ) IN PERSON ( ) OTHER:
	TO: (PRINT NAME, AGENCY)	GAINING SIGNATURE:	DATE :	
ITEM NOs:	FROM: (PRINT NAME, AGENCY)	RELEASE SIGNATURE:	RELEASE DATE:	DELIVERED VIA: ( ) U.S.MAIL ( ) IN PERSON ( ) OTHER:
	TO: (PRINT NAME, AGENCY)	GAINING SIGNATURE:	DATE:	

3

Figure 17-9 Emergency Consultation Procedures (Page 3 of 3)

PART 2, CHAPTER 18

HIGHWAY TRAFFIC NOISE

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PART 2 CHAPTER 18

HIGHWAY TRAFFIC NOISE

18.1 OVERVIEW

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

18.1.1 Purpose

This chapter is the official FDOT noise policy and procedure for the purpose of meeting the requirements of *Title 23 of the Code of Federal Regulations (CFR) Part 772* and applicable state laws. FDOT shall apply these policies and procedures uniformly and consistently statewide.

Roadway traffic is one of the more dominant sources of noise in urban and rural areas of Florida. In an effort to encourage the control of noise, Congress passed the ***Noise Control Act of 1972***. Congress further directed the FHWA to develop noise standards associated with traffic. However, effective control of traffic noise requires both the control of land use planning next to highways and reasonable and feasible abatement associated with highway projects.

The control of land use is a local government responsibility. The control of traffic noise associated with specific highway projects is the responsibility of the transportation agency (or agencies) planning, designing, and constructing a project.

The noise impact and abatement analysis policy and procedures provided in this chapter are based on ***23 CFR Part 772: Procedures for Abatement of Highway Traffic Noise and Construction Noise*** dated July 13, 2010, and the FHWA guidance document ***Highway Traffic Noise: Analysis and Abatement Guidance*** dated December 2011. These two documents are incorporated into this chapter by reference. In addition, ***Section 335.17, Florida Statutes (F.S.)***, requires FDOT to develop a project in conformity with federal standards contained in ***23 CFR Part 772*** regardless of funding source and include the noise standards mandated by ***23 U.S.C. § 109(i)***. Highway projects developed in conformance with this regulation meet FHWA noise standards.

18.1.2 Definitions

Approach Criteria – Approaching the criteria means within 1 A-weighted decibel [dB(A)] of the appropriate FHWA Noise Abatement Criteria (NAC) provided in ***Figure 18-1***.

Common Noise Environment (CNE) – A group of receptors within the same activity category found in ***Figure 18-1*** that are exposed to similar noise sources and levels; traffic volumes, traffic mix, speed and topographic features. Generally, common noise environments occur between two secondary noise sources, such as interchanges, intersections and/or cross-roads. A common noise environment involves a group of receptors that would benefit from the same noise barrier or noise barrier system (i.e., overlapping/continuous noise barriers).

Date of Public Knowledge (DPK) – The approval date of the Categorical Exclusion (CE), the Finding of No Significant Impact (FONSI), the Record of Decision (ROD), State Environmental Impact Report (SEIR) or Non-Major State Action (NMSA). For a Type 1 CE and NMSA, this is the approval date of the ***Type 1 Categorical Exclusion Checklist*** or ***Non-Major State Action Checklist***. Approvals can be found in the StateWide Environmental Project Tracker (SWEPT).

Decibel – A logarithmic expression of a sound level. For traffic noise analysis purposes and as specified by ***23 CFR Part 772*** the A-weighted scale, which closely approximates the range of frequencies a human ear can hear, is used. The A-weighted decibel is abbreviated dB(A).

Design Year – The future year used to estimate the forecast traffic volume for which a highway is designed.

Existing Noise Levels – The noise levels that occur during the worst noise hour resulting from the combination of natural and mechanical sources and human activity usually present in a particular area.

Feasibility – A combination of acoustical and engineering factors considered in the evaluation of a noise abatement measure.

Insertion Loss – The reduction in traffic noise levels as a direct result of a specific type of abatement measure determined by calculating the difference between future build noise levels with abatement to future build noise levels without abatement.

Leq – The equivalent steady-state sound level which in a stated period of time contains the same acoustic energy as the time-varying sound level during the same time period, with Leq(h) being the hourly value of Leq.

Multifamily Dwelling – A residential structure containing more than one residence.

Noise Abatement Criterion (NAC) – The noise level, depending upon activity category, at which FDOT must consider noise abatement for an impacted receptor. The NAC can be found in ***Figure 18-1***.

Noise Barrier – A physical obstruction that is constructed between the highway noise source and the noise sensitive receptor(s) for the purpose of lowering the noise level, including stand-alone barrier structures, berms (earth or other materials), and combination berm/barrier structure systems.

Noise Reduction Design Goal (NRDG) – The optimum desired dB(A) noise reduction (insertion loss) determined from calculating the difference between future build noise levels with abatement to future build noise levels without abatement. The FDOT has selected 7 dB(A) as the noise reduction design goal for one (1) or more benefited receptors.

Noise Sensitive Area (NSA) – A noise sensitive land use such as residential, school, place of worship, medical facility, or institutional. See all land use types listed in ***Figure 18-1***.

Permitted – Development will be deemed to be permitted if the local agency with jurisdiction has granted a building permit for a specific structure associated with a noise sensitive land use such as residential, school, place of worship, medical facility, or institutional, prior to the project's DPK.

For mobile/manufactured homes, individual building permits might not be issued. In this case, the noise analyst should look for evidence of an occupancy permit, new mobile home permit, or something similar in lieu of a building permit. These types of permits should be treated in the same manner as a building permit as stated above. Contact the District Noise Specialist regarding the application of building permit equivalency.

Predicted Existing Traffic Noise Level – The traffic noise level that is determined through the use of the FHWA Traffic Noise Model (TNM) for existing roadway conditions.

Predicted Future Traffic Noise Level – The traffic noise level that is determined through the use of TNM for the future design year traffic and roadway geometry, including build and no-build alternatives.

Property Owner – An individual or group of individuals that hold a title, deed, or other form of legal documentation showing ownership of a commercial or residential property.

Reasonableness – The combination of social, economic, and environmental factors considered in the evaluation of a noise abatement measure. Reasonableness factors include consideration of viewpoints by benefited receptors, cost-effectiveness of abatement measures, and achieving the FDOT NRDG.

Receptor – A discrete or representative location of a NSA(s) for any of the land use categories listed in ***Figure 18-1***.

Benefited Receptor – A receptor that receives a noise reduction at or above the minimum threshold of 5 dB(A) as a result of an abatement measure.

Impacted Receptor – A receptor with a design year, build alternative traffic noise level that is predicted to approach, meet, or exceed the NAC for its respective activity category, or will experience an increase in noise levels of 15 dB(A) or more in the design year over the existing noise levels.

Modeled Receptor – A georeferenced location within FHWA's TNM that represents a single or a group of receptors with the same characteristics where noise levels are predicted.

Residence – A dwelling unit. Either a single-family residence or each individual dwelling unit in a multifamily dwelling.

Statement of Likelihood – A statement provided in both the ***Noise Study Report (NSR)*** and Environmental Document based on the feasibility and reasonableness analysis completed at the time the Environmental Document is being approved.

Substantial Noise Increase – For a Type I project (see definition below), an increase in noise levels of 15 dB(A) or more in the design year over the existing noise level (measured or predicted) as a direct result of the transportation improvement project. A substantial increase will normally occur only on new alignment projects.

Traffic Noise Impacts – Design year build condition noise levels that approach, meet or exceed the federal Noise Abatement Criteria listed in ***Figure 18-1*** for the future build condition; or design year build condition noise levels that create a substantial noise increase over existing noise levels.

Type I Projects – A highway construction project on new location or a physical alteration of an existing highway which substantially changes horizontal and vertical alignment, profile or adds a through lane(s). Specific project definitions according to ***23 CFR Part 772*** are listed in ***Section 18.1.3.1***.

Type II Projects - A federal or state highway project for noise abatement on an existing highway that is not being modified as part of a Type I project. Type II projects are commonly referred to as retrofit projects and are allowed (but not mandatory) under ***23 CFR Part 772***. The development and implementation of Type II projects are not mandatory requirements of ***23 U.S.C. § 109(i)***. The FDOT does not have a Type II program.

Type III Projects – A project that does not meet the classifications of a Type I or Type II project. Type III projects do not require a noise analysis.

18.1.3 Applicability

18.1.3.1 Type I Projects

This policy applies to all Type I projects authorized under ***Title 23 U.S.C.*** and ***Section 335.17, F.S.*** All FDOT highway projects, regardless of funding source, shall be developed in conformance with federal standards for noise abatement as contained in ***23 CFR Part 772***.

The effective date of the revisions to ***23 CFR Part 772*** is July 13, 2011. The following types of projects are "grandfathered" and will not have to meet the ***23 CFR Part 772*** final rule (dated July 13, 2010):

1. Federal-aid highway projects for which the CE, FONSI, or ROD has been signed by the effective date of the final rule, which is July 13, 2011.

2. Design phase Re-evaluations for which approval has been received prior to July 13, 2011.

If approval of the Environmental Document or the Design phase Re-evaluation has not been received prior to July 13, 2011, the noise study must follow the requirements of ***23 CFR Part 772*** dated July 13, 2010. Projects for which the Environmental Document has not been approved after July 13, 2011, shall have their noise studies performed in conformance with ***23 CFR Part 772*** and this chapter as they exist on that date. For details concerning the DPK, see ***Section 18.1.3.1.1***.

FDOT shall apply these policies and procedures uniformly and consistently statewide. ***Title 23 CFR Part 772*** applies to all Type I projects unless the regulation specifically indicates that a section only applies to Type II or Type III projects.

It should be noted that the project type (defined here as "Type I, Type II or Type III") is independent of the Class of Action (COA) determination for the overall project. ***Title 23 CFR § 772.5*** and FDOT policy* defines Type I projects as:

1. The construction of a highway on new location;

2. The physical alteration of an existing highway where there is either;

    i. Substantial Horizontal Alteration – A project that halves the distance between the traffic noise source (edge of the nearest travel lanes) and the closest receptor between the existing condition to the future build condition; or,

    ii. Substantial Vertical Alteration – A project that removes shielding, [not including vegetation removal by FDOT within FDOT Right of Way (ROW)] that exposes the line-of-sight between the receptor and the traffic noise source. This may happen when the vertical alignment of the highway is altered or the topography between the highway traffic noise source and

the receptor is altered, such as reducing the back slopes of a cut section so that the line of sight is no longer blocked;

3. The addition of a through-traffic lane(s). This includes the addition of a through-traffic lane that functions as a High-Occupancy Vehicle (HOV) lane, High-Occupancy Toll (HOT) lane, express lane, bus lane, or truck climbing lane;

4. The lengthening of an existing interchange ramp's acceleration or deceleration lane and associated merging into the mainline to a total of more than 2,500 feet (from the gore to the end of the lane)(FDOT policy*);

5. The addition of an auxiliary lane, except for when the auxiliary lane is a turn lane***)***;

6. The addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange;

7. Restriping existing pavement for the purpose of adding a through-traffic lane or an auxiliary lane;

8. The addition of a new or substantial alteration of a weigh station, rest stop, ride-share lot, or toll plaza. (Note: Reconstruction of an existing rest stop/service plaza in the median of an existing highway that does not cause substantial alteration and does not affect existing traffic patterns on the roadway along with the conversion of a conventional toll plaza to an all-electronic toll plaza do not qualify as Type I projects).

9. If any section of a project is determined to be a Type I project under this definition, then the entire project area as defined in the Environmental Document is a Type I project and would require a noise analysis.

For more detailed descriptions of Type I projects, please refer to the Type I Project Matrix in ***Figure 18-2***.

For projects that propose to use highway shoulders for part-time use, it should be determined whether such an improvement constitutes a Type I project as discussed in FHWA's publication ***Use of Freeway Shoulders for Travel — Guide for Planning, Evaluating, and Designing Part-Time Shoulder Use as a Traffic Management Strategy***. In general, for bus-on-shoulder projects, noise analysis may be qualitative because the number of additional vehicles and changes in speed are small or nonexistent. For static and dynamic part-time shoulder use that involves higher volumes of mixed traffic, the need for noise analysis will typically be determined in a manner similar to a conventional widening project because the shoulder essentially functions as an additional travel lane.

18.1.3.1.1 Date of Public Knowledge

The Date of Public Knowledge (DPK) is the date of approval of the CE, the FONSI, or the ROD, as defined in ***23 CFR Part 771***. The original DPK for projects where the

Environmental Document has been approved will remain valid unless OEM determines that a ***NEPA*** document or decision needs to be revisited and re-evaluated in accordance with ***23 CFR § 771.129*** or ***23 CFR § 771.130***.

If a project has design changes that do not require a new Environmental Document but would independently constitute a Type I noise project, where it is determined that a project change warrants an update of the original ***NSR***, then additional noise impacts may be considered and mitigated in the areas of the design changes, including those not meeting the original DPK. However, the original DPK for projects where the Environmental Document has been approved will remain valid.

State funded highway projects shall be "grandfathered" and will not have to meet the ***23 CFR Part 772*** final rule if the SEIR document or ***Non-Major State Action Checklist*** has been signed by July 13, 2011.

18.1.3.2 Type II Projects

A Type II Project is a federal or state highway project for noise abatement on an existing highway. Type II projects are commonly referred to as retrofit projects in ***23 CFR Part 772***. The development and implementation of Type II projects are not mandatory as described in ***23 U.S.C. § 109(i)***. **FDOT does not have a Type II program**.

18.1.3.3 Type III Projects

A Type III Project is a federal or state highway project that does not meet the classifications of a Type I or Type II project. Type III projects do not require a noise analysis or consideration of abatement measures.

Examples of Type III projects include:

1. Construction of bicycle and pedestrian lanes, paths, and facilities;

2. Activities included in the FDOT highway safety plan under ***23 U.S.C § 402***, provided those activities do not contain elements of Type I projects;

3. Landscaping (including the removal of existing vegetation by FDOT within FDOT ROW);

4. Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur;

5. Deployment of electronics, photonics, communications, or information processing used singly or in combination, or as components of a fully integrated system, to improve the efficiency or safety of a surface transportation system or to enhance security or passenger convenience;

6. Modernization of a highway by surfacing, restoration, rehabilitation, or

reconstruction, provided the project does not contain elements of Type I projects; or

7. Placement of overhead gantries on a highway to collect tolls electronically that do not disrupt existing traffic patterns.

18.2 PROCEDURE

During the Efficient Transportation Decision-Making (ETDM) screening and prior to the Project Development and Environment (PD&E) phase, a preliminary review of potential noise impacts associated with a project is conducted by the District. This review should determine if noise sensitive receptors are or may be located within the project area and if there is a possibility that noise sensitive receptors will be impacted due to predicted traffic noise levels with a build alternative approaching or exceeding the NAC. The review will include the assessment of land use plans, aerial photographs, field reviews, modeling, and/or similar efforts. This will allow the District Noise Specialist and the Project Manager to determine whether noise impacts are likely to occur based on the types of land uses present and their proximity to the proposed project.

The procedure for performing a highway traffic noise study during PD&E and Design phase Re-evaluation is described in the following sections. Since the FDOT does not have a Type II program, the requirements below apply to Type I projects. Requirements for Type III projects are as individually noted.

18.2.1 Traffic Noise

18.2.1.1 Noise Abatement Criteria Activity Categories

Figure 18-1 contains seven Activity Categories used to assess the impact of noise. The following is a description of each Activity Category and the traffic noise impact level at which abatement measures must be considered. The NAC only applies to design year build conditions.

18.2.1.1.1 Activity Category A

Activity Category A focuses on the exterior NAC for lands on which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential for the area to continue to serve its intended purpose. The FDOT's criteria for approaching the exterior NAC for this activity category is 56 dB(A). An example of this activity category would be the Tomb of the Unknown Soldier. FDOT must approve the land use as Activity Category A prior to the initiation of modeling activities. A request with supporting justification shall be submitted to OEM for review and approval to apply this activity category to a noise sensitive receptor. OEM uses the guidance from the ***FHWA's Noise Policy FAQs – Frequently Asked Questions*** to make a determination for Activity Category A.

18.2.1.1.2 Activity Category B

Activity Category B includes the exterior NAC for single family (including mobile home parks and assisted living facilities) and multifamily dwellings. This may include single family and multifamily residences which are multi-story. Unless the area of exterior frequent human use is identified elsewhere, residential modeled receptor points should be placed at the edge of the dwelling unit closest to the major traffic noise source or as dictated by professional judgment. If a residential parcel does not have an obvious area of exterior frequent human use (e.g., yard, balcony), the residential parcel is not eligible for evaluation, following guidance provided by FHWA. The FDOT's criteria for approaching the exterior NAC for this activity category is 66 dB(A). There is no interior NAC for Activity Category B.

18.2.1.1.3 Activity Category C

Activity Category C includes the exterior NAC for a variety of land use facilities. The FDOT's criteria for approaching the exterior NAC for this activity category is 66 dB(A). Examples of this activity category include active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, golf courses, ***Section 4(f)*** resources, schools, television studios, trails, and trail crossings. For the purposes of ***23 CFR Part 772***, FHWA defines a medical facility as an inpatient medical facility where medical treatment and care occurs (i.e., an overnight stay at the facility is required; e.g., a hospital, rehabilitation facilities). Note that the criteria applies only to the exterior areas of Activity Category C. If exterior areas of frequent human use for this Activity Category are noted during the field review, detailed modeling of the receptor will occur to determine if an exterior noise level impact will occur in the future with the construction of the project.

The FDOT publication ***Methodology to Evaluate Highway Traffic Noise at Special Land Uses*** shall be used to assess whether noise abatement is feasible and/or reasonable at Activity Category C locations.

18.2.1.1.4 Activity Category D

Activity Category D includes the interior NAC for a variety of land use facilities listed in Activity Category C that may have interior uses. The FDOT's criteria for approaching the interior NAC for this activity category is 51 dB(A). Examples of this activity category include auditoriums, day care centers, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios. For the purposes of ***23 CFR Part 772***, FHWA defines a medical facility as an inpatient medical facility where medical treatment and care occurs (i.e., an overnight stay at the facility is required; e.g., a hospital, rehabilitation facilities). For those properties with Activity Category D, interior areas of frequent human use should be identified. Interior predictions for Activity Category D should be coordinated with the District Noise Specialist to ensure proper application. Note that the criteria applies

only to the interior areas of this activity category. According to ***23 CFR Part 772***, an indoor analysis shall be performed after a determination is made that exterior abatement measures will not be feasible and reasonable. An indoor analysis shall only be done after exhausting all outdoor analysis options. In situations where no exterior activities are to be affected by the traffic noise, or where the exterior activities are far from or physically shielded from the roadway in a manner that prevents an impact on exterior activities, Activity Category D shall be used as the basis of determining noise impacts. This will involve:

1. The identification of the building envelope for expected noise reduction based on the information found in ***Table 6*** of the ***FHWA Report FHWA-HEP-10-025, Highway Traffic Noise: Analysis and Abatement Guidance, December 2011*** and shown in ***Figure 18-3***;

2. Determination of the open window/closed window condition (see ***Figure 18-3***; For interior noise analysis, the FDOT considers all windows closed); and

3. If the expected reduction cannot be determined as identified in #1 above, or if #2 above cannot be determined, physical measurements of the amount of noise reduction provided by the building envelope will be conducted consistent with methodology found in the FHWA publication ***FHWA-HEP-18-065, Noise Measurement Handbook - Final Report (2018)*** and the associated document ***FHWA-HEP-18-066***, ***Noise Measurement Field Guide - Final Report (2018)***.

The FDOT publication ***Methodology to Evaluate Highway Traffic Noise at Special Land Uses*** shall be used to assess whether noise abatement is feasible and/or reasonable at Activity Category D locations.

18.2.1.1.5 Activity Category E

Activity Category E includes the exterior NAC for developed lands that are less sensitive to highway traffic noise. The FDOT's criteria for approaching the exterior NAC for this activity category is 71 dB(A) in exterior areas of frequent human use. Examples of this activity category include hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in Activity Category A-D or F. Note that hotel/motel balconies are not considered areas of external frequent human use, but hotel/motel pools are. Since these land uses are specifically excluded from Activity Category D, no analysis of interior noise levels is required.

The FDOT publication ***Methodology to Evaluate Highway Traffic Noise at Special Land Uses*** shall be used to assess whether noise abatement is feasible and/or reasonable at Activity Category E locations.

18.2.1.1.6 Activity Category F

Activity Category F includes developed lands that are not sensitive to highway traffic noise such as agriculture, airports, bus yards, emergency services, industrial, logging,

maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing. There is no NAC for this activity category since these land uses are not sensitive to highway traffic noise and therefore no noise analysis is required for these locations.

18.2.1.1.7 Activity Category G

Activity Category G includes undeveloped lands that are not permitted. There is no NAC for this activity category. Although consideration of abatement is not required, FDOT must determine and document highway traffic noise levels and provide this information to local governments. Details on what will be required are found in ***Section 18.2.6.2***.

18.2.1.2 Traffic Noise Impacts

Table 1 of 23 CFR Part 772 – Noise Abatement Criteria establishes the NAC that are used to determine whether a highway traffic noise impact occurs. The table is also found in ***Figure 18-1***. A traffic noise impact occurs when the modeled future highway traffic noise levels for the worst-case noise condition approach or exceed the NAC. A traffic noise impact also occurs when modeled future highway traffic noise levels substantially exceed the existing highway traffic noise level, even though the modeled levels may not exceed the NAC. FDOT has determined that the NAC is approached when it is within 1 dB(A) of the appropriate federal NAC and that a substantial increase occurs when the increase over existing conditions (measured or predicted) is 15 dB(A) or greater. To assess the highway traffic noise impact of a project, both criteria (approach of the NAC and substantial increase) must be evaluated.

Design year traffic noise impacts are based on the modeled build noise levels or the difference between the build and existing measured or modeled traffic noise levels. If one or more noise sensitive receptors are impacted by project related traffic noise levels that approach or exceed the NAC or substantially increase when compared to existing (measured or predicted) noise levels, then abatement measures must be considered. If the abatement criteria are not approached or exceeded and if projected traffic noise levels do not substantially exceed existing noise levels, abatement measures will not be considered.

For example, assuming an Activity Category B receptor, if the difference between the existing and build condition predictions is an increase of 5 dB(A), say from 63 dB(A) to 68 dB(A), then the receptor can be stated to have no substantial increase on highway traffic noise. However, since the predicted future build level approaches or exceeds the FHWA NAC for Activity Category B, noise abatement must be considered. If the predicted increase went from 42 dB(A) (existing) to 63 dB(A) (build) (a 21 dB(A) increase), the receptor (and therefore the project) would be considered to have a substantial increase and would require abatement consideration. As previously mentioned, FDOT has determined that the NAC is approached when it is within 1 dB(A) of the appropriate federal NAC. For example, assuming an Activity Category B receptor site with a predicted future noise level of 66 dB(A), the approach criterion would be met, and abatement must be

considered. However, a level of 65.9 dB(A) would not be considered to have approached or exceeded the abatement criterion, and abatement consideration would not be required.

18.2.1.3 Traffic Noise Prediction

During a project's PD&E phase, a traffic noise analysis shall be completed for the alternative(s) under detailed study and for each Activity Category of the NAC shown in ***Figure 18-1*** that is present in the study area. Consistent with ***23 CFR § 772.11(c)***, noise level predictions will be required for the following project alternatives and study years:

ALTERNATIVE	YEAR
No-build	Existing and design year
Build	Design year only

During a project's Design phase, noise level predictions are required for the build alternative and Design year only, unless a substantial increase has been identified during the project's PD&E phase. If a substantial increase of 15 dB(A) or greater is identified during the PD&E phase, existing noise levels must be re-evaluated during subsequent evaluations.

18.2.1.4 Noise Model Requirements

FDOT will conduct predictive analysis required by ***23 CFR § 772.9*** using the FHWA TNM software that is current as of the time of analysis (Note: TNM version 2.5 may be used until the next version of TNM is required for use by FHWA):

1. For low-volume two lane roadways (that will be two lanes wide after completion of the project), a screening test can be initiated using the FHWA Traffic Noise Screening Tool (TNST), which is based on TNM. A detailed study (using TNM) is required if the project does not pass the screening test (see item 2 below), which means that the calculated noise levels are within 5 dB(A) of the NAC. Coordination should take place with the District Noise Specialist to confirm proper use of this screening model.

   Refer to ***Part 1, Chapter 102 of the FDOT Design Manual (FDM), Topic No. 625-000-002*** for the definition of "low volume road" and ***Table 102.1.1, AADT Thresholds for Low and High Volume Roads***, for the urban and rural low volume AADTs for 2 lanes roadways.

2. For all Type I projects (and projects that do not pass the screening test cited above using the TNST), the current approved version of the TNM should be used as described in FHWA's ***Traffic Noise Model (FHWA TNM©)***, ***User's Guide***.

Consistent with ***23 CFR § 772.9(b)***, average pavement type shall be used in the FHWA TNM for future noise level predictions. However, in the assessment of existing conditions

(including the validation of field measurements); the actual pavement type may be used at the discretion of the District Noise Specialist.

The use of noise contour lines is allowed for project alternative screening or for land use planning to comply with ***23 CFR § 772.17***, but noise contours shall not be used for determining highway traffic noise impacts or the determination of the feasibility and reasonableness of providing noise abatement. Additional information on the development and use of noise contours can be found in ***Section 18.2.6.2***.

18.2.1.5 Traffic Requirements

In predicting traffic noise levels and assessing impacts, traffic characteristics that would yield the highest traffic noise impact for the design year shall be used. Experience has shown that the greatest traffic volume at which a roadway's design vehicular speed can be maintained usually creates the noisiest conditions. Maximum peak-hourly traffic representing Level of Service (LOS) "C" will be used, unless traffic analysis shows that LOS C will not be reached. If LOS "C" will not be reached, demand volumes shall be used. If demand volumes are used in place of LOS "C" volumes, the directional peak traffic should be worst-case for receptors on each side of the roadway.

For ramps, use the following:

1. For interchange ramp traffic, demand traffic volumes shall be used, even if they are higher than the LOS "C" volumes.

2. The vehicle speed to be used in the TNM is the posted speed for existing/no-build alternatives, and the proposed posted speed for the future build alternative. If the proposed posted speed is unknown, then the design speed is to be used. The motor vehicle speed used for ramps will be the posted speed and that speed is applied along the entire ramp unless modified by the flow condition (using TNM flow control if applicable).

Section 1.2 of the ***Traffic Noise Modeling and Analysis Practitioners Handbook*** contains additional guidance on the application of traffic data for noise studies.

FDOT's ***Traffic Data for Traffic Noise Spreadsheet*** should be utilized when converting traffic data to be entered into TNM. The ***Traffic Data for Traffic Noise Spreadsheet*** is required to be provided alongside the TNM files when submitted to FDOT.

18.2.1.6 Receptor Data

In determining traffic noise impacts for properties with Activity Category A, B, C or E, areas of frequent exterior human use should be identified.

When more than one unit is clustered together, a single receptor can be modeled as representative of a group of noise sensitive sites. Each residence that is represented by a receptor should be counted individually when determining the cost effectiveness of a noise abatement measure (e.g., if five benefited residences are represented by the same

receptor, the cost per benefited receptor discussed in ***Section 18.2.3.3.2*** of this Noise Policy should account for the five benefitted residences when determining the cost effectiveness of a noise abatement measure). Noise sensitive receptors may also consist of parks, schools, medical facilities and other sites where quiet is important for normal activities. The location of the modeled receptor in these cases will be dictated by the location of the noise source and the exterior activity that may be impacted, if any.

Modeled receptor heights for first (ground) floor receptors are always assumed to be 5 feet above ground elevation. Analysts shall increase the height above ground by 10 feet for each additional floor above ground level (i.e., 15 feet for a second-floor receptor, 25 feet for a third-floor receptor, etc.). The maximum horizontal distance, from the edge of pavement, that a receptor site will be modeled will vary based on topography and traffic conditions and will be determined on a case-by-case basis. At a minimum, the horizontal distance should be sufficient to identify all potential impacts consistent with the requirements of ***23 CFR Part 772***. If there is any question concerning the modeling of a receptor location, contact the District Noise Specialist for guidance.

18.2.1.7 Noise Descriptor

The noise level descriptor used by FDOT will be Level Equivalent (Leq). Leq is the equivalent steady-state sound level which, in a stated period of time, contains the same acoustic energy as the time-varying sound level during the same time period, with Leq(h) being the hourly value of Leq. ***Title 23 CFR Part 772*** specifies that either the Leq(h) or L10(h) metric, but not both, may be used on a project. Consistent with this requirement, the FDOT requires use of the Leq(h) metric.

18.2.2 Analysis of Traffic Noise Impacts

Title 23 CFR § 772.11(a) requires that FDOT shall determine and analyze expected traffic noise impacts:

1. For projects on new alignments, determine existing noise levels by field measurements.

2. For projects on existing alignments, predict existing and design year traffic noise levels using the version of TNM allowed in ***Section 18.2.1.4***.

Subsection (b) states that in determining traffic noise impacts, a primary consideration should be given to exterior areas where frequent human use occurs.

18.2.2.1 Field Measurements for Establishment of Ambient Noise Conditions

Field measurements are required along a new alignment to determine the existing noise levels as noted in ***23 CFR § 772.11(a)(1)***. This also applies where traffic noise does not exist or is only a minor element in the overall noise. Noise monitoring is to be conducted following the basic FHWA procedures found in the ***Noise Measurement Handbook –***

Final Report (FHWA-HEP-18-065). Measurements should be taken 5 feet above ground level and at locations representative of noise sensitive receptors adjacent to the proposed roadway alignment. If possible, a location along the alignment should be chosen that represents a noise sensitive receptor and that has a noise environment similar to most areas along this section of the alignment. At each measurement location, a minimum of 30 minutes of readings (3 repetitions of 10 minutes each) shall be taken. Use an integrating Sound Level Meter, ANSI Type 1 or 2 as described in ***23 CFR § 772.11(d)(3)*** and note the pertinent field conditions. At least two sets of readings (if practical) should be taken at each location. While it may not always be practical, it is recommended that one set of readings be taken during the morning hours and a second set be taken during the afternoon hours. If doing so would provide more reliable measurements, it is further recommended that these readings be taken over a period of two or more days. The resultant noise level for each reading shall be noted and an arithmetic average ambient reading for each site shall be determined. The average ambient reading (from all sources) shall be compared to the predicted future project traffic noise level to determine the increase (if any) in the noise level that can be expected in the area as a result of the proposed project. The entire project corridor should be reviewed under these conditions to determine if any unusual noise sources (e.g., aircraft, industrial, electrical generators, insects or other animals) exist that may influence the ambient readings. If any unusual noise sources are noted during the study, they must be identified in the field documentation. Coordination with the FDOT Noise Specialist should occur to determine if ambient measurements should be re-taken if changes in land use have the potential to influence noise levels have occurred. Specific questions regarding ambient noise field measurements should be directed to the District Noise Specialist.

18.2.2.2 Field Measurements for Model Validation

Validation measurements are required to be taken along new and existing alignments, per ***23 CFR § 772.11(d)(2)***. The primary purpose of field measuring existing traffic noise levels is to ensure that the model reasonably predicts [i.e., within +/- 3.0 dB(A), per FHWA criteria] the existing traffic noise based on the current conditions. For new alignments, validation measurements should be performed at the existing roadway to which the proposed new alignment will connect.

Traffic noise monitoring, for validation purposes, is conducted in accordance with the FHWA's measurement procedures found in the FHWA ***Noise Measurement Handbook – Final Report (FHWA-HEP-18-065)*** and supplemented with accepted professional judgment.

Perform monitoring for a minimum of 30 minutes (3 repetitions of 10 minutes each) using an integrating Sound Level Meter, ANSI Type 1 or 2 as described in ***23 CFR § 772.11(d)(3)***, noting the following:

1. Average vehicle speed for all classes of vehicles (using a radar unit or equivalent method for measuring speeds, such as electronic portable traffic speed and traffic counters);

2. Vehicle counts and class identification (automobiles, motorcycles, buses, medium trucks, heavy trucks);

3. Unusual noises (e.g., aircraft flyovers, trains, barking dogs, insects or other animals);

4. All input parameters necessary to run the computer model, including:

    a. Distance from the edge of the nearest travel lane of each roadway to the noise monitoring location;

    b. Width of roadway lanes and paved shoulders;

    c. Height of the sound level meter;

    d. Barrier/buffer information including trees, berms, structures;

    e. Type of propagation path (hard versus soft);

    f. Variations in terrain between the sound level meter and the source;

    g. Grade, if any; and

    h. The existing pavement type and condition.

If the field data was gathered without background noise that would influence the overall reading (e.g., a dog that barks continuously throughout the measurement period), the field measurements will be considered complete. If not, and a logical explanation for any unusual readings cannot be made, the field measurements at that location(s) should be repeated in accordance with the FHWA's current measurement procedures. Field measurements may also require repetition if the application of the TNM modeling process is not validated as required by ***23 CFR § 772.11(d)(2)***. As noted in the FHWA guidance document ***Highway Traffic Noise: Analysis and Abatement Guidance***, the model is validated if the existing field-measured highway traffic noise levels and predicted highway traffic noise levels for the existing condition are within +/- 3.0 dB(A). The application of a pavement type other than "average pavement" in the TNM may be used to validate existing traffic noise conditions with the approval of the OEM Noise Specialist.

Coordination with the FDOT Noise Specialist should occur to determine if validation measurements should be re-performed if land use changes have occurred post measurement and are large enough to influence noise levels. Additionally, if an update to the noise model has occurred post measurement, validation measurements must be re-performed if the new noise model will be utilized to determine impacts and assess abatement.

18.2.2.3 Prediction of Existing and Future Traffic Noise Levels

Using FHWA's TNM, traffic noise levels are predicted for the existing and design year using the appropriate traffic data and roadway configurations. This prediction applies to those receptors selected as specified in ***Section 18.2.1.6***.

When non-highway transportation noise sources such as airport operations, transit lines, and light commuter rail contribute to the noise level in the project area, the effects of these secondary sources on the total noise level at sensitive receptors must be assessed as part of the highway traffic noise assessment process. For these types of projects, coordination with the District Noise Specialist on methodology must occur prior to implementing any noise analysis. Existing studies performed for airport and transit facilities may be consulted and used as available and appropriate in this assessment. However, if no such studies have been performed or available studies are considered out of date (at the discretion of the District Noise Specialist), then noise levels from these secondary sources have to be assessed separately and mathematically combined with highway traffic noise levels to determine total impacts and the feasibility and reasonableness of noise abatement for the highway improvement. For guidance on mathematically combining decibels, see FHWA's ***Highway Traffic Noise: Analysis and Abatement Guidance (FHWA-HEP-10-025)***.

For transit and freight rail facilities proximate to highway projects, noise levels at noise-sensitive receptors should be assessed using either the Federal Transit Administration's (FTA's) ***Transit Noise and Vibration Impact Assessment Manual*** or the Federal Railroad Administration's (FRA's) online ***Guidance on Assessing Noise and Vibration Impacts*** as appropriate. This includes rail facilities that either cross the highway project area, parallel the highway project area, or are beyond the terminus of the project but still are close enough to affect noise-sensitive receptors near the project terminus. Noise levels using metrics provided from the modeling of the railroad facility [e.g., day-night average sound level (Ldn)], should be converted to Leq and the cumulative noise level from both the highway and non-highway sources should be determined mathematically. The feasibility and reasonableness of potential noise abatement associated with the highway facility should be determined relative to the cumulative noise from all sources and the anticipated insertion loss. Assessment of the magnitude of noise impacts from rail and transit facilities must comply with ***Railroad Noise Emissions Compliance Regulations, 49 CFR Part 210*** and FTA ***Transit Noise and Vibration Impact Assessment Manual***.

Existing aviation noise studies, provided they have been performed consistent with the requirements of ***Airport Noise Compatibility Planning***, ***14 CFR Part 150***, can be used in assessing the contribution to overall noise levels from nearby airports.

18.2.2.4 Existing Noise Barriers

Projects which have existing noise barriers present should follow guidance in the FDOT's ***Existing Noise Barrier Methodology Flowchart***.

18.2.3 Noise Abatement Evaluation

When impacted receptors are identified as part of the analysis conducted consistent with ***Section 18.2.2***, noise abatement shall be considered and evaluated for feasibility and reasonableness. FDOT shall determine and analyze alternative noise abatement measures to abate identified impacts by giving weight to the benefits and costs of abatement and the overall social, economic, and environmental effects by using feasible and reasonable noise abatement measures for decision-making. In abating traffic noise impacts, FDOT shall give primary consideration to exterior areas where frequent human use occurs. Where appropriate, the noise barrier with the maximum height configuration which is considered reasonable and feasible should be selected for recommendation.

The abatement measures listed in ***23 CFR § 772.15(c)*** are eligible for federal funding. Those measures are listed in ***Section 18.2.3.1***.

At a minimum, FDOT shall consider noise abatement in the form of a noise barrier when traffic noise impacts are identified.

It is not a standard practice for the FDOT to use absorptive treatments on noise barriers. Their use will be considered on a case-by-case basis under the following conditions:

1. Absorptive surface treatments for the roadway side of a noise barrier shall only be considered in parallel noise barrier situations where a width to height ratio of 10:1 or more cannot be achieved. The width is the distance between the two parallel noise barriers and the height is the average height of the barriers above the roadway. For example, if the average height of two parallel noise barriers is 20 feet, they should be at least 200 feet apart to avoid a reduction in their effectiveness due to reflections. The parallel barrier analysis module within TNM shall be used to evaluate the impact of reflections on the performance of parallel noise barriers.

2. Absorptive surface treatments shall only be considered for the roadway side of single (non-parallel) noise barriers when the distance from the face of the noise barrier to the nearest noise sensitive receptor on the opposite side of the roadway (across from the barrier) is less than 10 times the average height of the noise barrier above the roadway.

18.2.3.1 Traffic Noise Abatement Techniques

The most common type of traffic noise abatement measure is the construction of a noise barrier. As noted in ***23 CFR § 772.13(c)(1)***, at a minimum, the FDOT shall consider noise abatement in the form of a noise barrier. Therefore, all impacted receptors will require analysis for traffic noise reduction using a noise barrier. The exception to this is for “isolated residential impacts” where there is only one impacted residence that could benefit from a noise barrier, and as such, would not meet minimum feasibility requirements. In these cases, a generalized statement of this nature can be made in the ***NSR*** stating that noise barriers will not be evaluated for isolated impacted receptors.

Traffic management, alteration of horizontal and vertical alignments, acquisition of real property to create a buffer zone, and noise insulation of Activity Category D land use are also acceptable noise abatement measures.

Federal funds may be used for noise abatement on Type I projects when traffic noise impacts have been identified and abatement measures have been determined to be feasible and reasonable pursuant to ***23 CFR § 772.13(d)***. The primary noise abatement measure to be considered by FDOT for incorporation into a Type I project to reduce traffic noise impacts will be the construction of a noise barrier. **Landscaping is not a viable noise abatement measure**.

Traffic noise abatement is considered only if the predicted future build traffic noise level approaches or exceeds abatement levels in the NAC, or if build traffic noise levels substantially increase from existing noise levels (either measured or predicted) as determined in ***Section 18.2.2*** above. If no impacts are identified, see ***Section 18.2.6***.

When considering noise barriers for noise abatement, the feasibility and reasonableness factors discussed in ***Sections 18.2.3.2*** and ***18.2.3.3*** must be evaluated for each viable alternative under detailed analysis.

Noise abatement will not be required for Activity Category F or Activity Category G uses (See ***Sections 18.2.1.1.6*** and ***18.2.1.1.7***).

The FDOT publication ***Methodology to Evaluate Highway Traffic Noise at Special Land Uses*** shall be used to ensure the reasonableness of abatement for Activity Category C, D and E land uses.

18.2.3.2 Feasibility Factors

Feasibility factors for noise abatement measures involve both acoustic (noise reduction) and engineering considerations when considering a potential abatement measure.

18.2.3.2.1 Noise Reduction Factor

The feasibility of providing noise abatement is focused on the ability of the noise barrier to provide a reduction of at least 5 dB(A) to impacted receptors (note that the number of land uses or residences represented should be considered). The more reduction that can be achieved, the better the barrier, as long as the cost, visual impact, and other factors of the barrier are not unreasonable. Coordination with the District Noise Specialist must occur to determine unreasonable factors. If a minimum of 5 dB(A) reduction cannot be achieved at a particular receptor, that receptor is not considered benefited. The number of impacted receptors required to achieve a 5 dB(A) reduction or greater in order for a noise barrier to be considered feasible will be equal to two (2) residences or greater.

18.2.3.2.2 Design and Construction Factors

Consideration should be given to whether a noise barrier can be constructed using standard construction methods and techniques. Factors to be considered include terrain changes, utilities, safety (e.g., lane closures, sight distance), bridges, overpasses, and similar difficulties. The proposed plan should be reviewed by appropriate personnel to determine if alternative construction methods and techniques will increase the construction costs or time, impact roadway safety, or result in other impacts. Additional costs incurred solely to accommodate construction of a noise barrier should be included in the cost reasonableness evaluation of the noise barrier.

If a noise barrier must be placed on a structure, such as a bridge or a Mechanically Stabilized Earth (MSE) wall, the ability of this structure to support the additional wind and dead loads safely must be established before a final commitment to build the noise barrier is made. According to the ***FDM, Topic No. 625-000-002***, proposed noise barriers on structure (e.g., on a bridge or MSE wall) will not exceed a maximum height of eight feet. If a new bridge is being designed and a noise barrier is contemplated for placement on the bridge, the ability of the bridge to support the load of the noise barrier and crashworthiness of the proposed barrier within the clear zone will be considered as early as practicable. Placement of noise barriers on structure will require approval by the State Structures Design Engineer.

18.2.3.2.3 Safety Factors

Safety is a critical factor in determining whether a particular abatement measure is feasible. Noise barriers should be designed in accordance with ***Part 2, Section 264 of the FDM, Topic No. 625-000-002***. If a conflict between a noise barrier and safety exists, primary consideration should be given to safety. An example of such a conflict would be the loss of a safe sight distance (line of sight) at an intersection or driveway as a result of the placement of a noise barrier. Conflicts are considered during the feasibility assessment of the noise barrier and may result in a determination that a noise barrier is not feasible. Noise barriers cannot exceed the following heights:

1. For ground mounted noise barriers, the maximum height will be 22 feet above ground level.

2. For noise barriers on bridges and retaining wall structures the maximum height will be 8 feet unless a taller noise barrier is specifically approved in writing by the State Structures Design Engineer.

3. For ground mounted Traffic Railing/Noise Barrier combinations, the maximum height will be 14 feet above ground level.

Non-crash-tested noise barriers within the clear zone require shielding.

18.2.3.2.4 Access Factors

Accessibility to adjacent properties on non-limited access roadways must be given consideration since the placement of a noise barrier may block ingress and egress to these properties. Other access issues to be considered include access to a local sidewalk or normal routes of travel.

18.2.3.2.5 Right of Way Factors

ROW needs, including access rights, easements for construction and/or maintenance, and additional land must be considered as part of the feasibility of noise barrier construction. If necessary, the FDOT can consider the purchase of additional ROW or make a request for the donation of ROW from the adjacent property owners(s) for the purpose of noise barrier construction and/or maintenance. The additional cost to purchase ROW shall be included in the overall cost reasonableness calculations. In the case where purchase of ROW is not possible or if the adjacent property owner(s) do not wish to donate the necessary ROW, the noise barrier or noise barrier system shall be determined not feasible. ROW needs will be determined as early in the process as possible.

18.2.3.2.6 Maintenance Factors

Maintenance of a noise barrier must be considered to ensure that the barrier can be maintained using standard practices. Maintenance crews must have reasonable access on both sides of the barrier for both personnel and equipment. Since graffiti can be a serious problem, consideration should be given as to how it can be reduced.

18.2.3.2.7 Drainage Factors

Drainage is an important element that must be considered in the location and design of a noise barrier. Directing stormwater along, under, or away from a noise barrier can cause construction and maintenance problems and therefore, must be given adequate consideration.

18.2.3.2.8 Utility Factors

Utility issues, including the impact of noise barriers on utilities and the reverse must be assessed early in the process. Both overhead and underground utilities can have a significant impact on design and construction options.

18.2.3.3 Reasonableness Factors

Once a noise abatement measure is determined to be feasible, the reasonableness of noise abatement will then be determined. The following reasonableness factors must collectively be achieved in order for the noise abatement measure to be deemed reasonable:

1. Consideration of the viewpoints of the benefited property owners and residents (during the Design phase);

2. Cost effectiveness of the highway traffic noise abatement measure; and

3. Achievement of the FDOT NRDG.

Two of the factors of reasonableness are considered during the PD&E phase; cost effectiveness and achievement of the FDOT NRDG. The consideration of the viewpoints of benefited receptors (property owners and residents) is done during the Design phase.

18.2.3.3.1 Viewpoint of the Benefited Receptors

Through the ETDM screening process, the District Noise Specialist will input traffic noise related concerns received from communities adjacent to the project into the Environmental Screening Tool (EST).

During the PD&E phase, input from the public regarding the project, including traffic noise and abatement, is gathered during workshops, public hearings and other public involvement opportunities, such as the project website, email, written comments and phone calls.

A more detailed process to solicit the viewpoint of the benefited receptors is invoked during the Design phase of the project. Each benefited receptor (owner or resident) will be given the opportunity to provide input to FDOT regarding their desire to have the proposed noise abatement measure constructed. They may also be given the opportunity (at the discretion of the District) to provide input regarding their aesthetic preferences from a list of pre-selected options.

During the Design phase of the project, FDOT will use either a noise abatement workshop and/or a public survey to determine the wishes of the benefited receptors. The survey effort may include a mailing of information related to the abatement measure along with a survey form to be signed and returned to FDOT. It is the desire of FDOT to obtain a response for or against the noise barrier from a numerical majority (greater than 50%) of the benefited receptors (owners and residents) that provide a response to the survey. Multiple techniques to solicit input may be used, including multiple mailings, door-to-door follow up, and even telephone solicitation (as needed) to provide adequate information to allow FDOT to make an informed decision on whether abatement is desired or not. If, after three attempts to gather the input from the benefited receptors, a minimum response rate of 50% is not achieved, the FDOT may determine the abatement measure to be not reasonable. If a numerical majority of the benefited residents and property owners that provide a response to the survey do not favor the construction of a noise barrier, FDOT will not provide the noise barrier. It is important to note that the viewpoints of the property owner will be considered as having the greatest weight in the decision as to whether FDOT will provide noise abatement. While the viewpoint of the non-owner resident will be considered, their viewpoint will carry less weight, consistent with the formula shown in ***Table 18-1***.

Table 18-1 Viewpoint Weighting Factors

Property Type	Owner Occupies Property	Owner Does not Occupy Property	
		Owner	Renter
Single Family	100%	90%	10%
Multifamily (duplex, apartments, condominiums)*	100%	90%	10%
Mobile Home Park*	100%	80%	20%
Offices, Businesses	100%	80%	20%
* The weighting factor is for each unit (mobile home, apartments, condominiums), not for the entire mobile home park, apartment complex or condominium building.			

For example, if a renter of a single-family home wishes to have noise abatement but the owner does not, the opinion of the homeowner would prevail. If the owner of the home did not respond for or against the noise abatement measure, then the renter's opinion would be used to be the equivalent to 10% of the homeowner. This means that 10 renters in favor of the noise abatement would equal the vote of 1 owner-occupied home.

The input of Homeowners Associations (HOA) should be considered during the survey process, especially if the HOA owns common land adjacent to FDOT ROW where the noise barrier would be located. However, no formal vote shall be made by the HOA and the desires of the HOA cannot preclude those of the benefited receptors behind the noise barrier.

18.2.3.3.2 Cost Effectiveness

FDOT has established cost effectiveness criteria that have been in place for many years. The basis for the cost effectiveness criteria is that FDOT has provided approximately 1,600 square feet of noise barrier per benefited receptor at a reasonable cost. Using the current unit cost of $40.00 per square foot, a reasonable cost of $64,000 per benefited receptor is looked upon as the upper limit. Only benefited receptors will be included in the calculation used to determine if a proposed noise abatement measure has a reasonable cost. Note that this cost does not include the cost of an optional additional taper of vertical height for shoulder mounted noise barriers, as this is a safety feature. Cost factor elements are re-analyzed by FDOT every five (5) years, with the last analysis and approval occurring in 2024. The relationship between unit costs and the upper limit for cost reasonableness will be based on maintaining a constant upper limit of 1,600 square feet of noise barrier per benefited receptor. This upper limit is derived by multiplying the statewide average height of noise barriers in Florida of 16 feet by a theoretical barrier length of 100 feet. FDOT considers the following elements as part of the overall calculation of cost effectiveness of a noise barrier:

1. The cost of materials and labor;

2. The cost of additional ROW (including the cost of construction and/or maintenance easements) needed exclusively to construct the noise barrier (if any);

3. The cost of new or upgraded drainage structures required by the construction of a noise barrier; and

4. On projects where Florida Gas Transmission (FGT) facilities are present within FDOT ROW, the ***FGT Agreement and Global Settlement*** controls the responsibilities of both FDOT and FGT. Where a noise barrier is proposed to be located within the below clearances to FGT's facilities, FGT may at its sole discretion decide to move its facilities.

    a. Single Line:

        1. Nine (9) inch internal diameter or greater: 15 feet unencumbered from the outside edge of the line plus 25 feet additional temporary workspace on one side of the 15-foot unencumbered space.

        2. Less than nine (9) inch internal diameter: 5 feet unencumbered from the outside edge of the line plus 10 feet additional temporary workspace on one side of the 5-foot unencumbered space.

    b. Two Lines: 60 feet, measured from the center line of the pipelines, with no additional temporary workspace.

    c. Three Lines: 75 feet, measured from the center line of the two outside pipelines, with no additional temporary workspace.

        For pipelines at those locations where the width between two pipelines is greater than thirty (30) feet, and for three pipelines where the width between the centerline of the two outermost pipelines is greater than forty-five (45) feet, such pipelines shall constitute single pipelines as identified in item number 1 (Single Line) above for the purposes of establishing the Specified Width; provided, however, pipelines that are equal to or less than thirty (30) feet apart measured from the center line of the two pipelines shall be treated as two pipelines consistent with item number 2 above (Two Lines).

        If FGT decides to move its facilities, FGT and FDOT may split the cost of ROW acquisition, construction, and other project costs in accordance with the ***FGT Agreement and Global Settlement***. Any additional costs incurred by FDOT shall be included in the cost reasonableness calculations for the proposed noise barrier. If FGT decides not to relocate its facilities, alternative locations for noise barrier placement shall be investigated. Any additional costs incurred as a result of the relocated noise barrier shall be included in the cost reasonableness calculations for that noise barrier.

5. The standard cost of the barrier foundation and any specialized foundation due to site conditions are to be included in the calculations of cost-effectiveness.

However, if the foundation and earthwork is part of the road construction, it should not be included in the noise barrier cost calculations.

Cost elements do not include the cost of designing the noise barrier, relocation of utilities (above or below ground) that are permitted within FDOT ROW, clearing and grubbing, mobilization, maintenance of traffic, construction engineering and inspection, and related activities that are considered as part of the total construction project. To be considered as a noise abatement cost, the costs must be incurred solely because of the installation of the noise barrier. An example would be when there is a need to extend a culvert that would not be necessary for roadway construction but is required to construct the noise barrier.

It is important that the cost-effectiveness of abatement be determined during the PD&E Study to enable FDOT to make a Statement of Likelihood in the Environmental Document to pursue this abatement effort in the Design phase. The PD&E Noise Study should also note that the reasonableness of providing noise abatement in the form of a noise barrier is subject to a detailed review in Design and subsequent Re-evaluations.

The primary method of determining the cost for noise abatement by FDOT will involve a review of the cost per benefited receptor for the construction of a noise barrier benefiting a single location (such as a subdivision or contiguous impacted areas) with each area being considered a CNE area. A CNE implies that a group of receptors of the same NAC activity category are exposed to similar noise sources and levels, traffic volumes, traffic mix, speed, and topographic features and are benefited by the same noise barrier or noise barrier system. Noise barriers may be provided for common noise environments that contain different Activity Categories of the NAC, provided that the combined person-hour usage (outlined in ***Methodology to Evaluate Highway Traffic Noise at Special Land Uses***) results in a cost reasonable noise barrier. Contact the District Noise Specialist for questions related to the application of the CNE criteria.

In the case of RV parks that also serve as a mobile home site, noise abatement will be considered when at least 51 percent of the noise impacted spaces are occupied 51 percent of the year or more by “permanent” residents. A permanent resident would be one who occupies the dwelling unit at least 51 percent of the calendar year. For these locations, where usage is often seasonal and of short duration, the property owner will determine the occupancy rate of that portion of the facility that is impacted by traffic noise. If less than 51 percent of the impacted spaces are occupied less than 51 percent of the year, abatement measures will not be considered. The same occupancy requirements will apply for other forms of temporary housing not identified here and will be considered on a case-by-case basis in consultation with OEM. The noise abatement measure must be feasible and reasonable before it will be considered further.

Third-party funding is not allowed to subsidize the cost of a noise barrier for the purpose of making the noise barrier feasible or reasonable. Third-party funding as noted in ***23 CFR § 772.13(j)*** is acceptable on a federal or federal-aid highway Type I project to make functional enhancements as long as the noise abatement measure already has been determined to be feasible and reasonable.

18.2.3.3.3 Noise Reduction Design Goal

As stated in ***23 CFR § 772.13(d)(2)(iv)*** for an abatement measure to be considered reasonable, it must attain the FDOT NRDG. To ensure the provision of reasonable traffic noise abatement consideration at the greatest number of impacted locations, FDOT has selected a 7 dB(A) noise level reduction for one (1) or more benefited receptors as the NRDG. Failure to achieve the NRDG will result in the noise abatement measure being deemed not reasonable. In setting this goal, FDOT reviewed historic records of noise barrier reduction dating back to 1979. The average noise reduction for these noise barriers was 7.36 dB(A), which would indicate that the NRDG of 7 dB(A) is reasonable. The NRDG should be applied to residential as well as non-residential (i.e., special land uses) noise barrier evaluations.

18.2.4 Outdoor Advertising Sign Impacts

Although it is not to be considered as either a feasibility or reasonableness option, Florida Law requires consideration of the potential to construct a noise barrier that might block the motorist's view of an existing, conforming and legally permitted outdoor advertising sign. As early in the PD&E Study as possible, the District Outdoor Advertising section of the Office of Right of Way must be notified (consistent with the ***Right of Way Procedures Manual, Topic No. 575-000-000***) in order to identify outdoor advertising signs affected by any proposed noise barrier. At a minimum, the section number and milepost for each noise barrier, along with an estimated construction date, will be given to the Outdoor Advertising Section so notice of the possible screening of a sign can be provided to the affected sign permit holder(s) (Note: If the latitude and longitude of the sign can be provided, this will assist the Outdoor Advertising section in locating the needed information).

Outdoor advertising signs that are legally permitted, conforming and erected may increase the height of the sign if visibility is blocked due to the construction of "noise attenuation" barriers consistent with ***Section 479.25, F.S.*** This statute requires FDOT to notify a local government or local jurisdiction before erecting a noise barrier that will block a lawfully permitted sign. The local government or local jurisdiction is then required to notify FDOT if increasing the height of an outdoor advertising sign will violate any local ordinance or land development regulation of the local government. When the notice has been received from the local government or local jurisdiction, and prior to the erection of the noise barrier, FDOT shall inform all property owners identified as impacted by highway noise, and who may benefit from the proposed noise attenuation barrier, as part of a written survey, that:

1. Erection of a specific noise barrier may block the visibility of an existing outdoor advertising sign;

2. The local government or local jurisdiction may restrict or prohibit increasing the height of the existing outdoor advertising sign to make it visible over the noise barrier; and

3. If a majority of the impacted property owners vote for the construction of the noise barrier, the local government or local jurisdiction will be required to:

    a. Allow an increase in the height of the sign in violation of a local ordinance or land development regulation;

    b. Allow the sign to be relocated or reconstructed at another location if the sign owner agrees; or

    c. Pay the fair market value of the sign and its associated interest in the real property.

The statute also requires FDOT to hold a public hearing within the boundaries of the affected local government or local jurisdiction to receive input on proposed noise barriers that may conflict with the local ordinances or land development regulations, and to suggest or consider alternatives or modifications to the proposed noise barrier to alleviate or minimize the conflict with the local ordinances or land development regulations, or minimize any costs associated with relocation, reconstructing, or paying for the affected outdoor advertising sign. Alternatives or modifications to proposed noise barriers that would not provide the minimum 5 dB(A) reduction will not be considered.

The written survey materials shall inform the affected property owners of the location, date, and time of the public hearing. The public hearing may be held concurrently with other public hearings scheduled for the project. A general notice of the public hearing shall also be published in a newspaper in accordance with the notice provision of ***Section 335.02(1), F.S.***, and contain the same information provided in the written survey materials. The notice shall not be placed in that portion of a newspaper in which legal notices or classified advertisements appear. Please refer to ***Part 1, Chapter 11, Public Involvement***, for additional details about meeting notification requirements.

FDOT shall not construct a noise barrier that screens or blocks the visibility of a lawfully permitted outdoor advertising sign until after the public hearing is held and the numerical majority of the impacted property owners have approved the construction of the noise barrier. If the construction of the noise barrier is approved, FDOT shall notify the local governments or local jurisdictions. The local governments or local jurisdictions shall then exercise one of the options listed above.

The construction of business names/logos or building addresses on noise barriers is in violation of ***23 CFR § 750.709***. For noise barriers in urban and suburban areas, imprinting of subdivision names or logos on the noise barrier may be considered only at the portion of the noise barrier at the legal entrance to the subdivision. FDOT allows consideration of noise barrier aesthetic enhancement that meets FHWA regulations related to this process. Each request for such an application will be handled on a case-by-case basis.

18.2.5 Community Coordination

18.2.5.1 Community Coordination in PD&E

The degree and type of community coordination and participation will vary from project to project. For projects requiring consideration of abatement, the community involvement activities should allow for presentation and discussion of noise impacts related to the project. Opportunities for such involvement should be provided, as appropriate, during the environmental evaluation and documentation phase as part of the public involvement and/or public hearing process. See ***Section 18.2.6.2*** for required coordination with local officials.

18.2.5.2 Community Coordination in Final Design

When noise abatement is anticipated in the final design phase, community coordination will include a survey of benefited property owners and residents to determine their viewpoints regarding abatement. This can be done using any number or combination of techniques (e.g., door-to-door contacts, telephone surveys, mailed survey forms, public workshops).

The viewpoint of the benefited receptors (property owners and residents) related to abatement should be analyzed in the decision-making process. Discussions at public meetings may also include a presentation of material options, physical dimensions, obtainable levels of reduction, and cost factors so public input can be considered in decision-making.

In the event that some benefited property owners or residents desire noise abatement and others do not, further assessment may be necessary in order to determine what impact, if any, this will have on the feasibility and reasonableness as well as the social impacts. Consultation with OEM may be needed. Documentation of noise abatement measures developed during the final design should include letters, public hearing transcripts, and survey results indicating that the benefited property owners or residents were afforded an opportunity to provide input.

18.2.6 Noise Study Report

The results of the noise analyses shall be reported in an ***NSR*** and summarized in the appropriate section of the Environmental Document. Viable alternatives will be documented, including the no-build alternative.

The ***NSR*** should have a logical sequence, which adequately describes the procedures used in developing the ***NSR***, performing the required analyses, and arriving at the appropriate conclusions. Data in the ***NSR*** should be well presented by utilizing graphics and references so the report is readily understandable by both technical and non-technical audiences. Noise levels (measured or predicted) should be reported to the nearest 1/10th of a decibel. The report should focus on relevant information. TNM modeling files should be provided in SWEPT. The ***NSR*** should also include: the existing

(measured or predicted) as well as the predicted future build and no-build noise levels for each receptor; required field monitoring data and any necessary explanation of the results of this data; a complete set of aerials showing the full project limits and the location of receptor points used in the noise analysis; and the date of the last review of land use that was considered in the ***NSR***. ***Figure 18-4*** illustrates a recommended outline for the ***NSR***.

The ***NSR*** must use the ***Technical Report Cover Page, Form No. 650-050-38*** as the cover sheet of the report. A sample ***NSR*** cover page is provided in ***Figure 18-10***. This cover page of the ***NSR*** includes the following statement:

> *The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.*

18.2.6.1 Methodology and Assumptions

Include the following information related to methodology and assumptions in the ***NSR***:

1. Noise model(s) and methodology used;
2. Alternatives and years considered;
3. Existing and design year vehicle volumes, speeds, and composition data;
4. Receptor locations and descriptions, including land use activity category;
5. Basis for determination of existing and future traffic noise levels; and
6. Noise descriptor used.

Include a comparison of the total traffic noise levels for each build and no-build alternative along with the appropriate NAC and existing (measured or predicted) noise levels. Also include in the ***NSR*** all abatement considerations and a Statement of Likelihood (See ***Section 18.2.6.3***).

Include an illustration similar to ***Figure 18-6*** in the ***NSR*** to assist the public in understanding how traffic noise levels relate to other sound sources.

18.2.6.2 Coordination Requirements and Documentation

Summarize in the ***NSR*** any coordination or communications that may have taken place with other agencies and the public and include in the public coordination section. Include comments and any responses to any comments. A statement should also be made that a copy of the final ***NSR*** will be circulated to the appropriate local planning/zoning officials for their use upon approval of the Environmental Document. The ***NSR*** should also include

a representation of the best estimate of the contours from the proposed edge of pavement at which traffic noise levels would approach or exceed the NAC for Activity Categories A through E for each project segment as shown in ***Figure 18-7***.

When the Environmental Document is approved, send copies of the ***NSR*** to the appropriate local government officials within whose jurisdiction the highway project is located. See ***Figure 18-8*** for a sample ***NSR*** transmittal letter. The following information should be transmitted along with the ***NSR*** consistent with ***23 CFR § 772.17(a)***:

1. Noise compatible planning concepts;

2. A representation of the estimated distances from the proposed edge of pavement at which traffic noise levels would approach or exceed the NAC for Activity Categories A through E for each segment of the project; and

3. After the DPK, FDOT is no longer responsible for providing noise abatement to new development which occurs adjacent to the proposed highway project.

The above items are intended solely to assist local officials and private developers in promoting compatibility between land development and highways. Upon request, FDOT may provide additional available material and technical guidance which may assist local officials and private developers in this respect. The ***NSR*** transmittal letter should be included in the SWEPT project file.

18.2.6.3 Documentation in the PD&E Phase

Before approval of a CE, FONSI, ROD, NMSA, or SEIR, FDOT shall identify:

1. A Statement of Likelihood for the noise abatement measures which are potentially feasible and reasonable, and which are likely to be incorporated into the project; and

2. Noise impacts for which no noise abatement measures are feasible and reasonable.

Title 23 CFR § 772.13(h) states that FHWA will not approve project plans and specifications unless feasible and reasonable noise abatement measures are incorporated into the plans and specifications to reduce the traffic noise impact on existing activities, developed lands, or undeveloped lands for which development is permitted.

Noise abatement will be analyzed two (2) times during the development of a project. The first time will be during the PD&E phase where the Environmental Document is prepared. By the time the Environmental Document is prepared, the noise studies will have progressed to the stage where noise-impacted areas have been identified. Although at this stage it is unlikely that exact locations, abatement types, ROW requirements, or design and construction feasibility factors can be determined, the approximate noise barrier location and height information should be determined. The second time noise abatement will be analyzed will be during final design prior to Plans, Specifications, and

Estimates (PS&E) approval. Any noise sensitive receptor that is permitted between the completion of the ***NSR*** and the DPK will be analyzed for traffic noise impacts and, if impacts are predicted, abatement will be considered during the Design phase of the project.

If there are no impacted receptors within the project, the following statement (or variation thereof) should be used:

> Based on the noise analyses performed to date, there appear to be no impacted areas within the project that require abatement consideration.

When feasible and reasonable noise abatement measures are identified, in accordance with ***23 CFR Part 772***, the Highway Traffic Noise section of the Environmental Document shall contain a Statement of Likelihood similar to the following:

> The Florida Department of Transportation is committed to the construction of feasible and reasonable noise abatement measures at the noise-impacted locations identified in (insert a table or figure which shows the proposed location and physical description of noise abatement measures determined feasible and reasonable) contingent upon the following conditions:
>
> 1. Final recommendations on the construction of abatement measures are determined during the project's final design and through the public involvement process;
>
> 2. Detailed noise analyses during the final design process support the need, feasibility and reasonableness of providing abatement;
>
> 3. Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion;
>
> 4. Community input supporting types, heights, and locations of the noise barrier(s) is provided to the District Office; and
>
> 5. Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved.
>
> Appropriate project-specific contingencies may be added to the statement of likelihood.

If no feasible or reasonable abatement is identified, the following statement (or variation thereof) shall be used:

> Based on the noise analyses performed to date, there are no feasible solutions available to mitigate the noise impacts at the locations identified in (insert a table or figure which shows proposed location and physical

description of noise abatement measures determined not feasible or reasonable).

18.2.6.4 Design Phase Considerations

Abatement measures proposed in the PD&E phase are reconsidered and analyzed during the Design phase in light of more exact design, project alignment refinements, and detailed project data. Notably, if there is a gap of time between approval of the ***NSR*** and the Environmental Document (DPK), a review of any new potential NSAs must be considered during the Design phase and documented in the ***Design Noise Study Report (DNSR)***. In addition, land use changes that have occurred before the DPK may preclude the construction of abatement measures or potentially create the need for abatement that was not considered during the PD&E phase.

The final noise abatement locations, barrier types, lengths and heights and aesthetic treatments recommendations are determined during the project's Design phase and through the public involvement process. The goals of the highway traffic noise analysis performed during the Design phase are to:

- determine if the abatement measures recommended during PD&E are still reasonable and feasible as outlined in ***Section 18.2.3.2*** and ***Section 18.2.3.3***;
- determine if new abatement measures are required;
- determine the desires of the benefited receptors;
- incorporate aesthetic treatments.

The final noise abatement commitments must be documented in the Re-evaluation and the ***DNSR*** (as required by ***Part 2 Section 264.2.1, of the FDM, Topic No. 625-000-002***) prior to construction advertisement, regardless of project funding sources.

For non-conventional (not the traditional design-bid-build) projects, the ***Request for Proposal (RFP)*** package will include the noise abatement requirements. Prior to the approval of an Alternative Technical Concept (ATC), a ***DNSR*** should be prepared. If an ATC proposes changes to the horizontal or vertical alignments depicted in the Concept Plans, any associated required changes to the noise abatement locations must be addressed. Any modifications or additions to noise abatement locations and dimensions depicted in the ***RFP*** must be approved by FDOT based on the information from a ***DNSR*** prepared by the Design-Build Firm. The Design-Build Firm must coordinate with the District Noise Specialist to ensure proper public involvement occurs during final design. Refer to ***Section 18.2.11*** for projects with overlapping PD&E and Design phases.

The Design Project Manager must work with the environmental staff to ensure that the final noise abatement commitments are reflected in the Re-evaluation of the Environmental Document before the project moves to the Construction phase.

If the abatement measures recommended during the PD&E phase are no longer considered feasible or reasonable during Design for a given location(s), such determination(s) will be made in the Re-evaluation process prior to requesting approval for construction advertisement (***Part 1, Chapter 13, Re-evaluations***). Commitments regarding the exact abatement measure locations, heights, and type (or approved alternatives) will be made during the Design phase and recorded on the ***Project Commitments Record (PCR)*** as required by ***Procedure No. 650-000-003, Project Commitment Tracking***. See ***Part 2, Chapter 22, Commitments*** for more information on commitments.

If abatement is not feasible or reasonable, the following statement (or variation thereof) shall be used:

> Based on the noise analyses performed to date, there are no feasible and reasonable solutions available to mitigate the noise impacts at the locations identified in (insert a table or figure which shows the proposed location and physical description of noise abatement measures determined not feasible or reasonable).

18.2.6.5 Construction Noise and Vibration Impacts

The early identification of potential construction noise and/or vibration impacts that may result from the construction of the project is important. The level of consideration for construction noise and vibration is discussed in ***Highway Traffic Noise: Analysis and Abatement Guidance (FHWA, December 2011)***. Any potential construction noise or vibration impacts that are identified in the PD&E phase shall be documented in the ***NSR*** and in the Environmental Document, along with any identified abatement measures that are potentially feasible and reasonable. A list of example construction noise and vibration-sensitive receptors has been developed and can be found in ***Figure 18-9***. This will allow avoidance and/or mitigation options to be developed during the final design phase. These options can then be placed in the construction plans and applied during the construction of the project by the Contractor.

A discussion of construction noise and vibration impacts must be included in the Environmental Document whether the NAC are exceeded or not. It is generally based on site specific conditions and should, at a minimum, include a general reference to the ***FDOT Standard Specifications for Road and Bridge Construction*** to control noise and/or vibration impacts.

Examples of standard specifications that may be applied to a project include:

1. ***Section 6-3.1*** related to the storage of materials to minimize noise impacts on sensitive receptors;

2. ***Section 100-2.1*** related to equipment approval requiring the use of factory recommended exhaust mufflers and to remove or repair any equipment that is disapproved by the Engineer;

3. ***Section 100-2.2*** requires adequate equipment maintenance to minimize noise pollution caused by construction equipment;

4. ***Section 100-2.3*** suggests that all stationary equipment be screened from noise sensitive receptors beyond normal working hours and, if feasible, screen this equipment during normal working hours to reduce noise impacts;

5. ***Section 120-6.4*** addresses the concept of establishing haul routes which will direct construction vehicles away from developed areas when feasible and keep noise from hauling operations to a minimum; and

6. ***Section 455-1.1*** requires that the Contractor take reasonable precautions to prevent structural damage to existing structures by monitoring settlement and vibrations in accordance with the requirements of the specifications.

FHWA's ***Highway Construction Noise Handbook*** provides guidance for the prediction and mitigation of construction noise. The Roadway Construction Noise Model (RCNM; found within TNM 3.2), which is the FHWA's national model for the prediction of construction noise, may be used as needed. The RCNM provides a construction noise screening tool to predict construction noise levels and determine compliance with noise limits for a variety of construction noise projects. The use of the RCNM should be coordinated with OEM prior to application.

Any recommended special construction noise and/or vibration mitigation measures identified during the review of potential construction and/or vibration impacts will be described in the ***NSR*** and in the Environmental Document, as appropriate. In considering construction noise and/or vibration mitigation, it should be noted that special provisions may be added as appropriate to the project's construction specifications. Any unique noise and/or vibration control efforts to be considered during construction shall be coordinated with the District Noise Specialist and Project Manager prior to inclusion in the ***NSR***.

The following is a sample construction noise and vibration statement for inclusion in the appropriate ***NSR/DNSR*** and Environmental Document:

> Based on the existing land use within the limits of this project, construction of the proposed roadway improvements will (will not) have any noise or vibration impact. If noise-sensitive land uses develop adjacent to the roadway prior to construction, additional impacts could result. It is anticipated that the application of the ***FDOT Standard Specifications for Road and Bridge Construction*** will minimize or eliminate most of the potential construction noise and vibration impacts. However, should unanticipated noise or vibration issues arise during the construction process, the Project Manager, in concert with the District Noise Specialist and the Contractor, will investigate additional methods of controlling these impacts.

18.2.7 Environmental Document

The expected level of noise impacts discussion for each type of Environmental Document is provided in the sections below. The Environmental Document shall identify locations where noise impacts are predicted to occur, where noise abatement is feasible and reasonable, and locations with impacts that have no feasible or reasonable noise abatement alternative.

The final ***NSR*** is uploaded into the SWEPT project file and a summary should be included in the Environmental Document. The Highway Traffic Noise section of the Environmental Document should contain enough detail to convey the degree of noise impact attributed to the proposed project, along with certain required statements. The Environmental Document must reference the ***NSR*** for additional details using a statement similar to the following:

> The Noise Study Report for this project is available from the District Office, located at _____.

The Environmental Document will also include information regarding the consideration of noise abatement measures that have or have not been determined to be feasible and reasonable based on the information available at the time the ***NSR*** was completed.

After OEM grants Location and Design Concept Acceptance (LDCA) for a federal project, or a SEIR has been approved, a copy of the ***NSR*** is sent to the appropriate local government officials who have jurisdiction where the highway project is located. Other information that will aid these officials in their planning and land use decisions to minimize highway noise impacts in the future may be sent along with the ***NSR***. See ***Figure 18-8*** for a sample ***NSR*** transmittal cover letter to a local planning agency.

Type III projects do not require a noise analysis. For these projects, the Highway Traffic Noise section within the Environmental Document should include a statement similar to the following:

> This project has been determined to be a Type III project as defined in ***23 CFR § 772.5*** and does not require a noise analysis.

18.2.7.1 Type 2 Categorical Exclusion

On the ***Type 2 Categorical Exclusion Determination Form*** in SWEPT, identify if it is a Type I or Type III project (***Section 18.1.3***) pursuant to ***23 CFR Part 772*** and ***Section 335.17, F.S.*** Summarize the results of noise impacts documented in the ***NSR***. The summary should include locations with the predicted noise impacts that have feasible and reasonable abatement barriers, and locations with impacts that have no feasible or reasonable noise abatement alternative. Include the ***NSR*** as Technical Material and add a map for noise as an attachment, if applicable.

18.2.7.2 Environmental Assessment with Finding of No Significant Impact

The Highway Traffic Noise section of the Environmental Assessment (EA) must reference and summarize the ***NSR***. Specific references to the items discussed in ***Section 18.2.2*** and ***Section 18.2.3*** are included as appropriate. Coordination which occurred during the noise study must be documented. The Comments and Coordination section shall include letters from agencies expressing comments on the ***NSR***. Resolution of comments shall also be documented in this section. In the FONSI, provide a summary of all noise impacts resulting from the project. If abatement measures are being recommended for further consideration, identify the sites for which the abatement is proposed. For those locations with impacts, where abatement is not feasible and/or reasonable, provide those locations and an explanation as to why the abatement measure(s) considered was determined to not be feasible and/or reasonable.

18.2.7.3 Environmental Impact Statement

The Highway Traffic Noise section of an Environmental Impact Statement (EIS) should summarize the ***NSR*** and include the following information:

1. A brief description of NSAs and their location, including information on the numbers and types of activities which may be impacted. The availability of the ***NSR*** at the District Office will be noted.

2. The extent of the impact (in decibels). This will include a brief description of the methodology used and identification of the computer model used, along with a comparison of the future predicted noise levels with both FHWA NAC and the existing predicted noise levels.

3. Noise abatement measures which have been considered and those measures that would likely be incorporated into the proposed project.

4. Noise impacts for which no feasible and reasonable abatement is available and the reasons why.

18.2.7.4 State Environmental Impact Report

The Highway Traffic Noise section of a SEIR should summarize the anticipated traffic noise impacts identified in the ***NSR*** and appropriately reference the basis for decision the same as for a federal project as described in this chapter. The applicable standard statements and Statement of Likelihood in ***Section 18.2.6.3*** should be included.

18.2.8 Re-evaluations

The Re-evaluation of any Environmental Document that included an ***NSR*** shall also include an update of the traffic noise analysis. Assumptions made and data used during the original noise analysis and documented in the ***NSR*** shall be reviewed and updated to

ensure the assumptions and any preliminary commitments are still valid. This may include, but not necessarily be limited to, current and future traffic data (volumes, speeds, composition), roadway alignment (horizontal and vertical), land use, propagation path, barriers/buffers (including trees, berms, structures), variation in terrain between noise source and receptors, and changes in TNM versions. If the latest noise evaluation utilized a previous version of TNM (prior to TNM version 2.5), an update of the traffic noise analysis is required. Changes to the horizontal and vertical roadway alignment should follow the guidance provided in the Type I Projects Matrix provided in ***Figure 18-2***. The Re-evaluation may result in no change to the ***NSR*** or in a completely new ***DNSR*** being required. At a minimum, it must be documented that the original noise study and analysis was reviewed and that the assumptions, project conditions and results are still valid. Computer modeling efforts will be conducted using the latest approved version for any required subsequent noise Re-evaluation as a result of a major design change.

Coordination with OEM during the Re-evaluation process on federal projects is required (see ***Part 1, Chapter 13, Re-evaluations***).

The final noise abatement commitments must be documented in the Re-evaluation and the ***DNSR*** prior to construction advertisement, regardless of project funding sources. Additionally, the ***PCR*** must also be updated. If the ***DNSR*** is substantially modified from the version previously distributed to the affected local governments, a revised version should be sent out to them.

18.2.9 Design-Build Projects

When a Design-Build firm proposes an alternative technical concept to the concept included in the ***RFP*** for the Design-Build project, the District must re-evaluate the noise study in conformance with the provisions of ***40 CFR § 1506.5*** and ***23 CFR § 636.109***. The design-build noise study Re-evaluation must follow the analysis procedures outlined in this Chapter.

Changes to the horizontal and vertical roadway alignment should follow the guidance provided in the Type I Projects Matrix provided in ***Figure 18-2***. If changes in the roadway design occur during the Design-Build process, the following guidance shall be considered:

1. If the Re-evaluation results in the identification of additional impacted receptors, a change in location of impacted receptors, or an increase in the proposed noise abatement dimensions (height and/or length), the FDOT will construct the proposed abatement as long as it's feasible, reasonable, and desired by the public.

2. If the Re-evaluation results in reduced traffic noise impacts due to changes in the project design, or previously predicted noise impacts no longer warrant abatement consideration, the FDOT will consider abatement based on the commitments, public sentiment, and consultation with OEM, provided that abatement construction is feasible.

3. The public shall be engaged when modifications to noise abatement commitments and the intent to alter abatement measures are being considered.

18.2.10 Projects with Concurrent PD&E and Design Phases

Noise studies for projects with concurrent PD&E and Design phases are still required to follow the requirements of ***23 CFR Part 772*** and this chapter. When design activities overlap PD&E activities, only the PD&E phase ***NSR*** may be prepared because the roadway plans may have enough detail (Phase II design plans) to allow noise abatement commitments to be made at that time. It is important that subsequent plan sets be reviewed for changes in roadway geometry that could necessitate a change to the noise analysis. These projects will still utilize a DPK based on the date of the approval of the Environmental Document for the project.

Once the final design of the project is completed, the review of the design plans must verify that no changes have occurred relative to what was previously evaluated and documented in the ***NSR***. If significant changes have occurred that may alter the results of the original noise study and any noise abatement commitments (if applicable), a Re-evaluation is warranted and documented in a new ***DNSR*** before the project is advertised for construction. Changes to the horizontal and vertical roadway alignment should follow the guidance provided in the Type I Projects Matrix provided in ***Figure 18-2***.

18.2.11 Abatement Measure Reporting

Title 23 CFR § 772.13(f) requires that each highway agency maintain an inventory of all constructed noise abatement measures. To comply with the inventory requirement, FDOT maintains an inventory of all noise abatement barriers constructed on the SHS in a GIS layer housed in the University of Florida's GeoPlan Center Florida Geographic Data Library (FGDL). Each District Noise Specialist must annually gather and provide inventory data to the University of Florida's GeoPlan Center.

This inventory data shall include at least the following parameters:

1. Type of abatement;
2. Cost (overall cost, unit cost per/sq. ft.);
3. Average height;
4. Length;
5. Area;
6. Location (state, county, city, route);
7. Year of construction;

8. Average insertion loss/noise reduction as reported by the model in the noise analysis;

9. NAC category(s) protected;

10. Material(s) used (precast concrete, berm, block, cast in place concrete, brick, metal, wood, fiberglass, combination, plastic [transparent, opaque, other]);

11. Features (absorptive, reflective, surface texture);

12. Foundation (ground mounted, on structure); and

13. Project type (Type I, Type II) and optional project types such as state funded, county funded, tollway/turnpike funded, other, unknown. The FHWA will collect this information, in accordance with Office of Management and Budget's Information Collection requirements.

For a complete list of items to be reported by the District Noise Specialists, see the FGDL attributes metadata website (***Section 18.3***). Federal submission requirement fields are prefaced with FED in the FGDL database.

The noise abatement barriers data is reported tri-annually to FHWA once a request is received to submit the report. At the request of OEM, the GeoPlan Center will prepare the tri-annual report submitted by the State Noise Program Coordinator to the FHWA Florida Division Office in the format required by ***23 CFR § 772.13(f)***.

18.3 REFERENCES

FHWA, FHWA's Noise Policy FAQs - Frequently Asked Questions. https://www.fhwa.dot.gov/Environment/noise/regulations_and_guidance/faq_nois.cfm

FHWA, Report FHWA-HEP-06-015, FHWA Highway Construction Noise Handbook: Final Report, August 2006. https://rosap.ntl.bts.gov/view/dot/8837

FHWA, Report FHWA-HEP-05-054, FHWA Roadway Construction Noise Model User's Guide: Final Report, January 2006. http://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/rcnm.pdf

FHWA, Report Number FHWA-PD-96-009, FHWA Traffic Noise Model User's Guide. April 2004. http://www.fhwa.dot.gov/environment/noise/traffic_noise_model/tnm_v25/users_manual/index.cfm

FHWA, Report FHWA-HEP-10-025, Highway Traffic Noise: Analysis and Abatement Guidance, December 2011. https://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf

FHWA, Report Number FHWA-HEP-18-065, Noise Measurement Handbook. June, 2018. https://www.fhwa.dot.gov/environment/noise/measurement/handbook.cfm

FHWA, Use of Freeway Shoulders for Travel — Guide for Planning, Evaluating, and Designing Part-Time Shoulder Use as a Traffic Management Strategy, February 2016. https://ops.fhwa.dot.gov/publications/fhwahop15023/

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/florida-327-mou---signed.pdf?sfvrsn=202c70b4_2

FRA, Guidance on Assessing Noise and Vibration Impacts. https://www.fra.dot.gov/Page/P0216

FTA, Report Number 0123, Transit Noise and Vibration Impact Assessment Manual. September 2018. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

FDOT, Design Manual, Topic No. 625-000-002. https://www.fdot.gov/roadway/fdm

FDOT, Existing Noise Barrier Methodology Flowchart. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/noise/noisebarrierflowchart-05-22-2023.pdf?sfvrsn=579b28f0_1

FDOT, Methodology to Evaluate Highway Traffic Noise at Special Land Uses, January 2024. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/noise/sluguidancedocument-slus-12-13-2023.docx?sfvrsn=4ff85c20_1

FDOT, Project Commitment Tracking, Procedure No. 650-000-003. https://pdl.fdot.gov/

FDOT, Right of Way Procedures Manual, Topic No. 575-000-000, Section 12.1, Outdoor Advertising Signs. https://www.fdot.gov/rightofway/ProceduresManual.shtm

FDOT, Standard Specifications for Road and Bridge Construction. https://www.fdot.gov/design/standardplans/default.shtm

FDOT, Traffic Data for Traffic Noise Spreadsheet. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/noise/fdotoemnoisetrafficdataspreadsheetversion2-02-01-2024.xlsx?sfvrsn=37753d37_1

FDOT, Traffic Noise Modeling and Analysis Practitioners Handbook, December 2018. https://www.fdot.gov/environment/publications.shtm

Section 335.02, F.S., Authority to designate transportation facilities and rights-of-way and establish lanes; procedures for re-designation and relocation; application of local regulations. http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0300-0399/0335/Sections/0335.02.html

Section 479.25, F.S., Erection of noise-attenuation barrier blocking view of sign; procedures; application. July 1, 2014. http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0400-0499/0479/Sections/0479.25.html

Section 335.17, F.S., State highway construction; means of noise abatement. 2012. http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0300-0399/0335/Sections/0335.17.html

Title 14 CFR § 150, Airport Noise Compatibility Planning https://ecfr.io/Title-14/pt14.3.150

Title 23 CFR § 636.109, How does the NEPA process relate to the design-build procurement process. https://ecfr.io/Title-23/pt23.1.772

Title 23 CFR § 750.709; On-property or on premise advertising. https://ecfr.io/Title-23/pt23.1.750

Title 23 CFR § 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise, Tuesday, July 13, 2010. http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title23/23cfr772_main_02.tpl

Title 40 CFR § 1506.5, Environmental Impact Statements, Nov. 29, 1978. http://www.ecfr.gov/cgi-bin/text-idx?SID=bbdf2357d9d42328f1467b91ac5f1076&mc=true&node=se40.33.1506_15&rgn=div8

Title 49 CFR § 210, Railroad Noise Emission Compliance Regulations. Federal Railroad Administration. https://ecfr.io/Title-49/pt49.4.210

University of Florida, GeoPlan Center. Florida Geographic Data Library (FGDL) Metadata Explorer. http://fgdl.org/metadataexplorer/explorer.jsp

18.4 FORMS

Technical Report Cover Page, Form No. 650-050-38

18.5 HISTORY

10/6/2003, 4/18/2007, 5/24/2011, 7/27/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 17, 1/14/2019, 7/1/2020, 7/1/2023

NOISE ABATEMENT CRITERIA (NAC) [Hourly A-Weighted Sound Level-decibels (dB(A))]				
Activity Category	Activity Leq(h)[1]		Evaluation location	Description of activity category
	FHWA	FDOT		
A	57	56	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[2]	67	66	Exterior	Residential
C[2]	67	66	Exterior	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	51	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E[2]	72	71	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	_	_	_	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	_	_	_	Undeveloped lands that are not permitted.

(Based on Table 1 of 23 CFR Part 772)

1 The Leq(h) Activity Criteria values are for impact determination only, and are not design standards for noise abatement measures.

2 Includes undeveloped lands permitted for this activity category.

Note: FDOT defines that a substantial noise increase occurs when the existing noise level is predicted to be exceeded by 15 decibels or more as a result of the transportation improvement project. When this occurs, the requirement for abatement consideration will be followed.

Figure 18-1 Noise Abatement Criteria

Type I Project Activities (Noise Study Required)		Not Type I (No Noise Study Required)
1	Construction of highway on new location	
2	New or relocated interchanges	
3	Addition of new interchange ramps (add a ramp where no ramps existed). Viewed as a new location.	
4	Relocation of an interchange ramp where the edge of the outside lane on any segment of the ramp reduces the distance to the closest receptor by one-half. (See #6 for realignment of ramps)	
5	Increasing capacity to an existing on or off interchange ramp (by adding lanes) including associated merge lanes. Viewed as a new location.	
6	Lengthening an existing interchange ramp's acceleration or deceleration lane and associated merging into the mainline to a total of more than 2500 feet (from the gore to the end of the lane), or re-aligning where any segment of the ramp reduces the distance to the closest receptor by one-half.	Lengthening an existing interchange ramp's acceleration or deceleration lane and associated merging into the mainline (total length less than 2500 feet), or re-aligning where any segment of the ramp DOES NOT REDUCE the distance to the closest receptor by one-half.
7	Alteration of the horizontal alignment of an existing highway such that the edge of the outside lane reduces the distance to the closest receptor by one-half.	Alteration of the horizontal alignment of an existing highway such that the edge of the outside lanes DOES NOT REDUCE the distance to the closest receptor by one-half.
8	Alteration of the vertical alignment, or the surrounding topography, where existing shielding is removed and the line of sight between the noise source and the receptor is now direct. (Activity does not include removal of vegetation).	
9	Addition of new through-lanes that increase capacity to an existing highway. (Noise analysis required on both sides of the highway whether the lanes are all in one direction or both directions of travel.)	
10	Restriping existing pavement to add a through-lane or auxiliary lane (See #13, #14 and #15 for auxiliary lanes).	
11	Addition of new or substantially altered weight station, rest stop, ride share lot or toll plaza.	
12	Addition of ramps or new lanes serving as climbing lanes for buses and trucks.	
13	Addition of auxiliary lanes used as through lanes on local roads.	
14	Auxiliary lanes on freeways and expressways connecting two or more interchanges (continuous lanes longer than 2500 feet from gore to gore).	Auxiliary lanes on freeways and expressways connecting two closely spaced interchanges (less than 2500 feet from gore to gore) to accommodate weaving traffic.
15		Turn lanes at intersections associated with arterial highways
16		Bicycle and Pedestrian paths
17		Safety activities (23 USC § 402)
18		Landscaping
19		Installation of fencing, signs, pavement marking, small passenger shelters, traffic signals, railroad warning signals (that don't disrupt traffic patterns)
20		Deployment of electronics, photonics, communications, information processing to improve safety and security
21		Re-surfacing, restoration, rehabilitation or reconstruction of an existing facility (unless there is a change in horizontal or vertical alignment per 7 & 8 above).
22		Electronic toll collection facilities that do not disrupt traffic patterns.

Figure 18-2 Type I Project Matrix

Building Type	Window Condition*	Noise Reduction Due to Exterior of the Structure
All	Open	10 dB
Light Frame	Ordinary Sash (closed)	20 dB
	Storm Windows	25 dB
Masonry	Single Glazed	25 dB
	Double Glazed	35 dB

*For interior noise analysis, the FDOT considers all windows closed.

Source: FHWA Highway Traffic Noise: Analysis and Abatement Guidance, Table 6.

Figure 18-3 Building Noise Reduction Factors

EXAMPLE PD&E NOISE STUDY REPORT (NSR) OUTLINE

EXECUTIVE SUMMARY

TABLE OF CONTENTS
- List of Tables
- List of Figures
- List of Appendices

1.0 INTRODUCTION
- 1.1 Project Description (includes Project Location Map)
- 1.2 Proposed Improvements (includes conceptual typical section(s))

2.0 METHODOLOGY (opening paragraph references regulation, policy and TNM version)
- 2.1 Noise Metrics
- 2.2 Traffic Data
- 2.3 Noise Abatement Criteria (includes general discussion and application specific to the project)
- 2.4 Noise Abatement Measures (General Discussion)
  - 2.4.1 Traffic Management
  - 2.4.2 Alignment Modifications
  - 2.4.3 Buffer Zones (includes noise contours and intended application of contours)
  - 2.4.4 Noise Barriers (includes discussion of minimum reduction requirements and cost reasonable limit)

3.0 TRAFFIC NOISE ANALYSIS
- 3.1 Model Validation
- 3.2 Existing Noise Levels: Ambient Measurements (documents noise monitoring to establish existing noise levels; usually only included for new alignment projects); **OR** Modeled Existing Noise Levels (documents TNM-modeled existing conditions; usually only included for existing alignment projects)
- 3.3 Predicted Noise Levels and Abatement Analysis (includes, at minimum, a discussion of impacts and noise barrier analysis with each impacted Noise Sensitive Area (NSA)

4.0 CONCLUSIONS (includes Statement of Likelihood)

5.0 CONSTRUCTION NOISE AND VIBRATION

6.0 COMMUNITY COORDINATION (documents any public comments specific to traffic noise, transmittal of the NSR to local officials and references noise contours discussed above)

7.0 REFERENCES

APPENDICES
- **Appendix A** **Traffic Data**
- **Appendix B** **Predicted Noise Levels**
- **Appendix C** **Aerials** (showing receptor points)
- **Appendix D** **TNM Modeling Files and PDF of the NSR** (on disc, including “Read Me” file)

Figure 18-4 Example PD&E Noise Study Report Outline

EXAMPLE DESIGN NOISE STUDY REPORT (DNSR) OUTLINE

EXECUTIVE SUMMARY

TABLE OF CONTENTS
- List of Tables
- List of Figures
- List of Appendices

1.0 INTRODUCTION
- 1.1 Project Description (includes Project Location Map)
- 1.2 Summary of PD&E Results and Commitments
- 1.3 Design Improvements (includes comparison to PD&E conceptual design and design typical section[s])

2.0 METHODOLOGY (opening paragraph references regulation, policy and TNM version)
- 2.1 Noise Metrics
  - 2.1.1.1 Traffic Data
- 2.2 Noise Abatement Criteria (includes general discussion and application specific to the project; includes discussion that the PD&E noise analysis determined no substantial increase, if applicable)
- 2.3 Noise Abatement Measures (General discussion identifying noise barriers as only viable abatement measure based on PD&E noise study; includes discussion of minimum reduction requirements and cost reasonable limit)

3.0 TRAFFIC NOISE ANALYSIS
- 3.1 Model Validation (Only if validation update from PD&E noise study is needed)
- 3.2 Predicted Noise Levels and Abatement Analysis (includes, at minimum, a discussion of impacts and noise barrier analysis with each Noise Sensitive Area (NSA); includes selection of recommended noise barrier length and height)
- 3.3 Engineering Feasibility Review (includes discussion on noise barrier modifications to resolve construction conflicts)

4.0 Outdoor Advertising (if applicable, discusses conflicts with outdoor advertising, resolution of conflicts and fulfillment of FDOT responsibilities in accordance with 479.25, F.S.)

5.0 CONCLUSIONS (includes discussion on fulfillment of PD&E commitments and tabulates specifics for each recommended noise barrier to be included in the design plans and constructed with the project)

6.0 CONSTRUCTION NOISE AND VIBRATION

7.0 COMMUNITY COORDINATION (includes results of noise barrier survey specific to each noise barrier or noise barrier system)

8.0 REFERENCES

APPENDICES
- **Appendix A Traffic Data**
- **Appendix B Predicted Noise Levels**
- **Appendix C Aerials** (showing receptor points and noise barriers to be included in design plans)
- **Appendix D Noise Barrier Survey Package**
- **Appendix E Engineering Feasibility Review Form(s)** (if applicable)
- **Appendix F TNM Modeling Files and PDF of the DNSR**

Figure 18-5 Example Design Noise Study Report Outline

COMMON OUTDOOR ACTIVITIES	NOISE LEVEL dB(A)	COMMON INDOOR ACTIVITIES
	---110---	Rock Band
Jet Fly-over at 1000 ft		
	---100---	
Gas Lawn Mower at 3 ft		
	---90---	
Diesel Truck at 50 ft, at 50 mph		Food Blender at 1 m (3 ft)
	---80---	Garbage Disposal at 1 m (3 ft)
Noise Urban Area (Daytime)		
Gas Lawn Mower at 100 ft	**---70---**	Vacuum Cleaner at 10 ft
Commercial Area		Normal Speech at 3 ft
Heavy Traffic at 300 ft	**---60---**	
		Large Business Office
Quiet Urban Daytime	**---50---**	Dishwasher Next Room
Quiet Urban Nighttime	**---40---**	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime		
	---30---	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (Background)
	---20---	
	---10---	
	---0---	
Lowest Threshold of Human Hearing		Lowest Threshold of Human Hearing

Source: California Dept. of Transportation Technical Noise Supplement, Oct. 1998, Page 18.

Figure 18-6 Typical Noise Levels

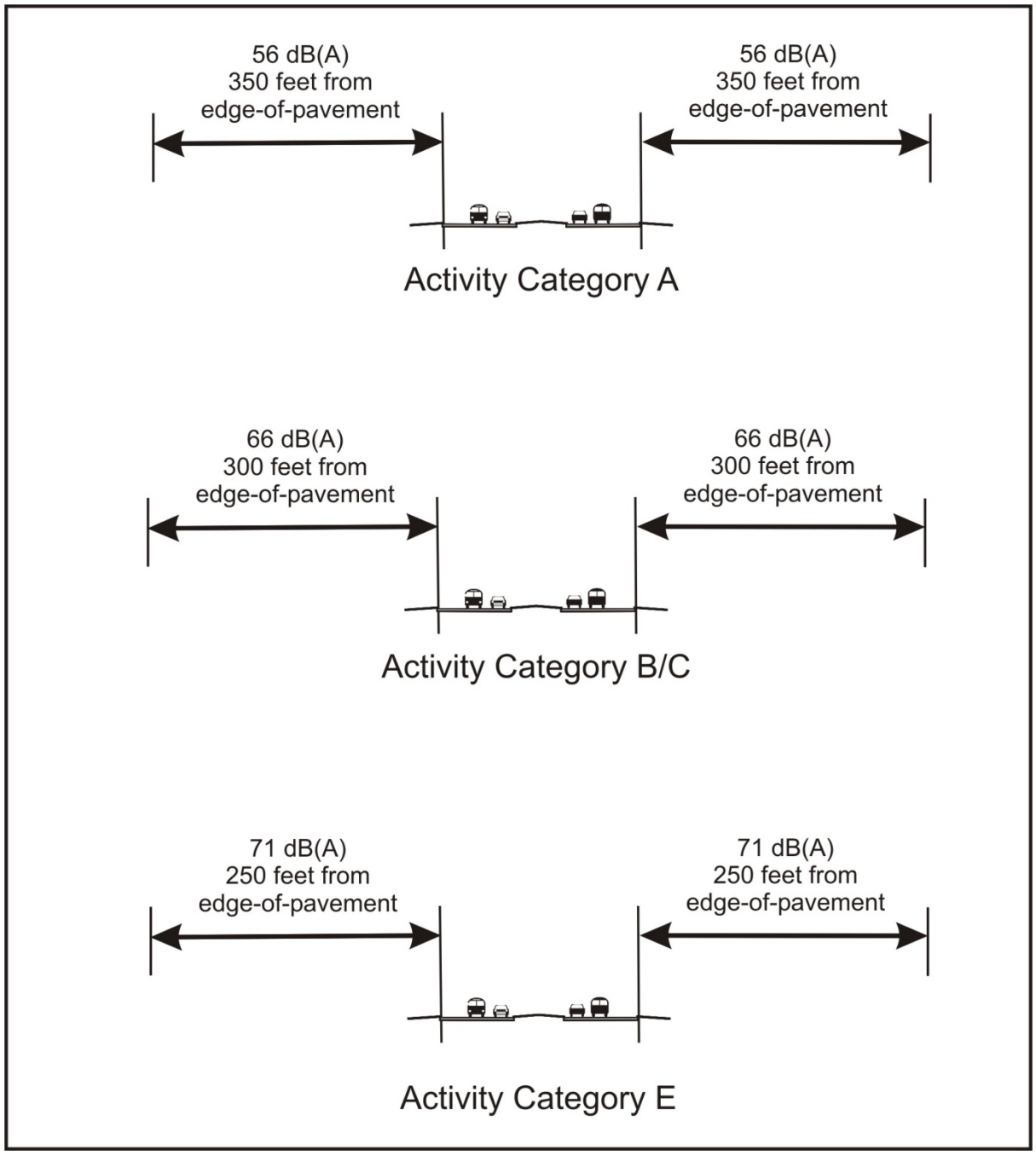

Figure 18-7 Sample Noise Contours

Date

Addressee
Appropriate Growth Management Office
Local Government
City, Florida Zip Code

The Florida Department of Transportation (FDOT) has received approval of (**INSERT LDCA or SEIR APPROVAL HERE**) for the Project Development and Environment (PD&E) Study for **(INSERT PROJECT NAME HERE**). As part of the PD&E Study, a traffic noise study was performed. Consistent with applicable federal regulations and state policies, attached is a copy of the Final Noise Study Report/Design Noise Study Report (Choose one as appropriate). (**INSERT APPROPRIATE SECTION/TABLE/FIGURE HERE**) contains information related to the estimated distance from the edge of the nearest travel lane for the improved roadway where traffic noise impacts are predicted to occur in the future design year for the project for the different land use categories contained in the Federal Highway Administration (FHWA) and FDOT Noise Abatement Criteria (NAC).

This information is being provided to assist the local planning agency and developers in the prevention of future traffic noise impacts on lands which are currently undeveloped. The Date of Public Knowledge for the project is the date of approval of the Environmental Document for the project. The FDOT is not responsible for providing noise abatement for noise sensitive land uses that are permitted for construction after that date. Upon request, the FDOT may provide additional available materials and technical guidance related to noise compatible land use planning to assist the local agencies and developers in this regard.

Sincerely,

(INSERT DISTRICT NOISE SPECIALIST/FDOT PM NAME HERE)

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

Figure 18-8 Sample Noise Study Report Transmittal Cover Letter

Noise	Vibration
Eye Centers/Clinics	Eye Centers/Clinics
Medical Centers	Medical Centers
Hospitals	Hospitals
Geriatric Centers	Geriatric Centers
Sound Recording Studios	Sound Recording Studios
TV/Radio Stations	TV/Radio Stations
Residences	Residences
Technical Laboratories	Technical Laboratories
Hearing Testing Centers	Antiques Shops
Theaters	Museums
Schools	Historic Buildings
Motels/Hotels	
Funeral Homes	
Libraries	
Meditation Centers	
Churches/Shrines	
Parks	
Day Care Centers	
Outdoor Theaters	
Note: This list is not meant to be all inclusive or exclusive, but rather an indication of the type of sites likely to be sensitive to construction noise and/or vibration.	
Source: FDOT Noise and Vibration Task Team; August 17, 1999.	

Figure 18-9 Construction Noise and Vibration Sensitive Sites

Noise Study Report

Florida Department of Transportation

District X

Project Title

Limits of Project

County, Florida

Financial Management Number: XXXXX-X

ETDM Number: XXXXXX

Date

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration and FDOT.

(Signature Block as Needed)

Figure 18-10 Sample Noise Study Report Cover Sheet for Federal Projects

PART 2, CHAPTER 19

AIR QUALITY

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PART 2, CHAPTER 19

AIR QUALITY

19.1 OVERVIEW

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

19.1.1 Purpose

The ***Clean Air Act (CAA)***, as amended, requires the Environmental Protection Agency (EPA) to set ***National Ambient Air Quality Standards (NAAQS)*** to protect public health and welfare. The EPA established the first set of primary and secondary ***NAAQS*** for six air pollutants that are common in outdoor air and are considered harmful to public health and the environment. The six criteria air pollutants are: ozone (O_3), nitrogen dioxide (NO_2), particulate matter (PM), sulfur dioxide (SO_2), carbon monoxide (CO), and lead (Pb). The current standards are provided in ***Table 19-1***. The ***NAAQS*** show the maximum allowable concentration of a pollutant by averaging time. For example, the maximum allowable primary and secondary ambient concentration of ozone is 0.070 parts per million (ppm) averaged over an 8-hour period.

In accordance with the ***CAA***, all areas within the United States are designated with respect to the ***NAAQS*** as being "attainment," "nonattainment," "maintenance," or "unclassifiable." Areas with documented air pollutant levels less than the ***NAAQS*** are designated attainment. Areas with documented air pollutant levels greater than the ***NAAQS*** are designated nonattainment. Maintenance areas are nonattainment areas that have been re-designated to attainment status. An area is designated as unclassifiable when the EPA is not able to determine an area's status after evaluating the available information. Current information on the status of nonattainment areas with respect to the ***NAAQS*** is available within the ***EPA's Green Book (EPA, 2019)***.

In 1990, the ***CAA*** was amended to include strategies to achieve and maintain the ***NAAQS*** for criteria air pollutants, to reduce air pollutant and pollutant precursor emissions from

mobile sources, and to provide enforcement sanctions for not achieving and maintaining the ***NAAQS***.

At the time of this publication, Florida has one maintenance area for Pb according to the standard last updated in 2008. The maintenance area for Pb is located in Tampa. Florida also has three maintenance areas for SO_2 according to the 2010 standard. The maintenance areas for SO_2 are located in Hillsborough County, Hillsborough/Polk County, and Nassau County. However, on-road motor vehicles are not considered a significant source of SO_2 or Pb, and project level analysis for SO_2 and Pb is not needed. Florida is currently in attainment for all other ***NAAQS***.

Mobile Source Air Toxics (MSATs) are hazardous air pollutants emitted by mobile sources that are known, or suspected, to cause cancer or serious health and environmental effects. The EPA has identified nine compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk contributors and non-cancer hazard contributors from the ***2011 National Air Toxics Assessment (NATA)***. In the ***Updated Interim Guidance on MSAT Analysis in National Environmental Policy Act (NEPA) Documents***, FHWA considers these nine compounds priority MSATs. The nine priority MSATs are acetaldehyde, acrolein, benzene, 1,3-butadiene, diesel particulate matter plus diesel exhaust organic gases, ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter.

This chapter explains how to evaluate project level air quality effects (specifically, CO, PM, and MSATs) of FDOT projects, and how to address those effects during the environmental review process. Because Florida does not have any areas which are in nonattainment, it is generally not necessary to prepare an extensive report to document potential impacts to air quality. Rather, a brief ***Air Quality Technical Memorandum*** is prepared if warranted, and the results are summarized in the Environmental Document.

19.1.2 Definitions

Attainment – The designation that an area has monitored air quality that meets the EPA ***NAAQS*** for a particular pollutant.

CAL3QHC – A dispersion model currently approved by EPA to determine pollutant concentrations at receptor locations near highways using the emission rates determined by the Motor Vehicle Emission Simulator (MOVES) model.

CO Florida 2012 – An FDOT CO screening test for project level analysis of intersections and interchanges that incorporates emission factors produced from the EPA's MOVES model. It has a CAL3QHC module built into it, with several different intersection and interchange configurations pre-programmed as separate input files. ***CO Florida 2012*** can be used to screen for ambient CO near the intersections, which include ramp terminals. It incorporates worst case conservative assumptions in regard to traffic, temperatures, meteorology, and location of receptors. If the model shows no exceedances of the CO ***NAAQS***, it is not necessary to run more detailed models (MOVES and CAL3QHC).

Micron (or Micrometer) (µm) – One millionth of a meter, symbolized as 1×10^{-6} meter.

Mobile Source Air Toxics (MSAT) – Hazardous air pollutants emitted by mobile sources that are known, or suspected, to cause cancer or serious health and environmental effects.

Motor Vehicle Emission Simulator (MOVES) – An EPA emissions model that estimates the emission rates for mobile sources for criteria air pollutants, greenhouse gases, and air toxics.

National Ambient Air Quality Standards (NAAQS) – EPA's list of the maximum level of pollutants allowed as required by the ***CAA***. The six criteria air pollutants are: Ozone (O_3), nitrogen dioxide (NO_2), Particulate Matter (PM), sulfur dioxides (SO_2), CO, and lead (Pb).

Nonattainment- The designation that an area has monitored air quality that does not meet the EPA ***NAAQS*** for a particular pollutant.

Primary Standards – Ambient air pollution standards set to protect public health.

Secondary Standards – Ambient air pollution standards set to protect public welfare, such as protecting against visibility degradation and damage to animals, crops, vegetation, and buildings.

19.2 PROCEDURE

NEPA requires that air quality be considered in the preparation of Environmental Documents. Air quality analysis is performed as part of the environmental review process to identify project-related impacts, and to evaluate possible mitigation, if appropriate. Project level air quality analysis varies according to the size of the project, existing air quality issues, and the degree of controversy regarding the project.

19.2.1 ETDM Screening

Evaluation of project effects on air quality starts during the Efficient Transportation Decision Making (ETDM) screening for qualifying projects. Potential air quality effects, including attainment status of the area, should be discussed in the Preliminary Environmental Discussion (PED). During the Planning and Programming Screens of the ETDM process, the EPA, which is an Environmental Technical Advisory Team (ETAT) member, provides comments on air quality issues. The ETAT comments are considered along with the FDOT expertise where the results of the review are summarized in the ETDM ***Planning Screen Summary Report*** and ***Programming Screen Summary Report***. These reports support the development of the scope for air quality analysis for a Project Development and Environment (PD&E) Study. For more information, refer to FDOT's ***ETDM Manual, Topic No. 650-000-002***.

19.2.2 Air Quality Analysis

The three pollutants analyzed in the Environmental Document for air quality are CO, PM, and MSATs.

19.2.2.1 Carbon Monoxide Analysis

Project level analysis is only required for federal projects in nonattainment and maintenance areas. The entire state of Florida is currently in attainment for CO, and most transportation improvement projects reduce delay and congestion. Modeling performed on projects statewide have consistently shown no exceedance of the ***NAAQS*** CO standard. Therefore, exceedance of the ***NAAQS*** is not expected to occur. Even though Florida is in attainment for the ***NAAQS***, detailed air quality analysis for CO may be needed, depending on project conditions.

The process for assessing CO is depicted in ***Figure 19-5***. A screening test using the ***CO Florida 2012*** model is needed when:

1. The Class of Action for the project is an Environmental Impact Statement (EIS) and/or;

2. The total vehicular delay time (veh-hours) at an intersection in the design year build condition is projected to increase when compared to the design year no-build condition and/or;

3. The project is expected to have community controversy regarding air quality. (Coordination with District specialists may be required to determine potential community controversy.)

When use of the screening test is not warranted the Environmental Document includes a statement that the project is not expected to have adverse effects on air quality (***Section 19.2.4***).

When use of the screening test is warranted, intersections and interchanges within the project corridor are required to be reviewed to evaluate the potential for a violation of the CO ***NAAQS***. Levels of CO tend to be the highest adjacent to intersections. At a minimum, the intersection with a combination of the highest intersection approach volume, the highest level of delay (on specific turning movements or for the intersection as a whole) and the lowest approach speed is screened using the ***CO Florida 2012*** screening test. The screening test is performed for future design year conditions with and without the proposed roadway improvements. For additional information on data requirements for the CO screening test, see the ***User's Guide to CO Florida 2012*** for the screening methodology and FDOT's ***Software Downloads Website*** to download the ***CO Florida 2012*** model. The ***Traffic Data for Air Quality Analysis Form, Form No. 650-050-36*** is to be used for entering traffic data in the ***CO Florida 2012*** model.

The ***CO Florida 2012*** model can be used to screen for the ambient CO near intersections (including interchange ramps). ***CO Florida 2012*** incorporates worst case conservative assumptions including peak hour traffic, January time-frame temperatures, meteorology conditions favorable for higher concentrations of CO (wind speed, stability class, and wind 360-degree angle search), and close-in receptors. ***CO Florida 2012*** has built in different intersection configurations that are analyzed after certain inputs are entered by the user.

If the CO ***NAAQS*** are not exceeded during screening, using the worst-case assumptions, the intersection passes the screening test and no detailed modeling has to be performed. Documentation of the evaluation is prepared and provided in an ***Air Quality Technical Memorandum*** and in the Air Quality section of the Environmental Document.

If the results of the screening test predict CO concentrations exceeding the standard noted in ***Table 19-1*** (35 ppm for a 1-hour period or 9 ppm for an 8-hour period), a detailed microscale emissions rates and dispersion analysis is performed on the intersection failing the test to insure there are no violations of the CO ***NAAQS***. A detailed assessment requires using actual intersection and receptor geometry, actual traffic predictions for all legs of the intersection, and running the latest versions of EPA's emission rates model (MOVES) and the dispersion model (CAL3QHC) independently. See ***Figure 19-1*** for links to latest MOVES and CAL3QHC models.

If the detailed microscale analysis shows that the intersection still violates the CO ***NAAQS***, mitigation measures are evaluated through changes in lane configurations, signal timing, exclusive vehicle allowances per lane, or other techniques. Once this is done the modeling analysis is run for the adjusted scenarios. Compliance with the ***NAAQS*** standards must be achieved for the proposed project to proceed.

19.2.2.2 Particulate Matter Analysis

Florida is in attainment for PM, both $PM_{2.5}$ and PM_{10}, therefore no project level analysis is needed. Only particulate emissions associated with construction activity are considered.

Project level impacts during construction are temporary in nature. PM emissions that can be associated with construction activities include dust as well as products of combustion, roadway deposits from brake dust, tire particles, and roadway dirt. These impacts are minimized by adherence to applicable state regulations and to the ***FDOT Standard Specifications for Road and Bridge Construction***. See ***Section 19.2.4*** for how to include this information in the Environmental Document.

19.2.2.3 Mobile Source Air Toxics Analysis

This section presents the varying levels of analysis associated with MSATs. The analysis process is depicted in ***Figure 19-6***. Project level MSAT analysis is only required for federal projects and documented depending on the following specific projects circumstances:

1. No analysis for projects with no potential for meaningful MSAT effects;

2. Qualitative assessment for projects with low potential MSAT effects; or

3. Quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects.

19.2.2.3.1 Projects with No Potential MSAT Effects

Projects that have no potential meaningful MSAT effects are **exempted** from MSAT analysis. These projects include:

- Projects qualifying as Categorical Exclusions;
- Projects exempt under the ***CAA*** conformity rule under ***40 CFR § 93.126***; and
- Other projects with no meaningful impacts on traffic volumes or vehicle mix.

Analysis or discussion of MSAT is not necessary for these projects. Documentation demonstrating that the project is exempt will suffice. For other projects with no or negligible traffic impacts, MSAT analysis is not recommended. However, an Environmental Assessment (EA) or EIS should document the basis for the determination of no meaningful potential impacts with a brief description of the factors considered.

Refer to ***Figure 19-2*** for suggested language to be used in the EA or EIS when the project is exempt from MSAT analysis.

19.2.2.3.2 Projects with Low Potential MSAT Effects

Projects in this category are EAs and EISs that improve operations of highway, transit, or freight without adding substantial new capacity or without creating a facility that is likely to meaningfully increase MSAT emissions. Examples of these types of projects are minor widening projects; new interchanges; replacing a signalized intersection; and projects where design year traffic is projected to be less than 140,000 annual average daily traffic (AADT).

For these projects, a **qualitative assessment** of emission projections should be conducted. This qualitative assessment should compare the expected effect of the project on traffic volumes, vehicle mix, or routing of traffic and the associated changes in MSAT for the project alternatives, including the No-Build, based on vehicle miles traveled (VMT), vehicle mix, and speed. It should also discuss national trend data projecting substantial overall reductions in emissions due to stricter engine and fuel regulations issued by EPA.

Refer to ***Figure 19-2*** for suggested language to be used in the EA or EIS for projects that require qualitative MSAT analysis.

19.2.2.3.3 Projects with High Potential MSAT Effects

Projects that have high potential MSAT effects include projects that:

- Create or significantly alter a major intermodal freight facility that has the potential to concentrate high levels of diesel particulate matter in a single location, involving a significant number of diesel vehicles for new projects or accommodating with a significant increase in the number of diesel vehicles for expansion projects; or

- Create new capacity or add significant capacity to urban highways such as Interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the AADT is projected to be 140,000 or greater by the design year; and

- Are proposed in proximity to populated areas.

Projects in this category require **quantitative analysis** to forecast specific emission trends of MSAT for each viable alternative to use as a basis of comparison. If there are meaningful differences in MSAT levels among viable alternatives, mitigation options should be considered. See ***FDOT Mobile Source Air Toxics Quantitative Analysis Guidance and Emission Rates Look-up Tables*** for the analysis procedure and documentation requirements. Example strategies to mitigate MSAT emissions are presented in ***Figure 19-3***.

See ***Figure 19-2*** for suggested language to be used in an EA or EIS for projects that require qualitative MSAT analysis.

19.2.3 Air Quality Technical Memorandum

It is not necessary to prepare an extensive report to document the status of the project with respect to air quality since Florida is in attainment. If a CO screening test and/or qualitative MSAT assessment (i.e., when the AADT is 140,000 or less)/quantitative MSAT analysis (i.e., when AADT is greater than 140,000) was performed, a brief ***Air Quality Technical Memorandum*** is prepared. When final, the memorandum must be placed in the project file. A sample ***Air Quality Technical Memorandum*** is provided as ***Figure 19-4***. The ***Air Quality Technical Memorandum*** should include:

1. A disclosure that the review and evaluation was conducted by FDOT under ***NEPA*** Assignment, see standard language included in the first paragraph of the sample ***Air Quality Technical Memorandum*** (***Figure 19-4***).

2. A brief description of the project and the area where the project is located (e.g., residential, commercial or industrial).

3. A brief description of air quality conditions within the area with respect to the ***NAAQS***. The following statement should be included since Florida is in attainment for CO and PM ***NAAQS***:

> This project is not expected to create adverse impacts on air quality because the project area is in attainment for all National Ambient Air Quality Standards. Therefore, the Clean Air Act conformity requirements do not apply to the project. Additionally, the project is expected to [improve/maintain] the Level of Service (LOS) and [reduce/not affect] delay and congestion on all facilities within the study area.

4. Confirm the project was reviewed for air quality impacts, as appropriate, and provide the results of the CO screening test for the project alternatives when conducted. See ***Section 19.2.2.1*** for screening test requirements.

5. When the project has no or low potential MSAT effects the standard language provided in ***Figure 19-2*** should be used.

6. When the project has high potential MSAT effects, and a quantitative MSAT analysis was performed include:

    a. **Project specific MSAT information.** Include a brief project description, project location, analysis years (base year and design year), identification of whether an interim year is required, names of alternatives evaluated; and explanation of why quantitative MSAT analysis is performed.

    b. **Methodology used to estimate MSAT emissions**. Use FDOT ***Mobile Source Air Toxics Quantitative Analysis Guidance and Emission Rates Look-up Tables***. Develop MSAT area of analysis with appropriate data (traffic volumes and average speeds in each link, length of each link). Reference or state the source of traffic inputs.

    c. **Estimation of MSAT emissions**. For each link in the project area, multiply applicable emission rates for each priority MSAT by VMT. Aggregate the emissions from each link to determine total emissions for each priority MSAT. Aggregate the emissions for each priority MSAT to determine the total MSAT emissions. Include a table with total MSAT emissions for the priority MSAT by analysis year, for each alternative analyzed. Include percent change of emission between the analysis years in the table.

    d. **Discussion of MSAT analysis results and comparison of the MSAT emission changes**. Discuss analysis results for the base year, interim year (if applicable), and design year for each build alternative and the no-build alternative. Include discussion of how the proposed improvements affect base MSAT emissions. Use a bar chart or similar chart to visually compare MSAT trends between analysis years.

    e. **Incomplete or unavailable information**. Since the MSAT analysis is evolving, include a discussion of unavailable information for project-specific MSAT health

impact analysis from Appendix C of the FHWA ***Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents (FHWA Interim Guidance)***.

f. **Mitigation strategies** (if needed for projects with potentially significant MSAT levels). Use Appendix E of the ***FHWA Interim Guidance*** for information on mitigation strategies.

19.2.4 Documentation in the Environmental Document

19.2.4.1 Non-Major State Action

Projects evaluated as Non-Major State Actions (NMSAs) typically have no effect on area-wide air quality levels but may provide some air quality benefits on a local basis. For projects evaluated as NMSAs, a CO screening analysis is not necessary unless one of the criteria of ***Section 19.2.2.1*** is met. If necessary, the screening test should be performed using ***CO Florida 2012*** and the results reported in an ***Air Quality Technical Memorandum***.

If it is determined that there are no impacts to air quality, the answer to question 3. of the ***Non-Major State Action Checklist*** can include this statement:

> This project is not expected to create adverse impacts on air quality because the project area is in attainment for all National Ambient Air Quality Standards (NAAQS) and because the project is expected to [improve/maintain] the Level of Service (LOS) and [reduce/not affect] delay and congestion on all facilities within the study area.

19.2.4.2 State Environmental Impact Report

For projects evaluated as State Environmental Impact Reports (SEIRs), a CO screening analysis is not necessary unless one of the criteria of ***Section 19.2.2.1*** is met. If necessary, the screening test should be performed using ***CO Florida 2012*** and the results reported in an ***Air Quality Technical Memorandum***.

If an analysis is performed, the results are included in the Air Quality section of the SEIR. See
Part 1, Chapter 10, State, Local and Privately Funded Project Delivery for more detail on how to prepare a SEIR.

If it is determined that there are no impacts to air quality, the Air Quality section of the SEIR can state as follows:

> This project is not expected to create adverse impacts on air quality because the project area is in attainment for all National Ambient Air Quality Standards (NAAQS) and because the project is expected to

> [improve/maintain] the Level of Service (LOS) and [reduce/not affect] delay and congestion on all facilities within the study area.
>
> Construction activities may cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts will be minimized by adherence to applicable state regulations and to applicable FDOT Standard Specifications for Road and Bridge Construction.

Summarize the measures that will be taken to minimize potential construction impacts in the Construction Section of the SEIR.

19.2.4.3 Type 1 Categorical Exclusion

Projects evaluated as Type 1 Categorical Exclusions (CEs) typically have no effect on area-wide air quality levels but may provide some air quality benefits on a local basis. For projects evaluated as Type 1 CEs, CO screening analysis is not necessary unless one of the criteria of ***Section 19.2.2.1*** is met. If necessary, the screening test should be performed using ***CO Florida 2012*** and the results reported in an ***Air Quality Technical Memorandum***.

If it is determined that there are no impacts to air quality, this is documented in the general verification checkbox of the ***Type 1 Categorical Exclusion Checklist*** that confirms there are no significant impacts.

19.2.4.4 Type 2 Categorical Exclusion

Projects evaluated as Type 2 CEs typically have no effect on area-wide air quality levels but may provide some air quality benefits on a local basis. For projects evaluated as Type 2 CEs, CO screening analysis is not necessary unless one of the criteria of ***Section 19.2.2.1*** is met. If necessary, the screening test should be performed using ***CO Florida 2012*** and the results reported in an ***Air Quality Technical Memorandum***.

The air quality assessment is summarized in the Air Quality section of the ***Type 2 Categorical Exclusion Determination Form***.

If it is determined that there are no impacts to air quality, the Air Quality section of the Type 2 CE can state as follows:

> This project is not expected to create adverse impacts on air quality because the project area is in attainment for all National Ambient Air Quality Standards (NAAQS) and because the project is expected to [improve/maintain] the Level of Service (LOS) and [reduce/not affect] delay and congestion on all facilities within the study area.
>
> Construction activities may cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts

> will be minimized by adherence to applicable state regulations and to applicable FDOT Standard Specifications for Road and Bridge Construction.

19.2.4.5 Environmental Assessment and Environmental Impact Statement

While it is recognized that Florida is currently in attainment for CO and there is low likelihood of adverse air quality impacts associated with projects that reduce delay and congestion, a CO screening test is performed for projects where an EIS is prepared

The screening test should be performed using ***CO Florida 2012*** in accordance with ***Section 19.2.2.1*** and the results reported in an ***Air Quality Technical Memorandum***. However, if the predicted CO concentrations exceed the standard noted in ***Table 19-1***, a more detailed emissions rates and microscale dispersion analysis using computer modeling techniques should be used. See ***Figure 19-1*** for links to latest emissions and dispersion models (MOVES and CAL3QHC).

For projects where an EA is prepared, CO screening analysis is not necessary unless one of the criteria of ***Section 19.2.2.1*** is met. If necessary, the screening test should be performed using ***CO Florida 2012*** and the results reported in an ***Air Quality Technical Memorandum***.

The air quality analyses documented in the ***Air Quality Technical Memorandum*** are summarized in the Environmental Analysis section of the EA or EIS, including the results of the screening test, a statement that indicates that there will not be any violations of the ***NAAQS*** for CO, and the results of the appropriate MSAT analysis. Each alternative, including the No-Build alternative, is analyzed. The No-Build analysis is for the project opening year and the design year. In most circumstances, the build alternatives will indicate an improvement in CO concentrations. If detailed microscale analysis is required and shows that the intersection exceeds the CO ***NAAQS***, mitigation measures are incorporated and discussed in the EA or EIS. Compliance with the ***NAAQS*** standards must be achieved for the proposed project to proceed.

Appropriate statements regarding MSAT analysis based on the project specifics are included in the Environmental Document as appropriate. Statements for projects with no or low potential MSAT effects are included in ***Figure 19-2***. Documentation for quantitative MSAT analysis in the EA or EIS should include a summary of MSAT analysis and reference the ***Air Quality Technical Memorandum***.

If it is determined that there are no impacts to air quality, the Air Quality section of the EA or EIS can state as follows:

> This project is not expected to create adverse impacts on air quality because the project area is in attainment for all National Ambient Air Quality Standards (NAAQS) and because the project is expected to

[improve/not change] the Level of Service (LOS) and [reduce/not change] delay and congestion on all facilities within the study area.

Construction activities may cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts will be minimized by adherence to applicable state regulations and to applicable FDOT Standard Specifications for Road and Bridge Construction.

19.3 REFERENCES

EPA, 2011 National Air Toxics Assessment Results.
https://www.epa.gov/national-air-toxics-assessment/2011-nata-assessment-results

EPA, 2014. National Emissions Inventory.
https://epa.gov/air-emissions-inventories/national-emissions-inventory-nei

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FHWA, Advisory T6640.8A, Guidance for Preparing and Processing Environmental and Section 4(f) Documents, October 30, 1987; available from the FHWA Environmental Guidebook.
https://www.environment.fhwa.dot.gov/projdev/impta6640.asp

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https://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/

FHWA, A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives.
https://www.fhwa.dot.gov/environment/air_quality/air_toxics/research_and_analysis/mobile_source_air_toxics/msatemissions.cfm

First Renewal of the Memorandum of Understanding Between FHWA and FDOT Concerning the State of Florida's Participation in the Surface Transportation Project Delivery Program Pursuant to 23 U.S.C. § 327May 26, 2022.
http://www.fdot.gov/environment/pubs/Executed-FDOT-NEPA-Assignment-MOU-2016-1214.pdf

FDOT, CO FDOT Florida 2012 User's Guide and Screening Model.
https://www.fdot.gov/environment/software/software.shtm

FDOT, MSAT Look-up Tables and Quantitative Analysis Guidance February 2018
http://www.fdot.gov/environment/pubs/MSAT.shtm

Title 40 CFR Part 93, Determining Conformity of Federal Actions to State or Federal Implementation Plans.
http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr93_main_02.tpl

19.4 FORMS

Traffic Data for Air Quality Analysis Form, Form No. 650-050-36

19.5 HISTORY

8/18/1999, 9/13/2006, 8/24/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 16, 1/14/2019, 7/1//2020, 7/1/2023

Table 19-1 National Ambient Air Quality Standards (NAAQS)				
Pollutant		**Averaging Time**	**Primary[e]**	**Secondary[f]**
Ozone (O_3)		8-hour[a]	0.070 ppm[g]	0.070 ppm
Nitrogen Dioxide (NO_2)		1-hour[b]	100 ppb[h]	NA
		Annual Arithmetic Mean	53 ppb	53 ppb
Particulate Matter	2.5 microns or less in size ($PM_{2.5}$)	24-hour[k]	35 µg/m^3	35 µg/m^3
		Annual Arithmetic Mean[c]	12.0 µg/m^3	15.0 µg/m^3
	10 microns or less in size (PM_{10})	24-hour[l]	150 µg/m^3	150 µg/m^3
Sulfur Dioxide[d] (SO_2)		1-hour	75 ppb	NA
		3-hour	NA	0.5 ppm
Carbon Monoxide (CO)		1-hour[i]	35 ppm	NA
		8-hour[i]	9 ppm	NA
Lead (Pb)		Rolling 3-Month Average[j]	0.15 µg/m^3	0.15 µg/m^3

[a] The ozone standard is attained when the fourth highest daily maximum 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard.
[b] To attain the 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb.
[c] To attain this primary standard, the 3-year average of the annual arithmetic mean concentrations from single or multiple community-oriented monitors must not exceed 12.0 µg/m^3.
[d] To attain the 1-hour standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75ppb. To attain the 3-hour standard, it is not to be exceeded more than once per year.
[e] Primary standards are designed to establish limits to protect public health, including the health of "sensitive" individuals such as asthmatics, children, and the elderly.
[f] Secondary standards set limits to protect public welfare including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.
[g] ppm = parts per million
[h] ppb = parts per billion
[i] Not to be exceeded more than once per year.
[j] To attain the lead standard, the levels during the rolling 3-month averaging period may not exceed the 0.15 µg/m^3 level over a 3-year period
[k] To attain the primary/secondary standard, the 3-year average of the annual 98th percentile concentrations from single or multiple community-oriented monitors must not exceed 35 µg/m^3
[l] To attain these standards, these levels are not to be exceeded more than once per year on average over 3 years.

NA = Not applicable
ppm = parts per million
ppb = parts per billion
µg/m^3 = microgram per cubic meter

Source: United States Environmental Protection Agency, 2019

Federal Highway Administration

Policies and Guidance Papers -
http://www.fhwa.dot.gov/environment/air_quality/conformity/policy_and_guidance

Air Quality -
http://www.fhwa.dot.gov/environment/air_quality/

Transportation conformity –
https://www.fhwa.dot.gov/environment/air_quality/conformity/index.cfm

Florida Department of Environmental Protection

Current air quality rules (Chapter 62-4, F.A.C. and Rule 62-210.300, F.A.C.) –.
http://www.dep.state.fl.us/air/rules/current.htm

General Air Quality Publications.
http://www.dep.state.fl.us/air/publication/general.htm

U.S. Environmental Protection Agency

EPA, 2014. National Emissions Inventory.
https://epa.gov/air-emissions-inventories/national-emissions-inventory-nei

What Are the Six Common Air Pollutants?
https://www.epa.gov/criteria-air-pollutants

National Ambient Air Quality Standards (NAAQS).
https://www.epa.gov/criteria-air-pollutants/naaqs-table

CAL3QHC Model.
https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models#cal3qhcx

Guidance on Hot Spot Analysis for PM_{10} and $PM_{2.5}$.
https://www.epa.gov/state-and-local-transportation/project-level-conformity-and-hot-spot-analyses#pmguidance

Motor Vehicle Emission Simulator (MOVES) Model.
https://www.epa.gov/moves

State Implementation Plans (Region 4).
https://www.epa.gov/sips-fl

Figure 19-1 Air Quality Information Sources

2011 NATA: Assessment Results
https://www.epa.gov/national-air-toxics-assessment/2011-nata-assessment-results

The Green Book Nonattainment Areas for Criteria Pollutants.
https://www.epa.gov/green-book

Other Sources

Title 42 U.S.C. § 85, Subchapter I (Programs and Activities), Part A (Air Quality and Emission Limitations).
http://uscode.house.gov/browse/prelim@title42/chapter85/subchapter1/partA&edition=prelim

Figure 19-1 Air Quality Information Sources (Page 2 of 2)

MSAT Standard Language

[USE THIS LANGUAGE FOR EAs OR EISs THAT ARE EXEMPT FROM MSAT ANALYSIS]

The purpose of this project is to (*insert major deficiency that the project is meant to address*) by constructing (*insert major elements of the project*). This project has been determined to generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special mobile source air toxic (MSAT) concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause a meaningful increase in MSAT impacts of the project from that of the No-Build alternative.

Moreover, Environmental Protection Agency (EPA) regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOVES2014 model forecasts a combined reduction of over 90 percent in the total annual emissions rate for the priority MSAT from 2010 to 2050 while vehicle-miles of travel are projected to increase by over 45 percent (Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, Federal Highway Administration, October 12, 2016). This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.

[USE THIS LANGUAGE FOR EAs OR EISs THAT REQUIRE QUALITATIVE MSAT ANALYSIS]

Introduction

A qualitative analysis provides a basis for identifying and comparing the potential differences among MSAT emissions, if any, from the various alternatives. The qualitative assessment presented below is derived in part from a study conducted by FHWA entitled A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives.

MSAT Effects Consideration

[Select the appropriate language based on the purpose of the project (widening, interchanges or freight focus projects). Modify the language to meet the project context.]

A. Widening Projects and Interchange Projects

For each alternative analyzed in this EA/EIS (*specify*), the amount of mobile source air toxics (MSAT) emitted would be proportional to the vehicle miles traveled (VMT) if other variables such as fleet mix are the same for each alternative. The VMT estimated for each of the Build Alternatives is slightly higher than that for the No-Build Alternative, because the additional capacity increases the efficiency of the roadway and may attract some trips from elsewhere in the transportation network. Refer to Table ___ (*specify*).

Figure 19-2 Mobile Source Air Toxics Standard Language

This increase in VMT would lead to higher MSAT emissions for the recommended alternative along the highway corridor, along with a corresponding decrease in MSAT emissions along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds; according to the Environmental Protection Agency's (EPA) MOVES2014 model, emissions of all priority MSAT decrease as speed increases. Because the estimated VMT under each of the Alternatives are nearly the same, varying by less than ___ *(specify*) percent, it is expected there would be no appreciable difference in overall MSAT emissions among the various alternatives. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year because of EPA's national control programs that are projected to reduce annual MSAT emissions by over 90 percent between 2010 and 2050 (Refer to Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, Federal Highway Administration, October 12, 2016). Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the project area are likely to be lower in the future in nearly all cases.

[Include the following paragraph if the project will construct travel lanes closer to populated areas, such as residences, schools and businesses.]

The proposed improvements may have the effect of moving some traffic closer to nearby populated areas; therefore, under each alternative there may be localized areas where ambient concentrations of MSAT could be higher under certain Build Alternatives than the No-Build Alternative. However, the magnitude and the duration of these potential increases compared to the No-Build alternative cannot be reliably quantified due to incomplete or unavailable information in forecasting project-specific MSAT health impacts. In sum, when a highway is widened, the localized level of MSAT emissions for the Build Alternative could be higher relative to the No-Build Alternative, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). Also, MSAT will be lower in other locations when traffic shifts away from them. However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today.

B. Improvements or Expansions to Intermodal Centers or Other Projects that Affect Truck Traffic

For each alternative in this EIS/EA (*specify*), the amount of mobile source air toxics (MSAT) emitted would be proportional to the amount of truck vehicle miles traveled (VMT) and rail activity, if other variables (*such as travel not associated with the intermodal center*) are the same for each alternative. The truck VMT and rail activity estimated for each of the Build Alternatives are higher than that for the No-Build

Figure 19-2 Mobile Source Air Toxics Standard Language (Page 2 of 4)

Alternative, because of the additional activity associated with the expanded intermodal center. Refer to Table ___ (specify). This increase in truck VMT and rail activity associated with the Build Alternatives would lead to higher MSAT emissions (particularly diesel particulate matter) near the intermodal center. The higher emissions could be offset somewhat by two factors: 1) the decrease in regional truck traffic due to increased use of rail for inbound and outbound freight; and 2) increased speeds on area highways due to the decrease in truck traffic. The extent to which these emissions decreases will offset intermodal center-related emissions increases is not known.

Because the estimated truck VMT and rail activity under each of the Build Alternatives are nearly the same, varying by less than ___ (specify) percent, it is expected there would be no appreciable difference in overall MSAT emissions among the various alternatives. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year because of the Environmental Protection Agency's (EPA) national control programs that are projected to reduce annual MSAT emissions by over 90 percent from 2010 to 2050 (Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, Federal Highway Administration, October 12, 2016).

Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the EPA-projected reductions are so significant (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future as well.

[*The following discussion may apply if the intermodal center is close to other development.]*

The additional freight activity contemplated as part of the project alternatives will have the effect of increasing diesel emissions near nearby homes, schools, and businesses; therefore, under each alternative there may be localized areas where ambient concentrations of MSAT would be higher than under the No-Build alternative. The localized differences in MSAT concentrations would likely be most pronounced under Alternatives _____ (specify). However, as discussed above, the magnitude and the duration of these potential differences cannot be reliably quantified due to incomplete or unavailable information in forecasting project-specific health impacts. Even though there may be differences among the Alternatives, on a region-wide basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will cause substantial reductions over time that in almost all cases the MSAT levels in the future will be significantly lower than today.

[Insert a description of any emissions-reduction activities that are associated with the project, such as truck and train idling limitations or technologies, such as auxiliary power units; alternative fuels or engine retrofits for container-handling equipment, etc.]

Figure 19-2 Mobile Source Air Toxics Standard Language (Page 3 of 4)

Overall, the Build Alternatives in the design year could be associated with higher levels of MSAT emissions in the study area, relative to the No-Build Alternative, along with some benefit from improvements in speeds and reductions in region-wide truck traffic. There also could be slightly higher differences in MSAT levels among Alternatives in a few localized areas where freight activity occurs closer to homes, schools, and businesses. Under all alternatives, MSAT levels are likely to decrease over time due to nationally mandated cleaner vehicles and fuels.

Incomplete or Unavailable Information for MSAT Effects Analysis
Documentation of qualitative analysis in the Air Quality Technical Memo should be concluded by a 40 CFR Part 1502 assessment of incomplete or unavailable information. Refer to Appendix C of the ***Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, Federal Highway Administration, October 12, 2016*** for details.

Figure 19-2 Mobile Source Air Toxics Standard Language (Page 4 of 4)

MSAT Mitigation Strategies

Lessening the effects of mobile source air toxics should be considered for projects with substantial construction-related MSAT emissions that are likely to occur over an extended building period, and for post-construction scenarios where the NEPA analysis indicates potentially meaningful MSAT levels. Such mitigation efforts should be evaluated based on the circumstances associated with individual projects, and they may not be appropriate in all cases. However, there are a number of available mitigation strategies and solutions for countering the effects of MSAT emissions.

Mitigating for Construction MSAT Emissions

Construction activity may generate a temporary increase in MSAT emissions. Project-level assessments that render a decision to pursue construction emission mitigation will benefit from a number of technologies and operational practices that should help lower short-term MSAT. In addition, the Federal Highway Administration has supported a host of diesel retrofit technologies in the Congestion Mitigation and Air Quality Improvement (CMAQ) Program provisions – technologies that are designed to lessen a number of MSATs.

Construction mitigation includes strategies that reduce engine activity or reduce emissions per unit of operating time, such as reducing the numbers of trips and extended idling. Operational agreements that reduce or redirect work or shift times to avoid community exposures can have positive benefits when sites are near populated areas. For example, agreements that stress work activity outside normal hours of an adjacent school campus would be operations-oriented mitigation. Verified emissions control technology retrofits or fleet modernization of engines for construction equipment could be appropriate mitigation strategies. Technology retrofits could include particulate matter traps, oxidation catalysts, and other devices that provide an after-treatment of exhaust emissions. Implementing maintenance programs per manufacturers' specifications to ensure engines perform at EPA certification levels, as applicable, and to ensure retrofit technologies perform at verified standards, as applicable, could also be deemed appropriate. The use of clean fuels, such as ultra-low sulfur diesel, biodiesel, or natural gas also can be a very cost-beneficial strategy.

Post-Construction Mitigation for Projects with Potentially Significant MSAT Levels

Travel demand management strategies and techniques that reduce overall vehicle-mile of travel; reduce a particular type of travel, such as long-haul freight or commuter travel; or improve the transportation system's efficiency will mitigate MSAT emissions. Examples of such strategies include congestion pricing, commuter incentive programs, and increases in truck weight or length limits. Operational strategies that focus on speed limit enforcement or traffic management policies may help reduce MSAT emissions even

Figure 19-3 Examples of Mitigation Strategies for MSAT Emissions

beyond the benefits of fleet turnover. Well-traveled highways with high proportions of heavy-duty diesel truck activity may benefit from active Intelligent Transportation System programs, such as traffic management centers or incident management systems. Similarly, anti-idling strategies, such as truck-stop electrification can complement projects that focus on new or increased freight activity.

Planners also may want to consider the benefits of establishing buffer zones between new or expanded highway alignments and populated areas. Modifications of local zoning or the development of guidelines that are more protective also may be useful in separating emissions and receptors.

The initial decision to pursue MSAT emissions mitigation should be the result of interagency consultation at the earliest juncture. Options available to project sponsors should be identified through careful information gathering and the required level of deliberation to assure an effective course of action. Such options may include local programs, whether voluntary or with incentives, to replace or rebuild older diesel engines with updated emissions controls. Information on EPA clean diesel programs can be found at ***https://www.epa.gov/cleandiesel***.

Figure 19-3 Examples of Mitigation Strategies for MSAT Emissions (Page 2 of 2)

Date:

To: Name, Title

From: Name, Title

Subject: Financial Management Number(s)_____
Air Quality Technical Memorandum
Project Name,
_____County

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

The proposed project is located in _____ County, an area currently designated as being in attainment for particulate matter (2.5 microns in size and 10 microns in size) and carbon monoxide (CO).

The project alternatives were vetted through a CO screening model called **CO Florida 2012** that makes various conservative worst-case assumptions related to site conditions, meteorology and traffic. The Florida Department of Transportation's (FDOT's) **CO Florida 2012** model uses the latest United States Environmental Protection Agency (EPA)-approved software to produce estimates of one-hour and eight-hour CO at default air quality receptor locations. The one-hour and eight-hour estimates can be directly compared to the current one-and eight-hour **National Ambient Air Quality Standards** (**NAAQS**) for CO.

The roadway intersection forecast to have the highest total approach traffic volume was *name of intersection or ramp terminal*. The Build and No-Build scenarios for both the opening year (*year*) and the design year (*year*) were evaluated. The traffic data input used in the evaluation is attached to this memorandum.

Estimates of CO were predicted for the default receptors which are located 10 feet to 150 feet from the edge of the roadway. Based on the results from **CO Florida 2012**, the highest project-related CO one- and eight-hour levels are not predicted to meet or exceed the one- or eight-hour **National Ambient Air Quality Standards** (**NAAQS**) for this pollutant with either the No-Build or Build alternatives. As such, the project "passes" the screening model. The results of the screening model are attached to this memorandum.

This project is not expected to create adverse impacts on air quality because the project area is in attainment for all National Ambient Air Quality Standards. Therefore, the Clean Air Act conformity requirements do not apply to the project. Additionally, the project is expected to [improve/not change] the Level of Service (LOS) and [reduce/not change] delay and congestion on all facilities within the study area

[For MSAT analysis, also include the applicable language from *Figure 19-2 or if the project has high potential MSAT effects, include the project specific MSAT information, methodology used to estimate MSAT emissions, estimation of MSAT emissions, discussion of MSAT analysis results and comparison of the MSAT emission changes, incomplete or unavailable information, and mitigation strategies, if needed.*]

Figure 19-4 Sample Air Quality Technical Memorandum

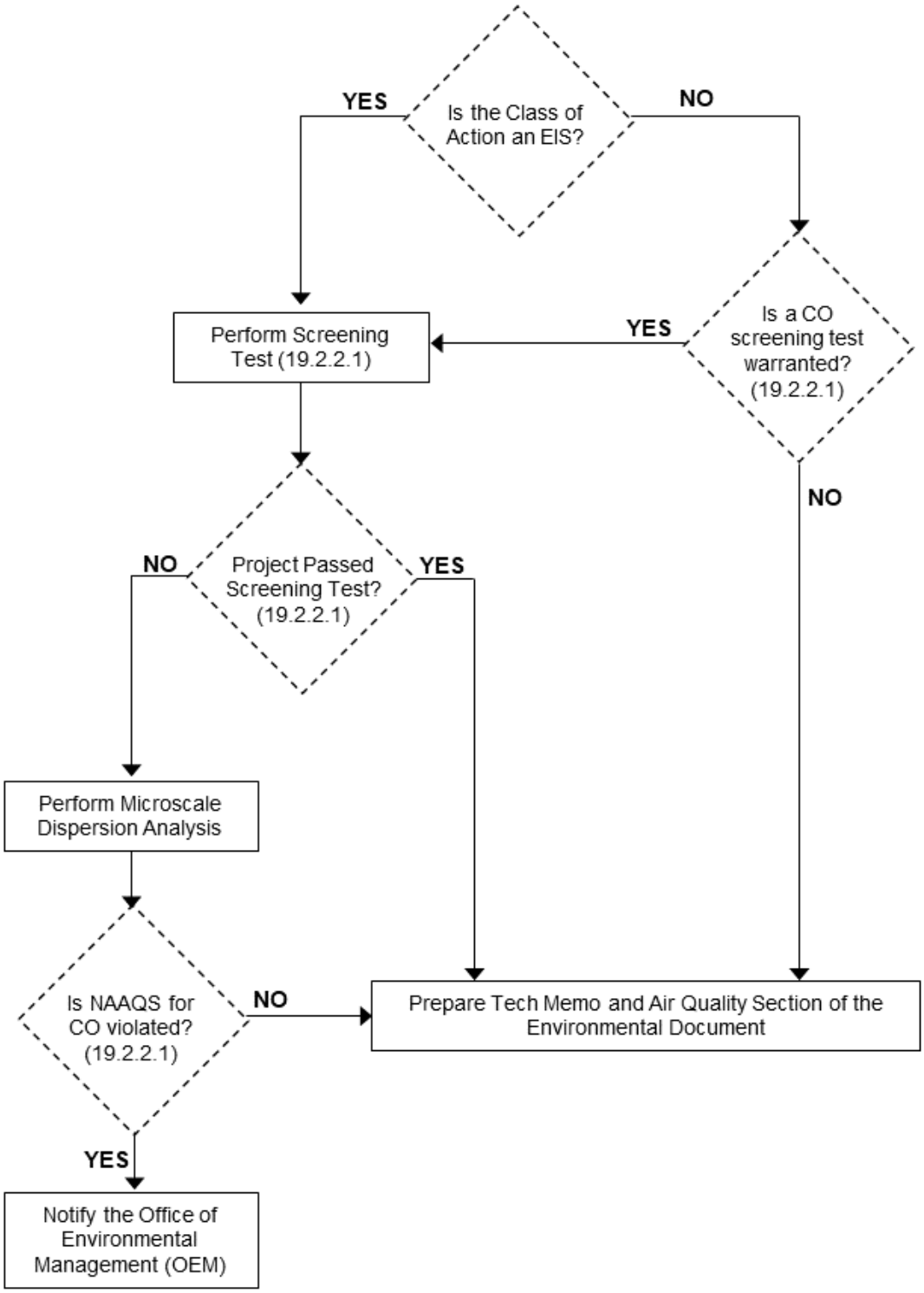

Figure 19-5 Air Quality Analysis Process for Carbon Monoxide

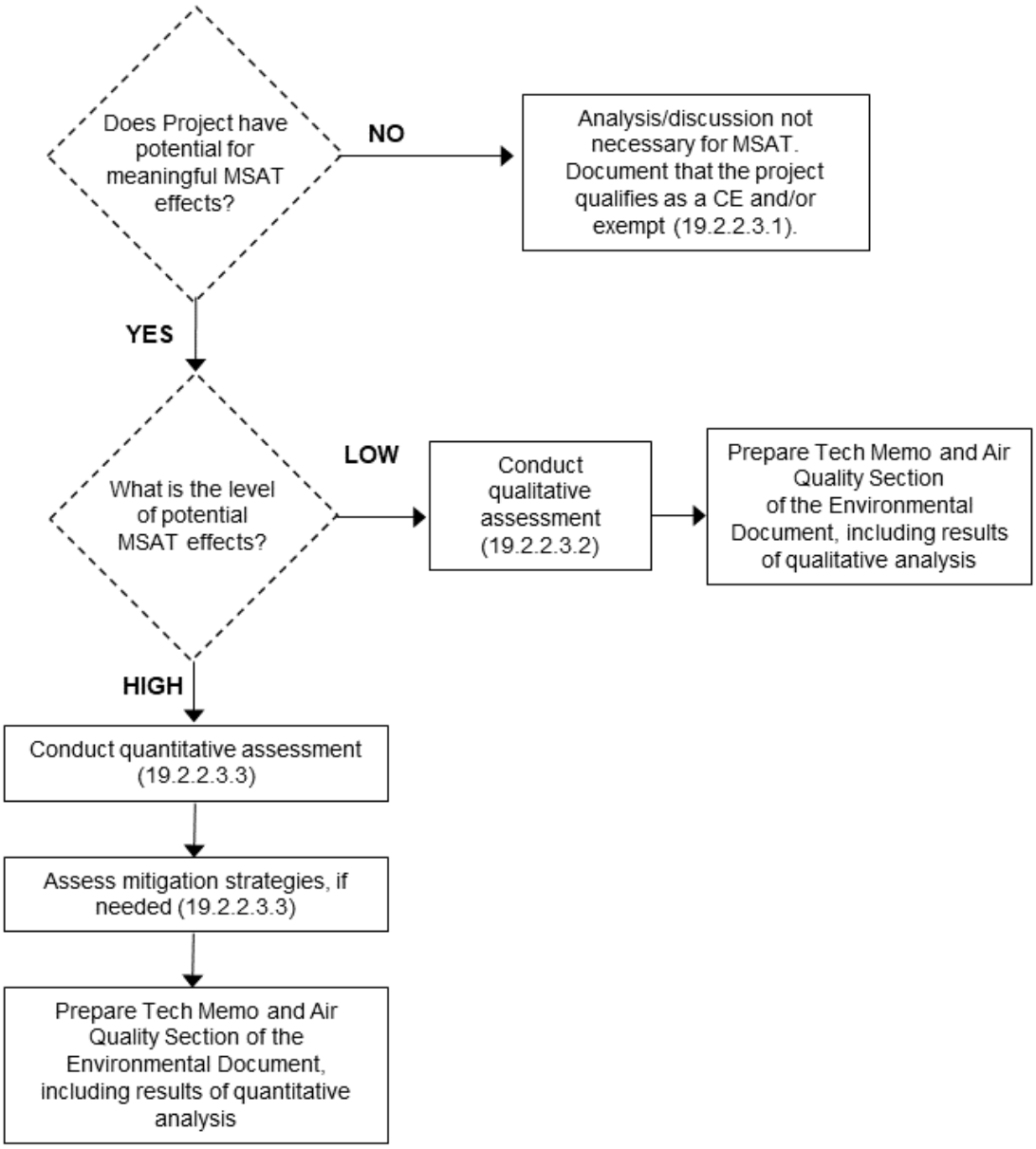

Figure 19-6 Air Quality Analysis Process for MSAT

PART 2, CHAPTER 20

CONTAMINATION

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PART 2 CHAPTER 20

CONTAMINATION

20.1 OVERVIEW

20.1.1 Purpose

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

This chapter provides guidance on identifying, evaluating, and handling potential contamination issues associated with FDOT projects in all phases of the project development process [Planning, Project Development and Environment (PD&E), Design and Construction] to comply with federal and state laws and regulations. Federal requirements for contamination evaluation are contained in the ***Resource Conservation and Recovery Act (RCRA***) as amended by ***Hazardous and Solid Waste Amendments (HSWA)*** and the ***Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)*** as amended by ***Superfund Amendment and Reauthorization Act (SARA)***. ***RCRA*** deals with waste management for protecting human health and the environment from the potential hazards of waste disposal. ***CERCLA*** (also known as Superfund) sets federal requirements for responding to spills of hazardous substances and establishes liability for cleanup cost to responsible parties. Florida's requirements for pollution prevention and control are contained in ***Chapters 376 and 403, Florida Statutes (F.S.)***, respectively and requirements for dealing with hazardous wastes, and rehabilitation of contaminated sites are outlined in ***Chapters 62-730 and 62-780, Florida Administrative Code (F.A.C.)***, respectively.

The 1988 FHWA Memorandum titled ***Interim Guidance – Hazardous Waste Sites Affecting Highway Project Development*** provides guidance on dealing with contaminated materials during project development and construction of federal-aid transportation projects. The FHWA interim guidance emphasizes the need to identify and assess potentially contaminated sites early in the project development process and to use measures to avoid or minimize project involvement with substantially contaminated sites. In 1998, FHWA issued a ***Policy Revision to Support the Brownfields Economic***

Redevelopment Initiative which encourages acquisition and/or clean-up of land within brownfields for transportation purposes in certain instances: 1) where such actions are feasible, reasonable, within acceptable limits of liability exposure, 2) when cooperating partners are available, and 3) when parties legally responsible for the contamination are pursued to the maximum extent practicable.

Contamination within or adjacent to FDOT right of way (ROW) has the potential for liability (to FDOT through property ownership and due to contaminated/hazardous material exposure, handling and disposal) and may require assessment, remediation, or special handling. Therefore, FDOT should consider the potential for encountering contamination within the limits of every project, including excavation, dewatering, acquiring new ROW or easements, proposed stormwater management sites, utility work, structure demolition/modifications, and similar off-site construction activities. To avoid or minimize impacts, evaluation for potential contamination impacts begins during the earliest phase of the project development process and continues through construction. The level of contamination evaluation increases as the project moves from the Planning phase to the Construction phase.

Contamination in soil, groundwater, surface water, sediments, and structures may have the following impacts to an FDOT project:

- Human exposure;
- Potential or actual human health effects;
- Exacerbation of the contamination by construction activities;
- Design modifications or special construction provisions for work within contaminated areas;
- Dewatering permitting requirements;
- Requirements for the proper handling and disposal of contaminated material; and,
- Potential cost and/or schedule impacts.

Thus, understanding the type and extent of contamination issues and addressing them early and properly can reduce costs and risks to FDOT. FDOT must utilize the best available information to identify, screen, evaluate, and remediate potential contamination impacts.

If areas with the potential for contamination are identified within or adjacent to an FDOT project, the Project Manager (PM) and District Contamination Impact Coordinator (DCIC) should work together to determine actions to address contamination issues. The PM and DCIC should provide this information in a timely manner to the District management and appropriate technical offices (such as ROW, Design, Construction and Maintenance) and the Office of General Counsel (OGC), as appropriate, to allow for informed project-related decisions to be made.

20.1.2 Definitions

Asbestos – A naturally occurring, fibrous silicate mineral, including chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that have been chemically treated and/or altered. All types of asbestos are known to cause serious health hazards. For purposes of this definition "asbestos" includes Presumed Asbestos Containing Materials (PACM) and Regulated Asbestos Containing Materials (RACM).

Asbestos Containing Materials (ACM) - Any material containing more than one percent (1%) asbestos as defined in ***29 Code of Federal Regulations (CFR) 1926.1101, Occupational Health & Safety Administration (OSHA)***.

Brownfield area - As per ***Section 376.79, F.S.***, brownfield area means a contiguous area of one or more brownfield sites, some of which may not be contaminated, and which has been designated by a local government by resolution. Such areas may include all or portions of community redevelopment areas, enterprise zones, empowerment zones, other such designated economically deprived communities and areas, and Environmental Protection Agency (EPA)-designated brownfield pilot projects.

Brownfield sites – As per ***Section 376.79, F.S.***, brownfield sites means real property, the expansion, redevelopment or reuse of which may be complicated by actual or perceived environmental contamination.

Cleanup Target Level – The concentration for each contaminant identified by an applicable analytical test method, in the medium of concern, at which a site rehabilitation program is deemed complete.

Contamination Assessment and Remediation (CAR) Contractor – A vendor selected by FDOT that provides services related to hazardous and contaminated materials, emergency response services, site assessment, source removal services, and other environmental services as required by the contract.

Contaminated or Contamination - The presence of any contaminant in surface water, groundwater, soil, sediment, or upon the land, in concentrations that exceed the applicable Cleanup Target Levels (CTLs) specified in ***Chapter 62-777, F.A.C***., or water quality standards in ***Chapter 62-302*** or ***62-520, F.A.C***., or in concentrations that may result in contaminated sediment.

Contaminant - Any physical, chemical, biological, or radiological substance present in any medium which may result in adverse effects to human health or the environment or which creates an adverse nuisance, organoleptic, or aesthetic condition in groundwater.

Contaminated Site - Any site with hazardous substances, pollutants, or contaminants that are harmful or likely to be harmful to human health or the environment.

Contamination Screening Buffer – An area within and adjacent to the project that should be evaluated for possible additional contamination assessment.

Contamination Source - The place of origin or major concentration of contaminants from which contamination migrates to surrounding areas through the soil, groundwater, or other media.

Hazardous Material - A general term that includes all waste, materials, and substances which are now designated or defined as hazardous by federal or state law or by the rules or regulations of the state or any federal agency: ***40 CFR § 261.30, 40 CFR § 261.4, 40 CFR §§ 261.21-261.24, Section 376.301, F.S.,*** and ***Section 403.74, F.S.***

Hazardous Waste Site - A site at which wastes as defined in ***Chapter 62-730, F.A.C.***, and ***40 CFR §§ 261.1 - 261.41***, have been disposed, treated, or stored.

Lead-Based Paint (LBP)- Paint or other surface coatings as defined in ***Section 381.983, F.S.*** that contain lead equal to or exceeding 1.0 milligram per square centimeter, 0.5 percent by weight, 5,000 parts per million (ppm) by weight or 5,000 milligrams per kilogram.

Level of Investigation - To standardize contamination evaluations on transportation projects, FDOT broadly uses the following levels of contamination investigation:

> **Level I** – A contamination screening evaluation consisting of a desktop review of current and historical records and site reconnaissance to identify past and present activities that have the potential to impact areas in, or immediately adjacent to, project construction. It is used to determine the need and scope of further assessments. Level I evaluation is completed as early as feasible in the project process, typically during the PD&E phase or during preparation of Phase I (30%) design plans for projects which do not have a PD&E Study.
>
> **Level II** – Level II assessment [also known as Impact to Construction Assessment (ICA)] consists of a detailed evaluation of potential contaminated sites based on the findings of Level I evaluation. When applicable, a Level II assessment includes soil sampling, laboratory testing and/or installation of groundwater monitoring wells for sites with known or potentially contaminated materials. This is done to assess the presence or absence, type and extent of contamination in potentially contaminated sites, identify impacts to construction and associated costs for remediation, and to develop recommendations for Level III activities or avoidance measures as warranted. Level II assessment is typically performed during the Design phase and prior to ROW acquisition and Construction. However, it may be performed during the PD&E phase for projects with advanced design activities or when it is required to substantiate the impact of potentially contaminated sites on the preferred alternative.
>
> **Level III** – Level III refers to additional evaluation of contamination identified or suspected based on the Level II assessment and any requisite remediation or

abatement of contamination or hazardous materials. It includes a detailed plan for the removal and disposal of contaminated media, storage tanks, and/or other hazardous materials that may directly impact construction activities or ROW acquisition and clearance. Level III activities can occur during design and ROW acquisition, or during or prior to construction to avoid impacts to construction and project delays.

Metal-Based Coatings (MBC) – Surface coatings are likely to contain heavy metals, including cadmium, arsenic, lead, zinc, and chromium that could be present at concentrations considered to be hazardous.

Modified Special Provision (MSP) - A specification, prepared, signed, and sealed in accordance with ***Chapters 471 and/or 481, F.S.***, that revises an implemented specification (Standard Specification, Supplemental Specification, or Special Provision) to address a project specific need and is approved for use by the State Specifications Engineer.

Municipal Separate Storm Sewer System (MS4) - A MS-4 system is a stormwater conveyance system owned by a state, city, town or other public entity which discharges to waters of the United States but is not combined with a sewer system or part of a publicly owned treatment works.

National Pollutant Discharge Elimination System (NPDES) - the NPDES Stormwater Program is a comprehensive two-phased national program (established by the ***Clean Water Act***) for addressing the non-agricultural sources of stormwater discharges which adversely affect the quality of our nation's waters. The program uses the NPDES permitting mechanism to require the implementation of controls designed to prevent harmful pollutants from being discharged by stormwater runoff into local water bodies.

Potentially Contaminated Site - A site, within or adjacent to the project limits, suspected to have existing contamination based on past or current activities on or near the site as evidenced by records review, historical land use evaluation, or field reconnaissance.

Presumed Asbestos Containing Material (PACM) - Thermal system insulation and surfacing material, caulk, joint compound, and mastics found in buildings and bridges with the potential to have ACM constructed no later than 1980. PACM may be noted as present in other materials that cannot be adequately sampled. Sampling of these materials may be prohibited due to access, safety, and compromising the building’s structural integrity.

Remediation - Those activities necessary to remove, treat, or otherwise reduce contamination to a level acceptable to the regulatory agency having jurisdiction in accordance with ***Chapter 62-780, F.A.C***, or applicable federal programs (e.g. ***RCRA***).

Regulated Asbestos Containing Material (RACM) – According to the EPA, RACM is (a) friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or

has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

Sediment – Unconsolidated solid matrix occurring immediately beneath any surface water body. The surface water body may be present part or all of the time and may support a wetland environment or vegetation.

Solid Waste - ***RCRA*** defines a solid waste as: "any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial or mining and agricultural operations, and from community activities . . . [excluding] . . . solid or dissolved materials in domestic sewage, or solid or dissolved materials in irrigation return flows, or industrial discharges which are point sources subject to permits under ***Section 402 of the Federal Water Pollution Control Act***."

Superfund Site - Land in the United States that has been contaminated by hazardous waste and identified (in the National Priorities List) by the EPA as a candidate for cleanup because it poses a risk to human health or the environment.

Technical Special Provisions (TSPs) - Specifications of a technical nature, prepared, signed, and sealed in accordance with ***Chapters 471, 481, or 481 Part 2, F.S.*** TSPs describe work that is not covered by the ***Standard Specifications*** or Workbook and are included as Appendices in a Specifications Package.

20.2 Procedure

Project involvement with contamination must be evaluated for all FDOT projects to minimize potential risks, liabilities, health and safety concerns, project delays and cost overruns. The scope of the project, as it relates to potential involvement with contaminated soil, sediments, or groundwater, is a key consideration. Involvement with contamination can be in the form of potential exposure to contaminated soil, groundwater, other surface debris, ACM, or MBC during construction; as well as the potential for plume disturbance during construction; or the consideration of contaminants or storage tanks present on parcels identified for ROW acquisition. These levels of investigation evaluate or assess the sites along or in close proximity to the project corridor for the potential presence of contamination and provide the appropriate information needed to address contamination concerns at each phase of the project development process. Typically, Level I supports the PD&E Study, Level II supports Design phase activities, and Level III supports construction; see ***Section 20.1.2***. However, Level II assessment may be conducted during the PD&E Study, as determined by the DCIC and District Environmental Office staff, to assist the PM in making this determination.

Efforts to conduct coordination as described in the ***2014 MOU between Florida Department of Environmental Protection (FDEP) and FDOT*** when addressing for petroleum contamination should be considered and advanced as appropriate at each Level of Investigation, see ***Section 20.2.5.1***. Ideally, petroleum contaminated sites

identified during PD&E will be addressed and remediated by FDEP through the provisions of the ***2014 MOU*** prior to acquisition or construction. As project environmental review advances from PD&E to construction, the contamination section of the original ***NEPA*** document and subsequent re-evaluations provide a summary of results of the associated Level of Investigation at each phase. The Construction Advertisement re-evaluation should contain a final summary of contamination investigations completed and reflect resolution of contamination related issues to accommodate advancement of construction.

The DCIC is the District's point of contact for all issues related to contamination impacts within the existing or proposed FDOT ROW. The DCIC is responsible for administration of the District's contamination program, which may include management of the Contamination Assessment and Remediation (CAR) contract(s); coordination of contamination activities in all phases of the project development process; emergency response activities as they relate to contamination discharges on FDOT ROW or facilities and maintenance and retention of documentation for contamination work performed within the District. Additional duties may include coordination of hazardous materials and petroleum compliance issues with appropriate personnel for FDOT facilities and maintenance yards.

20.2.1 Contamination in the Project Development Process

Contamination issues can be avoided or minimized by changing the project's design, or remediated if they are identified early in the project development process. The benefit of early identification of contamination is to minimize unanticipated contamination encountered during construction of a project. Contamination issues on FDOT projects can be identified during the Efficient Transportation Decision Making (ETDM) screening, scope of services development, and the PD&E Study. Many options are available to effectively manage or remediate contamination that is discovered early in the project development process. These options include conducting Level II assessment, design modifications, developing Modified Special Provisions (MSPs), Technical Special Provisions (TSPs), or remediating contamination prior to or during construction using the CAR Contractor, as appropriate. Additionally, sites contaminated with petroleum may be remediated using the ***2014 MOU between FDEP and FDOT*** (***Section 20.2.5.1***).

Contamination issues often vary from project to project; therefore, the DCIC and PM should be both flexible and innovative in addressing the issues. ***Figure 20-1*** summarizes general considerations related to contamination impacts on projects that the DCIC, PM, and project analysts should consider when evaluating contamination issues.

20.2.1.1 ETDM Screening and Project Scope Development

Evaluation of potential contamination impacts on PD&E projects begins when the District prepares Preliminary Environmental Discussion (PED) for projects that are screened through the ETDM process (See ***Part 1, Chapter 3, Preliminary Environmental Discussion and Advance Notification***). The ETDM process provides an opportunity for regulatory agencies [FDEP, EPA, and Water Management Districts (WMDs)] to comment on sites or properties that have or had regulated activities. Evaluation of potential

contamination impacts is limited to the broad impact that known or suspected contaminated sites may have on the project scope. The District can use the ETDM Environmental Screening Tool (EST), FDOT records and/or other online resources maintained by the FDEP, EPA, local agencies and WMDs to obtain data for preparation of the PED.

The PM, DCIC and ETDM Coordinator should coordinate with regulatory agencies and other appropriate local agencies throughout the ETDM screening process. Coordination should also include District staff such as the District Drainage Engineer, Permit Coordinator, District Design Engineer, Design PM, District Structures Engineer, District Construction Environmental Coordinator, OEM, and others who might be involved in future phases of the project.

The following project activities occur during the ETDM process:

- **Planning Screen** – Specific information identified in the PED of the Planning Screen includes information about known or potential contaminated sites located within or adjacent to project alternatives. The District may begin to coordinate with the FDEP for potential assessment or remediation of petroleum contaminated facilities within or adjacent to the project ROW, pursuant to the ***2014 MOU between FDEP and FDOT*** (***Section 20.2.5.1***).

- **Programming Screen** – The PED should include discussion about known or potential project involvement with contamination based on the District's familiarity with the project area and anticipated project activities. The PED should also list all known and potential contamination issues located within the project area using available data and District staff familiarity with the project area. Based on the effect of the project, the PED should indicate whether a Level I evaluation is anticipated. The District must begin to coordinate or update the status of coordination with the FDEP on potential assessment or remediation of petroleum contaminated sites within or adjacent to the project ROW, pursuant to the ***2014 MOU between FDEP and FDOT***.

After the ETDM screening, the PM and DCIC review the Environmental Technical Advisory Team (ETAT) comments related to contamination issues published in the ***Programming Screen Summary Report*** for the project. While reviewing the report, the PM and DCIC should pay close attention to any list of potential contamination sources and/or sites that warrant further investigation.

The results of the ETDM screening and the District's familiarity with the potential contamination issues in the project area are used to estimate the level of effort for contamination evaluation in the scope of the PD&E Study. The PM should work with the DCIC to determine contamination evaluation needs and the level of evaluation effort for contamination to be included in the scope of services for the PD&E Study. For projects that overlap the PD&E and Design phases, the ***Contamination Screening Evaluation Report (CSER)*** / Level I evaluation and Level II assessment may be combined or completed consecutively.

Evaluation of potential contamination impacts for projects that do not have a PD&E phase begins during the scope development stage for the project. Depending on the type of construction activity, these projects generally require less extensive contamination evaluation than projects that have a PD&E phase. The extent of assessment for projects with no PD&E phase is based on the scope of design and the expected inclusion of subsurface activities (e.g., drainage structures, mast arms, high mast lighting, cantilever sign bases, ponds, sidewalks, driveways, or underground utilities). The Design PM should work with the DCIC to determine the scope of contamination evaluation and documentation requirements for these projects.

20.2.1.2 Project Development and Environment

During PD&E, a Level I evaluation (contamination screening) is performed to screen known and/or potentially contaminated sites that may impact project alternatives. The identified potential contaminated sites are evaluated for impact to each project alternative and each site is assigned a “risk rating”. Based on the assigned risk rating and the proposed construction activities in the area of potential contamination, the PM and the DCIC coordinate actions that should be taken to address contamination issues.

Level I evaluation is documented in the ***CSER***. The findings of the ***CSER*** should be summarized in the appropriate Environmental Document prepared for each PD&E project (See ***Section 20.2.2.6***).

The proposed project scope of work should be considered in qualifying the effort and detail invested in the Level I evaluation. Project construction activities which expose potentially contaminated soils, ACM/MBC, or groundwater, and proposed activities that could exacerbate an existing contaminated groundwater plume and projects with ROW acquisition warrant more detailed evaluation as outlined in this Chapter. Contamination evaluation for Projects with no soil excavation or groundwater disturbance and no ROW acquisition (primarily with all sites assigned No or Low risk ratings) may be documented by technical memorandum or contamination clearance letter with identification of potentially contaminated sites within the project vicinity. Contaminated sites, primarily those assigned Medium or High risk ratings, should continue to be evaluated in the Design phase.

20.2.1.3 Design

During the Design phase, planned ROW acquisition and project design features should be considered in determining the potential contamination impacts to the project. There may be instances when contamination involvement can be avoided with minor design changes; for example, moving drainage structures or redesigning french drains to solid pipes in areas identified as having potential for soil or groundwater contamination. In addition, the potential pond sites and floodplain compensation (FPC) areas should be evaluated during the Level I/contamination screening evaluation. The Level I evaluation should be updated or an addendum created during the Design phase for locations where there is a change in design (including additional utility adjustment on the project).

A Level II assessment, if warranted, is typically performed during the Design phase. The DCIC should continue to coordinate with the Design PM and ROW staff as appropriate. Design plans and their revisions should be reviewed by the DCIC to ensure that design features are not impacted by or exacerbate, contamination issues. Additionally, drainage easements should be evaluated if there is a potential for contamination impacts to construction activities. The DCIC should also coordinate with regulatory agencies as necessary, such as coordinating with FDEP for projects that may require remediation through the ***2014 MOU between FDEP and FDOT***, solid waste/Storage tank removal, well abandonment, or dewatering permits.

20.2.1.4 Construction

For projects with identified contamination issues, the DCIC should attend the pre-construction meeting and coordinate closely with the construction PM to ensure the contractor is fully aware of potential involvement, commitments, remediation activities, avoidance measures, or any further coordination or measures as needed. During the Construction phase, the DCIC should support the Engineer on contamination-related matters and verify completion of any necessary Level III activities.

If avoidance of contamination is not possible, steps must be taken to remove or render safe the contaminated media prior to or during construction using Level III assessment.

20.2.2 Level I / Contamination Screening Evaluation

The Level I contamination screening evaluation is performed (during the PD&E phase or development of Phase I design plans for projects which do not have a PD&E phase) to screen potentially contaminated sites that are within or adjacent to the project. Level I evaluation does not involve sampling and testing soil or groundwater. The information obtained from the Level I evaluation should be sufficient enough to determine potential contamination risk on each project alternative. The Level I evaluation consists of desktop review of the proposed project scope of work; contamination-related records; site reconnaissance/field review, interviews; estimating risk ratings; and preparation of a report or technical memorandum.

Level I evaluation may determine through review of environmental records and field review evidence that the site is not suspect for contamination (e.g., properly constructed and decommissioned landfills, contamination at the site was handled and disposed of according to regulations, or documented contaminants stored pose no risk to humans and environment). If the Level I evaluation finds no contamination issues in the project area, there is no need for further investigation providing there are no new discharges causing contamination; or no changes in design or construction activities on the site that can exacerbate contamination issues.

If sites (ranked medium or high) are identified as having potential contamination issues during the Level I evaluation, then the sites are further considered for a Level II assessment.

20.2.2.1 Desktop Review

The purpose of the desktop review is to identify potential contaminated sites and to evaluate the potential for encountering contamination from current and/or previous land uses during construction. Desktop reviews should be performed prior to the field review. The desktop review should include consideration of land use adjacent to the transportation project when screening for contamination issues.

Review of historical city directories, historical aerial photos, and Sanborn maps can also provide information on potential contamination sources. The EST contamination layer and comparisons of old and new aerial photographs and Sanborn maps may identify sources of contamination [e.g., land-filling or other earth disturbing activities, historic non-regulated gasoline service stations, past agricultural uses, trucking facilities, possible cattle ranching activities (cattle dipping vats), automotive repair facilities, dry cleaners, and heavy industrial uses]. Databases maintained by federal, state, or local governments or regulatory agencies are also reliable sources of data for desktop review. Desktop review may also include review of available historical aerial photographs and Sanborn fire insurance maps to evaluate the potential for contaminated materials to exist from the earliest date of development/use of the property.

Sources of data for desktop review are the EST, publicly available databases, or databases from commercial environmental data service companies. Commercial environmental databases have limitations; thus, their use is left to the discretion of the DCIC.

Desktop review should include review of topographic and hydrologic conditions of the project area to evaluate the potential for migration of contaminants above or below ground. Sources for hydrologic information include individual site information in FDEP's Oculus database, or from the United States Geological Survey (USGS), Florida Geological Survey, or United States Department of Agriculture (USDA).

Search distances (contamination screening buffers) used for the desktop review vary depending on the context of the project and type of contamination source. The project analyst performing Level I investigation should coordinate with the DCIC if the buffer distance is to be modified to reflect project context. The following buffer distances are recommended on FDOT projects:

1. 500 feet from the proposed ROW line for petroleum, drycleaners, and other contaminated sites not included in number 2 and 3 below. Corridor projects in heavily industrialized or urbanized areas with dewatering planned near the contaminated sites need to be addressed with FDEP, WMD, or the local delegated program lead.

2. 1000 feet from the proposed ROW line for non-landfill solid waste sites (such as recycling facilities, transfer stations and debris management areas).

3. 1/2 mile from the proposed ROW line for ***CERCLA***, National Priorities List (NPL) Superfund sites, or Landfill sites. Include a detailed discussion of these sites if they are expected to potentially impact the project. Coordinate with OGC and environmental permitting agencies, as appropriate.

The following sources available in the EST should be considered in evaluating contamination on a project.

1. FDEP Map Direct Geographic Information Services (GIS) Application
2. FDEP Contamination Locator Map
3. FDEP Institutional Control Registry
4. National Priorities List
5. Proposed National Priority List
6. Superfund Enterprise Management System (SEMS)
7. Historical/Current Aerial Photos

Other sources that should be considered include:

1. FDEP OCULUS database
2. FDOT ROW map notes
3. Sanborn Maps
4. County/City/Municipals Directories and Registries
5. District GIS databases
6. Other state and local data resources that may be applicable and available

20.2.2.2 Site Reconnaissance/Field Review

A field review or site reconnaissance is performed to identify potential/suspect and documented contaminated sites within or adjacent to the project area. The field review is an opportunity to verify the locations of potentially contaminated sites identified during the desktop review and discover previously undocumented sources of potential contamination impacts. Field review is typically conducted from existing FDOT or public ROW and should not require reviewers to enter a property suspected to have contamination issues.

Field reviews can include observations of potential contamination concerns (e.g., apparent changes in topography such as depressions or mounds, visual indications of surface spills, surface staining, areas of suspect liquids, tanks, suspicious odors, apparent sink holes, distressed vegetation, ventilation pipes, former pump islands/tank pads, soakage pits, drums, or chemical storage containers can be used to screen potentially contaminated media). Photographs should be taken of each site reviewed and any specific areas of concern should be noted during the site visit. Information about current and former uses of the site (ascertained through visual inspection or interviews) should be noted. Above ground utilities, and any evidence of below ground utilities, should be documented on field notes.

The lack of visual characteristics for contamination does not imply the media is not contaminated. Based on the results of the desktop review, field review, and interviews with the operators of the site, it may be necessary to conduct a Level II assessment to sample and test soil, groundwater, and/or surface water.

For projects involving existing bridges, building structures, and existing or abandoned utilities (which will be moved or demolished), the potential need for Asbestos Containing Materials (ACM), Lead-Based Paint (LBP), or Metal Based Coatings (MBC) surveys should be identified. Similar considerations should be given to projects involving bridge timbers, fender systems, or railroad ties that may have the potential to contain wood preservatives. The DCIC should be involved to determine District preferences for the extent and timing of the survey(s).

The DCIC should coordinate with the District Maintenance Office and District Construction Office. These offices may also have information about existing contamination from previous projects.

20.2.2.3 Interviews

Interviews with present and past owners, adjacent property owners, operators, and/or occupants of the properties with contamination concerns may be used to identify potential contaminants and environmental concerns at a site with little existing information. Interviews with the DCIC and state and local agency representatives may identify other sites of potential contamination concern, recent assessment or remediation information not yet documented in public domain, or existing ACM/MBC surveys for structures.

20.2.2.4 Contamination Risk Rating

FDOT uses a contamination risk rating system to evaluate the likelihood that a contaminated site may impact a project. The rating system provides information needed to address potential contamination impact through avoidance, and/or remediation. The presence of a contaminated site adjacent to the project area does not always mean a high risk is present on the project. The analyst should consider proposed construction activities and determine if the scope of work may cause direct contact with the contaminant. In some cases, a regulatory agency may also be performing corrective

actions to known contamination issues, which may fully remediate or substantially reduce the level of contamination issues prior to project construction.

There are four contamination risk rating categories (No, Low, Medium or High) that are assigned to each property or site evaluated for potential contamination impacts to the project. These risk rating categories and their appropriate use are explained as follows:

1. **No** - A review of available information on the property and a review of the conceptual or design plans indicates there is no potential contamination impact to the project. It is possible that contaminants have been handled on the property. However, findings from the Level I evaluation indicate that contamination impacts are not expected.

2. **Low** - A review of available information indicates that past or current activities on the property have an ongoing contamination issue; the site has a hazardous waste generator identification (ID) number, or the site stores, handles, or manufactures hazardous materials. However, based on the review of conceptual or design plans and/or findings from the Level I evaluation, it is not likely that there would be any contamination impacts to the project.

3. **Medium** - After a review of conceptual or design plans and findings from a Level I evaluation, a potential contamination impact to the project has been identified. If there is insufficient information (such as regulatory records or site historical documents) to make a determination as to the potential for contamination impact, and there is reasonable suspicion that contamination may exist, the property should be rated at least as a “Medium”. Properties used historically as gasoline stations and which have not been evaluated or assessed by regulatory agencies, sites with abandoned in place underground petroleum storage tanks or currently operating gasoline stations should receive this rating.

4. **High** - After a review of all available information and conceptual or design plans, there is appropriate analytical data that shows contamination will substantially impact construction activities, have implications to ROW acquisition or have other potential transfer of contamination related liability to the FDOT.

A recommendation for each site with a rating of medium or high should include a listing of the analytical parameters of concern and media (e.g., soil, groundwater), a discussion of potential involvement with ROW acquisition and/or construction and if the site is anticipated to warrant additional (Level II or III) assessment.

The contamination risk rating can subsequently change based on changes in design, construction activities, construction methods, ROW needs, or other factors when the project progresses from PD&E to Design and Construction.

Documentation of contamination evaluations, commitments, and recommendations are summarized in the Environmental Document and progressively updated with subsequent re-evaluations as described in ***Section 20.2***.

20.2.2.5 Contamination Screening Evaluation Report

Documentation of the contamination screening evaluation is required to demonstrate that contamination involvement in the project was considered and addressed as appropriate. The documentation of the Level I evaluation is a ***CSER*** for PD&E projects, and a ***Level I Evaluation Report*** for projects that do not have a PD&E Study. A Technical Memorandum or contamination clearance letter is prepared for projects with no contamination impacts or with minimal involvement with contamination. The decision to prepare a Technical Memorandum should be made in consultation with DCIC during development of the scope of services.

The ***CSER*** or ***Level I Evaluation Report*** documents screening methodology and contamination screening results. The report also includes data reviewed; findings; previous remedial actions; a risk rating for each potentially contaminated site; conclusions about the findings of the evaluation; and need for Level II assessment. Risk ratings, conclusions and the need for additional assessment presented in the report must be supported by data. If known or potentially contaminated sites are identified, their locations should be clearly marked (with stations and offsets, if appropriate) on the map that show project alternatives. The level of detail of the ***CSER*** depends on the complexity and scope of the project; severity of potential contaminated material; and number of potential contaminated sites. The report should be reviewed for technical accuracy, clarity of presentation and quality. Sources of all information and supporting documentation should be included (or appended) in the report.

The ***CSER*** report should have headings and subheadings to effectively delineate the sections appropriate to the level of analysis. See ***Figure 20-2*** and ***Figure 20-3*** for a sample ***CSER*** cover page and examples of section details, respectively. The cover page of the ***CSER*** should use the ***Technical Report Cover Page, Form No. 650-050-38***. The cover page of the ***CSER*** or Technical Memorandum should contain the following standard statement:

> *The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.*

The following is a suggested outline for the ***CSER***:

- **Cover page**—See ***Figure 20-2*** for sample cover page
- **Table of Contents**
- **Introduction**— Briefly state the purpose of the report.

- **Project Description**— Briefly describe the proposed improvements and define the project limits and anticipated construction activities. The description should state if the project is anticipated to acquire new ROW. Include project location map.

- **Project Alternatives**—Briefly describe each viable alternative that is analyzed in detail. Illustrate project alternatives using maps (overlaid on the aerial photographs) or other relevant figures. The maps should include commercial, industrial, or any other properties within the vicinity of the project which may pose contamination concerns.

- **Methodology**—Summarize the method used to evaluate contamination impacts on the project including all sources of information used and all individuals interviewed. Describe how contaminated sites were screened and evaluated for each project alternative.

- **Land Uses**—Briefly describe existing land uses. Include land use maps. Identify the current and previous users of each potentially contaminated property and the type of business conducted. Review historical aerial photos and indicate any historic land uses that may have resulted in contamination impacts to the subject properties.

- **Hydrologic Features**—Briefly describe the hydrologic features within and adjacent to the project limits.

- **Interviews**—Summarize the outcome of interviews with site owners, operators, managers, regulatory agency staff, DCIC, and others. To streamline preparation of ***CSER***, this may be included in Project Impacts section.

- **Project Impacts**—Based on the outcome of desktop review and field review: 1) Describe the source(s) of hazardous material; 2) Describe pertinent activities taken by regulatory agencies (regulatory status); and 3) Provide a narrative of potential contamination impacts on each project alternative, for each site with known or potential contamination issues. Locate known and/or potentially contaminated sites on the alternative concept plans. Summarize the number of potentially contaminated sites and their respective risk ratings as described in ***Section 20.2.2.4*** for each alternative in a matrix format.

- **Conclusion**—Discuss the findings of the contamination evaluation and need for additional investigation (Level II or Level III assessment) during subsequent phases (i.e., ROW acquisition or design). Include in the discussion, a listing of the contaminants of concern and media (e.g., soil, groundwater) for each site that will require additional investigation (Medium and High ranked sites).

- **Appendices**—Include site maps, relevant project plan sheets, site photographs with captions, historical research documentation, regulatory records documentation, interview documentation, site review checklists, field notes,

topographic maps, project alternatives concept plans, and any letters, emails, or memos that document coordination with regulatory agencies.

20.2.2.6 Environmental Document

Documentation of contamination should be included in the Environmental Document as outlined in this section. All commitments made through coordination efforts should be documented in the Environmental Document and transmitted to the next phases of project development (Design and Construction) in accordance with ***Procedure No. 650-000-003, Project Commitment Tracking*** and ***Part 2, Chapter 22, Commitments***.

20.2.2.6.1 Type 1 Categorical Exclusions and Non-Major State Actions

Type 1 Categorical Exclusions (CEs) – Include a brief summary of Level I evaluation in the ***Type 1 Categorical Exclusion Checklist*** (***Part 1, Chapter 2, Class of Action Determination for Federal Projects***). Upload the ***Level I Evaluation Report***, Technical Memorandum, or contamination clearance letter as well as documentation of subsequent assessment, as appropriate in the StateWide Environmental Project Tracker (SWEPT). It is recommended that these documents be placed within the Contamination folder in SWEPT.

Non-Major State Actions (NMSAs) – Include a brief summary of Level I evaluation in the ***Non-Major State Action Checklist*** (***Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery***). Upload the ***Level I Evaluation Report*** or a Technical Memorandum as well as documentation of subsequent evaluation, as appropriate, in SWEPT. It is recommended that these documents be placed within the Contamination folder in SWEPT.

20.2.2.6.2 Type 2 Categorical Exclusions

Projects which are Type 2 CEs may have an involvement with contamination provided that the involvement is determined not to be significant. The determination of significance should use the guidance in ***Part 1, Chapter 2, Class of Action Determination for Federal Projects***. Upload the ***CSER***, or a Technical Memorandum as well as documentation of subsequent evaluation, as appropriate, in SWEPT. It is recommended that these documents be placed within the Contamination folder in SWEPT. Briefly summarize project involvement with contamination (based on Level I evaluation) in the ***Type 2 Categorical Exclusion Determination Form***. The summary should at least answer the following questions:

1. Are there any known or potentially contaminated sites within or near the project area?

2. How did the project avoid or minimize impact to any known or potentially contaminated sites?

3. Are there sites that require additional investigation (i.e. Level II assessment)?

Note that a determination of significance for contamination involvement is rare and can generally be resolved through application of procedure described in this Chapter. Any potential significant involvement should be coordinated with OEM and OGC as early as practical during the development of the project, preferably before preparation of ***Type 2 Categorical Exclusion Determination Form***.

20.2.2.6.3 Environmental Assessment and Environmental Impact Statement

The findings from the ***CSER*** are summarized in the Contamination section of an Environmental Impact Statement (EIS) or an Environmental Assessment (EA). A summary table of impacts for each alternative should also be provided. Coordination which occurred during the contamination impact assessment is summarized in the Contamination section. When there are potential contamination impacts to construction, the following statement should be provided:

> *The State of Florida has evaluated the proposed project corridor and has identified potentially contaminated sites for the various proposed alternatives. Results of this evaluation will be utilized in the selection of a preferred alternative. When a specific alternative is selected for implementation, a site assessment will be performed to the degree necessary to determine levels of contamination and, if necessary, evaluate the options to remediate along with the associated costs.*

The Comments and Coordination section should discuss and include comments from ETDM screening. Resolution of comments shall also be documented in this section.

For an EA with a Finding of No Significant Impact (FONSI), the document will include a brief statement indicating the effect of the project. The availability of the ***CSER***/Level I evaluation in the project file should be noted. If known or potentially contaminated sites may affect the preferred alternative, the final Environmental Document [Final Environmental Impact Statement (FEIS)/Record of Decision (ROD), FEIS, or EA with FONSI] should briefly discuss these impacts and remediation/mitigation measures to eliminate or minimize the impacts. The following is an example statement that can also be included:

> *Based upon the above considerations, it is determined that there is no practical alternative to the proposed action, and that all practical measures have been included to eliminate or minimize all possible impacts from contamination involvement*.

Upload the ***CSER*** as well as documentation of subsequent evaluation, as appropriate, in SWEPT. It is recommended that these documents be placed within the Contamination folder in SWEPT.

20.2.2.6.4 State Environmental Impact Reports

SEIRs should summarize the results of the contamination screening evaluation in the Contamination section.

The summary should answer the following questions:

1. Are there known or potentially contaminated sites within or near the project area?

2. How did the project avoid or minimize impact to any known or potentially contaminated sites?

3. Are there sites that require additional investigation (i.e., Level II assessment)?

Upload the ***CSER*** or Technical Memorandum, as appropriate, in SWEPT. It is recommended that these documents be placed within the Contamination folder in SWEPT.

20.2.2.6.5 Re-evaluations

Changes to contamination impacts after approval of the Environmental Document must be re-evaluated consistent with ***Part 1, Chapter 13, Re-evaluations***. Design changes to the approved PD&E concept should be evaluated for potential contamination concerns. Updates to contamination status of sites identified as Medium or High Risk in the ***CSER***, anticipated or actual activities taken to resolve contamination issues must be discussed in the ***Re-evaluation Form***. A Re-evaluation completed for construction advertisement should reflect resolution of previously identified contamination issues. Resolution may include a description of how the issue will be handled if it will be addressed just prior to or during construction. Final resolution on the disposition and method of addressing potentially contaminated sites during construction should be summarized in the Re-evaluation.

Where ROW acquisition is anticipated, the DCIC should inform and coordinate further related activities with the PM, the assigned ROW agent and/or OGC as appropriate. Prior to ROW acquisition, Level II assessment must be performed to characterize the types, concentrations, and extent of contamination within the acquisition area unless this information is already available from regulatory agencies.

20.2.3 Level II Assessment

A Level II assessment, also referred to as an ***Impact to Construction Assessment (ICA)***, is usually performed during the Design phase to assess the type and extent of potential contamination impacts to construction activities on the project or ROW acquisition. A Level II assessment is also used to establish a basis for developing remediation goals consistent with the project construction. A Level II assessment should normally be performed only on projects identified for property acquisition or construction in FDOT's 5-year Work Program. The DCIC may use the District CAR contractor to

perform Level II assessments. In some instances, a Level I evaluation and Level II assessment may be performed during the PD&E phase for a project with advanced design activities, or to assist FDOT in selecting the preferred alternative.

Level II assessment is required on all Medium to High ranked contaminated sites identified during Level I evaluation, unless project design changes or updated contamination/hazardous material information shows that the site no longer poses a risk to the project. The Level II assessment should consist of further evaluation with consideration of updated information, changes in design, review of design details, and/or ROW acquisition status. A Level II assessment may include site access, and sampling and testing of soil and groundwater, if appropriate. Soil and/or groundwater sampling would be conducted to further ascertain, the type, location and potential involvement with contamination as well to aid in further development of approaches to address contamination when found. Additionally, depending on the results of the Level I evaluation, sampling may also be required for asbestos, metal-based coatings, surface water, sediments, wood preservatives, or air quality.

The scope of Level II assessment depends on the potential for contamination impacts and the type of construction contracting method for the project. Design Build (DB) and Public, Private Partnership (P3) projects often require an increased level of effort much earlier in the Design phase to identify potential impacts and ensure contamination issues are understood and considered in the DB and P3 processes. For these projects, the FDOT can adjust the assessment requirements (e.g., performing multiple levels of investigation concurrently), based on additional project information and design plans that are made available for review during the process.

The assessment methodology should be developed and coordinated between the project analyst, PM, and DCIC before beginning assessment. For guidance on assessment methods and cleanup target levels, refer to the FDEP's website, as well as ***Chapters 62-780 and 62-777***, ***F.A.C.***

Property Access Agreements: Notification to access properties that have not been acquired or that currently have tenants may be needed prior to conducting Level II assessment. The District PM is responsible to prepare written notification to property owners or tenants. The notification requirements to enter the property of others to conduct a survey, drill a test well, and collect samples are contained in ***Section 337.274, F.S***. Any testing (if warranted and approved by the DCIC) should be conducted in accordance with existing ***FDEP Standard Operating Procedures*** contained in ***Chapter 62-160, F.A.C***.

If the Level II assessment indicates contamination issues are not present in the project area, or contamination issues will not impact construction (including dewatering efforts), or ROW acquisition, no further assessment should be required unless there is a record of a new contaminant discharge occurring within the construction limits after the assessment was completed.

If the Level II assessment indicates that contamination is present in areas that may impact construction activities or ROW acquisition, and involvement is anticipated, further

assessment (Level III) is warranted to define the how contaminants will be avoided, removed, or managed.

20.2.3.1 District Contamination Impact Coordinator Role during the Design Phase

The DCIC should perform the following activities during the Design phase:

- Review the project design and status of known or identified contaminated sites undergoing regulatory review or remedial action for baseline information. Provide the PM with Work Program C2 funds estimates by fiscal year for contamination impact evaluation and remediation, in accordance with ***Part III- Chapter 11, Work Program Instructions***.
- Coordinate Level II assessments, if warranted for the project, and coordinate with the assigned ROW agent and design PM, as appropriate.
- Review design plans and identify if there are activities which could cause exposure to, excavation of, or exacerbation of, existing soil or groundwater contamination.
- Review inclusion of plume identification, dewatering or proper site specific contamination plan notes to be included in the design plans, when appropriate, or preparation of MSP related to contamination.
- Coordinate with regulatory agencies, as necessary, such as coordination with FDEP for projects that require use of the ***2014 MOU between FDEP and FDOT***, or with WMDs for projects that require dewatering permits.
- As needed, update contamination status for contaminated sites adjacent to the project that are remediated by FDEP under the ***2014 MOU between FDEP and FDOT***.
- Verify commitments related to the ***CSER*** that were included in the final Environmental Document will be addressed during subsequent phases.
- If possible, remediate contamination prior to construction activities using District-wide CAR contracts.
- Coordinate with the CAR Contractor during remediation.

The presence of contamination or hazardous materials in the soil, sediment, groundwater and/or structures, within or adjacent to the ROW, may affect the ROW acquisition and project construction schedules. The schedule for Level II activities should allow sufficient time for FDOT to complete related activities required for the project. Thus, coordination between FDOT, the CAR Contractor, regulatory agencies, current tenants, and property owners is necessary to complete the assessment in a timely manner. It is possible that FDOT's production schedule will progress much faster than the regulatory agency and current property owner's assessment and remediation schedule. If the agency or property owner assessment and remediation schedule might affect FDOT's construction schedule, it may be necessary for FDOT to assume the responsibility for conducting the assessment within the ROW and complete remediation activities sufficient to accommodate construction activities, prevent exacerbation of existing contamination, and/or reduce

construction worker exposure, either in advance of, or concurrent with construction. A final report documenting the type and level of assessment or remediation that was conducted should be provided to the FDOT PM and DCIC once the work has been completed. Interim reports or other investigation documents may also be provided, based on the project needs and context.

20.2.3.2 Right of Way Support

For parcels with building structures that might be purchased or demolished as part of the ROW acquisition, an evaluation should be performed which includes a review of building interiors, if possible. This should include a survey for the potential for ACM and/or MBC (if not addressed by a separate District ROW contract), hazardous materials storage, staining, or other conditions that may indicate that potential/suspect contamination is or may be present. If contamination issues are identified on parcels to be acquired by FDOT, the DCIC should coordinate with the District ROW Office and provide contamination-related information to support the appraisal of the parcel.

When possible, a decision should be made by the District (Environmental, ROW, and Construction Offices) for advance parcel acquisition as early as possible during the final design of the project to allow sufficient time for remediation of contamination to meet the production schedule.

A contamination screening desktop review should be conducted prior to ROW declaring parcels as “Surplus.”

20.2.3.3 Contamination Plan Markings and Special Provisions

If contamination is not avoided in the project, locations of known or potential contamination issues that will be encountered during construction should be marked on the design plans. Examples of contamination issues that can be shown on the design plans are limits of contaminated soil, landfills, storage tank system components, pump islands, monitoring wells, and groundwater contamination plumes.

Project notes (such as “General Notes Concerning Contamination”) that explain how the contractor will handle cleanup activities during construction are prohibited in the design plans. Instead, the PM and DCIC should rely on applicable implemented Standard Specifications that explain how contamination remediation plans will be executed during construction. If the Standard Specifications do not adequately address contamination needs for the project, the DCIC should work with the project’s Engineer of Record (EOR) to develop MSPs and TSPs, as appropriate, to ensure contaminated materials are handled and disposed of properly. Development of MSPs and TSPs requires coordination with the District and State Specifications Engineers as outlined in ***Specifications Package Preparation Procedure, Topic No, 630-010-005***.

20.2.4 Level III Assessment - Contamination Remedial Action

Level III assessment activities can take place during the Design phase, when acquiring ROW (if advanced acquisition has been completed), prior to the start of construction or during construction. These activities require coordination for appropriate funding allocation prior to construction letting.

Each site with potential contamination impacts should have a clearly defined scope of work for remediation activities, which conforms to the requirements of the appropriate regulatory agency. The liability provisions in ***Section 337.27, F.S.***, should always be considered when identifying the need for regulatory involvement and the extent of remedial activities.

In some instances, remedial activities could occur prior to the start of construction. These activities require coordination for appropriate funding allocation prior to construction letting. In certain cases, the Project Engineer, in coordination with the DCIC, may implement changes to the original Design to avoid or limit construction activities within contaminated areas.

The Level III scope of work should include a summary of the Level II assessment with recommendations on the limits of contamination and recommended remediation or construction support activities. If soil or groundwater remediation is necessary, the procedures should follow the applicable standards of the appropriate regulatory agency. Petroleum related Level III activities should be coordinated with the FDEP consistent with the ***2014 MOU between FDEP and FDOT***, see ***Section 20.2.5.1***.

20.2.5 Additional Considerations

20.2.5.1 2014 MOU between FDEP and FDOT

In June 2014, FDEP and FDOT entered into a Memorandum of Understanding (***2014 MOU between FDEP and FDOT***) to address discharges of petroleum pollutants in the FDOT transportation facilities. The MOU provides a process where FDEP can prioritize funding for assessment and remediation of petroleum pollutants from trust fund-eligible source sites into the SHS. Additionally, the MOU provides the procedure for dealing with inactive sites that have contaminant plumes extending beneath the FDOT ROW where FDOT adds a map note on the roadway ROW map as an institutional control to provide notice of existing contamination.

Based on the MOU, FDEP may conduct cleanup or provide funding to a third party contractor to assist with cleanup activities for petroleum contaminated sites. Projects covered under the ***2014 MOU between FDEP and FDOT*** should continue to be tracked throughout the project life cycle. If costs are incurred by FDOT, they may be recoverable under the ***2014 MOU between FDEP and FDOT***.

20.2.5.2 CERCLA / Superfund Sites

When a ***CERCLA*** or abandoned Superfund site is located within the project limits, the OGC should be contacted if the contamination has the potential to be exacerbated by project activities. The DCIC should also coordinate with the EPA (and/or FDEP if they have been given delegation) for any remedial action decisions that are made for that site.

20.2.5.3 Asbestos Containing Materials and Metal Based Coating Surveys

It is FDOT's responsibility to protect the health and safety of its employees, contractors, consultants and the traveling public through inspections and proper handling, management and removal of ACM or MBC. Therefore, ACM and MBC surveys should be performed as early as possible in the Design phase, possibly as early as the PD&E phase, to allow for an evaluation of the impacts prior to the Construction phase. The asbestos and coatings surveys must be conducted according to the Asbestos Management Procedure in the ***Right of Way Procedures Manual, Topic No. 575-000-000***.

The DCIC should coordinate with the District Structures Engineer, District Bridge Engineer, District Maintenance Engineer, or District Facilities Engineer, as appropriate, when survey or abatement actions are required for facilities or structures that have or may have ACM, LBP, or MBC. The District Structures Engineer, District Bridge Engineer, District Maintenance Engineer, or District Facilities Engineer may have additional information acquired during surveys or previous maintenance activities regarding ACM and MBC on structures/bridges within the project.

The DCIC should make sure an ACM or MBC survey is performed on all bridges and other structures prior to demolition and any required abatement performed prior to construction. When ACM or MBC have been identified, abatement plans and provisions for worker safety, handling, storage, shipping, and disposal of the hazardous material shall be prepared.

Paint may have been removed as part of previous bridge repainting or maintenance operations. In this case, testing for MBC will likely not show the presence of MBC even though MBC may still be present within faying surfaces of splices and top flanges embedded in concrete decks. Therefore, abatement plans must be prepared regardless of the outcome of the survey for all bridges constructed in 1980 or earlier.

If the project involves replacement, modification, or rehabilitation of the bridge constructed in 1980 or earlier, include the following standard statement in the ACM and MBC survey reports:

> *Based on the age of the bridge, lead-based coating shall be assumed to be present within faying surfaces of splices and top flanges embedded in concrete decks as well as other surfaces. Abatement plans for handling, management and removal of asbestos-containing materials and lead-based*

coating must be prepared before demolition, modification or rehabilitation of the bridge.

20.2.5.4 Dewatering During Construction

Construction activities may require dewatering. Dewatering operations must obtain a National Pollution Discharge Elimination System (NPDES) Generic Permit for Discharge of Groundwater. Dewatering operations seeking coverage under the NPDES Generic Permit for Stormwater Discharges from Large and Small Construction Activities under ***Rule 62-621.300(4), F.A.C***, are not required to obtain separate coverage under ***Rule 62-621.300(2), F.A.C***.

Contamination issues must be screened within 500 feet of the dewatering area before permit application. Any pollutants of concern (i.e. contamination) present in ground water at the dewatering site at concentrations equal to or exceeding the surface water criteria under ***Rule 62-302.530 F.A.C*** must be remediated otherwise dewatering operation will not qualify for permit under ***Rule 62-621.300(2), F.A.C.*** Therefore, dewatering operations in areas identified with contamination issues require treatment of effluent to limits and requirements specified in the NPDES Generic Permit. Discharges from petroleum contaminated sites may use ***Rule 62-621.300(1), F.A.C***.

20.3 REFERENCES

Chapter 62-302, F.A.C., Surface Water Quality Standards

Chapter 62-520, F.A.C., Ground Water Classes, Standards, and Exemptions

Chapter 62-528, F.A.C., Underground Injection Control

Chapter 62-610, F.A.C., FDEP Standard Operating Procedures

Chapter 62-621, F.A.C., Generic Permits

Chapter 62-701, F.A.C., Solid Waste Management Facilities

Chapter 62-730, F.A.C., Hazardous Waste

Chapter 62-761, F.A.C., Contaminated Site Cleanup Criteria

Chapter 62-761, F.A.C., Underground Storage Tank Systems

Chapter 62-762, F.A.C., Aboveground Storage Tank Systems

Chapter 62-777, F.A.C., Contaminant Cleanup Target Levels

Chapter 62-780, F.A.C., Contaminated Site Cleanup Criteria

FDEP, Contamination Locator Map (CLM).
http://ca.dep.state.fl.us/mapdirect/?focus=contamlocator

FDEP, Generic Permit for Discharge of Ground Water from Dewatering Operations, Document Number 62-621.300(2)(a)
https://www.flrules.org/gateway/readRefFile.asp?refId=4262&filename=Generic%20Permit%2062-621.300(2)(a).pdf

FDEP OCULUS website. http://depedms.dep.state.fl.us/Oculus/servlet/login

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

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

FDOT, Efficient Transportation Decision Making Manual, Topic No. 650-000-002. http://www.fdot.gov/environment/pubs/etdm/etdmmanual.shtm

FDOT, FDOT Design Manual (FDM), Topic No. 625-000-002.
https://www.fdot.gov/roadway/fdm/Default.shtm

FDOT, Local Agency Program Manual, Topic No. 525-010-300.
http://www.fdot.gov/programmanagement/LAP/LAP_TOC.shtm

FDOT, Right of Way Procedures Manual, Topic No. 575-000-000.
http://www.fdot.gov/rightofway/ProceduresManual.shtm

FDOT, Standard Specifications for Road and Bridge Construction.
http://www.fdot.gov/programmanagement/Specs.shtm

FDOT, 2012. Statewide Stormwater Management.
http://www.fdot.gov/maintenance/FDOTStormWaterMgmtPlan2012.pdf

FDOT, Work Program Instructions Part III- Chapter 11.
https://www.fdot.gov/workprogram/Development/WP-instructions.shtm

Memorandum of Understanding between FDOT and FDEP, June 16, 2014.
https://www.fdot.gov/docs/default-source/environment/pubs/June-2014-MOU.pdf

Section 334.27, F.S. Soil or Groundwater Contamination Liability

Sections 337.27 and 337.274, F.S. Exercise of Power and Entering Land

Sections 376.031 and 376.301, F.S. Definitions

Section 381.983, F.S. Definitions

Section 403.031, F.S. Definitions

Title 23 Code of Federal Regulations (CFR) Part 771, Environmental Impact and Related Procedures. http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title23/23cfr771_main_02.tpl

Title 40 CFR §§ 230-300, Ocean Dumping and Solid Wastes. http://www.ecfr.gov/cgi-bin/text-idx?SID=9e41e4fb951c2baf6b8d495cfacbf88f&mc=true&node=pt40.27.230&rgn=div5

Title 40 CFR §§ 1500-1508, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act. http://www.ecfr.gov/cgi-bin/text-idx?gp=&SID=2844df1cb4a3af5ebaa699f42d98a60f&mc=true&tpl=/ecfrbrowse/Title40/40chapterV.tpl

Title 49 CFR §§ 171-172, Hazardous Materials Regulations. http://www.ecfr.gov/cgi-bin/text-idx?SID=d97de10c4a7811818a0e8c2ce2169a55&mc=true&tpl=/ecfrbrowse/Title49/49cfrv2_02.tpl#0

United States Code, Title 29, Parts 1910 and 1926, U.S. Department of Labor, Occupational Health and Safety Administration (OSHA)

20.4 FORMS

Technical Report Cover Page, Form No. 650-050-38

20.5 HISTORY

12/10/2003, 9/1/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 22, 1/14/2019, 7/1/2020, 7/1/2023

Examples of issues or questions that may be considered for a project.

1. Pre-existing contamination within or immediately adjacent to the existing or proposed ROW

    a. If contamination is present, what is the current status of the assessment or remediation by the Florida Department of Environmental Protection (FDEP) or third party?

    b. What is the size / extent of the contamination plume and what planned construction activities does it affect? Should FDOT conduct further assessment (Level II) to better define extent and type of contamination?

    c. If not petroleum, what is the contaminant? What other regulatory considerations exist for the contaminant?

    d. If contamination exists, is it only petroleum or are there non-petroleum components?

    e. If the contaminant is petroleum, has there been coordination with FDEP and/or is it eligible for remediation in accordance with the ***2014 MOU between FDEP and FDOT***?

2. Contamination Related Structures in the ROW

    a. Are there known or suspected Underground Storage Tanks (USTs), Above Ground Storage Tanks (ASTs), soakage pits, hydraulic lifts, or other potential contamination-related structures and/or ACM/LBP issues within the existing or proposed ROW that could impact construction?

    b. Are there known or suspected contamination related structures and/or ACM/LBP issues within areas of proposed ROW acquisition which could impact ROW clearance and demolition?

    c. What must be done to address them?

    d. Should removal occur prior to construction?

    e. Is UST removal appropriate for consideration under the ***2014 MOU between FDEP and FDOT***?

Figure 20–1 Key Points to Consider

3. Impacts to the Design

    a. Does the PD&E Level I CSER need to be updated? Is a Level II ICA needed to help select a Design preferred alternative?

    b. How will the known or potential contamination impact the design? Will stormwater proposed drainage measures (e.g., ponds, french drains) impact a groundwater plume? Is there a viable avoidance alternative, design modification, or mitigation measure?

    c. Are there remediation or construction costs to be considered in coordination with the Work Program Office?

    d. Are areas of contamination marked on the design plans?

    e. Is there a need to prepare MSP or TSP?

    f. Can the contamination-impacted soils (with levels less than Commercial/Industrial criteria) be reused on the project?

    g. Have contractual and funding mechanisms been established for the costs of remediation and disposal?

4. Impacts to Construction

    a. How will the potential contamination impact the planned construction?

    b. Have the design and construction PMs been advised and coordinated with?

    c. What notifications need to be made to the construction contractor? Should the DCIC attend the pre-construction meeting?

    d. Will remediation or removal of contaminated soil be completed prior to construction?

    e. Are there anticipated additional time or costs to construction?

    f. How will impacts to the construction contractor’s planned activities be minimized?

    g. Do the contamination impacts pose an exposure or health & safety concern for the construction contractor?

    h. How will FDOT address these issues?

    i. Will the CAR contractor be involved during construction?

Figure 20–1 Key Points to Consider (Page 2 of 3)

5. Exacerbation Potential

    a. Were contamination issues reviewed for proposed dewatering, sheet piling, pond construction?

    b. Will dewatering *impact* a ground water contamination plume?

    c. Will stormwater proposed drainage measures (e.g., ponds, french drains) impact a groundwater plume?

6. ***CERCLA***/Superfund, NPL Sites

    a. Are there known ***CERCLA***/Superfund Sites within a ½ mile radius of the project limits?

    b. What impact do these sites have on the project?

    c. Is there potential of project activities to exacerbate, encounter contamination from, or acquire any portion of a ***CERCLA*** Site?

    d. Has the District Office of General Counsel been advised of potential ***CERCLA*** involvement when identified?

7. Site Contamination Removal and Remediation

    a. If removed, how will the contaminant be transported?

    b. What type of documents will be required for transporting waste from the site?

    c. What is the status of the current site assessment and remediation on the FDEP's OCULUS website?

    d. Have contractual and funding mechanisms been established for the costs of remediation and disposal?

    e. Can the contamination-impacted soils (with levels less than Commercial/Industrial criteria) be reused on the project?

Figure 20–1 Key Points to Consider (Page 3 of 3)

CONTAMINATION SCREENING EVALUATION REPORT

Florida Department of Transportation
District X
Project Title
Limits of Project
County, Florida
Financial Management Number: XXXXX-X
ETDM Number: XXXXXX
Date

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

Figure 20–2 Sample Contamination Screening Evaluation Report Cover Page

Cover Page—See ***Figure 20-2*** for sample cover page.

Executive Summary—Briefly summarize the report. This should generally be no more than two pages.

Table of Contents

1. **Introduction**—Briefly state the purpose of the report and provide details on the basics of the project. An example introduction could be:

   "The purpose of this report is to present the findings of a contamination screening evaluation for <<Insert Project Title>>. This report identifies and evaluates known or potential contamination sites within or adjacent to the project area that may affect implementation of the project. The report also presents recommendations for additional analysis and documents possible project impacts and their mitigations."

2. **Project Description**—Briefly describe the proposed improvements and define the project limits and construction activities. The description should also state if the project is anticipated to acquire new ROW. Include a project location map.

3. **Project Alternatives** —Briefly describe each viable alternative that is analyzed in detail. Illustrate project alternatives using maps or other relevant figures.

4. **Methodology**—Summarize the method used to evaluate contamination impacts on the project including all sources of information used and individuals interviewed. Describe how contamination was screened and evaluated for project alternatives. An example for a methodology could be:

   "A contamination screening evaluation of _____ Road was conducted to identify potential contamination issues within the proposed project limits from properties or operations located within the vicinity of the project. This evaluation consisted of the following tasks:

   a. A description of the coordination with agencies contacted (such as FDEP, local government agencies, WMDs).

Figure 20–3 Contamination Screening Evaluation Report Outline

b. A detailed description of data collected and their sources (such as database names, environmental database providers, local regulatory agencies, information on hazard classes obtained from generators, transporters, stationary tanks, and known leaks and spills).

c. A review of the aerial photographs (including historical aerials) used to determine the potential contamination problem areas.

d. Field observations (windshield surveys) performed to verify information provided and to identify other potential sources within the vicinity of the project.

e. A determination of the potential contamination risk rating (i.e., No, Low, Medium or High) for each potential contaminated site or property within the proposed project limits."

5. **Land Uses**—Briefly describe existing land uses. Include land use maps. Review historical aerial photos and indicate any historic land uses that may have resulted in contamination impacts to the subject properties. An example of a land use description would be:

"_____ Street, development has been in strip form fronting on _____ Road. The depth of commercial development is very shallow with residential apartments and single-family homes immediately behind the commercial property. A 23-acre shopping mall is located at the intersection of _____ Street. The area is fully developed with no open spaces remaining."

Identify the current property owner and previous land use or previous business types of every suspect property on each project alternative (this is not intended to be a "Title Search"). This information should be available from the District ROW Survey and Mapping Office or from the County Property Appraisers office.

Identify the current and previous users of each property and the type of business conducted. This information should be available through county records (most are now online), city directories, Sanborn Insurance maps, plat maps and in the local public library. (To streamline report preparation, specific former and current land uses at each site can be included in the narratives in Section 8 – Project Impacts.)

Photographs of each potentially impacted sites should be taken, as well as any specific areas of concern noted during the field review. A photographic log should be prepared and include a caption indicating site location, potential impact, the photographer position, and camera direction.

Figure 20–3 Contamination Screening Evaluation Report Outline (Page 2 of 6)

6. **Hydrologic Features**—Briefly describe of the hydrologic features within and adjacent to the project limits. This should be no longer than one page in length, unless there is a specific reason to provide more extensive detail. An example of a hydrologic features description would be:

   "The project area is generally underlain by the _____ aquifer, which is characterized by high porosity sands and limestone which typically allows rapid infiltration of rain-fall and surface runoff. The groundwater surface generally follows the ground surface with a North to South gradient at a depth of _____ feet below ground surface. Flow rates are estimated to be _____ feet per day. There are no surface water features (lakes, canals) or wells within the immediate project area. The _____ is located _____ from the project area and is considered outside any possible zone of influence. Existing surface drainage is flat, relying primarily on infiltration for removal."

7. **Interviews** (if applicable)—Summarize the outcome of interviews with site owners, operators, managers, regulatory agency staff, and others.
   The City/County engineer should be able to provide current or historical permit information. The local WMD personnel can provide information on water wells in the area, problems associated with water quality, and discharge requests that have been approved, disapproved, or are under consideration.

   Utility companies may be able to provide additional information concerning the services provided to the site, such as a sewer connection or septic system, how much electrical capacity is provided to the facility, (e.g., large electrical capacity could mean large equipment for manufacturing) or any documentation of prior polychlorinated biphenyl (PCB) use, if present. Utility companies may also have information on materials used to construct their utility lines (i.e., transite asbestos-containing pipes).
   (To streamline report preparation, outcome of interviews can be included in the narratives in Section 8 – Project Impacts.)

Figure 20–3 Contamination Screening Evaluation Report Outline (Page 3 of 6)

8. **Project Impacts**—Based on the outcome of desktop review and field review: 1) Describe the source(s) of hazardous material; 2) Describe pertinent activities taken by regulatory agencies (regulatory status); and 3) Provide a narrative of contamination impacts on each project alternative, for each site with known or potential contamination issues. The narrative can include a table with details of each site or property by alternative that would be impacted. This table should include, at a minimum, the following information:

    a. Property description - Including facility name, physical address, and former site names.

    b. Permit or ID numbers - Include FDEP program identification numbers or other permit numbers.

    c. Type of Contamination Impact - List each hazardous material or potential hazard.

    d. Contamination sources for each site with known or potential contamination issues.

    e. Regulatory status of contaminated sites summarizing pertinent activities taken by regulatory agencies for each site or property and briefly outline the potential contamination issue(s) that would have an impact on the proposed project or alternative.

    f. List of potential contamination-related structures - Located within the property boundaries as well as information on whether they are above ground tanks (ASTs) or USTs, along with tank size(s), contents, age, if they remain in place, etc. Other structures such as hydraulic lifts, soakage pits, and potential ACM/LBP structures, should also be documented.

    g. Distance of known contamination plumes (or storage tank) from ROW (existing and/or proposed).

    h. Identify the contamination risk rating for each site and alternative. Present the number of known or potentially contaminated sites with risk rating for each of the alternatives being considered.

    Locate known and/or potentially contaminated sites on the alternative concept plans. Summarize the number of potentially contaminated sites and their respective risk ratings for each alternative in a matrix format.

Figure 20–3 Contamination Screening Evaluation Report Outline (Page 4 of 6)

9. **Conclusions & Recommendations**- Briefly summarize the contamination impact risks for construction of each alternative (see Number of Potentially Impacted Sites per Alternative, below in Tables). Provide recommendations for any Level II ICA, or for ACM/MBC testing of structures. When ascertainable, this section should note if the contamination impacts identified relate to ROW acquisition as well as potential involvement with construction. Unusual or notable impacts, such as CERCLA sites should be noted. Pertinent agency or stakeholder comments, coordination or commitments should be summarized. If this report is intended to be shared with other agencies or stakeholders for additional coordination, it can be stated in this section.

   This section should also include a statement regarding potential for dewatering during construction.

   This section should also include a very brief discussion of estimated costs for assessment and remediation, if known.

Figures

a. Project Location Map: An area map (topographic, county, state, etc.) showing the general location of the proposed project, including project limits with a detailed map of the immediate project area.

b. Project Alternatives Map: Use a recent aerial photograph is the base map. Show all alternatives, contamination buffers, and identified site numbers with ratings denoted by color. Include correlation of site number to site name in legend.

c. Land Use Map: A map or maps of the proposed project corridor and surrounding area showing current or future land uses (i.e., commercial, multi and single-family residential, schools, malls, parks,) if the map adds value to the evaluation.

d. Maps should be scaled appropriately to provide useful information and discern features or structures, if warranted and should be consistent. Multiple maps and enlarged sub-maps may also be utilized.

Figure 20–3 Contamination Screening Evaluation Report Outline (Page 5 of 6)

Tables

a. Potentially Contaminated Sites: This table should present information on each contaminated site or property that was evaluated as part of this document.

b. Number of Potentially Contaminated Sites per Alternative: This table should present the number of known or potentially contaminated sites or properties with risk rating for each viable alternative. An example of this table would be:

Project Alternative	Contamination Risk			
	No	Low	Medium	High
A	#	#	#	#
B	#	#	#	#
C	#	#	#	#

= number of contaminated sites per risk rating for each viable alternative

10. **Appendices** - The document should include appendices that provide additional information required to support the risk rating, as well as provide information on current regulatory status. Examples of the information that could be included are as follows:

    a. Electronic regulatory database radius search documents.

    b. Potential Hazardous Waste Generator documentation and permits.

    c. Other Permit information.

    d. Tank registration data.

    e. Regulatory agency assessment documents including maps, diagrams, etc.

    f. Regulatory compliance reports.

    g. Copies of historical aerial photographs.

    h. Field notes, Site review checklists, Site review photo logs with captions

Figure 20–3 Contamination Screening Evaluation Report Outline (Page 6 of 6)

PART 2, CHAPTER 21

UTILITIES AND RAILROADS

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PART 2, CHAPTER 21

UTILITIES AND RAILROADS

21.1 OVERVIEW

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

This chapter provides guidance to the District Project Development and Environment (PD&E) Project Managers (PM), the District Utility Offices (DUO), and the District Railroad Coordinators (DRC) for identifying and documenting utility and railroad conflicts during the PD&E phase. A utility, as defined in FDOT's ***Utility Accommodation Manual (UAM), Rule 14-46.001 F.A.C.***, is all active, deactivated or out-of-service electric transmission lines, telephone lines, telegraph lines, other communication services lines, pole lines, ditches, sewers, water mains, heat mains, gas mains, pipelines, gasoline tanks, and pumps owned by the Utility Agency/Owner (UAO).

Conflicts with utilities as well as railroad crossings affect both the cost and schedule of a project, and may influence the selection of the preferred alternative or other environmental considerations, for example the installation of noise walls. FDOT must consider the potential for encountering utilities and rail lines within the limits of every project, including associated pond sites and other off-site improvements. Coordination between the District, the Railroads, and the UAOs should begin early and continue throughout the project development process to plan for the cost and time required for utility conflict resolution and relocations as well as railroad crossings.

For projects that do not have a PD&E phase, coordination with UAOs will be done by the DUO and the District's Design PM in accordance with the ***FDOT Design Manual (FDM), Topic No. 625-000-002*** and the ***UAM, Rule 14-46.001 F.A.C.*** Coordination with the Railroads will be conducted by the DRC.

21.2 PROCEDURE

Coordination, cooperation, and communication to eliminate, minimize, or mitigate utility or railroad related issues should be practiced throughout the PD&E phase. The District, through the PM, the DRC and the DUO, must coordinate with UAOs and Railroads and provide project information as early as possible.

Identification of Utilities and Railroads in a project area should begin prior to the PD&E phase during planning or corridor development. Calling Sunshine 811 along with site visits can help identify existing utilities within and adjacent to the project corridor. This information can be used to avoid major utility or railroad conflicts in choosing corridors or alternatives to carry forward to the PD&E phase. Existing utilities information will also be used in preparing the PD&E Scope of Services. Railroads do not fall under Sunshine 811.

During alternatives development, the DUO and PM should hold informational meetings with UAOs to discuss the PD&E Study as it relates to their existing and any proposed facilities. The goal of this early coordination is to assist with the development of concept plans that avoid conflicts with major utility facilities in the next phase of project development. All stakeholders will benefit from early coordination that identifies opportunities to reduce utility impacts, as well as impacts to the project schedule and cost. Similarly, early coordination with the DRC and Railroads impacted by PD&E projects is required to accommodate design changes and minimize delays. For projects that are with Design phase in the Five Year Work Program or projects with combined PD&E and Design, utility locations will be shown on the preliminary engineering plans found in the ***Preliminary Engineering Report (PER)***.

UAOs and Railroads are project stakeholders and should be invited to public meetings and hearings, where they can receive direct feedback on potential issues. Attendance of UAOs and Railroads at public meetings also helps them to identify and resolve issues related to their facilities early in the process when adjustments to the project are more easily facilitated.

21.2.1 PD&E Project Scoping

The PM needs to coordinate with the DUO in preparing the Scope of Services for the PD&E Study. Information needed to prepare the scope includes: (a) the anticipated number of UAOs that may be within the PD&E Study limits;, (b) the anticipated complexity of coordination with each UAO during the PD&E Study and (c) the need to provide utility locations on the preliminary engineering plans. The UAOs in the project area may be identified using Sunshine 811 supplemented by site visits. When preparing the Scope of Services, requirements for UAO coordination and documentation in the ***Utility Assessment Package*** will be determined. The ***Utility Assessment Package*** (see ***Section 21.2.2.3***) is prepared either in-house by the DUO or by the PD&E Consultant during the PD&E phase. Regardless of who prepares the package, the DUO must review the Consultant's prepared ***Utility Assessment Package***.

PD&E projects with advanced preliminary design or where the Design phase is concurrent with the PD&E phase will require a higher level of coordination with UAOs than projects with a standard PD&E Study. See ***Part 1, Chapter 4, Project Development Process*** for details. The preliminary engineering plans will include the utility locations.

While it is important to know the location of all utility facilities within the PD&E Study limits, the PD&E team should focus their efforts on utility facilities that could: (a) impact development of the preferred alternative, (b) entail lengthy or drawn out coordination efforts, (c) may be cost prohibitive to relocate, or (d) rise beyond the level of ordinary utility coordination. These utility facilities may include substations and electrical transmission lines for power companies, large "hubs" for telecommunication lines, large gas or oil transmission mains, military communication lines, and other underground lines. Some UAOs have special agreements with FDOT [e.g., the Florida Gas Transmission (FGT) Global Agreement], some utility facilities are fragile (e.g., large clay pipes and pipes that have been underground for decades). Therefore, the level of engineering detail required for the PD&E Study should be discussed in depth with the DUO during PD&E scoping. Projects with substantial utility concerns or accelerated schedules may require detailed locations of utilities. Therefore, the DUO will request the PD&E Study to include Quality Level "B" Survey (Designates) and/or Subsurface Utility Engineering (SUE) services for these projects.

21.2.2 Utility Procedure

The process to address utilities during the PD&E phase consists of three stages: ***PD&E Request Package***; UAO Coordination; and ***Utility Assessment Package***. Each stage is discussed in the following sections.

21.2.2.1 PD&E Request Package

The PD&E PM is responsible for developing and submitting a ***PD&E Request Package*** to the DUO soon after the project alternatives are developed. The ***PD&E Request Package*** should consist of the project typical section(s) and concept plans for each alternative under evaluation. The typical section data should include, as appropriate, roadway and shoulder width, median width, sidewalks, border widths, and Right of Way (ROW) lines.

The concept plans should overlay viable project alternatives on an aerial photograph. At a minimum, the concept plans must contain the following information:

1. Travel lanes, shoulders, curb and gutter, swales, sidewalk/multi-use paths, barrier walls, and noise walls, if applicable;

2. Bridges;

3. Existing or proposed drainage structures;

4. ROW lines and width;

5. Access control lines;

6. Horizontal alignment stationing; and

7. Special landscaping or mitigation areas, if known.

21.2.2.2 Utility Coordination

Once the ***PD&E Request Package*** has been developed and submitted to the DUO, the DUO will notify the UAOs within the project area by forwarding them the ***PD&E Request Package***. This transmittal should request that the UAOs provide information for above ground and below ground utilities within the PD&E project area, and request information for both existing and planned utility facilities. The transmittal should also request that the UAOs provide information pertaining to any existing easements or other property interests that may be affected by the project. The UAOs contacted by the DUO should review the concept plans and typical section(s) to identify all major facilities, buildings, and other obstructions or encroachments of UAOs within or adjacent to the project. Each UAO should identify both existing and planned utility corridors and installations in, or adjacent to, each project alternative. Generally, the UAOs should respond in writing and delineate their facilities and any property interests on the concept plans, in accordance with the ***UAM, Rule 14-46.001 F.A.C.***

A meeting to discuss utility impacts related to the project alternatives should be held with each UAO approximately 30 days after sending the ***PD&E Request Package***. In the meeting, the UAO, DUO, and PM should discuss alternatives that may minimize or avoid conflicts, evaluate and consider recommended mitigation/avoidance strategies, discuss timelines for new installations or relocations that are anticipated to be unavoidable, as well as possible potential amounts of relocation costs, and schedule impacts for those relocations. If a UAO's easements or property interests could be affected, the DUO will need to discuss potential conflicts and encroachments, as well as potential subordination of those interests to FDOT's ROW interest. However, no determinations should be made at this stage as to any compensation for a UAO's easement or property interest. The DUO shall take any inquires or requests for compensation to the District Office of General Counsel (OGC) for guidance. The possibility of a UAO entering into a Utility Work Agreement, should also be discussed with the District OGC.

The DUO may have additional meetings with any individual UAO that have the potential for major conflicts with the project to better understand those conflicts and discuss their resolutions.

If applicable, the PM and the DUO in conjunction with the District ROW Office, should consider the feasibility of joint ROW acquisition to minimize any utility ROW replacement costs. This should be discussed in the Utilities and Railroads section and in the Relocation Potential section of the Environmental Document. In addition, if FGT is anticipated to

require ROW per the ***August 21, 2013 Florida Gas Transmission Agreement and Global Settlement***, this should be discussed with the District OGC and documented in the Environmental Document.

A listing of agreements made between FDOT and UAOs, including the ***August 21, 2013 Florida Gas Transmission Agreement and Global Settlement***, can be found on the FDOT Utility Office website on the ***Utility Agreements, Resolutions and Certificate of Incumbency*** Table.

21.2.2.3 Utility Assessment Package

The information provided by the UAOs through coordination is used in preparing the ***Utility Assessment Package***. A ***Utility Assessment Package*** should be generated for each proposed alternative and include the following information:

1. Names of all identified UAOs;

2. One set of aerials denoting the location of major existing and planned utility facilities. Aerials should be developed in such a way that information regarding the major utility facilities is easily discernable. For example, to facilitate an understanding of the total impacts to the affected utilities, aerials should show multiple UAO facilities instead of each UAO being depicted on separate sets of aerials;

3. A description of all existing and planned utilities;

4. A discussion of mitigation/avoidance recommendations to reduce utility conflicts;

5. A cost estimate and anticipated time frames for relocation of major facilities where conflicts are anticipated to be unavoidable (including ROW costs);

6. A discussion of joint ROW acquisition;

7. A discussion of ROW needs for FGT, if applicable;

8. A discussion of which UAOs are likely to enter a ***Utility Work by Highway Contractor Agreement (UWHCA),*** including whether existing facilities are affected by the project or are proposed installations. Include cost and schedule impacts;

9. A description of existing or proposed encroachments onto any UAO easement or property interest as well as any subordinations; and

10. Information concerning the UAO disposition if it is determined that a UAO will not be affected by the project.

Any discussion in the ***Utility Assessment Package*** regarding conversations with the UAO concerning compensation or legal determinations should be reviewed and approved by the District OGC before being included.

The ***Utility Assessment Package*** shall be provided to the PM for consideration in comparing alternatives and selecting a preferred alternative. The Environmental Document will include a summary of this package (see ***Section 21.3***).

Should there be an opportunity for FDOT to enter into a formal agreement with a UAO during the PD&E phase, the DUO must inform the PM. Together, the DUO and the PM will coordinate with the District OGC as appropriate to negotiate and execute the agreement with the UAO. Agreements reached during the PD&E phase will be included in the ***Utility Assessment Package*** and documented in the project files. These agreements could include ROW acquisition, utility easements, or preliminary engineering.

21.2.3 Railroad Procedure

For projects that include a railroad crossing or railroad corridor, it is the responsibility of the PM to initiate coordination with the DRC, who will provide information concerning present and future use of the rail line, and existing or proposed protection devices at the crossing. In addition, the DRC can provide information about rail crossings such as: crossing status (active or inactive), train speed, condition of the crossing, crash incidents, number of tracks, crossing purpose, railroad schedules, and the owner of the railway. If a project requires adding a new railroad crossing (at- grade or grade separated) additional coordination with the DRC as well as public involvement specific to railroad crossing may be required.

Coordination with Railroads and local governments is required for any project that requires construction or reconstruction of a highway-rail grade crossing, in accordance with ***Section 337.11, Florida Statutes (F.S.)***, see also ***Chapter 14-57, F.A.C.*** The DRC is responsible for this coordination. For projects that require closing or constructing a new grade crossing, ***Railroad Grade Crossing Application, Form No. 725-090-66*** must be completed. Some of the information required for this form include:

1. A safety analysis of the grade crossing,
2. Discussion of land use and traffic generators served by the crossing,
3. Existing and projected traffic,
4. Effect on rail operations, and
5. Effect on emergency vehicles access.

See ***Railroad Grade Crossing Application, Form No. 725-090-66*** for complete instructions.

For design requirements, including vertical and horizontal clearances, for grade separated crossings and at grade crossings refer to ***Part 2, Section 220 Railroad Crossing*** of the ***FDOT Design Manual, Topic No. 625-000-002*** and ***Chapter 14-57, F.A.C.*** The PM should also coordinate with the DRC to determine if there are any special requirements.

The PM and the DRC need to work closely together to maintain the project schedule. The level of coordination will vary depending on the level of engineering detail required for the PD&E phase. For standard PD&E projects followed by a traditional design-bid-build, it is important to begin coordination with the railroad to ensure both FDOT and the railroad company understand the impacts of each alternative when choosing the preferred alternative. If the railroad is listed or is eligible for listing on the National Register for Historic Places (NRHP), additional coordination with District Environmental Office as well as the State Historic Preservation Officer (SHPO) may be required. Refer to ***Part 2, Chapter 8, Archeological and Historical Resources*** for more guidance.

The PM, DRC, and railroad company should also work together to establish and anticipate any coordination efforts that may be needed as the project advances. For a project with advanced preliminary design or Design phase concurrent with the PD&E phase, or a project with the PD&E phase followed by a design-build contract (see ***Part 1 Chapter 4, Project Development Process***), coordination may require additional details such as deciding who will fund the at grade improvements, scheduling the work, and determining if the railroad company will perform construction. The DRC is responsible for this coordination.

Documentation of the coordination with the railroads must be included in the project file. The Environmental Document and ***PER*** will discuss this coordination and involvement with any rail facilities to the appropriate level of detail required to address any issues identified.

For rail safety projects which meet the Type 1 Categorical Exclusions (CEs) use the ***Type 1 Categorical Exclusion Checklist*** per the guidance in ***Part 1, Chapter 2, Class of Action Determination for Federal Projects***. The DRC must coordinate with the District Environmental Office.

21.3 ENVIRONMENTAL DOCUMENT

The utilities and railroads impact evaluation and coordination should be summarized in the appropriate sections of the Environmental Document. Upload the ***Utilities Assessment Package***, documentation of railroad coordination, and other relevant information that support the impact evaluation in the StateWide Environmental Project Tracker (SWEPT) project file. It is recommended that these documents be placed within the Utilities and Railroads folder in SWEPT.

Commitments will be documented in the Commitments section of the Environmental Document and documented and tracked in accordance with ***Procedure No. 650-000-003, Project Commitment Tracking*** and ***Part 2, Chapter 22, Commitments***.

21.3.1 Type 2 Categorical Exclusions

For Type 2 Categorical Exclusions (CEs), documentation should follow the guidance in ***Part 1, Chapter 5, Type 2 Categorical Exclusion***. Briefly summarize project involvement with Utilities and Railroads in the ***Type 2 Categorical Exclusion Determination Form*** in SWEPT.

21.3.2 Environmental Assessments and Environmental Impact Statements

For Environmental Assessments (EAs) and Environmental Impact Statements (EISs), documentation should include a summary of the information in the ***Utilities Assessment Package*** and a discussion of any issues identified with railroads in the Utilities and Railroads section of the EA or the EIS.

21.3.3 State-Funded Projects

For State Environmental Impact Reports (SEIRs), briefly summarize the results of the utilities and railroad impact evaluation and coordination in the Utilities and Railroads section of the SEIR form in SWEPT.

21.4 RE-EVALUATION OF UTILITY AND RAIL IMPACTS

Project Re-evaluation should document changes to utilities and railroads in accordance with ***Part 1, Chapter 13, Re-evaluations***. The DUO and the DRC must be coordinated with during the Re-evaluation process.

21.5 REFERENCES

Chapter 335, F.S., State Highway System. http://www.leg.state.fl.us/Statutes/

Chapter 337, F.S., Contracting; Acquisition, Disposal, and Use of Property. http://www.leg.state.fl.us/Statutes/

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

FDOT. Standard Specifications for Road and Bridge Construction, Florida Department of Transportation. https://www.fdot.gov/programmanagement/Specs.shtm

FDOT, Construction Project Administration Manual, Topic No. 700-000- 000. https://www.fdot.gov/construction/manuals/cpam/cpammanual.shtm

FDOT, Local Agency Program Manual, Topic No. 525-010-300. https://www.fdot.gov/programmanagement/LAP/LAP-TOC.shtm

FDOT, FDOT Design Manual, Topic No. 625-000-002. http://www.fdot.gov/roadway/fdm/

FDOT, Utility Accommodation Manual, Rule 14-46.001 F.A.C. https://www.fdot.gov/programmanagement/utilities/default.shtm

FDOT, Utility Agreements, Resolutions and Certificate of Incumbency. https://www.fdot.gov/programmanagement/utilities/97LaterUA.shtm

Rule 14-57, F.A.C., Railroad Safety and Clearance Standards, and Public Railroad-Highway Grade Crossings Rule. https://www.flrules.org/gateway/ChapterHome.asp?Chapter=14-57

Title 23 CFR § 645(a), Utility Relocations Adjustments and Reimbursement. http://www.ecfr.gov/cgi-bin/text-idx?SID=62260a79a5de349c9956cf878c41325f&mc=true&tpl=/ecfrbrowse/Title23/23cfr645_main_02.tpl

Title 23 CFR § 645(b), Accommodation of Utilities. http://www.ecfr.gov/cgi-bin/text-idx?SID=62260a79a5de349c9956cf878c41325f&mc=true&tpl=/ecfrbrowse/Title23/23cfr645_main_02.tpl

Title 23 CFR § 646(b), Railroad-Highway Projects. https://www.ecfr.gov/cgi-bin/text-idx?SID=662c928e6d84c4a93d53ec5f220fcd8c&mc=true&node=pt23.1.646&rgn=div5

Title 23 CFR Part 771, Environmental Impact and Related Procedures. http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=3f0e8ae65ee76fc13c0bc7a240e9fc59&mc=true&r=PART&n=pt23.1.771

21.6 FORMS

Railroad Grade Crossing Application, Form No. 725-090-66

21.7 HISTORY

11/14/2003, 7/15/2016, 6/14/2017: NEPA Assignment and re-numbered from Part 2, Chapter 10, 1/14/2019, 7/1/2020, 7/1/2023

PART 2, CHAPTER 22

COMMITMENTS

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PART 2, CHAPTER 22

COMMITMENTS

22.1 OVERVIEW

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility 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).

Commitments are an important component of a transportation project as they provide assurance to resource agencies and other stakeholders that identified concerns will be addressed in future phases of project delivery. The primary purpose of this chapter is to provide guidance to FDOT Districts on how to prepare the commitments section of an Environmental Document during the Project Development and Environment (PD&E) phase. This chapter also details how PD&E phase commitments are developed and the necessary coordination, tracking, and documentation required to ensure these obligations are transferred to future project phases and subsequently fulfilled.

Because commitments made during the PD&E phase are implemented during future project phases, it is important to ensure the appropriate documentation and tracking of commitments through all phases of project delivery. Coordination among appropriate District staff from the PD&E phase through the Operation and Maintenance phase is critical to ensure commitments are tracked and completed. Commitments established as a result of the PD&E Study and/or agency coordination/consultation must be documented as described in ***Section 22.2***.

FDOT requires that commitments be tracked through each phase of project delivery consistent with ***Procedure No. 650-000-003, FDOT Commitment Tracking*** and that commitments be reviewed and their status documented in subsequent re-evaluations. This procedure provides guidance on tracking and documenting project commitments throughout PD&E, Design, Right of Way (ROW), and Construction phases. Commitments must be tracked using Project Suite Enterprise Edition (PSEE) Commitments Module. PSEE can be used to generate the ***Project Commitment Record (PCR)***. See ***Section 22.2.3.1*** for guidance on how to document and track commitments.

Commitments are also applicable to LAP projects through which Local Agencies plan, develop, design, acquire ROW, and construct transportation facilities. When FDOT contracts with any Local Agency for reimbursement using federal funds administered by the FHWA, FDOT must ensure Local Agencies track and fulfill commitments.

22.1.1 Project Commitments

A commitment is an obligation to an external stakeholder to provide a feature, or perform an action, related to a project that will be implemented in a future project phase. Examples of commitments include:

- Design features meant to minimize adverse effects on identified environmental resources
- Actions during Design/Permitting phase meant to define in greater detail the presence/absence or potential impact on a resource
- Actions during construction to avoid impacts to protected resources

Project commitments may be established during the PD&E, Design, ROW, and Construction phases of a project. Commitments are rarely established during the Planning phase of a project, due to uncertainties of project impacts during this early project phase.

A commitment made during the PD&E phase as a result of coordination/consultation with agencies, the local community, or other stakeholders on social, cultural, physical, natural or engineering issues/resources is an environmental commitment. FDOT may make a commitment to the local community which could include context-sensitive solutions or design features like lighting, benches, bicycle or pedestrian facilities, aesthetic treatments, or landscaping.

A commitment may also be made to support federal and/or state permitting. During Permitting, these commitments may become permit conditions at the discretion of the applicable regulatory agency, and their status should be updated appropriately. For example, commitments regarding protected species or habitat impacts may be included in the permit at the discretion of the Florida Department of Environmental Protection (FDEP), Water Management District (WMD), or the U.S. Army Corps of Engineers (USACE). ***Section 22.1.1.2*** provides additional information on environmental commitments and permitting.

The Project Manager for each project phase is responsible for establishing commitments (as appropriate) and ensuring that the commitments are properly documented. Each Project Manager is responsible for coordinating with others who may be tasked with implementing actions based on the project commitments, such as the District Environmental Office [District Environmental Management Office (DEMO), Planning and

Environmental Management Office (PLEMO)], Design Office, Construction Office, District Permit Coordinator, ROW Office, or Maintenance Office.

Before making a commitment, the project manager must coordinate with staff from the other project phases to ensure the action involved is feasible. The commitment must be feasible in terms of necessity, practicality, cost, and timing. Continuous coordination is vital to ensure that all commitments are appropriate and, once agreed to by FDOT, are implemented. All project commitments must be properly coordinated, documented, tracked, and implemented for the project to successfully advance to completion.

When making commitments, the Project Manager must consider the practical impact a commitment may impose on future project phases and ensure that:

1. Commitments are clear and concise;

2. The commitment language is coordinated with the appropriate District subject matter expert(s);

3. Commitments do not contradict other commitments or requirements;

4. The source of and reason for the commitment is fully documented in the project file; and

5. Commitments that are the result of agency consultation and are not regulatory requirements

Project managers should be mindful of whether statewide precedence is being created when making new or unique commitments, as well as of making any long-term obligations, or dedication of state resources needed to uphold commitments. For example, proposed preservation of FDOT ROW for a non-transportation related purpose, or monitoring in perpetuity should prompt further discussion within the District and OEM prior to making the commitment.

Project Managers must coordinate with appropriate District personnel prior to agreeing to a commitment that would obligate substantial FDOT resources. For example, during the PD&E phase a Project Manager can make a commitment to a resource agency to continue coordination with that agency during the Design phase, where environmental permits are typically obtained. This type of commitment does not typically require vetting within other project phases or by the District chain of command. However, a commitment to include a wildlife crossing during PD&E should prompt the Project Manager to coordinate with staff from other offices before agreeing on the commitment. A wildlife crossing could potentially obligate substantial funds, time, and effort from multiple offices, and therefore should be thoroughly vetted before making such a commitment.

It is important to recognize that FDOT is required to follow the requirements detailed in its standard specifications, manuals, and handbooks. For example, a commitment should not be made to follow the ***Standard Specifications for Road and Bridge Construction (Standard Specifications)***. The ***Standard Specifications*** also note that FDOT follow federal and state laws, rules, and regulations. These should not be listed as commitments. For example, wetland mitigation is required as part of federal dredge and fill permits and state environmental resource permits. Therefore, wetland mitigation should not be listed as a commitment.

22.1.1.1 Local Agency Program Commitments

FDOT's Project Manager must ensure that any commitments made by an implementing LAP Agency are discussed with FDOT, to ensure that commitments are documented clearly stating LAP Agency responsibility, and that FDOT is not obligated to fulfill those commitments. FDOT should not make commitments on behalf of a LAP Agency. FDOT should review the commitments to ensure that the commitments are incorporated into the contract documents. See ***Local Agency Program Manual, Topic No. 525-010-300*** for more information on LAP projects.

22.1.1.2 Permitting and Commitments

Commitments regarding listed species and/or habitat that were identified during the PD&E phase may later be included as a specific condition in an environmental permit. Permit conditions are developed in coordination with the applicable regulatory agency and must be met to comply with an environmental permit. These conditions are normally developed during the Design phase when projects are typically permitted; however, in some instances, permitting may take place during the PD&E phase. Commitments that are included as conditions in project permits must be tracked as part of permit compliance. Failure to comply with permit conditions is a violation of the permit and may result in enforcement action against FDOT. It is critical that permit conditions are met, and appropriate documentation demonstrating the permit condition has been satisfied is submitted to the appropriate regulatory agency, when required, and included in the project file, as appropriate. See ***Part 1, Chapter 12, Environmental Permits*** for more information on environmental permitting.

An example of a commitment made during the PD&E phase that may be included as a permit condition includes a commitment for species protection made in coordination with a regulatory agency, such as:

- Re-initiate or continue consultation with the commenting wildlife agencies during permitting to better define potential species impacts;

- Conduct species-specific pre-construction surveys (such as for the bald eagle) to verify nest presence/absence/activity;

- Conduct species-specific pre-construction surveys (such as for the gopher tortoise) since the species protection would not result from federal permitting and the species is not wetland-dependent and automatically included in the state Environmental Resource Permit review; or

- Protect a species during construction (such as the West Indian manatee, eastern indigo snake, and small-tooth sawfish).

Another commitment that may be included in an environmental permit is a condition to avoid cultural or historical resources. For example, a commitment may be made to have an archaeological monitor on site during construction activities near a known archaeological site. This type of commitment is typically made during the PD&E phase and coordinated with the appropriate regulatory agency, such as the State Historic Preservation Officer (SHPO). The commitment would then be included as a permit condition at the discretion of the permitting agency during Design/permitting. When a commitment made in PD&E subsequently becomes a permit condition, its status should be updated appropriately.

22.1.2 FDOT Commitment Tracking

FDOT's procedure for documenting and tracking project commitments is in ***Procedure No. 650-000-003, Project Commitment Tracking***.

Project commitments made by FDOT must be included in the PSEE Commitment Module which is the standard system for documenting, transmitting, and tracking project commitments. For projects with a PD&E Study, the PD&E Project Manager uses PSEE to transmit commitments to the Design Project Manager (see ***Section 22.2.3.1***). The ***PCR*** is generated using PSEE.

22.2 PROCEDURE

Some projects may qualify for Efficient Transportation Decision Making (ETDM) screening in the Environmental Screening Tool (EST). ***Part 1, Chapter 2, Class of Action Determination for Federal Projects*** and Chapter 2 of the ***ETDM Manual, Topic No. 650-000-002*** list the qualifications for ETDM screening. Regardless of whether a project is screened, commitments must be documented in the Environmental Document.

22.2.1 Projects Not Qualifying for Screening

For transportation projects not qualifying for EST screening, commitments result from discussions and coordination with resource agencies, the public, and other stakeholders. Decisions and commitments must be documented in the Environmental Document and/or project file, and appropriately addressed through incorporation into the final design/construction plans. The commitments are entered in PSEE and a ***PCR*** can be generated as necessary:

1. **Type 1 Categorical Exclusion (CE)** - For these projects, complete a ***Type 1 Categorical Exclusion Checklist*** according ***Part 1, Chapter 2, Class of Action Determination for Federal Projects***. Include project commitments in the project file, and generate a ***PCR*** as detailed in ***Section 22.1.2***. The ***PCR*** is attached to the ***Type 1 Categorical Exclusion Checklist***.

2. **Non-Major State Actions (NMSA)** - Complete a ***Non-Major State Action Checklist*** (***Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery***). For these projects include project commitments in the project file, and generate a ***PCR*** as detailed in ***Section 22.1.2***. The ***PCR*** is attached to the ***Non-Major State Action Checklist***.

3. **Type 2 CE** - Some Type 2 CEs may not require screening through the EST. For these projects, commitments are documented on the ***Type 2 Categorical Exclusion Determination Form*** as if the project was screened. See ***Section 22.2.3.1*** for guidance on documenting Type 2 CEs. The ***PCR*** is prepared after approval of the Type 2 CE and is uploaded to the project file.

22.2.2 Projects Qualifying for Screening

For projects qualifying for EST screening, the proposed project is entered into a Planning or Programming Screen Event according to the ***ETDM Manual, Topic No. 650-000-002***. These screening events initiate project-level coordination with the regulatory agencies and includes a Preliminary Environmental Discussion (PED) (***Part 1, Chapter 3, Preliminary Environmental Discussion and Advance Notification***).

Environmental Technical Advisory Team (ETAT) members review the proposed project and respond with comments. The ETAT members may provide recommendations to FDOT for minimizing potential environmental impacts. It is recommended that commitments not be made during ETDM Screening since the project is preliminary and many changes may occur as the project advances and through the PD&E phase.

22.2.3 Project Development and Environment Phase

During the PD&E phase, FDOT should review the ***Programming Screen Summary Report*** to consider ETAT member comments and recommendations. The Project Manager is responsible for collecting and maintaining correspondence with agencies/organizations (e.g., letters, emails), and documenting coordination on project commitments as part of the project file. The Project Manager adds commitments to PSEE after approval of the Environmental Document.

Agency or stakeholder recommendations, if any, made during ETDM screening are in the "General Project Recommendations" section of the ***Programming Screen Summary Report***. The District reviews the recommendations during the PD&E phase to determine whether they continue to be applicable to the project. This may require contacting the ETAT member that made the recommendation to discuss whether it is still applicable. If,

through coordination, it is determined that a recommendation is no longer applicable, the Environmental Document should include a thorough discussion of the coordination with the ETAT member that led to this decision.

During the PD&E Study, FDOT may need to make project commitments to resource agencies or other stakeholders to address social, cultural, physical natural or engineering issues and advance the project. See ***Section 22.1.1*** for guidance on preparing a project commitment. Once a Project Manager has identified a necessary commitment, they are responsible for coordinating with the District Design Office, Construction Office, District Permit Coordinator, ROW Office, or Maintenance Office to ensure the feasibility/viability of the commitment, before agreeing on the commitment.

22.2.3.1 Documenting Commitments

All commitments established as a result of the PD&E Study and/or agency coordination must be documented in the Commitments section of the Environmental Document (Type 2 CE, Environmental Assessment, Environmental Impact Statement, or State Environmental Impact Report). The Commitments section should include a list of commitments made, the agreed upon language, and the stakeholder(s) involved. It should include any commitments made through coordination with agencies/organizations during the PD&E phase or as a result of public involvement activities. Commitments may also be identified in associated technical reports (e.g., ***Natural Resource Evaluation***, ***Noise Study Report***, ***Memorandum of Agreement***). The PD&E phase Project Manager should include these commitments in the "Commitments" section of the final Environmental Document and enter them into the PSEE Commitment Module in accordance with ***Section 22.1.2***, so they can be transmitted to the Design and Construction Offices according to ***Procedure No. 650-000-003, Project Commitment Tracking***. The ***PCR*** is prepared after approval of the Environmental Document and uploaded to the project file.

22.2.4 Re-evaluation

The status and/or changes to an environmental commitment after approval of the Environmental Document must be documented in a re-evaluation as per ***Part 1, Chapter 13, Re-evaluations***. Re-evaluations prepared through this process should provide a status update of the commitments by attaching the ***PCR*** in the "Commitment Status" section of the ***Re-evaluation Form***. Commitments can be made after an Environmental Document has been approved. These new commitments typically arise from subsequent agency negotiations or public involvement activities. They should be discussed in the appropriate resource section of the ***Re-evaluation Form*** and listed as a new commitment in the Commitments section. The new commitments are also added to the ***PCR*** using PSEE. The District Environmental Office uses the PSEE Commitment Module to generate the ***PCR*** to attach to the Re-evaluation.

22.2.5 Design Phase

During Design, the Design Project Manager is responsible for reviewing PSEE for project commitments made during the PD&E phase. The Design Project Manager should coordinate with the PD&E Project Manager, District Environmental Office, and the Permit Coordinator as appropriate to ensure that project commitments are understood. The Design Project Manager should ensure that commitments impacting a project's design are completed or accurately incorporated in the contract documents. The Design Project Manager should also coordinate with the Permit Coordinator to ensure commitments related to permit conditions (e.g., species protection measures) are addressed.

The Design Project Manager is responsible for updating the status of commitments during the Design phase. The status update of the commitment in the PSEE Commitment Module is typically handled by the Design Project Manager but in some Districts, this may be completed by the Environmental Office. The Design Project Manager should ensure that the updated ***PCR*** is transmitted to the ROW or Construction Project Manager, as appropriate.

The District should have a clearly established protocol in place to re-engage the Environmental Office or others to address project commitments, including any new commitments identified during Design phase. It is helpful to discuss commitments during project coordination meetings or hand off meetings, and prior to Construction phase to ensure commitments are addressed.

22.2.6 Right of Way Phase

During the ROW phase, the District Right of Way Office is responsible for coordinating with the Design Project Manager for potential new commitments identified in the ROW phase. Once Commitments are determined to be appropriate, the Right of Way Office enters the Commitments in the Right of Way Management System (RWMS) for tracking with PSEE.

The District should have a clearly established protocol in place to re-engage the Environmental Office or others to address project commitments including any new commitments identified during the ROW phase. It is helpful to discuss commitments during project coordination meetings or hand off meetings, and prior to the Construction phase to ensure commitments are addressed.

22.2.7 Construction Phase

The Project Manager in the Construction phase is responsible for reviewing the ***PCR*** for project commitments to ensure they are included in the project's contract documents to be implemented during construction, as appropriate. During construction, it is the Project Manager's responsibility to ensure that the project is constructed according to the project

design plans and that all the project commitments found in the ***PCR*** are met and documented prior to final acceptance.

The District should have a clearly established protocol in place to re-engage the Environmental Office or others to address project commitments as needed during construction.

During Construction Final Acceptance, the Project Manager is responsible for ensuring that the commitments were addressed, including commitments specified in the contract plans, permit conditions, and any new commitments made during construction. This is handled by the Construction Office but may require Environmental Office involvement (***Chapter 8 of the Construction Project Administration Manual, Topic No. 700-000-000***).

22.2.8 Operation and Maintenance Phase

Most commitments are addressed during Design or Construction phases. Commitments are rarely fulfilled during the Operation and Maintenance phase. However, in the rare instance when a commitment is transmitted to the Operation and Maintenance phase, the Project Manager is responsible for reviewing the ***PCR*** for project commitments to ensure project commitments are fulfilled. An example of a PD&E commitment that could impact the Operation and Maintenance phase is a commitment to maintain landscaping in a specific manner which may differ from standard FDOT Maintenance requirements.

22.3 REFERENCES

American Association of State Highway and Transportation Officials. 2006. Practitioner's Handbook. Tracking Compliance with Environmental Commitments/ Use of Environmental Monitors

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

FDOT. Construction Project Administration Manual, Topic No. 700-000-000. https://www.fdot.gov/construction/manuals/cpam/cpammanual.shtm

FDOT. Efficient Transportation Decision Making Manual, Topic No. 650-000-002. http://www.fdot.gov/environment/pubs/etdm/etdmmanual.shtm

FDOT. Local Agency Program Manual, Topic No. 525-010-300. https://www.fdot.gov/programmanagement/LAP/LAP-TOC.shtm

FDOT. Project Commitment Tracking, Topic No. 650-000-003. https://pdl.fdot.gov/

FDOT. Standard Specifications for Road and Bridge Construction. https://www.fdot.gov/programmanagement/implemented/specbooks/default.shtm

22.4 HISTORY

1/12/2000, 1/5/2009, 2/23/2016, 6/14/2017: NEPA Assignment and re-numbering from Part 2 Chapter 32, 1/14/2019, 7/1/2020, 7/1/2023

PART 2 CHAPTER 23

STATE-OWNED UPLAND CONSERVATION LAND COORDINATION

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PART 2 CHAPTER 23

STATE-OWNED UPLAND CONSERVATION LAND COORDINATION

23.1 OVERVIEW

Pursuant to ***23 United States Code (U.S.C.) § 327*** and the implementing Memorandum of Understanding (MOU) executed on May 26, 2022, the Florida Department of Transportation (FDOT) has assumed and Federal Highway Administration (FHWA) has assigned its 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 (***NEPA*** Assignment). In general, FDOT's assumption includes all highway projects in Florida which source of federal funding comes from FHWA or which constitute a federal action through FHWA. ***NEPA*** Assignment includes responsibility for environmental review, interagency consultation and other activities pertaining to the review or approval of ***NEPA*** actions. Consistent with the 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).

This chapter provides guidance for projects requiring the use of state-owned upland conservation lands which are managed for conservation, outdoor resource-based recreation, or archaeological or historic preservation. These lands are held by the Board of Trustees of the Internal Improvement Trust Fund (TIITF), which is also referred to as the Board of Trustees (BOT).

The TIITF is responsible for the acquisition, administration, management, control, supervision, conservation, protection and disposition of all land owned by the state or any of its agencies, departments, boards or commissions with specific exclusions provided in ***Section 253.03, Florida Statutes (F.S.)***, such as land held for transportation facilities, transportation corridors, and canal rights of ways.

Administratively supported by the Florida Department of Environmental Protection (FDEP), the Acquisition and Restoration Council (ARC) administers the review and approval of management plans and land uses for all state-owned conservation lands, which includes overseeing the process of review of acquisition of interests (i.e., easements) on these lands and recommending approvals to the BOT. This includes acting on FDOT’s applications for easements on such lands.

Additionally, the TIITF has delegated some of its authority to FDEP staff to handle other forms of authorization to allow local, state and federal governmental agencies to use state-owned uplands provided that the requested action does not prevent the intended use of the property.

To acquire an upland interest in state-owned conservation lands, the District will need to follow the procedure outlined in ***Section 23.2***. State-owned conservation lands may include uplands or sovereignty submerged lands. Sovereignty submerged lands, sometimes referred to as sovereign submerged lands, are those lands beneath navigable freshwater or tidally influenced waters for which Florida acquired title in 1845 by virtue of statehood and which have not been conveyed out of state ownership. This chapter only addresses use of upland state-owned conservation lands. For the FDEP Division of State Lands' (DSL) purposes, uplands are defined as those lands above the mean high water line (or ordinary high water line), title to which is vested in the TIITF of the State of Florida. Use of state-owned submerged lands are addressed in ***Part 1, Chapter 12, Environmental Permits***.

To request authorization to use state-owned uplands temporarily for construction, maintenance, or other purposes, the District will need to follow the procedure outlined in this chapter under ***Section 23-15***.

23.1.1 Programs, Statutes, and Policies

23.1.1.1 Land Acquisition Funds

In 1963, the State of Florida initiated land acquisition programs, which established funds to purchase land for both recreation and conservation use. The TIITF is responsible for purchasing these lands under the various acquisition programs.

23.1.1.2 Specific Programs

In addition to TIITF owned conservation land, the following programs were developed for land acquired either directly or with matching state lands conservation program funds, and are subject to the provisions described in this Chapter:

- Land Acquisition Trust Fund (LATF)
- Environmentally Endangered Lands (EEL)
- Conservation and Recreation Lands (CARL)
- Save our Coast (SOC)
- Save Our Rivers (SOR)
- Preservation 2000 (P-2000)
- Florida Communities Trust (FCT)
- Florida Forever (FF)

Lands acquired under these programs may be individually managed by one of several state resource agencies or their associated offices, or local governments with programs using state conservation land funds, such as the Miami-Dade County EEL Program, which have established conservation areas using state conservation funds; examples of State Land Management agencies include:

- FDEP
    - Office of Resilience and Coastal Protection
    - Division of Recreation and Parks
- Florida Department of State
    - Florida Division of Historical Resources (FDHR)
- Department of Agriculture and Consumer Services (DACS)
    - Florida Forest Service (FFS)
- Florida Fish and Wildlife Conservation Commission (FWC)
- Water Management Districts

23.1.1.3 Statutory Authority

- **Section 253.001, F.S.**, reaffirms the BOT's existence and its duty to hold lands in trust for the use and benefit of the people of the state pursuant to the ***Florida Constitution***.

- **Section 253.02, F.S.**, establishes a board of four trustees, consisting of the Governor, the Attorney General, the Chief Financial Officer, and the Commissioner of Agriculture, to manage the lands and administer the funds associated with the sale and management of the lands. This statute authorizes the BOT to grant easements on state-owned conservation lands for electric transmission and distribution facilities, and to set up a provision for fee simple title exchange to manage impacts. This statute was the basis for BOT developing its policy for all linear facilities, which includes transportation projects.

- **Section 259.035, F.S.**, created the ARC, an entity that maintains review and advisory authority over lands designated as conservation land and/or land acquired under the land acquisition programs described above. The ARC is comprised of 10 voting members, as listed:

- Four (4) appointees from the Governor of which three (3) shall be from related scientific disciplines and one shall have specific land management experience;
- One (1) appointee from Executive Director of FWC;
- One (1) appointee from Commissioner of DACS;
- Secretary of the FDEP (or designee);
- Director of the FFS (or designee);
- Director of the FDHR (or designee);
- Executive Director of the FWC (or designee).

The statute also defines the FDEP staff as primary support. The ARC oversees the evaluation, selection and ranking of state land acquisition projects on the Florida Forever priority list. In addition, the ARC administers the review and approval of management plans and land uses for state-owned conservation lands.

- **Section 253.77, F.S.**, states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the state, the title to which is vested in the TIITF under this chapter, until the person has received the required lease, license, easement, or other form of consent authorizing proposed use.
- **BOT Delegation Reaffirmation/Deletions/Modifications**, approved by the TIITF on September 29, 2015, provides in DSL-24: wherein the BOT has granted FDEP delegations of authority to "approve, execute, and modify leases, subleases, easements, use agreements, permits, and management agreements, and other forms of authorization to use state-owned uplands to local, state, and federal governmental bodies, and public utilities provided that any such action not inhibit any intended use of the property. If the land is state-owned conservation or recreation lands, such approval may not be granted if the use is incompatible with or contrary to the purposes for which the land was purchased or would diminish the ecological, conservation, or recreational values of the lands." ***[ED-19; Section 253.034, F.S.]***
- **Chapter 18-2, Florida Administrative Code (F.A.C.)**, provides for the policies, standards and criteria for evaluating requests to use state-owned uplands through specific forms of consent such as use agreements or letters of authorization.

23.1.1.4 Policies

The following policies were established by the TIITF to provide criteria by which an easement can be granted to linear facilities (such as FDOT roadway corridors) as

authorized under ***Section 253.02, F.S.***, and to address conditions in which the TIITF can impose minimization or mitigation of impacts to state-owned conservation lands originally established by land acquisition programs listed in ***Section 23.1.1.2***. These policies have been further codified in ***Chapter 18-2, F.A.C. – Management of Uplands Vested in the Board of Trustees***.

The ***Policy for Incompatible Use of Natural Resource Lands*** approved by the TIITF on August 9, 1988, applies to linear facilities including public transportation corridors. This policy describes considerations taken by the TIITF in authorizing use of state-owned conservation lands. It describes conditions the TIITF may impose to minimize or mitigate unavoidable adverse impacts to the use of the natural resource and public enjoyment of the use of such lands, including requiring the acquisition of mitigation lands adjacent to or within the boundaries of the affected natural resources. In exchange for such easements ***Section 253.02(2)(b)4, F.S.***, provides that the applicant shall provide additional compensation by vesting fee simple title in the TIITF to other available uplands that are 1.5 times the size of the easement acquired by the applicant. Parcels acquired on behalf of TIITF must have an economic, ecological, and recreational value that is at least equivalent to the value of the lands under the proposed easement. Priority for replacement uplands shall be given to parcels identified as inholdings and additions to public lands and land on a Florida Forever land acquisition list by the Land Management Agency of the affected natural resource.

Also, if the use of the land is to be located on state forests, parks, EEL, CARL, LATF, or other state natural resource lands, it must provide a "net positive benefit" to the particular lands on which the use will be located; and if the use is to be located on EEL lands, it must be in strict accord with the public purpose for which the land was acquired. "Net positive benefit" is defined as follows:

> …means any effective action or transaction which promotes the overall characteristics of a particular parcel of natural resource lands. It is compensation over and above the market value of the affected parcel to offset any requested use or activity which would preclude or affect, in whole or in part, current or future uses of the natural resource lands. Net positive benefit shall not be solely monetary compensation but shall include mitigation and other consideration related to environmental or management development or restoration that produces a new or modified environment that is more productive or is ecologically more valuable.

The policy, ***Use of Natural Resource Lands by Linear Facilities As Approved by The Board of Trustees of the Internal Improvement Trust Fund on January 23, 1996*** describes measures to be taken when there is no practicable alternative to the use of the land by minimizing adverse impacts to natural resource lands where applicable and providing mitigation.

For mitigation, the policy requires the applicant pay the TIITF an amount not to exceed fair market value of the interest acquired in the parcel on which the linear facility and

related appurtenances will be located. In addition to the amount for the land, the applicant must also provide the managing agency that measure of additional money, land, or services necessary to offset the actual adverse impacts reasonably expected to be caused by the construction, operation, and maintenance of the linear facility and related appurtenances. Such impact compensation will be calculated from the land managing agency's timely presentation of documented costs which will result from the impacts of the proposed project.

Generally, the lands purchased under the Incompatible Use policy do not substitute for additional compensation under the Linear Facilities policy, and FDOT will have to provide additional compensation to the Land Management Agency, as well as a "net positive benefit" as defined in ***Rule 18-2.017(31), F.A.C.***, for an easement across state land which is managed for the conservation and protection of natural resources under the Incompatible Use policy. The amount paid by the FDOT for the additional compensation will be 1-2 times the appraised value of the impacted lands. Note however; avoidance and minimization of impacts is coordinated by the District with the Land Management Agency before application to the TIITF.

23.2 PROCEDURE

23.2.1 Identification of State-Owned Conservation Lands and Applicability

The District should identify potential use of state-owned conservation lands early in the development and environmental review of a project, regardless of the type of Environmental Document being prepared and regardless of whether it requires a federal or state Environmental Document.

Many of these lands are available within the Efficient Transportation Decision Making (ETDM) Environmental Screening Tool (EST) by searching for "ARC" in the Map Viewer. District coordination with the Land Management Agency or the FDEP Bureau of Public Land Administration (BPLA) is appropriate to confirm that the land in question has been acquired utilizing the acquisition program(s) listed in ***Section 23.1.1.2*** or is currently designated as TIITF-owned conservation land.

These lands typically function as conservation areas, recreation areas, parks, and wildlife refuges. Other environmental regulations may apply to the impacted state-owned conservation land, which must be addressed during the project study. These other laws/regulations are further discussed in ***Section 23.4***.

The District is expected to keep OEM informed of potential use of state-owned conservation lands and its intent to consult with the Land Management Agency at the local and headquarters levels and the ARC (through coordination with the FDEP). The District should conduct early coordination with the appropriate Land Management Agency to confirm that state-owned conservation land potentially impacted by a project was

originally acquired through the acquisition programs listed in ***Section 23.1.1.2***, or it is designated as a conservation land by the TIITF and document this coordination in the project file. If the lands are anticipated to be impacted, and are subject to review by the BOT, additional written coordination will be required and documented in the project file as described in ***Section 23.2.2.1***. Additionally, when these lands are within the project study area, the District should describe this in the Environmental Document, including the presence of these lands, the level of involvement and results of associated coordination.

23.2.2 Coordination

23.2.2.1 Coordination Between FDOT and the Land Management Agency

If during the early stages of the transportation project, it is determined that the FDOT will directly impact state-owned conservation lands, the District should coordinate further with the Land Management Agency throughout the Project Development and Environment (PD&E) and Design phases, and go through the process of evaluating and documenting avoidance, minimization, and mitigation considerations to achieve "no net harm" to the state-owned conservation land. This coordination process is provided in ***Figure 23-1***. Depending on the project and complexity of involvement with the state-owned conservation land, the time needed to coordinate with the Land Management Agency may vary significantly. Following initial communication with the Land Management Agency, if warranted, the District prepares correspondence with a detailed summary for consideration by the Land Management Agency, which includes a description of coordination conducted, a description of anticipated impacts and justification and a summary of the avoidance, minimization and mitigating considerations which the Land Management Agency may use in crafting a letter of no objection and/or determination of net positive benefit.

Ultimately, an official letter from the Land Management Agency to the District should be obtained which summarizes the steps taken to achieve "no objection" to the state-owned conservation land. Proposed mitigation measures to obtain a “net positive benefit” determination by the Land Management Agency will vary depending on the property, its use, and the potential unavoidable impact. These should be negotiated and may include financial contribution, additional right of way acquisition or physical enhancement of property features, appropriate to offset or restore the impacted portions of the land. The District should also coordinate with appropriate FDOT functional area representatives: for example, District Right of Way Office or Office of the General Counsel, in establishing appropriate proposed mitigation measures.

23.2.2.2 Coordination between FDOT, Land Management Agency, and Bureau of Public Lands Administration

The FDEP DSL, BPLA administers the application process for obtaining easements on state conservation lands. Upon initiation of coordination with the Land Management

Agency, the District should also contact the BPLA to coordinate additional steps needed to obtain an easement to utilize these lands.

Minimally, upon receipt of a letter from the appropriate Land Management Agency, the District will prepare an ***Upland Easement Application*** and include supplemental information (***Section 23.2.3.1.2***). The Land Management Agency or the BPLA provides the narrative required in the ***Upland Easement Application***. In cases of larger impacts to state-owned conservation lands, additional information to the ***Upland Easement Application*** may be provided in a ***State Lands Impact Report (SLIR)***. See ***Section 23.2.3.1.3***. The BPLA reviews the package for completeness and when complete, will prepare an item for presentation at a regularly scheduled ARC meeting. Contact information for the FDEP office which handles impacts to state-owned conservation lands and information on submitting the ***Upland Easement Application*** is provided in ***Figure 23-2***.

23.2.2.3 District Coordinates with OEM Director

The District should communicate with the OEM Director regarding the anticipated impact to state-owned conservation lands, and the need to fulfill ***Upland Easement Application*** requirements. This communication may be accomplished through the District's assigned OEM Project Delivery Coordinator (PDC). OEM will inform FDOT's Office of General Counsel (OGC) in Central Office as appropriate.

23.2.2.4 Mitigation

The District should coordinate with the Land Management Agency and BPLA as appropriate and determine potential impacts to the state-owned conservation land and measures to achieve "net positive benefit" through the avoidance, minimization, and/or development of any enhancement features that will minimize harm to state-owned conservation land (***Section 23.2.2.1***).

Based upon these proposed measures, as warranted, the District will coordinate with the Land Management Agency and begin early preparation of a MOA if necessary. The MOA would formalize FDOT's mitigation commitments for the proposed impact, and/or the necessary funds (or land donation) that provide mitigation.

23.2.3 Upland Easement Application, ARC Agenda Item Package and Memorandum of Agreement

The District prepares an ***Upland Easement Application*** for preliminary staff review and comment by the Land Management Agency and BPLA and submits it to the BPLA. See ***Figure 23-2*** for submittal information. Under ***Rule 18-2.109(4), F.A.C.***, agencies do not have to pay a non-refundable application fee.

Once the ***Upland Easement Application*** is accepted, the BPLA assembles and submits an ARC Agenda Item Package to the ARC Staff Director. At this point, the ARC Staff

Director will be responsible for scheduling a project review at a regularly scheduled meeting of the ARC. The MOA, when warranted, is developed after the ***Upland Easement Application*** is completed and after the ARC approval of the impact to state-owned conservation lands.

23.2.3.1 ARC Agenda Item Package

In preparation of the ARC Agenda Item Package, the BPLA staff will consider the ***Upland Easement Application*** and the supplemental information provided by the Land Management Agency. Coordination, with the Land Management Agency having jurisdiction over the subject property, is summarized in the ***Upland Easement Application*** narrative or when extensive information is needed, it may be provided in a ***SLIR*** prepared by the District. Additionally, correspondence with the Land Management Agency regarding net positive benefit recommendations should be attached and described in the Upland Easement Application.

23.2.3.1.1 Upland Easement Application

The following items are incorporated into the ***Upland Easement Application***. This list only includes items that are relevant to FDOT projects. The most recent BPLA application form can be found on the ***FDEP Website*** (***Section 23.5***):

1. Requested Action
2. Authorization Requested
3. Type of Entity Requesting Authorization
4. Contact and Property Information
5. Descriptive Narrative describing the intended use of the property. Narrative shall include the following:
    a. The requested term, which shall not be greater than is necessary to provide for the reasonable use of the state land and shall not be greater than the parent lease term.
    b. The need for the proposed use of state lands and written evidence that all other alternatives to the use of state lands have been denied.
    c. Projected revenue to be generated from the use of state lands.
    d. Whether the intended use is public or private and the extent of public access for such use.

e. A statement describing the public benefits that will occur as a result of the proposed use of state lands.

6. A written statement from the managing agency approving the proposed action, along with a statement describing how the proposed easement conforms to the management plan or land use plan (when the easement application involves state land which is under lease or sublease).

7. Required Attachments- The following must be completed and attached for all types of authorization requests:

   a. A recent aerial photograph with the boundaries of the proposed project.

   b. A county tax map identifying the parcel(s).

   c. A letter from the applicable local planning agency stating that the proposed use of state lands is consistent with the local government comprehensive plan.

   d. A certified survey or sketch of description, which contains the boundaries, legal description(s), and acreage of the property.

23.2.3.1.2 Supplemental Information for the Upland Easement Application

There are recommended items to support and provide the narrative for the ***Upland Easement Application*** that are the responsibility of the BPLA and the Land Management Agency. The District should coordinate the preparation of the ***Upland Easement Application*** and the following supplemental information with the the Land Management Agency prior to submittal:

1. Description of when and under what program or fund the parcel under consideration was acquired (i.e., EEL, LATF), or donated.

2. Description of the purpose of the parcel's acquisition (P-2000 or FF goals and criteria or similar purpose descriptions) or donation and restrictions or conditions of use that apply to the parcel, if any.

3. Description of the current level of public recreational use or public access of the parcel.

4. Description of the natural resources, land cover, vegetation, habitat, or natural community, if any, that are currently present on the parcel.

5. Description and list of the imperiled and other wildlife species, if any, that occur or have use of the parcel. If appropriate, any species survey commitments by FDOT prior to construction.

6. Description and list of historical and/or archeological resources, if any, that occur or have the potential of occurring on the site.

7. Formal alternative siting analysis (i.e., the PD&E alternatives analysis) that includes a description and assessment of other potential alternative sites, and why they are not feasible or practicable alternatives.

8. Assessment of the impacts the proposed alternative use will have on the natural/historical/archeological/recreational resources, if any, as well as on the current public use, and purpose for the site or parcel.

9. Assessment of the potential impacts on the larger area of conservation lands the parcel is located within (park, wildlife management area, forest trail), and on any surrounding conservation lands, if any.

10. Assessment of how the proposed package of consideration and "net positive benefit" for the requested alternative use of the parcel [such as the general standard requirement for replacement land (depending on parcel's size)], will offset the impacts and benefit the larger area of conservation lands (e.g., park, forest, wildlife management area, trail system) that the parcel is within and particularly how it will offset the impacts or benefit the natural/historical/archeological resources, habitat, and public recreational uses of the public conservation area the parcel is located within.

23.2.3.1.3 State Lands Impact Report

The ***SLIR*** is a detailed report which is prepared utilizing similar information gathered from the PD&E Study documents. The report further addresses the supplemental information to the ***Upland Easement Application*** described in ***Section 23.2.3.1.2***. Projects with PD&E Studies may have the necessary information available; however, projects without a PD&E Study may require additional information-gathering or analysis and additional time to prepare such information.

23.2.3.2 Scheduling ARC Meeting Agenda Item

Once the BPLA provides the ARC Agenda Item Package to the ARC Staff Director, then the item will be scheduled for the next available ARC meeting. The District should work closely with the BPLA during scheduling of the ARC agenda and inform the OEM PDC of these activities.

The ARC typically meets six times a year (February, April, June, August, October, and December); therefore, review duration can extend for 3-4 months. The Districts should

make sure that the ARC Agenda Item documents are finalized with the BPLA at least one month prior to the ARC meeting so that the item can be timely placed on the ARC Agenda and check with BPLA for correct meeting dates.

23.2.3.3 ARC Review of ARC Agenda Item Package

The ARC meetings are public meetings. The District advises the OEM Director of scheduled ARC meetings when an ***Upland Easement Application*** submitted by FDOT is under consideration. At an ARC meeting, either the District presents its request for an easement to the ARC or the BPLA may present the District's request, other stakeholders may present, the public may comment, and then the Council is expected to act on the information provided. FDOT Central Office representatives may attend as needed.

Depending on the nature and extent of the required use of the lands, the District may need to present during the ARC meeting. The PowerPoint presentation outlines the proposed project, avoidance/minimization measures, development of enhancement features, use of state-owned conservation lands, final mitigation proposed for impact to these state lands, and other background information pertinent to the review and approval of the application package. Project location maps and other exhibits will be helpful in explaining the proposed impact to such lands.

23.2.3.4 ARC Determination and Development of the MOA

After review of the ARC Agenda Item Package, the ARC will make the Linear Facilities Policy Determination in regard to the impact to the state-owned conservation lands. If the ARC does not approve the impact, they may defer concurrence to a future meeting, for another review, or defer to the BOT for approval.

If the ARC approves the application package, then the application is revised and finalized. If an MOA is necessary to memorialize those measures which have been conceptually agreed to by the Land Management Agency in issuance of its official letter to FDOT outlining the steps to achieve "net positive benefit", the Land Management Agency, the FDOT, and the TIITF would be signatories.

Depending on the mitigation proposal, there may be a need for the District to program appropriate funds within the Work Program to cover mitigation costs. This step is key to ensuring that available funds will be administered to project mitigation for the impacts to state-owned conservation lands.

23.2.3.5 Agencies sign MOA; FDEP Prepares Easement Document for FDOT Approval

After the ARC meeting and easement approval, the MOA, if necessary, is finalized and signed off on by all agencies pertinent to the MOA.

In addition, BPLA will prepare an easement document for FDOT review and approval. Under ***Rule 18-2.020(4)(d), F.A.C.***, public easements are not subject to an easement fee.

Once both agencies have signed the document, FDOT records the easement with the Clerk of Courts.

23.2.3.6 Other Upland Authorizations for Temporary Use of State-Owned Lands

For projects that require a **temporary use** of state-owned uplands for the purpose of construction or maintenance activities, ***Chapter 18-2, F.A.C.***, provides for different types of authorizations that FDOT may apply for through the FDEP DSL. There are two types of approval that may be useful to FDOT that have been delegated to FDEP staff. These authorizations are:

1. The approval, execution and modification of use agreements and

2. letters of authorization to use state-owned uplands to local, state, and federal governmental bodies.

These authorizations are allowable as long as the use is not incompatible with or contrary to the purposes for which the land was purchased, or will diminish the ecological, conservation, or recreational value of the lands. These two types of authorization do not require appraisals or application fees.

23.2.3.6.1 Use Agreements

Use Agreements may be applicable when the use of management of uplands does not require a lease, sublease, easement, or other similar form of approval. This type of agreement is for a specific purpose and a specific time, and it does not create a title interest in those uplands. These agreements are limited to a term of five years.

Appraisals are not required for Use Agreements. The consideration for Use Agreements shall be negotiated with the FDEP DSL based on the type of activity.

23.2.3.6.2 Letters of Authorization

A Letter of Authorization allows the applicant the right to erect specific structures or conduct specific activities on state-owned uplands. This type of authorization is issued upon receipt by the FDEP DSL of a written request for an incidental, one-time use, and a determination that the requested activity will not result in a permanent alteration of the state-owned uplands and will not adversely affect the management of the land.

Letters of Authorization contain a condition that the applicant will accept all liability associated with the proposed use and shall be countersigned by the applicant. Appraisals

are not required for Letters of Authorization. Consideration for this type of authorization shall be negotiated based on the type of activity.

23.2.3.6.3 Procedures to Obtain

The District will prepare an FDEP ***Supplemental Questionnaire for Land Use Application, FDEP Form DRP-081***, and include additional information as required by the application. This application is submitted to FDEP as provided in ***Figure 23-2***. This application requires information on identifying the property, proposed use, a location map, and information on avoidance, impacts, and minimization.

23.3 ENVIRONMENTAL DOCUMENTATION

The documentation required for each type of Environmental Document is outlined below:

Type 1 Categorical Exclusion (Type 1 CE) - Identify in the ***Type 1 Categorical Exclusion Checklist*** (***Part 1, Chapter 2, Class of Action Determination for Federal Projects***) if there are state-owned conservation lands being acquired in the project area that are subject to review and approval by the ARC. Include a summary of impacts and coordination (as appropriate) under the Right of Way issue header and include any correspondence in the project file. Final decisions by the ARC and a copy of the MOA if applicable, should be referenced and included in the project file.

Non-Major State Action (NMSA) - Identify in the ***Non-Major State Action Checklist*** if there are state-owned conservation lands being acquired in the project area that are subject to review and approval by the ARC. Include a summary of impacts and coordination (as appropriate) under the Right of Way issue header and include any correspondence in the project file. Final decisions by the Council and MOA if applicable, should be referenced and included in the project file.

Type 2 Categorical Exclusion (Type 2 CE) - The Cultural Resources/Recreational Areas and Protected Lands section of the ***Type 2 Categorical Exclusion Determination Form*** should specify if state-owned conservation lands are present in the project area. If present, describe the state-owned conservation land subject to review by ARC in the comment box and summarize the outcome of coordination. Include correspondence in the project file. If final decisions by the ARC are made and the MOA is signed prior to Location and Design Concept Acceptance (LDCA), they should be referenced and attached.

Environmental Assessment (EA) and Environmental Impact Statement (EIS) - The discussion of impacts to state-owned conservation land should be included in the Recreational Areas and Protected Lands subsection of the Environmental Analysis Section of the Environmental Document. It should include a summary of the identification and impact to state-owned conservation land and the ARC review process. Correspondence during this process should be referenced in the Environmental Analysis section, and added to the StateWide Environmental Project Tracker (SWEPT) project file.

If final decisions by the ARC and MOA are made prior to LDCA, they should be included in the Appendix.

State Environmental Impact Report (SEIR) - The discussion of impacts to state-owned conservation lands should be included in the Recreational Areas and Protected Lands Section of the SEIR. It should include a summary of the identification and impact to state-owned conservation land and the ARC review process. Correspondence during this process should be included in the SWEPT project file. If final decisions by the ARC are made and the MOA is completed prior to LDCA, they should be attached.

State-owned conservation land commitments, including commitments in the MOA, are documented in the Commitments section of a Type 2 CE, EA, EIS, or SEIR. See ***Part 2, Chapter 22, Commitments*** for more detail on how to prepare this section. Commitments should be documented according to ***Procedure No. 650-000-003, Project Commitment Tracking***.

Changes in impacts to state-owned conservation land after approval of the Environmental Document must be documented per ***Part 1, Chapter 13, Re-evaluations***.

23.4 OTHER APPLICABLE LAWS AND REGULATIONS

When transportation projects affect state-owned conservation lands, other state or federal provisions may apply. In addition to assessment of potential environmental impacts within the project area as further described through-out the ***PD&E Manual***, it should be noted that other, similarly-related federal laws may need to be considered, as applicable, concurrent with ARC coordination.

Because of ***NEPA*** Assignment, FDOT has assumed FHWA responsibilities for ***Section 106*** coordination, and has the authority to administer most of the anticipated ***Section 4(f)*** requirements. Examples of such additional requirements are listed below.

- ***Section 4(f)*** of the ***U.S. Department of Transportation (USDOT) Act of 1966***. Most components are administered by FDOT, in coordination with the resource owner/manager. FHWA coordination is necessary for constructive use and certain other parameters. See ***Part 2, Chapter 7, Section 4(f) Resources***, for additional detail.

- ***Section 6(f)*** of the ***Land and Water Conservation Fund Act***. This refers to a federal funding program which provides recreation and conservation funds to states for use in the purchase and development of parks, recreation areas, and refuges. See ***Part 2, Chapter 7, Section 4(f) Resources***, for additional detail.

- ***Section 106*** of the ***National Historic Preservation Act of 1966***, which is now administered by FDOT and involves coordination with the State Historic Preservation Office (SHPO) and potentially with the Advisory Council on Historic

Preservation. See ***Part 2, Chapter 8, Historical and Archeological Resources***, for additional detail.

23.5 REFERENCES

BOT of IITF. Policy; Incompatible Use of Natural Resource Lands, August 9, 1988

BOT of IITF. Policy; Use of Natural Resource Lands by Linear Facilities, January 23, 1996

Chapter 18-2, F.A.C., Management of Uplands Vested in the Board of Trustees

Chapter 253, F.S., State Lands

Chapter 259, F.S., Land Acquisitions for Conservation or Recreation

First Renewal of the Memorandum of Understanding 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, May 26, 2022. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/environment/pubs/nepa_assign/fdot-327-first-renewal-mou-for-comment.pdf?sfvrsn=202c70b4_2

FDEP. Acquisition and Restoration Council Website. https://floridadep.gov/lands/environmental-services/content/acquisition-and-restoration-council-arc

FDEP. Memorandum. BOT Delegations Reaffirmation/Deletions/Modifications, September 29, 2015

FDEP. Supplemental Questionnaire for Land Use Applications, FDEP Form DRP-081 (Effective 06-20-2014, revised 06-28-2019). https://floridadep.gov/sites/default/files/06.2019%20DRP_081_UPDATED_0.pdf

FDEP. Upland Easement Application (Land Lease Application). https://floridadep.gov/lands/bureau-public-land-administration/content/uplands-management

FDOT. Project Commitment Tracking, Procedure No. 650-000-003. https://pdl.fdot.gov/

23.6 HISTORY

7/1/2020: New chapter named Acquisition Restoration Council (ARC) Coordination, 7/1/2023: Addition of upland authorizations for temporary use of State-owned lands and re-named State-owned Upland Conservation Land Coordination

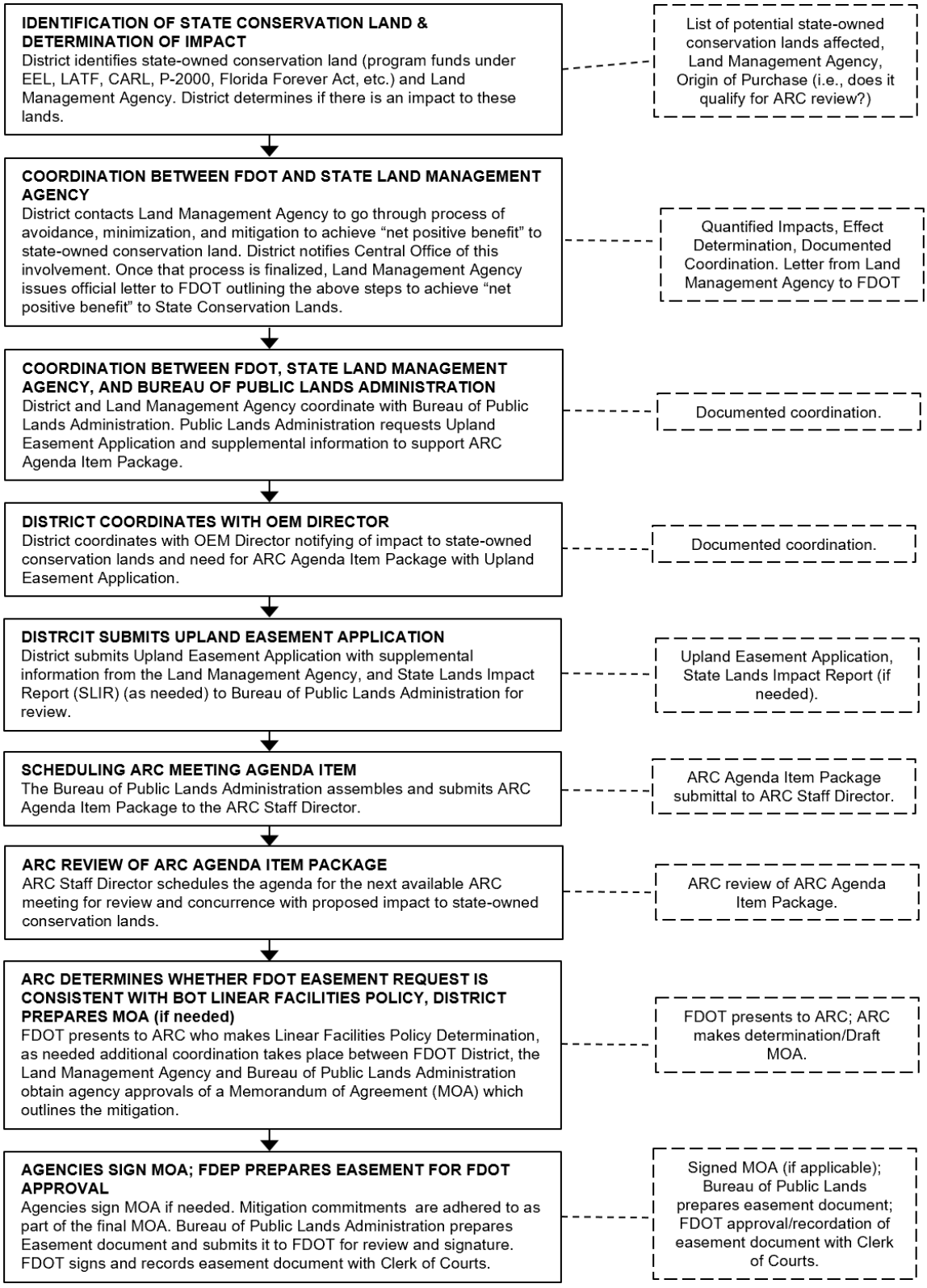

Figure 23-1 FDOT Coordination Process: Acquisition and Restoration Council

FDEP office which handles impacts to state-owned conservation lands:

Bureau Chief, Bureau of Public Lands Administration
Department of Environmental Protection
3900 Commonwealth Boulevard, MS 100
Tallahassee, Florida 32399-3000

Upland Easement Applications:

Completed applications including required attachments should be electronically submitted to: Upland.Applications@dep.state.fl.us

If unable to submit via email a hardcopy may be mailed to:

Department of Environmental Protection
Division of State Lands
Bureau of Public Land Administration
3800 Commonwealth Boulevard, MS 130
Tallahassee, Florida 32399-3000

Use Agreements and Letters of Authorization:

Completed applications including required attachments should be electronically submitted to: OPP.Applications@floridadep.gov

If unable to submit via email a hardcopy may be mailed to:

Department of Environmental Protection
Office of Park Planning
Land Administration Section
3800 Commonwealth Boulevard, MS 525
Tallahassee, Florida 32399-3000

Figure 23-2 Contact and Application Submittal Information