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PART 2, CHAPTER 1

DOCUMENT FORMAT AND TABLE OF CONTENTS

1.1 OVERVIEW

This chapter discusses the format and table of contents for Environmental Documents.

1.2 PROCEDURE

1.2.1 Standard Document Format

1. Text: Document text is written in the portrait not landscape page format. Line spacing may be single or double spaced and the document may be printed using one or both sides of the paper.

2. Cover Page: Cover page samples for Environmental Assessments (EAs) and Environmental Impact Statements (EISs) are provided in ***Part 2, Chapter 2, Cover Page***. Consultant logos should not be included on the cover page, or in any documents.

3. Pages will be numbered with the exception of the Appendix which should be alphanumeric. Page numbers should be centered at the bottom of the page.

4. The type of print used should be of adequate size and style to be easily read, no less than 11 pt. font.

5. Documents should be composed to convey to the reader, in understandable terms, the composition of the project and the extent of its impact on the environment.

6. Highly complex findings should be conveyed in an understandable manner.

1.2.2 Type 2 Categorical Exclusion

The Type 2 Categorical Exclusion (Type 2 CE) documentation is the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11*** (***Part 1, Chapter 5, Type 2 Categorical Exclusion***); however, support material may be attached or provided as a separate report. The support material is referenced in the document. The Type 2 CE documentation also includes the ***Preliminary Engineering Report*** (***Part 1, Chapter 4, Project Development Process***) and public hearing transcript, if applicable.

1.2.3 Environmental Assessment

The cover pages for an EA, or an EA with a ***Section 4(f)*** Evaluation, are provided in ***Part 2, Chapter 2, Cover Page***.

The EA must be developed with the following format and Table of Contents:

TABLE OF CONTENTS

Project Description and Purpose and Need

Alternatives Considered

Impacts

Comments and Coordination

Commitments

List of Tables

List of Figures

Appendix

Subheadings for appropriate sections of the document are added as required in ***Part 1, Chapter 6, Environmental Assessment***.

On the Appendix page, a listing should be provided of all correspondence and other support material contained in the Appendix. All material contained in the Appendix must be numbered for ease in referencing. The organization of letters, etc. into federal, state, and local groupings, or by chronological order, or some other category, is up to the analyst. Provided below is a sample of the type of listing generally found on the Appendix page.

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1.2.4 Finding of No Significant Impact

The cover pages for the Finding of No Significant Impact (FONSI), or a FONSI with a ***Section 4(f)*** Evaluation, are provided in ***Part 2, Chapter 2, Cover Page***.

The FONSI is a separate document to which the revised EA is appended. A divider page is placed between the FONSI and the EA, (in lieu of the EA cover page) which contains only the words "Environmental Assessment" in the center of the page (***Figure 1-1***).

There is no table of contents for a FONSI. The contents of a FONSI are discussed in ***Part 2, Chapter 3, EIS Executive Summary/FONSI***.

1.2.5 Draft Environmental Impact Statement

The cover pages for a Draft Environmental Impact Statement (DEIS), or a DEIS with a ***Section 4(f)*** Evaluation, are provided in ***Part 2, Chapter 2, Cover Page***.

The Table of Contents and format for a DEIS are different from the EA (***Part 1, Chapter 8, Draft Environmental Impact Statement***). The Table of Contents is as follows:

TABLE OF CONTENTS

Executive Summary

Purpose and Need for Action

Alternatives Including the Proposed Action

Affected Environment

Environmental Consequences

Comments and Coordination

Commitments

List of Preparers

List of Agencies, Organizations, and Persons to Whom Copies of the Statement are Sent

List of Figures

List of Tables

Index

Appendix

Subheadings for appropriate sections of the document are added as required in (***Part 1, Chapter 8, Draft Environmental Impact Statement*** and ***Part 2, Chapter 3, EIS Executive Summary/FONSI***).

On the Appendix page, a listing should be provided of all correspondence and other support material contained in the Appendix. All material contained in the Appendix must be numbered for ease in referencing (***Section 1.2.3***).

1.2.6 Final Environmental Impact Statement/Record of Decision and Final Environmental Impact Statement

The cover pages for a Final Environmental Impact Statement/Record of Decision (FEIS/ROD), Final Environmental Impact Statement (FEIS), or a FEIS/ROD or FEIS with a ***Section 4(f)*** Evaluation, are provided in ***Part 2, Chapter 2, Cover Page***.

The Table of Contents and format for the FEIS (***Part 1, Chapter 9, Final Environmental Impact Statement***) is the same as the DEIS. The contents of a FEIS/ROD is provided in ***Part 1, Chapter 9, Final Environmental Impact Statement***.

The Appendix page should provide a listing of all correspondence and other support material contained in the Appendix. All material contained in the Appendix must be numbered for ease in referencing (***Section 1.2.3***).

1.2.7 Section 4(f) Evaluation

A ***Section 4(f)*** evaluation is developed to stand on its own merits for a Type 2 CE. The cover pages for Draft and Final ***Section 4(f)*** evaluations are provided in ***Part 2, Chapter 2, Cover Page***. The Table of Contents and format are listed below:

TABLE OF CONTENTS

Description of Proposed Action

Description of Section 4(f) Resource

Impacts on Section 4(f) Resource

Avoidance Alternatives and Their Impacts

Measures to Minimize Harm

Coordination

Concluding Statement [In Final 4(f) document only]

List of Figures

List of Tables

Appendix

Part 2, Chapter 13, Section 4(f) Evaluation, discusses the content of a ***Section 4(f)*** Evaluation.

On the Appendix page, a listing should be provided of all correspondence and other support material contained in the Appendix. All material contained in the Appendix must be numbered for ease in referencing (***Section 1.2.3***).

1.2.8 Draft Supplemental Environmental Impact Statement

For Draft Supplemental Environmental Impact Statements (DSEIS) use the same format and content as found in ***Section 1.2.5***.

1.2.9 Final Supplemental Environmental Impact Statement

For Final Supplemental Environmental Impact Statements (FSEIS) use the same format and content as found in ***Section 1.2.6***.

1.2.10 Programmatic Section 4(f) Evaluation

A Programmatic ***Section 4(f)*** Evaluation is developed to stand on its own merits. The cover page for the Programmatic ***Section 4(f)*** Evaluation is provided in ***Part 2, Chapter 2, Cover Page***. The Table of Contents and format used are as follows:

TABLE OF CONTENTS

Description of Proposed Action

Alternatives

No Build Alternative

Improvement without using Section 4(f) Property

Alternatives on New Location without using Section 4(f) property

Impacts and Findings

Measures to Minimize Harm

Coordination

List of Figures

List of Tables

Appendix

Part 2, Chapter 13, Section 4(f) Evaluation, discusses the content of a Programmatic ***Section 4(f)*** Evaluation.

On the Appendix page, a listing should be provided of all correspondence and other support material contained in the Appendix. All material contained in the Appendix must be numbered for ease in referencing (***Section 1.2.3***).

1.3 REFERENCES

Council on Environmental Quality, "Regulations For Implementing The Procedural Provisions Of The National Environmental Policy Act", 43 F.R. 55978-56007 and 40 CFR Parts 1500-1508, November 29, 1980.

Federal Register (F.R.), August 28, 1987. Environmental Impact and Related Procedures. F.R. Volume 52, No. 167.

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

1.4 HISTORY

2/28/2005, 7/29/2008

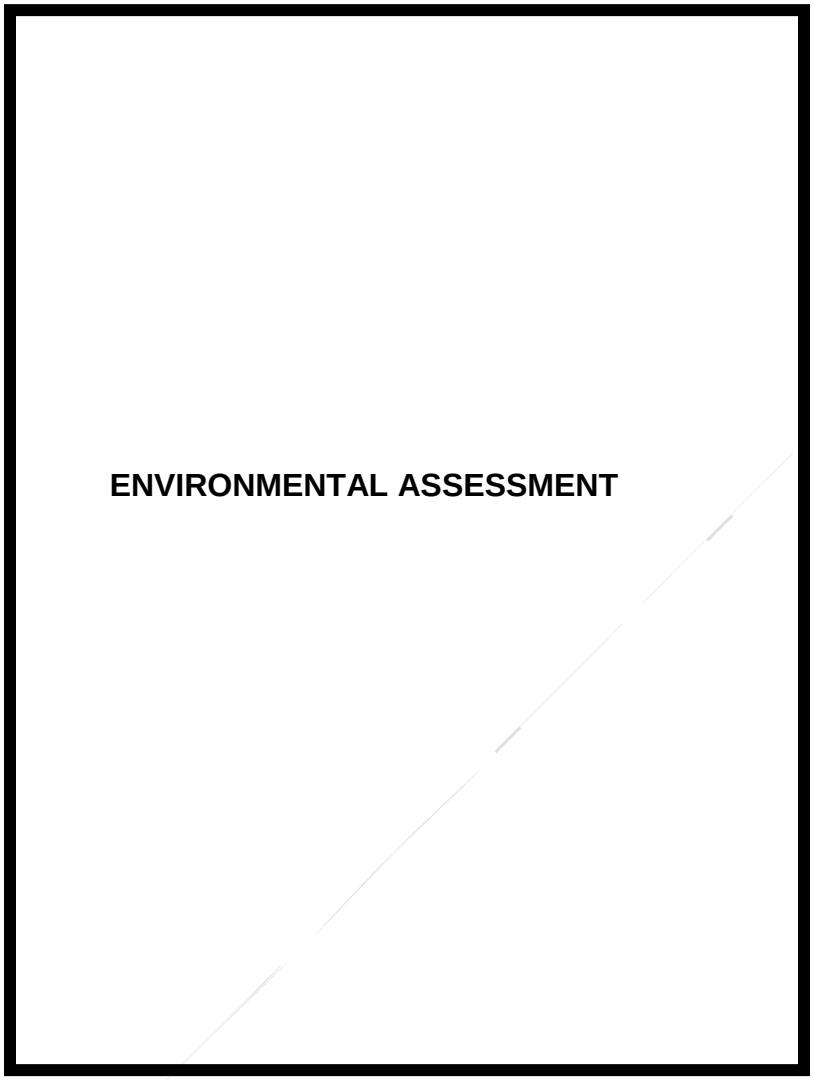

Figure 1-1 Page Separating FONSI and Environmental Assessment

PART 2, CHAPTER 2

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PART 2, CHAPTER 2

COVER PAGE

2.1 OVERVIEW AND PROCEDURE

This chapter provides sample cover pages for Environmental Assessments (EAs), Finding of No Significant Impacts (FONSIs), Draft Environmental Impact Statements (DEISs) and Final Environmental Impact Statements (FEISs), both with and without ***Section 4(f)*** evaluations. It also provides sample cover pages for Supplemental EISs, ***Section 4(f)*** Evaluations for Type 2 Categorical Exclusions (Type 2 CEs), and Programmatic ***Section 4(f)*** Evaluations. Sample cover pages are provided as figures at the end of this chapter.

2.2 REFERENCE

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

2.3 HISTORY

3/28/2002, 7/30/2008

Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION

ENVIRONMENTAL ASSESSMENT

U.S. Department of Transportation

Federal Highway Administration

and

Florida Department of Transportation

In cooperation with the (list cooperating agencies)

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

(Brief description of the project)
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Submitted pursuant to 42 U.S.C. § 4332(2)(c).

Approved For Public Availability

___ / ___ / ___
Date

_____
Division Administrator
Federal Highway Administration

For additional information, contact:

Name
District Contact Title
Florida Department of Transportation
Street Address
City, Florida, zip code
Phone: (xxx) xxx-xxxx
Email address

Name
FHWA Contact Title
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Phone: (xxx) xxx-xxxx
Email address

Figure 2-1 Environmental Assessment Sample Cover Page

Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION

ENVIRONMENTAL ASSESSMENT/DRAFT SECTION 4(f) EVALUATION

U.S. Department of Transportation

Federal Highway Administration

and

Florida Department of Transportation

In cooperation with the (list cooperating agencies)

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

(Brief description of the project)
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Submitted pursuant to 42 U.S.C. § 4332(2)(c) and 49 U.S.C. § 303.

Approved For Public Availability

___ / ___ / ___
Date

_____
Division Administrator
Federal Highway Administration

For additional information, contact:

Name
District Contact Title
Florida Department of Transportation
Street address
City, Florida, zip code
Phone: (xxx) xxx-xxxx
Email address

Name
FHWA Contact Title
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Phone: (xxx) xxx-xxxx
Email address

Figure 2-2 Environmental Assessment/Draft Section 4(f) Evaluation Sample Cover Page

Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION
FINDING OF NO SIGNIFICANT IMPACT

U.S. Department of Transportation, Federal Highway Administration
and
Florida Department of Transportation
In cooperation with the (list cooperating agencies)

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

(Brief description of the project)
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Submitted pursuant to 42 U.S.C. § 4332(2)(c).

___ / ___ / ___ _____
Date Division Administrator
Federal Highway Administration

(Abstract on EA)
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

A federal agency may publish a notice in the Federal Register, pursuant to 23 U.S.C. § 139(l), indicating that one or more federal agencies have taken final action on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the notice, or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action as allowed. If no notice is published, then the periods of time that otherwise are provided by the federal laws governing such claims will apply.

For additional information, contact:

Name
District Contact Title
Florida Department of Transportation
Street address
City, Florida, zip code
Phone: (xxx) xxx-xxxx
Email address

Name
FHWA Contact Title
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Phone: (xxx) xxx-xxxx
Email address

Figure 2-3 Finding of No Significant Impact Sample Cover Page

Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION
FINDING OF NO SIGNIFICANT IMPACT/FINAL SECTION 4(f) EVALUATION

U.S. Department of Transportation, Federal Highway Administration
and
Florida Department of Transportation
In cooperation with the (list cooperating agencies)

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

XXXXXXXXXXXXXXXXXXX(Brief description of the project)XXXXXXXXXXXXXXXXXXXXX

Submitted pursuant to 42 U.S.C. § 4332(2)(c) and 49 U.S.C. § 303.

___ / ___ / ___ _____
Date Division Administrator
Federal Highway Administration

XXXXXXXXXXXXXXXXXXXXXX(Abstract of EA)XXXXXXXXXXXXXXXXXXXXX

Based upon considerations herein, it is determined that there is no feasible and prudent alternative to the use of land from the (name of 4(f) property) and that the proposed action includes all possible planning to minimize harm to the Section 4(f) property resulting from such use.

A federal agency may publish a notice in the Federal Register, pursuant to 23 U.S.C. § 139(l), indicating that one or more federal agencies have taken final action on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the notice, or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action as allowed. If no notice is published, then the periods of time that otherwise are provided by the federal laws governing such claims will apply.

For additional information, contact:

Name
District Contact Title
Florida Department of Transportation
Street address
City, Florida, zip code
Phone: (xxx) xxx-xxxx
Email address

Name
FHWA Contact Title
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Phone: (xxx) xxx-xxxx
Email address

Figure 2-4 Finding of No Significant Impact/Final Section 4(f) Evaluation Sample Cover Page

Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION
FINDING OF NO SIGNIFICANT IMPACT/FINAL SECTION 4(f) *de minimis* Approval

U.S. Department of Transportation, Federal Highway Administration
and
Florida Department of Transportation
In cooperation with the (list cooperating agencies)

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

(Brief description of the project)
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Submitted pursuant to 42 U.S.C. § 4332(2)(c) and 49 U.S.C. § 303.

___ / ___ / ___ _____
Date Division Administrator
Federal Highway Administration

(Abstract of EA)
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

A federal agency may publish a notice in the Federal Register, pursuant to 23 U.S.C. § 139(l), indicating that one or more federal agencies have taken final action on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the notice, or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action as allowed. If no notice is published, then the periods of time that otherwise are provided by the federal laws governing such claims will apply.

For additional information, contact:

Name
District Contact Title
Florida Department of Transportation
Street address
City, Florida, zip code
Phone: (xxx) xxx-xxxx
Email address

Name
FHWA Contact Title
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Phone: (xxx) xxx-xxxx
Email address

Figure 2-5 Finding of No Significant Impact/Final Section 4(f) *de minimis* Approval Sample Cover Page

FHWA-FLA-EIS 02-01-D
Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION

DRAFT ENVIRONMENTAL IMPACT STATEMENT

U.S. Department of Transportation, Federal Highway Administration

and

Florida Department of Transportation
In cooperation with the (list cooperating agencies)

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

(One paragraph abstract of the project)
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
FHWA will issue a combined Final Environmental Impact Statement and Record of Decision document pursuant to Title 23 U.S.C. § 139.

Submitted pursuant to 42 U.S.C. § 4332(2)(c).

___ / ___ / ___
Date

_____
Division Administrator
Federal Highway Administration

For additional information, contact:

Name
District Contact Title
Florida Department of Transportation
Street address
City, Florida, zip code
Phone: (xxx) xxx-xxxx
Email address

Mr. / Ms. Name
FHWA Contact Title
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Phone: (xxx) xxx-xxxx
Email address

Comments must be received by the District contact person

By: _____(date)_____

Figure 2-6 Draft Environmental Impact Statement Sample Cover Page

FHWA-FLA-EIS 02-01-D
Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION
DRAFT ENVIRONMENTAL IMPACT STATEMENT/SECTION 4(f) EVALUATION

U.S. Department of Transportation, Federal Highway Administration

and

Florida Department of Transportation
In cooperation with the (list cooperating agencies)

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

(One paragraph abstract of the project)
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
FHWA will issue a combined Final Environmental Impact Statement and Record of Decision document pursuant to Title 23 U.S.C. § 139.

Submitted pursuant to 42 U.S.C. § 4332(2)(c) and 49 U.S.C. § 303.

___ / ___ / ___
Date

_____
Division Administrator
Federal Highway Administration

For additional information, contact:

Name
District Contact Title
Florida Department of Transportation
Street address
City, Florida, zip code
Phone: (xxx) xxx-xxxx
Email address

Name
FHWA Contact Title
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Phone: (xxx) xxx-xxxx
Email address

Comments must be received by the District contact person

By: ____(date)_____

Figure 2-7 Draft Environmental Impact Statement/Section 4(f) Evaluation Sample Cover Page

FHWA-FLA-EIS 02-01-DS
Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION

DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

U.S. Department of Transportation, Federal Highway Administration

and

Florida Department of Transportation
In cooperation with the (list cooperating agencies)

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

(One paragraph abstract of the project)
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
FHWA will issue a combined Final Environmental Impact Statement and Record of Decision document pursuant to Title 23 U.S.C. § 139.

Submitted pursuant to 42 U.S.C. § 4332(2)(c).

___ / ___ / ___
Date

_____
Division Administrator
Federal Highway Administration

For additional information, contact:

Name
District Contact Title
Florida Department of Transportation
Street address
City, Florida, zip code
Phone: (xxx) xxx-xxxx
Email address

Name
FHWA Contact Title
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Phone: (xxx) xxx-xxxx
Email address

Comments must be received by the District contact person
By: _____(date)_____

Figure 2-8 Draft Supplemental Environmental Impact Statement Sample Cover Page

FHWA-FLA-EIS 02-01-F
Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION

FINAL ENVIRONMENTAL IMPACT STATEMENT/RECORD OF DECISION

U.S. Department of Transportation, Federal Highway Administration
and
Florida Department of Transportation
In cooperation with the (list cooperating agencies)

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

(One paragraph abstract of the project)
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Submitted pursuant to 42 U.S.C. § 4332(2)(c).

___ / ___ / ___ _____
Date Division Administrator
Federal Highway Administration

A federal agency may publish a notice in the Federal Register, pursuant to 23 U.S.C. § 139(l), indicating that one or more federal agencies have taken final action on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the notice, or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action as allowed. If no notice is published, then the periods of time that otherwise are provided by the federal laws governing such claims will apply.

For additional information, contact:

Name
District Contact Title
Florida Department of Transportation
Street address
City, Florida, zip code
Phone: (xxx) xxx-xxxx
Email address

Name
Division Administrator
FHWA Contact Title
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Phone: (xxx) xxx-xxxx
Email address

Figure 2-9 Final Environmental Impact Statement/Record of Decision Sample Cover Page

FHWA-FLA-EIS 02-01-F
Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION

FINAL ENVIRONMENTAL IMPACT STATEMENT/RECORD OF DECISION
SECTION 4(f) EVALUATION

U.S. Department of Transportation, Federal Highway Administration
and
Florida Department of Transportation
In cooperation with the (list cooperating agencies)

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

XXXXXXXXXXXXXXXXXX(One paragraph abstract of the project)XXXXXXXXXXXXXXXX

Based upon considerations herein, it is determined that there is no feasible and prudent alternative to the use of land from the (name of 4(f) property) and that the proposed action includes all possible planning to minimize harm to the Section 4(f) property resulting from such use.

Submitted pursuant to 42 U.S.C. § 4332(2)(c) and 49 U.S.C. § 303.

___ / ___ / ___ _____
Date Division Administrator
Federal Highway Administration

A federal agency may publish a notice in the Federal Register, pursuant to 23 U.S.C. § 139(l), indicating that one or more federal agencies have taken final action on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the notice, or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action as allowed. If no notice is published, then the periods of time that otherwise are provided by the federal laws governing such claims will apply.

For additional information, contact:

Name
District Contact Title
Florida Department of Transportation
Street address
City, Florida, zip code
Phone: (xxx) xxx-xxxx
Email address

Name
FHWA Contact Title
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Phone: (xxx) xxx-xxxx
Email address

Figure 2-10 Final Environmental Impact Statement/Record of Decision/Section 4(f) Evaluation Sample Cover Page

FHWA-FLA-EIS 02-01-F
Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION

FINAL ENVIRONMENTAL IMPACT STATEMENT/RECORD OF DECISION
SECTION 4(f) *de minimis* Approval

U.S. Department of Transportation, Federal Highway Administration
and
Florida Department of Transportation
In cooperation with the (list cooperating agencies)

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

(One paragraph abstract of the project)
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Submitted pursuant to 42 U.S.C. § 4332(2)(c) and 49 U.S.C. § 303.

___ / ___ / ___ _____
Date Division Administrator
Federal Highway Administration

A federal agency may publish a notice in the Federal Register, pursuant to 23 U.S.C. § 139(l), indicating that one or more federal agencies have taken final action on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the notice, or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action as allowed. If no notice is published, then the periods of time that otherwise are provided by the federal laws governing such claims will apply.

For additional information, contact:

Name
District Contact Title
Florida Department of Transportation
Street address
City, Florida, zip code
Phone: (xxx) xxx-xxxx
Email address

Name
Division Administrator
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Phone: (xxx) xxx-xxxx
Email address

Figure 2-11 Final Environmental Impact Statement/Record of Decision/Section 4(f) *de minimis* Approval Sample Cover Page

FHWA-FLA-EIS 02-01-F
Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION
FINAL ENVIRONMENTAL IMPACT STATEMENT

U.S. Department of Transportation, Federal Highway Administration
and
Florida Department of Transportation
In cooperation with the (list cooperating agencies)

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

(One paragraph abstract of the project)
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Submitted pursuant to 42 U.S.C. § 4332(2)(c).

___ / ___ / ___ _____
Date Division Administrator
Federal Highway Administration

A federal agency may publish a notice in the Federal Register, pursuant to 23 U.S.C. § 139(l), indicating that one or more federal agencies have taken final action on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the notice, or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action as allowed. If no notice is published, then the periods of time that otherwise are provided by the federal laws governing such claims will apply.

For additional information, contact:

Name
District Contact Title
Florida Department of Transportation
Street address
city, Florida, zip code
Phone: (xxx) xxx-xxxx
Email address

Name
FHWA Contact Title
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Phone: (xxx) xxx-xxxx
Email address

Comments must be received by the District contact person
By: _____(date)_____

Figure 2-12 Final Environmental Impact Statement Sample Cover Page

FHWA-FLA-EIS 02-01-F
Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION
FINAL ENVIRONMENTAL IMPACT STATEMENT/SECTION 4(f) EVALUATION

U.S. Department of Transportation, Federal Highway Administration
and
Florida Department of Transportation
In cooperation with the (list cooperating agencies)

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

XXXXXXXXXXXXXXXXX(One paragraph abstract of the project)XXXXXXXXXXXXXXXXX

Based upon considerations herein, it is determined that there is no feasible and prudent alternative to the use of land from the (name of 4(f) property) and that the proposed action includes all possible planning to minimize harm to the Section 4(f) property resulting from such use.

Submitted pursuant to 42 U.S.C. § 4332(2)(c) and 49 U.S.C. § 303.

___ / ___ / ___ _____
Date Division Administrator
Federal Highway Administration

A federal agency may publish a notice in the Federal Register, pursuant to 23 U.S.C. § 139(l), indicating that one or more federal agencies have taken final action on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the notice, or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action as allowed. If no notice is published, then the periods of time that otherwise are provided by the federal laws governing such claims will apply.

For additional information, contact:

Name
District Contact Title
Florida Department of Transportation
Street address
City, Florida, zip code
Phone: (xxx) xxx-xxxx
Email address

Name
FHWA Contact Title
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Phone: (xxx) xxx-xxxx
Email address

Comments must be received by the District contact person
By: _____(date)_____

Figure 2-13 Final Environmental Impact Statement/Section 4(f) Evaluation Sample Cover Page

FHWA-FLA-EIS 02-01-F
Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION
FINAL ENVIRONMENTAL IMPACT STATEMENT/SECTION 4(f) *de minimis* Approval

U.S. Department of Transportation, Federal Highway Administration
and
Florida Department of Transportation
In cooperation with the (list cooperating agencies)

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

(One paragraph abstract of the project)
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Submitted pursuant to 42 U.S.C. § 4332(2)(c) and 49 U.S.C. § 303.

___ / ___ / ___ _____
Date Division Administrator
Federal Highway Administration

A federal agency may publish a notice in the Federal Register, pursuant to 23 U.S.C. § 139(l), indicating that one or more federal agencies have taken final action on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the notice, or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action as allowed. If no notice is published, then the periods of time that otherwise are provided by the federal laws governing such claims will apply.

For additional information, contact:

Name
District Contact Title
Florida Department of Transportation
Street address
City, Florida, zip code
Phone: (xxx) xxx-xxxx
Email address

Name
FHWA Contact Title
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Phone: (xxx) xxx-xxxx
Email address

Comments must be received by the District contact person
By: _____(date)_____

Figure 2-14 Final Environmental Impact Statement/Section 4(f) *de minimis* Approval Sample Cover Page

FHWA-FLA-EIS 02-01-FS
Feral Highway Administration
Florida Division

ADMINISTRATIVE ACTION
FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

U.S. Department of Transportation, Federal Highway Administration
and
Florida Department of Transportation
In cooperation with the (list cooperating agencies)

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

(One paragraph abstract of the project)
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Submitted pursuant to 42 U.S.C. § 4332(2)(c).

___ / ___ / ___ _____
Date Division Administrator
Federal Highway Administration

A federal agency may publish a notice in the Federal Register, pursuant to 23 U.S.C. § 139(l), indicating that one or more federal agencies have taken final action on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the notice, or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action as allowed. If no notice is published, then the periods of time that otherwise are provided by the federal laws governing such claims will apply.

For additional information, contact:

Name
District Contact Title
Florida Department of Transportation
Street address
City, Florida, zip code
Phone: (xxx) xxx-xxxx
Email address

Name
FHWA Contact Title
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Phone: (xxx) xxx-xxxx
Email address

Comments must be received by the District contact person

By: _____(date)_____

Figure 2-15 Final Supplemental Environmental Impact Statement Sample Cover Page

Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION

DRAFT SECTION 4(f) EVALUATION

U.S. Department of Transportation

Federal Highway Administration

and

Florida Department of Transportation

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

(One paragraph abstract of the project)

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Submitted pursuant to 49 U.S.C. § 303.

Approved For Public Availability

___ / ___ / ___
Date

_____
Division Administrator
Federal Highway Administration

Figure 2-16 Draft Section 4(f) Evaluation Sample Cover Page

Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION

FINAL SECTION 4(f) EVALUATION

U.S. Department of Transportation

Federal Highway Administration

and

Florida Department of Transportation

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

(One paragraph abstract of the project)

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Submitted pursuant to 49 U.S.C. § 303.

Based upon considerations herein, it is determined that there is no feasible and prudent alternative to the use of land from the (name of 4(f) property) and that the proposed action includes all possible planning to minimize harm to the Section 4(f) property resulting from such use.

___ / ___ / ___
Date

_____
Division Administrator
Federal Highway Administration

Figure 2-17 Final Section 4(f) Evaluation Sample Cover Page

Federal Highway Administration
Florida Division

ADMINISTRATIVE ACTION

PROGRAMMATIC 4(f) EVALUATION

U.S. Department of Transportation

Federal Highway Administration

and

Florida Department of Transportation

Financial Management Number: xxxxx-xxxx
Federal Project Number: xxx-xxx-x(xx)
route, limits, County, Florida

(One paragraph abstract of the project)

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Submitted pursuant to 49 U.S.C. § 303.

Based upon considerations herein, it is determined that there is no feasible and prudent alternative to the use of land from the [name of 4(f) property] and that the proposed action includes all possible planning to minimize harm to the Section 4(f) property resulting from such use.

___ / ___ / ___
Date

_____
Division Administrator
Federal Highway Administration

Figure 2-18 Programmatic 4(f) Evaluation Sample Cover Page

PART 2, CHAPTER 3

EIS EXECUTIVE SUMMARY/FONSI

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PART 2, CHAPTER 3

EIS EXECUTIVE SUMMARY/FONSI

3.1 OVERVIEW AND PROCEDURE

This chapter describes the content and format of the Executive Summary section of Draft Environmental Impact Statement and Final Environmental Impact Statements (DEISs and FEISs). The Executive Summary describes the proposed action and documents the conclusions of issue/resource analysis for a project and identifies avoidance, minimization, and/or mitigation measures. For the FEIS the Executive Summary will identify the preferred alternative.

This chapter also describes the content and format of a Finding of No Significant Impact (FONSI). The FONSI is a separate document attached to the Environmental Assessment (EA), which serves as the decision-making document for the project and identifies the preferred alternative. The FONSI is based on FHWA's independent review of the analysis and technical documentation in the EA and is FHWA's determination that the impacts for the proposed project are not significant.

Standard statements are used to document coordination and findings. These standard statements have been developed through consultation with the Federal Highway Administration (FHWA) to comply with the ***National Environmental Policy Act (NEPA)***, FHWA policy, ***23 Code of Federal Regulations (CFR) Part 771***, and other federal laws and requirements. Standard statements are in italics for easy reference.

3.2 DRAFT ENVIRONMENTAL IMPACT STATEMENT EXECUTIVE SUMMARY

The sections of an Executive Summary for a DEIS are provided below.

Proposed Action: This section describes the proposed project and includes, at a minimum, the Efficient Transportation Decision Making (ETDM) number, Financial Management number, name of the roadway, the project length and termini, a brief description of the existing facility, the type of proposed project including the number of lanes, any special features, and the name of the city, county, and state in which the project is located.

Other Major Government Actions: This section addresses any major local, state, or federal actions proposed by other government entities in the same geographical area as the project. If such actions exist then the authorizing agency is identified, the project described, and the potential for coordination or conflict discussed. Any related correspondence or documentation is referenced.

Alternatives Considered: This section contains a brief discussion of the reasonable alternatives considered including the No-Build alternative. Each alternative is discussed including the number of lanes, project limits, and any special features.

Major Environmental Impacts: This section provides a brief overview of the major environmental issues addressed in the DEIS. This includes beneficial as well as adverse impacts. Appropriate sections of the DEIS are referenced where additional information is required.

Areas of Controversy: This section is included when agencies and/or the public raise issues that are considered controversial. Describe and disclose areas of controversy and the steps taken to resolve them to date. Major unresolved issues should also be discussed.

List of Other Government Actions Required: This section describes a list of federal actions required for the proposed project. This may include federal permits, land transfers, and ***Section 106*** agreements.

Irretrievable and Irreversible Commitment of Resources: This section briefly discusses the proposed action's irretrievable and irreversible commitment of resources. This general discussion should broadly describe that the build alternatives would require a similar commitment of natural, physical, human, and fiscal resources.

Measures to Avoid or Minimize Potential Adverse Impact: This section briefly discusses those measures taken to minimize or avoid adverse impacts to the environment. Appropriate sections of the DEIS are referenced and any mitigation measures proposed for the project are briefly outlined.

Short-Term Impacts Versus Long-Term Benefits: This section addresses the short-term effects of the project on the human environment as weighed against the overall long-term benefits of the project. Appropriate sections of the DEIS are referenced.

3.3 FINAL ENVIRONMENTAL IMPACT STATEMENT EXECUTIVE SUMMARY

An Executive Summary is prepared for a FEIS only when it is not combined with a Record of Decision (ROD). For a combined FEIS/ROD, an Executive summary is not needed (see ***Part 1, Chapter 9, Final Environmental Impact Statement***). The Executive Summary of a FEIS discusses environmental impacts, alternatives considered, and the preferred alternative. Specific findings are documented, as are commitments made during the course of project development. The Executive Summary of a FEIS should include the following sections:

Proposed Action: This section describes the proposed project and includes, at a minimum, the project's ETDM number, Financial Management number, name of the roadway, the project length and termini, a brief description of the existing facility, the type

of proposed project including the number of lanes, any special features, and the name of the city, county, and state in which the project is located.

Other Government Actions and Permits Required: This section describes any local, state, or federal action proposed by other government entities in the same geographical area as the proposed project. The potential for conflict between those actions is discussed, and any coordination required is referenced. State and federal permits required for the project are identified.

Alternatives Considered: This section contains a brief discussion of the alternatives studied for the project including the No-Build alternative.

Unresolved Issues and Areas of Controversy: This section should only be included if there are major unresolved issues or areas of controversy. Describe and disclose unresolved issues and areas of controversy and the steps taken to resolve it/them to date.

Preferred Alternative: This section identifies the preferred alternative of FHWA for Location and Design Concept Acceptance (LDCA) and also summarizes the rationale for the decision.

Environmental Impacts: This section summarizes both beneficial and adverse impacts that may result from the project. For example, air quality, noise, relocations, or cultural resources.

Wetlands Finding: This section addresses wetland impacts and any proposed wetland mitigation. When there is no practicable alternative to proposed impacts to wetlands, the FEIS must contain the Finding required by ***Executive Order 11990*** and by ***USDOT Order 5660.1A***. The finding must be contained in a section or paragraph titled “Wetlands Finding.” This section must briefly discuss the following and reference the detailed discussion in the FEIS as appropriate:

1. Reference ***Executive Order 11990***.
2. A discussion of the basis for the determination that there are no practicable alternatives to the proposed action (involving wetlands).
3. A discussion of the basis of the determination that the proposed action includes all practicable measures to minimize harm to wetlands.
4. A concluding statement as follows:

Based upon the above consideration, it is determined that there is no practicable alternative to the proposed construction in wetlands and the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

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

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

Floodplain Finding: This section addresses project impacts on floodplains as required by ***Executive Order 11988*** and regulatory floodway involvement as required by ***The Federal Aid Policy Guide, 23 CFR § 650A***. The first portion of the section discusses the extent of floodplain involvement, the significance of the project's encroachments, any proposed mitigation efforts, and the fact that there exists no practicable alternative to the involvement. At a minimum, the following information must be substantiated by the finding:

1. The reasons why the proposed action must be located in the floodplain.
2. The alternatives considered and why they were not practicable.
3. A statement indicating whether or not the action conforms to applicable state and local floodplain protection standards.

If mitigation is required then the appropriate section of the FEIS is referenced. See ***Part 2, Chapter 24, Drainage and Floodplains*** for applicable standard statements. If the project has no involvement with or is not located within a floodplain, a finding is still provided.

Coastal Zone Consistency (CZC): This section documents compliance with the ***Coastal Zone Management Act of 1972***, ***15 CFR Part 930***, and the ***Coastal Zone Management Plan (CZMP)*** for the State of Florida which is called the ***Florida Coastal Management Program (FCMP)***.

The following standard statement is used to demonstrate compliance when the project has undergone interagency review and has been determined by the Department of Environmental Protection to be consistent with the ***FCMP***.

> *The State of Florida has determined that this project is consistent with the Florida Coastal Zone Management Plan.*

Cultural Resources: This section summarizes the analysis under ***Section 4(f)***, ***Section 106***, and associated findings. Where there is involvement with ***Section 4(f)*** or ***Section 106*** resources, the property must be identified and the impact on the resource(s) addressed, all proposed mitigation outlined and referenced, and a conclusion statement provided regarding the project's effect on the resource. Standard statements can be found in ***Part 2, Chapter 12, Archaeological and Historical Resources*** and ***Part 2, Chapter 13, Section 4(f) Evaluation***.

Federally Listed Species and Habitat: This section summarizes the analysis of the project's involvement with federally threatened and endangered species or their critical habitat protected under the ***Endangered Species Act*** and associated effect determination(s). If federally listed species are involved then they are identified, and any proposed mitigation is referenced.

Where a "no effect" determination is applicable, the following standard statement must be used:

> *It has been determined by FHWA, that the project, as proposed, will have no effect on any threatened or endangered species.*

Farmland: This section documents consultation and coordination with the Natural Resources Conservation Service (NRCS) regarding a project's impact on farmland. The following standard statements are used to document coordination on projects:

1. For Urbanized Areas With No Farmland Involvement

   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.

2. For Non-Urbanized Areas With No Farmland Involvement

   Through coordination with the Natural Resources Conservation Service, it has been determined that no farmlands as defined in 7 CFR Part 658 are located in the project vicinity.

When there is farmland involvement on a project, this section must 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.

Irretrievable and Irreversible Commitment of Resources: This section briefly discusses the preferred alternative's irretrievable and irreversible commitment of resources including natural, physical, human, and fiscal resources.

Measures to Avoid or Minimize Potential Adverse Impact: This section briefly discusses measures taken to minimize or avoid adverse impacts on the environment. Appropriate sections of the document are referenced and any mitigation measures proposed for the project are briefly outlined.

Short-Term Impacts Versus Long-Term Benefits: This section addresses the short-term effects of the project on the human environment as weighed against the overall long-term benefits of the project. Appropriate sections of the FEIS are referenced.

3.4 FINDING OF NO SIGNIFICANT IMPACT

This section of this Chapter discusses the development of a FONSI, which is a decision-making document supported by the EA. The FONSI is a separate document that is attached to an EA. The FONSI determines that no significant impacts will occur as a result of the project and provides the rationale behind the decision.

3.4.1 Cover Page

The cover page of a FONSI contains the same information as the cover page of an EA with two exceptions: the signature block is for document approval, and the cover page contains narrative on the finding (see ***Part 2, Chapter 2, Cover Page***). A divider page (in lieu of the EA cover page) containing only the words "Environmental Assessment" in the center of the page is placed between the FONSI and the EA (see ***Part 1, Chapter 1, Document Format and Table of Contents***).

3.4.2 Finding of No Significant Impact Content

The FONSI documents the decisions reached by FHWA regarding the proposed project and includes discussion of only those issues for which significance was in question and determination that impacts were not significant. The FONSI briefly describes the preferred alternative and references the appropriate sections of the EA.

The FONSI determination is made by FHWA and set out in the opening paragraph of the FONSI. FHWA, in its findings, takes full responsibility for the accuracy, scope, and contents of the Environmental Document. The following standard statement, which is the FHWA finding, must be included in all FONSIs:

> *FHWA has determined that this project will not have any significant impact on the human environment. The Finding of No Significant Impact is based on the attached Environmental Assessment which has been independently evaluated by FHWA and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. The FHWA takes full responsibility for the accuracy, scope, and contents of the attached Environmental Assessment.*

3.5 REFERENCES

Chapter 335, Florida Statutes. State Highway System. http://www.leg.state.fl.us/Statutes/

Clean Water Act of 1972, as amended. http://www.fws.gov/laws/lawsdigest/fwatrpo.html

Council on Environmental Quality. 1997. Environmental Justice Guidance under NEPA

Federal Highway Administration (FHWA). 1987. Technical Advisory T6640.8A. http://environment.fhwa.dot.gov/projdev/impta6640.asp

FHWA. 2011. Guidance on Environmental Justice and NEPA

Title 15 Code of Federal Regulations (CFR) § 930. Federal Consistency with Approved Coastal Management Programs

Title 23 CFR § 771. Environmental Impact and Related Procedures. 1987. http://www.ecfr.gov

Title 40 CFR §§ 1500-1508. Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act. 1978. http://www.ecfr.gov

3.6 HISTORY

1/12/2004, 7/28/2008

PART 2, CHAPTER 4

PROJECT DESCRIPTION AND PURPOSE AND NEED

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PART 2, CHAPTER 4

PROJECT DESCRIPTION AND PURPOSE AND NEED

4.1 OVERVIEW

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 effects of the project 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 classes of action. 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 6, Engineering Analysis***).

The purpose and need in an Environmental Document are where the planning process and the PD&E process [***National Environmental Policy Act (NEPA)*** for federal projects] most clearly intersect. The development of the purpose and need begins early in the planning process and evolves into the final purpose and need in the PD&E Study. Florida Department of Transportation (FDOT) and planning agencies [e.g., Metropolitan Planning Organizations (MPO), Transportation Planning Organizations (TPO), and local agencies] identify transportation needs during the development of their respective transportation plans based on planning data.

In accordance with the ***Section 139 of Title 23 of the United States Code (U.S.C)***, as early as practicable during the environmental review process the Lead Federal Agency will provide opportunities for resource agencies and the public to provide input on purpose and need and. FDOT uses the its Efficient Transportation Decision Making (ETDM) process to help meet this requirement and refine 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 proposed alternatives do not fully address the stated purpose and need, then they can be eliminated from further consideration with documentation, coordination and approval from the Lead Federal Agency.

Further guidance regarding the development of the purpose and need can be found in ***FHWA Technical Advisory T6640.8A (FHWA, 1987)***, and ***FHWA Environmental Review Toolkit***.

4.2 PROCEDURE

4.2.1 Defining the Project

Prior to the PD&E Study, a description of the project is developed through the planning process and documented during the ETDM process. 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 project termini are determined for the scope of both transportation improvements and environmental analysis.

Districts should be cautious when segmenting projects because segmentation problems can inappropriately address environmental issues and/or project needs.

4.2.1.1 Development of Project Description

The project description must be clearly written to allow a person without prior knowledge of the project to 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; and

4. A brief description of the proposed improvements (such as mode, typical section features, facility type, multi-modal features, and any major structures).

A project location map must be included to illustrate the project limits. The map 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. A typical section diagram should also be referenced to illustrate the proposed improvements.

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 highway is to be improved from an existing, rural two (2) lane facility to a rural four (4) lane, divided facility with provisions for future expansion to an ultimate six (6) lane divided facility with a curbed median. Bridge structures are not located on this segment of SR-XX; however, bridge widening or replacement is anticipated for side street connections to SR-XX, SR-YY, and SR-ZZ over the Any Drainage District Canal.

4.2.1.1.1 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 Lead Federal Agency 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 roadways. In most cases traffic generators determine the size and type of facility being proposed. The environmental study area generally covers a broader geographic area than the limits of the transportation improvements and the scope of environmental analysis relates to the potential project impacts. Pursuant to ***23 CFR § 771.111(f)***, alternatives developed for EISs and EAs shall:

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.

When describing the logical termini, it is common to describe the termini points broadly, such as "the intersection at SR-XX." However, the limits of analysis for the proposed project may extend past the logical termini. For example in a four-lane widening project where the facility transitions back to two lanes beyond the logical termini, the area of transition should be included in the analysis. Examples of 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, the MPO/TPO, and FHWA.

4.2.1.1.2 Documentation

The location of the project description in the Environmental Document depends on the Class of Action (COA):

1. **Type 2 Categorical Exclusion (CE)** - Project description information is included in Section 2, Project Purpose and Need of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11*** ***(Part 1, Chapter 5, Type 2 Categorical Exclusion)***.

2. **Environmental Assessment (EA)** - Project description information is included in a section titled "Project Description and Purpose and Need."

3. **EIS** - Project description information is included in a section titled "Alternatives including the Proposed Action".

4. **State Environmental Impact Report (SEIR)** - Project description information is included in Section A.2, "Project Description" of the ***FDOT Project Evaluation Form (Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery)***.

4.2.2 Purpose and Need

The purpose and need for a project provides the basis for developing, considering, evaluating, and elimination alternatives. The purpose and need shapes the alternatives that are considered reasonable or feasible consistent with environmental review requirements.

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.

Transportation objectives 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 metropolitan planning organizations, with the involvement of stakeholders 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 process emerge proposed projects intended to meet the needs and achieve the objectives of the plan.

The initial purpose and need developed during the Planning phase may change during the PD&E Study if new information or needs are discovered from project review or input from the public and resource agencies. There should be no substantial changes in the purpose and need after acceptance unless coordinated with the Lead Federal Agency. If the purpose and need changes substantially during the PD&E Study, the Lead Federal Agency must be made aware of and agree to the proposed changes and how those changes could impact the evaluation of alternatives.

4.2.2.1 Development of Purpose and Need

Transportation planning data developed 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 USC §168*** planning products can be adopted or incorporated by reference into ***NEPA***.

4.2.2.1.1 Purpose

The purpose identifies the primary goals of the project and guides the range of alternatives that will be developed and considered in response to the established need. The purpose should be broad enough to encompass a reasonable range of alternatives, 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.

4.2.2.1.2 Need

The need for the project arises 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, t**he **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 document signed for public availability and the final Environmental Document, the status will likely require updating. Planning consistency is necessary to receive FHWA approval. For the specific funding scenarios to obtain approval of the Environmental Document, refer to the ***Guidance for Meeting Planning Requirements for NEPA Approval*** prior to submitting the Environmental Document. See ***Part 1, Chapter 4, Project Development Process*** for more information on documenting planning consistency at the conclusion of PD&E.

   Briefly discuss actions taken to date, coordination with other agencies and governmental units involved, actions pending, and schedules. Using the information contained in the planning consistency form (***Part 1, Chapter 4, Project Development Process***), 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:

   MPO Areas:

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

   b. 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.

   c. Project Funding: Provide a narrative referencing the Cost Feasible LRTP, STIP and TIP that describes all projects phases [PD&E, Design, Right of Way (ROW), and Construction], when those phases are anticipated, which phases are funded, and which type of funds are 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, which can typically be found in the LRTP Needs Plan. The estimated total project cost and construction completion must also be included. Since these are estimates round numbers may be used.

Non-MPO Areas:

a. In a non-MPO area, the information provided must reference the most current STIP. Acknowledge 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.

b. Project limits: Confirm that the project description in the STIP or other long range document and Environmental Document 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.

c. Project Funding: Provide a narrative referencing the STIP or other transportation plan that describes all projects phases (PD&E, Design, ROW, and Construction), when those phases are anticipated, which phases are funded, and which type of funds are 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 construction completion must also be included.

In either case, if the project is going to be developed in segments for design and construction, 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 planning consistency form and pages from the current LRTP (or other long range planning documents for non-MPO areas), TIP, and STIP are submitted to FHWA concurrent with the Environmental Document submittal (***Part 1, Chapter 4, Project Development Process***).

Include a summary table that clearly highlights the information described in the narrative, as shown below. If the project will be implemented in segments, the table should reflect the segments. Footnotes can be used to provide additional clarification or explanation, as appropriate.

Phase	Time Frame	Estimated Cost	Funding Source
PD&E	Current	$XX M	Local/federal/ state/private/ toll
Design	20XX - 20XX	$XX M	Local/federal/ state/private/ toll

ROW	20XX- 20XX	$XX M	Local/federal/ state/private/ toll
Construction	20XX - 20XX	$XX M	Local/federal/ state/private/ toll
	Total	$XX M	

When a draft 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 signing the CE, Finding of No Significant Impact (FONSI), or Final Environmental Impact Statement/Record of Decision (FEIS/ROD). Please refer to the ***Guidance for Meeting Planning Requirements for NEPA Approval*** 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. Include a description of how the proposed action contributes to the multi-modal transportation network.

3. **Capacity** - Is the capacity of the existing facility inadequate to serve the traffic? Projected traffic? What capacity is needed? What is the 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 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, percentage increase or decrease over a period of time, and the rate of crashes when compared with the statewide average for similar facilities. Identify existing high-hazard sections of the facility. 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.

4.2.2.2 Purpose and Need during the ETDM Screening

The purpose and need should evolve over time and become more detailed as the project advances through the Planning phase, ETDM process, and into 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, it can change as the project advances and more information becomes available.

The Lead Federal Agency must provide opportunities for participating agencies and the public to provide input on the purpose and need. Prior to engaging in the environmental review process, this obligation 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 this goal 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. It is important to 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 inclusion in 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 the required scoping information for an EIS. 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.

4.2.2.3 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. 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." 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. FHWA must be consulted if the project description or the purpose and need for a project change substantially during the PD&E Study.

The purpose and need for PD&E:

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; and

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

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

4.2.2.3.1 Documentation

The location of the purpose and need in the Environmental Document differs depending on the COA:

1. **Type 2 CE** - Purpose and need information is included in the Project Purpose and Need (Section 2) of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-011*** ***(Part 1, Chapter 5, Type 2 Categorical Exclusion)***.

2. **EA** - Purpose and need information is included in a section titled “Project Description and Purpose and Need”.

3. **EIS** - Purpose and need information is included in the “Purpose and Need for Action” section.

4. **SEIR** - Purpose and Need information is included in Section A.2, “Project Description” of the ***FDOT Project Evaluation Form (Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery)***.

4.3 REFERENCES

23 United States Code (U.S.C.) § 134

American Association of State Highway and Transportation Offices. Practitioner's Handbook: Defining the Purpose and Need and Determining the Range of Alternatives for Transportation Projects. August, 2007

Council on Environmental Quality, Executive Office of the President, 1978. Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act. Reprint 43 FR 55978-56007, 40 CFR Parts 1500-1508

Florida Highway Administration (FHWA) Environmental Review Toolkit: Development of Logical Project Termini and Elements of Purpose and Need. http://www.environment.fhwa.dot.gov/index.asp

FHWA memorandum "Guidance on Purpose and Need", to FHWA Division Administrators and FTA Regional Administrators, July 23, 2003

Florida Department of Transportation (FDOT), Efficient Transportation Decision Making (ETDM) Manual, Topic No. 650-000-002 www.dot.state.fl.us/emo/

Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Section 6002

Section 339.177, Florida Statutes (F.S.)

Transportation Research Board. Highway Capacity Manual. HCM2000

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

4.4 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

PART 2, CHAPTER 5

TRAFFIC ANALYSIS

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PART 2, CHAPTER 5

TRAFFIC ANALYSIS

5.1 OVERVIEW

5.1.1 Purpose

This chapter provides guidance for preparing the traffic forecast and analysis for Project Development and Environment (PD&E) Studies. Guidance is provided on scoping the traffic analysis effort, traffic data requirements, analysis methodology and documentation.

Traffic analysis (also referred to as traffic study) 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 determine 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. It is important that the Project Manager 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 always reach an early agreement with project reviewers and the lead agency 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.

Traffic analysis procedures in this chapter references guidance from other Florida Department of Transportation (FDOT) procedures, manuals and handbooks. The chapter also references national guidance such as the ***Highway Capacity Manual (HCM)*** and Federal Highway Administration's (FHWA) ***Traffic Analysis Toolbox***. The chapter assumes transportation practitioners who perform traffic analyses for FDOT projects possess sufficient knowledge of traffic flow theory and traffic engineering including guidance documented in FDOT and national publications.

5.1.2 Definitions

The following definitions apply to terminology used in this chapter:

Annual Average Daily Traffic (AADT) - The total volume of traffic on a highway segment for one year, divided by the number of days in the year. This volume is usually estimated by adjusting a short-term traffic count with weekly and monthly factors.

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

Axle Correction Factor - The factor developed to adjust vehicle axle sensor-based data for the incidence of vehicles with more than two axles, or the estimate of total axles based on automatic vehicle classification data divided by the total number of vehicles counted.

Crash Modification Factor (CMF) – A multiplicative factor used to compute the expected number of crashes after implementing a given countermeasure at a specific site.

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 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 Peak Season Weekly 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 volume.

Peak Season Weekday Average Daily Traffic (PSWADT) - The average weekday traffic during the peak season. 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 of how well the fitted regression line approximates the real data points.

Regression Analysis – A statistical process for estimating the relationship between a dependent variable and an independent variable.

Seasonal Factor (SF) - Parameters used to adjust base counts which consider travel behavior fluctuations by day of the week and month of the year.

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 type (location) and facility type (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.

Statewide Acceleration And Transformation (SWAT) - A project management approach which streamlines project delivery by following a structured process to develop project scopes and schedules; reduce duplicate work, perform initial data collection and analysis ahead of PD&E, or concurrently perform design activities with PD&E when possible.

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

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

5.2 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. Techniques for traffic analysis are found in the following publications:

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

- ***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 County (AADT) from short term counts, calculating Directional Design Hourly Volume (DDHV), estimating intersection turning movements and calculating Equivalent Single Axle Load (ESAL) forecasts.

- ***FHWA Traffic Analysis Toolbox*** – The ***FHWA Traffic Analysis Toolbox*** includes a Primer that presents a high-level overview of the different types of the traffic analysis tools. The Toolbox 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 State Highway Systems by the 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 the 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 for quantitatively estimating crash frequency or severity at a variety of locations.

- ***Transit Capacity and Quality of Service Manual, Transit Cooperative Highway Research Program Report 165*** – The Transit Capacity and Quality of Service Manual 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.

5.2.1 Traffic Analysis Objectives

Given the importance of traffic forecasting and analysis regarding the PD&E Study schedule, the Project Manager should meet with the project team at the beginning of the project to establish the traffic analysis objectives. The composition of the project team will vary depending on the type of the project, but will generally include FDOT planning and environmental staff and consultant traffic and PD&E 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, previously completed planning studies and the Efficient Transpiration Decision Making (ETDM) ***Programming Screen Summary Report***. These documents are essential to determining the scope of work.

5.2.2 Level of Traffic Analysis Effort

5.2.2.1 Traffic Analysis Scope

PD&E Studies vary in size and type, resulting in project traffic forecasting and analysis with varying levels of detail. The FDOT 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.

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

The scope or level of traffic analysis includes the analysis methodology, tools and documentation. This decision 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.
- Traffic analyses conducted prior to the PD&E phase to determine their adequacy for inclusion in the PD&E Study as per ***23 CFR Part 450***.
- Existing operating conditions to determine the degree of traffic saturation.
- 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.

Therefore, 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, with regard to future traffic projections, a PD&E Study for a rural corridor may only require the forecast of daily traffic demand in order 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 period to accommodate actual traffic demand and bottlenecks.

It would also help for the Project Manager to work with various stakeholders and decision makers 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. The Project Manager should prepare the traffic analysis schedule and estimate the staffing requirements based on the agreed upon traffic analysis scope.

5.2.2.2 Using Planning Phase Traffic Analyses

Project traffic forecasts and traffic analysis may be prepared prior to the PD&E phase as part of a corridor, feasibility, interchange access, or any project following the SWAT process. In addition, project forecasts and traffic analysis are often 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. Some of the traffic operational studies performed during the Planning phase have the same level of detail as those conducted during a PD&E Study. For instance, an Interchange Access Request (IAR) traffic analysis for 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. § 139(f)(4)(E)(ii) allows the lead agency to eliminate from detailed consideration an alternative proposed in an Environmental Impact Statement (EIS) if the alternative was considered in an metropolitan planning process. Additionally, ***23 CFR Part 450*** allows for decisions and analyses conducted during transportation planning to be used for the ***NEPA*** study. It is essential for the FDOT Project Manager to review the traffic analysis methods and results and coordinate with FHWA (for projects that require FHWA approval) before incorporating them into the PD&E Study. For projects that require FHWA approval, FHWA determines the applicability of the traffic analysis methods used and validity of the previous study results before they can be reused or incorporated by reference in a PD&E Study.

For non-federal projects, the Project Manager should review applicability of the transportation planning products for use in the PD&E Study early in the scope development stage. The Project Manager should involve planning staff when determining applicability of the products.

5.2.3 Performance Measures of Effectiveness

Assessment and comparison of project alternatives require 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 and contrast 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. Typically 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.

Other than LOS, a highway traffic analysis can 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:

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

Typical MOEs for transit analysis include:

- Passenger trips

- Average headway
- % 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
- Emissions
- Number of crashes
- Travel time saving

5.2.4 Traffic Analysis Tools

The traffic analysis can vary from looking up service volumes tables for LOS to detailed microsimulation analysis. The tools selected for conducting the traffic analysis must correlate the complexity of the project with 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 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 simple tool that does not fit the analysis objectives simply because of familiarity or lack of resources.

The most common tools available to FDOT include:

- Generalized Service Volume Tables, found in the ***Quality / Level of Service Handbook*** and LOSPLAN may be used for general planning level analyses and

high-level concepts screening. These tools should not be used for operational analyses.

- Highway Capacity Software (HCS) based on the most recent ***HCM***, Synchro and SIDRA are primary tools for analysis of locations that are isolated, not congested or do not require an understanding of interactions between various users.

- CORSIM and VISSIM, are primarily tools for analyzing 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 spreadsheets, Crash Modification Factors (CMF), 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 other than listed in the ***Traffic Analysis Handbook***, the analyst must submit a request and provide justification to the FDOT Project Manager.

5.2.5 Data Collection

Data required for traffic analysis depends on various factors such as project context, analysis method and performance MOEs. At the outset of the project, the FDOT 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 understanding general knowledge of the project area and identifying any gaps in data that must 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 reviews or observations are necessary to confirm data and review driving characteristics and operational conditions. Aerial and satellite imageries can provide useful information about physical characteristics of the analysis area but they should not replace field reviews.

The data collection effort may need to consider several modes of transportation. ***FDOT's Complete Streets Policy, Topic No. 000-625-017*** requires that a roadway 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. Data related to pedestrian generators and attractors should be considered in urban contexts.

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) and FHWA (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 adjacent to 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, 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 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 at a desired 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 study area has been defined, the next step is to decide what type of information is to be collected. 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.

5.2.5.1 Types of Data Collection

The data collection effort can be divided into three categories—roadway characteristics, traffic characteristics, and operations and safety characteristics. The type of the traffic

study 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)
- Roadway geometrics (curvature, intersection configuration, grades)
- Number of turn lanes
- Turn lane storage lengths
- 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 clearances
- Presence of railroad crossings
- Type and location of toll plazas—electronic vs. cash toll collection

Multimodal Travel Characteristics

- AADT

- Vehicle classification and vehicle mix
- Truck Percentages
- Turning Movements Counts
- Pedestrian Counts
- Bicycle Counts
- Boarding and alighting at transit stops
- 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
- Origin-Destination (OD) survey for general vehicles and/or trucks

Operations & Safety Characteristics

- Posted Speed Limits
- Average Travel Speeds (highway and transit)
- 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:

- FDOT Florida Transportation Information (FTI) DVD and Florida Traffic Online (FTO) http://www2.dot.state.fl.us/FloridaTrafficOnline/viewer.html

- FDOT Traffic Characteristic Inventory (TCI) Database

- FDOT Roadway Characteristic (RCI) Database

- Regional Integrated Transportation Information System at University of Maryland (RITIS)

- FDOT Crash Analysis Reporting (CAR) System Database

5.2.5.2 Duration of Data Collection

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 does increase with duration and therefore, the Project Manager must balance these competing considerations with the goals of the study. The project team must first review existing data, such as the ones from FTI DVD and/or 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 the ***HCM, Chapter 3*** 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.

The data collection effort should be guided by the following:

- The FDOT ***Project Traffic Forecasting Handbook*** 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.

- Traffic counts collected over a 72-hour period is recommended. Collection of data over a 72-hour period is preferred over single-day to avoid poor and faulty information (data) due to equipment failures, human errors, 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 by equipment failures, human errors, traffic incidents, among other reasons.

- Intersection turning movements should generally be collected during the AM and PM peak periods for 72-hour period. For urban arterials serving predominantly commuter traffic, turning movement counts over a 24-hour to 48-hour period may be sufficient provided there is historical validation data. 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 FDOT or local traffic count synopsis report to determine if midday turning movement counts are required.

  If there is no history of traffic counts, conduct a 72-hour approach and departure counts at the intersection so that you can extrapolate the peak hour turning movements to daily turning movements. Software like TURNS 5 requires the user to input 2-way approach AADT approach volumes for every leg of the intersection.

- 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. Due to changes to the ***Florida Traffic Crash Report*** implemented by the Department of Highway Safety and Motor Vehicles in 2011, it may not be possible to compare certain fields like crash type across five years.

- 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 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, 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***.

5.2.6 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 not only determine geometric features of the roadway, but also assess operational performance of the facility.

There are two options for forecasting traffic volumes:

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

The Project Traffic Forecasting Handbook details the FDOT 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.

5.2.6.1 Forecasting using a Travel Demand Model

The 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 project traffic analyst must determine if the model meets the area wide validation standards established by the FDOT 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 the State of Florida are now covered by at least one travel demand model. The determination of the preferred model for each study is dependent on a number of factors, such as project location, analysis years, available data, transportation mode (e.g., freight, transit, automobile). District Planning Office concurrence on the preferred travel demand model is required prior to commencing the traffic forecasting process.

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

AADT = PSWADT * MOCF

Subarea or Corridor Validation

In some cases, the travel demand model will meet the validation standards based on area wide statistics, but will perform poorly for the specific area or corridor under study. Such scenarios require subarea or corridor validation to improve the forecast within the project limits. 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 volume/count ratios, root mean square error (RMSE), estimated-over-absorbed transit trips. The subarea or corridor validation effort is not as intensive as the regional/Metropolitan Planning Organization (MPO)/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*.**

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

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. TOD models require traffic count data by time of day to ensure accurate validation by time of day. 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.

5.2.6.2 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 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 in order 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 and 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 significant growth, construction of parallel facilities and changes in land use should rely on growth rates based on a combination of 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***.

5.2.6.3 Calculating AADT and DDHV

AADT

Traffic counts are usually collected over a 24-to 72-hour period through the placement of portable traffic counters. These counters are usually rubber hoses placed across the roadway that record the number of axles. These counters are small enough to be easily transported and contain a power source and can be easily secured to stationary objects such as a telephone pole, fence post, tree.

The short-term traffic count collected over 24 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).

AADT = ADT * Seasonal Factor * Axle Correction Factor

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 times. Standard K factors are established statewide for specific areas and facility types, using the data measured at permanent traffic monitoring sites 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 the ***Project Traffic Forecasting Handbook, Chapter 2*** 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 in the FDOT FTI DVD and on the FTO Website.

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

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 * 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 * K Factor * 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.

5.2.6.4 Reevaluations and Validity of Traffic Forecasts

The majority of traffic forecasting and analysis should be completed during the PD&E phase. Once the traffic forecast and analysis is 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.

Some transportation projects take many years to go from concept to implementation. When a PD&E project advances to design, a reevaluation of PD&E may be required. See ***Part 1, Chapter 13, Reevaluations*** for PD&E reevaluation process. During PD&E

reevaluation, 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 depends on changed conditions brought on by:

- Significant “macro-level” changes in the economy and driving habits since the project forecast was prepared. Examples include the effects of economic recession or a sudden increase/decrease in gas prices potentially affecting travel demand.

- Significant 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 patterns.

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

- Significant 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 significant differences in trip distribution patterns.

- Adoption of a new 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 forecasts. 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 a significant change in the traffic forecast, the Project Manager must coordinate with the Lead Agency to prepare a reevaluation. The reevaluation may require changes to the analysis methodology in order to update the traffic consistent with the latest LRTP. The Project Manager should document decisions reached with the Lead Agency and other project stakeholders.

If there is no significant change in the traffic forecast, the study team would simply document the change and the sensitivity analysis results in the project files and proceed with the next phase of the project.

5.2.7 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 6 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.

5.2.7.1 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 like the HCS that can quickly compute LOS and other operational MOEs for individual segments or isolated points should be used. HCS can compute LOS for uninterrupted flow facilities, interrupted flow facilities and multimodal transportation facilities (e.g., pedestrian, bicycle, and transit). HCS guidance on how to conduct analytical analysis is available in the ***HCM*** and its accompanied software HCS.

5.2.7.2 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. An accurate analysis should analyze the entire time 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.

5.2.8 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. The ***HSM*** is a collection of analytical procedures and techniques for identifying the causes of crashes and developing solutions for certain types of roadways.

Sound engineering judgment is essential when analyzing, evaluating, interpreting and presenting safety performance of a project in conjunction with other cost, design, operational, and environmental factors. Presentation of the safety performance of a project should be meaningful to both technical and nontechnical audiences.

5.2.8.1 Historical Crash Analysis

An historical crash analysis approach 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. 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.

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.

5.2.8.2 Quantitative Safety Analysis

Quantitative safety analysis involves using ***HSM***-based methods that incorporate site specific characteristics and mathematical functions such as safety performance functions (SPFs) and crash modification factors (CMFs) to objectively estimate safety performance measures. An SPF is an equation used to predict the average number of crashes per year at a location as a function of traffic exposure (e.g., volumes of vehicles, bicyclists, pedestrians). It allows an estimation of future safety conditions. A CMF is a multiplicative factor used to compute the expected number of crashes after implementing a given countermeasure at a specific site. It allows estimation of the effectiveness of safety improvements.

The ***HSM*** based methods are detailed and require a thorough knowledge and experience in their applications and limitations. The advantage of these methods is their ability to make relative comparisons between various project alternatives based on the change in the number of crashes or combinations of crash severities for different contexts. The ***HSM*** continues to evolve and does not offer the ability to evaluate change on 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 average Florida conditions. Users of the ***HSM*** should refer to the State Safety Office for publication of the current Florida specific SPF calibration factors.

The following project development activities can benefit from the use of ***HSM***:

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

The ***HSM Part C*** predicted 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 project analysts identify safety-specific needs for the projects and estimate the potential for safety improvements.

Development and screening 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. The documentation needed to support the elimination of alternatives 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 the ***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 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.

5.2.9 Environmental Analyses

Environmental analyses such as land use, air quality, and noise impact analyses depend on the outputs of the traffic forecasting and analysis. The most common traffic data required for environmental analyses are AADT, peak hour volumes, peak truck hour volumes and traffic classification. Typical MOEs from the traffic analysis that are used for environmental analyses are listed in ***Section 5.2.3***. The Project Manager should work with the District Environmental Administrator and other environmental subject matter experts to determine the scale of traffic data needed for various environmental analyses as early as in the project scope development stage.

5.2.10 Project Traffic Analysis Report

The ***Project Traffic Analysis Report*** 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 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 according to ***23 CFR Part 450***. Regardless of the complexity, the traffic analysis report should summarize the items presented in ***Section 5.2.10.2***.

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, including the general public and non-technical decision-makers. 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.

For complex projects, traffic forecasting and traffic analysis may be prepared under different project tasks and teams. In 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*** for how to prepare a ***Project Traffic Forecasting Memorandum***. Traffic analysis reports for projects that are not complex can include the results of traffic forecasting. The approach to documentation (i.e., one ***Project Traffic Analysis Report*** or multiple technical memoranda) should be included in the scope and agreed upon by the FDOT Project Manager and project team. The ***Project Traffic Analysis Report*** must be signed and sealed by a professional engineer in accordance with ***Chapter 471, Florida Statutes.***

Project Traffic Analysis Reports must be reviewed and checked for quality and reasonableness of the results. The review of reasonableness of traffic projections should include examining and comparing observed traffic and historical trends, proposed roadway and transit network improvements, and land use projections. Quality control review for traffic analysis results should include reviewing methods and assumptions used to develop the analysis, inputs, reasonableness of results, and completeness of the results. Refer to the ***FDOT Traffic Analysis Handbook*** for checklists that may aid the review process.

5.2.10.1 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 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, state:
        i. Date of adoption of LRTP
        ii. Base model 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

   b. Key input parameters

   c. Calibration and validation parameters

   d. Analysis method and/or tools

   e. Analysis period

   f. Performance Measures of Effectiveness (MOE)

5.2.10.2 Project Traffic Analysis Report Outline

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

1. Traffic Analysis Assumptions—Summary of assumptions for input parameters, analysis years, analysis methodology.

2. Introduction— Brief description of the project with a project location map, traffic analysis objectives, including a project location map.

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

4. 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.

5. 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 ***Project Traffic Analysis Report***.

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

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

8. Appendix— Raw data used to prepare input and analysis summaries. Other supporting data/information.

5.3 REFERENCES

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FDOT, 2014. Project Traffic Forecasting Handbook. http://www.dot.state.fl.us/planning/statistics/trafficdata/ptf.pdf

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

Title 23, Code of Federal Regulations (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

Washington State Transportation Center, 1998, Peak Spreading Analysis, Review of Relevant Issues and Synthesis of Current Practice

5.4 HISTORY

<table>
<tr><td colspan="2">Traffic forecast for the project was developed using:</td></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><td colspan="2">Is the travel demand model based on the latest adopted Long Range Transportation Plan?</td></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><td colspan="2">Traffic Data and Factors</td></tr>
<tr><td>Standard K = _____
D Factor = _____
T_{Daily} = _____</td><td>Traffic Counts 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>
</table>

Figure 5-1 Project Traffic Assumption Summary

PART 2, CHAPTER 6

ENGINEERING ANALYSIS

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PART 2, CHAPTER 6

ENGINEERING ANALYSIS

6.1 OVERVIEW

6.1.1 Purpose

Engineering analysis builds upon the information developed and documented by the Florida Department of Transportation (FDOT) during the Planning phase of a project. This chapter contains FDOT's procedure for engineering analyses 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 and seeks 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.

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 recommended 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 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.

A ***Preliminary Engineering Report (PER)*** is prepared to document the results of engineering analysis for a Type 2 Categorical Exclusion (CE), Environmental Assessment (EA), or Environmental Impact Statement (EIS). An engineering analysis technical memorandum is prepared to document the results of engineering analysis for State Environmental Impact Reports (SEIRs). If the Design phase occurs concurrently with the PD&E phase, a ***PER*** will not be prepared, rather the results supporting alternatives evaluation are documented in the Design Report or Design Documentation for the project.

The engineering analysis results are also summarized in the Environmental Document (Type 2 CE, EA, and EIS)

6.1.2 Definitions

The following definitions apply to terminology used in this chapter:

Air Operations Area - Any area of an airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft and includes such paved areas or unpaved areas that are used, or intended to be used, for the unobstructed movement of aircraft in addition to its associated runway, taxiways, or apron.

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 orientation 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 that addresses the project's purpose and need.

Alternative Corridor Evaluation – A continuously coordinated and documented process to identify reasonable alternative(s) for PD&E or ***National Environmental Policy Act*** (***NEPA)*** analysis which includes public involvement.

Bicycle Lane - A portion of a roadway (either with curb and gutter or a flush shoulder) which has been designated by striping and special pavement markings for preferential use by 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, including areas necessary for management of access and securing applicable approvals and permits.

Design Exception - The process that is followed when a proposed design element is below both 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 Report – A folder prepared during the Design phase to document design notes, data, and calculations supporting the design conclusions reached during the development of the contract plans. It is also called Design Documentation.

Design Variation - The process that is followed when a proposed design element is below the FDOT's governing criteria and where a Design Exception is not required.

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).

Logical Termini - Rational beginning and ending point of sufficient length to address environmental matters and the purpose and need on a broad scope.

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 aid project is the alternative that has been approved by the Lead Federal Agency. If a preferred alternative is selected prior to the public hearing, it must be presented as such at the public hearing and in the Environmental Document available to the public during the period of public availability.

Preliminary Design - Defines the general project location and design concept. It includes, but is not limited to: preliminary engineering and other activities and analysis, 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 EIS only) – Alternatives meeting the purpose and need which are practical or feasible from a technical and economic standpoint.

Recommended Alternative - The alternative submitted to the Lead Federal Agency for approval as the preferred alternative. In a Draft Environmental Impact Statement (DEIS), this alternative would become the FHWA preferred alternative if no substantial controversy or issues arise through the public and agency comment period.

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

Viable Alternatives - (Term used in Type 2 CE, EA, and 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.

6.2 PROCEDURE

This section describes the procedure for conducting an engineering analysis during the PD&E phase. FDOT conducts engineering analysis consistent with the design standards, criteria and controls published in its manuals and procedures. See ***Figure 6-1***. Engineering considerations for a project begin during the Planning phase where the project purpose and need is defined, and continue throughout the PD&E process when conceptual and preliminary designs are prepared. Engineering analysis and

considerations include coordination with other offices within the Districts, Central Office and/or the Lead Federal Agency as appropriate.

6.2.1 Level of Detail of Analysis

The level of detail for engineering analyses for a PD&E Study depends on the overall size and complexity of the project. It also depends on the Class of Action (COA) for the project. Type 1 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, EA, EIS, and SEIR projects require a more detailed level of analysis and documentation. Regardless of COA, the engineering analyses 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 same level of detail.

For Type 2 CE, EA and EIS projects, a ***PER*** must be prepared. See ***Section 6.2.10.2*** for an outline of the ***PER***.

A SEIR does not require preparation of a ***PER***. Instead, the results of engineering analysis are summarized in the SEIR document (***Chapter 10, State, Local and Privately Funded Project Delivery***) and engineering analyses are attached in a technical memorandum to the SEIR.

PD&E Projects with a concurrent Design phase do not require preparation of a ***PER***. Instead, engineering analyses supporting alternatives development and evaluations are included in the Design Report See ***Part 1, Chapter 4, Project Development Process*** for guidance on overlapping PD&E and Design phases.

6.2.2 Project Coordination

The PD&E Project Manager is responsible for timely coordination with other offices within the District 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.

If the project has federal involvement, the Project Manager must coordinate the project development efforts with the Lead Federal Agency. Coordination with FHWA's bridge section is required for special bridge structures such as moveable bridges, historic bridges, and signature bridges. Coordination with the US Coast Guard and US Army Corps of Engineers (USACE) is also required for permitting purposes.

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 32, Commitments***.

The following is a list of the various coordination efforts that the Project Manager undertake early in the PD&E Study.

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 Traffic Coordinator. See ***Part 1, Chapter 4, Project Development Process*** for guidance on re-using data from planning studies.

Projects involving Express Lanes require coordination with the Planning Office, the Systems Planning Office in Central Office and the Florida Turnpike Enterprise.

Traffic Operations

Projects involving Intelligent Transpiration System (ITS) require coordination with the Traffic Operations Office. The Project Manager is responsible for requesting crash data from the Safety Engineer within 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, District Structures Design Engineer and the FHWA Transportation Engineer (for projects that require FHWA approval).

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 and the project alternative approved, a ***Typical Section Package*** will be finalized in accordance with ***PPM, Volume 1, Chapter 16, Topic No. 625-000-007***.

Structures

The Project Manager must request approval from 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. 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. Considerations will include, but not be limited to, management, testing, storage and transport of the material as well as permitting and agreements that may be required.

Drainage

The District Drainage Engineer should 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***.

The Project Manager should also meet with the District Drainage Engineer to explore watershed stormwater needs, stormwater pond sites, and alternative permitting approaches during the development of alternatives.

Freight/Port

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

Aviation

The Project Manager must coordinate with the District Aviation Coordinator when a project or a portion of a project meets at least one of the following:

1. Located within five (5) miles of the air operations area of a public-use or military airport

2. If utilization of the Notice Criteria Tool of the Federal Aviation Administration (FAA) indicates that an aeronautical study will be requested by the FAA. See ***Section 6.3*** for a link to the Notice Criteria Tool website.

FDOT's Airspace and Land Use Manager in the Aviation and Spaceport Office will assist the Project Manager and the District if an aeronautical study is required.

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 District Aviation Coordinator 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 ROW cost estimates with the District ROW office.

Landscape

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

Permits

The scoping of permits 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 regulatory agencies is necessary to determine the level of detail required to acquire permits concurrent with PD&E. For more information regarding the environmental permit process, see ***Part 1, Chapter 12, Environmental Permits***.

Local Governments Corridor Vision

The Project Manager should begin early coordination with the local governments and/or Metropolitan Planning Organizations (MPOs) to discuss the vision for the corridor. The project should be designed in a context sensitive manner, considering the existing and proposed land uses adjacent to the corridor.

6.2.3 Preliminary Engineering Analysis

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

1. Project needs
2. Data collection
3. Design controls and criteria
4. Existing conditions analysis
5. Alternatives analysis
6. Documentation

6.2.3.1 Project Purpose and Need

Purpose and need identification occurs during the Planning phase of the project. 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.

The Project Manager must review the ***Programming Screen Summary Report*** for projects that were screened through the ETDM Process and understand the COA for projects, if a determination has been made. The Project Manager should also review planning documents such as the Long Range Transportation Plan (LRTP).

6.2.3.2 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. Data can be grouped into four categories: roadway characteristics, traffic characteristics, operations and safety characteristics, and environmental characteristics.

6.2.3.3 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. Design controls are also established for roadway elements such as lighting, noise abatement, drainage consideration, access management and multi-modal facilities.

Design controls include:

1. Functional classification and system classification
2. Access management class and standards
3. Design speed
4. Capacity and level of service (LOS)
5. Project traffic
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, flood plains,)
10. Type of stormwater management facilities (e.g., closed or open drainage systems)

11. Navigational requirements

12. Design high water

13. Design wave heights for coastal bridges

PPM, Volume 1, Topic No. 625-000-007 is the principal source of values for design criteria for projects on the State Highway System (SHS). The values for design criteria contained in the ***PPM*** have been accepted by FHWA. The ***Florida Greenbook, Topic No. 625-000-015*** must be used only on projects not on the SHS or federal aid systems. Design criteria for transit facilities can be found in the ***Accessing Transit Design Handbook***.

When the design elements of the recommended alternative do not meet the designated design criteria, Design Exceptions or Design Variations must be prepared and approved per ***PPM, Volume 1, Chapter 23, Topic No. 625-000-007***.

6.2.3.4 Existing Conditions

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.

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 ***PER*** or SEIR. Analysis of project deficiencies is used to support the project purpose and need (see ***Part 2, Chapter 4, Project Description and Purpose and Need***).

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.

6.2.3.4.1 Existing Roadway Conditions

Existing roadway conditions should be documented to reflect the following:

1. Functional classification and other classifications

2. Access classification and access management standards

3. Typical sections – description and dimensions of each cross-sectional element

4. ROW including extent and type of limited access and easements

5. Property lines and land use types adjacent to the roadway

6. Pavement type, structural and operational conditions

7. Design speed and posted speed

8. Horizontal and vertical alignments

9. Multi-modal facilities:

    a. Pedestrian accommodations - Walkways, crosswalks, ADA accessibility, and school routes

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

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

    d. Freight and intermodal logistics centers

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

11. Physical or operational restrictions such as special use lanes, parking, evacuation routes, fixed objects, barriers, clear zone

12. Traffic data - Annual Average Daily Traffic (AADT), peak hour volume, truck percentage, pedestrian and bicycle counts, transit data

13. Roadway operational conditions - Level of service (LOS) or relevant performance measures such as delay, travel time, density

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

15. Railroad crossings - Number of tracks, number of train crossings, speed, type of train (passenger or freight), type of warning devices, operating characteristics, railroad ROW, Rail Master Plan

16. Drainage system - Drainage areas and flow patterns, floodplains and stormwater management systems including regional facilities

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

18. Utilities - Location, maintaining agency, contact persons

19. Soils classifications

20. Aesthetic features (e.g., lighting, landscaping, vegetation, pavers)

21. Traffic signs

6.2.3.4.2 Existing Bridge Conditions

The FDOT Bridge Maintenance Office maintains ***Bridge Inspection Reports*** for every public bridge in the State of Florida. The Project Manager must obtain the ***Bridge Inspection Report*** for each bridge on the existing corridor. Additionally, geotechnical and scour reports, permits and previous studies for existing bridges can be requested from the structures and permits offices. If hydraulic analysis is anticipated, bridge information for each bridge upstream and downstream of the existing crossing can also be obtained.

Evaluation of existing bridge conditions should include identification of wildlife crossing features. 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 Administrator, District Permit Coordinator and District Structures Design Engineer.

Bridge Inspection Reports typically contain the following information:

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 ***NHRP***, 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) in accordance with ***PPM, Volume 1, Section 2.10, Topic No. 625-000-007*** and ***Section 4.6, Drainage Manual, Topic No. 625-040-002***.

17. Bridge security issues

For bridges maintained by other agencies, all relevant information regarding the existing bridge should be requested from the owner of the bridge.

6.2.3.4.3 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.

6.2.3.4.4 Existing Intelligent Transportation Systems

Projects that involves Intelligent Transportation Systems (ITS) must include review of existing ITS documents and plans to determine operational needs and infrastructure requirements.

6.2.4 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. Transportation Systems Management and Operations (TSM&O) Alternative
3. Multimodal alternative
4. Build Alternative(s)

Some of the project alternatives developed, analyzed and eliminated during the Planning phase of a project can be eliminated as alternatives consistent with the conditions in ***Title 23 U.S.C. §168.*** It is the responsibility of the Project Manager to review planning studies completed for the project and document the alternatives considered, screened and eliminated through a planning process, in the PD&E Study. The Project Manager must coordinate with the Lead Federal Agency in advance, to verify any planning decision that can be adopted or incorporated by reference into the Environmental Document according to ***23 USC §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.

6.2.4.1 No-Action 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 human, 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.

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

6.2.4.2 Transportation System Management and Operations Alternative

The Transportation System Management and Operations (TSM&O) Alternative generally provides short-term improvements that extend the service life of the facility. The TSM&O Alternative includes activities and strategies designed to optimize the performance and utilization of the existing infrastructure through implementation of systems, services, and projects to preserve the capacity and improve the security, safety and reliability of the transportation system. The TSM&O Alternative 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.

The TSM&O Alternative may also include conversion of facilities with existing non-tolled managed lanes such as High Occupancy Vehicle (HOV) lanes to Express Lanes (as long as the total number of existing non-tolled general purpose lanes remains the same and other considerations are met). Although a tolling agreement is not necessary [***23 U.S.C. § 166(b)(4)***], coordination with FHWA is required for projects requiring FHWA approval.

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 description of the strategies considered.

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 the TSM&O Alternative does not meet the purpose and need for the project, the ***PER*** and Environmental Document must briefly explain why.

6.2.4.3 Multimodal Alternatives

When consistent with the purpose and need, the alternatives analysis should consider multimodal alternatives. The Project Manager should review the MPO LRTP for any multimodal projects that are planned along the corridor for possible inclusion into the project. 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 Local Government Comprehensive Plans (LGCP). Discussion of multimodal alternatives should include cost factors (monetary and environmental) required to meet the local needs as stated in LRTP and/or LGCP.

6.2.4.4 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. The development of build alternatives should use a Context Sensitive Solutions (CSS) approach which considers the physical setting within which the project is located.

In order 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., be able 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.

Design detail of the Build Alternatives should be commensurate with the information needed to define and evaluate environmental impacts or 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.

6.2.4.4.1 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.

For complex projects, an evaluation of alternatives may start by high-level screening of a broad number of improvements or concepts to eliminate unreasonable or nonviable alternatives from further detailed analysis. The ***PER*** and Environmental Document must discuss the development of a broad number of alternatives. The ***PER*** and Environmental Document must also document the high-level screening process that was followed, why alternatives were selected for further evaluation and why others were eliminated.

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. ***FHWA Technical Advisory T 6640.8A*** noted that the purpose of the EA is to determine whether or not 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. Additionally, any alternative considered but eliminated prior to preparation of the EA should be discussed and the reasons for its elimination documented in the EA.

An EIS must evaluate reasonable alternatives or a “reasonable range” of alternatives in addition to a No-Action Alternative, In accordance with ***40 CFR § 1505.1(e)***. The ***Council on Environmental Quality Memorandum on Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations*** has defined “reasonable” to mean those technically and economically feasible alternatives that would satisfy the primary objectives of the project defined in the purpose and need.

Because some projects have a large number of alternatives, FDOT developed the Alternative Corridor Evaluation (ACE) process to help refine the scope and number of alternatives in the Planning phase of the project development process. The ACE process is discussed in detail in ***Part 1, Chapter 4, Project Development Process***.

6.2.4.4.2 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. For FHWA led projects, eliminated alternatives must be approved by FHWA. Although the No-Action Alternative does not typically meet the purpose and need, it must be considered as a viable alternative throughout the study.

Project managers are encouraged to use fatal flaw analysis early in the alternative development stage to eliminate unreasonable alternatives. Fatal flaw analysis determines if an individual alternative or a concept has one or more deficiencies that prevent it from being successfully implemented. Fatal flaw analysis is a high-level screening of alternatives based on project purpose and need, established goals and objectives, or environmental controversy based on impacts on natural, social, physical or cultural environment.

The ***PER*** and Environmental Document must include a section that discusses alternatives including TSM&O, which were considered for the project but eliminated from detailed study (during the Planning or PD&E phase). The section should summarize the rationale for eliminating alternatives, 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.

6.2.5 Engineering Considerations for Build Alternatives

The following section discusses important engineering considerations during the development of build alternatives.

6.2.5.1 Complete Streets

Development of Build Alternatives must consider the ***FDOT Complete Streets Policy, Topic No. 000-625-017*** and ***Context Sensitive Solutions, Topic No. 000-650-002*** early in the alternatives development process. The ***Complete Streets Policy*** 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.

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 the FDOT Design Exceptions and Design Variations process.

6.2.5.2 Pedestrians and Bicycle Accommodation

In 2010, the U.S. Department of Transportation (USDOT) issued a policy 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 encouraged 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

The FDOT ***Complete Streets Policy*** 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, F.S.***, requires full consideration of bicycle and pedestrian ways along state roads and transportation facilities during planning and project development. Therefore, all Build Alternatives must consider pedestrian and bicycle use as an integral feature of the project. Guidance on the design of pedestrian and bicycle facilities can be found in:

1. Chapter 2 - Design Geometrics and Criteria and Chapter 8 - Pedestrian, Bicycle, and Public Transit Facilities of ***PPM, Volume 1, Topic No. 625-000-007***

2. ***AASHTO Guide for the Development of Bicycle Facilities***

3. ***AASHTO Guide for the Development of Pedestrian Facilities***

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

PPM, Volume 1, Chapter 8, Topic No. 625-000-007 requires design of buffered bicycle lanes within one mile of an urban area and on curb and gutter facilities beyond one mile of an urban area for all new construction or reconstruction projects. Other bicycle facilities or accommodations include paved shoulders, wide outside lanes, and shared lane markings.

Pedestrian sidewalks in highly-developed urban areas and in the vicinity of 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 and design process. Ramp configurations, speeds, and overall complexity can create impractical and unsafe conditions for bicyclists and pedestrians if not carefully considered throughout the design process.

6.2.5.3 Traffic Operations and Safety

Build alternatives should be evaluated to carry projected travel demand from a traffic operations perspective. Traffic analysis for build alternatives include both travel demand forecasting and capacity analysis to determine the number of through lanes, intersection control type, intersection configurations, need for auxiliary lanes, access management, etc. 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.

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.

6.2.5.4 Express Lanes

Express Lanes can be implemented by converting existing non-tolled managed lanes, such as High Occupancy Vehicle (HOV) lanes to tolled Express Lanes or by constructing new Express Lanes separated from general use lanes. Constructing new Express Lanes adds roadway capacity and therefore, should be analyzed as a Build Alternative.

Express Lanes 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 Express Lanes alternative must be evaluated for its ability to provide long-term mobility, managed capacity, travel time reliability and travel options.

Statewide Express Lanes directive, ***Tolling for New and Existing Facilities on the State Highway System, Topic No. 525-030-020***, outlines FDOT's policy for capacity projects located on limited access facilities on the State Highway System (SHS). It requires Express Lanes as a TSM&O strategy for capacity improvements on existing limited access facilities on the SHS and does not apply to Florida's Turnpike facilities.

Implementation of the Express Lanes directive for PD&E projects on SHS facilities is as follows:

Interstate highway - All PD&E Studies evaluating additional capacity on the Interstate System must include a dynamically tolled alternative in the form of Express Lanes. Coordination with FHWA should take place if tolling will be considered on a federal project to ensure federal requirements are met. PD&E Studies can evaluate the Express Lanes alternatives against the No-Action (No-Build) Alternative if the project is included in the MPO LRTP as an Express Lanes project, a managed lanes project, special use lanes or if previously completed planning or corridor studies had recommended Express Lanes.

Non-interstate limited access facilities - When adding capacity to an existing limited access facility on the SHS, a dynamically tolled alternative in the form of Express Lanes must be evaluated where deemed appropriate through a transportation planning process. Dynamic tolls are to be applied to the additional lanes only. The number of non-tolled lanes must remain the same as before the construction. PD&E Studies can evaluate the Express Lanes alternative as a Build Alternative, against the No-Action (No-Build) Alternative if the project is included in the MPO LRTP as an Express Lanes project or if previous planning/corridor studies had recommended Express Lanes.

Controlled access facilities - New capacity projects on non-limited access SHS facilities must at least consider managed lanes. These lanes may be priced or non-priced and combined with other TSM&O strategies such as Advanced Traffic Management Systems (ATMS), Emergency/Incident Management, Arterial Management, Work Zone Traffic Management, etc. The PD&E Build Alternative can include TSM&O alternatives in the development of Build Alternatives.

Major bridges and tunnels - Projects on the SHS with new or replacement major bridges over waterways must consider tolling to pay fully or partially for the cost of the project. The PD&E alternatives analysis should document consideration of a tolling option for new

or major bridge replacement projects over waterways. Typically, development of initial tolling concepts and the decision to consider tolling is made during the Planning phase. The initial tolling 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 Planning Office about the tolling decision and the scope of tolling analysis, if required during the PD&E phase.

Each Express Lanes project must develop a Concept of Operations (ConOps). ConOps describes the operation of the system being developed from the various stakeholder viewpoints. Development of ConOps requires input from the traffic operations engineer and the various stakeholders (e.g., users, maintenance, and management) on how the facility will operate. See ***Express Lanes Handbook, Chapter 4*** for more details about ConOps.

6.2.5.5 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 provide access from the SHS to abutting lands while limiting and separating traffic conflict points in order to increase safety and efficiency of the transportation system. 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. The Project Manager should coordinate with the District Access Management Review Committee for any proposed deviations from the access management and median opening standards.

6.2.5.6 Roundabouts

Roundabout alternative(s) must be evaluated on new construction and reconstruction projects if a roundabout meets the criteria for an intersection design. Roundabout evaluation is also required for all projects that propose new signalization or require a change in an un-signalized intersection control. An evaluation is not required for minor operational improvements such as changes to signal phasing or for signal replacement projects where the primary purpose is to upgrade deficient equipment and installations. Roundabout designs must be consistent with the ***Florida Intersection Design Guide*** and approved by the State Roadway Design Engineer.

While roundabouts may provide a community enhancement, they are not to be constructed on state roads solely for this purpose. To construct a roundabout on the SHS, one of the following criteria must be met:

1. ***Manual on Uniform Traffic Control Devices (MUTCD)*** traffic signal warrants 1 or 2

2. Documented high frequency of severe crashes

3. Context Sensitive Solutions for the implementation of Complete Streets on a low speed facility.

The 20-year design traffic shall be used for roundabout evaluation and design. Roundabouts are not warranted at intersections where the design year total traffic entering volume exceeds 25,000 AADT for a single-lane roundabout, or 45,000 AADT for a two-lane roundabout. Roundabouts are also not required for corridors with at least six travel lanes. See ***PPM, Volume 1, Chapter 2, Topic No. 625-000-027*** and the ***Florida Intersection Design Guide*** for roundabout evaluation and design requirements.

6.2.5.7 Interchanges on Interstate Highways

The approval of an Interchange Access Request (IAR) on Interstate highways may precede or occur concurrently with the PD&E Study. When the IAR precedes the PD&E Study, it is approved through a two-step process. The first step is a determination of engineering and operational acceptability of the request by complying with the FHWA's eight policy points and FDOT's procedure for new or modified interchanges. The second step is the final approval by FHWA that occurs upon completion of the PD&E Study and verification that the design of the preferred ***NEPA*** alternative matches the design of the accepted IAR proposal. When the IAR is concurrent with the PD&E Study, the final approval occurs after verification that the request meets FHWA's eight policy points and satisfies the FDOT's procedure for new or modified interchanges.

If the project includes a new interchange or a modification to an existing interchange, the Project Manager must coordinate closely with the District's Interchange Review Coordinator (DIRC) to ensure that the alternative approved in the ***Interchange Justification Report (IJR)***, ***Interchange Modification Report (IMR)*** or ***Interchange Operational Analysis Report (IOAR)*** is included as one of the PD&E Study alternatives.

If the PD&E Study does not consider new interchange concepts other than those analyzed in the ***IJR***, ***IMR*** or ***IOAR***, the Project Manager must verify the following before incorporating by reference IAR traffic analysis results into the PD&E Study:

1. The approved interchange document is less than 8 years old. The IAR must be reevaluated if the project does not move to the construction phase within 8 years

2. Conditions (e.g., traffic, land use type, and environment) have not changed significantly since the approval of the interchange document

The Project Manager must consider re-using IAR traffic analysis (methodology, assumptions, data and/or results) early on during developing the scope of the PD&E Study. Refer to ***Part 2, Chapter 5, Traffic Analysis*** for further guidance on re-using data from planning studies.

If the recommended PD&E Study alternative is different from the approved interchange concept, the ***IJR***, ***IMR***, or ***IOAR*** must be reevaluated to demonstrate that the recommended alternative meets the requirements of the IAR analysis procedure. The need and scope for the reevaluation must be determined through consultation with the

DIRC, Statewide Interchange Review Coordinator (SIRC), and FHWA. See the ***Interchange Access Request User's Guide*** for IAR reevaluation guidance.

6.2.5.8 Intelligent Transportation Systems

If a project uses federal funds and involves ITS technologies or a system of technologies, the requirements specified in ***FDOT Guidelines for the Implementation of Part 940 in Florida, Topic No. 750-040-003*** 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.

Title 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 ***System Engineering Management Plan (SEMP)*** to document the results of the system engineering analysis. The ***SEMP*** 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***. SEMP specifies systems engineering activities and what must be built to satisfy stakeholder needs. Coordinate with the District ITS engineer or program manager when developing the SEMP. Example of project alternatives that may require a SEMP are Express Lanes alternatives, transit alternatives, and the majority of TSM&O alternatives, because they involve ITS technologies and may be funded by federal funds.

6.2.5.9 Stormwater Management

A PD&E Study must consider how management of stormwater from the project area will meet quality, rate, and quantity requirements of the FDOT, Water Management Districts (WMD) and the Florida Department of Environmental Protection (DEP).

The ***Drainage Manual, Topic No. 625-040-002*** contains the drainage design standards for FDOT projects. Additionally, the ***Drainage Handbook - Stormwater Management Facility*** contains design guidance on stormwater management.

After the project's stormwater management requirements are determined and before stormwater management design decisions are planned, the Project Manager should as appropriate convene an Environmental Look Around (ELA) meeting with regional stakeholders to explore watershed-wide stormwater needs and alternative permitting approaches. The ELA should explore the following types of opportunities:

1. WMD / Florida DEP issues: wetland rehydration, water supply needs, minimum flows and levels, flooding, Total Maximum Daily Load (TMDL), acquisition of fill from DEP/WMD lands

2. City / County issues: stormwater re-use, flooding, discharge to golf courses or parks, National Pollutant Discharge Elimination System (NPDES) needs, and water supply needs

3. FDOT project permitting: regional treatment, stormwater re-use, and joint use facilities

Potential participants from FDOT include the Design Engineer, Project Manager, Drainage Engineer, Permit Coordinator, and NPDES Coordinator. Potential representatives from the City/County include the Public Works Director, City/County Engineer, and Stormwater Engineer. Other participants would include WMD/DEP staff.

Areas of potential cooperation shall be documented as appropriate in the ***PER*** and ***Pond Siting Report*** or ***Conceptual Design Report*** for future follow up as the project development process moves forward. Any stormwater management commitments made during ELA meeting must be documented in the Environmental Document and follow the process outlined in ***Part 2, Chapter 32, Commitments***.

6.2.5.9.1 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.

6.2.5.9.2 Water Quality Impact Evaluation

A ***Water Quality Impact Evaluation (WQIE) Checklist*** 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 in compliance 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 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 20, Water Quality Impact Evaluation.***

6.2.5.9.3 Hydrology and Hydraulic Evaluation

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 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 detailed in the ***Location Hydraulics Report***. See ***Part 2, Chapter 24, Drainage and Floodplains*** for guidance on how to prepare a ***Location Hydraulics Report***.

6.2.5.10 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 10, Utilities and Railroads***.

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

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

6.2.5.12 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 is 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 in accordance with geotechnical standards, policies, and procedures (refer to the ***Soil and Foundation 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).

6.2.5.13 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.

6.2.5.13.1 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,

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 wildlife crossing feature, coordination with the District Environmental Administrator 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 ***Bridge Development Report (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. See ***PPM, Volume 1 Chapter 26, Bridge Project Development, Topic No. 625-000-007*** for the contents of the bridge analysis.

6.2.5.13.2 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).

6.2.5.13.3 Bridge Hydraulic Analysis

The drainage engineer must prepare a ***Location Hydraulic Report*** for bridges over water in accordance with the procedures outlined in the ***Drainage Manual, Topic No. 625-040-***

002. Depending on the level of engineering analysis during the PD&E phase, a ***Bridge Hydraulic Report*** may be prepared to determine the hydraulic length of the bridge.

The District Drainage Engineer should review tidal projects 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

6.2.5.14 Transportation Management Plan

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 the ***PPM, Volume 1, Chapter 10***.

6.2.5.15 Constructability

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

6.2.5.16 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, as some impacts may be unknown and other activities are governed by specifications and law.

1. Air quality impacts related to open burning and dust control, see ***Part 2 Chapter 16, Air Quality Analysis***

2. Noise and vibration impacts related to construction activities, see ***Part 2 Chapter 17, Highway Traffic Noise***

3. Water quality impacts related to erosion control, sedimentation, and turbidity reduction

4. Maintenance of traffic and detour routing

5. Maintenance of access to businesses and residences

6. Safety considerations

7. Public involvement and community interaction to ease disruptive effects

8. Disposal of construction materials

9. Stockpiling of construction materials and fill

10. Use of borrow areas and any 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 provides for measures to reduce or eliminate their effects. Many of these measures are found in the ***Standard Specifications for Road and Bridge Construction***. There are occasions where the FDOT may commit to implement specific

There are occasions where the 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 32, Commitments***.

6.2.6 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 EDTM screening. For environmental considerations refer to ***Part 2*** of this ***PD&E Manual***.

6.2.7 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 analysis and the project costs, along with public input when selecting a recommended alternative. Analysis requires a comparative evaluation to objectively assess project alternatives at the same level of detail in a matrix format. The objective of an alternatives evaluation matrix is to compare and contrast the performance of each 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).

A number of metrics should be used that help the general 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 Inspection
5. Wetland Mitigation
6. Utility Relocation Cost
7. Operations and Maintenance Cost (for transit projects)

Social Environment

1. Number of parcels (business and residential)
2. Number of relocations (business and residential)
3. Parks, recreation areas
4. Churches, Synagogues, Mosques, Worship centers

5. Cemeteries
6. Schools
7. Hospitals, Medical Centers

Cultural Environment

1. Historic Cemeteries
2. Archaeological Sites
3. Native American Lands
4. Historic Bridges
5. Historic Properties

Natural Environment

1. Wetlands
2. Endangered Species Habitat
3. Farmlands
4. Wellfield Protection Areas

Physical Environment

1. Contamination/Hazardous Waste Sites
2. Number of Impacted Noise Receptors
3. Water Quality and Quantity
4. Air Quality
5. Utilities

Traffic Operations and Safety

1. Level of Service
2. Throughput
3. Delay
4. Travel Time

5. Safety

6. Vehicles Hours Traveled/Vehicle Miles Traveled

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 vehicle miles traveled.

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.

6.2.8 Value Engineering

In accordance with the ***Value Engineering Program, Topic No. 625-030-002***, all projects with an estimated cost of $25,000,000 or more (including all phases of the project), shall have a minimum of one ***Value Engineering (VE) Study***, performed during the development of the project prior to the completion of final design. Projects that have a potential for value improvements and do not meet the $25,000,000 criteria may also be studied.

The Director of Transportation Development may waive the requirement for VE studies, See ***Value Engineering Program, Topic No. 625-030-002***. Projects delivered with the Design/Build method of construction are not required by federal regulation to have a VE study; therefore, the requirement may be waived regardless of the dollar amount.

A VE Study can be conducted either during PD&E or during Preliminary 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. 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 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

6.2.9 Recommended Alternative

The selection of the recommended alternative is based on the results of the comparative alternatives evaluation. The FDOT recommended alternative becomes the Lead Federal Agency preferred alternative subsequent to a public availability and public hearing being, if applicable, and if no substantial controversy or issues arise through the public and agency comment period. Once approved by the Lead Federal Agency, the District must identify the preferred alternative in the Environmental Document and ***PER***, and discuss

the basis for its selection. This should be documented in the Preferred Alternative section of the Environmental Document.

The Lead Federal Agency will not accept the identification of a preferred alternative until completion of sufficient scoping and analysis to support the identification. The preferred alternative must be identified in the final Environmental Document and must be approved by the Lead Federal Agency.

The coordination to determine the preferred alternative may occur through various mechanisms, including verbal communication, a letter, or identification in the Environmental Document. The coordination must be documented in the ***PER*** and Environmental Document and maintained in the project file.

Once an alternative is recommended for approval, the ***PER*** must be updated to describe design details associated with the recommended alternative. The description of the recommended alternative should be of sufficient detail to enable the project to be designed and constructed. The design details for the recommended alternative must include horizontal and vertical alignments, typical sections, conceptual ROW limits, and intersection/interchange concepts. Final design of these features occurs during the Design phase, in accordance with the ***PPM***.

The following are elements of the recommended alternative that require detailed discussion, if applicable.

Typical Section(s)

Discuss the proposed typical sections and include a ***Typical Section Package*** finalized in accordance with ***PPM, Volume 1, Chapter 16, Topic No. 625-000-007*** (pavement design will not be included at this stage). A copy of the approved ***Typical Section Package*** should be included in the ***PER*** for Type 2 CEs, EAs with FONSIs, EISs, and SEIRs.

Project Traffic Volumes

Reference the ***Project Traffic Analysis Report***, if a separate report was produced. Otherwise, summarize the traffic projections for analysis years, traffic factors and any level of service or other relevant traffic performance measures developed from the analysis.

Horizontal and Vertical Geometry

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

Intersection/Interchange Concepts and Signal Analysis

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

Bridge Analysis

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

Access Management

Discuss the existing access management classification(s) and any change(s) to that classification proposed by the recommended 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.

Variations and Exceptions

Discuss any design controls and criteria that will need a design variation or design exception. Include any approved variations or exceptions, if received.

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*** 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.

Utilities

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

Transportation Management Plan

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

Bicycle and Pedestrian Accommodations

Discuss multimodal accommodation (bicycles, pedestrians, transit), Complete Streets and Context Sensitive design solutions applied to the alternative. Note compliance with current policies.

Preliminary Drainage Analysis

Discuss the type of drainage system(s) to be used for the recommended 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.

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.

Cost Estimates

Include a table summarizing project costs consistent with the Long Range Estimate (LRE). Use the FDOT LRE System for construction costs, and ROW estimates for ROW costs. Design and Construction Engineering Inspection (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.

Construction Impacts

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

6.2.10 Documentation

This section provides guidance on documenting alternatives analysis in the Environmental Document and ***PER***. A Florida registered professional engineer must sign and seal the engineering analysis performed to support PD&E Studies in accordance with ***Chapter 471, Florida Statutes***.

6.2.10.1 Environmental Document

The Environmental Document must discuss impacts on the environment from the recommended/preferred alternative and other alternatives in a comparative form. The comparative alternative 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 in accordance with ***40 CFR § 1502.14***:

1. Rigorously explore and objectively evaluate all reasonable alternatives (for EISs), and, for alternatives which are being eliminated from detailed study, briefly discuss the reasons for their elimination.

2. Devote an equal level of detail to each alternative considered, including the proposed action, so that their comparative merits can be evaluated.

3. For EISs only, include reasonable alternatives not within the jurisdiction of the Lead Agency.

4. Include the No-Action Alternative.

5. Identify the agency's preferred alternative, 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.

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

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

1. **Type 2 CE** - If more than one alternative is analyzed, alternatives information is included in Block 2.b. (Proposed Improvements) of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***.

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

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

4. **SEIR** - Alternatives information is included in the Engineering Analysis section of the SEIR.

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. FDOT Recommended/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*** and ***Project***

Traffic Analysis Report, ***Alternative Corridor Evaluation Report (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, at what point in the process the alternatives were removed, and who was involved in establishing the criteria.

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 6.2.5*** 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 Affected Environment and Environmental Consequences/Impact sections 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.

Recommended/Preferred Alternative - Describe the alternative which FDOT is recommending to the Lead Federal Agency for Location Design Concept Approval (LDCA). The preferred alternative should be described in sufficient detail so the reader can understand the FDOT's and Lead Federal Agency's 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) (cite location of alternative specific details and typical sections).

For an EA or DEIS, this should be titled FDOT Recommended Alternative when the District has selected the recommended alternative. Once approved by the Lead Federal Agency, the District must retitle the FDOT Recommended Alternative section as Preferred Alternative in the final Environmental Document (FEIS or FONSI).

The FEIS must identify the preferred alternative and should discuss the basis for its selection [See ***23 CFR § 771.125(a)(1)***].

6.2.10.2 Preliminary Engineering Report

Documentation of engineering analysis of a PD&E Study should include at the following elements at a minimum:

1. Cover Page (See ***Figure 6-2***)

2. Project Summary

    a. Project Description - Include a brief description of the project including location, length of project, number of interchanges and bridges and/or major features.

    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 engineering related commitments that will be included in the Environmental Document.

    d. Description of Recommended Alternative - Include a brief description of the recommended alternative(s).

3. Existing Conditions - Briefly discuss existing roadway conditions, structure conditions and the environmental characteristics. Include discussion of typical section, ROW, roadway classification, vertical and horizontal alignment, pedestrian and bicycle facilities, transit facilities, drainage, crash data, utilities, design, posted speed and traffic characteristics.

4. Design Controls and Criteria - List design controls and criteria used to develop alternatives.

5. Alternatives Analysis - Discuss development of alternatives. Discuss evaluation and elimination of alternatives. Include the No-Action (No-Build) Alternative, TSM&O Alternative and Build Alternative(s). Include a comparative alternatives evaluation with assumptions made during the development of the evaluation matrix. Incorporate by reference the results of the environmental technical analyses to reduce repetition.

6. Public Involvement/Project Coordination - Document all public meetings and hearing(s) held for the project. Include coordination with Elected/ Appointed officials, MPO/County/City and citizens as well as resource agencies.

7. Recommended Alternative(s) - Discuss major design features such as typical sections, horizontal and vertical geometry, access management, variation and exceptions, utilities, preliminary drainage, structures, intersection and interchange concepts, drainage and stormwater treatment and facilities.

6.3 REFERENCES

23 Code of Federal Regulations (CFR), Part 450. Planning Assistance and Standards

23 CFR Part 771. Environmental Impact and Related Procedures

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

40 CFR §§1500-1508. Council on Environmental Quality, Executive Office of the President. Regulations For Implementing The Procedural Provisions Of The National Environmental Policy Act

American Association of the State Highway and Transportation Officials (AASHTO). August, 2007. Practitioner's Handbook. Defining the Purpose and Need and Determining the Range of Alternatives for Transportation Projects

Council on Environmental Quality (CEQ), 1981. Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations. https://ceq.doe.gov/nepa/regs/40/40p3.htm

Federal Aviation Administration (FAA). Notice Criteria Tool. https://oeaaa.faa.gov/oeaaa/external/gisTools/gisAction.jsp?action=showNoNoticeRequiredToolForm

FAA, 2005. Wildlife Hazard Management at Airports

Federal Highway Administration (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. http://www.ops.fhwa.dot.gov/publications/fhwahop10033/sec4.htm

FHWA. 2011. Guidance on Using Corridor and Subarea Planning to Inform NEPA. https://www.environment.fhwa.dot.gov/integ/corridor_nepa_guidance.pdf

FHWA. 2012. Guidance on Section 129 General Tolling Program, Federal Tolling Programs under the Moving Ahead for Progress in the 21st Century. https://www.fhwa.dot.gov/map21/guidance/guidetoll.cfm

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

Moving Ahead for Progress in the 21st Century (MAP-21), Section 1310

United States Code (U.S.C.) Title 23 Chapter 166 (23 U.S.C § 166 (b). HOV Facilities, Exemption. https://www.gpo.gov/fdsys/pkg/USCODE-2010-title23/pdf/USCODE-2010-title23-chap1-sec166.pdf

6.4 HISTORY

1/12/2000, 10/16/2013

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

1. ***Plans Preparation Manual (PPM), Volume 1, Topic No. 625-000-007***
2. ***Plans Preparation Manual (PPM), Volume 2, Topic No. 625-000-008***
3. ***Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways (Florida Greenbook), Topic No. 625-000-015***
4. ***Structures Manual, Topic No. 625-020-018***
5. ***Median Opening and Access Management Decision Process, Topic No. 625-010-021***
6. ***Manual on Uniform Traffic Studies (MUTS), Topic No. 750-020-007***
7. ***Drainage Manual, Topic No. 625-040-002***
8. ***Structures Manual, Topic No. 625-020-018***
9. ***Utility Accommodation Manual, Topic No. 710-020-001***
10. ***CADD Manual, Topic No. 625-050-001***
11. ***Design Standards, Topic No. 625-010-003***
12. ***Context Sensitive Solutions, Topic No. 000-650-002***
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 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***

Figure 6-1 Manuals, Design Standards, and Procedures to Establish Project Development Design Controls and Criteria

20. ***Highway Beautification Policy Topic 000-650-011***

21. ***FDOT Traffic Engineering Manual (TEM), Topic No. 750-000-005***

22. ***FDOT Florida Intersection Design Guide***

23. ***FDOT Express Lanes Handbook***

24. ***FDOT Accessing Transit Design Handbook***

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 6-1 Manuals, Design Standards, and Procedures to Establish Project Development Design Controls and Criteria

PRELIMINARY ENGINEERING REPORT

Florida Department of Transportation

ETDM Number
Financial Management Number
Federal-Aid Project Number (if applicable)

This preliminary engineering report contains detailed engineering information that fulfills the purpose and need for project _____.

___ / ___ / ___
Date

_____
Professional Engineer

Seal below

Figure 6-2 Preliminary Engineering Report Sample Cover Page

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AFFECTED ENVIRONMENT

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PART 2, CHAPTER 7

AFFECTED ENVIRONMENT

7.1 OVERVIEW AND PROCEDURE

This chapter is applicable to Environmental Impact Statements (EIS) only. The Affected Environment section of the EIS provides a concise description of the existing social, economic, and environmental setting for the area affected by all reasonable alternatives for the project. This section should contain a general description for the entire project area rather than a separate description for each proposed alternative. Existing conditions for issues/resources in the area, as described in ***Part 2 of the PD&E Manual***, should be included as subsections in the Affected Environment section. Discussion in this section should be in proportion to the significance of the impacts addressed in the Environmental Consequences section of the EIS.

Socially, economically, and environmentally sensitive locations or features in the proposed project impact area (e.g., neighborhoods, parks, hazardous material sites, historic resources, wetlands) should be identified on exhibits and briefly described in the text. Certain sensitive resource locations should be protected from being specifically identified (e.g., archeological sites, threatened or endangered species locations).

The discussion should be focused on issues, data, and values which will have a bearing on possible impacts, mitigation measures, and on the selection of an alternative. Photographs, illustrations, and other graphics should be used with text to provide a clear understanding of the area and the important issues. Information for this section can come from various sources including but not limited to previous studies (planning, feasibility, or corridor studies), Efficient Transportation Decision Making (ETDM) Programming Screen, local knowledge, agency scoping, field reviews, technical documents, and public involvement. When possible, some of the information for this section can be collected and drafted before the Project Development and Environment Study begins.

7.2 REFERENCE

23 CFR Part 771 – Environmental Impact and Related Procedures

40 CFR §§ 1500-150

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

Florida Department of Transportation. Efficient Transportation Decision Making Manual. Topic No. 650-000-002

7.3 HISTORY

12/29/2003, 1/15/2008

PART 2, CHAPTER 8

ENVIRONMENTAL CONSEQUENCES OR IMPACTS

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PART 2, CHAPTER 8

ENVIRONMENTAL CONSEQUENCES OR IMPACTS

8.1 OVERVIEW AND PROCEDURE

This chapter describes the preparation of the Impacts section of an Environmental Assessment (EA) and the Environmental Consequences section of an Environmental Impact Statement (EIS). ***Chapters 9 through 30*** in ***Part 2 of this Manual*** contain guidance on evaluating impacts to issues/resources most commonly encountered during Florida Department of Transportation (FDOT) projects. Each issue/resource evaluated is documented in the Impacts section of an EA or the Environmental Consequences section of an EIS. For the purpose of this chapter, both of these sections will be referred to as the Impacts section. See ***Part 1, Chapter 6, Environmental Assessment*** or ***Part 1, Chapter 8, Draft Environmental Impact Statement*** to determine which issue/resources to include in this section.

In general, the Impacts section should provide sufficient detail to support the conclusions. The detail provided in an EIS may at times, be more specific and precise due to the nature of the document and impacts. For an EA, the detail provided to determine no significant impact is much different from the detailed evaluation requirement when there is a significant impact (EIS). An EIS therefore tends to contain more information and provides more in-depth discussion of environmental issues and impacts.

For both documents (EAs and EISs), the Impacts section provides the scientific and analytic basis for the comparison of project alternatives. Each issue/resource subheading in the Impacts section must describe the potential impacts of the proposed project and the alternatives evaluated. The document should make full use of charts, tables, maps, and other graphics illustrating comparisons between the alternatives and their respective impacts (i.e., costs, residential displacements, noise impacts, etc.). Impacts that can be mitigated should be discussed.

It is recommended that the Impacts section of an EA or EIS ensure:

1. The document provides sufficient information on the environmental studies, major assumptions made, and supporting information on the validity of the methodology;

2. The document provides sufficient information (results of analysis) to establish the reasonableness of the conclusions reached regarding the recommended or preferred alternative and the project impacts;

3. The document provides a description of mitigation measures, where applicable. A commitment may be needed in the Environmental Document.

    a. For a Draft EIS (DEIS) mitigation measures should be discussed for each reasonable alternative

    b. For a Final EIS (FEIS), mitigation measures should be identified for the preferred alternative.

Pursuant to ***40 CFR § 1502.16***, the Impacts section of an **EIS** must include discussion of the following:

1. The environmental impacts of the alternatives including the proposed action;

2. Any adverse environmental effects which cannot be avoided should the proposal be implemented;

3. The relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity;

4. Any irreversible or irretrievable commitments or resources which would be involved in the proposal should it be implemented.

Pursuant to ***40 CFR § 1502.16***, an **EIS** must ensure that the impacts discussion provides the following information:

1. Direct effects and their significance;

2. Indirect effects and their significance;

3. Possible conflicts between the proposed action and the objectives of federal, regional, state, and local (and in the case of a reservation, Indian tribe) land use plans, policies, and controls for the area concerned;

4. The environmental effects of alternatives including the proposed action;

5. Energy requirements and conservation potential of various alternatives and mitigation measures;

6. Natural or depletable resource requirements and conservation potential of various alternatives and mitigation measures;

7. Urban quality, historic and cultural resources, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures;

8. Means to mitigate adverse environmental impacts.

8.2 REFERENCES

23 CFR Part 771 – Environmental Impact and Related Procedures.

40 CFR §§ 1500-1508.

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

8.3 HISTORY

12/10/2003, 1/16/2008

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PART 2, CHAPTER 9

SOCIOCULTURAL EFFECTS EVALUATION

9.1 OVERVIEW

9.1.1 Purpose

This chapter contains the Florida Department of Transportation's (FDOT's) procedures for evaluating sociocultural effects (SCE) throughout the transportation project delivery process. The SCE evaluation process, illustrated at the end of this chapter in ***Figure 9-1***, 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 groups or populations 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 Environmental Justice, Civil Rights, and other nondiscrimination laws. 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 9-1***). The SCE evaluation process analyzes the potential effects of a transportation action on a community. Information gathered through the SCE evaluation process is carried forward and used as a basis for decision making throughout project delivery.

Table 9-1 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 13166
Minority and low income	Executive Order 12898 (Environmental Justice)

Demographic Characteristics	Legal Authority for Protection from Discrimination
Handicap, age, race, color, sex, or national origin	23 Code of Federal Regulations (CFR) 771

9.1.2 Sociocultural Effect Issues

The SCE evaluation focuses on the six sociocultural issues listed below in ***Table 9-2***. The table also includes examples of topics evaluated for each of the six issues. The issues are described in ***Section 9.2.4***. For additional information, see the ***SCE Issue Sheets*** (located on the ***SCE Reading Materials*** page of the ***SCE Evaluation Process*** website. See ***Section 9.4*** for the internet address to all web sites and links used in this chapter.

Table 9-2 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

9.1.3 Application

The SCE evaluation process 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 findings 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. For other projects, SCE consideration begins during the Project Development and Environment (PD&E) phase. Project types qualifying for ETDM screening are identified in ***Chapter 2*** of the ***ETDM Manual, Topic No. 650-000-002***.

9.1.3.1 Planning Phase

In the Planning phase, ETDM projects are evaluated for sociocultural effects in the Planning Screen 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 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 already cited in these plans. See ***Chapter 3*** of the ***ETDM Manual, Topic No. 650-000-002*** for more information about the Planning Screen.

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 PD&E Study. Not all Programming Screen projects are preceded by a Planning Screen review. See ***Chapter 4*** of the ***ETDM Manual, Topic No. 650-000-002*** for more information about the Programming Screen.

9.1.3.2 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 CFR §§ 1500-1508***, which requires federal agencies to use all practicable means, consistent with the requirements of the ***National Environmental Policy Act (NEPA)***, to avoid or minimize any possible adverse effects of their actions upon the quality of the human environment. 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***.

9.1.3.3 Updating SCE Evaluations in Subsequent Phases

Communities 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 carried out according to FDOT ***Procedure No. 700-011-035, Project Commitment Tracking*** and documented in the Environmental Document.

9.2 PROCEDURE

The major steps in the SCE evaluation process, shown in ***Figure 9-1*** at the end of this chapter, 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 Findings

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 on Environmental Justice ***(Executive Order 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, not well, or not at all.

- **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 9.4 References*** for the website address).

Thorough demographics for these populations, potential effects on them, and possible solutions to adverse effects must be adequately assessed. 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 (USDOT) ***Environmental Justice Strategy (USDOT, 2012)***, 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 the ***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 process 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 9-3*** compares the activities that typically 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 9-3 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 as needed
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
  ○ Cumulative effects (optional)
• Assign Degrees of Effect
• Review ETAT comments
	• Identify resources and level of importance
	• Assess potential effects:
	  ○ Direct effects
	  ○ Indirect effects
	  ○ Cumulative effects (optional)
	• Assign Degrees of Effect
	• Review ETAT comments
		• Identify resources and level of importance
		• Evaluate feasible alternatives and no-build
		• Review ETDM screening issues and public input
		• Review PD&E phase public input
		• Assess effects:
		  ○ Direct effects
		  ○ Indirect effects

• Assign Summary Degree of Effect	• Assign Summary Degree of Effect • Determine PD&E Study scope	○ Cumulative effects • 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 FINDINGS		
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

The remainder of ***Section 9.2*** 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 takes into account 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 Class of Action is provided in ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination***, 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 prepared for projects with minimal to no impact potential and 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 9-4*** compares the difference between SCE evaluations for these different types of projects.

Table 9-4 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:
	  ○ 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
	• If previously screened as an ETDM project, the project SCE evaluation builds upon the previous evaluation to fill information gaps as needed to evaluate issues of concern and complete the appropriate environmental documentation

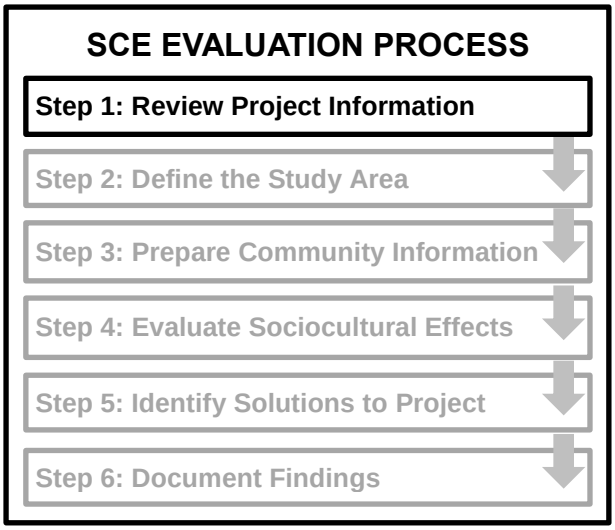
In the PD&E phase, further evaluation of sociocultural effects may be unnecessary if:

- SCE evaluation process steps for each SCE issue (identified in ***Section 9.1.2***) were adequately completed and potential sociocultural effects were adequately considered and documented during a previous phase;
- 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 in Planning must be evaluated in the PD&E phase. Each of the six SCE issues ***(Table 9-2)*** must be discussed in the Environmental Document to show when and how they were considered in project decision making. If no involvement for a particular issue is indicated, then a statement to that effect is included in the Environmental Document.

Each step of the SCE evaluation process is described in the following subsections. Refer to the ***ETDM Manual, Topic No. 650-000-002,*** the ***Practical Application Guides for SCE Evaluations,*** the ***Sociocultural Effects Evaluation Handbook***, and the ***Public Involvement Handbook*** for additional information regarding techniques and methodologies to support the SCE evaluation.

9.2.1 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.

9.2.1.1 Collect and Review Project Information

Establish a preliminary understanding of the project 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.
- Forward recommendations identified in prior project phases to 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.
- Displace a large number of people.
- Disproportionately affect a population group that has been potentially underrepresented.
- 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 cohesive neighborhood.

ETDM Projects

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 the ***SCE evaluation process*** website to help you 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 you establish a contextual overview of the project area.

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

Non-ETDM Projects

For non-ETDM projects, a planning phase feasibility study may be a source of project information. Some Districts upload these projects to the EST to enable a preliminary review of existing information through the standard GIS analyses. Other information may be available from the Project Manager or from the District Planning Office.

9.2.1.2 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
- Environmental Screening Tool (e.g., the ***Sociocultural Data Report*** or ***Area of Interest Tool***)
- City/county/regional planners within government planning, transit, economic development, 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 historic 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.

9.2.1.3 Support the PD&E Public Involvement Plan

Share findings 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 identifying 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.

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***.

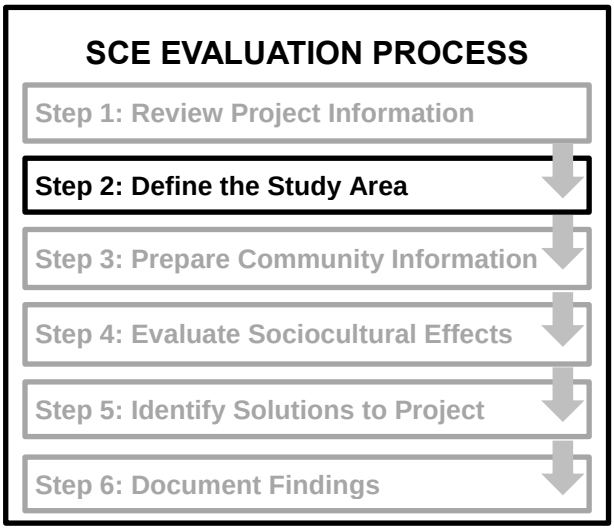
9.2.1.4 Conduct Field Review

Visit the project area to get a first-hand look. The field review allows you to observe 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 you already have 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 ***Reading Materials*** page of the ***SCE Evaluation Process website***.



9.2.2 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.

9.2.2.1 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.

9.2.2.2 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 artificially 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.

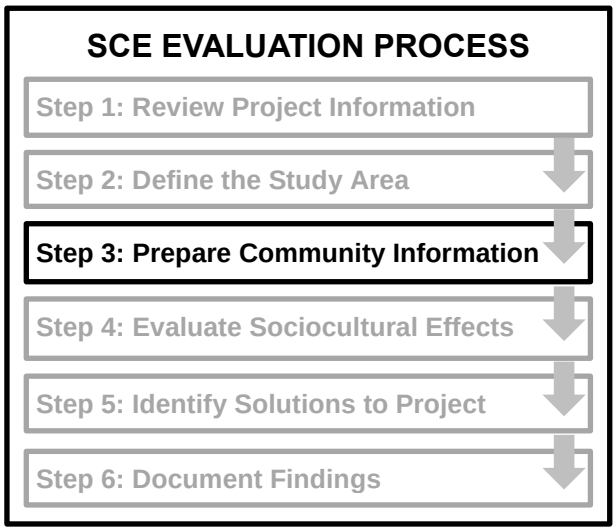
Using maps depicting the conceptual layout of the project alternatives and information collected during Step 1, delineate the area encompassing the communities/community resources having potential for effects. Describe existing conditions, including physical barriers (e.g., highways, waterways, and open spaces), activity centers, special districts and designations, disparate 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.

9.2.3 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 the Environmental Justice, Civil Rights, or other nondiscrimination regulations.



9.2.3.1 Supplement the Community Data

In Steps 1 and 2, you reviewed existing project information and existing conditions, collected a portion of the community information needed for the SCE evaluation, and defined the study area. In this step, supplement the community information as needed to enable you 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 your 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 - Again, the type and extent of community information collected will depend on the potential for project effects. Refer to ***Data Sources for Sociocultural Effects Evaluations*** for guidance on where to locate community data (found on ***Reading Materials*** page of the ***SCE Evaluation Process website***).

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 - The community information should include 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.

9.2.3.2 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 ***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.

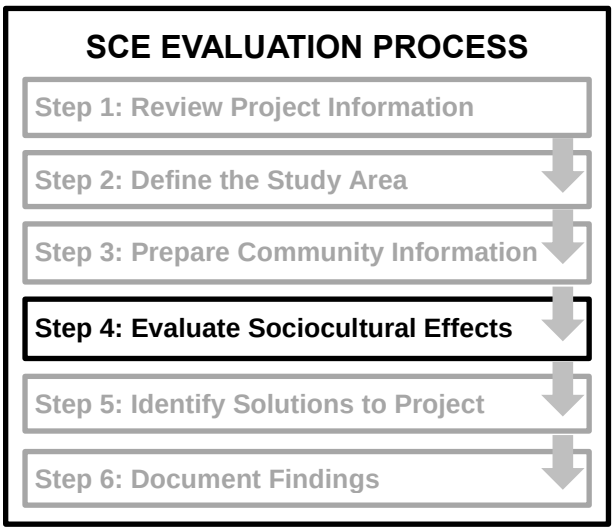
Depending on the complexity of the project and potential for adverse impacts, the summary format may vary. For example, more complex projects such as EAs or EISs will usually include the following:

- 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 findings, such as the presence of population groups, employment, and trends

9.2.4 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 as defined by CEQ regulations ***40 CFR §§ 1500-1508***:

- **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 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 9.3*** 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 6, Engineering Analysis*** for further guidance on procedures relative to project alternatives). The Class of Action will determine the appropriate level of analysis and documentation for the SCE evaluation.

- **Type 2 Categorical Exclusion** - The evaluation must be in sufficient detail to demonstrate that no significant impacts are likely to occur as the result of the project. Consideration of multiple build alternatives during the screening process is typically not required for Type 2 CEs unless project impacts necessitate consideration of additional alternatives. Refer to ***Part 1, Chapter 5, Type 2 Categorical Exclusion*** for further guidance.
- **Environmental Assessment** - The evaluation requires a succinct analysis and evidence of resources or features which may be significantly impacted for use in determining whether an EIS or a Finding of No Significant Impact (FONSI) is

prepared. Refer to ***Part 1, Chapter 6, Environmental Assessment*** for further guidance.

- **Environmental Impact Statement** - Consideration, analysis, and documentation of appropriate issues for reasonable build and no-build alternatives must be sufficiently detailed in the evaluation as required by the CEQ regulations. Refer to ***Part 1, Chapter 8, Draft Environmental Impact Statement*** and ***Chapter 9, Final Environmental Impact Statement*** for further guidance.

- **State Environmental Impact Report** - Sufficient detail is required to describe project impacts in the evaluation, including the level of impact on the affected community. The range of alternatives evaluated, including the no-build alternative, is determined by the FDOT. Refer to ***Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery*** for further guidance.

9.2.4.1 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 Sociocultural Effects Evaluations included in ***Table 9-5*** provide guidance on identifying community resources relative to the six SCE issues ***(Table 9-2)***.

9.2.4.2 Perform Community Outreach

In coordination with the PD&E public involvement coordinator, perform community outreach throughout the SCE evaluation 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 and consultation of affected community groups and neighborhoods.

More information on community outreach for PD&E projects is provided in ***Part 1, Chapter 11, Public Involvement*** and in the ***FDOT Public Involvement Handbook***.

9.2.4.3 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 9.5*** (provided at the end of this ***Chapter***) 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 the ***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 Cultural Resources Assessment Survey prepared for the PD&E Study is a good source for learning 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 property values and 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

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. Explore the potential for effects on unique community features (e.g., historic landmarks/structures, water features, parks, landscaping, and natural vegetation).

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 access. If changes to existing traffic patterns, circulation, or access are envisioned, consider who might benefit or suffer as a result. Identify potential effects on public parking. Verify that the project is consistent with local and regional transportation plans.

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 relative to 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 15, 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.

Useful information for this evaluation includes public commentary; field review notes; right-of-way maps; property appraiser parcel information; ***Conceptual Stage Relocation Plan***; and datasets for existing land use, points of interest, and historical structures/archaeological sites. See ***Section 9.3.4*** for more information about the ***Conceptual Stage Relocation Plan*** and how to include the information it contains into the Environmental Document.

9.2.4.4 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 9-5*** 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 9.4*** for website).

9.2.4.5 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.

9.2.4.6 Describe Degree of 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 located 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 according to the setting, or community context, of the project. Community input will help with this assessment.

9.2.4.7 Identify Adverse Effects on Minority and Low-income Populations

If minority or low-income populations are located in the affected area, the next step of the process identifies adverse effects to those populations. This sub-step is not necessary if minorities or low-income populations are not affected by the project.

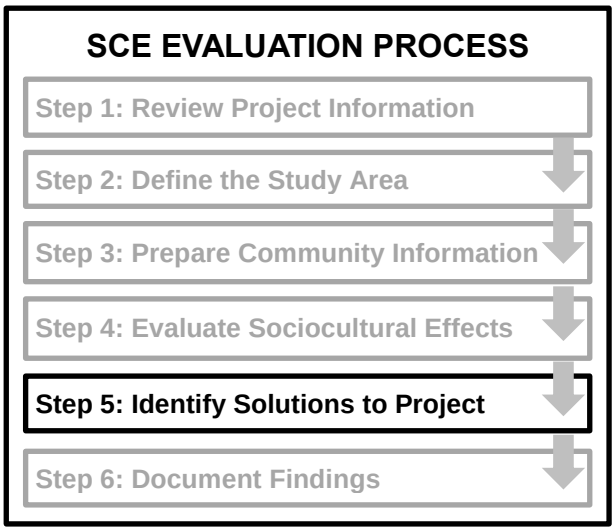
For the purposes of Environmental Justice, consider all effects, not just the six SCE issues. Coordinate with other members of the PD&E project team to obtain information about other potential effects. The ***USDOT Order 5610.2(a)***, defines adverse effects as:

"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" ***(USDOT, 2012)***.

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 public involvement plan will assist with this part of the assessment. See ***Part 1, Chapter 11, Public Involvement*** for more information about public involvement.

9.2.5 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. Refer to the ***Resolving SCE Issues Guidance Sheet***.



9.2.5.1 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.

9.2.5.2 Work with Communities to Evaluate/Devise Solutions

Work with community stakeholders to solicit input on transportation solutions and design features to address project impacts. This can happen through targeted group meetings

with project stakeholders, homeowners' associations, 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, Right of Way) must take place and any commitments must be documented consistent with ***Procedure No. 700-011-035, FDOT Commitment Tracking*** and ***Part 2, Chapter 32 Commitments***.

9.2.5.3 Focus Outreach on Affected Populations and Neighborhoods

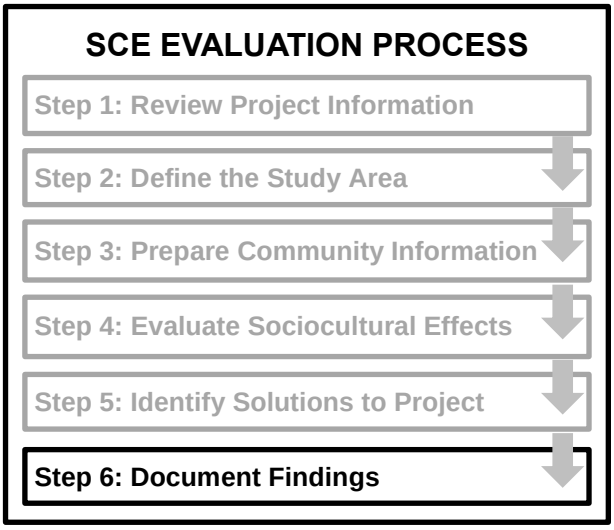
Obtain public input on potential project solutions through community outreach. Focus outreach on populations and neighborhoods that may be potentially affected by the project. Refer to ***Part 1, Chapter 11, Public Involvement*** and the ***FDOT Public Involvement Handbook*** for additional guidance.

9.2.5.4 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 FDOT ***Procedure No. 700-011-035, Project Commitment Tracking***, for requirements. The Project Manager is responsible for the coordination, documentation, and transmission of project commitments.

9.2.6 Step 6: Document Findings

Refer to ***Section 9.3*** for instructions about documenting the SCE evaluation results.



9.2.7 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 5610.2(a)***, 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 findings 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 5610.2(a)***]. (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. For projects where Federal Highway Administration (FHWA) or Federal Transit Administration (FTA) is the lead agency, and when disproportionately high and adverse effects exist, FHWA/FTA will only approve the proposed action if it determines no such practicable measures exist (***FHWA, 2011 and FTA, 2012***).

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 guidance (***FWHA, 2011***) and FTA guidance (***FTA, 2012***) for specific guidance regarding these factors.

9.2.8 Updating SCE Evaluations in Subsequent Phases

Communities may change over time. When they do, the potential effects and the community's perception of those effects may also change. Therefore, the SCE evaluation must be reviewed and updated as needed. This occurs through SCE reevaluations which follow procedures according to ***Part 1, Chapter 13, Reevaluations.***

SCE reevaluations focus on describing changes in the affected community and ensuring the community concerns about project effects have been identified and addressed. Use the most appropriate tools based on the project scope, community context, and potential for project effects. Typical activities include:

- **Desktop data analysis** - Compare the previous SCE evaluation findings 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 community concerns and potential solutions during public involvement activities conducted during subsequent phases and through the ***Community Awareness Plan***. If potentially underrepresented populations will be affected by the project, special considerations may be necessary to fully engage the community. See ***Part 1, Chapter 11, Public Involvement*** for more information about public involvement.

Requirements for conducting reevaluations and documenting the findings vary by Class of Action. See ***Part 1, Chapter 13, Reevaluations*** for details.

9.3 DOCUMENTATION

In the PD&E phase, the SCE evaluation findings, recommendations, and supporting information are used to update the project file and prepare appropriate sections of the Environmental Document. Information from the ***Conceptual Stage Relocation Plan*** (See the ***Right of Way Manual, Topic No. 575-000-000***), which supports the evaluation of potential relocation effects, is also used to prepare the Environmental Document.

9.3.1 Update Project File

Appropriate information for the project file includes:

- All information compiled and assessments performed for the SCE evaluation (e.g., demographic data, maps, analyses—including the ***Conceptual Stage Relocation Plan***—and public comments)

- Community outreach materials (e.g., contact lists, description of activities, project information handouts, and correspondence)

Documents in the project file provide justification for project recommendations, demonstrate that public input was solicited and considered in project decisions, and provide guidance for subsequent project phases and future projects.

9.3.2 Prepare Environmental Document

Maintain a written record of all findings, beginning with the potential sociocultural effects suggested by the compiled community information and proceeding to more detailed analysis as alternatives are refined and evaluated. Prepare an executive summary of key findings, including public concerns, conclusions of various analyses, strategies for addressing impacts, and any commitments made to the public.

Summarize the findings and recommendations of the SCE evaluation in the appropriate sections of the project's Environmental Document or a separate ***SCE Technical Memorandum*** (see ***Figure 9-2*** for an example outline). If a separate ***SCE Technical Memorandum*** is prepared, summarize the findings in the Environmental Document. These memorandums may be used at any time, and are recommended when there are substantial concerns about community effects. Documentation of the SCE evaluation in the Environmental Document varies by Class of Action and complexity of the project.

Results of the SCE evaluation are documented in the Environmental Document as described below.

9.3.2.1 Type 1 Categorical Exclusions or Non-Major State Actions

Minimal documentation on sociocultural effects is required for Type 1 Categorical Exclusions and Non-Major State Actions. For Type 1 Categorical Exclusions, the SCE evaluation results are recorded on the ***Type 1 Categorical Exclusion Checklist, Form No. 650-050-12*** found in ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination***. For Non-Major State Actions, the SCE evaluation results are recorded on the ***Non-Major State Actions Checklist*** found in ***Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery***.

9.3.2.2 Type 2 Categorical Exclusions

The Environmental Document for a Type 2 Categorical Exclusion (CE) (also referred to as Type 2 CE documentation) includes the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11, Preliminary Engineering Report (PER)*** and, if applicable, the public hearing transcript. For additional information on the components of a Type 2 CE, see ***Part 1, Chapter 5, Type 2 Categorical Exclusion***.

Impact Evaluation - To document sociocultural effects on the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***, place an "X" in the appropriate column indicating the level of impact in the Impact Evaluation section. Most of the SCE evaluation issues are documented in Section A, “Social and Economic”, of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***. Aesthetics considerations are documented in Section D “Physical, Item 5”. If an SCE issue is not in any way involved with the project, mark the column indicating “NOINV.” If an issue exists but there is little or no impact, mark the column indicating “NONE.” If a perceived impact is not significant, mark the column “NotSig” and provide documentation. If a perceived impact is significant, mark the column “SIG” and provide documentation.

Provide documentation in the Basis for Decision column and supplement with attachments as necessary to substantiate the impact determination. Summarize any 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 any 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***, Environmental Justice, and other nondiscrimination laws and regulations, the following standard statement must be included above the reviewers’ signatures in section 4 on 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.*

Commitments and Recommendations – Summarize commitments to address sociocultural effects or controversies for the selected alternative during design and/or construction in the Commitments and Recommendations section of the ***Type 2 CE Determination Form, Form No. 650-050-11***. Note: This summary should match the related content included in the ***PER***.

Preliminary Engineering Report - Compare sociocultural impacts in the Evaluation Matrix section of the ***PER***.

For additional guidance on documenting ***Type 2 Categorical Exclusions***, including the ***PER***, refer to ***Part 1, Chapter 4, Project Development Process*** and ***Part 1, Chapter 5, Type 2 Categorical Exclusion.***

9.3.2.3 Environmental Assessments

Environmental Analysis - Summarize the results of the SCE evaluation in items 1-6 of the Social and Economic sub-section, and item 5 of the Physical sub-section. The summary should be commensurate in scope with the impact analysis findings 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***, Environmental Justice, and other nondiscrimination laws and regulations, 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.*

Comments and Coordination - Include a summary of community outreach activities used in the SCE evaluation. Documentation of this section will be in accordance with the public involvement requirements found in ***Part 1, Chapter 11, Public Involvement***.

Commitments - Provide any commitments to address sociocultural effects or controversies for the selected alternative during design and/or construction in the Commitments section. Note: This summary should match the related content in the ***PER*** Commitments should be prepared following ***Procedure No. 700-011-035, FDOT Commitment Tracking***.

Depending on the significance of the impacts, an EA will result in a FONSI where the analysis of the technical studies indicates that no significant environmental impact will result from the proposed project or an EIS if significant environmental impacts are identified. The processing of an EA and a FONSI are discussed in ***Part 1, Chapter 6, Environmental Assessment*** and ***Part 1, Chapter 7, Finding of No Significant Impact***. EIS documentation for SCE evaluations is discussed below.

9.3.2.4 Environmental Impact Statements

Summary - To record that the project has fully considered effects to minorities and other groups under the ***Civil Rights Acts of 1964***, Environmental Justice, and other nondiscrimination laws and regulations, 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.

Affected Environment - Provide a concise summary of the existing sociocultural environment for each of the six SCE issues in the Affected Environment Section of the EIS by using the compiled community information for the project. Include information demonstrating that special populations have received full consideration.

Environmental Consequences - Summarize the potential adverse community impacts for each alternative and strategies for resolving adverse impacts in the Social and Economic Impacts sub-section of the Environmental Consequences 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.

Comments and Coordination - Indicate project features developed in conjunction with community outreach and coordination with government agencies, private groups, and the public and provide documentation of coordination efforts.
Commitments - Summarize commitments to address sociocultural effects or controversies for the selected alternative during design and/or construction. Note: This summary should match the related content in the ***PER***.

EISs addressing a significant SCE issue typically include a separate ***SCE Technical Memorandum***. See ***Figure 9-2*** 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.

9.3.2.5 State Environmental Impact Reports

Environmental Analysis - Include the SCE evaluation results in Section B of the ***FDOT Project Evaluation Form*** and place an "X" in the appropriate column indicating the level of impact in the Environmental Analysis section. Most of the SCE evaluation issues are documented in section A Social Impacts. If an SCE issue is not in any way involved with the project, mark the column indicating “NOINV.” If an issue exists but there is little or no impact, mark the column indicating “NO” and provide documentation. If a perceived impact is significant, mark the column “YES” and provide documentation. Provide documentation in the Basis for Decision column and supplement with attachments as necessary to substantiate the impact determination.

To record that the project has fully considered effects to minorities and other groups under the ***Civil Rights Acts of 1964***, Environmental Justice, and other nondiscrimination laws and regulations, the following standard statement must be included in Section C.8. of the ***FDOT Project Evaluation Form***:

This project has been developed without regard to race, color, national origin, age, sex, religion, disability, or family status.

Commitments - Discuss all project commitments made in coordination with the community in this section of the SEIR. See ***Procedure No. 700-011-035, FDOT Commitment Tracking***.

For more information about developing SEIRs, see ***Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery***.

9.3.2.6 Documentation for Environmental Justice/Title VI Considerations

FHWA and FTA have published guidance for documenting findings related to Environmental Justice. Both guidance documents cover the same concepts, but FHWA provides more specific instructions. The guidance from both agencies is provided below for use when developing Environmental Documents for approval by these agencies. When developing a SEIR, either of these methods may be used.

When this is a major issue for the project, it is often addressed in a separate section of the Social and Economic sub-section titled Nondiscrimination Considerations of the Environmental Document. Otherwise, it may be incorporated into the discussion of the six SCE issues as appropriate.

9.3.2.6.1 Federal Highway Administration Guidance

NEPA documents prepared for FHWA should include the following information ***(FHWA, 2011)***:

1. **Briefly describe *Executive Order 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** - Provide demographic information on the general population in the project study area in the appropriate section of the ***NEPA*** document. Describe the ethnicity, age, mobility, and income level of the population.

   When minority or low-income populations 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

"No minority or low-income populations have been identified that would be adversely impacted by the proposed project, as determined above. Therefore, in accordance with the provisions of ***Executive Order 12898*** and ***FHWA Order 6640.23a***, no further Environmental Justice analysis is required."

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 topics such as air, noise, water pollution, hazardous waste, aesthetic values, community cohesion, economic vitality, employment effects, displacement of persons or businesses, farms, accessibility, traffic congestion, relocation impacts, safety, and construction/temporary impacts.

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.

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

Statement of a Determination of No Disproportionately High and Adverse Effects

"Based on the above discussion and analysis, the XYZ alternative(s) will not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of ***Executive Order 12898*** and ***FHWA Order 6640.23a***. No further Environmental Justice analysis is required."

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, FHWA will only approve the project if no practicable measures exist to avoid or reduce these effects. The FHWA determination should be stated in the Environmental Document. Furthermore, 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***, the document must include the following FHWA 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

9.3.2.6.2 Federal Transit Administration Guidance

EISs and EAs prepared for the FTA should describe the following ***(FTA, 2012)***:

1. Minority and/or low-income populations within the study area affected by the project, if any, and a discussion of the method used to identify this population (e.g., analysis of Census data, minority business directories, direct observation, or a public involvement process).

2. Adverse effects of the project both during and after construction that would affect the identified minority and low-income populations.

3. Positive effects that would affect the identified minority and low-income populations, such as an improvement in transit service, mobility, or accessibility.

4. Mitigation and environmental enhancement actions incorporated into the project to address effects, including, but not limited to, any special features of the relocation program that go beyond the ***Uniform Relocation Act*** and address adverse community effects, such as separation or cohesion issues and the replacement of the community resources destroyed by the project.

5. Any remaining effects and why further mitigation is not proposed.

6. For projects that travel through predominantly minority and low-income and predominantly non-minority and non-low-income areas, a comparison of mitigation and environmental enhancement actions that affect predominantly low-income and minority areas with mitigation implemented in predominantly non-minority or non-low-income areas.

FTA recommends that the discussion describes the consideration of the affected community's views on the project and the potential benefits and burdens of the project, and alternatives that have less impact on Environmental Justice (EJ) populations. In selecting the preferred alternative, the ***NEPA*** document should include a discussion of the magnitude and distribution of disproportionately high and adverse human health or environmental effects on EJ populations for all reasonable alternatives.

9.3.3 Develop Conceptual Stage Relocation Plan

Whenever relocations are anticipated for a project, a ***Conceptual Stage Relocation Plan (CSRP)*** is prepared by District Right of Way Office at the same time that the Environmental Document is being prepared by the District environmental staff. The plan should include detailed data about the demographics of the households and businesses

being relocated, replacement property, and relocation assistance. ***Chapter 9*** of the ***Right of Way Procedures Manual, Topic No. 575-000-000*** contains a wide range of methods for addressing potential impacts, including financial, design, replacement/restoration, planning/programmatic assistance, and regulatory strategies.

To comply with the ***FHWA Technical Advisory T6640.8A*** and ***Section 9.1.3*** of the ***Right of Way Manual***, the data from the plan must be incorporated into the Environmental Document (Type 2 CE, EA, EIS, or SEIR). When relocations are involved, a ***CSRP*** must also be prepared for Type 1 CEs. If there are no displacees, or if relocation assistance is not going to be provided on the project, then a ***CSRP*** is not required.

It is the responsibility of District environmental staff to coordinate with the District Right of Way Office to ensure that the preparation of the ***CSRP*** coincides with project scheduling and that delays are avoided. Close coordination will also ensure that all alignment alternatives have been properly assessed.

The ***CSRP*** serves as a principal data source used in the SCE evaluation when discussing relocation effects in the Environmental Document. Upon receipt of the plan from the District Right of Way Office, District environmental staff summarize the data contained in the ***CSRP*** in the appropriate sections of the Environmental Document to address anticipated relocation effects. The Environmental Document must reference the ***CSRP***. It must accompany the Type 2 CE, EA, or Draft Environmental Impact Statement (DEIS) Environmental Documents when provided to FHWA. FHWA acceptance of the ***CSRP*** as adequate supporting documentation occurs when the Type 2 CE is approved or the EA or DEIS is approved for public availability. The ***CSRP*** is then placed in the project file for the administrative record.

Information about relocations is updated during a project reevaluation as the project progresses, consistent with ***Part 1, Chapter 13, Reevaluations***.

The development of information in the ***CSRP*** should correspond to the level of complexity of the project. In areas where there is little or no involvement with homes or businesses, and relocations are limited to signs only, the information provided in the plan and the Environmental Document should state this fact.

Sources of information in the ***CSRP*** should be documented. Information provided should be secondary type information (for example, Census data or other published survey research data) in combination with a windshield survey to verify the reasonableness of the secondary source information.

The ***CSRP*** must address each build alternative under consideration by FDOT for additional study. When an alternative has been dismissed, the plan must support the rejection of the alternative if relocation effects are a principal reason for dismissal. The ***CSRP*** must include information for each alternative of the proposed action consistent with ***Section 9.1.6*** of the ***Right of Way Manual, Topic No. 575-000-000.***

9.3.4 Considerations for Evaluating Relocation Effects

Listed below are some important points to keep in mind in developing the information from the ***CSRP*** for inclusion in the Relocation Potential section of the Environmental Document:

- All relocation information must be quantifiable (i.e., a general statement such as "There are sufficient resources available for residential displacees" is not acceptable as quantifiable data).

- The ***CSRP*** must document the sources of information used in developing the plan. Since most of the information provided in the ***CSRP*** 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.

- All pertinent data in the ***CSRP*** must be incorporated and discussed in the Environmental Document.

- A brief discussion of Last Resort Housing must be provided when comparable replacement housing is not available. ***Section 9.3.4.1*** of this chapter provides standard information to be incorporated into the Environmental Document.

- A brief summary of FDOT's Relocation Assistance Program must also be provided. ***Sections 9.3.4.2*** and ***9.3.4.3*** 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. 700-011-035, FDOT Commitment Tracking***.

9.3.4.1 Last Resort Housing

The discussion on Last Resort Housing is generally limited to an estimate of the number of households that will likely require Last Resort Housing and the inclusion of the following standard paragraph in the Relocation Potential section of the Environmental Document (Type 2 CE, EA, EIS or SEIR):

> *Comparable replacement housing for sale and rent is available in (Any City). However, there may be some last resort rent supplements and last resort replacement housing payments necessary. Last resort housing payments would be used in order to place the relocatees in decent, safe, and sanitary*

housing, if necessary. Should last resort housing be constructed, the housing would be available before the displacees are required to vacate their dwellings. There are numerous residential lots available for new construction within the (Any City) area. Lot sizes range from ___ square feet to ___ square feet and are priced from $___ to $___.

FDOT will ascertain exactly how many households actually require Last Resort Housing or rent supplements during the development of the Relocation Needs Assessment Survey during the Right of Way acquisition phase of project development.

9.3.4.2 Information Required When a Relocatee is Involved

The following standard information must be included in the Relocation Potential section of the Environmental Document when there is involvement of a relocatee:

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 Program in accordance with Florida Statute 339.09 and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).

The Florida Department of Transportation provides advance notification of impending Right of Way acquisition. Before acquiring Right of Way, all properties are appraised on the basis of comparable sales and land use values in the area. Owners of property to be acquired will be offered and paid fair market value for their property rights.

No person lawfully occupying real property will be required to move without at least 90 days written notice of the intended vacation date, and no occupant of a residential property will be required to move until decent, safe and sanitary replacement housing is made available. "Made available" means that the affected person has either by himself obtained and has the right of possession of replacement housing, or that the Florida Department of Transportation has offered the relocatee decent, safe and sanitary housing which is within his financial means and available for immediate occupancy.

At least one relocation specialist is assigned to each highway project to carry out the Relocation Assistance and Payments program. A relocation specialist will contact each person to be relocated to determine individual needs and desires, and to provide information, answer questions, and give help in finding replacement property. Relocation services and payments are provided without regard to race, color, religion, sex, or national origin.

All tenants and owner-occupant displacees will receive an explanation

regarding all options available to them, such as (1) varying methods of claiming reimbursement for moving expenses; (2) rental replacement housing, either private or publicly subsidized; (3) purchase of replacement housing; and (4) moving owner-occupied housing to another location.

Financial assistance is available to the eligible relocatee to:

- *Reimburse the relocatee for the actual reasonable costs of moving from homes, businesses, and farm operations acquired for a highway project.*
- *Make up the difference, if any, between the amount paid for the acquired dwelling and the cost of a comparable decent, safe and sanitary dwelling available on the private market, as determined by the department.*
- *Provide reimbursement of expenses, incidental to the purchase of a replacement dwelling.*
- *Make payment for eligible increased interest cost resulting from having to get another mortgage at a higher interest rate. Replacement housing payments, increased interest payments, and closing costs are limited to $31,000 combined total.*

A displaced tenant may be eligible to receive a payment, not to exceed $7,200, to rent a replacement dwelling or room, or to use as down payment, including closing costs, on the purchase of a replacement dwelling.

The brochures that describe in detail the Florida Department of Transportation's Relocation Assistance Program and Right of Way acquisition program are "Residential Relocation Under the Florida Relocation Assistance Program", "Relocation Assistance Business, Farms and Non-profit Organizations", "Sign Relocation Under the Florida Relocation Assistance Program", "Mobile Home Relocation Assistance", and "Relocation Assistance Program Personal Property Moves". All of these brochures are distributed at all public hearings and made available upon request to any interested persons.

Title VIII of the Civil Rights Act of 1968 guarantees each person equal opportunity in housing.

9.3.4.3 Information Required When There are No Relocations

The following standard information must be included in the Relocation Potential section of the Environmental Document 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, the Florida Department of Transportation will carry out a Right of Way and Relocation Program in accordance with Florida Statute 339.09 and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17). The brochures that describe in detail the FDOT's Relocation Assistance Program and Right of Way acquisition program are "Residential Relocation Under the Florida Relocation Assistance Program", "Relocation Assistance Business, Farms and Non-profit Organizations", "Sign Relocation Under the Florida Relocation Assistance Program", "Mobile Home Relocation Assistance", and "Relocation Assistance Program Personal Property Moves". All of these brochures are distributed at all public hearings and made available upon request to any interested persons.

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9.6 HISTORY

11/10/2003, 11/09/2009, 02/21/2014

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 9-5 SCE Considerations

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 9-5 SCE Considerations (Page 2 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 15, 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 9.3.4, Conceptual Stage Relocation Plan***.

Table 9-5 SCE Considerations (Page 3 of 3)

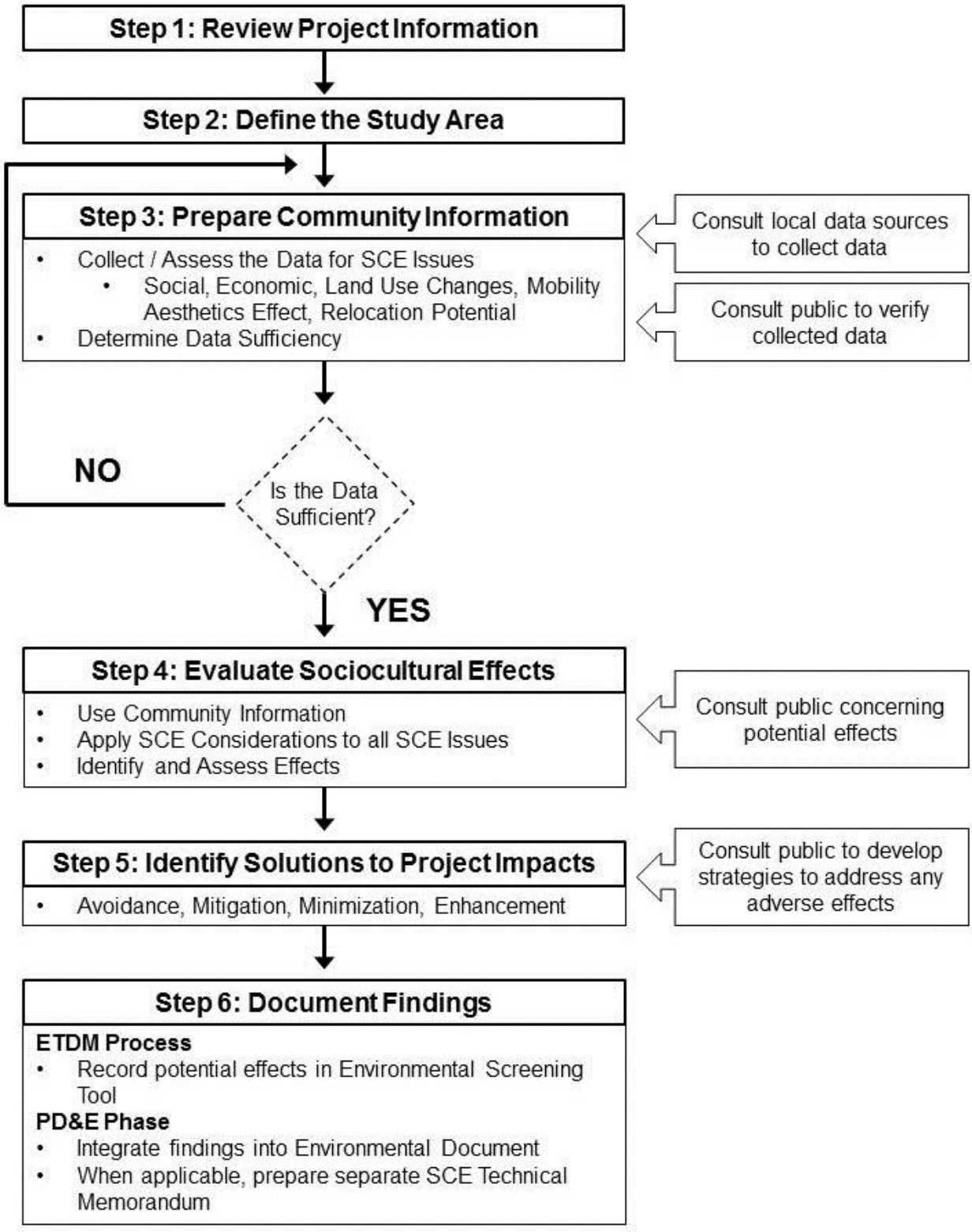

Figure 9-1 SCE Evaluation Process Diagram

SCE Technical Memorandum

I. Introduction
   A. Project Summary
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PART 2, CHAPTER 10

UTILITIES AND RAILROADS

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PART 2, CHAPTER 10

UTILITIES AND RAILROADS

10.1 OVERVIEW

The purpose of this chapter is to provide 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/or railroad conflicts during the PD&E phase. A utility, as defined in the Florida Department of Transportation's (FDOT) ***Utility Accommodation Manual (UAM), Topic No. 710-020-001***, is lines such as pipes, wires, pole lines, and appurtenances used to transport or transmit electricity, steam, gas, water, waste, voice or data communication, radio signals, or stormwater not discharged onto the FDOT Right of Way (ROW). The PM should coordinate with the DUO and the DRC early in the PD&E phase to identify potential conflicts between the proposed project, along with its associated improvements (e.g., drainage, landscaping, mitigation), and existing or future utilities and rail lines.

Conflicts with utilities as well as railroad crossings affect both cost and schedule of a project, and also have the ability to influence the selection of the alternative. 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/or the Utility Agency/Owner (UAO) should begin early and continue throughout the project development process to plan for the expense and time required for utility conflict resolution and/or relocations and railroad crossings.

For projects that do not have a PD&E phase, the coordination with UAOs will be done by the DUO and the District's Design PM in accordance with the ***Plans Preparation Manual (PPM), Topic No. 625-000-007*** and the ***Utility Accommodation Manual (UAM), Topic No. 710-020-001***.

10.1.1 Legislative Authority

Table 10-1 provides a summary of the major legislation, rules, and policies that govern railroad crossings and utilities in FDOT ROW.

TABLE 10-1 Legislation and Policies Related to Railroad Crossings and Utilities on Transportation Right of Way	
Title and Citation	**Relevance in PD&E**
Federal Legislation	
Utility Relocations Adjustments and Reimbursement [23 Code of Federal Regulations (CFR) § 645 (a)]	Prescribes the policies, procedures, and reimbursement provisions for the adjustment and relocation of utility facilities on federal-aid and direct federal projects.
Accommodation of Utilities [23 CFR § 645 (b)]	Prescribes the policies and procedures for accommodating utility facilities and private lines on the right of way of federal-aid or direct federal highway projects.
Railroad - Highway Projects [23 CFR § 646 (b)]	Prescribes the policies and procedures for federal-aid projects involving railroad facilities, including projects for the elimination of hazards of railroad-highway crossings, and other projects which use railroad properties or which involve adjustments required by highway construction to either railroad facilities or facilities that are jointly owned or used by railroad and utility companies.
State Legislation	
Use of right of way for utilities, Section 337.401, Florida Statutes (F.S.)	Authorizes the FDOT and local governmental entities, to prescribe and enforce reasonable rules or regulations with reference to the placing and maintaining within the right of way limits of, across, or on any road or publicly owned rail corridors under their respective jurisdictions any utility.
Relocation of Utilities, Section 337.403, F.S.	Regulates the timeline and who is required to pay for the expense of removing or relocating a utility that is found to be unreasonably interfering in any way with the convenient, safe, or continuous use, or the maintenance, improvement, extension, or expansion of a facility.
Regulation of Public Railroad-Highway Grade Crossings, Section 335.141, F.S.	Provides FDOT regulatory authority over all public railroad-highway grade crossings in the state.

TABLE 10-1 Legislation and Policies Related to Railroad Crossings and Utilities on Transportation Right of Way	
Title and Citation	**Relevance in PD&E**
Chapter 14-46, Florida Administrative Code (F.A.C.), and the incorporated Utility Accommodation Manual	Establishes requirements for accommodation of new and existing utilities across, on, or under transportation facilities within FDOT's right of way.
Railroad Safety and Clearance Standards, and Public Railroad-Highway Grade Crossings Rule, Chapter 14-57, F.A.C.	Governs the clearances at grade crossing as well as required warning signs, gates and lights
FDOT Policies/Agreements	
FDOT Procedure No. 710-010-050, Utility Work Agreements and Certification Process	Establishes a uniform procedure for the coordination of utilities on projects administered by FDOT. This includes the negotiation, execution, and submission of Utility agreements and supplements thereto, the processing and filing of critical documents, consultant services, the development of a Utility Work Schedule, and the processing and distribution of agreement packages.
FDOT, Utility Agreements, Resolutions and Certificate of Incumbency	A listing and copies of agreements between FDOT and utility companies.

10.2 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, should coordinate often with the UAO 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, a Sunshine One Call 811 can help locate existing utilities. 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. It will also be used in preparing the PD&E Scope of Service.

During the development of alternatives, 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. This early coordination will assist with the development of concept plans with the goal of avoiding conflicts with major utility facilities in the next phase of

project development. All stakeholders benefit from early coordination and opportunities to reduce utility impacts, as well as impacts to future project scheduling and budgeting. Similarly, early coordination with the DRC and any Railroads impacted by PD&E projects is also required.

UAOs and Railroads are project stakeholders and should be invited to public meetings and hearings, which will help them to receive direct feedback from customers on potential issues. Attendance of UAO 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.

10.2.1 Utility Procedure

The process to address utilities during the PD&E phase is presented in four stages: PD&E Project Scoping; PD&E Request Package; UAO Coordination; and preparation of a ***Utility Assessment Package***.

10.2.1.1 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 is the anticipated number of UAOs that may be within the PD&E Study limits and the anticipated complexity of coordination with each UAO for the ***Utility Assessment Package***. The UAOs in the project area may be identified using the Sunshine One Call, 811. When preparing the Scope of Services, requirements for UAO coordination and documentation in the ***Utility Assessment Package*** and Environmental Document will be determined. The ***Utility Assessment Package*** (See ***Section 10.2.1.4***) is prepared either in-house by the DUO, or by the PD&E Consultant during the PD&E phase. Regardless of who prepares the ***Utility Assessment Package***, the DUO is responsible for and must review and approve the Consultant's product.

PD&E projects with advanced preliminary design or final design in the PD&E phase, following the Statewide Acceleration and Transformation process in ***Part 1, Chapter 4, Project Development Process***, will require a higher level of coordination with the UAOs than projects with a standard PD&E Study. 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 utilities that could affect the preferred alternative, entail long duration coordination efforts, may be cost prohibitive to relocate, or for other reason 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 utilities have special agreements with FDOT (e.g., the Florida Gas Transmission (FGT) Global Agreement), some are fragile (e.g., large clay pipes, pipes that have been underground for decades) and some devices are misrepresented as utilities (e.g., wireless communication devices). Therefore, the level of engineering detail required for

the PD&E Study should be discussed in depth with the DUO during scoping. In special cases, projects with significant utility concerns or, accelerated schedules may require detailed locations of utilities and in these cases, the DUO may request the PD&E Study to include additional survey work and possibly the need for Subsurface Utility Engineering (SUE) work.

10.2.1.2 PD&E Request Package

The PM is responsible for developing and submitting a PD&E Request Package (see ***Section 10.2.1.3***) to the DUO early in the PD&E Study, after the proposed alternatives are developed. The PD&E Request Package should consist of the project typical section(s) and concept plans for each alternative under consideration. The typical section data provided should include roadway and shoulder width, median and border widths and respective treatments.

The concept plans will show the location of all viable proposed alternatives for the project on an aerial photograph. The concept plans must contain the following information at a minimum:

1. All paved areas;
2. Bridges;
3. Existing drainage structures;
4. ROW lines and width;
5. Access control lines;
6. Horizontal alignment stationing; and,
7. Special landscaping or mitigation areas.

10.2.1.3 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. The transmittal to the UAOs should request existing and planned utility information for above ground and below ground utilities along or within the PD&E project area, as well as 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 this information, including at a minimum all major facilities, buildings, and other obstructions or encroachments of UAOs within or adjacent to the project corridor. Generally, the UAOs will respond in writing as well as by “marking” their

facilities on the concept plans, in accordance with ***Chapter 14-46, F.A.C.*** and incorporated in the UAM.

A meeting to discuss utility impacts related to the alternatives should be held with each of the respective UAOs approximately 30 days after sending the PD&E Request Package. Each UAO should identify both existing and planned utility corridors and installations within the project alignments. If applicable 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 order of magnitude relocation costs and schedule impacts for those relocations. The DUO may also need to discuss property interests and possible encroachments/subordinations. However, no compensability determinations should be made. The DUO shall take any compensability requests to the Office of General Counsel for guidance. The possibility of a UAO entering into a ***Utility Work by Highway Contractor Agreement (UWHCA), Topic No. 710-010-21,*** should also be addressed.

In addition, the DUO may need to meet individually with certain UAOs that need additional attention as described in ***Section 10.2*** to better understand possible conflicts and discuss alternatives.

If applicable, the PM, in conjunction with the District ROW Office, should consider the feasibility of joint ROW acquisition to minimize utility ROW replacement cost if feasible. This approach should be discussed in the Utilities and Railroads section of the Environmental Document and referenced in the Relocation Potential section in accordance with ***Section 10.3***. In addition, if FGT is anticipated to require ROW per the ***Agreement and Global Settlement (August 21, 2013)***, this should be discussed with the Office of General Counsel and documented in the Environmental Document in the same fashion as joint ROW acquisitions.

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.

10.2.1.4 Utility Assessment Package

The information provided by the UAOs through coordination shall be used by the DUO in preparing the ***Utility Assessment Package***. For each of the proposed alternatives, the Utility Assessment Package will include:

1. Names of all identified UAOs;

2. One set of aerials denoting the location of major existing and planned utilities. Aerials should be developed in such a way that information regarding the major utility facilities is easily discernable. For example, in order for the PM to

understand the total impacts to the affected utilities, aerials may need to 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;

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 into a ***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 subordinations and encroachments; and,

10. If it is determined that a UAO will not be affected by the proposed project, information concerning the UAO disposition shall be documented in the ***Utility Assessment Package***.

Any discussion in the ***Utility Assessment Package*** regarding conversations with UAO concerning compensation or legal determinations should be reviewed and approved by the District Office of General Counsel before being included.

The ***Utility Assessment Package*** shall be provided to the PM for consideration in comparing alternatives and selecting a preferred alignment. The Environmental Document will include a summary of this package.

If it is determined that a utility will not be affected by the proposed project, information concerning the disposition shall be included by the PM in the appropriate Environmental Document according to ***Section 10.3***.

Should there be an opportunity for FDOT to enter into a formal agreement with a UAO during the PD&E phase, the DUO and PM must be informed. Together the DUO and the PM will coordinate with the Office of General Counsel as appropriate to negotiate and execute the agreement with the UAO. Agreements reached during the PD&E phase will be documented with the Office of General Counsel and the PM, and will be included in the ***Utility Assessment Package*** maintained by the DUO. These agreements could include ROW acquisition, utility easements or preliminary engineering.

Commitments will be documented in the Commitments Section of the Environmental Document as well as the ***Project Commitment Record, Form No. 700-011-35***. For more information on commitments, refer to ***Part 2, Chapter 32, Commitments***.

10.2.2 Railroad Procedure

For projects that include a railroad crossing, 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), condition of the crossing, crash incidents, number of tracks, crossing purpose, railroad schedules, owner.

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, 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 1, Chapter 6 “Railroad Crossing” of ***Plans Preparation Manual, Topic No. 625-000-007*** 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 and be cognizant of 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 may be sufficient to simply begin coordination with the railroad to ensure both FDOT and the railroad company understand the impacts of each alternative when choosing the FDOT Recommended Alternative. For a project following the

Statewide Acceleration and Transformation process (see ***Part 1 Chapter 4, Project Development Process***) with advanced preliminary design or final design in the PD&E phase, or a project with the PD&E phase followed by a design-build contract, the coordination may require more detail such as deciding who will fund the at grade improvements, scheduling the work, determining if the railroad company will perform the construction. The DRC is responsible for this coordination. For more information see the ***Rail Handbook, Topic No. 725-080-002***.

Documentation of the coordination with the railroads must be included in the project files. The Environmental Document and ***Preliminary Engineering Report*** will discuss this coordination and involvement with a rail facility(ies) to the appropriate level of detail required to address any issues identified.

10.3 ENVIRONMENTAL DOCUMENT

Coordination with the Utilities and Railroads and related information from such coordination should be summarized in the appropriate sections of the Environmental Document. See ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination*** for a discussion of the different Classes of Action.

10.3.1 Type 2 Categorical Exclusions

Projects which are categorical exclusions (CEs) may have involvement with utilities and railroads as long as the involvement is determined not to be significant. The determination of significance should be agreed upon by the DUO, DRC, District Environmental Administrator, and the PM following the guidance in ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination***.

1. For a Type 2 Categorical Exclusion, Section D.7. of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11*** should be checked.

2. If “NOINV” is marked for utilities and railroads, then there are no utilities or railroads on the recommended alternative;

3. If “NONE” is marked for utilities and railroads, then they may be located within the recommended alternative but not be impacted by the project;

4. If “NotSig” is marked, then it is anticipated that there is a need for utility relocation or revision to railroad crossing, but the relocation or revision will not result in significant disruption of utility or rail services to the public. The supporting documentation for utilities should summarize the information contained in the ***Utilities Assessment Package***. For railroads, the supporting documentation should discuss the involvement with the railroad and address any issues identified during the coordination.

10.3.2 Environmental Assessments and Environmental Impact Statements

For Environmental Assessments (EA) and Environmental Impact Statements (EIS), it is the PM's responsibility to document project-related utility or railroad impacts. The documentation should include a summary of the information in the ***Utilities Assessment Package*** and a discussion of any issues identified with railroads in the Impacts section of the EA or the Environmental Consequences sections of the EIS.

10.3.3 State-Funded Projects

For State Environmental Impact Reports (SEIRs), the PM should include the results of the coordination in the Environmental Analysis section of the SEIR by placing an "X" in the appropriate column indicating the level of impact:

1. If there are no utilities or railroads within the project area, mark the column indicating "NOINV."

2. If the project will benefit the utilities and railroads or public use of such, mark the column indicating "ENHANCE."

3. If there are utilities or railroads in the area but there is no impact, mark the column indicating "NO."

4. If there is a potential impact, mark the column "YES."

The PM should include justification for the decision in the Basis for Decision column and supplement with attachments as necessary to support the impact determination. The supporting documentation for utilities should summarize the information in the ***Utilities Assessment Package***. For railroads, the supporting documentation should discuss the involvement with the railroad and address any issues identified during coordination.

10.4 REEVALUATION OF UTILITY AND RAIL IMPACTS

Prior to proceeding to each phase of project development, or if there have been changes to the design, there must be a project Reevaluation consistent with ***Part 1, Chapter 13, Reevaluations***. The District Utilities staff and the DRC must be consulted during the reevaluation process to ensure that there are no changes to the anticipated impacts.

10.5 REFERENCES

American Association of State Highway and Transportation Officials, 2006. Tracking Compliance with Environmental Commitments/Use of Environmental Monitors. http://www.environment.transportation.org/pdf/programs/PG04.pdf.

Title 23 Code of Federal Regulations (CFR) §645(a); Utility Relocations Adjustments and Reimbursement.

23 CFR §645(b); Accommodation of Utilities.

23 CFR §646(b); Railroad-Highway Projects.

Rule 14-57, F.A.C. (Railroad Safety and Clearance Standards, and Public Railroad-Highway Grade Crossings Rule). Accessed at https://www.flrules.org/gateway/ChapterHome.asp?Chapter=14-57.

Florida Department of Transportation (FDOT), 2010. Utility Accommodation Manual. http://www.dot.state.fl.us/programmanagement/utilities/UAM.shtm.

FDOT, 2012. FDOT Rail Handbook. http://www.dot.state.fl.us/rail/publications/handbook.pdf.

FDOT, 2012. Project Commitment Record Form. http://www2.dot.state.fl.us/proceduraldocuments/forms/informs/70001135.pdf.

FDOT, 2014. Utility Work Agreements and Certification Process. http://fdotwp1.dot.state.fl.us/ProceduresInformationManagementSystemInternet/FormsAndProcedures/ViewDocument?topicNum=710-010-050.

FDOT, 2014. Utility Work for Local Government Utilities. http://fdotwp1.dot.state.fl.us/ProceduresInformationManagementSystemInternet/FormsAndProcedures/ViewDocument?topicNum=710-030-005.

FDOT, 2015. Local Agency Program Manual. http://www.dot.state.fl.us/programmanagement/LAP/LAP_TOC.shtm .

FDOT, 2016. Plans Preparation Manual. http://www.dot.state.fl.us/rddesign/PPMManual/2016PPM.shtm.

FDOT, 2015. Standard Specifications for Road and Bridge Construction, Florida Department of Transportation. http://www.dot.state.fl.us/SpecificationsOffice/Implemented/SpecBooks/.

FDOT, Current Revision. Construction Project Administration Manual, Topic No. 700-000- 000. http://www.dot.state.fl.us/construction/manuals/cpam/CPAMManual.shtm.

Chapter 335, Florida Statutes (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/.

10.6 HISTORY

11/14/2003

PART 2, CHAPTER 11

ESSENTIAL FISH HABITAT

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PART 2, CHAPTER 11

ESSENTIAL FISH HABITAT

11.1 OVERVIEW

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." The ***MSFCMA*** 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 new 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, published in 1997 ***(50 CFR §§ 600.805 - 600.930)*** and finalized on January 17, 2002, 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*** 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 such as a federal permit.

This chapter integrates the EFH coordination and consultation process with the ***National Environmental Policy Act (NEPA)*** process. NMFS made a finding pursuant to ***50 CFR § 600.920(e)*** that EFH consultation requirements can be incorporated into the existing Project Development and Environment (PD&E) process. NMFS made a finding specific to Florida pursuant to ***50 CFR § 600.920(c)*** in a ***July 19, 2000 letter to FHWA and the Florida Department of Transportation (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 11.2.3.1.1***) and summarized in the Environmental Document.

11.2 PROCEDURE

11.2.1 Determination of Level of Effort

11.2.1.1 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, Federal Highway Administration Class of Action Determination*** for a list of qualifying projects). Initial EFH information can be found in the ***Programming Screen Summary Report***, particularly 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 "Wildlife and Habitat" and "Water Quality and Quantity" 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 specifically when 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 would not normally require an ***EFH Assessment***. If EFH may be adversely affected by a project, the NMFS will request an ***EFH Assessment.*** Projects qualifying for screening will most likely require a ***Natural Resources Evaluation (NRE)*** and the District will prepare the ***EFH Assessment*** as a section of the ***NRE*** and summarized in the Environmental Document.

Information from FMPs, FMCs, and from literature review and contacts described in ***Figure 11-2*** and ***Figure 11-3*** also serve as reference material for involvement determinations.

As a project advances into PD&E, it is **important** to address ETAT comments obtained during the EST screening event. FDOT should contact NMFS to discuss ETAT comments and the FDOT course of action to address their comments (See ***ETDM Manual, Topic No. 650-000-002***).

11.2.1.2 Projects Not Qualifying for ETDM Screening

For projects that do not qualify for screening through the EST (see ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination*** for a list of qualifying projects) coordination with NMFS is still required for federal projects or projects requiring a federal action (i.e. 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 11.2.1.1***. If NMFS indicates that an ***EFH Assessment*** is not required, follow the procedure in ***Section 11.2.2***. If NMFS indicates that an ***EFH Assessment*** is required, follow the procedure in ***Section 11.2.3***. For projects not qualifying for screening and that will not have an ***NRE***, the District will prepare the ***EFH Assessment*** as a technical memo and include it in the project file.

11.2.1.3 Request for Abbreviated Managed Species List

Generally, NMFS responds during the ETDM process with adequate information about the species involved in the project such that an ***EFH Assessment*** can begin. 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 11.2.1.2***). NMFS also has an interactive EFH Mapper (see ***Figure 11-3*** for the link). Once an abbreviated list is compiled, it is recommended the District send a letter to NMFS requesting confirmation of project specific identification of EFH. Requests should be sent to the appropriate Habitat Conservation Division Florida Office listed in ***Figure 11-4***. A sample request letter is included in ***Figure 11-5***. The confirmed abbreviated list can then be used to begin the ***EFH Assessment*** (***Section 11.2.3.1.1***). NMFS confirmation of the abbreviated list will help expedite the ***EFH Assessment***.

The request of 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, use the abbreviated list compiled by the District to begin the ***EFH Assessment***.

11.2.1.4 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 11-2*** 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 11-2***). EFH information from these organizations is also available online (***Figure 11-3***).

FMPs explain the physical, biological, and chemical characteristics of EFH and include information on species life history stages, maps with delineated boundaries of species ranges 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 that are rare, particularly susceptible to human-induced degradation, especially ecologically important, or located in an environmentally stressed area. The HAPCs are identified by the FMCs in their respective FMPs and will be specifically discussed and addressed during the EFH consultation process (see ***Section 11.2.3.1***).

11.2.2 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 no consultation with NMFS is required. For projects located in areas where the ***MSFCMA*** could apply, but the project will 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) or Non-Major State Actions (NMSA) include supporting information in the project file (i.e. GIS data analysis, technical memo, site visit, knowledge of the area, etc.).

2. For Type 2 CEs with no EFH involvement, mark the box "NoInv" in ***Section 6.C.10*** on the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***. Add supporting documentation to the project file.

3. For Environmental Assessments (EAs), Environmental Impact Statements (EISs) or State Environmental Impact Reports (SEIRs) add the following statement to the Impact section, Environmental Consequences or 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 is not required.*

11.2.3 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 11.2.3.1.1***.

2. Request consultation with NMFS and provide the ***EFH Assessment*** in an ***NRE.*** The District may prepare the ***EFH Assessment*** as a technical memo for projects not qualifying for screening and that will not have an ***NRE***.

3. NMFS will provide FDOT with a written project evaluation which will include EFH Conservation Recommendations, when appropriate.

4. Respond to NMFS Conservation Recommendations, if provided, within the required timeline (***Section 11.2.3.1.2***).

5. Document the results in the final Environmental Document.

If NMFS receives information regarding a 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 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.

11.2.3.1 Essential Fish Habitat Consultation

Consultation is initiated when NMFS receives an ***EFH Assessment*** and a written request for consultation. 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 (April 2004)*** for detailed information on consultations.

11.2.3.1.1 Essential Fish Habitat Assessment

An ***EFH Assessment*** is an analysis of a project's potential adverse effects on EFH and if necessary, measures to counter 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 (i.e. a federal permit), regardless of Class of Action. An ***EFH Assessment*** also needs to be completed for a NMSA or a SEIR if a federal action is needed, such as a federal permit. Coordination may be needed with NMFS while preparing the ***EFH Assessment***.

The ***EFH Assessment*** should be included as a section of the ***NRE*** instead of a stand-alone document. The ***NRE*** documents protected species and habitat, wetland and EFH issues and can be provided to NMFS as an ***EFH Assessment***. For projects not qualifying for screening and that will not have an ***NRE,*** the District will prepare the ***EFH Assessment*** as a standalone document or as a technical memo (depending on the degree the project may adversely impact EFH).

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.

The level of detail required for project specific consultations may vary depending on what 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. ***EFH Assessments*** developed for project impacts that are expected to be minor should contain only brief information on EFH.

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 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 concur, then NMFS can request additional information from FDOT in writing.

Information for completion of the ***EFH Assessment*** should be gathered for species included in the ***Programming Screen Summary Report*** or on the Abbreviated Managed Species List (***Section 11.2.1.1***) using FMPs as explained in ***Section 11.2.1.2***. General information is available from contacts listed on ***Figure 11-2***. 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 ***NRE*** may be submitted as a standalone document before public notification for courtesy review, or may be submitted with the Environmental Document. Completed ***EFH Assessments*** should be sent to the appropriate NMFS Habitat Conservation Division Florida Office (***Figure 11-4***) at least 60 days prior to a final decision on the proposed project or at least 90 days if substantial adverse impacts are anticipated.

11.2.3.1.2 Response to 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 may include measures to avoid, minimize, mitigate, or offset adverse effects on EFH. This coordination must be in accordance with the timelines as mandated by the ***MSFCMA*** unless a shorter timeframe is agreed to. Often, NMFS may be satisfied with the ***EFH Assessment*** and not provide any conservation recommendations, however they will usually send a response. FDOT is required to respond to NMFS conservation recommendations within 30 days of receipt. 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. A sample interim response letter is shown in ***Figure 11-6***. Once an interim response is provided, 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, mitigating or offsetting the impact of the proposed activity on EFH.

If the response is inconsistent with the NMFS EFH conservation recommendations, FDOT must explain its rationale for not following the conservation recommendations, including the scientific justification for the anticipated effects of the project or measures needed to avoid, minimize, mitigate or offset such effects. The NOAA Assistant Administrator for Fisheries can request a meeting with the appropriate FHWA headquarter official to discuss the proposed project and the opportunity to resolve disagreements per ***50 CFR § 600.920(k)(2)***.

11.2.4 Documentation

The documentation required for each type of Environmental Document is outlined below:

Type 1 CE - A Type 1 CE may involve EFH as long as the documentation demonstrates the proposed project has no significant effects. For these projects, include a summary of agency coordination and compensation for impacts (as appropriate) in the project file as supporting information to the ***Type 1 Categorical Exclusion Checklist, Form No. 650-050-12*** ***(Part 1, Chapter 2, Federal Highway Administration Class of Action Determination)***. If a technical memo was prepared it should be included in the project file.

NMSA - A NMSA may involve EFH as long as the documentation demonstrates the proposed project has no significant effects. For these projects, include a summary of agency coordination and compensation for impacts (as appropriate) in the project file as supporting information to the ***Non-Major State Action Checklist (Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery)***. If a technical memo was prepared it should be included in the project file.

Type 2 CE, EA, SEIR 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; Chapter 8, Draft Environmental Impact Statement;*** and ***Chapter 10, State, Local, or Privately Funded Project Delivery***, and should include the following statement in the appropriate section of the Environmental Document (for Type 2 CEs add to the documentation, for EAs add to the Impact section, for SEIRs add to the Environmental Analysis section and for EISs add to the Environmental Consequences section):

> *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. Should any changes occur during the*

design and permitting process that affect the consultation, re-initiation of the consultation process will be coordinated with NMFS

The ***EFH Assessment*** section of the ***NRE*** and associated consultation correspondence should be summarized in the Environmental Document. When NMFS provides conservation recommendations these, are included in the Appendix of the EA or EIS, as well as FDOT's responses, and attached to the ***EFH Assessment*** section of the ***NRE***. For Type 2 CEs these are attached to the Type 2 CE documentation, if applicable.

11.2.5 Design and Permitting

Projects may have advanced Design or overlapping Design/Permitting and PD&E phases (as part of the State-Wide Acceleration and Transformation process) where permits may be obtained and consultation completed. At times, there may not be enough information for FDOT, in coordination with NMFS, to make a determination about the effect of a project on EFH and consultation may not be completed during the PD&E phase of a project. If EFH consultation cannot be completed during the PD&E phase it will be carried forward into Design and Permitting.

Also for projects that qualify for a Type 1 CE or a NMSA (***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination*** and ***Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery)***, the ***EFH Assessment*** review and resulting project evaluation and conservation recommendations (when provided) would be handled during the permitting process.

11.2.6 Commitments

At the conclusion of EFH consultation, NMFS may include conservation recommendations which are non-binding (discretionary). Any conservation recommendations being considered as commitments must be coordinated with the appropriate FDOT offices to ensure the 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 on the ***Project Commitment Record, Form No. 700-011-35*** according to ***Procedure No. 700-011-035, Project Commitment Tracking*** (see ***Part 2, Chapter 32, Commitments***). These commitments should also be included in the Commitments section of the Environmental Document. As required by the level of environmental documentation, ensure clear and concise transmittal of the commitments to the subsequent Final Design and Construction phases.

11.2.7 Reevaluation

Prior to the project advancing to the next phase, for example Design or Construction, or if there are major design changes, the impacts to EFH or mitigation strategies are reevaluated per ***Part 1, Chapter 13, Reevaluations***. In addition, design changes could re-initiate consultation which would be addressed through the permitting process. Commitments and coordination should be contained in the Mitigation Status and

Commitment Compliance section of the ***Reevaluation Form*** and tracked through ***Procedure No. 700-011-035, Project Commitment Tracking***.

11.2.8 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 11-7***.

11.3 REFERENCES

50 Code of Federal Regulations (CFR) §§ 600.805 - 600.930

Essential Fish Habitat (EFH) Findings. July 19, 2000 letter to George Hadley of FHWA and Joshua Boan of FDOT from NMFS' Rickey Ruebsamen. http://www.dot.state.fl.us/emo/pubs/EFH-Finding-Among-NMFS-FHWA-FDOT-2000-0719.pdf

Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA)

National Marine Fisheries Service (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 http://www.nmfs.noaa.gov/habitat/habitatprotection/pdf/efh/EFH%20Consultation%20Guidance%20v1-1.pdf

NMFS web site: http://sero.nmfs.noaa.gov/habitat_conservation/index.html

11.4 HISTORY

8/19/2004, 11/26/2007

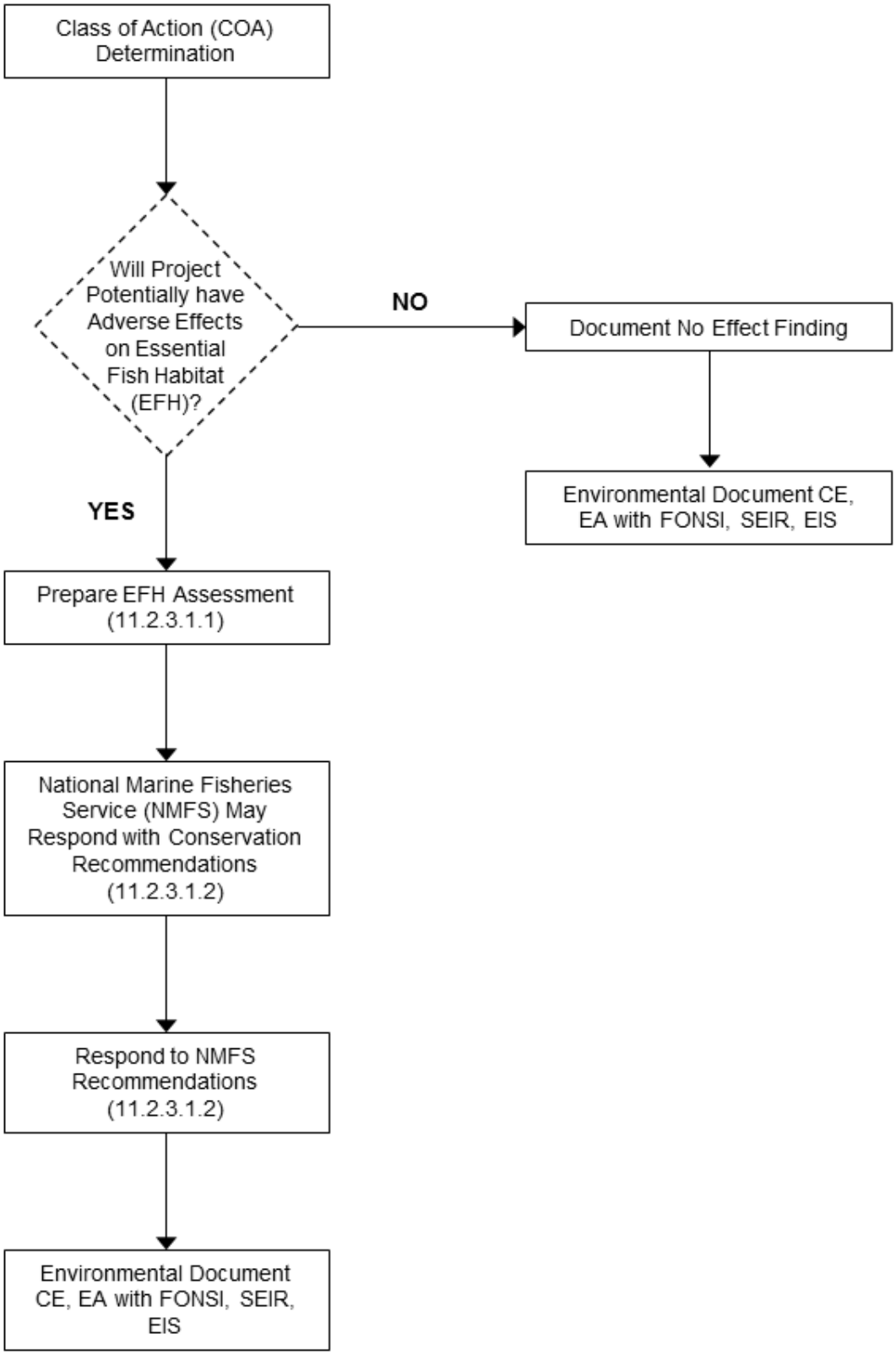

Figure 11-11 Essential Fish Habitat Process

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
http://www.sefsc.noaa.gov/

Figure 11-2 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
http://www.habitat.noaa.gov/protection/efh/consultations.html

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
http://www.galvestonlab.sefsc.noaa.gov/

South Atlantic:
http://safmc.net/

Magnuson-Stevens Fishery Conservation and Management Act. Public Law 94-265 as amended through October 11, 1996
http://www.nmfs.noaa.gov/sfa/magact/

Figure 11-3 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 11-3 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

Brandon Howard
National Marine Fisheries Service
Habitat Conservation Division
400 N Congress Avenue, Suite 110
West Palm Beach, Florida 33401
(561) 249-1652
Brandon.Howard@noaa.gov

Turnpike projects should default to project's geographic district location.

Figure 11-4 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 determined by FDOT as being potentially adversely affected by the proposed project. The 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 indicate 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 11-5 Sample Letter Request for Abbreviated List

(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 is in receipt of the NMFS Essential Fish Habitat Conservation Recommendations received from (commenter) in a letter dated (date). Please accept this letter as an interim response within the 30 day time period requested by NMFS for Essential Fish Habitat consultation. At this time FDOT is gathering further responsive information regarding your recommendation of 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 11-6 Sample Interim Response 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)

Brandon Howard
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)
Brandon.Howard@noaa.gov

Gulf Coast
(District 1, 2, 3, &7)

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 11-7 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 11-7 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 11-7 Emergency Consultation Procedures (Page 3 of 3)

PART 2, CHAPTER 12

ARCHAEOLOGICAL AND HISTORICAL RESOURCES

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PART 2, CHAPTER 12

ARCHAEOLOGICAL AND HISTORICAL RESOURCES

12.1 OVERVIEW

12.1.1 Purpose

This chapter describes the Florida Department of Transportation's (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 (cultural resources) 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 (FHRA), Chapter 267, Florida Statutes (F.S.),*** which require the lead agencies to take into account the effects of their undertakings on historic properties.

Section 106 applies to all federally funded, licensed, permitted, or approved undertakings, regardless of the Class of Action (COA) the Federal Highway Administration (FHWA) established in ***23 CFR Part 771*** for compliance with the ***National Environmental Policy Act (NEPA) of 1969***, 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 or Council) a reasonable opportunity to comment on the undertakings.

When ***NEPA*** was enacted three years after the ***NHPA***, Congress charged the federal government to "preserve important historic, cultural, and natural aspects of our national heritage." In ***Section 106***, Congress outlined the basic requirements for considering historic properties in the development of federal programs and projects. As a result, fulfillment of ***Section 106*** must be reflected in whatever ***NEPA*** documentation the Lead Federal Agency or the applicant (usually FDOT) 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 comply with ***NEPA*** and the ***NHPA***, but compliance with one of these laws does not automatically mean that compliance with the other has been achieved.

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 the ***FHRA*** is included. Without that record, the permitting authority will be unable to permit the proposed activities.

The Florida Legislature has stated that "[t]he rich and unique heritage of historic properties in this state… is an important legacy to be valued and conserved for present and future generations." In addition, the Legislature charges each state agency of the

executive branch to consider the effects of their 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, Florida Division of 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. ***Chapter 1A-46, Florida Administrative Code (F.A.C.)***, specifies the criteria under which the FDHR reviews ***Cultural Resources 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 and/or the Lead Federal Agency (usually the FHWA) 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*** (2013). Compliance with historic preservation laws requires consideration of potential effects to historic properties and good faith consultation with all of the appropriate parties.

12.1.2 Definitions

"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.

Since the ***NHPA*** predates ***NEPA*** and most other environmental laws by several years, there are a number of terms used somewhat differently in the ***NHPA*** and ***FHRA*** than they are in ***NEPA*** and many of the laws concerning natural resources. For example, an adverse effect to a historic property under ***Section 106*** does not automatically equate to a significant impact under ***NEPA***.

As used in this Chapter, the following definitions apply:

Advisory Council on Historic Preservation (ACHP or Council): 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 Council reviews the policies and programs of federal agencies in regard to compliance with the ***National Historic Preservation Act***.

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's ***Standards and Guidelines for Federal Agency Preservation Programs pursuant to the National Historic Preservation Act*** provide further guidance on consultation.

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.

Cultural Resources Assessment Survey (CRAS): The process of identification, documentation, and evaluation of archaeological, historical, architectural, and traditional cultural properties.

Effect: 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.

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 includes records for resources that are no longer extant.

Historic property: 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. 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 an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

Historic resource: As set forth in the ***FHRA, Section 267.021, Florida Statute (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 National Register 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.

Indian Tribe: An Indian tribe, band, nation, or other organized group or community, including a native village, regional corporation or village corporation, as those terms are defined in ***Section 3*** of the ***Alaska Native Claims Settlement Act (43 U.S.C. § 1602)***, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

Integrity: The authenticity of a cultural resource's identity, evidenced by the survival of physical characteristics that existed during the resource's historic or precontact 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.

Minimize: Active attempts to reduce harm to the cultural resource.

Mitigation: Any actions that reduce or compensate for the damage an undertaking may have on a NRHP-listed or eligible property. Mitigation may include project redesign, relocation, and documentation.

National Register: The National Register of Historic Places maintained by the Secretary of the Interior.

National Register criteria: The criteria established by the Secretary of the Interior for use in evaluating the eligibility of properties for the National Register ***(36 CFR Part 60)***.

National Register eligible: A cultural resource that has been determined to meet 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*** compliance, eligible properties are treated the same as 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 cultural resource, but the effect would not be harmful to those characteristics that qualify the resource for inclusion in the NRHP.

No Effect: When an undertaking has no effect of any kind (either harmful or beneficial) on cultural resources.

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)***.

State Historic Preservation Officer (SHPO): The official appointed or designated pursuant to ***Section 101(b)(1) of the Act*** to administer the State historic preservation program or a representative designated to act for the State historic preservation officer.

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 Act***.

Undertaking: A project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, 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.

12.1.3 Legal Authorities

For purposes of this chapter, ***Table 12-1***, below, provides a summary of the major legislation, regulations, and other authorities that FDOT considers in implementing its CRM program.

Table 12-1 Legislation, Regulations, and Other Authorities Related to Archaeological and Historical Resources

Title and Citation	Relevance to Archaeological and Historical Resources
Federal Legislation	
Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and its implementing regulations at 36 CFR Part 800 (Protection of Historic Properties)	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. 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. 36 Code of Federal Regulations (CFR) Part 800 incorporates amendments effective August 5, 2004. Subpart B of the regulations define 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.

Table 12-1 Legislation, Regulations, and Other Authorities Related to Archaeological and Historical Resources

Title and Citation	Relevance to Archaeological and Historical Resources
Program Comment for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges (ACHP, November 2, 2012)	Relieves the Florida Highway Administration (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 common bridges still need to be recorded on Florida Master Site File (FMSF) forms.
Section 110 of the *NHPA of 1966*	Requires federal agencies to develop historic preservation programs to identify, evaluate, and protect historic resources that are under federal agency jurisdiction and/or potentially affected by federal actions. Requires recording of historic properties altered, damaged, or destroyed as a result of a federal action and deposit of these records in the Library of Congress or other designated repository for future use and reference. Also instructs federal agencies to consult with other federal, state, and local agencies, Tribes, and other stakeholders, both public and private. Instructs federal agencies to integrate historic preservation into their plans and programs and addresses the treatment of National Historic Landmarks (NHLs) impacted by an agency's programs and undertakings (i.e., their projects).
Section 106 Exemption Regarding Effects to the Interstate Highway System (ACHP, March 2005)	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.

Table 12-1 Legislation, Regulations, and Other Authorities Related to Archaeological and Historical Resources

Title and Citation	Relevance to Archaeological and Historical Resources
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 Act) and the administration of historic preservation programs.
Archaeological Resources Protection Act of 1979	Enacted to secure the protection of archaeological resources and sites that are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals.
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.
National Environmental Policy Act of 1969, as amended (42 United States Code [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. The level of required *NEPA* documentation depends largely upon the nature and degree of project impacts, which determine a "class of action" (COA) [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 lands from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an 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.

Table 12-1 Legislation, Regulations, and Other Authorities Related to Archaeological and Historical Resources

Title and Citation	Relevance to Archaeological and Historical Resources
American Indian Religious Freedom Act 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.
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. Accommodates access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners. 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.
State Legislation	

Table 12-1 Legislation, Regulations, and Other Authorities Related to Archaeological and Historical Resources

Title and Citation	Relevance to Archaeological and Historical Resources
Chapter 267, Florida Statutes (F.S.), Florida Historical Resources Act (FHRA) (2000)	The principal state law regarding the protection of archaeological and historical resources. It contains requirements similar to those of the federal *NHPA*. *FHRA* 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 Florida Division of Historical Resources (FDHR) to ensure that effects on historic properties are considered prior to the expenditure of state funds on the project. It also requires that each state agency exercise caution to assure that any historic property under its ownership or control is not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly.
Chapter 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.
Chapter 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. In 1987, the law was amended to make it a third degree felony to willfully and knowingly disturb, destroy, remove, or damage any unmarked human burials.
Chapter 1A-32, Florida Administrative Code (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.

Table 12-1 Legislation, Regulations, and Other Authorities Related to Archaeological and Historical Resources

Title and Citation	Relevance to Archaeological and Historical Resources
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***.

12.2 PROCESS

It is FDOT's policy to complete some level of cultural resources analysis for every FDOT project. The detail and level of analysis varies depending upon historical value of these resources and the potential for the project to affect them. The guiding principle of FDOT's CRM process is to identify, recognize, and consider the potential effects (if any) of its undertakings on significant historic resources, whether they are federal or state-only actions. Once FDOT completes this effort, FDOT develops practical ways to avoid any identified effects. If the effects cannot be avoided, FDOT seeks ways to minimize and mitigate the identified adverse effects to a reasonable and appropriate level.

For projects that involve no federal approvals, funding sources, or actions, ***Chapter 267, F.S.***, controls. Projects developed, funded, or assisted by FDOT, which involve a federal action, must meet federal requirements, including laws, rules, regulations, and Executive Orders.

FDOT complies with applicable federal and state mandates by adherence to the ***Section 106*** process for federally funded or assisted projects and with the requirements of the FHRA for projects involving only state funds. In order to avoid confusion, the FDHR incorporated the ***Section 106*** process into the state's uniform compliance review program. Importantly, the Director of the FDHR also serves as 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: (1) the involvement of FHWA and the ACHP and the role of tribal governments in the consultation process under

Section 106 and (2) the more specific report and site recording requirements as set forth in ***Chapter 1A-46, F.A.C.*** Since the State Environmental Management Office (SEMO) has designed FDOT procedures to ensure compliance with both laws and processes, 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.

12.2.1 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*** and ***Section 110***, FDOT ensures compliance with the other related laws and requirements. Therefore, the steps established by ***36 CFR Part 800*** form the core process FDOT follows to meet its historic resources management responsibilities.

The four steps of the ***Section 106*** process are:

1. **Step One** - Initiate the ***Section 106*** Process
2. **Step Two** - Identify Historic Properties
3. **Step Three** - Assess Adverse Effects
4. **Step Four** - Resolve Adverse Effects

The goal of the ***Section 106*** process is to balance the needs of federal undertakings with historic preservation concerns and resolve potential conflicts between the two in the public interest. In ***Section 106*** the U.S. Congress recognized that it is not realistic, nor in the public interest, to preserve every historic resource. Therefore, ***Section 106*** does not require preservation in every case, nor does it give the ACHP veto power over a federal agency's actions. However, ***Section 106*** does require full consideration by federal agencies of preservation values compared with the projected benefits of the completed undertaking, costs, and other factors. 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.

Good faith 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.” Whichever federal agency is the lead agency, FDOT serves as its action arm in most of the consultation required in this process, except for the government-to-government consultation required between federal agencies and the federally recognized Tribes. When developing the ***Section 106*** consultation effort for a proposed highway project, FDOT works closely with SHPO and

the Lead Federal Agency to identify the appropriate consulting parties. For specific information about consulting parties, see ***Section 12.2.1.1*** and ***Section 12.3.2.2.3***.

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. For example, when the federal agency leading the action is a permitting agency, the scope of the area being studied is far more limited than when the lead agency is providing funding for the undertaking. Often times, the consultation effort may depend on the nature of the historic properties located in the Area of Potential Effects (APE) of the proposed federal action. When devising consultation for a project that involves pre-Colombian archaeological sites or historic structures of great importance to the local community, the consultation effort includes these considerations.

Title 36 CFR Part 800 requires federal agencies to seek the views of the public during the ***Section 106*** process. Normally, the standard FDOT Public Involvement Plan (PIP) developed in accordance with ***Part 1, Chapter 11, Public Involvement*** satisfies both ***NEPA*** and ***Section 106*** compliance. However, in some cases, where the historic properties are of great concern to the public, where the consultation involves large numbers of local citizens, or where special considerations for Tribes must be considered, additional efforts may be required. The nature of the sites may also trigger additional consultations to meet the requirements of other laws such as the ***Native American Graves Protection and Repatriation Act (NAGPRA)***, ***Chapter 872, F.S.***, or the ***American Indian Religious Freedom Act (AIRFA)***.

12.2.1.1 Participants in the Section 106 Process

The ***Section 106*** process, and thus FDOT's CRM process, involves several participants. As indicated above, the level of involvement for particular participants varies depending on the size, scope and nature of the undertaking as well as the nature, location, and public importance of the historic properties involved. The primary participants in the regulatory process include the following:

1. **FDOT** - FDOT's role varies based upon its relationship to the proposed undertaking, the funding sources for the undertaking, and required approvals. Most often, FDOT is: (1) an applicant for Federal-aid funds, (2) serves as the lead state agency for local transportation projects receiving Federal-aid funds, or (3) is the lead state agency for non-federal, FDOT-assisted or approved undertakings.

2. **Lead Federal Agency** - Normally, FHWA's Florida Division is the Lead Federal Agency on FDOT's Federal-aid projects. However, there may be instances where other agencies of the U.S. Department of Transportation (USDOT) serve as the lead federal transportation agency or when non-USDOT agencies serve as the Lead Federal Agency because they are granting a permit or approval for a solely state-funded project or program.

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 also may participate directly in the consultation process at its

discretion or upon request from one of the other consulting parties. The conditions under which the ACHP may participate directly in a specific circumstance are set forth in ***Appendix A*** to ***36 CFR Part 800***.

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 Tribes** - There are six federally recognized Tribes with cultural associations in Florida. Two of these, the Miccosukee Tribe of Indians of Florida and the Seminole Tribe of Florida also have lands in Florida. ***Section 106*** consultations must be conducted on a government-to-government relationship between the federally recognized Tribe(s) and the Lead Federal Agency. In addition, the Seminole Tribe of Florida has an appointed Tribal Historic Preservation Officer (THPO). Therefore, when a project occurs on Seminole lands, the Seminole THPO fulfills the role of SHPO for the purposes of ***Section 106***.

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 (such as local preservation boards, property owners, and so on). For example, property owners and local historic preservation groups are usually specific to the project location. Projects involving National historic Landmarks (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. The level of this effort is based upon the nature and complexity of the undertaking, its relationships to historic properties, the interest of the public in the potential effects to historic properties, and the confidentiality concerns of the consulting parties or other individuals and businesses.

12.2.1.2 Native American Consultation

Sections 101(d)(6)(A) and ***(B)*** of the ***NHPA*** require federal agencies to consult with any Tribes regarding potential effects to properties that may be of religious or cultural significance to their tribe during the ***Section 106*** process. It is the Lead Federal Agency's responsibility to make a reasonable and good faith effort to identify the appropriate tribes to consult. These consultations must recognize the "government-to-government" relationship that exists between the federal government and federally recognized tribes, and should be respectful of tribal sovereignty. Because of this unique relationship of the federal government and Native American Tribes, tribal opinions concerning cultural resources represent a special consideration in navigating the ***Section 106*** process, and

as a result, a special consideration in FDOT procedures for considering the effects of agency undertakings on historic and archaeological resources. See ***Table 12-1*** for laws, regulations, and Executive Orders that govern consultation with Tribes. See ***Section 12.3.2.3*** for the considerations regarding the unique relationship of the federally recognized tribes to the consideration of historic properties in FDOT's CRM program.

12.2.2 Additional Requirements and Processes

Because of the way the ***Section 106*** process is set forth in the regulations, it encompasses compliance with most of the other laws that touch upon the treatment of historic properties. Some of these other laws are federal (such as ***NAGPRA, NEPA, Section 4(f)*** of the ***USDOT Act of 1966***, as amended, and the ***Archaeological Resources Protection Act of 1979***) and some are state (such as ***Chapter 267, F.S.***, and ***Chapter 872, F.S.***). In addition, the ***Section 106*** process accommodates Florida's state rules regarding historic properties (such as ***Rule 1A-32*** and ***Rule 1A-46*** of the ***F.A.C.***), as well as federal and state executive orders (such as ***Executive Order 13007*** on Sacred Indian Sites).

The process for compliance with ***Section 106*** and ***Chapter 267, F.S.***, is implemented through the ***Agency Operating Agreement (AOA)*** executed by FHWA, FDOT, FDHR/SHPO, and ACHP on August 15, 2003, as part of Florida's Efficient Transportation Decision Making (ETDM) process. The AOA establishes an early coordination and screening process for certain types of FDOT undertakings as part of a broader effort to consider potential project impacts early in project planning and project development. The AOA also establishes alternative procedures for compliance with ***Section 106***, per ***36 CFR § 800.14***, including different levels of historic resources survey and consultation efforts based upon the potential of an FDOT undertaking to affect historic properties.

The programmatic provisions in the AOA 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 Native American 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 National Register. These resources have to be treated and considered in accordance with the relevant laws.

On March 14, 2016 the FHWA, SHPO, ACHP and FDOT executed a ***Section 106*** Programmatic Agreement ***(Section 106 PA)*** to delegate certain activities required for compliance with ***36 CFR § 800*** to FDOT. ***Programmatic Agreement Among the Federal Highway Administration, The Advisory Council on Historic Preservation, The Florida Division of Historical Resources, State Historic Preservation Officer, and the Florida Department of Transportation Regarding Implementation of the Federal-Aid Highway Program in Florida***. The ***Section 106 PA*** is intended to refine the process for identifying alternative historic and archaeological survey efforts for select projects and to delegate authority to FDOT for certain decision-making task under the ***Section 106*** process.

The following activities are delegated to FDOT:

1. Establish whether there is an undertaking with the potential to affect historic properties;

2. Identify the consulting parties for each undertaking;

3. Inform FHWA when there are historic resources that may be of cultural and religious significance to the Tribes;

4. Seek public comment for individual project actions, and conduct public involvement activities;

5. Establish the APE of an undertaking in coordination with SHPO/ THPO;

6. Determine the appropriate level of effort through the project internal review and screening process, and in accordance with the provisions of this Agreement;

7. Identify historic resources located within the project APE in coordination with SHPO/THPO, other consulting parties, and Tribes;

8. Evaluate the NRHP eligibility of all historic resources identified within the project APE, in coordination with SHPO/THPO;

9. Apply the Criteria of Adverse Effect on historic properties as per ***36 C.F.R. § 800.5*** in coordination with SHPO/THPO, Tribes, and other consulting parties;

10. Initiate consultation on the resolution of adverse effects as per ***36 C.F.R. § 800.6*** with FHWA and appropriate consulting parties exclusive of the Tribes;

11. Consult, as appropriate, regarding the determination of the project APE, the evaluation of NRHP eligibility, and the effects of a program undertaking on historic properties;

12. Coordinate ***Section 106*** review with other relevant project reviews, such as ***NEPA***; and

13. Document individual undertakings and maintain a record of all project reviews carried out pursuant to the Agreement.

Under the ***Section 106 PA***, FHWA retains responsibility for complying with ***Section 106*** of the ***NHPA*** and ***36 CFR Part 800*** and will continue to administer the following actions:

1. Consultations to develop phased identification methodologies for projects in accordance with ***36 C.F.R. § 800.4(b)(2)***;

2. Determinations to undertake archaeological research and fieldwork beyond standard systematic subsurface testing and surface examination for the presence or absence of cultural materials;

3. Consultations with federally recognized Tribes in accordance with the Federal requirements for government-to-government relationships;

4. Official notifications to the ACHP regarding adverse effects to historic properties;

5. Consultations with, and notifications to the National Park Service (NPS) for projects involving National Historic Landmarks (NHLs), in accordance with ***36 C.F.R. § 800.10***;

6. Consultations to resolve disputes related to compliance with ***36 C.F.R. Part 800*** regardless of the nature of the dispute; for example, designation of the APE, identification of appropriate consulting parties, determinations of eligibility, and effects determinations;

7. Consultations to resolve adverse effects under ***36 C.F.R. § 800.6***;

8. Development of Memoranda of Agreement (MOAs) and Programmatic Agreements (PAs); and

9. Consultations and findings under ***Section 4(f)*** of the ***U.S. Department of Transportation Act of 1966***, as amended and any other concurrent Federal laws applicable to the project and/or the properties involved.

As requested by FHWA, FDOT may assist with non-delegated tasks.

12.2.2.1 State-Designated Historic Highways

Consideration of certain unique types of historic resources in Florida is managed within the CRM program. For example, there are a number of laws passed by the Florida Legislature that designate certain highways as State Historic Highways. Each highway is designated by a specific law and that individual law sets the standards and guidance for the preservation and treatment of the highway it designates. This designation is not based upon the eligibility criteria of the NRHP nor any other standard evaluation method used to evaluate historic properties. However, the designation does reflect a specific importance to the local community that surrounds the resource and highlights the designated portion of the road for very specific treatments. For most of these resources, the designation prohibits alterations of roadway dimensions and immediate surroundings. In every case, these laws prohibit the expenditure of state funds on any proposed action involving one of these highways prior to coordination and agreement with FDHR on the proposed action. Almost every designated State Historic Highway in Florida is located in South Florida, the vast majority in District 6. For the current list of State-designated Historic Highways, see ***Figure 12-1***. The occurrences of these resources are identified as a normal part of the identification and evaluation of historic properties undertaken for a proposed action, as detailed in ***Section 12.3***.

12.2.2.2 Burials, Cemeteries, and other Sites Containing Human Remains or Associated Burial Artifacts

A special consideration in FDOT's CRM process is 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. However, 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.

There is an important distinction in the ***Unmarked Human Burials*** law, which 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 district 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 legal requirements for the treatment of human remains are strict. These requirements are addressed in FDOT's CRM procedures and in ***Section 7-1.6*** of the FDOT's ***Standard Specifications for Road and Bridge Construction***.

12.3 PROCEDURE

This section describes FDOT's procedures for considering historic and archaeological resources in the development of its projects and programs . FDOT's cultural resource management responsibilities are vested in SEMO at the state level, and the District Environmental Office at the District level. Project Managers, Environmental Administrators, and Cultural Resource Coordinators (CRCs) in both SEMO and the District Environmental Office have responsibility for maintaining compliance with all appropriate state and federal historic preservation laws, regulations, rules, and executive orders. SEMO establishes overall guidance, procedures, training, and assistance in project reviews, and monitors the overall performance of FDOT's program. SEMO assists the District Project Managers, Environmental Administrators, and CRCs with their ***Section 106*** compliance as requested by the Districts, FHWA, SHPO, and any other consulting party.

The primary responsibility of the District Environmental Office is to ensure that individual projects follow the established FDOT processes and procedures and that all cultural resource documentation meets FDOT and FDHR guidelines. The District CRCs apply the applicable laws and regulations and processes to the individual projects and conduct the day-to-day consultations with the appropriate parties. As a result, the District offices play a key role in moving the ***Section 106*** process forward toward project delivery. For most projects, FDOT contracts 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 (***Federal Register, Vol. 48, 44716***) 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. 48, 44716***) (September 29, 1983). The principal investigators assigned to the tasks must meet the minimum qualifications as well. The professional qualifications required to perform cultural resource assessments for FDOT are more fully described in ***Chapter 1*** of the ***CRM Handbook***. This does not mean that the District CRCs must meet or exceed the minimum professional qualification standards

All FDOT undertakings receive some level of cultural resources analysis, even if it is only enough to determine that there is no potential for the occurrence of historic resources (significant or otherwise) in the project area. This analysis is separate from, and must be made prior to, determining the final, appropriate ***NEPA*** COA for the proposed action under ***23 CFR § 771.15***. 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 substitute for an analysis of the project's potential to affect historic properties. The latter is addressed through the ***Section 106*** process. 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 may vary based upon specific project activities, but it is the findings of that analysis that are utilized as a part of making the ***NEPA*** COA decision.

As set forth in ***36 CFR Part 800*** and recognized in the AOA and ***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.

Because it is the most efficient and comprehensive method developed for compliance with historic preservation laws, FDOT uses the four-step process established in ***36 CFR Part 800*** as the core of its CRM compliance program. This process includes locating, documenting, evaluating, and assessing the effects on historic properties, as well as developing avoidance, minimization, and mitigation measures for adverse effects to significant cultural resources, all in consultation with the appropriate parties. Regardless of funding source, similar requirements for the assessment of cultural resources apply. The two major differences between these laws are: (1) FHWA is the lead agency for

federally funded projects while FDOT is the lead state agency for state-funded projects and (2) ***Chapter 267, F.S.***, identifies fewer participants than ***Section 106***. Irrespective of funding, if the undertaking includes a 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***. In such cases, the agency taking the action becomes the Lead Federal Agency for ***Section 106*** compliance. Because permits are 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*** responsibilities for the remainder of the proposed project.

12.3.1 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 ETDM screening process allows Districts to use the Environmental Screening Tool (EST) to review projects to determine if they fall into the programmatic categories established in the AOA and ***Section 106 PA***. GIS-layers pertaining include the NRHP-listed properties, the officially determined NRHP-eligible properties, the ages of the structures alongside the proposed action and other data that may inform the development of archaeological probability zones. See ***Section 12.3.2.2.2*** for additional procedures related to reviewing minor project activities.

Evaluation of certain transportation projects is required during the ETDM screening events (see ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination***). 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 screening evaluations are:

1. **Planning Screen Evaluations** – This initial screening identifies fatal flaws or possible controversies that would prevent the project from moving forward or that may require adjustments to the project concept. This forms the initial comments from the Lead Federal Agency and other agencies with either responsibilities for, or consultative roles in, the historic resources compliance process. These comments relate to the potential for the project to affect known and unknown cultural resources, and may indicate the level of consultation or study anticipated in order to move the project forward into and through the PD&E phase.

2. **Programming Screen Evaluations** – This second screening event provides additional commentary about project effects, as well as scoping recommendations for all of the technical studies, including the cultural resources survey and evaluation effort. This 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.

The Planning Screen and Programming Screen are conducted through the EST. For additional information on the ETDM process and the EST, see FDOT's ***Efficient Transportation Decision Making Manual, Topic No. 650-000-002***.

Following the Programming Screen, the District produces a ***Programming Screen Summary Report***. This report includes an overall summary of the comments provided by the resource agencies, FDOT's transportation partners, and other interested parties. Many of those commenting also may be consulting parties under ***Section 106***. The District reviews the degrees of effect assigned by the commenters, as well as the individual entries of the commenters. The comments from those agencies or entities 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, some of these comments, in particular those comments from SHPO/THPO, the Native American Tribes, and the Lead Federal Agency are utilized to develop the level of effort needed to complete the CRAS for the proposed project.

For projects screened during Programming, there may be enough information to determine if the project has the potential to affect any historic resources. In part, these screening events should be used as part of the first two steps of the ***Section 106*** process (Step One: Initiating the ***Section 106*** process and Step Two: Identification of Historic Properties). See ***Sections 12.3.2.2*** and ***12.3.2.4*** regarding these two steps.

12.3.2 Archaeological and Historical Resources Considerations during PD&E

FDOT uses the ***Section 106*** process as the starting point for for ensuring compliance with most state and federal historic preservation regulations.

12.3.2.1 Section 106

The ***Section 106*** process is set forth in ***36 CFR Part 800***. As specified in ***Section 12.2.1***, there are four steps in the ***Section 106*** review process and, therefore, in FDOT's procedures. The four steps are specifically detailed at ***36 CFR §§ 800.3 - 800.6***.

Figure 12-2 provides a flow chart of this four-step process and a listing of the activities associated with each of the steps. ***Sections 12.3.2.1*** through ***12.3.2.6*** describe this process and the four steps in more detail. For a full description of this process, please see FDOT's ***CRM Handbook***. As discussed in ***Section 12.1***, the ***Chapter 267, F.S.***, requirements are similar to ***NHPA***; 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. However, if it is anticipated that a federal agency will become involved later in project development, be certain to follow the substance of the ***Section 106*** process to avoid unnecessary delays.

For FDOT, the ***Section 106*** process begins in one of two ways depending on whether the proposed project enters into the PD&E phase from the ETDM screening events. For example, the Environmental Technical Advisory Team (ETAT) will normally review a capacity improvement project during the ETDM screening. In contrast, a sidewalk construction project does not normally undergo an ETAT review before entering the PD&E process. In both cases, however, a cultural resources evaluation is required. The level of effort involved in the evaluation is based on the potential for the project to affect historic properties. It is important not to base the level of effort for the cultural resources

process solely upon the anticipated ***NEPA*** COA or on whether the project qualifies for ETDM screening because the level of assessment required involves considerations of where the project occurs as well as the nature of the proposed undertaking. Therefore, decisions regarding the level of assessment are made by, or in consultation with qualified professionals and in accordance with the requirements of the ***NHPA***, ***36 CFR Part 800***, the ***AOA*** and the ***Section 106 PA***.

12.3.2.2 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

12.3.2.2.1 Establish the Undertaking

Establishing the undertaking consists of a simple determination as to whether the proposed action constitutes an undertaking, and if so, whether or not the proposed action is a type of activity with a potential to cause effects to historic properties should any such properties be present.

In ***36 CFR § 800.16(y)***, the term "undertaking" implies the involvement of a federal agency as a funding, approving, or acting participant in the proposed action. The ***FHRA*** 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."

If the undertaking is a type of activity with no potential to cause effects on historic properties, assuming such historic properties are present, the Lead Federal Agency has no further obligations under ***Section 106***.

The AOA and ***Section 106 PA*** establish FDOT's CRM process in Florida and identify activities that are programmatically determined to have no potential to affect historic properties, provided the conditions specified in the AOA and ***Section 106 PA*** are met and neither SHPO nor FHWA object to this finding. See ***Section 12.3.2.2.2*** regarding the types of activities and projects that meet these conditions. Projects meeting the applicability requirements for these categories are not exempt from the requirements of ***Section 106*** or ***Chapter 267, F.S.***, but provided they meet the conditions outlined in the AOA and ***Section 106 PA***, are projects that have been programmatically determined to be in compliance with ***Section 106*** and ***Chapter 267, F.S.***, and, therefore, can proceed with no further considerations under the ***NHPA***. Should the circumstances or the

proposed action change in a way that can alter the undertaking's involvement with historic properties, then the project is reassessed in terms of considering its effects on historic properties.

Since the Tribes are not signatories to the AOA or ***Section 106 PA***, if a Tribe objects to the determination that a project meets the applicability requirements established for determining the programmatic project categories, this objection will normally come through FHWA. Therefore, for any project where there may be properties of interest to the Tribes in the vicinity of the proposed undertaking, FDOT provides the Lead Federal Agency with the appropriate project and location information for transmittal to the Tribes, even when the project otherwise appears to represent one of the programmatic categories. In these cases, the review period is expanded to allow sufficient time for the Tribes to respond to FHWA.

If the undertaking is a type of activity that has potential to cause effects to historic properties, assuming such historic properties are present, then the project proceeds to the next step in the ***Section 106*** process (Step Two: Identify Historic Properties).

12.3.2.2.2 Apply Appropriate Program Alternative(s) and Coordinate with Other Reviews

As discussed in ***Section 12.2.2***, the AOA and ***Section 106 PA*** provide certain program alternatives for compliance with ***Section 106*** and ***Chapter 267, Florida Statutes***. The AOA and ***Section 106 PA*** also outline alternatives for coordinating ***Section 106*** with other reviews, most notably ***NEPA*** and ***Section 4(f)***.

The AOA and ***Section 106 PA*** specify two primary considerations that govern the required level of 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 cultural resources, should such resources be present. Both of these factors are considered.

Regarding project location, some geographic areas are unlikely to contain historic resources, while some 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. However, if the basic historicity of the area is unknown, then a determination on the potential of the proposed project to affect historic resources, 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 a decision, FDOT conducts the necessary review.

Regarding specific activities associated with a project, the AOA and ***Section 106 PA*** define two categories of Minor Project Activities that typically have little or no potential to affect historic properties. The first group includes six project activity types that can be designated as No Effect on Historical Properties, provided the following conditions are met:

1. The activity is a stand-alone project;

2. The activity does not occur on tribal lands;

3. The activity does not include and is not located in or adjacent to any historic/archaeological resources of 50 years of age or older; is not listed on the NRHP; and is not a NHL;

4. The project must be limited to one of the six activities specified in the AOA and ***Section 106 PA***; and

5. SHPO and FHWA have been notified of the finding of no potential to affect historic properties and the rationale for the finding, and have not objected to the finding.

The six project activity types specified in the AOA and Exhibit 1 of the ***Section 106 PA*** are:

1. 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

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

5. Restoration, rehabilitation, and/or resurfacing existing pavement

6. Restoring and rehabilitating 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 require ***Section 106*** Desk Top Evaluation and Field Review in order to either verify that the project has no potential to affect historic properties or to determine what consultation or additional efforts are needed to meet the requirements of the historic preservation laws. The following conditions apply to this group of 57 project activity types:

1. The decisions concerning historic site evaluations and effect determinations are based on the requirements of the ***NHPA*** and ***36 CFR Part 800***, and these decisions are made by individuals meeting the Secretary of the Interior's Professional Qualifications Standards for cultural resource professionals (***FR Vol. 48, 44716)***.

2. If the Desk Top Evaluation and Field Review identifies a historic resource within the project APE, FDOT consults with FHWA (or other appropriate Lead Federal

Agency) and SHPO regarding NRHP eligibility pursuant to ***36 CFR § 800.4(c).*** For non-federally funded projects, FDOT consults with the FDHR pursuant to ***Chapters 267 and 872, Florida Statutes***.

3. The results of the Desk Top Evaluation and Field Review indicate that the project activity has no potential to affect historic properties or will have no effect on historic resources, and FDOT states that as its finding.

4. SHPO and FHWA do not object to the finding of no potential to affect historic properties or no effect to historic properties.

5. If FDOT finds a potential for effects on historic properties, FDOT consults with SHPO to determine the next course of action.

See ***Figure 12-3*** for the list of 57 types of project activities identified in the AOA and Exhibit 2 of the ***Section 106 PA*** as requiring a Desk Top Evaluation and Field Review.

Reviewing Minor Project Activities

FDOT's procedure for reviewing the two categories of Minor Project Activities consists of an internal review, NRHP eligibility evaluation, and notification and coordination. The AOA and ***Section 106 PA*** specify 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 Interior's Standards for Professional Qualifications, 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 the project's APE.

- Review existing information [including the Florida Master Site File (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.

- Conduct a field survey in conformance with the applicable standards, where warranted.

- Determine whether there are historic resources or properties in the APE. If there are historic resources within the APE significance determinations for those resources must be made in consultation with FHWA, SHPO/THPO and other appropriate consulting parties

- 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)***.

For projects that do not include historic resources or properties within the APE or that by their nature will have no effect on historic properties, FDOT documents and files the finding. This is accomplished by FDOT notifying FHWA and SHPO of its finding of no historic properties affected, accompanied by a map showing the project description, location, and area of potential effect, along with other information supporting the finding. Unless SHPO, FHWA, or another consulting party objects to the finding, FDOT is not required to take any further action in the ***Section 106*** process.

12.3.2.2.3 Identify the Consulting Parties

FHWA and FDOT, in consultation with SHPO/THPO, determine which particular agencies, organizations, citizens, or tribal governments should be invited to be a consulting party for the purposes of ***Section 106***.

FDOT assists FHWA in identifying the consulting parties for each undertaking.

The consulting parties may be any of the following:

- Federally recognized Tribes that attach traditional religious and cultural significance to historic properties that may be affected by an undertaking.

- Other Consulting Parties, which may include:

    - Applicants for federal assistance, permits, licenses, or other approvals. This is normally FDOT. However, for Local Agency Program (LAP) projects and for earmarks or other local projects that require FHWA assistance or approval, it may be the local agency.

    - 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 individual tribal members with special knowledge or expertise in identifying properties of traditional religious and cultural significance to that tribe.

FHWA, 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 of their choosing, particularly in the case of 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***.

1. If requested by FHWA, FDOT sends a letter to all potential consulting parties, which 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 all documentation related to identification of and effects (or no effects) to historic resources to FHWA, 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, FHWA/FDOT provides that information in a timely manner.

3. For projects where adverse effects to archaeological or historic resources have been identified, FDOT assists FHWA in initiating consultation with SHPO/THPO and other appropriate consulting parties on the resolution of those adverse effects.

12.3.2.2.4 Create a Plan to Involve the Public

Under historic preservation laws, public involvement efforts are dependent on the nature and complexity of the project and its potential to affect historic properties. The public may include locally 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 are initiated early in the project development process and comments from the public are solicited throughout the ***Section 106*** process. As appropriate, public involvement under ***Section 106*** is coordinated with other environmental reviews during the ***NEPA*** review process.

For the purposes of streamlining FDOT's efforts to engage the public, efforts for general public involvement in the ***Section 106*** process are coordinated with the public involvement opportunities established in ***Part 1, Chapter 11, Public Involvement***. When seeking public participation in the ***Section 106*** process (i.e., for controversial, highly visible, or locally important historic properties), public meetings, workshops, or other avenues specific to CRM considerations and decision making are frequently needed to meet the requirements of ***Section 106***. When these occur, FDOT Districts inform FDOT's state-wide CRM program specialist at SEMO and coordinate the efforts with SHPO/THPO and the Lead Federal Agency. For complex projects involving a number of consulting parties and a high level of public engagement, Districts should consider establishing a cultural resources coordinating committee for the project to maintain the continuous level of consultation required by ***Section 106***.

There are times when 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 Administrator and/or CRC reviews all site information to ensure that FDOT does not inadvertently release information on sites that should remain confidential.

12.3.2.3 Conduct Consultation with Native American Tribes

For projects involving the use of federal funds or the need to obtain federal permits or licenses, the Lead Federal Agency is required to consult directly with federally recognized

Tribes in all phases of the ***Section 106*** process when a project may have the potential to affect historic properties on or off tribal lands. In accordance with ACHP guidance, FHWA's Florida Division, in partnership with FDOT, has initiated a government-to-government relationship with six federally recognized Tribes (***Figure 12-4***) with cultural interests in Florida.

The Lead Federal Agency conducts coordination with tribal governments on a government-to-government basis. Therefore, all communication with the Tribes is routed through the Lead Federal Agency. The Districts may prepare correspondence and documentation, but they forward these materials to the Lead Federal Agency for distribution under the agency's letterhead and signature.

Any coordination with the Tribes on state-funded projects is conducted through FDOT personnel and, if in writing, on FDOT letterhead. If a federal permit is required for the project, the Districts inform the permitting agencies when consultation with the Tribes will be needed and assist those agencies as needed in the coordination and consultation with the Tribes and SHPO/THPO, as appropriate.

At this time, only the Seminole Tribe of Florida has a designated THPO. As a result, the Seminole Tribe of Florida's THPO serves the same role as SHPO for projects occurring on Seminole tribal lands. Because not all Tribes have a designated THPO or tribal lands in Florida, specific contacts for each Tribe may vary. The current list of tribal contacts (***Figure 12-4***) is maintained on FDOT's SEMO website for ***Native American Coordination***.

For projects not occurring on tribal lands, it is normally appropriate to include all six of the federally recognized Tribes culturally affiliated with Florida. However, one of these Tribes, the Mississippi Band of Choctaw Indians, only wishes to be contacted on projects occurring in the Florida Panhandle, west of the Apalachicola River to the Alabama State Line. Specifically, the Mississippi Band of Choctaw Indians area of interest in Florida includes the following counties: Escambia, Santa Rosa, Okaloosa, Walton, Holmes, Washington, Bay, Jackson, Calhoun, and Gulf. For projects outside of those counties, contact should be limited to the other five Tribes.

The ultimate 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 respectful of tribal sovereignty. Both FDOT and FHWA's Florida Division have designated Native American Coordinators. To date, five major issues of concern to the tribes have been identified:

1. Government-to-government relationship
2. Confidentiality
3. Human remains
4. Archaeological sites
5. Traditional Cultural Properties

The basic steps to follow when conducting consultation with Tribes are outlined below. ***Chapter 3*** of the ***CRM Handbook*** provides additional information about coordination with Tribes.

Step 1 - Provide the Advance Notification to the Chief or Chair of each Tribe, with copies to the THPO or ***Section 106*** tribal representative (see ***Figure 12-4*** or the website for ***Native American Coordination*** for appropriate tribal contacts).

Step 2 - Provide a draft tribal notification to FHWA to initiate ***Section 106*** consultation. FHWA sends the notification to each of the appropriate federally recognized Tribes. FHWA sends a government-to-government letter signed by the Division Administrator to the Chief or Chair of each Tribe, with copies to the THPO or ***Section 106*** tribal representative, except in the case of the Miccosukee Tribe of Indians of Florida. The Chief of the Miccosukee Tribe of Indians of Florida has formally directed that all correspondence regarding ***Section 106*** issues be sent directly to the ***Section 106*** representative.

This notification includes the following:

1. A clear statement that the project is being conducted pursuant to ***Section 106*** of the ***NHPA***

2. A statement that the notification is intended to initiate project-specific consultation between FHWA, FDOT, and the federally recognized Tribe (include the full, legal name of the Tribe) and to identify any issues of importance to the Tribe

3. A brief description of the project and proposed improvements

4. A map showing the location of the project and proposed improvements

5. A statement that a CRAS will be conducted and a copy of the report will be forwarded to the tribe

6. A request for comments from the tribe

7. The names of FHWA and FDOT contact persons

Step 3 - If the Tribes have expressed interest in the project and/or the CRAS, or if the survey resulted in the discovery of any sites or resources that may have cultural or historical importance to the tribes, provide a draft transmittal letter and five additional copies of the final ***CRAS Report*** (six for projects in the counties of interest to the Mississippi Band of Choctaw Indians) to FHWA for distribution to the appropriate federally recognized Tribes. See ***Figure 12-5*** for a sample ***CRAS Report*** submittal letter if the survey identified no archaeological sites. See ***Figure 12-6*** for a sample ***CRAS Report*** submittal letter if the survey identified archaeological sites.

1. If comments are received from the Tribes, FHWA coordinates with FDOT's District CRC and FDOT's Native American Coordinator, and then with the THPO or ***Section 106*** tribal representative.

2. If no comments are received, FHWA proceeds with the ***Section 106*** process.

The District CRCs consult with FDOT's Native American Coordinator for any project where significant archaeological sites are identified during the CRAS. The Native American Coordinator can provide direction and assistance to assure that the Tribes receive the proper information and are included in the determination of effects and in the subsequent efforts to find an appropriate avoidance, minimization, or mitigation solution.

12.3.2.4 Step Two: Identify Historic Properties

The primary goal 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 12.1.2 Definitions***). This is accomplished through the completion of a historic and archaeological resources identification and evaluation survey (also referred to as a CRAS). Step Two of the ***Section 106*** process includes the following four actions related to completing this task:

1. Determine the scope of the resource identification effort.

2. Identify historic resources (archaeological sites, buildings, objects, etc. of 50 years of age or older, as defined in ***Section 267.021, Florida Statutes***).

3. Evaluate the historic significance of the identified resources.

4. Document the historic and archaeological resources survey and evaluation effort.

12.3.2.4.1 Determine the Scope of the Resource Identification Effort

Determining the scope of the resources identification effort includes 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 as part of ETDM.

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 Right of Way (ROW) needs, the extent of ground-disturbing activities, size and scope of the proposed undertaking, and the potential for the occurrence of historic properties in the project APE.

The District Project Manager and District CRC establish the project's APE in coordination with FHWA and SHPO/THPO. In practice, a recommended APE is developed by the CRM professionals conducting the CRAS effort in tandem with the District Project Manager and the District CRC. This APE is then specified and described in the ***CRAS Report*** or ***Technical Memorandum***, with a justification for its geographic limits. For projects where the APE for archaeological resources is different from that defined for historic resources, the definition of each should be clearly specified in the ***CRAS Report*** or ***Technical Memorandum***.

In defining the APE, the full range of possible project effects is considered. Possible project effects include all direct and indirect effects the project may have, including any reasonably foreseeable effects that may occur later in time, be farther removed from the project location, or be cumulative in nature. Immediate effects include ground-disturbing activities and destruction of the property or elements associated with the property, as well as auditory and visual effects. Reasonably foreseeable effects include changes in transportation patterns and demands, traffic volumes, land use, population densities, and/or growth rates.

The initial identification of the undertaking's APE should be large enough to accommodate minor project changes without necessitating additional cultural resource investigations. In some cases, greater project detail may be needed to ascertain the extent of possible future changes to project activities so that an appropriate APE is identified. When overly general project descriptions and activities are established for a proposed undertaking, District CRCs and Cultural Resources professionals assigned to complete the surveys should inform the project managers that if a CRAS does not accommodate subsequent project changes, a re-survey will be needed. Conversely, an overly broad APE based upon indefinite project activities may require a level of documentation and evaluation that is far more extensive than needed for the project.

Due to the different nature of archaeological sites, how they can be affected, and the professional methods of identification and evaluation used for them, the survey efforts for archaeological sites within the APE are different from other categories of historic properties. For archaeological sites, the survey effort is usually focused on the area where ground disturbance may occur. In addition to the existing and proposed ROW, this includes the potential temporary construction easements, staging areas, and access roads, plus floodplain compensation (FPC) and stormwater management facility (SMF) sites.

The survey effort for historic or structural resources takes into consideration such factors 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 structural 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.

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. There also may be instances when proximity effects such as vibrations or destabilization of lands may affect archaeological resources beyond the proposed or existing ROW.

For most projects, the APE is documented in the historical and archeological resources survey report for review by the Lead Federal Agency, the SHPO/THPO, and the other consulting parties. However, for multi-alternative, complex, and large projects, or for undertakings that may include a broad range of potential effects (such as elevated roadways, bridges, those requiring ancillary noise or vibration effects, and so forth), consultation with the appropriate parties regarding the designation of the APE should be completed prior to initiating the historical and archaeological resources survey. In cases where FDOT and SHPO, or other consulting parties, fail to agree on the establishment of the APE, FHWA 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 12.3.2.2.2***, the AOA and ***Section 106 PA*** provide two categories of minor projects, along with the criteria that govern the level of assessment needed for them. When the proposed undertaking fails to meet these criteria, a more intensive survey effort will be needed. This survey must be appropriate for the scale of the project and the sensitivity of the resources or area involved. For most minor project types unlikely to affect historic properties, the resource identification effort typically entails a desktop review (background research) and field reconnaissance-type survey. As outlined in ***Section 12.3.2.2.2***, 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 one of these activities meets the conditions set forth in the AOA and ***Section 106 PA*** and neither FHWA nor SHPO dispute the finding of no potential to affect historic properties, the undertaking may proceed with no further involvement of SHPO or FHWA beyond the notification of the finding and the reasons for the finding. If, however, it does not meet the conditions, then coordination with FHWA and SHPO must be initiated to determine how to proceed with the project.

The second category of minor projects outlined in the AOA and ***Section 106 PA*** contains a longer list of activities (see ***Figure 12-3; Exhibit 2 of Section 106 PA***) that can be more involved than those listed in the first category. Based upon past experience, these projects, due to their nature and definition, are unlikely to affect historic properties. However, the geographic area that could be affected by these activities is somewhat broader than the areas for the first category and so 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. A determination of no involvement with historic

properties based upon project descriptions alone with no reference to the location of the project can seriously jeopardize the project or its future funding.

If, as a result of this minor survey effort, FDOT finds that the project meets the conditions outlined in the AOA and ***Section 106 PA*** and in ***Section 12.3.2.2.2***, FDOT must inform SHPO and FHWA of this finding and include sufficient information to support the finding. If neither FHWA nor SHPO object to the finding, the project may proceed with no further involvement of SHPO or FHWA. If, however, the four conditions are not met; the conditions that supported the finding change; or when FHWA, SHPO, or another consulting party (such as a Tribe, a local preservation group, or a permitting agency) may object to the finding, then further consultation with FHWA, SHPO, and the appropriate consulting party must be undertaken in order to identify the level of effort and steps needed to complete the ***Section 106*** process. In some instances, a Tribe may notify FHWA of a particular concern with the finding or the project. Normally, the District CRC will know when a project cannot meet the conditions for this category prior to any submission to FHWA or SHPO and will have proceeded accordingly.

In using these two categories of activities, it is important to keep in mind that there are often separate decisions required under ***Section 106***, which the AOA and ***Section 106 PA*** does not exempt, such as FHWA consultation with federally recognized Tribes and FDHR review of State Historic Highways.

The two programmatic categories of projects set forth in the AOA and ***Section 106 PA*** are generally minor projects in terms of their activities. For most major projects, the identification and evaluation effort requires a more robust survey effort, including preliminary background research, field reconnaissance, historical/architectural field reviews, property examinations, and systematic archaeological testing, if appropriate. These projects are generally larger undertakings where significant historic resources are more likely to be affected.

12.3.2.4.2 Identify Historic and Archaeological Resources

Whether the CRAS is a small reconnaissance effort, a desktop analysis, or an intensive field survey, its primary goal is to identify, evaluate, and bound all the historic properties (as defined in ***Section 267.021, F.S.***) that may be affected by the proposed undertaking. ***.*** In addition, 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 the FDOT ROW.

The CRAS includes and assesses all previously recorded and newly identified archaeological sites and historic resources located within the project APE. This effort, typically performed by an FDOT consultant, includes the following activities. Each of these activities is described in detail in ***Chapter 5*** of FDOT's ***CRM Handbook***.

1. Complete Background Research

2. Develop a Research Design

3. Conduct an Archaeological Field Survey

4. Conduct the Historic or Structural Resources Survey

5. Conduct Artifact Processing and Analysis

6. Provide for Artifact and Record Curation

12.3.2.4.3 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 National Register. ***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, 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)."

The NRHP also established a series of Criteria Considerations for properties not normally considered to have potential for historic significance (such as religious properties, cemeteries, properties not yet 50 years old, properties that have been relocated, and so on), and these can be found at ***36 CFR § 60.4*** as well.

The evaluation of each identified 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 best comply with the provisions of ***Sections 106 and 4(f)***, justifiable boundaries for properties found to possess historic significance

are provided, along with any contributing landscape elements or associated structures, features, and so forth located either within or near the proposed ROW for the undertaking. 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 13, Section 4(f) Resources*** for the importance of the identification of these elements 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 (such as local historical societies, city or county preservation boards, and so forth). 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 Lead Federal Agency of their concerns directly, it is important for the District to maintain communication with the Lead Federal 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 include the CRM consultants in this communication, as appropriate.

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, as appropriate.

12.3.2.4.4 Document the Historic and Archaeological Resources Survey Effort

The District sends the results of the CRAS to the Lead Federal Agency (usually FHWA), SHPO/THPO, and the other consulting parties in a manner appropriate to the size and complexity of the undertaking and the level of involvement with historic resources. Normally, this requires the preparation of a ***CRAS Report*** or ***Technical Memorandum*** that:

- Identifies and justifies the APE,
- Records all historic resources evaluated as part of the survey effort, provides the survey team's recommendations on the historic significance of the resources encountered in the project APE, and
- Provides a preliminary assessment of the potential effects of the proposed action on any identified historic properties when the project description and activities is detailed enough to permit such an assessment.

Two kinds of properties may be identified in the ***CRAS Report*** as historically significant (that is, historic properties): those properties already listed or determined eligible for listing in the NRHP, and those newly identified and assessed during the CRAS for the proposed action as potentially eligible for the NRHP.

How the findings from the CRAS are reported and circulated will vary depending upon a number of considerations and factors. Some of these considerations 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 AOA and ***Section 106 PA*** (see ***Section 12.3.2.2.2***), and the number and nature of the consulting parties. ***Section 12.3.2.4.4*** discusses the documentation of findings and recommendations, including the contents and routing of the ***CRAS Report*** and other documents related to the ***Section 106*** process. In accordance with ***36 CFR § 800.4(d)***, at the conclusion of Step 2 of the ***Section 106*** process, the Lead Federal Agency makes an effect determination for the proposed undertaking. As noted above, this effect determination is based on the information provided by FDOT in the ***CRAS Report*** or ***Technical Memorandum***.

There are two possible 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 identified within the project APE and the undertaking may affect them, the determination is “Historic Properties Affected.”

Once NRHP-listed or eligible properties have been identified within the project APE, the Lead Federal Agency determines whether the proposed undertaking could affect those properties. As with all determinations in the ***Section 106*** process, the Lead Federal Agency and FDOT consult with SHPO/THPO and take 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,” FHWA/FDOT must provide the following documentation to the appropriate ***Section 106*** 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, etc., 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, the Lead Federal Agency finds that there will be no historic properties affected by the proposed project, then the Lead Federal Agency has fulfilled its ***Section 106*** responsibilities and the project may proceed.

For undertakings where the Lead Federal Agency determines historic properties may be affected by the proposed project, and SHPO/THPO and appropriate consulting parties have reviewed the documentation, FHWA/FDOT proceeds to Step Three of the ***Section 106*** process, as described in ***Section 12.3.2.5***. The determination that the project may affect historic properties includes situations when FHWA and FDOT are already aware that the project, as described, will have an adverse effect on historic properties (for example, a proposed project that will necessitate the demolition or destruction of a significant historic or archaeological resource).

In cases where SHPO/THPO objects or disagrees with the determinations of significance contained in the ***CRAS Report***, or if the ACHP or Secretary of the Interior requests it, FHWA obtains a determination of eligibility from the Keeper of the National Register as set forth in ***36 CFR Part 63***.

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 National Register (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 with the lead USDOT agency. For these situations, please see ***Part 2, Chapter 13, Section 4(f) Resources***.

For projects that may affect NHLs, consultation must include the NPS and the ACHP.

Combining Effect Determinations and Eligibility Recommendations

In certain circumstances, the survey findings may include FDOT recommendations on potential effects and/or potential adverse effects of the undertaking on historic resources. The potential to have an effect upon 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 ***CRAS Report*** or ***Technical Memorandum*** for the Lead Federal Agency, to make an effect finding and for SHPO/THPO 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 AOA and ***Section 106 PA***, showing that it has no potential to affect historic properties.

Care is required when combining a recommendation for a No Adverse Effect determination with the recommendations on the eligibility of a particular historic or archaeological resource. Eligibility determinations for the NRHP are not final, until the CRAS has been coordinated and accepted by FHWA, SHPO/THPO, and other

appropriate consulting parties. Until concurrence has been reached on the eligibility findings of the CRAS, any effects determinations are technically premature and may prove disadvantageous if the consulting parties disagree with the eligibility assessments.

12.3.2.5 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 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 National Register 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 National Register. 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.

The following are several examples of adverse effects provided by the regulation at ***36 CFR § 800.5(a)(2)***:

- 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 an Indian 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.

Under the regulations, all ground-disturbing activities within significant historic properties are subject to the Criteria of Adverse Effect even when undertaken for survey, research, and mitigation purposes. As a result, actions such as archaeological testing and excavation on NRHP listed or eligible archaeological sites or even on sites that appear to be eligible should not be initiated without completing prior consultation with the Lead Federal Agency, SHPO/THPO, and, as appropriate, other consulting parties. In particular, before disturbing any archaeological or historic properties that may have cultural importance to Native American Tribes, inform the Lead Federal Agency of the purpose and need for such activities, along with a research design, so they may consult with the appropriate parties and determine the best course of action.

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 during a CRAS effort (see ***Section 12.3.2.4.2***), the District prepares a ***Section 106 Case Report*** that discusses and documents these effects. The term "case report" is not contained in ***36 CFR Part 800*** nor is this an officially established report or evaluation with a set format or table of contents. However, ***36 CFR § 800.11(e)*** specifies certain information that must be provided to support a finding of Adverse Effect or No Adverse Effect, and the District's ***Case Report*** provides this information. This report needs to contain sufficient detail and illustration to support the finding and to allow the consulting parties to reach independent conclusions as to the effect finding.

This ***Case Report*** is then provided to the Lead Federal Agency for its use in making and documenting a finding of Adverse Effect or No Adverse Effect.

The ***Case Report*** is typically prepared on behalf of FHWA/FDOT by the cultural resource consultant, working in association with the engineering firm responsible for conducting the PD&E Study. The content and details of the ***Case 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 example, what needs to be formally presented in document form does not need to be as detailed when meetings will be held with the public, the consulting parties, and/or SHPO/THPO. In such cases, the material may be better presented in a more visually oriented format such as maps, photographs, and illustrations, as opposed to narratives. In essence, the length and detail of ***Case Reports*** vary depending on the level of probable and possible effects of the undertaking on the identified historic properties, as well as upon the method of the presentation. Often times, for those 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 used in the preparation of the ***Case Report***. This is in keeping with FHWA and FDOT policies regarding the streamlining of environmental documents.

For certain projects and circumstances, a more detailed narrative is needed in the ***Case Report***. When an adverse effect is likely, the ***Case Report*** serves as the preliminary documentation for determining this effect, as well as some of the possible mitigation measures. Generally, these reports are also used during the fourth step of the ***Section 106*** process (Resolve Adverse Effects) because information in the ***Case Report*** may be integrated into the agreement and/or commitment documents completed for the project. Finally, the ***Case Report*** functions as the 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 purposes of the ***Case Report*** and the considerations it must address.

Whether presented as a stand-alone report or as a supporting document for a presentation, the ***Case Report*** always contains graphics sufficient to illustrate the relationship of the proposed project (including all appropriate alternatives) to the affected historic property or properties, including the boundary of each National Register listed or eligible property. It also contains enough information to illustrate all minimization efforts that have been examined and why it is or is not practical to avoid the historic resource(s) or minimize the effects to them any 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 the Lead Federal Agency finds that a project has no adverse effects on historic properties, the following procedure applies:

1. FHWA 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 FHWA 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 the Lead Federal Agency and no consulting party has objected, the Lead Federal Agency carries out the proposed undertaking based upon the effect finding and the action as proposed.

4. In cases where the Lead Federal Agency determines there is no effect or no adverse effect to historic properties and has received no objections to this finding, the Lead Federal Agency has fulfilled its responsibilities under ***Section 106***, and the project may proceed. 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. FHWA/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, FHWA may assume concurrence and proceed with the undertaking.

7. If the ACHP provides comments, FHWA must consider them when reaching a final decision on their finding of effects.

If, after consultation with the appropriate parties and a review of the project and its relationship to historic properties, the Lead Federal Agency determines that there is no adverse effect to historic properties, then the ***Section 106*** process is complete. In cases where SHPO/THPO has either agreed with the finding or has not responded to the finding at the close of the 30-day review period, and no consulting party has objected to the finding, the Lead Federal Agency may proceed with the undertaking after documenting its determination and the basis for arriving at this determination. If any agreements or commitments (such as a Conditional No Adverse Effect finding) are made to reach a finding of No Adverse Effect, these are recorded and carried out through the remainder of the project development, design and construction. If any changes occur that may alter the effect finding for the project, consultation with the appropriate parties must be reinitiated.

All documentation pertaining to any determination concerning ***Section 106*** effect findings, including FHWA findings, SHPO/THPO review letter(s), and applicable comments from other consulting parties and the public, is included in the appropriate environmental document (see ***Section 12.3.4.1***).

In the case of an Adverse Effect finding, FDOT documents this finding and the basis for the finding on behalf of FHWA and FHWA transmits the finding and documentation to SHPO/THPO, the ACHP, and other appropriate consulting parties.

If SHPO/THPO disagrees with the finding or another consulting party objects to the finding within the 30-day review period, it must provide the reasons for the disagreement or objection. In these cases, FHWA 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, FHWA and FDOT may proceed to Step Four of the ***Section 106*** process.

12.3.2.6 Step Four: Resolve Adverse Effects

A finding of Adverse Effect requires further consultation among FHWA, SHPO/THPO, and the other consulting parties in order to resolve the adverse effects. This consultation brings together the principal parties to consider ways to avoid, reduce, or mitigate the adverse effects of the undertaking on the historic properties. A successful consultation accommodates the purposes and needs of the agency's undertaking and the integrity of the historic property in a way that the consulting parties agree best serves the dual public interest of improving the transportation system and promoting the protection and enhancement of historic resources.

In conducting consultation, as well as in its efforts to engage the public, FHWA and FDOT:

1. Make their interests and constraints clear at the outset;
2. Make clear any rules, processes, or schedules applicable to consultation;
3. Acknowledge the interests of others and seek to understand them;
4. Develop and consider a full range of options; and
5. Make an effort to identify solutions that will leave all parties satisfied.

From a practical standpoint, these items would have been developed for the determination of adverse effects in Step Three. For most projects involving a finding of adverse effect, Steps Three and Four of the ***Section 106*** process are part of the same discussions.

In accordance with the AOA and ***Section 106 PA*** (see ***Section 12.3.2.2.3***) 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. See ***Section 12.3.2.4.4*** for details about that documentation.

Regardless of the specifics, FDOT and FHWA provide the project documentation to the consulting parties. As appropriate, 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.

As in all other steps of the ***Section 106*** process, FHWA provides an opportunity for members of the public to express their views on the undertaking and its effects to historic properties. This effort may involve a public meeting or other outreach efforts (informational letters, informal public surveys, etc.) specifically dedicated to gathering public concerns related to resolving the adverse effects of the proposed project on historic properties.

If all relevant information was provided at earlier stages in the process in such a way that a wide audience was reached, and no new information is available at this stage in the

process that would assist in the resolution of adverse effects, then a new public notice may not be warranted. However, this presumes that the public had the opportunity to make its views known on ways to resolve the adverse effects during those earlier efforts.

The consultation process gives priority to the consideration of alternatives**,** including alternate sites, alternate undertakings, and alternate designs, as well as the No-Build alternative. The latter serves to evaluate the importance of the undertaking against the severity of its effects when no other reasonable method to meet the project need is available.

12.3.2.6.1 Minimize and Mitigate Adverse Effects

If the consulting parties find that the consideration of alternatives does not result in a viable solution that would best serve the public interests in transportation and in historic preservation, they proceed to a discussion and evaluation of minimizing and mitigating the adverse effects to historic properties.

The procedures for resolving adverse effects include the following steps:

1. FHWA continues consultation with SHPO/THPO and other consulting parties to resolve the adverse effects by avoidance, minimization, or mitigation, and considers alternatives to the project.

2. As appropriate, the ACHP is invited to participate or can decide to enter into consultation pursuant to ***36 CFR Part 800, Appendix A***. Any consulting party or the public may contact the ACHP and request its participation. The ACHP has 15 days to notify FHWA and consulting parties whether it will participate in the resolution process.

3. If ACHP does not participate and FHWA and SHPO/THPO agree on the ways to resolve adverse effects, the measures are outlined in a ***MOA*** or other formal agreement document such as a Conditional No Adverse Effect determination, pursuant to ***36 CFR § 800.5(b)***. In these cases, Steps 4 through 7 are completed. If FHWA and SHPO fail to agree, the process skips to Step 8.

4. The District drafts an ***MOA*** or other appropriate agreement document, on behalf of FHWA and coordinates with all consulting parties.

5. Following review and revisions, as needed, FDOT provides FHWA the ***MOA*** for execution/signature and appropriate circulation.

6. Once the Division Administrator signs the ***MOA***, FHWA forwards the agreement to SHPO/THPO for signature and provides all consulting parties a copy, including the ACHP, the District, and SEMO. If the ACHP is a consulting party, FHWA sends the agreement to the ACHP for signature/execution and then provides copies to SHPO/THPO, FDOT's District, and SEMO.

7. The undertaking proceeds according to the terms and stipulations of the agreement document, and FHWA has met all of its obligations under ***Section 106*** of the ***NHPA***. The process skips to Step 11.

8. If FHWA and SHPO/THPO fail to agree, FHWA requests comments from the ACHP and forwards a copy of the documentation package pursuant to ***36 CFR § 800.11(3)*** along with other information relevant to the disagreement.

9. The ACHP has 45 days to comment. The ACHP's provides its comments to the FHWA's Administrator, with copies to all consulting parties.

10. FHWA is obligated to consider and take into account the comments of the ACHP. FHWA may choose to implement or not implement them, or to proceed with an alternative.

11. FHWA documents the final decision in accordance with ***36 CFR § 800.7(c)(4)***, the ACHP and all consulting parties are notified, and the project may proceed.

The appropriate FDOT District is responsible for monitoring implementation of the commitments stipulated in the agreement document, and for keeping FHWA, SHPO/THPO, and SEMO informed of the progress of work.

In cases where consulting parties do not reach any sort of agreement, FHWA, SHPO/THPO, or ACHP may decide to terminate consultation. When this happens, FHWA requests ACHP's comments in accordance with ***36 CFR § 800.7(c)*** and notifies all other consulting parties of its request. The ACHP then has 45 days to comment.

The decisions reached during the consultation process are documented in a formal agreement document. This legal document outlines FHWA's fulfillment of responsibilities under ***Section 106***, and obligates the signing parties to carrying out its terms. It shows that FHWA has taken into account the effects of its undertaking on NRHP-listed or eligible properties and has given the ACHP a reasonable opportunity to comment. Guidelines for preparing agreement documents, determining the participants, establishing the mitigation measures, and so forth are provided in ***Chapter 7*** of the ***CRM Handbook***.

12.3.2.6.2 ACHP Participation

SHPO/THPO, a Native American Tribe, or any other consulting party may at any time independently request the ACHP to participate in the consultation. The ACHP will decide on its participation within 15 days of receipt of a request, basing its decision on whether to enter into a review as set forth in ***36 CFR Part 800, Appendix A (Criteria for Council Involvement in Reviewing Individual Section 106 Cases)***. If a consulting party requests ACHP involvement, the District informs SEMO prior to initiating this consultation.

If the ACHP decides to participate in the consultation process, it must notify FHWA (or the appropriate Lead Federal Agency) and the consulting parties. If the ACHP chooses to participate in the resolution of adverse effects, FHWA is responsible for coordinating consultation among all the parties, including SHPO/THPO and FDOT.

New consulting parties may enter the consultation if FHWA and SHPO/THPO (and the ACHP, if participating) agree. If they do not agree and the ACHP is not a consulting party already, FHWA 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.

12.3.2.7 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) exceptionally 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

12.3.2.8 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 they deserve, while the process is substantially streamlined for the more common bridge types. These 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 a part of this Program Comment, FHWA and ACHP requested the state DOTs and SHPOs wishing to utilize the Program Comment to submit a list of common, post-1945 bridges that may represent significant historic resources, have already been determined to represent significant historic resources, or should otherwise be excluded from the Program Comment. To that end, FDOT, in consultation and coordination with Florida's SHPO and FHWA's Florida Division identified nineteen (19) historic bridges that still require evaluation and/or individual treatment under ***Section 106*** of the ***NHPA***. These bridges are listed in ***Figure 12-7***.

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 and recorded on FMSF forms.

12.3.2.9 Contents and Routing of Documentation Related to the Section 106 Process

The results of all cultural resources identification and evaluation efforts are documented in a ***Notification Letter***, a ***CRAS Report***, or a ***Technical Memorandum***. In the case of undertakings determined to have no potential to affect historical resources, a ***Notification Letter*** is prepared. For minor projects with a minimal APE and either no or minimal involvement with cultural resources (such as a resurfacing of existing pavement, installation of a sidewalk, and so forth), it may be appropriate to utilize a ***Notification Letter*** or cover letter and sufficient information to support the finding of no involvement with historic properties. In circumstances where consultation for a project under ***Section 106*** must be revisited due to project changes or other reasons (such as Stormwater Management Facilities and Floodplain Compensation sites, roadside drainage features, or late identification of historical associations of particular sites) that either change the APE for the project or change the potential historical value of the surrounding resources, a ***Technical Memorandum*** or addendum to the ***CRAS Report*** must be completed and coordinated through the Lead Federal Agency and all appropriate consulting parties.

CRAS Reports and ***Technical Memoranda*** are prepared in draft and final versions by cultural resource consultants on behalf of FDOT. Typically, these documents may require revisions at one or more stages in the review process. In addition, SHPO/THPO may request that additional information be provided, which results in revisions to the ***Notification Letter, CRAS Report,*** or ***Technical Memorandum***. The standard components and distribution of CRAS documents are provided in ***Section 12.3.2.9.1*** and ***Section 12.3.2.9.2*** and in ***Chapter 7*** of the ***CRM Handbook***.

The information contained in the ***Notification Letter, CRAS Report,*** and/or ***Technical Memorandum*** is summarized in the environmental document [e.g., Environmental Assessment (EA) with Finding of No Significant Impact (FONSI), Draft Environmental Impact Statement (DEIS), Final Environmental Impact Statement (FEIS), SEIR] (See ***Section 12.3.4.1***). In the case of Type 2 Categorical Exclusions (Type 2 CEs), the findings and approvals related to the CRAS are submitted as an attachment to the ***Type 2***

Categorical Exclusion Determination Form, Form No. 650-050-11. For Type 1 CEs the finding of no effects or no adverse effects on historic properties is kept with the completed ***Type 1 Categorical Exclusion Checklist, Form No. 650-050-12*** for the proposed project.

FDOT provides the ***Notification Letter*** to FHWA, SHPO and SEMO. For projects requiring a more thorough analysis, FDOT submits the final ***CRAS Report/Technical Memorandum*** to the Lead Federal Agency for projects or undertakings that are federally funded, licensed, permitted, or approved. For projects with no federal involvement, FDOT submits the document to the FDHR.

When the Lead Federal Agency is FHWA, FDOT provides the cover letter addressed to the Division Administrator of FHWA. The cover letter must summarize the findings of the survey effort, and, as appropriate, outline any subsequent consultation, coordination, or other related actions which come next should FHWA concur with the report, the APE, and the survey findings and recommendations. Normally, FDOT uses a concurrence signature block for CRAS transmittals containing signature and concurrence lines for FHWA and SHPO/THPO (See ***Figure 12-8***). If appropriate, the signature block also informs SHPO/THPO that FHWA 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. Signature blocks may be used for ***Technical Memorandum,*** when appropriate.

FHWA forwards the report and transmittal letter to SHPO/THPO. For reports requiring distribution to the Tribes, FHWA provides copies to the Tribes under a separate cover. For other consulting parties, FDOT may provide copies of the survey report directly to them. There may be circumstances where FHWA needs to provide copies of the CRAS directly to consulting parties such as the ACHP or NPS. In those instances, FDOT provides the appropriate document(s) to FHWA for transmittal to those consulting parties just as FDOT provides copies of the materials to FHWA for submission to the tribes.

12.3.2.9.1 Notification Letter of No Potential to Affect Historic Properties

For projects where there is no potential to affect historic properties, FDOT provides a notification letter to FHWA and to SHPO outlining 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 project. The notification letter must inform FHWA and SHPO that FDOT has determined the proposed project meets the applicability criteria and, therefore, has no potential to affect historic properties. Unless FHWA or SHPO objects to this finding within 30 days of receipt of this notification, the project may proceed without further consultation under ***Section 106***. FHWA may provide the Tribes with an opportunity to comment on these undertakings. If this occurs, sufficient time must be allowed for a tribal response. If the proposed action changes in such a way that it may no longer meets the criteria set forth in the AOA and ***Section 106 PA*** (see ***Section 12.3.2.2.2*** for these criteria), 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, FHWA, and other appropriate consulting parties must be initiated.

12.3.2.9.2 CRAS Reports, Technical Memoranda, and Case Reports

The ***CRAS Report*** provides the completed identification and evaluation of the significance or non-significance of all cultural resources located in the APE for the proposed 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 ***CRAS 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 ***CRAS Report*** (or ***Technical Memorandum*** when appropriate) includes all the appropriate data from the background research, completed FMSF forms for all evaluated resources, and requests for determinations of eligibility for the NRHP or expanded FMSF forms for the properties recommended as significant. Report graphics clearly depicting the location and limits of the project and the boundaries of the APE for both archaeological and historical resources are included, as well as the rationale for these APE limits and the relationship of significant historic resources to the undertaking.

If no historic resources are present in the project APE, then the ***CRAS Report*** includes the recommended finding of no historic properties affected; and this recommended finding is included in the transmittal letter for the report (see ***Figure 12-8*** for a sample Transmittal Letter). If historic resources are located within the project APE, then findings on eligibility for the National Register are made by FHWA, SHPO/THPO, and other appropriate consulting parties before a determination of effects on historic properties for the project can be made. As discussed above, in ***Section 12.3.2.4.4***, 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). Prior to submitting combined findings, the District coordinates with FHWA to ensure the appropriateness of submitting the eligibility and effects findings simultaneously. If FHWA 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 standard components of the ***CRAS Report*** are:

1. Transmittal Letter
2. Executive Summary
3. Introduction (including project description and alternatives)
4. Environmental, Archaeological, and Historical Overviews
5. Research Considerations and Methodology (including definition and justification of the project APE)

6. Survey Results (archaeological and historical/architectural) and Site Evaluations

7. Conclusions

8. References

9. Appendices, including FMSF Forms, Survey Log Sheet, etc.

The ***Technical Memorandum*** format may be used in cases such as minor projects with a minimal APE and either no or minimal involvement with cultural resources. These projects may include proposed SMF/FPC siting, ROW transfers, PD&E reevaluations, and historic resources survey updates. For projects where a ***CRAS Report*** has already been prepared, the ***Technical Memorandum*** should reference this document, and not repeat information such as the environmental and cultural overviews. The ***Technical Memorandum*** should include the following information:

1. Transmittal Letter

2. Introductory information (e.g., project name, location, description, purpose, and need; purpose of the CRAS; definition of the project)

3. Results of background research for the project APE and vicinity, including the findings of the previous study, if applicable

4. Survey expectations vis-à-vis cultural resource potential

5. Archaeological and historical/architectural field survey results (including resource evaluations)

6. Conclusions

7. References

8. Appendices, including FMSF Forms, Survey Log Sheet

When a project may affect any historic properties identified in a CRAS, the District prepares a ***Case Report*** in order to assist the consulting parties to determine if the proposed action will have an adverse effect (see ***Section 12.3.2.5***). The ***Case 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 National Register (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 inapplicable, including any conditions or future actions to avoid, minimize or mitigate adverse effects; and

6. Copies of summaries of any views provided by consulting parties and the public (including public meeting agendas, handouts, newsletters, relevant slides).

FDOT provides sufficient copies of the ***Case Report*** to FHWA for distribution to the other consulting parties. There may be times when FHWA will have FDOT distribute these reports to the consulting parties. However, FHWA is responsible for distribution to the appropriate Tribes, THPO, the ACHP (when participating), and the NPS (for NHLs). Whenever there is a finding of adverse effect to historic properties, the ACHP must be provided the finding and the ***Case Report***, even when ACHP is not participating in the consultation.

The typical routing path of the final ***CRAS Report/Technical Memorandum***, from initial submittal by the consultant through review by SHPO/FDHR, is as follows:

1. The consultant prepares the ***CRAS Report/Technical Memorandum*** and submits it to the District Project Manager and/or CRC for review.

2. The District Project Manager reviews the report, and requests changes if needed. The final deliverables from the consultant includes the requested number of copies of the report (which may vary, depending on the project), a ***Survey Log***, and 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 jpg files. Although FHWA and SHPO may accept electronic copies for the purposes of review, the FMSF office will require paper copies for retention and paper copies must be provided to the Miccosukee ***Section 106*** and ***NAGPRA*** coordinator and be made available upon request to other consulting parties.

3. Once acceptably revised, the District Project Manager and/or CRC submits the report and associated deliverables to FHWA for review, with a copy of the cover letter to SEMO.

4. FHWA reviews the findings of eligibility, and if there is disagreement, FHWA and the District resolve the differences.

5. Once the report is acceptable to FHWA, it is submitted, along with appropriate documentation, to SHPO/THPO and other consulting parties.

6. Once SHPO/THPO has reviewed and commented, the SHPO/THPO letter is provided to FHWA, with a copy to FDOT SEMO and the District. If SHPO/THPO objects to FHWA's findings on the significance of a historic resource, FDOT and FHWA discuss 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 for the resource.

7. If FHWA, FDOT, and SHPO/THPO (as well as other applicable consulting parties) have concurred that historic properties occur within the APE, FHWA initiates Step 3 of the ***Section 106*** process, Assess Adverse Effects (see ***Section 12.3.2.5***).

8. If SHPO/THPO, FHWA, 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 effects to historic properties or no adverse effects to historic properties, this finding is retained in the project files along with the basis for the finding.

FHWA's transmittal letter to SHPO/THPO, prepared by the District Project Manager and/or CRC, contains the standard summary information as indicated in the example letter provided as ***Figure 12-8***. Please note that the signature block letter format shown in ***Figure 12-8*** is only used for projects where FHWA is the Lead Federal Agency.

12.3.3 Special Archaeological and Historical Resources Considerations in Non-Federally Funded Projects

For state-funded major transportation projects with no federal funding or involvement, a SEIR is prepared. FDOT is the lead state agency, and the District is responsible for the development and review of the SEIR; final approval is made by the District Secretary. The CRAS for this project 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 Native American Tribes beyond the normal considerations of public participation for state-funded projects as outlined in ***Part 1, Chapter 11, Public Involvement***. 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. Furthermore, if the project changes from a state-only project to a federally funded or approved project, tribal comment will be required. Please see ***Section 12.3.2.3*** regarding Native American consultation for state-funded projects requiring a federal permit.

For major projects as well as NMSAs, 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 AOA and ***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 AOA and ***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.

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 AOA and ***Section 106 PA*** for determining the level of assessment, review, and consultation apply for both state-only and federally assisted or approved projects (see ***Section 12.3.2.2.2***).

For projects that may adversely affect historic properties, FDOT and FDHR consult to determine the historical significance of the historic resources within the APE. Be aware of the additional property types protected under ***Chapter 267, F.S.***, as discussed in ***Section 12.1.2***. 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 resources document (***CRAS Report*** *or* ***Technical Memorandum***), and summarized in the appropriate locations 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 in the SEIR and discussed in the appropriate sections (e.g., Environmental Analysis, Commitments) of the SEIR. The cultural resources document and SEIR are transmitted to the Director of the FDHR. Normally, the CRAS will be completed prior to the approval of the SEIR, but care must be taken before finalizing any project related minimization or mitigation measures for historic properties prior to a public hearing (see ***Part 1, Chapter 11, Public Involvement***) unless the general public was consulted as a part of the historic and archaeological resources compliance effort already.

A sample Checklist is provided in ***Part 1, Chapter 10, State, Local or Privately Funded Project Delivery***; sample language for the SEIR is provided in ***Section 12.3.4.1***. The transmittal letter prepared by the District is essentially the same as FHWA letter provided as ***Figure 12-8***. 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, some transportation projects are determined by the District to be NMSAs. These NMSA projects also require an historical and archaeological impact evaluation. Typically, detailed evaluations are not warranted because these projects are generally small in scope. So, generally only minimal documentation is required. These decisions cannot be made, however, 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 do the criteria for determining whether a project is a SEIR or a NMSA.

For projects that only require approvals, permits, or licenses from other state agencies, FDOT initiates coordination with these agencies when seeking the agency approval. When initiating the coordination with these other agencies, FDOT informs these agencies of the extent, details, and, if completed, the results of its consultations with the FDHR. The District may also need to outline any of the applicable programmatic approaches drawn from the AOA and ***Section 106 PA*** in its discussions with the other state agencies.

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 is possible. This contact must occur when FDOT personnel first become aware of the permit requirement and the potential involvement with historic resources regardless of the anticipated level of effect. 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***, that agency becomes the Lead Federal Agency for the permitted action.

12.3.4 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 12-9*** illustrates coordination between ***NEPA*** and ***Section 106***.

NEPA documents, including an EA with FONSI or a Final Environmental Impact Statement/Record of Decision (FEIS/ROD), include the information and results of the ***Section 106*** compliance efforts. This includes a general presentation of the survey effort, a brief description of the historic properties identified, the consulting parties, the determinations of effect and adverse 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.

12.3.4.1 Including Cultural Resources Findings in Environmental Documents

FDOT incorporates the findings of the CRAS, as presented in the ***CRAS Report*** or ***Technical Memorandum***, into the appropriate environmental document prepared for each project.

EA and DEIS

The EA and DEIS contain an overall summary of the CRAS. The description and evaluation of archaeological sites and historic resources identified within the project APE are included in the Impacts section of the EA and the Affected Environment and Environmental Consequences section of the DEIS. FDOT submits the EA or DEIS to FHWA for review and approval. Once FHWA approves the document for public availability, it sends it to the appropriate agencies and parties (including SHPO) for a 30-day review and comment.

EA with FONSI or FEIS

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 either the EA with FONSI or the FEIS. The Environmental Consequences section of the FEIS summarizes the potential effects (e.g., direct use, visual, noise) on NRHP-listed or eligible historic properties resulting from construction of the improvement project, as well as potential mitigation measures for the anticipated effects associated with the preferred alternative. Included in the Environmental Consequences 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 accomplishments. The latter includes the date of each meeting, involved parties, issues raised, treatment of those issues, and any follow-up documentation. Reference to all correspondence related to the ***Section 106*** process is also included. The Commitments section of both the EA with FONSI and FEIS contains a description of the measures FDOT will use to minimize adverse effects to the NRHP-listed or eligible historic properties. FDOT completes the EA with FONSI or the FEIS and submits it to FHWA for review and approval, and FHWA provides the document to SHPO/THPO for review and concurrence within 30 days. If the resolution of adverse effects includes any formal agreement such as an MOA or Conditional No Adverse Effect agreement, this document is included in the EA with FONSI or FEIS.

The correspondence providing FHWA's finding on effects to historic properties; SHPO/THPO opinion on this finding; and any correspondence related to the avoidance, minimization, and mitigation of effects to historic properties, as well as the opinions of the other appropriate consulting parties, are included in the Environmental Document.

SEIR

For state-funded projects, a SEIR is prepared by the District for approval by the District Secretary. The results of the CRAS are included in the Environmental Analysis section of the SEIR, and the Commitments section discusses all commitments made in regard to cultural resource issues. The District submits the SEIR to SHPO for review and comment. The SEIR must include FDOT's determination of effects to historic resources, the FDHR's opinion as to this determination, and all related correspondence.

Preliminary Engineering Report (PER)

In addition to the ***NEPA*** environmental documents, a brief summary of the CRAS evaluation results is included in the Summary of Environmental Impacts section of the ***PER***. For projects with one or more NRHP-listed or eligible cultural resource located within the APE, measures to avoid, minimize, or mitigate the adverse effects of the undertaking to these historic properties are included in the Commitments and Recommendations section. The ***PER*** also reflects the commitments and considerations included in the environmental documents with reference to the technical documents completed for the PD&E Study.

Example CRAS Summaries

Typically, the EA, EIS, and SEIR documents 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, any reference to FHWA should be deleted, and FDHR becomes the consulting agency. For state-only projects, legal authorities referenced should only include state ones, 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 (DEP) should be included in the decision making].

The following are examples of text for the CRAS summary to be included in environmental documents. Typically, this summary language is contained in the ***CRAS Report*** 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:

   "A Cultural Resource Assessment Survey 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 area of potential effect (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 of 1966 (Pub. L. 89-665, as amended), as implemented by 36 CFR Part 800 (Protection of Historic Properties, revised January 2001); the National Environmental Policy Act of 1969 (Pub. L. 91-190); and Chapter 267, Florida Statutes (F.S.), revised. This study was conducted in accordance with Part 2, Chapter 12 (Archaeological and Historic Resources) of the Florida Department of Transportation's Project Development and Environment Manual (revised), and the standards contained in the Florida Division of Historical Resources (FDHR) Cultural Resource Management Standards and Operational Manual (FDHR 2003). In addition, this survey meets the specifications set forth in Chapter 1A-46, Florida Administrative Code."

2. Summarize the research methods used:

   "Research methods included preliminary background research; the preparation of a research design for review and approval by FDOT and FHWA, 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:

   The initial review of the Florida Master Site File (FMSF), NRHP listings, and the Efficient Transportation Decision Making (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 National Register criteria and the relevant aspects of integrity.

   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 discovered. 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 it is eligible, the characteristics that make it significant, its boundaries, etc. Include measures that have been incorporated into the proposed undertaking to

avoid, minimize, and mitigate effects to the property. Example language for findings of No Involvement with Cultural Resources/No Historic Properties Affected (***Section 12.3.4.1.1***) and both No Adverse Effect and Adverse Effect (***Section 12.3.4.1.2***) follows.

12.3.4.1.1 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 FHWA and SHPO agree that none of the sites or historic resources is eligible for inclusion in the NRHP, provide one of the following standard statements, as applicable. The statement is included in the Cultural and Historic Resources section of the Impacts section of the EA with FONSI, the Cultural Resources section of the Affected Environment section of the FEIS, or in other appropriate locations for other COAs:

> A Cultural Resource Assessment Survey, conducted in accordance with the procedures contained in 36 CFR Part 800 and including background research and a field survey coordinated with the State Historic Preservation Officer (SHPO), was performed for the project. No archaeological sites or historical resources were identified, nor are any expected to be encountered during subsequent project development. FHWA, after consultation with SHPO/THPO, has determined that no historic properties will be affected by the proposed project. FHWA determination(s) and SHPO/THPO coordination letters are attached as Exhibit XX.
>
> -OR-
>
> A Cultural Resource Assessment Survey, conducted in accordance with the procedures contained in 36 CFR Part 800 and including background research and a field survey coordinated with the State Historic Preservation Officer (SHPO), was performed for the project. As a result of the assessment, [xx resources] ([FMSF numbers]) were identified. FHWA, after application of the NRHP Criteria for Evaluation, found that neither the archaeological sites nor historic resources identified within the project APE meet the eligibility criteria for inclusion in the National Register. SHPO (and/or THPO as appropriate) concurred with this evaluation. No additional archaeological sites or historic resources are expected to be encountered during subsequent project development. Therefore, FHWA, after consultation with SHPO/THPO, has determined that no historic properties will be affected by the proposed project. FHWA determination(s) and SHPO/THPO coordination letters are attached as Exhibit XX.

For the SEIR, include the findings in the Cultural Resources section of the Environmental Analysis section. Reference FDOT as the lead agency making the findings and identify the FDHR (instead of SHPO) as the concurring/consulting party.

12.3.4.1.2 No Adverse Effect or Adverse Effect to National Register 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, summarize the effects and describe the finding in the Cultural and Historic Resources section of the Impacts section of the EA with FONSI, the Cultural Resources section of the Environmental Consequences section of the FEIS, or in other appropriate locations for other COAs. Include any commitments made for the project that contributed to the No Adverse Effect finding. For example:

> FHWA, after application of the Criteria of Adverse Effect, in consultation with SHPO, has determined that the preferred alternative will have No Adverse Effect to the [Name; FMSF number], a historic resource eligible for listing in the National Register of Historic Places (NRHP). The preferred alternative will not require a direct use of the [Name]. The historic property will be visually affected by the preferred alternative due to the addition of noise walls adjacent to SR 747. However, FDOT, FHWA, and SHPO have consulted pursuant to Section 106 of the National Historic Preservation Act and have determined to visually screen these noise walls from the [property name/FMSF #]. By installing vegetation between the noise wall and the historic property, FHWA and FDOT will minimize the visual effects of the proposed undertaking on the historic property. Although the construction of noise walls will diminish the setting of the [Name], the screening will maintain the property's rural setting, which will preserve its integrity of location, design, materials, workmanship, feeling, and association, and therefore result in No Adverse Effect to [Name]. Please see [cite the location in the environmental document of the letter and/or Conditional No Adverse Effect determination from FHWA and concurrence from SHPO].

In the case where project development will result in adverse effects to NRHP-listed or eligible historic resources, summarize FDOT's/FHWA's commitments to minimize effects in the Commitments section of the EA with FONSI or FEIS, as applicable. For example:

> The [Name] project will result in an unavoidable adverse effect to [site name and FMSF number], a property listed in the National Register of Historic Places (NRHP). FHWA, FDOT, and the Florida State Historic Preservation Officer (SHPO) executed a Memorandum of Agreement (MOA) on [date], which outlined conditions to minimize and mitigate adverse effects to the property resulting from the project. Consequently, FHWA and FDOT commit to the stipulations provided below as outlined in the MOA provided in [cite location of the MOA in the environmental document].

Follow this paragraph with a list of the specific stipulations developed.

12.3.5 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 an FHWA, Federal Transit Administration (FTA), or Federal Railroad Administration (FRA) approval under ***Section 4(f)*** of the ***USDOT Act of 1966***, as amended. However, a project does not need to have an effect on a historic property in order for ***Section 4(f)*** to apply. ***Section 4(f)*** is invoked whenever a project incorporates lands from a protected type of site into a transportation facility regardless of effects. Such incorporation is referred to as a ***Section 4(f)*** use of the resource. In addition, there is a very rare type of use that occurs when the proximity impacts of a proposed undertaking rise to a level where the value of the protected property to a degree where it can no longer fulfill the functions which qualify it for protection. This latter type is referred to as a constructive use.

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, 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 FHWA 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.

The guidance for compliance with the requirements of ***Section 4(f)*** for historic properties is provided in ***Part 2, Chapter 13, Section 4(f) Resources***.

12.3.6 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, F.S.***, and be in conformity with ***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, all work ceases in the area of the human burial. As appropriate, the discoverer, the District Project Construction Engineering Inspector or the Project Manager immediately contacts the District Medical Examiner or the State Archaeologist via telephone and then follows the appropriate process. The appropriate process for any discovery of human remains depends upon a number of considerations including how the remains were discovered (for example, during construction or during archeological research), the age of the discovered remains, the location of the discovery and so forth. For burials more than 75 years of age or greater, the State Archaeologist is contacted. For those less than 75 years of age, the District Medical examiner is contacted. Necessary measures are taken to secure and protect the remains, including, as

appropriate, stabilization and covering. Both the FDOT and FHWA Native American Coordinators are consulted 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 12.2.2.2*** and ***12.3.6*** for related procedures.

12.3.7 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 and on the ***Project Commitments Record, Form No. 700-011-35***. ***Part 2, Chapter 32, Commitments*** provides the processes that must be followed to ensure commitment compliance for FDOT projects and other undertakings. The commitments are transmitted to the Design and Construction Offices to be included in the contract documents. If the commitments also occur in the permit conditions, they will need to be addressed through that process as well. Tracking project commitments follows FDOT's ***Procedure No. 700-011-035, Project Commitment Tracking***.

In order to properly review and comply with the commitments made to SHPO/THPO, the Tribes, and/or other consulting parties, the District Environmental Office coordinates with the District Design and Construction Offices to review the status of compliance with the commitments made. As a result, District staff in all three of these areas review the commitments made to avoid, minimize, and mitigate effects to historic properties. This requires an understanding of the preliminary design decisions in the vicinity of historic properties, as well as the commitments specific to particular activities or treatments for each historic property considered or affected by the proposed project prior to the submission of final ROW plans. If called for in the project commitments, a field visit with SHPO/THPO, FHWA, the Tribes, and/or other consulting parties to confirm areas that must be avoided during construction or historic properties of particular concern, is required prior to finalizing the contract design plans.

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.

12.3.7.1 Reevaluations

Reevaluations are prepared when there are any changes to the overall project design, locations, or proposed construction-related activities; to the historical value of sites within the proposed project's APE; or to the potential for the project to affect historic properties following the completion of the ***Section 106*** or FHRA process and the approval of the appropriate Environmental Document, as outlined in ***Part 1, Chapter 13, Reevaluations***. Project reevaluations are conducted whether the reevaluation arises from a project phase change (Design, ROW, Construction), a design change, or the passage of time. The

commitments and required coordination are updated and documented in the Mitigation Status and Commitment Status section of the ***Reevaluation Form***. Because the status of historic properties can change over time, CRM evaluations or ***CRAS Reports/Technical Memoranda*** may need to be updated, as appropriate, before advancing a proposed project into a new phase of project development. 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. Primary examples of CRM evaluations include new or revised SMF/FPC sites that are identified during the design phase and an updated evaluation of historic resources within the project APE, especially if the previous CRAS was prepared over five to ten years before.

12.3.7.2 Design Considerations

Project commitments related to cultural resources considerations range from avoidance to on-site minimization, mitigation, or recordation, as well as subsequent 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 ***Section 12.3.2.6.1*** or ***Chapter 8*** of the ***CRM Handbook***). MOAs are executed when a project has an unavoidable adverse effect to a historic property. These agreements outline the measures FDOT and FHWA incorporate into projects in order to document that they have taken into account the adverse effects of the proposed undertaking on historic properties.

In certain instances, some areas are set aside as zones where no construction or construction-related activity is allowed. In addition, there are instances when a significant historic structure must be rehabilitated or relocated. Certain agreements require either archaeological monitoring in order to rapidly address effects to significant archaeological sites that may arise during construction or a research design to govern an archaeological data salvage or excavation effort.

In most cases, the standards that guide these activities are established by the NPS. These include professional standards required for the individuals who conduct the work, as well as standards for rehabilitation or restoration, archaeological excavations, structure relocations, and so forth. The appropriate standards and reviewing parties are set forth in the agreements.

12.3.7.3 Permitting

Most permits obtained by FDOT 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. In most cases, the permit agencies only take responsibility for the work they are issuing the permit for and not the entire project.

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 requires a separate communication from that provided for the Lead Federal Agency or may conduct its own consultations under ***Section 106***. When this occurs, the specifics of these requirements are included in the conditions set forth in that permit.

12.3.7.4 Cultural Resources Considerations during Construction

If previously unidentified historic properties are discovered during construction, or if unanticipated impacts to known or previously unidentified historic properties occur during construction, the following procedures are followed:

1. All construction-related activity in the vicinity of the discovery stops and the contractor immediately notifies FDOT's project Construction Engineering Inspector, FDOT's Project Manager, and the District Environmental Administrator and/or CRC of the discovery. Necessary security measures are taken to protect the discovery, as appropriate.

2. FDOT notifies SHPO/THPO and FHWA of the discovery and invites them to accompany FDOT staff (or consultants) to the location within forty-eight (48) hours of the discovery.

3. Following receipt of notification from FDOT, FHWA immediately notifies any Tribe that might attach religious and cultural significance to the affected property and informs FDOT of any tribal concerns related to the discovery within forty-eight (48) hours of receipt of notification by FDOT of the discovery.

4. FDOT and FHWA consult with SHPO/THPO and appropriate consulting parties within forty-eight (48) hours to document and evaluate the project effects and the need, if any, for further investigation.

5. If FDOT determines that the discovery does not warrant further investigation, they provide written notification to SHPO/THPO, FHWA, and appropriate consulting parties outlining their reasons and requesting their concurrence or opinion within two (2) business days of the visit to the discovery location. SHPO/THPO and, as appropriate, the Tribes will have two (2) business days after receipt to respond. If no comments are received within this period, concurrence will be assumed, and project construction may resume.

6. If FDOT determines that the site warrants further investigation, a scope of work is developed within forty-eight (48) hours of the visit to the site. The scope of work is submitted to SHPO/THPO and FHWA. SHPO/THPO and Tribes have two (2) business days after receipt to review and comment. If no comments are received within this period, concurrence is assumed and work is implemented in accordance with the scope. If comments are received, FDOT, on behalf of FHWA and, as appropriate, in consultation with FHWA, takes the comments into account and carries out the scope of work. Upon completion and acceptance of the work,

construction may proceed as planned. A report of the investigations is completed within the time frame established by the scope of work and copies are provided to all consulting parties. Should any party object to the proposed work plan or results, FDOT and FHWA will:

a. Forward all documentation relevant to the dispute to the ACHP in accordance with ***36 CFR § 800.2(b)(2)***. Upon receipt of adequate documentation, the ACHP shall review and advise FHWA on the resolution of the objection within thirty (30) days. Any comment provided by the ACHP, and all comments from the consulting parties will be taken into account by FHWA in reaching a final decision regarding the dispute.

b. If the ACHP does not provide comments regarding the dispute within thirty (30) days after receipt of adequate documentation, FHWA may render a decision regarding the dispute. In reaching its decision, FHWA will take into account all comments regarding the dispute from the consulting parties.

c. FHWA will notify all parties of its decision in writing before implementing that portion of the undertaking subject to dispute. FHWA's decision will be final.

7. When the discovery consists of human remains, graves, or grave-associated artifacts or other properties to which federally recognized Tribes with ancestral ties to Florida may ascribe traditional cultural and religious significance, FHWA notifies the Tribes. FDOT complies with ***Section 7-1.6*** of FDOT's ***Standard Specifications for Road and Bridge Construction*** and the procedures for inadvertent discovery of human remains contained in ***Chapter 872.05, Florida Statutes*** (see ***Section 12.3.6***).

12.3.7.5 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 12.1***).

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***.

12.3.7.6 Contractor Requirements for Off Project Construction-Related Activities

For off project construction-related activities such as borrow pits, staging areas, and haul roads, the contractor initiates the assessment process by requesting from SHPO, in writing, an assessment of the area to be used for an off project, construction-related

activity. The request, as shown in ***Figure 12-10***, is addressed to the SHPO/FDHR, located at:

Name, Director
Division of Historical Resources and State Historic Preservation Officer
Florida Department of State
R.A. Gray Building
500 South Bronough Street
Tallahassee, Florida 32399-0250
ATTN: Transportation Compliance

The request contains the Financial Management Number; a description of the proposed activity (e.g., borrow pit, asphalt plant, equipment storage area); the dimensions or acreage of the affected area; the location (county, township, range, section, and portion of section, as appropriate); and a location map of sufficient scale to show the relationship of the off project construction activity to the surrounding area. Copies of the request are sent to the appropriate FDOT District Project Manager and Environmental Administrator and/or CRC.

If SHPO determines that a CRAS is not necessary, then SHPO provides a review letter to the contractor and copies to the District. After the District receives the letter, the proposed off project activity can proceed.

If SHPO recommends a CRAS, then it is the responsibility of the contractor to ensure that it is performed by individuals or organizations who meet the Secretary of the Interior's Qualifications Standards (***F.R., Vol. 48, 44716***). The cultural resources consultant prepares the ***CRAS Report/Technical Memorandum***, following the content requirements and routing procedures contained in ***Section 12.3.2.9***. SHPO, after receipt of the survey report from the contractor, provides a review letter to the contractor, with a copy to the District. If the survey findings and SHPO review concur that the proposed off project construction activity has no potential to affect historic properties, SHPO provides a letter stating this. After receipt of the letter by the District, the proposed off project activity may proceed. In the case where cultural resources are evaluated as potentially eligible for inclusion in the NRHP, the contractor typically foregoes using this location for the off project activity.

12.3.8 Archaeological and Historical Resources Considerations in Maintenance

FDOT has general and specific responsibilities for considering significant historic resources in its daily maintenance of FDOT facilities. Under ***Chapter 267.061(d), F.S.***, each state agency of the executive branch is required to assume responsibility for the preservation of historic resources that are owned or controlled by the agency. FDOT owns a number of archaeological properties and historic bridges that are located within FDOT ROW, as well as roads located within historic districts. In cases where FDOT has possession of or control over a historic property, any maintenance activity that could adversely affect that resource or any significant resources alongside the location of the

activity are brought to the attention of the District Environmental Office so that the District Environmental Office can determine the need for consultation with FDHR.

For the most part, these include activities such as ground-disturbing actions within the boundaries of significant archaeological properties, streetscape or landscape changes within historic districts, alterations to the original design of bridge rails on significant historic bridges, or other similar actions.

12.3.9 Jurisdictional Transfer of Roadways out of State Ownership

When FDOT decides to transfer a roadway out of the state system to a local entity to facilitate a local transportation undertaking, the transfer is considered an FDOT action. In such cases, the proposed local action requires the completion of FDOT's procedure for considering historic properties as set forth in this chapter and in consultation with the FDHR. If the transfer is not associated with a known or planned local action, then the District CRC needs to confirm that no known historic properties are inadvertently transferred out of state jurisdiction. If there are known historic properties located within the property being transferred, the District identifies these properties and includes the consideration of potential effects to such properties in the Transfer Agreement made with the recipient. For the specific details on historic property considerations in road transfers, see ***Section 2.3.2*** of the ***Transportation System Jurisdiction and Numbering Handbook*** developed by FDOT's Transportation Statistics Office.

12.4 REFERENCES

36 Code of Federal Regulations (CFR) Part 60, National Register of Historic Places (NRHP)

36 CFR Part 61, Procedures for State, Tribal and Local Government Historic Preservation Programs

36 CFR Part 63, Determinations of Eligibility for Inclusion in the NRHP

36 CFR Part 65, National Historic Landmarks (NHLs) Program

36 CFR Part 68, The Secretary of the Interior's Standards for the Treatment of Historic Properties

36 CFR Part 79, Curation of Federally Owned and Administered Archaeological Collections

36 CFR Part 800, Protection of Historic Properties

36 CFR Part 800, Appendix A – Criteria for Council Involvement in Reviewing Individual Section 106 Cases

Advisory Council on Historic Preservation (ACHP), Consultation with Indian Tribes in the Section 106 Review Process: A Handbook, November 2008

ACHP, Program Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges, November 2, 2012

ACHP, Regulations for the Protection of Historic Properties [36 Code of Federal Regulations (CFR) Part 800], 2004

ACHP, Section 106 Exemption Regarding Effects to the Interstate Highway System, March 7, 2005

Agency Operating Agreement, August 15, 2003, executed by Florida State Historic Preservation Officer (SHPO), ACHP, Federal Highway Administration (FHWA), and Florida Department of Transportation, available on the Efficient Transportation Decision Making (ETDM) Public Access Site: https://etdmpub.fla-etat.org/est

American Antiquities Act of 1906, as amended, Public Law Number 34-209, 34 Statute 225, and codified as amended at 16 United States Code (USC) §§ 431,432-33 (1982)

American Indian Religious Freedom Act of 1978, 42 U.S.C. §1996

Archaeological and Historical Preservation Act of 1974, 16 U.S.C. § 469

Archaeological Resources Protection Act of 1979, 16 U.S.C. § 470aa-mm and 54 U.S.C. § 302107

Chapter 1A-32, Florida Administrative Code (F.A.C.), Archaeological Research

Chapter 1A-46 F.A.C, Historical and Archaeological Report Standards and Guidelines

Chapter 125, Florida Statutes (F.S.), County Government

Chapter 163, F.S., Intergovernmental Programs

Chapter 253.027, F.S., Emergency Archaeological Properties Acquisition Act of 1988

Chapter 258, F.S., State Parks and Preserves

Chapter 267, F.S., Florida Historical Resources Act (FHRA)

Chapter 337.274, F.S., Authorized FDOT Agency Access to Private Property

Chapter 373, F.S., Water Resources

Chapter 403, F.S., Environmental Control

Chapter 556, F.S., Underground Facility Damage Prevention and Safety

Chapter 872, F.S., Offenses Concerning Dead Bodies and Graves

Executive Order 11593: Protection and Enhancement of the Cultural Environment, 3 CFR Part 154, reprinted in 16 U.S.C. § 470, 1971

Executive Order 13007: Indian Sacred Sites, 1996

Executive Order 13175: Consultation and Coordination with Indian Tribal Governments, 2000

FDOT and the FHWA, Guidance for Conducting Phased Cultural Resource Assessment Surveys for Transportation Projects in Florida Under the Provisions of 36 CFR § 800.4(b)(2), February 23, 2009

FDOT, Cultural Resource Management Handbook, November 2013, http://www.dot.state.fl.us/emo/pubs/cultmgmt/cultmgmt1.shtm

FDOT, ETDM Manual, December 2015, http://www.dot.state.fl.us/emo/pubs/etdm/etdmmanual.shtm

Federal Register (FR) Vol. 48, 44716, Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, September 29, 1983

FHWA list of individual elements of the Interstate Highway System that are excluded from Section 106 Exemption Regarding Effects to the Interstate Highway System. http://www.environment.fhwa.dot.gov/histpres/highways_list.asp

Florida Department of State, Division of Historical Resources, The Historic Preservation Compliance Review Program of the Florida Department of State, Division of Historical Resources Standards and Operational Manual, n.d., http://dos.myflorida.com/historical/preservation/compliance-and-review/management-standards-operational-manual/

Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, Pub. L. 102-240

National Environmental Policy Act (NEPA) of 1969, 42 U.S.C. §§ 4321-4347

National Historic Preservation Act (NHPA) of 1966, as amended, 54 U.S.C. § 300101 *et seq.*

National Park Service (NPS), How to Apply the National Register Criteria for Evaluation, National Register Bulletin No. 15, 1991, revised 1997

National Preservation Institute, NEPA and Section 106 of the NHPA, 2008

Native American Graves Protection and Repatriation Act of 1990, 25 U.S.C. § 3001

Programmatic Agreement Among the Federal Highway Administration, The Advisory Council on Historic Preservation, The Florida Division of Historical Resources, State Historic Preservation Officer, and the Florida Department of Transportation Regarding Implementation of the Federal-Aid Highway Program in Florida, 2016.

http://www.dot.state.fl.us/emo/pubs/Section%20106%20PA%20Executed%20Version%201%20via%20Email%20%2015mar16%20(3).pdf

Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), August 2005

Transportation Equity Act for the 21st Century (TEA-21), 1998

U.S. Department of Transportation (USDOT) Act of 1966, 49 U.S.C. § 303

12.5 HISTORY

01/12/1999

Designation	State/County Road Number	County	Dedicated by	Effective Date
McGregor Boulevard State Historic Highway	S.R. 867	Lee	75-312	07/05/1975
Bird Road State Historic Highway	S.R. 976	Miami-Dade	80-433	06/02/1980
Brickell Avenue	S.R. 5	Miami-Dade	SB 138	07/01/2007
Calle De Ocho State Historic Highway	S.R. 90	Miami-Dade	86-308	07/03/1986
Coral Way Historic Canopied Road	S.R. 972	Miami-Dade	76-304	05/29/1976
Coral Way and SW 3rd Avenue State Historical	S.R. 972	Miami-Dade	84-379	06/06/1984
Crandon Boulevard State Historic Highway		Miami-Dade	88-418	07/07/1988
Killian Drive State Historic Highway	S.R. 990	Miami-Dade	95-434	06/01/1995
Le Jeune Road	SW 42nd Avenue	Miami-Dade	02-304	05/01/2002
Old Cutler Road State Historic Highway		Miami-Dade	74-400	05/27/1974
Red Road State Historic Highway	C.R. 823	Miami-Dade	89-383	06/28/1989
South Bayshore Drive		Miami-Dade	77-491	06/20/1977
South Miami Avenue		Miami-Dade	77-491	06/20/1977
South West 62nd Avenue		Miami-Dade	93-294	04/01/1993
Sunset Drive State Historic Highway		Miami-Dade	83-365	06/05/1983
Old Apopka Road Historic Roadway	S.R. 15	Orange	91-320	05/31/1991
North Ocean Boulevard	S.R. A1A	Palm Beach	92-152	04/08/1992

Figure 12-1 State-Designated Historic Highways

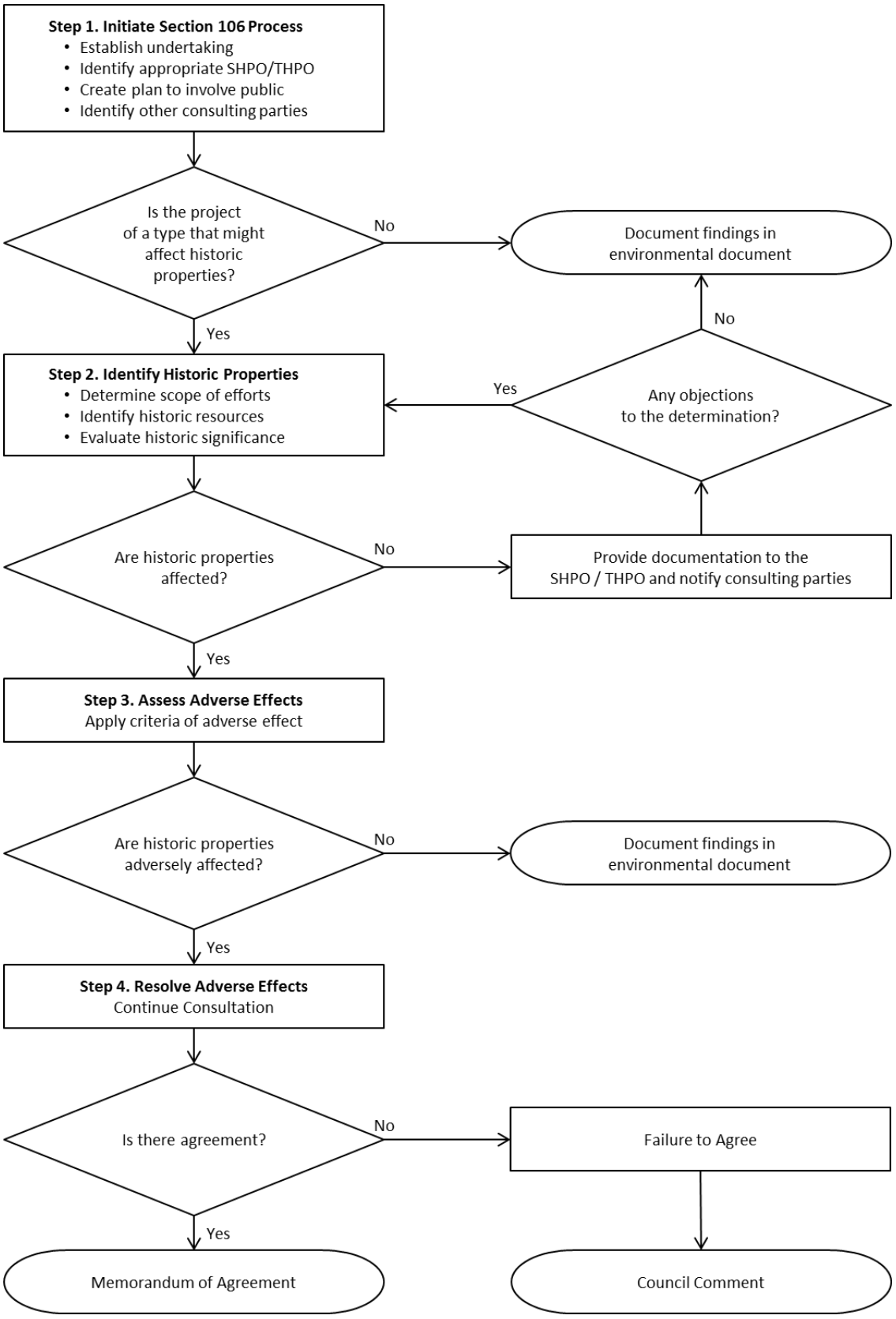

Figure 12-2 Section 106 Process

Minor highway project activity types requiring Section 106 Desktop and/or Field Review are:

1. Activities that do not involve or lead directly to construction, such as planning and technical studies; grants for training and research programs; research activities, as defined in 23 United States Code (U.S.C.) §307; approval of a unified work program and any findings required in the planning process pursuant to 23 U.S.C. § 134; approval of statewide programs under 23 CFR Part 630; approval of project concepts under 23 CFR Part 476; engineering to define the elements of a proposed action or alternatives so that social, economic, and environmental effects can be assessed; and Federal-aid system revisions that establish classes of highways on the Federal-aid highway system.

2. Approval of utility installations along or across a transportation facility.

3. Construction of bicycle and pedestrian lanes, paths, and facilities

4. Transfer of federal lands pursuant to 23 U.S.C. § 317 when subsequent action is not an FHWA action.

5. The installation of noise barriers, or alterations, to existing publicly-owned buildings to provide for noise reduction.

6. Landscaping.

7. Emergency repairs under 23 U.S.C. § 125.

8. Acquisition of scenic easements.

9. Determination of payback under 23 CFR Part 480 for property previously acquired with Federal-aid participation.

10. Improvements to existing rest areas and truck weigh stations.

11. Ride-sharing activities.

12. Bus and rail car rehabilitation.

13. Alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons.

14. Program administration, technical assistance activities, and operating assistance to transit authorities to continue existing service or increase service to meet routine changes in demand.

Figure 12-3 Project Activity Types Identified in AOA as Requiring Desk Top Evaluation and Field Review

15. The purchase of vehicles by the applicant where the use of these vehicles can be accommodated by existing facilities or by new facilities that themselves are within a CE.

16. Track and rail-bed maintenance and improvements when carried out within the existing ROW.

17. Purchase and installation of operating or maintenance equipment to be located within the transit facility and with no significant impacts off the site.

18. Promulgation of rules, regulations, and directives.

19. 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.

20. Flattening slopes; improving vertical and horizontal alignments.

21. Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.

22. Restore, replace and rehabilitate culverts, inlets, drainage pipes, and systems including safety treatments.

23. Widening, adding roadway width and and/or roadway reconstruction shoulders without adding through traffic lanes.

24. Roadway skid hazard treatment.

25. Upgrade, removal, or addition of guardrail.

26. Upgrade median barrier.

27. Install or replace impact attenuators.

28. Upgrade bridge end approaches/guardrail transition.

29. Upgrade railroad track circuitry.

30. Improve railroad crossing surface.

31. Improve vertical and horizontal alignment of railroad crossing.

32. Improve sight distance at railroad crossing.

Figure 12-3 Project Activity Types Identified in AOA as Requiring Desk Top Evaluation and Field Review (Page 2 of 4)

33. Railroad crossing elimination by closure, and railroad overpass removal within ROW.

34. Clear zone safety improvements, such as fixed object removal or relocation.

35. Screening unsightly areas.

36. Freeway traffic surveillance and control systems.

37. Motorist aid systems.

38. Highway information systems.

39. Preventive maintenance activities such as joint repair, pavement patching, shoulder repair and the removal and replacement of old pavement structure.

40. Restore, rehabilitate, and/or resurface existing pavement.

41. Computerized traffic signalization systems.

42. Widening of substandard bridge to provide safety shoulders without adding through lanes.

43. Replacement of existing bridge (in same location) by present criteria.

44. Transportation enhancement projects involving acquisition of historical sites and easements, or historical preservation.

45. Preservation of abandoned railway corridors, including the conversion and use for pedestrian, equestrian, or bicycle trails.

46. Rehabilitation and operation of historic transportation buildings, structures, or facilities, including railroad facilities and canals.

47. Mitigation of water pollution due to highway runoff.

48. Bridge removal.

49. Approvals for disposal of excess ROW or for joint or limited use of ROW, where the proposed use does not have significant adverse effects.

50. 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.

Figure 12-3 Project Activity Types Identified in AOA as Requiring Desk Top Evaluation and Field Review (Page 3 of 4)

51. 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.

52. 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.

53. Mitigation Projects.

54. Animal crossings.

55. Changes in access controls.

56. Minor ROW acquisition for roadway and bridge projects without the addition of through traffic lanes.

57. Recreational Trails.

Figure 12-3 Project Activity Types Identified in AOA as Requiring Desk Top Evaluation and Field Review (Page 4 of 4)

Contact information for the six federally recognized Native American Tribes with cultural associations in Florida currently is as follows. For updated contact information, refer to FDOT's Native American Coordination web page at: http://dot.state.fl.us/emo/NA%20Website%20Files/index.shtm.

Miccosukee Tribe of Indians of Florida
The Chief of the Miccosukee Tribe of Indians of Florida has formally designated a Section 106 representative and has directed that all correspondence regarding Section 106 issues be sent directly to this representative.

Section 106 and NAGPRA Representative
Miccosukee Tribe of Indians of Florida
Tamiami Station
P.O. Box 440021
Miami, FL 33144

Mississippi Band of Choctaw Indians
Contract only for undertakings in the following Florida counties: Escambia, Santa Rosa, Okaloosa, Walton, Holmes, Washington, Bay, Jackson, Calhoun, and Gulf.

Miko
Mississippi Band of Choctaw Indians
Office of the Miko
101 Industrial Road
Choctaw, MS 39350

Tribal Historic Preservation Officer
Mississippi Band of Choctaw Indians
P.O. Box 6257
101 Industrial Road
Choctaw, MS 39350

Muscogee (Creek) Nation

Principal Chief
Muscogee (Creek) Nation
Office of the Administration
P.O. Box 580
Okmulgee, OK 74447

Tribal Historic Preservation Officer
Muscogee (Creek) Nation Cultural Preservation Office
P.O. Box 580
Okmulgee, OK 74447

Poarch Band of Creek Indians

Chairman
Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

Tribal Historic Preservation Officer
Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

Seminole Tribe of Florida

Chairman
Seminole Tribe of Florida
6300 Stirling Road
Hollywood, FL 33024

Tribal Historic Preservation Officer
AH-TAH-THI-KI Museum
30290 Josie Billie Hwy, PMB 1004
Clewiston, FL 33440

Seminole Nation of Oklahoma

Principal Chief
Seminole Nation of Oklahoma
P.O. Box 1498
Wewoka, OK 74884

Tribal Historic Preservation Officer
Seminole Nation of Oklahoma
P.O. Box 1498
Wewoka, OK 74884

Figure 12-4 Contact List for Native American Tribes

[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). 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 Federal Highway Administration (FHWA) 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 either Buddy Cunill (FHWA) at (850) 553-2224 or Roy Jackson (FDOT State Environmental Management Office) at (850) 414-5323. You may also contact [NAME, TITLE, PHONE NUMBER] for project-specific information if so desired.

Sincerely,

[NAME]
FHWA Division Administrator

Enclosures

cc: [Additional tribal contacts]
[District Engineer]
[District specific contacts]
Buddy Cunill , FHWA
Roy Jackson, FDOT SEMO
Ken Morefield, FDOT SEMO

Figure 12-5 Sample Submittal Letter to Tribes (No Tribal 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). 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 Federal Highway Administration (FHWA) 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 either Buddy Cunill (FHWA) at (850) 553-2224 or Roy Jackson (FDOT State Environmental Management Office) at (850) 414-5323. You may also contact [NAME, TITLE, PHONE NUMBER] for project-specific information if so desired.

Sincerely,

[NAME]
FHWA Division Administrator

Enclosures

cc: [Additional tribal contacts]
[District Engineer]
[District specific contacts]
Buddy Cunill , FHWA
Roy Jackson, FDOT
Ken Morefield, FDOT

Figure 12-6 Sample Submittal Letter to Tribes (with Tribal 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 12-7 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 12-7 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.

1. The transmittal letter includes a date and is addressed to:

   [DATE]
   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

2. In the subject lines, provide the project name and limits, project phase (e.g., PD&E Study, pond siting), the Financial Management Number, and/or 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

3. 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 approximately [length] miles of [project roadway and limits]. The proposed improvements involve widening [PROJECT ROADWAY] from the existing two lanes to a four-lane, divided facility along the existing alignment. The Build alternative will require _____ feet of additional right of way and will include drainage improvements for the portion of the [PROJECT NAME] project running from [PROJECT START] to [PROJECT TERMINUS], associated curb and gutter improvements, and bringing the pedestrian facilities up to the standards established in the Americans with Disabilities Act (ADA).

4. A description of the project APE for both archaeological sites and historic resources, followed by:

   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 extended approximately 300 feet from the edge of the existing right of way, and a maximum of 3,000 feet of the centerline of [PROJECT MAINLINE] along [NAMES OF INTERSECTIONS].

Figure 12-8 Sample Transmittal Letter with Sample Signature Blocks

5. 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 conformity with Part 2, Chapter 12 (Archaeological and Historical Resources) of FDOT's Project Development and Environment (PD&E) Manual, FDOT's Cultural Resources Manual, and the standards contained in the Florida Division of Historical Resources (FDHR) Cultural Resource Management Standards and Operations Manual (FDHR 2003). In addition, this survey meets the specifications set forth in Chapter 1A-46, Florida Administrative Code.

6. Summary results of the background research

   Background research revealed that no archaeological sites were previously recorded within the project APE. Archaeological background research suggested the project corridor had a generally low potential for aboriginal 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 recorded resources include six Frame Vernacular style residences constructed between circa (ca.) 1935 and 1955 [FMSF NUMBERS], two ca. 1950 Masonry Vernacular style commercial buildings [FMSF NUMBERS], and a segment of the Seaboard Railway corridor [FMSF NUMBER]. None of the recorded residential and commercial structures was listed or determined eligible for listing in the NRHP; the resource group has not been evaluated by SHPO.

7. Summary results of the background research

   Background research revealed that no archaeological sites were previously recorded within the project APE. Archaeological background research suggested the project corridor had a generally low potential for aboriginal 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 recorded resources include six Frame Vernacular style residences constructed between circa (ca.) 1935 and 1955 [FMSF NUMBERS], two ca. 1950 Masonry Vernacular style commercial buildings [FMSF NUMBERS], and a segment of the Seaboard Railway corridor [FMSF NUMBER]. None of the recorded residential and commercial structures was listed or determined eligible for listing in the NRHP; the resource group has not been evaluated by SHPO.

8. Summary results of the archaeological and historical/architectural field surveys, including evaluations of NRHP eligibility:

Figure 12-8 Sample Transmittal Letter with Sample Signature Blocks (Page 2 of 6)

No archaeological sites were identified as a result of field survey. 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 is 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."

In cases where previously recorded or newly discovered archaeological or historic resources are found to be either listed in the NRHP or determined eligible for listing, 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-Colombian 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.

9. Summary of potential project effects to significant cultural resources when there is enough project and/or site detail to support this.

   "Based on the results of background research and field survey, no significant cultural resources are located within the [PROJECT NAME] project APE. Therefore, project development 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.

Figure 12-8 Sample Transmittal Letter with Sample Signature Blocks (Page 3 of 6)

OR, in the case of potentially eligible resources:

Based on the results of background research and field survey, no significant cultural resources are located within the [PROJECT NAME] project APE, with the exception of [FMSF NUMBER and NAME], which is potentially eligible for listing in the NRHP, in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations. Should FHWA and SHPO/THPO concur with this finding, we look forward to further consultation with FHWA and SHPO/THPO to evaluate the effects of the proposed undertaking (preferred alternative) on the potentially NRHP-eligible [NAME OF PROPERTY].

10. Closing statement:

    The CRAS Report is provided for your review and coordination with SHPO. Provided your office concurs with the findings, please transmit one copy of the CRAS Report, the FMSF forms, and the Survey Log Sheet to the State Historic Preservation Officer (SHPO) for review and concurrence. The second copy of the report is for your files. 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 5 (or 6) federally recognized 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.

11. 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 two CDs with pdf files of the CRAS Report, FMSF forms, and Survey Log Sheet.

12. Signature and comment block for approval by FHWA Administrator and/or SHPO (see below for sample signature blocks).]

Figure 12-8 Sample Transmittal Letter with Sample Signature Blocks (Page 4 of 6)

For letters to FHWA and SHPO, use the following signature block.

The FHWA finds the attached Cultural Resource Assessment Survey Report complete and sufficient and ☐ approves/ ☐ does not approve the above recommendations on historic significance. The FHWA further ☐ approves/ ☐ does not approve/ ☐ finds not applicable the above recommendations on effects and adverse effects to historic properties. Or, the FHWA finds the attached Report contains ___ insufficient information. The FHWA requests the SHPO's opinion on the sufficiency of the attached report and the SHPO's opinion on the recommendations and findings contained in this transmittal letter and in the comment block below. FHWA Comments:
[NAME] [DATE] Division Administrator, Florida Division Federal Highway Administration
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.
SHPO Comments:
[NAME], Director, and [DATE] State Historic Preservation Officer Florida Division of Historical Resources

Figure 12-8 Sample Transmittal Letter with Sample Signature Blocks (Page 5 of 6)

For letters from FDOT to SHPO, use the following:

The Florida State Historic Preservation Officer 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 and adverse effects provided in this cover letter for SHPO/FDHR Project File Number _____. SHPO Comments:
[NAME], Director, and [DATE] State Historic Preservation Officer Florida Division of Historical Resources

Figure 12-8 Sample Transmittal Letter with Sample Signature Blocks (Page 6 of 6)

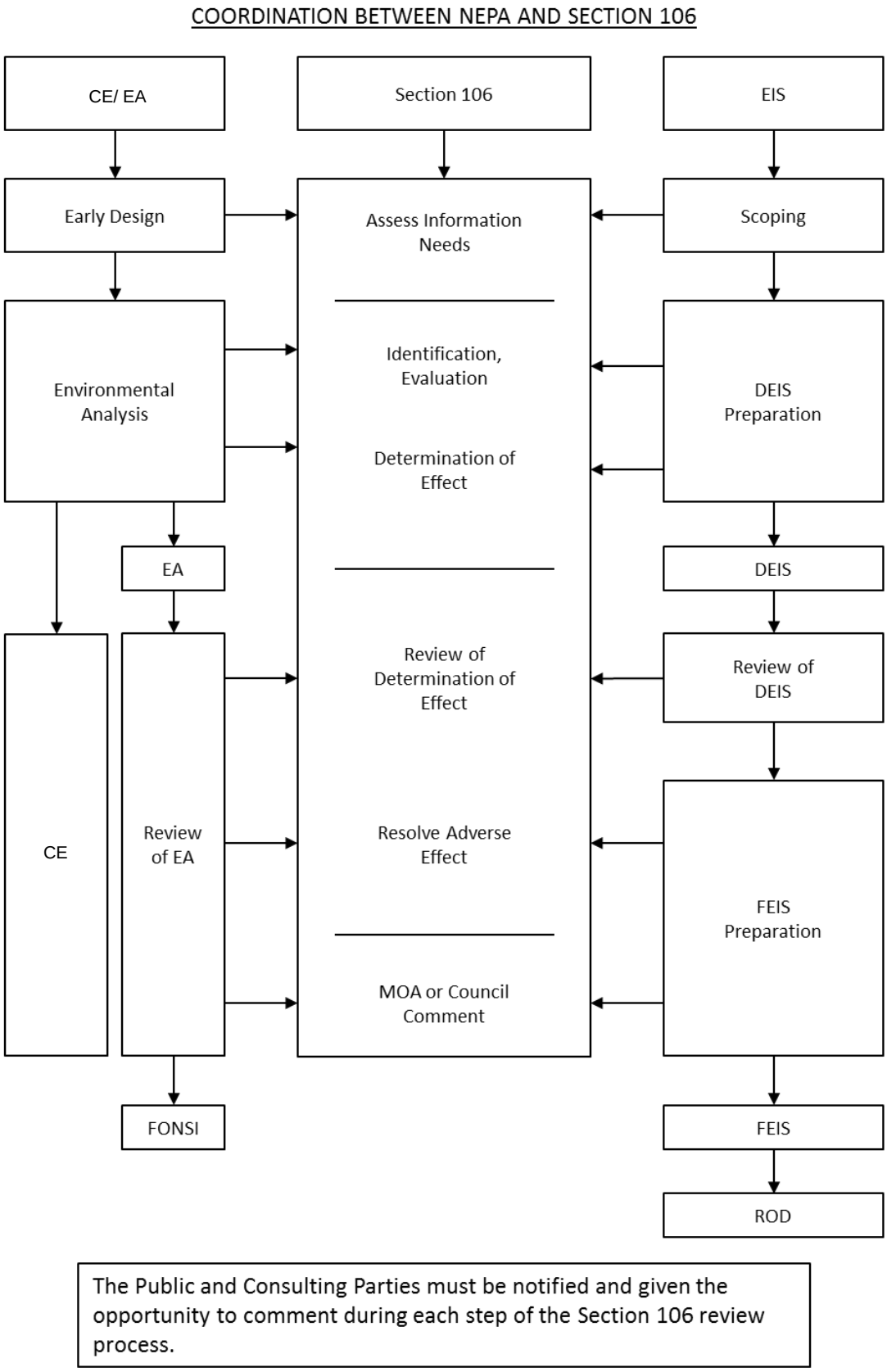

Figure 12-9 NEPA and Section 106

[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

Re: 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], Manager
State Environmental Management Office
Florida Department of Transportation
605 Suwannee Street, MS 37
Tallahassee, Florida 32399-0450

[NAME], District Project Manager
[NAME], District Environmental Administrator
[NAME], District Cultural Resource Coordinator

Figure 12-10 Contractor's Request for a Cultural Resource Assessment

PART 2, CHAPTER 13

SECTION 4(f) RESOURCES

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PART 2, CHAPTER 13

SECTION 4(f) RESOURCES

13.1 OVERVIEW

13.1.1 Legislative Intent: Background and Guidance

The United States Congress created ***Section 4(f)*** in 1966, ***49 U.S.C. § 1653(f)***, as a part of the ***Department of Transportation (DOT) Act*** in order to enhance the protection of park and recreation lands, wildlife and waterfowl refuges, and historic sites during the planning and development of transportation facilities. In 1966, the Congress also added a similar provision to ***Title 23 United States Code*** (***U.S.C.***) ***§138*** for the Federal-aid Highway Program. As a result, ***Section 4(f)*** only applies to agencies within the U.S. Department of Transportation (USDOT), that is, the Federal Highway Administration (FHWA), the Federal Aviation Administration (FAA), the Federal Transit Administration (FTA), and the Federal Railroad Administration (FRA).

This chapter guides Florida Department of Transportation (FDOT) environmental practitioners through the analysis and documentation standards established to meet and document the substantive findings required by ***Section 4(f)*** statutes before using lands protected by ***Section 4(f)*** for any USDOT funded project. Each agency of the USDOT complies with ***Section 4(f)*** somewhat differently as a result of the different forms of transportation the agency oversees. Because the vast majority of FDOT's projects which involve ***Section 4(f)*** protected properties are either funded or approved by FHWA, this chapter focuses primarily on the processes associated with the development of highway projects. This chapter also provides the background, requirements, and procedures that have been developed by the USDOT (primarily FHWA and FTA), the federal courts, and state departments of transportation environmental specialists from across the United States. The legislative and legal history of ***Section 4(f)*** is important for practitioners to understand because the administrative record required to show compliance with the law has been developed in great part as a result of numerous court decisions based upon the expressed intent of the law.

For the purposes of this chapter, the Lead Federal Agency is presumed to be FHWA. However, since ***Section 4(f)*** applies to all agencies of the USDOT occasions may arise in which ***Section 4(f)*** will apply to a particular project due to the involvement of an agency other than FHWA. For situations involving a different lead agency of USDOT, contact the FDOT ***Section 4(f)*** Coordinator at the State Environmental Management Office (SEMO) and work with the officials of the lead transportation agency. Regardless of which agency of the USDOT leads, the basic requirements for ***Section 4(f)*** are the same, although the nature of alternatives analyzed may vary. Coordination in such cases is done through USDOT's lead agency for each particular project.

Unlike many other environmental laws, Congress established ***Section 4(f)*** as a substantive law rather than a procedural one. This means that prior to the approval for the use of land that is protected by ***Section 4(f)***, the law requires specific findings.

Section 4(f) does not allow agencies of the USDOT to use land from protected properties unless they show that there are no feasible and prudent alternatives to using the property and that such use, when it does occur, includes all possible planning to minimize harm to the resource. Furthermore, 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, the USDOT may select only the alternative which results in the least overall harm.

Utilizing the standards established in the law as expressed by the Congress, the United States Supreme Court ruled that the Congressional intent of ***Section 4(f)*** was to establish a preservation preference for the property types listed in the law [***Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402** (**1971**)]. This court case established that FHWA's project documents provide an analysis supporting the substantive requirements set forth in the law.

In 2005, Congress passed the ***Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)***. In ***Section 6009*** of ***SAFETEA-LU***, which amended both ***23 U.S.C. § 138*** and ***49 U.S.C. § 303*** (see ***Figure 13-1*** for the text of ***49 U.S.C. § 303***), Congress made several changes to existing ***Section 4(f)*** requirements. First, Congress added a provision that created an additional method for approving the use of ***Section 4(f)*** properties when the impact(s) to these properties are so minor they can be considered *de minimis*. The term *de minimis* is a Latin phrase that, for legal purposes, means "of minimum importance" or "trifling." In terms of ***Section 4(f)***, it refers to an impact that is so small, minuscule, or tiny that the law will not consider it. For example, the acquisition of a non-functioning, quarter-acre of a 1,000 acre park is considered *de minimis*. The proposed action technically uses land from the park, but the effects of the use on the remaining parcel are too small to have any consequences on the continued functioning of the park. Under this new provision, once the USDOT determines that a transportation use of ***Section 4(f)*** property results in only a *de minimis* impact, analysis of avoidance alternatives is not required and the ***Section 4(f)*** evaluation process is complete.

In addition to the *de minimis* provisions, Congress directed the USDOT to revise its ***Section 4(f)*** regulations to clarify the application of the feasible and prudent standard and provide greater guidance for determining "least overall harm." In March 2008, FHWA and FTA issued a joint regulation at 23 Codeof Federal Regulations (CFR) Part 774 (***23 CFR Part 774)***, which incorporates guidance for *de minimis* findings and clarifies the prudent and feasible standard.

Section 6007 of ***SAFETEA-LU*** exempts the bulk of the Eisenhower Interstate Highway System from consideration as a historic resource under ***Section 4(f)*** of the ***DOT Act of 1966,*** as amended. The current FHWA ***Section 4(f) Policy Paper*** (***FHWA, 2012***) includes these provisions. In a related measure, the Advisory Council on Historic Preservation (ACHP) adopted an exemption from the effects analysis required under ***Section 106*** of the ***National Historic Preservation Act of 1966 (NHPA)***, as amended, to the majority of the Interstate Highway System on March 10, 2005. See ***Part 2, Chapter 12, Archaeological and Historical Resources*** for the details of this exemption. ***Part 2 Chapter 12, Archaeological and Historical Resources*** also contains a list of post-1945

common bridges which remain subject to the requirements of sections 4(f) and 106. The remainder of the post-1945 concrete and steel bridges as described in ***Part 2 Chapter 12, Archaeological and Historical Resources*** are exempted from individual consideration under ***Sections 106 and 4(f)***.

The instruction provided in this chapter has come from numerous FHWA guidance papers such as the current FHWA ***Section 4(f) Policy Paper*** (***FHWA, 2012***), the ***Section 4(f)*** regulations at ***23 CFR Part 774***, ***Section 4(f)***, and related publications in the ***Federal Register (FR)***, as well as many other appropriate resources. For a listing of the sources used to develop this chapter, see ***Section 13.5*** and the **FDOT** ***Section 4(f) References web page***. The ***FHWA Technical Advisory, T6640.8A***, ***Guidance for Preparing and Processing Environmental and Section 4(f) Documents*** (October 30, 1987) remains unchanged, although it is applied far more flexibly.

13.1.2 Definitions

Below is a listing of common key terms that are used in ***Section 4(f)***, and definitions for these key terms.

All Possible Planning (23 CFR § 774.17)	All possible planning means that 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.
Constructive Use (23 CFR § 774.15)	A type of indirect use in which a transportation project's proximity impacts (as opposed to direct impacts) are so severe that the protected activities, features, or attributes that qualify a resource for protection under ***Section 4(f)*** are substantially impaired. Examples include excessive noise level increases, diminished aesthetic features, ecological intrusions, and other indirect impacts to the resource's environment or utility. Constructive Use determinations can only occur when there is no direct use of the protected property. Determinations that a constructive use is occurring cannot be made without the participation of Federal Highway Administration's (FHWA) Headquarters.
de minimis Impact (23 CFR § 774.17)	For historic sites, *de minimis* impact means that FHWA has determined, in accordance with ***36 CFR Part 800*** that no historic property is affected by the project or that the project will have "no adverse effect" on the historic property being used within the meaning of ***Section 4(f)***. For parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* impact finding is appropriate when 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)***.

Extraordinary Magnitude (23 CFR § 774.17)	A reference to exceedingly high costs or other objectionable factors associated with a project alternative, extraordinary magnitude characterizes the impacts to ***Section 4(f)*** or non-***Section 4(f)*** properties as beyond what is acceptable in light of the statute's preservationist purposes.
Feasible and Prudent (23 CFR § 774.17)	A feasible and prudent avoidance alternative avoids using ***Section 4(f)*** property and does not present unique problems, unusual factors, or other severe problems of a magnitude that substantially outweighs the importance of protecting the ***Section 4(f)*** property. An alternative is not feasible if it cannot be built as a matter of sound engineering judgment. An alternative is not prudent if: • It compromises the project to a degree that 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: 1. Severe social, economic, or environmental impacts; 2. Severe disruption to established communities; 3. Severe disproportionate impacts to minority or low income populations; or 4. Severe impacts to environmental resources protected under other federal statutes; • It results in additional construction, maintenance, or operational cost of an extraordinary magnitude; • It causes other unique problems or unusual factor; or, • It involves multiple factors listed above, that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.
Late Designation (23 CFR § 774.13(2)(c))	The designation of park, recreation land, wildlife or waterfowl refuge, or historic site that is made (or determination of significance changed) late in the transportation project development process. With the exception of the treatment of archeological sites, the project may proceed without consideration of ***Section 4(f)*** when the property was acquired for transportation purposes prior to the change in designation and if an adequate effort was made to identify properties protected by ***Section 4(f)*** prior to acquisition. If it is reasonably foreseeable, however, that a property would be determined eligible for the National Register of Historic Places (NRHP) prior to the start of construction, it should be treated as a historic site and a ***Section 4(f)*** property.

Legal Sufficiency Review	A review by FHWA's Office of Chief Counsel required for Final Environmental Impact Statements (FEISs) (***23 CFR § 771.125(b))*** and final ***Section 4(f)*** evaluations (***23 CFR § 774.7(d***)). The purpose of the review is to ensure that ***Section 4(f)*** and the ***National Environmental Policy Act (NEPA)*** requirements have been met and are legally defensible. A legal sufficiency review is not a technical review; rather, it is a review of ***Section 4(f)*** and ***NEPA*** documentation and compliance efforts, and an attempt to make sure that these efforts correspond with the law.
Minimization (23 CFR § 774.3(c)(2) and § 774.17)	Minimization involves measures developed during the planning and project development phase of a project to reduce impacts to a resource. Minimization measures could include alignment shifts, a commitment to off-season construction, replacement of land or facilities, restoration, or landscaping or certain aesthetic treatments.
Mitigation Activities	Mitigation activities are actions taken to reduce the impacts of adverse effects to property, which are designed to either undo or make up for an effect that the action has upon a protected property. There are situations in which a mitigation action can be taken to reduce or minimize the harm to a resource or a community.
National Environmental Policy Act (NEPA) (43 U.S.C. § 4321)	The ***National Environmental Policy Act of 1969 (NEPA)*** is considered to be the basic "National Charter" for protection of the environment. ***NEPA*** requires that, to the extent possible, the policies, regulations, and laws of the Federal Government be interpreted and administered in accordance with the protection goals of the law. It also requires federal agencies to use an interdisciplinary approach in planning and decision-making for actions that impact the environment.
Official with Jurisdiction	The legal representative of the agency owning or administering the resource, unless the agency has delegated or relinquished this authority via formal agreement. For historic properties, the official with jurisdiction is the State or Tribal Historic Preservation Officer. Some ***Section 4(f)*** properties, such as an historic park, may have multiple officials with jurisdiction.
Primary Purpose	Primary purpose(s) of a property relates to the property's function and management plan. In order to determine a land's primary purpose(s), a project sponsor will have to consult with the officials with jurisdiction and review its master plan (if available) to determine if the purpose is explicitly stated or how it is intended

	to be managed. The primary purpose(s) of the property apply to the whole property and not just the portion being used except in the cases where the property is established to fulfill varying functions as with State and National Forests.
Policy Paper	FHWA's ***Section 4(f) Policy Paper*** ***(FHWA, 2012)*** explains how ***Section 4(f)*** applies in general and to specific situations where properties meeting the ***Section 4(f)*** criteria may be involved. It is based on court decisions, experience, and on policies developed by FHWA and U.S. Department of Transportation over the years. The ***Section 4(f) Policy Paper*** serves as a guide for ***Section 4(f)*** compliance in common project situations often encountered by FHWA, state DOT, and other transportation partners.
Prudent	(See Feasible and Prudent)
Public Easement	A public easement includes any interest, right of access or control of a land that is owned by a private entity or a public agency. In the case of transportation easements, these provide the FDOT certain right of access or control for public transportation purposes. In the case of easements on private property for recreational, refuge, conservation, and etc. uses, these easements may create a public proprietary interest in the land for the purpose identified in the easement. The terms of the easement should be examined to determine if ***Section 4(f)*** applies to the property.
Publicly Owned	Property that is owned by a government authority via either fee simple ownership or permanent easement. In some cases, private lands that are leased by government authorities may also be considered publicly owned for the purpose of ***Section 4(f)***, depending upon the terms of the lease (e.g., length, cancellation clauses).
Public Visitation	Refers to the openness of a park, recreation area, waterfowl or refuge to the general public. If the general public is permitted visitation at any time to significant, publicly owned parks and recreational areas, the properties are protected by ***Section 4(f)***. ***Section 4(f)*** does not apply when visitation is permitted to a select group of the public, such as restricted recreational areas established on military bases for the sole use of the military personnel and their dependents or those on college campuses where the users must be students of the college. However,

	public access may be restricted to properties protecting refuge habitat or species and still be protected by ***Section 4(f)***.
Real Property	Land and any improvements thereto, including but not limited to, fee interests, easements, air or access rights, and the rights to control the use or leasehold interest of the property.
Section 4(f)	Refers to the original section within the ***U.S. DOT Act of 1966***, which provided for consideration of the protection of park and recreation lands, wildlife and waterfowl refuges, and historic sites during transportation project development. The law, now codified in ***49 U.S.C. § 303*** and ***23 U.S.C. § 138***, applies only to U.S. DOT and is implemented by the FHWA and the Federal Transit Administration (FTA) through ***23 CFR Part 774*** and continues to be referred to as "Section 4(f)" matters, even though this section does not exist anymore in the new codification, in order to avoid confusion.
Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 300101 *et seq*.)	Established in same year as ***Section 4(f)*** (1966) and requires the head of federal agencies to consider the effects of proposed federally funded, permitted, or approved undertakings on significant historic properties in the planning and delivery of federal undertakings. Also requires that the head of the federal agency consult with, and provide an opportunity for comment on, the effects of the proposed undertaking on historic properties from the Advisory Council on Historic Preservation and appropriate consulting parties.
Section 6(f) of The Land and Water Conservation Fund Act (LWCFA) (36 CFR § 59.3)	Passed by Congress in 1965, the Act established the Land and Water Conservation Fund, a matching assistance program that provides grants that pay half the acquisition and development cost of outdoor recreation sites and facilities. ***Section 6(f)*** of the Act prohibits the conversion of property acquired or developed with these grants to a non-recreational purpose without the approval of the U.S. Department of the Interior (DOI's) National Park Service (NPS). The U. S. DOI must ensure that replacement lands of equal value, location, and usefulness are provided as a condition of such conversions. Consequently, where conversions of ***Section 6(f)*** lands are proposed for highway projects, project sponsors must provide replacement lands.
Significant	Significant means that in comparing the availability and function of the resource with the recreational, park, and refuge objectives of the community, the resource in question plays an important

(23 CFR § 774.11(c))	role in meeting those objectives. If a determination from the official with jurisdiction cannot be obtained, the ***Section 4(f)*** land will be presumed to be significant. All determinations (whether stated or presumed) are subject to review by FHWA for reasonableness.
Substantially Impaired (23 CFR § 774.15(a))	Substantial impairment occurs only when the protected activities, features, or attributes of the resource are substantially diminished. Generally, this means that the value of the resource, in terms of its ***Section 4(f)*** purpose and significance, will be meaningfully reduced or lost.
Temporary Occupancy (23 CFR § 774.13(d))	A temporary occupancy of land is a use of ***Section 4(f)*** protected land for construction related or associated activities which are not permanent and which generally last either less than or equals the time of construction of a transportation or FDOT project. It is most commonly associated with equipment storage areas, erosion control features, or other construction-related. Temporary occupancies can occur at sites located out of the immediate project vicinity as well as alongside the project such lands used for haul roads.
Trails	For the purposes of ***Section 4(f)***, “trails” refers to any shared use path such as sidewalks, bike paths, hiking trails, pedestrian paths, equestrian facilities, or other facilities intended for use by off-road vehicles such as all-terrain vehicles or snowmobiles.
Unique Problems	Unique problems are present when there are unusual factors, or when the costs or community disruption reach extraordinary magnitude.
Use (23 CFR § 774.17)	Generally, "use" of land within the meaning of ***Section 4(f)*** occurs when a USDOT approved project or program: (1) permanently incorporates land from a ***Section 4(f)*** site into a transportation facility, (2) requires a temporary occupancy of land from a ***Section 4(f)*** protected property that is adverse in terms of the preservationist purposes of ***Section 4(f)***, or (3) the proximity impacts of the transportation project on the ***Section 4(f)*** site, without acquisition of land, are so great that the purposes for which the ***Section 4(f)*** site exists are substantially impaired.

13.2 PROCESS

When a proposed transportation project requires the use of land from public parks, recreation areas, wildlife and waterfowl refuges, and/or historic sites, unless the use is *de minimis*, the transportation agency must show that: (1) there is no feasible and prudent alternative to that use, and (2) the proposed project includes all possible planning to minimize harm to the protected property. In addition in cases where there is no feasible and prudent alternative that avoids the use of ***Section 4(f)*** properties, and there is more than one alternative using ***Section 4(f)*** property, the alternative chosen must be the alternative which result in the least overall harm in light of the law's preservationist purpose.

Figure 13-2 provides a flow chart of the overall process used to make decisions for compliance with ***Section 4(f)***. ***Section 4(f)*** requires certain substantive findings that apply to different, interrelated decisions made at various points in the ***Section 4(f)*** and project development process which, in turn, depends upon:

(1) the functions and features of the properties being used,

(2) the character and impacts of the use of the properties by the project,

(3) the overall purpose of the project and general environmental considerations of the project area, and

(4) the types of ***Section 4(f)*** approvals required

There are two determinations required by ***Section 4(f)***. The first is the determination of applicability of ***Section 4(f)*** to the project and properties and, if applicable, the second is determining and demonstrating the specific findings required by the appropriate ***Section 4(f)*** approval option.

Deciding whether a project will have a "use" of a property protected by ***Section 4(f)*** also involves two findings. The first involves determining if a property qualifies as one of the ***Section 4(f)*** site types and the second requires determining if the proposed project and its associated activities or effects entail a "use" of the protected property as defined in ***Section 4(f)***. These two decisions are completed through a ***Section 4(f)*** Determination of Applicability (DOA) generally conducted in coordination with FHWA. Although FHWA makes all formal decisions on the applicability of ***Section 4(f)***, there are times when the applicability/non-applicability of ***Section 4(f)*** is relatively obvious (see ***Section 13.3.1.3***). Since the analysis to reach these findings range from simple confirmations of land acquisition to complex reviews of easements and lease agreements, the level of detail and the method of presenting information to FHWA to determine the applicability of ***Section 4(f)*** varies. However, in all cases the District should document the applicability/non-applicability of ***Section 4(f)*** along with the rationale for the determination. The District provides this information to FHWA in order to reach or document the ***Section 4(f)*** applicability determination.

Once FHWA has determined that ***Section 4(f)*** applies to a particular action and property, then the use of that property must be approved by FHWA. This approval is through either

a ***Section 4(f)*** *de minimis* finding (see ***Section 13.3.2.1***) or a ***Section 4(f)*** evaluation (see ***Section 13.3.2.2*** and ***Section 13.3.2.3***).

Section 4(f) evaluations can be either individual evaluations or programmatic evaluations. Individual evaluations have a two stages of review involving the preparation and circulation first of a ***Draft Section 4(f) Evaluation*** and then of a final ***Section 4(f)*** evaluation. In addition, all individual ***Section 4(f)*** evaluations must undergo a legal sufficiency review by FHWA. Programmatic evaluations can be approved by the FHWA Florida Division Administrator in the SEMO. There are five (5) nationwide programmatic evaluations that may be used in Florida. See ***Section 13.3.2.2*** or the FDOT ***Section 4(f)*** References web page for more information about programmatic evaluations.

Programmatic evaluations represent a very useful and time-saving option to preparing individual evaluations. The programmatic evaluations are based upon specific sets of criteria that have been coordinated with the relevant federal agencies. As a result, programmatic evaluations do not need circulation to other federal agencies unless a federal agency has a specific action to take related to the protected property (such as a National Park Service (NPS) approval of a land conversion under ***Section 6(f) of the Land and Water Fund Act)***. In addition, because the conditions and criteria for these evaluations have already received legal sufficiency review by FHWA, no additional legal sufficiency review is required. Therefore, the administrative review time for programmatic evaluations is far less than the administrative review time for individual evaluations.

When a ***Section 4(f)*** evaluation is required, the evaluation is prepared and submitted to the FHWA Florida Division Office for approval. If a programmatic evaluation is not appropriate, an individual ***Section 4(f)*** evaluation is prepared and processed as a draft and final ***Section 4(f)*** evaluation. In most situations, the Florida Division of FHWA will seek legal sufficiency reviews for either or both the draft and final ***Section 4(f)*** evaluations. Whenever possible, the draft ***Section 4(f)*** evaluation should be processed with the Environmental Assessment (EA) or Draft Environmental Impact Statement (DEIS), and the final ***Section 4(f)*** evaluation is processed with the Finding of No Significant Impact (FONSI) or the Final Environmental Impact Statement (FEIS).

The FHWA Administrator's approval of the final ***Section 4(f)*** evaluation is normally concurrent with the approval of the Environmental Document. An individual ***Section 4(f)*** evaluation for a project processed as a Type 2 Categorical Exclusion (Type 2 CE) is processed as a separate draft and final ***Section 4(f)*** evaluation. Since all alternatives remain viable until after the public hearing, the final evaluation should not be signed prior to the public hearing. For more detail on processing ***Section 4(f)*** evaluations and other ***Section 4(f)*** documents, please see ***Section 13.3.2***. The preparation and approval of programmatic evaluations must also be scheduled around the schedule established for the Environmental Document and the timing of the public hearing.

Numerous legal decisions on ***Section 4(f)*** have resulted in a USDOT policy such that conclusions on no feasible and prudent alternative and on measures to minimize harm must be well documented and supported. The United States Supreme Court, in the Overton Park case (***Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402 (1971)***), ruled that determinations on no feasible and prudent alternative must find that there are

unique problems or unusual factors involved in the use of an alternative, or that the cost, environmental impacts, or community disruption resulting from such an alternative reach extraordinary magnitudes.

The project file is FDOT's written record that documents the basis for determining the applicability of ***Section 4(f)*** and, if there is a ***Section 4(f)*** use, the documentation of the approval option which is used (e.g., ***Section 4(f)*** *de minimis,* programmatic ***Section 4(f)***, and individual ***Section 4(f)*** evaluation documents). The importance of maintaining an appropriate record of decisions in regard to ***Section 4(f)*** compliance cannot be overstated. The project files must show that the required analysis was conducted prior to the agency approval to use land from the protected resource. In the ***Overton Park*** case, there was insufficient material and analysis to support the decision to use land from Overton Park, and therefore, the Court could not support the agency decision. In reaching this decision, the Court concluded that "…by enacting ***Section 4(f)***, Congress identified ***Section 4(f)*** properties (i.e., Public Parks, Recreational Areas, Wildlife and Waterfowl Refuges, and Historic Sites) for special consideration for preservation prior to approving using them for federally funded transportation projects."

13.3 PROCEDURE

The ***Section 4(f)*** statutes do not establish any particular processes or procedures for preparing ***Section 4(f)*** documents, for circulating them, or for coordinating them with other agencies. However, the FHWA has developed ***Section 4(f)*** procedures (at ***23 CFR Part 774*** and in the FHWA ***Technical Advisory T6640.8A***) for the preparation, circulation, and coordination of ***Section 4(f)*** documents. FHWA developed these procedures to: (1) ensure consistent and dependable administrative records of the basis for determining that there is no feasible and prudent alternative to proposed transportation actions, (2) obtain informed input from knowledgeable sources regarding all possible planning to minimize harm to protected resources, and (3) provide the analysis demonstrating that the selected alternative results in the least overall harm. For projects involving only a *de minimis* use of protected properties, the record created by this process demonstrates the basis upon which FHWA determines that the proposed transportation action results in minor impacts that do not affect the activities, features, and attributes qualifying the property for protection under ***Section 4(f)***.

Section 4(f) is a substantive law. This means the law outlines specific findings that must be made in order to support a decision rather than establishing a process to arrive at a reasonable decision. The purpose of the FHWA procedures as presented in this chapter, therefore, is to ensure that FDOT establishes an administrative record that supports the findings made in regard to compliance with ***Section 4(f)***.

13.3.1 Section 4(f) Applicability

The applicability of ***Section 4(f)*** is based upon a project's use of land from property that represents a significant publicly owned public park or recreation area, a waterfowl or wildlife refuge, or a historic property. Therefore, in order to determine the applicability of ***Section 4(f)***, not only must the property represent a ***Section 4(f)*** resource, but the project or undertaking must also "use" land from that property within the meaning of ***Section 4(f)***.

Because the specific situations vary widely, all ***Section 4(f)*** applicability determinations are made on a case-by-case basis.

Within FDOT's Efficient Transportation Decision Making (ETDM) process, certain projects qualify for screening through the Environmental Screening Tool (EST), (for more information on ETDM and qualifying projects for screening, please see the ***Efficient Transportation Decision Making Manual, Topic No. 650-000-002***) (***FDOT, 2015***). For projects not qualifying for screening, FDOT Environmental staff is able to screen the project against the geographic information contained in the EST in order to determine if the proposed project may involve ***Section 4(f)*** protected properties. In either case, an early identification of potential ***Section 4(f)*** protected properties can also be made.

With that knowledge, FDOT staff can engage jurisdictional agencies earlier and avoid unanticipated ***Section 4(f)*** involvements arising later in project development that could impact their project schedule or adjust the class of action for the project (see ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination*** for a discussion on environmental classes of action). More importantly, for both projects qualifying for screening and projects not qualifying for screening, the information contained in the geographic database is very helpful in identifying potential ***Section 4(f)*** issues to be aware of as the project advances. If a particular property obviously represents a significant public park, recreational area, wildlife or waterfowl refuge or historic resource, the district staff should develop a plan to avoid using the property or consult the official with jurisdiction early enough in the process to accommodate ***Section 4(f)*** requirements in a timely fashion.

The ***Section 4(f)*** statute specifies that ***Section 4(f)*** applies when a USDOT agency approves a transportation program or project that uses property from a ***Section 4(f)*** protected resource. Therefore, ***Section 4(f)*** applicability is limited to projects receiving USDOT funding, assistance, or approvals. In addition, there are three additional conditions that must all be true:

1. The project is a transportation project;

2. The project requires the use of land, as defined by ***Section 4(f)***, from a property protected by ***Section 4(f)***; and,

3. None of the regulatory applicability rules or exceptions applies (see ***23 CFR § 774.11*** and ***23 CFR § 774.13***).

Examples of situations where ***Section 4(f)*** would not apply include, but are not limited to:

1. A transportation project is being constructed solely using state or local funds and not requiring FHWA (or other USDOT agency) approval;

2. A project is intended to address a purpose that is unrelated to the movement of people, goods, and services from one place to another (i.e., a purpose that is not a transportation purpose);

3. A project is 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);

4. A project will use land from a privately owned park, recreation area, or refuge; and,

5. There are no ***Section 4(f)*** protected properties located alongside or in proximity to the proposed transportation project.

There is a great deal of guidance available regarding how to determine applicability of ***Section 4(f)***. The information provided in ***Section 13.3.1.1*** and in the ***Section 4(f)*** References web page is intended for general guidance. For advice on specific situations or issues not covered below or in the questions and answers of Part II of the ***Section 4(f) Policy Paper (FHWA, 2012)***, contact the District Environmental Office, SEMO, or the environmental staff at the FHWA Florida Division Office.

13.3.1.1 Section 4(f) Resources

Section 4(f) resources can be divided into two categories: (1) publicly owned parks, recreation areas, and wildlife or waterfowl refuges, and (2) historic and archaeological sites. In order to be considered a ***Section 4(f)*** resource, a property must be officially designated for one of those purposes, be determined to function as such by the official with jurisdiction over the property, and be significant for that function. See ***Section 13.3.1.1.1*** and ***Section 13.3.1.1.2*** for discussions of significance, primary functions, and designations. In addition, publicly owned land that has been formally designated and determined to be significant for park, recreation area, wildlife refuge, or waterfowl refuge purposes represents a ***Section 4(f)*** resource even when it may not be functioning as such during project development (i.e., planned facilities).

Designations of park and recreation lands, wildlife and waterfowl refuges, and historic sites are sometimes made and determinations of significance changed late in the development of a proposed transportation action. With the exception of the treatment of archaeological resources, the FHWA may permit a project to proceed without consideration under ***Section 4(f)*** if the property interest in the ***Section 4(f)*** lands was acquired for transportation purposes prior to the designation or change in the determination of significance, as long as an adequate effort was made to identify properties protected by ***Section 4(f)*** prior to acquisition.

Section 4(f) applies to historic sites regardless of whether it is publicly or privately owned. However, ***Section 4(f)*** only applies to publicly owned parks, recreation areas, and wildlife and waterfowl refuges that are of national, state, or local significance. ***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. If a government body has a proprietary interest in the land (such as fee ownership, drainage easement, or wetland easement), it can be considered "publicly owned." Furthermore, case law holds that land subject to a public easement in perpetuity can be considered to be publicly owned land for the purpose for which the easement exists. For example, if a public easement has been granted for public outdoor recreation and has been conveyed in perpetuity for a particular parcel of land, that land may represent a ***Section 4(f)*** protected property. Under special

circumstances, lease agreements may also constitute a proprietary interest in the land. Such lease agreements must be evaluated on a case-by-case basis, and such factors as the term of the lease, the understanding of the parties to the lease, cancellation clauses, and other similar issues should be considered. Any questions on whether or not a leasehold or other temporary interest constitutes public ownership should be referred to the Florida Division of FHWA or FDOT ***Section 4(f)*** Coordinator in SEMO.

13.3.1.1.1 Public Parks, Recreation Areas, and Wildlife and Waterfowl Refuges

Publicly owned land is considered to be a park, recreation area, or wildlife and waterfowl refuge when the land has been officially designated as such by a federal, state, or local agency and the officials with jurisdiction over the land determine that its primary purpose is as a park, recreation area, or refuge. The "primary purpose" of the property is related to a property's function and to how it is intended to be managed (for example, as set forth in the property management plan). Incidental, secondary, occasional or dispersed activities similar to park, recreational or refuge activities do not constitute a primary purpose within the context of ***Section 4(f)***. Unauthorized activities, such as informal trails created by the public within or across a conservation area, should not be considered in the determination of ***Section 4(f)*** applicability.

If the general public is permitted visitation at any time to significant publicly owned parks and recreation areas, then the requirements of ***Section 4(f)*** apply. However, ***Section 4(f)*** does not apply when visitation is permitted to only a selected group and not the general public at large. Examples of such specific groups include residents of a public housing project; military and their dependents; students of a school; and students, faculty, and/or alumni of a college or university. Many wildlife and waterfowl refuges allow public access, while others may restrict public access to certain areas within the refuge or during certain times or seasons of the year for protection of habitat or species. In these cases, the property should be examined to verify that the primary purpose of the property is for wildlife or waterfowl refuge activities and not for other, non-***Section 4(f)*** protected activities.

There are some occasions when large tracts of publicly owned land or managed lands serve an array of different functions (State or National Forests, for example) and some of the functions are protected by ***Section 4(f)***, while other functions are not protected by ***Section 4(f)***. For additional information on the proper treatment of these types of resources, see ***Question Number 4, Public Multi-Use Land Holdings in Part II of the FHWA Section 4(f) Policy Paper (FHWA, 2012***).

Usually, the officials with jurisdiction are the officials of the agency owning or administering (managing) the land. There may be instances where the agency authority has been delegated or relinquished its authority to another agency via an agreement. The FHWA and FDOT will review this agreement and determine which agency has authority on how the land will be used. If authority has been delegated/relinquished to another agency, that agency must be contacted to determine the primary purpose(s) of the land. After consultation, and in the absence of an official designation of purpose or function by

the official(s) with jurisdiction, the FHWA will base its decision on its own examination of actual functions that exist.

The final decision on applicability of ***Section 4(f)*** to a particular type of land is made by the FHWA. In reaching their decision, FHWA normally relies on the official(s) having jurisdiction over the land. As a result, the federal, state, or local officials having jurisdiction over the land also make the "significance" determinations on publicly owned land considered to be a park, recreation area, or wildlife or waterfowl refuge. For certain types of ***Section 4(f)*** lands, more than one agency may have jurisdiction over the site. A finding on significance from the local officials involved in the administration/management should be sought at all times. The significance determination must consider the significance of the entire property and not just the portion of the property being used for the project. The meaning of the term "significance" for purposes of ***Section 4(f)*** should be provided to the officials having jurisdiction as a part of the request for their statement.

> *Significance means that in comparing the availability and function of the recreation, park, or wildlife and waterfowl refuge area with the recreational, park, and refuge objectives of that community, the land in question plays an important role in meeting those objectives.*

If a determination from the official(s) with jurisdiction cannot be obtained, the ***Section 4(f)*** land will be presumed to be significant. When submitting significance determinations to FHWA without a statement of significance from the official(s) with jurisdiction, the District should provide the reasons that made the statement unnecessary or unobtainable. Examples of such a situation are: (1) the lack of a response from the official(s) with jurisdiction following specific requests from the District, (2) the resource was clearly designated as a park, recreation area, or refuge within an official management plan, (3) based upon function, signage, or location, the site is obviously a significant protected property type. For properties where the significance is in doubt or the property does not appear to be significant, a written statement regarding significance from the official(s) with jurisdiction is required. All determinations (whether stated or presumed) are subject to review by FHWA for reasonableness. In cases where FHWA's determination differs from and overrides the official(s) with jurisdiction's opinion, the reason for FHWA's determination should be documented in the project file and discussed in the Environmental Document for the proposed project.

13.3.1.1.2 Historic and Archaeological Resources

Section 4(f) also applies to significant historic and archaeological sites and districts. Normally, the sites considered as ***Section 4(f)*** resources must be either individually significant or a contributing element in a significant historic district. ***Section 4(f)*** applies to the use of those properties that are considered contributing to the eligibility of the historic district, as well as any individually eligible property within the district. In general, properties within the boundaries of a historic district are presumed to contribute unless they are determined by FHWA, in consultation with the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO), not to contribute. Pursuant to the ***NHPA*****,** the FHWA, in cooperation with FDOT, consults with the SHPO and/or the appropriate THPOs and tribes that may attach religious and cultural significance to the

property and when appropriate, local officials, to determine whether a site is listed in or eligible for listing in the National Register of Historic Places (NRHP). At the time of this writing, only the Seminole Tribe of Florida has a THPO and tribal lands in Florida. Therefore, the Seminole THPO serves as the official with jurisdiction for historic properties on Seminole tribal lands. The Miccosukee Tribe of Indians of Florida have tribal lands in Florida but have not yet established a THPO. Therefore, the Florida SHPO serves as the THPO on Miccosukee lands. However, due to the special expertise of tribes in identifying and evaluating properties of religious or cultural importance to them, FHWA coordinates any ***Section 4(f)*** involvement occurring on tribal lands with the tribe. In case of doubt or disagreement between FHWA and the SHPO/THPO on the significance of a historic resource, or if so requested by the ACHP, FHWA requests a determination of eligibility from the Keeper of the NRHP (see ***Part 2, Chapter 12, Archaeological and Historical Resources***). Any other party with an interest in a project's effects to historic properties may also seek the involvement of the Keeper by asking the ACHP to request that the federal agency seek a determination of eligibility.

For purposes of ***Section 4(f)***, a historic or archaeological resource is significant if it is listed in or determined eligible for listing in the NRHP, or if the FHWA determines that the application of ***Section 4(f)*** is appropriate. If a historic site is determined not to be listed in or eligible for the NRHP, but an official (such as a mayor, president of the local historical society, etc.) formally provides information to indicate that the historic site is otherwise significant, the FHWA may apply ***Section 4(f)*** to that property. In the event that ***Section 4(f)*** is found not to be applicable, the District Office documents the basis for not applying ***Section 4(f)*** in the project file. Such documentation might include the reasons why the historic site was not eligible for the NRHP.

In the case of archaeological sites, ***Section 4(f)*** only applies to those sites that are in or eligible for inclusion in the NRHP and warrant preservation in place (including those discovered during construction). ***Section 4(f)*** does not apply if FHWA, after consultation with the SHPO/THPO, federally recognized Indian tribes (as appropriate), and the ACHP (if participating), determines that the archaeological resource is important chiefly because of what can be learned by data recovery (even if it is agreed not to recover the resource), has minimal value for preservation in place, and the SHPO/THPO and ACHP (if participating) do not object to this determination. In cases where preservation in place is not warranted, the project documents should reflect the consultation and conclusions for the site in question.

For archaeological sites discovered during construction, where preservation of the resource in place is warranted, the ***Section 4(f)*** process is expedited. This is due to the fact that the U.S. Department of the Interior (DOI) has a responsibility to review individual ***Section 4(f)*** evaluations and is not usually a party to the ***Section 106*** process, any individual ***Section 4(f)*** evaluation must be provided to the U.S. DOI and any comments they provide will need to be within the shortened response period. In such cases, the evaluation of feasible and prudent alternatives takes into account the level of investment already made. The review process, including the consultation with other agencies, should be shortened, as appropriate, consistent with the process set forth in ***Section 106*** of the ***NHPA*** implementing regulations at ***36 CFR Part 800***. Further, this consultation should include Indian tribes that may attach religious and cultural significance to discovered sites.

When discoveries occur without prior planning, the ***Section 106*** regulations call for reasonable efforts to avoid, minimize, or mitigate project impacts for such sites and provide an expedited time frame for interested parties to reach resolution regarding treatment of the site (see ***Part 2, Chapter 12, Archaeological and Historical Resources***). As stated above, a decision to apply ***Section 4(f)*** to an archeological discovery during construction based on the determination that the site is important for more than the information it contains (that is, important for preservation in place) requires an expedited review of the ***Section 4(f)*** evaluation. As discussed in ***Section 13.1***, ***SAFETEA-LU*** exempted the bulk of the Eisenhower Interstate Highway System from the requirements of ***Section 106*** and ***Section 4(f)***. However, there are certain identified elements of the Interstate System that remain subject to these laws. A list of these elements and further explanation is provided in ***Part 2, Chapter 12, Archaeological and Historical Resources***.

13.3.1.2 "Use" under Section 4(f)

Use of a ***Section 4(f)*** property can occur either directly or indirectly (may also be referred to as a "constructive use"). For the purposes of ***Section 4(f)***, a "use" occurs:

Directly:

1. When land from a ***Section 4(f)*** site is permanently acquired and incorporated into a transportation project; or,

2. When there is a temporary occupancy of land from within a ***Section 4(f)*** site that is adverse in terms of the statute's preservationist purposes.

Or Indirectly:

3. When the impacts of a transportation project on a ***Section 4(f)*** site, without the acquisition of land from the ***Section 4(f)*** site (i.e., proximity impacts), are so great that the purposes for which the ***Section 4(f)*** site exists are substantially impaired (the courts normally refer to this as a constructive use).

13.3.1.2.1 Actual or Direct Use

The first and most common type of direct occurs when land from a ***Section 4(f)*** protected resource is permanently incorporated into a transportation facility. Normally, this happens when land from a ***Section 4(f)*** property is either purchased or incorporated into a project as transportation right of way (ROW) or when the applicant for federal-aid-funds has acquired a property interest that allows permanent access onto the property, such as a permanent easement.

Direct use could include such activities as the expansion of a roadway or ROW into a ***Section 4(f)*** property. It can also include acquisition of an easement for the maintenance or operation of transportation or a transportation-related facility. Examples of such easements would include an FDOT-owned access road alongside a bridge structure to

provide a permanent right of entry for the maintenance of the bridge or a drainage easement for roadway water runoff into a detention pond.

A direct use of certain protected properties can occur even when there is no acquisition, permanent or temporary, of land, and all work will be completed within existing ROW. This situation is most common with alterations or relocation of recreational trails or facilities occupying a specified location within the ROW and with historic properties where the boundaries of the significant building, structure, site, object or district extends into the existing ROW. For more detail on this situation in regard to historic properties, see Part II, question 7D of the ***Section 4(f) Policy Paper*** (***FHWA, 2012***). In regard to recreational trails and other facilities, see Part II, Questions 15 and 27 of the ***Section 4(f) Policy Paper***.

When a transportation project involves alterations to or activities on historic transportation facilities such as bridges, highways, and railroad stations, there is no "use" of the property within the meaning of ***Section 4(f)*** provided that the historic qualities of the facility will not be adversely affected. Such determinations should be made only after the SHPO and the ACHP have been consulted pursuant to the requirements of ***Section 106*** of the ***NHPA*** and have not objected to the finding. (See Part II of the ***FHWA Section 4(f) Policy Paper*** question and answer 8, especially 8A ***(FHWA, 2012)***; the guidance in the ***Section 4(f)*** Resources web page for Programmatic Evaluations for Projects that use Historic Bridges; and finally, ***Part 2, Chapter 12, Archaeological and Historical Resources***, for additional information on this subject).

The second type of direct use identified in ***Section 13.3.1.2*** is generally referred to as a temporary occupancy. These temporary activities can trigger a ***Section 4(f)*** use when land from a ***Section 4(f)*** property is temporarily required for project construction-related activities and the activity is considered adverse in terms of the preservationist intent of the law. It is important to recognize that temporary activities can result in a ***Section 4(f)*** use of the land in order to properly address any potential involvements. These temporary occupancies are most commonly associated with equipment storage areas, erosion control features and other construction-related activities located on lands protected by ***Section 4(f)*** and they can occur at sites located out of the immediate project vicinity (such as haul roads and borrow pits) as well as alongside the project.

Per ***23 CFR § 774.13(d)***, temporary occupancies of protected properties do not constitute a "use" within the meaning of ***Section 4(f)*** if the following conditions are met:

1. The duration of the occupancy is temporary (less than the time needed for the construction of the project) and there is no change in the ownership of the land;

2. The scope of the work is minor (i.e., both the nature and the magnitude of the changes to the ***Section 4(f)*** resource are minimal);

3. There are no permanent, adverse physical impacts anticipated and no interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;

4. The land being used is fully restored to a condition that is at least as good as that which existed prior to the project; and

5. There is documented, written agreement of the appropriate federal, state, or local official(s) having jurisdiction over the resource regarding the conditions listed above.

If these five conditions are met, the temporary occupancy does not constitute a use within the meaning of ***Section 4(f)***. If one or more conditions for the exception cannot be met, then the ***Section 4(f)*** property is considered to be used by the project even though the duration of on-site activities is not permanent. Documentation of the compliance with all five of the conditions must be provided to FHWA and retained in the project file. The basis upon which the determination was made must be communicated to the Design and Construction Offices in accordance with ***Part 2, Chapter 32, Commitments***. The commitments should be worded directly and clearly in subsequent documents so that no inadvertent use of a ***Section 4(f)*** property occurs during the construction of the project.

Assurances that documentation will eventually be obtained via subsequent negotiations is not acceptable; the written agreement must occur prior to the approval of the proposed occupancy. Extreme care should be exercised during Reevaluations to ensure that protected properties that were not being used by the project during the development of the PD&E documents but were later chosen for some form of temporary activity are identified as soon as possible so that sufficient time is available to meet the five conditions set forth above.

13.3.1.2.2 Constructive or Indirect Use

Constructive use of a ***Section 4(f)*** site occurs when a transportation project does not incorporate land from a ***Section 4(f)*** resource, but the impacts of the project to a ***Section 4(f)*** resource that is adjacent to or near the project are so severe that the protected activities, features, or attributes that qualify the property for protection under ***Section 4(f)*** are substantially impaired. Generally speaking, “substantially impaired” means that the value of the resource, in terms of its ***Section 4(f)*** purpose and significance, will be meaningfully reduced or lost as a result of the proposed undertaking. The degree of impairment is determined in consultation with the officials with jurisdiction over the resource. This evaluation of impacts includes any reduction of harm achieved through mitigation and minimization measures incorporated into the project to lessen its impacts on the protected resource. If the proposed mitigation measures reduce the proximity impacts below the substantial impairment threshold, then constructive use would not apply. The impacts analysis should also describe and consider any impacts that could be reasonably expected to occur even if the project is not built, since these impacts cannot be attributed to the proposed project.

Because of their rarity, situations that appear to present a potential for a constructive use should be examined carefully. FHWA determines when there is a constructive use of a nearby ***Section 4(f)*** property, but FHWA is not required to document each determination that a project would not result in a constructive use. However, such documentation may be prepared at the discretion of FHWA. If the project results in a constructive use of a

nearby ***Section 4(f)*** property, FHWA will evaluate that use as an individual ***Section 4(f)*** evaluation in accordance with ***23 CFR § 774.3(a)*** and ***(c)***.

When assessing the potential for ***Section 4(f)*** involvement, project development teams should always consider the proximity impacts of the project on surrounding parks, recreation areas, wildlife and waterfowl refuges, and historic sites. Constructive use ***Section 4(f)*** involvement is extremely rare, but it can occur. In most cases, inclusion of appropriate minimization, mitigation, and avoidance measures into the proposed action will ensure the avoidance of proximity impacts that could trigger a constructive use. The process for determining when a constructive use does or does not occur is outlined in ***23 CFR § 774.15*** and ***Section 3.2*** of the ***Section 4(f) Policy Paper*** (***FHWA, 2012***). A constructive use determination involves three interdependent and project-specific judgments:

1. Identification of the activities, features, or attributes of the ***Section 4(f)*** resource that may be sensitive to proximity impacts (for example, a noise-sensitive site or a site requiring unobstructed viewsheds).

2. Analysis of the proximity impacts on the ***Section 4(f)*** resource (such as, a change in access management which reduces access points to the protected property, removal of on-street parking in an urban setting where other parking opportunities are limited, or vibratory impacts associated with construction or operation of a highway facility). If any of the proximity impacts will be mitigated, only the net impact is considered in the analysis (such as noise walls to limit noise intrusion or the replanting of trees alongside a property to minimize a visual intrusion). How these net impacts are determined should be discussed as part of the analysis. The analysis should also describe and consider the impacts that could reasonably be expected if the proposed project were not built, since such impacts should not be attributed to the project (as when a road is widened to accommodate the rising level of truck traffic that will occur regardless of implementing the proposed project).

3. A determination as to whether these impacts substantially impair the function, or value of the ***Section 4(f)*** resource. This determination on impairment, as well as the identification and analysis considerations discussed above, is coordinated with the federal, state, or local officials having jurisdiction over the park, recreation area, wildlife or waterfowl refuge, or historic site.

In reviewing these three considerations, the project team will be able to determine whether or not there is a potential constructive use of the protected property. If it is concluded that the proximity effects do not cause a substantial impairment, FHWA can reasonably conclude that there is no constructive use. Whenever property sensitivities or project activities warrant a proximity impacts analysis, project documents must contain the analysis of proximity effects and whether there is substantial impairment to a ***Section 4(f)*** resource. Except for responding to review comments in Environmental Documents that specifically address constructive use, the term "constructive use" need not be used. Furthermore, FHWA is not required to determine that there is no constructive use. However, such a determination could be made at the discretion of FHWA. Where a

constructive use determination seems likely, the Division Office of FHWA consults with FHWA Headquarters Office of PD&E Review before the determination is finalized.

Whenever an FDOT District identifies a potential constructive use, the District notifies the ***Section 4(f)*** Coordinator at SEMO and, if appropriate, completes a request for a determination of ***Section 4(f)*** applicability and provides it to FHWA Division Office. In addition to the standard information discussed in ***Section 13.3.1.5***, a description of the activities, features, and attributes of the ***Section 4(f)*** property that may be sensitive to proximity impacts should be identified, delineated, and explained, and all project activities that may result in proximity impacts to those activities, features, and attributes should be identified and evaluated. The request should reflect the level and preliminary results of the consultations with the official with jurisdiction concerning the property, the impacts, and the minimization and mitigation options available. FHWA Division Office is required to consult with FHWA Headquarters Office of Project Development and Environmental Review to finalize a constructive use determination. Only FHWA may determine if any such impacts constitute a "substantial impairment" of the ***Section 4(f)*** resource.

In order to provide more direct guidance for this complex issue, FHWA reviewed a number of situations and determined the applicability or non-applicability of constructive use in those situations. These situations are set forth in ***23 CFR § 774.15(e) and (f)***. Where the issue of proximity impacts arises and one of these situations applies to the specific project situation being examined, reference the applicable example in the guidance and explain how it applies to the project circumstances discussed in the request.

Where an issue on constructive use arises and FHWA decides that ***Section 4(f)*** does not apply, the Environmental Document must contain sufficient analysis and information to demonstrate that the resource(s) will not be substantially impaired by the proposed project, along with the appropriate communications and comments from the official(s) with jurisdiction, FHWA, and FDOT project team. When a constructive use does occur, the approval process for the use will be processed through the development of an individual **Section 4(f)** evaluation.

13.3.1.3 Determination of Section 4(f) Applicability (DOA)

Section 4(f) is a frequent issue in litigation brought against transportation projects. This makes it essential to document the applicability or non-applicability of ***Section 4(f)*** in the project file. In most circumstances, the applicability or non-applicability of ***Section 4(f)*** to a particular project and property is apparent because most ***Section 4(f)*** uses arise from the permanent acquisition of land from a property that is recognizably a protected site. Therefore, when acquiring land from a functioning public park, city park or playground, a publicly marked and owned wildlife or waterfowl refuge, or a property listed on the NRHP, the applicability determination can be made with a simple communication such as an email or letter to FHWA. The communication should identify the status of the land and the amount of ROW required for the proposed project and include a project map which clearly shows the proposed project, its ROW requirements, and details the protected property and its boundaries. The District then documents this information in the project file and initiates the appropriate approval or evaluation process (see ***Section 13.3.2***).

A formal ***Section 4(f)*** determination of applicability is not needed for situations where ***Section 4(f)*** clearly will not apply to a project. Usually, this occurs when there are no ***Section 4(f)*** protected properties located in, alongside or in proximity to the proposed undertaking. If a project lies alongside a ***Section 4(f)*** property type and no acquisition of land on either a temporary or permanent basis from the protected resource is planned or needed for the project, ***Section 4(f)*** normally will not apply. Although it may be obvious during the PD&E phase of project development why ***Section 4(f)*** does not apply to a particular action alongside a protected property, the reason(s) it does not apply are still placed in the project files. During later phases of project development, if alterations to project design occur that alter the relationship between the proposed action and the protected property in a way that will necessitate seeking a ***Section 4(f)*** approval, the implications of these changes and the necessary evaluations triggered by such changes can then be immediately made clear to the project team.

When dealing with property boundaries and the meaning of use under ***Section 4(f)***, parks, recreation areas, and refuges normally have boundaries that coincide with legal property boundaries. This is not always the case with historic property boundaries. Therefore, if a significant historic or archeological property extends into the existing ROW, it is possible to have a direct use of that property without any acquisition of ROW. If a historic property occurs alongside the proposed project, carefully assess and confirm with the SHPO/THPO and the NRHP the boundaries of the historic property in order to avoid unnecessary and costly delays, as well as permit denials, later in project development and delivery. Ensure also that commitments to avoid any temporary construction activities within the boundaries of any type of ***Section 4(f)*** property are kept clear in the project design commitments and construction documents. These commitments should be included in a ***Project Commitment Record, Form No. 700-011-35***. See ***Part 2, Chapter 32, Commitments*** of the PD&E Manual. If a contractor inadvertently occupies a ***Section 4(f)*** property either knowingly or because they did not know it was a protected property, federal reimbursements may be jeopardized.

It is important to document (in the project file) the locations of existing and planned facilities that are known to be ***Section 4(f)*** protected properties or which may represent such properties and which are alongside or near the proposed undertaking. This is done so the requirements of ***Section 4(f)*** will be considered before adopting project changes that may require the use (either direct or constructive) of properties protected by ***Section 4(f)*** later in project development and delivery.

For situations where ***Section 4(f)*** obviously does or does not apply, a confirmation of this information needs to be included in the project files. In cases where it does not apply because there are simply no ***Section 4(f)*** protected properties in the vicinity of the project, this can be noted by FDOT in the project file. For situations in which there may be protected properties alongside or adjacent to the proposed project but from which no land is to be occupied or acquired and there is no potential for substantial impairment to the property, a confirmation communication with FHWA, as discussed earlier in this section, is retained in the project record.

The applicability or non-applicability of ***Section 4(f)*** to particular projects and for particular sites is not always obvious. Many of these less clear circumstances are discussed in the

Questions and Answers in ***Part II of the FHWA Section 4(f) Policy Paper*** (***FHWA, 2012***). These circumstances require a greater level of information and coordination with FHWA must occur and, therefore, a more formalized determination of applicability of ***Section 4(f)*** must be made and included in the project file.

In coordinating applicability of ***Section 4(f)*** for projects that are not directly using the protected property, it is important to determine if the resource is sensitive to proximity impacts and, if so, to identify the type of proximity impacts (e.g., noise, vibrations, access) to the property. If the protected property is not sensitive to such impacts, then simply notify FHWA of the existence of the property, the project's geographic relationship to the property, and a brief statement as to why it has been determined that there will be no use of the property within the meaning of ***Section 4(f)***. If the property appears to be sensitive to proximity impacts but those impacts do not rise to the level of substantial impairment, make certain to explain this information in the communication with FHWA. An example of this latter situation would be a public park that users access from on-street parking and the proposed project requires the removal of some of this parking. If enough on-street parking remains or if the removal of the parking is mitigated with alternate and equally effective parking to maintain sufficient access to the park, then the net impact of the proposed action will not substantially diminish the function of the protected property. Since the applicability of a constructive use to a ***Section 4(f)*** property is based upon net impacts rather than gross impacts, make sure to include any mitigation efforts that reduce the proximity impacts of the project to the property in question in the project file and in communications with FHWA.

Any commitments made to avoid using land from a ***Section 4(f)*** protected property must be followed and tracked in accordance with ***Part 2, Chapter 32, Commitments***.

13.3.1.4 Documenting the Section 4(f) Applicability

Over the years, SEMO and the Florida Division of FHWA have developed and refined a topical outline for a request for a DOA document for use in Florida. This DOA outline includes a number of items that must be clearly established in order to make an applicability determination and this determination, along with supporting documentation and findings, must be maintained in the project file.

Use the DOA format provided in ***Section 13.3.1.5*** with a certain flexibility because some issues may be clear and others less so. The request does not have to contain all eight (8) items listed in all situations, and the information can be conveyed to FHWA in a format that best suits the specifics of the situation.

The methods for providing the information for the determination are equally flexible. These include formal submission of electronic or paper submittals, as well as any form of meeting, in-person, remote conferencing, or computer-based meetings. In essence, the District provides the level of information appropriate to the level of detail and presentation format needed to make the applicability determination that is agreeable to FHWA and, if needed, the officials with jurisdiction. Informal coordination with FHWA, the District, and SEMO may be warranted to discuss how to handle projects with unique ***Section 4(f)*** protected resources. This coordination can help ensure the proper information is

collected and subsequently included in the project file and appropriate documents. Discussion with all the parties, including the official with jurisdiction may also be helpful. If subsequent questions or clarifications arise during discussions with the official with jurisdiction, FHWA, SEMO, the FDOT District, and in the case of certain Local Agency Program funded projects, the local project sponsors. The District appends this information to the original request, along with the subsequent determination.

Some items required to determine the applicability of ***Section 4(f)*** are basic and usually obvious, but there are times when these issues become complicated. For example, certain designations of property functions in regard to aquifer restoration lands or natural resources management areas are unclear when trying to determine if the property is protected by ***Section 4(f)***. In addition, public ownership of properties with lease restrictions often include deed transfers, public conservation easements, or other legal and proprietary restrictions that can complicate the issue of public proprietary interests. These kinds of issues, as well as many others, can sometimes require careful analysis to make a determination of applicability. The same is true for some of the issues surrounding whether or not a particular action involving a protected property constitutes a use within the meaning of ***Section 4(f)***. Contact the District, SEMO, or FHWA ***Section 4(f)*** specialists for assistance when complex issues arise. All applicability determinations, whether made as official requests or as notes to the files are documented in the project file, along with the relevant level of information as to why ***Section 4(f)*** was found to be applicable or not applicable. This can be as simple as stating that there are no ***Section 4(f)*** protected properties in the project area (such as on the ***Type 1 Categorical Exclusion Checklist*** for minor transportation projects) or stating that the proposed action is not a transportation action, such as a rehabilitation of a historic railroad car or a utilities repair activity located within transportation ROW, which is not associated with a transportation project.

The request for a determination of applicability should provide direct statements regarding the issues that are clear and then focus upon detailing the more complicated issues that make the applicability of ***Section 4(f)*** uncertain. However, it should first provide direct statements regarding the issues that are clear. For example, if the project requires ROW from a site that may or may not be protected by ***Section 4(f)***, the request should include a statement and map showing the ROW requirements. It should then address the more complicated issue of primary function, land ownership, or whatever other issues that require evaluation in order to reach a determination of whether or not the property represents a ***Section 4(f)*** resource.

If ***Section 4(f)*** is found not to be applicable, the documentation in the project file is important to validate the non-applicability of ***Section 4(f)***, and, at a minimum, the project file should include the following information, along with supporting documentation, as appropriate:

1. Identification of all potential ***Section 4(f)*** resources within the project area/vicinity, if any;

2. A statement that there will be no direct use (no temporary or permanent acquisition or occupation) of the potential ***Section 4(f)*** resource, or a statement indicating there are no resources protected by ***Section 4(f)***; and,

3. A statement that there will be no severe indirect impacts (no significant proximity impacts) on any resource protected by ***Section 4(f)***.

As the project advances through the design phase, another review should be conducted to ensure that the determination of non-applicability for ***Section 4(f)*** is still valid. For instance, if sufficient time has passed for the status of adjoining properties to have changed from not protected to protected by ***Section 4(f)*** or the scope of work for the project has changed (e.g., alignment shifts, drainage pond changes), the District must revisit the applicability of ***Section 4(f)*** for the project.

It is essential to maintain clear and open lines of communication with FHWA along with complete records in regard to ***Section 4(f)*** determinations and evaluations. When making determinations of ***Section 4(f)*** applicability for situations where ***Section 4(f)*** obviously does or does not apply, always document the decision and the rationale for the decision in the project file. Be certain to inform FHWA and, as necessary, confirm these determinations with them. In situations where the applicability is obvious and where it is confirmed or made by FHWA, the information used for these decisions usually can serve to help determine which ***Section 4(f)*** approval option should be pursued.

For projects where a request for a determination of applicability is prepared and submitted to FHWA, that material and the FHWA finding will constitute the primary documentation of the analysis supporting the determination that ***Section 4(f)*** does not apply. Therefore, for projects or situations that are contentious or where compliance with ***Section 4(f)*** is or could become a major issue during the course of project development or delivery, documenting the basis for the determination that ***Section 4(f)*** does or does not apply through the preparation and coordination of a formal request for a determination of applicability remains the best way to document and support the decision.

Whether ***Section 4(f)*** is determined not applicable on its face or through the submission of a request for a determination of applicability to FHWA, the following standard statements, as appropriate, are included in the Environmental Document along with the supporting information:

> *The proposed project will not use property from any resources protected by Section 4(f). Therefore, FHWA has determined that the Section 4(f) does not apply to the proposed project.*

For situations where an applicability determination for protected property needs to be made:

> *The proposed project will not use property from the [name of the property or properties] or any other resources protected by Section 4(f). Therefore, FHWA has determined Section 4(f) does not apply.*

13.3.1.5 Section 4(f) Determination of Applicability Format and Content

The format for DOA provided below is not proscriptive nor is it a specifically required document by the laws or regulations. However, as court cases have shown, the documentation the DOA creates is necessary for the project's administrative record. It is designed to include sufficient information for FHWA and FDOT to make the determination and to focus upon the issues that may be unclear or open to various interpretations.

The list of eight (8) issues below cover most questions related to determining whether ***Section 4(f)*** applies to a particular action or a specific property. If there is more than one possible ***Section 4(f)*** use, all the possible uses of ***Section 4(f)*** properties on all possible alternatives being studied belong in the same request for a DOA. This is not a requirement in circumstances that warrant separate submittals. For ease and efficiency, however, the Districts will want to keep the number of DOAs under separate covers minimal.

In preparing a ***Section 4(f)*** DOA to submit to FHWA on any FHWA funded or assisted project, the two main issues central to determining applicability: whether the land in question is protected by ***Section 4(f*)**, and does the proposed undertaking entail a use of the land within the meaning of ***Section 4(f)***. The list below includes items that are always germane to making a determination of applicability, as well as issues that may not apply in certain circumstances. ***Section 4(f)*** never applies on projects that do not involve either the funding or assistance from an agency of the USDOT.

The following information, as appropriate, should be provided to the FHWA Division Office for a ***Section 4(f)*** DOA:

1. A detailed map or drawing of sufficient scale to identify the relationship of the alternatives to the ***Section 4(f)*** property. It is very important that this map clearly show the ROW requirements for the proposed project, the existing boundaries of the property in question, and/or any proposed temporary occupancies of that property. Make certain to differentiate between the proposed temporary occupations and permanent acquisitions.

2. Size (acres or square feet) and location maps or other exhibits such as photographs, sketches, etc. of the affected property. Include the amount of land being acquired for the permanent and/or temporary occupations.

3. Ownership (City, County, State, etc.) and managing entity of property in question, as well as the official with jurisdiction over the property for the purposes of ***Section 4(f)***.

4. Primary function of the property. Function(s) and location(s) (on a site map in relation to proposed project activities) and description of available activities, features, and attributes (both current and planned ones) that may qualify the property for protection under ***Section 4(f)***, including specific facilities (for example, ball playing, swimming, golfing, bird watching, tennis courts, playground

equipment, contributing historic elements and characteristics, hiking or canoeing trails, bird nesting areas, and water features).

5. Access (pedestrian, vehicular, parking lots, driveways, and entrance roads, as well as path and trail access) and usage (approximate number of users / visitors, etc.). If there is no access, note this in the submittal.

6. Relationship to other similarly used lands in the vicinity in order to: (1) clarify the determination of the significance of the property and (2) evaluate linkages and functions. If neither of these exists, note this in the submittal. Include the statement of significance from the official(s) with jurisdiction over the ***Section 4(f)*** property. The significance pertains to the entire ***Section 4(f)*** property and not on the area of the proposed use. If there is no statement of significance, provide applicable information from the management plan. If neither is available, state this and note that the property is presumed to be significant. As part of the submittal, applicable management plans or other planning documents must be referenced and should be included.

7. Applicable clause affecting the ownership, if any, such as lease, easement, covenants, restrictions, or conditions, including forfeiture. If there are none, then note this in the submittal.

8. Unusual characteristics of the ***Section 4(f)*** property (flooding problems, terrain conditions, or other features) that either reduce or enhance the value of all or part of the property or that provide opportunities for enhancement or mitigation.

When there is no direct use of a ***Section 4(f)*** property, it may be necessary to include an analysis of the proximity impacts of the proposed project (e.g., noise, access to the property, aesthetics) to certain protected properties in order to determine if the impact substantially impairs their protected functions. This can be done by identifying any attributes and/or features that are sensitive to proximity impacts. When needed, this effort should include a discussion and evaluation of project activities that may result in proximity impacts to the property. If the property is not sensitive to proximity impacts, state this and explain the reasons. Also, if the property is sensitive to proximity impacts, but the project does not create any such impacts, include a statement in the files or in the request for a determination to that effect. Include any minimization or mitigation efforts that may have a bearing on this determination (for example, in situations where on-street parking alongside a public park is being removed but a separate parking lot is being provided, the new parking will either improve the access to the resource or prevent the proximity impact from significantly damaging access to the property). In cases involving constructive use applicability, FHWA Division consults with FHWA Headquarters prior to making the determination. In situations where a proposed project may have proximity impacts and these impacts could rise to the level of substantial impairment, contact the SEMO ***Section 4(f)*** Coordinator or FHWA Division Office to establish the level of documentation and coordination needed.

The above information is used by FDOT and FHWA to document the applicability or non-applicability of ***Section 4(f)*** on a property. If FHWA determines that ***Section 4(f)*** is

applicable, then a ***Section 4(f)*** approval from FHWA will be needed (see ***Section 13.3.2***). If ***Section 4(f)*** is determined not to be applicable, the appropriate statement provided at the end of ***Section 13.3.1.4***, is included in the Environmental Document for the project.

13.3.2 Section 4(f) Approvals

Once FHWA has determined that the project will use ***Section 4(f)*** protected property, FHWA must determine whether it may approve the use as required by the law. FHWA (as well as the other agencies of USDOT) 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:

1. There is no feasible and prudent alternative to the use of land from the property; and,

2. The action includes all possible planning to minimize harm to the property resulting from such use; or,

3. The use of the property, including any measures to minimize harm, will have a *de minimis* impact.

As set forth in ***23 CFR § 774.3***, there are three methods available for FHWA to approve the use. These three methods are:

1. Preparing a *de minimis* impact determination;

2. Applying a programmatic ***Section 4(f)*** evaluation; or

3. Preparing an individual ***Section 4(f)*** evaluation.

Although all of these approval options require FDOT to prepare and provide the documentation for an FHWA (or other USDOT agency) approval, the *de minimis* option does not require the “no prudent and feasible alternative” and the “all possible planning to minimize harm” standards required for FHWA approval of the individual or programmatic evaluations.

13.3.2.1 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 activities), results in either:

1. A determination that the proposed project would not adversely affect the activities, features, or attributes qualifying a park, recreation area, or wildlife or waterfowl refuge for protection under ***Section 4(f)***; or,

2. A ***Section 106*** finding of no historic properties affected for a proposed project or no adverse effect to historic properties.

For historic properties, the official with jurisdiction, the consulting parties and the public all reach their findings or state their opinions within the ***Section 106*** process and FHWA/FDOT documents these decisions in both the ***Section 106*** and ***Section 4(f)*** processes (see ***Part 2, Chapter 12, Archaeological and Historical Resources*** for a discussion of the ***Section 106*** process). For the other property types, the *de minimis* consultations, opportunities to comment, and the findings are reached utilizing the appropriate opportunities within the ***National Environmental Policy Act (NEPA)*** process. The final ***NEPA*** decision document for the project must include sufficient supporting documentation from the *de minimis* approval on the measures to minimize harm that were applied to the project by FHWA in order to make the *de minimis* impact determination as set forth in ***23 CFR § 774.7(b)***. A use of ***Section 4(f)*** property having a *de minimis* impact can be approved by FHWA without the need to develop and evaluate alternatives that would avoid using the ***Section 4(f)*** property. A *de minimis* impact determination may be made for a permanent incorporation or a temporary occupancy of ***Section 4(f)*** property but not for a constructive use.

A *de minimis* impact determination requires agency coordination and public involvement as specified in ***23 CFR § 774.5(b)***. The regulation has different requirements for this coordination and public involvement, depending upon the type of ***Section 4(f)*** property being used. For historic sites, the consulting parties identified in accordance with ***36 CFR Part 800*** must be afforded the opportunity to comment on the effects of the proposed project on historic resources. The official(s) with jurisdiction over the historic property (usually the SHPO or THPO) must be informed of the intent to make a *de minimis* impact determination and must concur in a finding of no adverse effect or no historic properties affected in accordance with ***36 CFR Part 800***. Compliance with ***36 CFR Part 800*** satisfies the public involvement and agency coordination requirements for *de minimis* impact findings for historic and archaeological properties.

An impact to a public park, recreation area, or wildlife and waterfowl refuge may be determined to be *de minimis* if the transportation use of the ***Section 4(f)*** property, including incorporation of any measure(s) to minimize harm, does not adversely affect the activities, features, or attributes that qualify the resource for protection under ***Section 4(f)***. 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:

1. The transportation use of the ***Section 4(f)*** property, together with any impact avoidance, minimization, and mitigation or enhancement measures incorporated into the project, does not adversely affect the activities, features, or attributes that qualify the resource for protection under ***Section 4(f)***;

2. The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, or attributes of the ***Section 4(f)*** property; and,

3. The official(s) with jurisdiction over the property, after being informed of the public comments and FHWA's intent to make the *de minimis* impact finding, concur in writing that the project will not adversely affect the activities, features, or attributes

that qualify the property for protection under ***Section 4(f)*** (***23 CFR § 774.5(b)(2)*** and ***23 CFR § 774.17***).

The concurrence of the official(s) with jurisdiction that the protected activities, features, or attributes of the resource are not adversely affected must be in writing (***23 CFR § 774.5(b)(2)(ii)***). The written concurrence can be in the form of a signed letter on agency letterhead, signatures in concurrence blocks on transportation agency documents, and agreements provided via e-mail or other method deemed acceptable by the FHWA Division Administrator. Obtaining these agreements in writing and retaining them in the project file are consistent with effective practices related to preparing project administrative records.

For parks, recreation areas, or wildlife and waterfowl refuges, the official(s) with jurisdiction over the property must be informed of the intent to make a *de minimis* impact determination, after which an opportunity for public review and comment must be provided. After considering any comments received from the public, if the official(s) with jurisdiction concur(s) in writing that the project will not adversely affect the activities, features, or attributes that make the property eligible for ***Section 4(f)*** protection, then a *de minimis* impact determination can be finalized. The public notice and opportunity for comment and the concurrence for a *de minimis* impact determination may be combined with similar actions undertaken as part of the ***NEPA*** process. An opportunity for the public to review and comment on the proposed *de minimis* impact determination must be provided. In situations where this effort is not combined with the normal public involvement process (such as when the ***Section 4(f)*** involvement is discovered after the Environmental Document has been completed), special opportunities for providing the public an opportunity to comment must be provided. The opportunity for public input may be part of a public meeting, workshop, or other form of public involvement. The final determination or approval is made by the FHWA Division Administrator. The determination, along with the supporting documentation, is then retained as part of the project file.

A *de minimis* impact determination is a finding. Therefore, an evaluation for a feasible and prudent avoidance alternative analysis is not required. Additionally, the definition of all possible planning in ***23 CFR § 774.17*** explains that a *de minimis* impact determination does not require including an "all possible planning to minimize harm" analysis because avoidance, minimization, mitigation, and enhancement measures are included as part of the *de minimis* determination.

A *de minimis* impact determination must be supported with sufficient information included in the project file to demonstrate that the *de minimis* impact and coordination criteria have satisfied ***23 CFR § 774.7(b)***. The approval of a *de minimis* impact is documented in accordance with the documentation requirements in ***23 CFR § 774.7(f)***. These requirements may be satisfied by including the approval in the ***NEPA*** documentation, such as an EA, Environmental Impact Statement (EIS), Categorical Exclusion (CE) determination, Record of Decision (ROD), or FONSI, or in an individual ***Section 4(f)*** evaluation when one is prepared for a project. When an individual ***Section 4(f)*** evaluation is required for a project in which one or more *de minimis* impact determinations will also

be made, it is recommended that the individual ***Section 4(f)*** evaluation include the relevant documentation to support the proposed *de minimis* impact determination(s).

In partnership with the Florida Division of FHWA, FDOT SEMO developed a five-step procedure to obtain and document *de minimis* approvals. The activities associated with these steps vary depending upon the type of protected property. For example, the processes and results from identification of significant historic resources and the consultative nature of the ***Section 106*** process serve to fulfill the requirements for making a *de minimis* approval if FHWA and the SHPO/THPO have concurred on either a "no historic properties affected" or a "no adverse effects to historic properties" finding, as long as the SHPO/THPO was informed of FHWA intent to pursue a *de minimis* approval prior to SHPO/THPO concurrence with the ***Section 106*** findings on effects. The basic process is as follows:

1. Determine ***Section 4(f)*** applicability and assess total net impacts of the proposed project on the protected resource(s);

2. Initiate preliminary consultations with the official with jurisdiction and FHWA to identify the potential for meeting *de minimis* requirements. If applicable, inform the official with jurisdiction of the intent to pursue a *de minimis* ***Section 4(f)*** approval. For historic properties, this notification of intent should be included with the communication of the FHWA finding on effects and/or adverse effects under the ***Section 106*** process. FDOT, in cooperation with the Florida Division of FHWA and the staff at the Florida Department of State Division of Historical Resources (FDHR), has developed signature blocks for these letters, which include this notification to SHPO (see ***Part 2, Chapter 12, Archaeological and Historical Resources***). For the non-historic ***Section 4(f)*** properties, this notification will need to be in a separate communication to the official with jurisdiction and should inform the official with jurisdiction that FHWA and FDOT will provide an opportunity for public review and comment concerning the project effects on the protected activities, features, or attributes of the property.

3. Provide public notice and opportunity to comment concerning the project effects on the protected activities, features, or attributes of the property in question (note: for historic properties the appropriate level of public engagement occurs within the ***Section 106*** process: for other protected property types the public opportunity should be provided as part of FDOT's normal public involvement process);

4. Obtain written agreement from the official(s) with jurisdiction with the finding of:

    a. For historic properties (per ***36 CFR § 800.4*** *and* ***800.5(d)*** and ***23 CFR § 774.5(b) (ii)***), either:

        1. No adverse effect to the historic property in question; or,

        2. No effects to historic properties.

    b. For parks, recreation areas, and wildlife or waterfowl refuges (per ***23 CFR § 774.5 (b)(2)(ii)***), the project will not adversely affect the activities, features,

or attributes that make the property eligible for ***Section 4(f)*** protection (see ***Figure 13-3*** for a template for the concurrence letter to the official with jurisdiction).

5. Submit the formal request for a *de minimis* approval to FHWA for approval of the ***Section 4(f)*** use as *de minimis* per ***23 CFR § 774.3(b)***, along with the basis for the approval (see ***Figure 13-4*** for a template for the concurrence/signature page to FHWA for a *de minimis* approval/determination).

In general, when submitting the formal request for a *de minimis* impact determination, FDOT provides FHWA the following essential information, along with the appropriate analysis, and ensures the information is retained in the project files:

1. Applicability of ***Section 4(f)*** to the park, recreation, wildlife/waterfowl refuge, or historic property, and a description of the proposed use;

2. Records of public involvement or, as appropriate, ***Section 106*** consultation;

3. Results of coordination with the official(s) with jurisdiction;

4. Comments submitted during the coordination procedures required by ***23 CFR § 774.5***, and responses to the comments; and,

5. Avoidance, minimization, or mitigation measures that were relied upon to make the *de minimis* impact finding, as applicable. If none were needed, then this is stated and explained.

Once FHWA has approved the *de minimis* finding, the District documents it in the project file and includes it within the appropriate Environmental Document. Generally, for EAs, EISs, and some Type 2 CEs, FHWA will not issue its approval until after the public hearing because the public hearing represents the required opportunity for public comment. In these cases, it is necessary to report the basis on which a *de minimis* approval is expected. There are times when the *de minimis* finding involves a determination of effects to historic properties and the ***Section 106*** process, along with its associated public involvement efforts and effect findings, are completed prior to the public hearing. For these situations, consult with FHWA on how to best present the *de minimis* finding in the EA or DEIS. For Type 2 CEs, the *de minimis* record should be presented in a separate document or included as an attachment. A ***Section 4(f)*** approval is a separate action from the ***NEPA*** action, and therefore the title and the contents of any Environmental Document seeking a ***NEPA*** approval and a ***Section 4(f)*** approval include the type of ***Section 4(f)*** approval sought and the basis upon which this approval has either been proposed or made. If the ***Section 106*** finding is not completed until after the public hearing and the public hearing was utilized to complete the public involvement efforts associated with ***Section 106***, then process the *de minimis* finding according to the standard methods associated with COA. Normally, FHWA grants the **Section 4(f)** *de minimis* approval at the same time they grant Location and Design Concept Acceptance (LDCA) for Type 2 CEs. For EAs and EISs, FHWA approves the *de minimis* use in the FONSI and FEIS respectively.

If there is more than one ***Section 4(f)*** *de minimis* use associated with the proposed project, each of these uses must be presented separately in the appropriate Environmental Document. When a project includes a ***Section 4(f)*** *de minimis* use as well as a non-*de minimis* use of ***Section 4(f)*** protected properties, include the *de minimis* finding and associated materials in the ***Section 4(f)*** evaluation for the non-*de minimis* one.

13.3.2.1.1 Format of *de minimis* Requests and Approvals

One copy of the following checklist of items is submitted as part of a *de minimis* request package to FHWA. This list is not meant to be all inclusive. If there are other issues requiring consideration in order to determine the appropriateness of a *de minimis* approval, the District addresses them in the narrative of the request along with any other relevant information. This checklist is intended to expedite FHWA review and concurrence with *de minimis* findings. It should be placed behind the cover letter (see ***Figure 13-4***) and, as appropriate, it should be used as the table of contents. Make certain to note any items in the checklist that are not included in the package. Add a checkmark (or page number, if appropriate) in the blank space next to the items included in your submission. For any items that are not included, provide a Not Applicable (N/A) notation and a brief explanation for why the item is not included in the narrative of the request, when appropriate. Failure to include necessary items in the submittal may cause delays in review time and/or approval by FHWA.

1. _____ Map(s) of sufficient scale to show the relationship of the proposed action to the ***Section 4(f)*** property. At minimum, this should include:

    a. Property lines of the resource or historic property boundaries for significant historic and archaeological resources.

    b. Proposed and existing ROW.

    c. Facilities, features, and other functional areas (including access points and types of access) associated with the purpose, use, and character of the protected property (both man-made and natural) that qualify the property for protection under ***Section 4(f)***.

    d. The relationship between the proposed acquisition from the resource to the protected features and activity areas.

    e. Any proposed areas of temporary occupancy for the purposes of constructing the project or maintaining access for the proposed undertaking (for example, equipment staging areas, haul roads, temporary easements).

    f. Photographs that may be needed to illustrate certain characteristics of the property.

    g. Depending on the size and scale of the property and the undertaking, maps and figures of various scales needed to fully show the relationships.

h. The location and nature of any other ***Section 4(f)*** involvements the project has or may have. Include other important community and environmental considerations and locations that either have influenced or may influence project design. Include a narrative of these involvements as an appendix to the document. Include additional maps as needed. Provide sufficient summaries of these resources to communicate the relationship these other resources have to the proposed actions involving the resource subject to this *de minimis* request. If the resource is described or discussed in another document, also reference that document.

2. _____ The type of property (park, refuge, historic, etc.); ownership; identification of the official(s) with jurisdiction over the property, and, if applicable, the number of users; and identification of other laws that apply to the property, such as ***Section 106*** of the ***NHPA***, ***Section 6(f)*** of the ***Land and Water Conservation Fund Act***, ***Section 7*** of the ***Wild and Scenic Rivers Act***, and so forth.

3. _____ The total acreage of the protected property and the amount of acreage proposed for temporary and/or permanent occupation or acquisition.

4. _____ A listing and description of the protected activities, features, or attributes that qualify the property for protection under ***Section 4(f)***. Use photographs as appropriate to illustrate the activities, features, or attributes.

   a. For historic properties, this information can be found in the site information material normally provided in or along with the ***Cultural Resources Assessment Survey (CRAS) Report***, such as the Florida site file, NRHP nomination form, the site narrative in the report, or the letters specifying the historic significance findings provided by the Districts, SHPO/THPO, the Native American Tribes, FHWA, and other appropriate ***Section 106*** consulting parties. Generally, the activities, features, or attributes for historic properties are the site characteristics, features, and setting that contribute to its historical significance.

   b. For non-historic properties, the management plan and property map(s) should be reviewed for any activities, features, and attributes associated with the protected purpose(s) of the property that may be impacted by the acquisition/occupation of the protected property and its conversion into a transportation facility. With or without a management plan, the official with jurisdiction must be included in the identification of the activities, features, or attributes for the property and FDOT staff should visit the site to review and confirm the status of these activities, features, or attributes.

5. _____ Describe any unusual characteristics of the property's features and facilities which either reduce or enhance the value of the portions of the property within or alongside the proposed acquisition/occupation that may have a bearing on evaluating the net impacts of the proposed project on the activities, features, or attributes of the protected property. For example, ball

fields that are subject to frequent flooding, a swing set designed specifically for younger children, a historic property where surrounding landscape features and setting are important aspects of its historical value, or a wildlife refuge where the protected animals frequently migrate to and from the refuge. Photographs may be needed to illustrate some of these.

6. _____ A discussion of all the impacts, both temporary and permanent, that may diminish or enhance the activities, features, or attributes that qualify the property for protection under ***Section 4(f)***.

7. _____ Presentation of any proposed minimization, avoidance, enhancement, and/or mitigation measures incorporated into the proposed project lessening the impacts of the project to the protected property as a whole and to the protected activities, features, or attributes of the property. Photographs and plan sheets may be needed to illustrate the proposal and how the impacts have been minimized or how the property has been enhanced. A statement regarding how the measures included to minimize harm to the property diminish the project impacts sufficiently to meet the *de minimis* threshold of either: (1) an impact that will not adversely affect the property or (2) an impact that will not adversely affect the activities, features, or attributes qualifying the property for protection under ***Section 4(f)***. In cases where the project, as proposed, meets this threshold without any additional minimization or mitigation of harm, this should be stated.

   a. For historic properties, this material will be included in the documents, findings, and commitments contained in the correspondences between FHWA, FDOT, and SHPO/THPO related to compliance with ***Section 106*** of the ***NHPA***. If there are meeting minutes that form part of this determination, ensure that these meeting minutes and the concurrences with these meeting minutes are recorded in the project files. The record should also include the comments (if any) from the other consulting parties identified during the ***Section 106*** process.

   b. For non-historic properties, this information will be contained in the meeting minutes and correspondences as appropriate between FHWA, FDOT, and the official(s) with jurisdiction. As stated above, meeting minutes used to document determinations and decisions should be approved by all participating parties and placed into the project files.

8. _____ Include the notification to the official with jurisdiction over the resource that FHWA may pursue a *de minimis* approval option for the use of the protected property under ***Section 4(f)***. Note that in the case of pursuing a *de minimis* approval for parks, recreation areas, and wildlife and waterfowl refuges, this notification must be completed prior to providing the public opportunity to comment on the effects of the proposed project on the activities, features, or attributes of the protected property. In addition, the notification to the official with jurisdiction over these non-historic resources should inform that

official that FHWA will be offering the public an opportunity to comment on this matter.

9. _____ Description of efforts to provide the public an opportunity to comment on the effects of the proposed project on the activities, features, or attributes of the ***Section 4(f)*** resource, along with the related public responses. Include the date and associated correspondence with FHWA's agreement with the approach used. For historic properties, the public opportunity to comment occurs within the ***Section 106*** process and requires no separate actions for the purposes of a *de minimis* document approval. However, provide any of the public comments related to ***Section 106*** effects findings for the project, if any. If there were none, state this.

10. _____ *A copy of the written communication to the official with jurisdiction over the ***Section 4(f)*** resource that if they concur with an FHWA finding of: (1) either a ***Section 106*** finding of "No Effects on Historic Properties" or "No Adverse Effect" to the historic property in question or (2) that the proposed project will not adversely affect the activities, features, or attributes qualifying the park, recreation area, or wildlife or waterfowl refuge for protection under ***Section 4(f)***, then FHWA may pursue a *de minimis* approval option for the use of the protected property.

11. _____ *The communication in which SHPO/THPO concurs with an FHWA finding of "No Historic Properties Affected" or "No Adverse Effects" to the relevant historic property or in which the official with jurisdiction over a non-historic ***Section 4(f)*** property concurs with a finding that the proposed project will not adversely affect the activities, features, or attributes of the property. The project record must show that the official with jurisdiction was provided the public comments, if any, which the public made concerning the effects of the proposed project on the activities, features, or attributes of the protected property.

*Under normal circumstances, items 10 and 11 are contained in the same letter.

Once FHWA issues a written determination that a *de minimis* approval is appropriate for the use of the protected property, this determination should be retained in the project files. If the determination occurs concurrently with the Environmental Document approval, then the signature/cover page (***Figure 13-4***) should be altered appropriately prior to submission to FHWA.

13.3.2.1.2 Documentation of *de minimis* Approvals

When completing a *de minimis* approval, the following information must be included in the project file. Most of this information should be contained within the submission made for the *de minimis* finding or determination sent to FHWA.

1. Applicability or non-applicability of ***Section 4(f)*** to the park, recreation, refuge, or historic property proposed to be used by the project;

2. Whether or not there is a use of ***Section 4(f)*** property (include a description of the applicability of ***Section 4(f)***);

3. Records of related public involvement, or ***Section 106*** consultation;

4. Results of coordination with the officials with jurisdiction;

5. Comments submitted during the coordination procedures required by ***23 CFR § 774.5***, and responses to the comments;

6. The avoidance, minimization or mitigation measures that were relied upon to make the *de minimis* impact finding; and

7. The *de minimis* approval.

13.3.2.2 Programmatic Section 4(f) Evaluations

Programmatic ***Section 4(f)*** evaluations are prepared for certain minor uses of ***Section 4(f)*** property that meet specific criteria. If a project meets the criteria, it will satisfy the requirements of ***Section 4(f)*** that there is no feasible and prudent alternative and that all possible planning to minimize harm to the ***Section 4(f)*** property resulting from the transportation use has been completed. 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) adequate coordination with appropriate entities. To promote efficiency, the development of any programmatic evaluation should be coordinated with FHWA Division Office.

There are five (5) nationwide programmatic ***Section 4(f) evaluations***:

1. Independent Walkways or Bikeway Construction Projects

2. Historic Bridges

3. Minor Involvements with Historic Sites

4. Minor Involvements with Parks, Recreation Areas, and Waterfowl and Wildlife Refuges

5. Net Benefits to a ***Section 4(f)*** Property

Programmatic ***Section 4(f)*** evaluations may only be applied to projects meeting the applicability criteria. How the project meets the applicability criteria, as well as the required findings and conclusions, must be documented in the programmatic evaluation prepared for the proposed use of the protected property. Each of these five programmatic evaluations has different required criteria and findings. The evaluation document created must therefore be fashioned in accordance with the specific programmatic evaluation being fulfilled. As specified in the programmatic evaluations, the requirements to assess

whether there is a feasible and prudent avoidance alternative and that the project includes all possible planning to minimize harm to the protected resource still apply. The necessary information supporting the applicability of the programmatic evaluation, how it meets the criteria, and its findings are developed and circulated under a separate cover (except when otherwise appropriate) as a programmatic ***Section 4(f)*** evaluation, and retained in the project file.

The criteria and findings for each of these programmatic evaluations have been reviewed by the appropriate federal agencies, and for legal sufficiency, by FHWA. Therefore, they normally will not require an individual legal sufficiency review from FHWA Headquarters, Resource Centers, nor a review from U.S. DOI, U.S. Department of Agriculture (USDA), or U.S. Department of Housing and Urban Development (HUD), unless one of these agencies is the agency with jurisdiction or oversight over the property. There may be times, however, where a federal agency will need to review the ***Section 4(f)*** materials when they have a separate action to take or approve related to the property protected by ***Section 4(f)*** (see ***23 CFR § 774.5(d)*** or ***Section 13.4***).

FHWA Division Administrator is responsible for ensuring that each individual project meets the criteria and procedures of these programmatic ***Section 4(f)*** evaluations. For this reason, FDOT must clearly document the required items. The written analysis and determinations will be combined in a single document and placed in the public record, and must be made available to the public as appropriate.

The applicability criteria, alternative findings, discussion of least overall harm, and measures to minimize harm for the five different programmatic ***Section 4(f)*** evaluations are included in FDOT's ***Section 4(f) References web page***, along with several sample tables of contents for the various evaluations.

13.3.2.2.1 Coordination

In early stages of project development, each project requires direct coordination with the federal, state, and/or local agency official(s) having jurisdiction over the ***Section 4(f)*** property. For non-federal ***Section 4(f)*** properties, such as state or local properties, the District must determine, or request the official(s) with jurisdiction to identify, any federal encumbrances that may apply to the protected property. When encumbrances exist, the District is required to coordinate with the federal agency responsible for the encumbrance. Compliance and coordination related to any concurrent requirements should be noted and discussed in the appropriate section of the ***NEPA*** document for the project.

Copies of the programmatic evaluations must be offered to the official(s) with jurisdiction over the ***Section 4(f)*** property and to other interested parties, or upon request. This is part of the normal ***NEPA*** project documentation and distribution.

13.3.2.2.2 Public Involvement

Projects with ***Section 4(f)*** use must include appropriate public involvement activities that are consistent with the specific requirements of ***23 CFR § 771.111*** and ***Part 1, Chapter 11, Public Involvement*** for early coordination, public involvement, and project

development. For a project where one or more public meetings or hearings are held, information on the proposed use of the ***Section 4(f)*** property must be communicated at the public meeting(s) or hearing(s). In the case of the Net Benefit programmatic evaluation, a public involvement opportunity is specifically required for the approval of the document. Therefore, in circumstances where the net benefit use of the ***Section 4(f)*** property was not addressed during the normal public involvement effort, a separate public involvement effort addressing the ***Section 4(f)*** use of the property must be provided.

13.3.2.2.3 Format and Contents of Programmatic Section 4(f) Evaluations

After it has been determined that a programmatic ***Section 4(f)*** evaluation is appropriate, an evaluation addressing the applicability criteria must be completed. FDOT and FHWA follow the established formats and contents for each programmatic type of evaluation as specified in the ***FR***. Once the evaluation is completed, it is provided to FHWA for comments and approval.

For Type 2 CE projects, the programmatic ***Section 4(f)*** evaluation is prepared and submitted to FHWA at the same time as the COA determination (***Part 1, Chapter 5, Type 2 Categorical Exclusion***). The public hearing, if required, must be held prior to submittal of the COA determination and the programmatic ***Section 4(f)*** evaluation. Since all ***Section 4(f)*** alternatives remain viable until after the public hearing, these two actions must parallel each other.

For projects processed as an EA or EIS, the programmatic ***Section 4(f)*** evaluation is also submitted independently of EA and DEIS, but after the public hearing. In these cases, the EA or DEIS will contain the following standard statement:

> *"The Section 4(f) requirement for [name of Section 4(f) resource] will be complied with by applying a nationwide evaluation in accordance with [name the appropriate Nationwide Programmatic Section 4(f) evaluation]."*

Two of the five nationwide programmatic ***Section 4(f)*** evaluations are specifically excluded from use in projects requiring the preparation of an EIS, unless the use of ***Section 4(f)*** lands is discovered after the approval of FEIS. These two programmatic ***Section 4(f)*** evaluations are for projects: (1) having minor involvement with public parks, recreation areas, and wildlife and waterfowl refuges and (2) having minor involvements with historic sites. For these projects, an individual ***Section 4(f)*** evaluation must be prepared and incorporated into EIS.

For programmatic ***Section 4(f)*** evaluations concerning Historic Bridges or having Net Benefits, which involve the preparation of an EIS, the same processing as that outlined for EA is followed.

The programmatic evaluation for independent walkways and bikeway projects cannot be used for projects "…where there are unusual circumstances [such as] major impacts, adverse effects, or controversy." Since the criteria for this programmatic evaluation excludes situations where significant impacts may be anticipated, it is highly unlikely that

either an EA with FONSI or an EIS could ever be associated with this activity. Furthermore, this programmatic evaluation is established as a negative declaration and only applies to independent bikeway or walkway construction projects that require the use of recreation and park areas established and maintained primarily for active recreation, open space, and similar purposes. The basis for determining its applicability is documented and provided along with the appropriate COA determination or document.

13.3.2.2.4 Submission of Programmatic Section 4(f) Evaluations

Three copies of the programmatic ***Section 4(f)*** evaluation are sent to the FHWA Division Office. FDOT is utilizing electronic media for the submittal to FHWA. The FHWA will either concur with the evaluation or return comments to the District and to the SEMO. The District makes appropriate revisions and returns three revised copies to FHWA. Upon concurrence, FHWA will return one signed copy to the District to be maintained in the project file and one signed copy to the official with jurisdiction. At its discretion, FHWA may return two signed copies to the District for the District to provide the copy to the official with jurisdiction (see ***Figure 13-5*** for an example transmittal letter for a programmatic ***Section 4(f)*** evaluation to FHWA).

The approval processes for the programmatic evaluations can vary, so the appropriate approval process must be followed before the project can incorporate land from the protected properties. See FDOT's ***Section 4(f) References web page*** for the specific programmatic evaluation being developed.

13.3.2.2.5 Documentation of Programmatic Section 4(f) Evaluations in Project Files

When completing a programmatic ***Section 4(f)*** evaluation, the following information must be included in the project file. Much of this material will be contained in the programmatic evaluation. If any of this material is in separate correspondences or as part of the ***NEPA*** document, these should be referenced and cited appropriately.

1. Applicability or non-applicability of ***Section 4(f)*** to the park, recreation, refuge or historic property proposed to be used by the project;

2. Whether or not there is a use of ***Section 4(f)*** property (including a description of the use);

3. Records of public involvement, if any;

4. Results of coordination with the official(s) with jurisdiction; and

5. Documentation of the specific requirements of the programmatic evaluation that is being applied.

13.3.2.3 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 results in a greater than *de minimis* impact and a programmatic ***Section 4(f)*** evaluation does not apply to the situation (***23 CFR § 774.3***). The individual ***Section 4(f)*** evaluation documents the analyses of the proposed use of ***Section 4(f)*** properties for all alternatives within a project area. The individual ***Section 4(f)*** evaluation must result in the following two findings:

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 to minimize harm to the ***Section 4(f)*** property resulting from the transportation use (see ***23 CFR § 774.3(a))***.

Individual ***Section 4(f)*** evaluations must include sufficient analysis and supporting documentation to demonstrate that there is no feasible and prudent avoidance alternative and must summarize the results of all possible planning to minimize harm. When there is no feasible and prudent avoidance alternative and there are two or more alternatives that use lands protected by ***Section 4(f)***, a least overall harm analysis must be included in the individual ***Section 4(f)*** evaluation (***23 CFR § 774.7(c))***.

Individual ***Section 4(f)*** evaluations are processed in two stages: draft and final. Draft evaluations are circulated to U.S. DOI and to the official(s) with jurisdiction over the protected property for review and comment. The public may review and comment on a draft evaluation during the ***NEPA*** process in conjunction with FDOT's public involvement process. When a project is processed as a Type 2 CE, the ***Section 4(f)*** individual evaluation must be circulated independently to U.S. DOI and the officials with jurisdiction over the protected property. In all cases, draft ***Section 4(f)*** evaluations are subject to FHWA legal sufficiency review prior to approval (***23 CFR § 774.7(d)***).

A ***Section 4(f)*** individual evaluation must be prepared and circulated for each location within a proposed project that involves the use of land from a protected property before the use of ***Section 4(f)*** land can be approved. For projects processed with an EIS or an EA with FONSI, the individual ***Section 4(f)*** evaluation is included as a separate section of the document; and for projects processed as Type 2 CEs, the ***Section 4(f)*** individual evaluation is prepared and circulated as a separate document. When included as part of an EIS or an EA with FONSI, the ***Section 4(f)*** evaluation summarizes pertinent information from various sections of the EIS or EA with FONSI in order to reduce repetition. However, when summarizing this information, the evaluation and application of the material in the ***Section 4(f)*** evaluation must meet the stricter requirements of ***Section 4(f)*** rather than the "hard look" determination that may have been used in the other sections of the EA with FONSI or EIS.

The evaluation of alternatives to avoid the use of ***Section 4(f)*** land and of possible measures to minimize harm to such lands is developed by FDOT in cooperation with FHWA. The draft ***Section 4(f)*** evaluation is provided for coordination and comment to the official(s) with jurisdiction over the ***Section 4(f)*** property and to U.S. DOI and, as

appropriate, to USDA and HUD. A minimum of 45 days has been established by FHWA for comments.

The ***Section 4(f)*** individual evaluation must address locational alternatives and design modifications that avoid the ***Section 4(f)*** property. When considering alignment shifts and design changes, it is important to keep in mind the range of allowable configurations and design parameters for roadway elements and different types of roadway typical sections These guidelines are contained within FDOT's ***Plans Preparation Manual, Topic No. 625-000-007*** (***FDOT, 2014***) and/or the ***Green Book***, also titled ***A Policy on the Geometric Design of Highway and Streets***, published by the American Association of State Highway and Transportation Officials (AASHTO) (6th edition, 2011). Supporting information must demonstrate that the alternatives to using property protected under ***Section 4(f)*** result in unique problems. Unique problems are present when there are truly unusual factors or when the costs or community disruption reach extraordinary magnitude.

13.3.2.3.1 Section 4(f) Analysis

The intent of the ***Section 4(f)*** laws is to avoid and, where avoidance is not feasible and prudent, to minimize the use of significant public parks, recreation areas, wildlife and waterfowl refuges, and historic sites by federally assisted transportation projects. An Individual ***Section 4(f)*** requires the development on an avoidance alternative which is an alternative that does not require the use of any ***Section 4(f)*** property, including the no build alternative. Feasible and prudent avoidance alternatives are those that avoid using any ***Section 4(f)*** property and do not cause other severe problems of a magnitude that substantially outweigh the importance of protecting the ***Section 4(f)*** property (***23 CFR § 774.17***).

13.3.2.3.1.1 Developing Avoidance Alternatives

In order to meet the substantive requirement of ***Section 4(f)***, FDOT and FHWA must apply a flexible approach to meeting the transportation purposes of the proposed project without using any ***Section 4(f)*** protected properties. This requires the development of a reasonable range of project alternatives and design options that avoid using ***Section 4(f)*** protected properties (including the no build as an avoidance alternative). The earlier screenings of alternatives such as those occurring during planning, the Alternative Corridor Evaluation (ACE) process, or in overall project development, represent a part of this effort. However, additional alternatives may be needed if the planning studies and the early or pre-***NEPA*** processes did not identify ***Section 4(f)*** properties or take into account the more stringent requirements of ***Section 4(f)***. If alternatives avoiding ***Section 4(f)*** resources were eliminated during the earlier phases of project development for reasons unrelated to ***Section 4(f)***, such as other impacts or to meet the desired project purpose and need, they may need to be reconsidered using the substantive standards set forth in ***Section 4(f)*** law. For this same reason, it is often necessary to develop and analyze new alternatives and/or new variations of alternatives rejected in the earlier analyses. In identifying other avoidance alternatives, FDOT should consider all reasonable alternatives that address the purpose and need of the project, keeping in mind the substantive requirements of ***Section 4(f)***. Potential alternatives to avoid the use of

Section 4(f) property may include one or more of the following, depending on project context:

1. **Location Alternatives**: A location alternative refers to the re-routing of the entire project along a different alignment.

2. **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.

3. **Alignment Shifts**: An alignment shift is the re-routing of a portion of the project to a different alignment to avoid a specific resource.

4. **Design Changes**: A design change is a modification of the proposed design in a manner that would avoid impacts (or the acquisition of land from protected properties), such as reducing the planned median width, building a retaining wall, or incorporating design exceptions.

For the purposes of this analysis, *de minimis* uses of ***Section 4(f)*** property are not considered avoidance alternatives.

13.3.2.3.1.2 The Feasible and Prudent Standard

Once potential avoidance alternative(s) have been identified, each potential avoidance option is evaluated to determine if avoiding the ***Section 4(f)*** property is feasible and prudent. When making determinations of feasibility and prudence, do not de-emphasize the importance of protecting the ***Section 4(f)*** property. However, it is appropriate to consider the relative value of the resource when determining the importance of protecting the property in light of the preservation purpose of the statute.

The regulations state that a potential avoidance alternative is not feasible if it cannot be built as a matter of sound engineering judgment (***23 CFR § 774.17***). When an alternative is determined to be not feasible, the particular engineering challenge present in that alternative is documented in the project files, along with a reasonable and understandable explanation.

The feasible and prudent avoidance alternative definition also sets standards for determining if a potential avoidance alternative is prudent. An alternative is not prudent if one of the following six factors apply:

1. It compromises the project to a degree that it is unreasonable to proceed in light of the project's stated purpose and need (i.e., the alternative does not address the purpose and need of the project);

2. It results in unacceptable safety or operational problems;

3. After reasonable mitigation, it still causes:

a. severe social, economic, or environmental impacts;

b. severe disruption to established communities;

c. severe or disproportionate impacts to minority or low-income populations; or,

d. severe impacts to environmental resources protected under other statutes;

4. It results in additional construction, maintenance, or operational costs of extraordinary magnitude;

5. It causes other unique problems or unusual factors; or,

6. It involves multiple factors as outlined above that, while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

As with many other environmental laws, ***Section 4(f)*** requires balancing efforts to ensure due consideration is given to various options and alternatives while meeting the preservationist intent of the statute. For example, when developing mitigation measures for different alternatives that use ***Section 4(f)*** protected properties, it is required to ensure that the mitigation measures are comparable in order not to arbitrarily skew the analysis in favor or one alternative over another. Likewise, when applying variances or exceptions to standard project design criteria in order to avoid using a ***Section 4(f)*** property, it is not acceptable to apply variances or exceptions inconsistently, such as adopting a narrower roadway width in one location to avoid ROW costs while rejecting a narrower roadway width to avoid a public park.

The supporting information provided in the evaluation must demonstrate that there are unique problems or unusual factors involved in the use of alternatives that avoid these properties or that the cost, social, economic, and environmental impacts or community disruption resulting from such alternatives reach extraordinary magnitudes.

13.3.2.3.1.3 The Least Overall Harm Analysis

If the alternatives review identifies no feasible and prudent avoidance alternative to the use of land from a protected property and there are two (2) or more alternatives that involve the use of ***Section 4(f)*** property, then FHWA must seek the alternative with the least overall harm. FHWA bases this least overall harm determination on the preservation purpose and intent of ***49 U.S.C. § 303*** and ***23 U.S.C. § 138***, the statutes that establish ***Section 4(f)***. The implementing regulations at ***23 CFR § 774.3(c)(1)*** identify seven (7) factors that FHWA uses to determine the alternative with the least overall harm. These considerations are divided into two groups, the first four (4) relate to the net harm each alternative would have on the protected property, and the last three (3) are used to identify any substantial problems associated with the remaining alternatives on issues beyond ***Section 4(f)***. This least overall harm analysis is required whenever there are two or more alternatives under consideration that use ***Section 4(f)*** property. The seven factors FHWA must weigh are as follows:

1. The ability to mitigate adverse impacts on each ***Section 4(f)*** property (including any that result in benefits to the property);

2. The relative severity of the remaining harm, after mitigation, to the protected activities, features, or attributes that qualify each ***Section 4(f)*** property for protection;

3. The relative significance of each ***Section 4(f)*** property;

4. The views of the officials with jurisdiction 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.

By balancing these seven (7) factors, FDOT and FHWA analyze all the concerns relevant to determining which alternative would cause the least overall harm in light of the statute's preservation purpose. It may be possible that FDOT and FHWA would determine that a serious problem identified in items five (5) through seven (7) outweighs a relatively minor net harm to a ***Section 4(f)*** property. The least overall harm determination also provides a way to compare and select between alternatives that would use different types of ***Section 4(f)*** properties when competing assessments of significance and harm are provided by the officials with jurisdiction over each property. In evaluating the degree of harm to ***Section 4(f)*** properties, FHWA is also required by the regulations to consider views expressed by the official(s) with jurisdiction.

The evaluation explains how the seven factors were compared to determine the least overall harm alternative. The draft evaluation identifies the various impacts to the different ***Section 4(f)*** properties and describes the relative differences of the alternatives in regard to non-***Section 4(f)*** issues, such as the extent to which each alternative meets the project purpose and need. The details concerning these impacts should include both objective, quantifiable impacts and the qualitative, more subjective assessments. As appropriate, a preliminary assessment of how the alternatives compare to one another may also be included. When this is done, evaluation matrices or tables provide a good visual representation to document the comparison of the alternatives to each other based on the seven factors discussed in this section. Further, the use of project aerials and other exhibits helps to outline differences in the various alternatives.

13.3.2.3.1.4 The All Possible Planning to Minimize Harm Requirement

If the alternative selected uses land from a ***Section 4(f)*** property, the statute and the regulations require that this alternative incorporate all possible planning to minimize harm. “All possible planning,” as defined in ***23 CFR § 774.17***, means that 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 and that these measures are

determined through consultation with the official of the agency owning or administering the land or, for historic properties, through the ***Section 106*** consultation process.

Minimization of harm may entail alternative design modifications that reduce the amount of ***Section 4(f)*** property used or features impacted, as well as other mitigation measures that compensate for the remaining impacts. Mitigation measures involving public parks, recreation areas, or wildlife or waterfowl refuges may involve replacement of land and/or facilities of comparable value and function, or monetary compensation to enhance the remaining land. Even though the statute does not require the replacement of ***Section 4(f)*** property for transportation projects, it might be the most straightforward means for minimizing harm to these resources. Mitigation for historic sites usually consists of those measures necessary to preserve or protect the historic integrity of the site that have been agreed upon by FHWA, SHPO/THPO, and other consulting parties.

13.3.2.3.2 Format, Contents, and Processing for Draft Section 4(f) Evaluations

The ***Draft Section 4(f) Evaluation*** provides the preliminary analyses and comparisons of project alternatives that avoid ***Section 4(f)*** property and, as appropriate, the alternatives using ***Section 4(f)*** property for a least overall harm analysis. The draft evaluation incorporates potential impacts to ***Section 4(f)*** resources along with other sensitive environmental, economic, and social impacts associated with these alternatives. In addition, it must include preliminary identifications of avoidance, minimization, and mitigation opportunities related to each of the ***Section 4(f)*** uses and the general environmental, social, and economic impacts on resources not protected by ***Section 4(f)***. This information is used to address the “all possible planning to minimize harm” requirement, and for projects with two or more alternatives using ***Section 4(f)*** property, the information helps inform the required least overall harm analysis. As appropriate, this document should reference relevant information in the project's ***NEPA*** document or provide a description of the project, purpose and need, coordination with the officials with jurisdiction, and mitigation. The draft evaluation does not identify the final selected alternative nor does it make the final feasible and prudent determinations; these discussions are reserved for the ***Final Section 4(f) Evaluation***. FHWA's procedures regarding the preparation and circulation of ***Section 4(f)*** documents are contained in ***23 CFR § 774.5*** and ***FHWA's Technical Advisory 6640.8a, Guidance for Preparing and Processing of Environmental*** and ***Section 4(f) Documents*** (October 1987).

Because the organizational structure of individual ***Section 4(f)*** evaluations may vary depending on such things as COA for the project, the number of protected properties, the number of alternatives using ***Section 4(f)*** property, it is more important to focus on the content and record of this evaluation than on the order of its presentation. However, the order or presentation must flow logically through the ***Section 4(f)*** process. The table of contents provided below presents a basic guide for preparing ***Draft Section 4(f) Evaluations*** rather than a required format. However, when varying from the outlined contents set forth below, the preparer must be aware of the reasons they are diverging from the guide.

When processing an individual evaluation with an EA with FONSI or an EIS, the ***Section 4(f)*** information should be included in the Environmental Document. Therefore, rather than repeating all the pertinent information from locations in the Environmental Document, this material should be referenced, summarized, and placed in the context and narrative of the ***Section 4(f)*** evaluation. For the purposes of ***Section 4(f)***, ensure that the discussion of alternatives, alignments, and associated project activities are evaluated according to the standards required for ***Section 4(f)*** rather than the less rigorous standard set forth in ***NEPA*** or many other environmental laws. When developing avoidance alternatives, be aware that alternatives dismissed earlier in planning or in project development, may need to be brought back and weighed under the stricter standards of ***Section 4(f)***. In addition, include analysis reflecting that all reasonable measures to minimize harm to the ***Section 4(f)*** protected property are addressed directly in the narrative of the ***Section 4(f)*** evaluation. The information provided in a ***Draft Section 4(f) Evaluation*** document is generally organized in the following manner:

1. Introduction

The introduction includes a brief description and overview of the ***Section 4(f)*** requirements with reference to the laws and the regulations. This section introduces the project name and the names of the protected sites and their locations. For a draft evaluation submitted as part of an EA or EIS, the introduction will be concerned primarily with the overview and description of the law and the purpose of the draft evaluation, since the names of the protected properties, as well as their locations, along with basic project information, will have been discussed in the Environmental Document.

2. Description of Proposed Action

For a separate ***Section 4(f)*** evaluation (those not submitted as part of an EA or EIS), describe the proposed project alternatives and explain the purpose and need for the project. For an evaluation submitted with an EIS or EA, briefly summarize and reference the section of the ***NEPA*** document that contains additional detail about the project area and proposed alternatives. Regardless of whether the evaluation is a separate document or not, differentiate between the avoidance alternatives and the alternatives that use ***Section 4(f)*** protected properties.

3. Description of Section 4(f) Properties

This portion of the ***Draft Section 4(f) Evaluation*** should describe each ***Section 4(f)*** property that would be subject to a use by any alternative under consideration. Be sure to include reference to the letter or communication that provides the determination of ***Section 4(f)*** applicability. For projects where ***Section 4(f)*** applicability was recorded as a note to the file or any of the less formal methods, include the information that supported the applicability decision and cite the appropriate document in the draft evaluation. The information in this section is essentially the same as the information described for the submission of a DOA (see ***Section 13.3.1.4***), and should include, as applicable:

a. Type of ***Section 4(f)*** property: Publicly owned park, recreation area, wildlife or waterfowl refuge, or historic site.

b. Ownership of the property: For parks, recreation areas, and wildlife and waterfowl refuges, indicate the public entity that owns and/or is responsible for the management and operation of the facility (city, county, state, federal). For historic sites, indicate whether the site is public or private, the type of site it is, and the status of the property's eligibility for the NRHP, as well as the criteria under which it is eligible or listed.

c. Existing clauses affecting the ownership, such as leases, easements, covenants, restrictions, or conditions, including forfeiture.

d. Primary function of the property and, where applicable, available recreational activities, including when the facility is open, to whom it is open, and whether any fees are required.

e. Location (e.g., maps, photographs, sketches) and size (indicating the boundaries and acres and/or square feet) of the affected ***Section 4(f)*** property.

f. Detailed maps, aerial photographs, or drawings of sufficient scale to identify the relationship of the project alignment, corridor, or locational alternatives to the ***Section 4(f)*** property and its functional or character-defining features or facilities, as well as its surroundings.

g. Description and locations of all existing and planned facilities (such as ball diamonds or tennis courts).

h. Access, both the locations of access points (entrance ways, parking areas, trails into, and so on) as well as types of access (such as bicycle, pedestrian, vehicular, etc.) and the usage (e.g., approximate number of users/visitors) and hours of use.

i. Relationship to other similarly used lands in the vicinity and potential effects that a change in the ***Section 4(f)*** property may have on these other lands.

j. Characteristics of the ***Section 4(f)*** property (flooding issues, terrain conditions, or other features) that either reduce or enhance the value of all or part of the property.

4. Description of Use and Impacts on the Section 4(f) Property

This section of the ***Draft Section 4(f) Evaluation*** should discuss each alternative's impact on each ***Section 4(f)*** property (that is, the amount of land to be used, facilities and functions affected, noise, visual effects, access alterations, and so forth). If an alternative requires additional temporary impacts during construction, discuss those as well. If one or more alternatives use land from one or more ***Section 4(f)*** properties, it is usually helpful to develop a summary table that

compares the various impacts. Always include maps or drawings to illustrate the various project alternatives and their relationships to the protected property and the activities, features, and attributes that qualify the property for protection under ***Section 4(f)***.

Quantify measurable impacts such as noise and affected functions whenever possible. Impacts that cannot be quantified, such as visual intrusions, should be described and explained in relation to the purposes, features, and functions of the ***Section 4(f)*** property.

5. Avoidance Alternatives

A ***Draft Section 4(f) Evaluation*** must demonstrate that avoidance alternatives to the project under consideration have been evaluated. Specifically, the evaluation must include a discussion that will ultimately serve as a basis for a determination as to whether or not an avoidance alternative is feasible and prudent in the final evaluation.

A final determination that no feasible and prudent avoidance alternatives exist is not made until after the ***Draft Section 4(f) Evaluation*** has been circulated to the appropriate agencies and all issues have been suitably evaluated. An alternative that was considered for the proposed action when entering the evaluation process may not prove to be the best alternative for meeting all the goals of the project as the evaluation proceeds. The final determination will be made in the ***Final Section 4(f) Evaluation***, ROD, or FONSI.

This discussion of feasible and prudent avoidance must comply with the regulatory criteria located in the definition of "feasible and prudent avoidance alternative" in ***23 CFR § 774.17***. These criteria specify that an alternative is not feasible if it cannot be built as a matter of sound engineering judgment, and that an alternative is not prudent if, on balance, it meets the six factors listed in ***Section 13.3.2.3.1.2***.

If it appears that the final evaluation may conclude that there is no avoidance alternative that is feasible and prudent, then the draft evaluation should also provide a preliminary least overall harm analysis when more than one of the remaining alternatives under consideration uses ***Section 4(f)*** property. This is done by comparing and contrasting the alternatives under consideration in terms of the seven factors specified in ***23 CFR § 774.3(c)*** and in ***Section 13.3.2.3.1.3***. FHWA can only approve the alternative that is found to cause the least overall harm after consideration of these factors. The information used to analyze least overall harm may be provided in the draft evaluation, but the decision on which alternative results in least overall harm is not included in the draft evaluation. Because that decision cannot be made until the public and other agencies have had the opportunity to comment, that alternative is identified and documented in the ***Final Section 4(f) Evaluation***. FHWA and FDOT may only identify the preferred alternative in the ***Final Section 4(f) Evaluation***.

6. Minimization and Mitigation of Harm

The draft evaluation addresses all possible measures to minimize harm for every alternative using ***Section 4(f)*** lands and for each impact to a ***Section 4(f)*** property. For example, if multiple public parks are affected, a separate discussion of each park, detailing how impacts will be minimized for each alternative using land from that park, is needed. For parks, recreation areas, and wildlife and waterfowl refuges, measures to minimize harm may include such things as design modifications or design goals, replacement of land or facilities of comparable value and function, monetary compensation to enhance the remaining property or to mitigate the adverse impacts of the project in other ways, etc.

For historic sites, measures to minimize harm normally serve to preserve the activities, features, or attributes associated with the historical value of the site as agreed to within the ***Section 106*** consultation process.

All mitigation measures require appropriate documentation and coordination between FHWA, FDOT, the project sponsor, and the official(s) with jurisdiction. In the case of historic properties, these include SHPO or, on tribal lands of tribes with a THPO, that particular THPO. In certain situations, there may be other appropriate parties involved in the coordination. For example, involvement with a National Historic Landmark (NHL) requires coordination with the National Park Service (NPS) and ACHP (for more detail on consultation related to historic properties, see ***Part 2, Chapter 12, Archaeological and Historical Resources***). For coordination on park, recreation, or refuge lands under U.S. DOI jurisdiction, the officials with jurisdiction would include a representative of the relevant federal agency.

7. Coordination

The Coordination section in the ***Draft Section 4(f) Evaluation*** should discuss the results of coordination with the following parties:

a. Official(s) with jurisdiction over the ***Section 4(f)*** property

b. Regional (or local) offices of the U.S. DOI

c. Regional Office of HUD's Department and the Forest Supervisor of the affected national forest (as appropriate)

Generally, the coordination would have included a discussion of avoidance alternatives, impacts and minimization of impacts to the property, and mitigation measures. In addition, coordination with the public official(s) with jurisdiction should include, where necessary, a discussion of significance and primary function(s) of the property. The coordination section of the evaluation should reflect outcomes of these efforts, as well as the associated correspondences and associated agreements.

8. Concluding Statement

The following standard statement is used for a conclusion in the ***Draft Section 4(f) Evaluation***:

> *"Upon final alternative selection the provisions of Section 4(f) and 36 CFR Part 800 (if appropriate) will be fully satisfied."*

13.3.2.3.3 Submission of Draft Individual Section 4(f) Evaluation

Six copies of the ***Draft Section 4(f) Individual Evaluation*** are forwarded to FHWA Division Office for review and approval (see ***Figure 13-6*** for the sample transmittal letter for a ***Draft Section 4(f) Evaluation***). FHWA Division Office will submit the ***Draft Section 4(f) Evaluation*** to the program area specialist and their legal office at FHWA Resource Center for substantive and legal sufficiency reviews. FHWA requires a legal sufficiency review of all individual ***Section 4(f)*** evaluations. Once FHWA has approved the ***Draft Section 4(f) Evaluation*** for circulation, it must go to the official with jurisdiction and any other appropriate parties for review and comment, including U.S. DOI. FHWA and FDOT are utilizing electronic media for its submission of the document if the recipients will accept it electronically.

Except when a particular agency of U.S DOI has a specific review action to take (such as the NPS does for a land conversion approval under ***Section 6(f)*** of the ***Land and Water Conservation Fund Act*** (***LWCFA***), all copies of the ***Draft Section 4(f) Evaluation*** required for U.S. DOI review should be sent to the Director of the Office of Environmental Policy and Compliance (OEPC) at the following address:

Director, Office of Environmental Policy and Compliance
U.S. Department of the Interior
1849 C Street, NW (MS2462)
Washington, DC 20240

To help ensure a more timely response from the U.S. DOI, provide an email address for the submission of comments. Furthermore, U.S. DOI accepts digital media on any of the common electronic data storage media such as email, CDs or DVDs. In addition, provide the URL for review documents placed on the Internet. When the documents are submitted in hard copies to U.S. DOI Headquarters, twelve copies of the ***Draft Section 4(f) Evaluation*** are required for coordination.

In addition to coordination with U.S. DOI, ***Draft Section 4(f) Individual Evaluations*** must be coordinated with the official(s) having jurisdiction over the ***Section 4(f)*** property, and with HUD and USDA where these agencies have an interest in or jurisdiction over the affected ***Section 4(f)*** resource (***23 CFR Part 774***). The point of coordination for HUD is the appropriate Regional Office, and for USDA, it is the Forest Supervisor of the affected National Forest. One copy should be provided to the official(s) with jurisdiction and two copies should be submitted to HUD and USDA when coordination is required.

While the regulation does not always stipulate that these issues be resolved successfully, if any of these agencies raise issues during coordination, the District should follow-up with

those agencies. The regulation requires follow-up coordination. While the regulation does require reasonable efforts and good-faith attention by decision makers.

13.3.2.3.4 Format, Contents, and Processing for Final Section 4(f) Individual Evaluations

The purpose of the ***Final Individual Section 4(f) Evaluation*** is to: (1) document the basis for why there is no feasible or prudent alternative that completely avoids all ***Section 4(f)*** properties, (2) substantiate and record the finding that among the alternatives which use ***Section 4(f)*** property, the preferred alternative results in the least overall harm in accordance with ***23 CFR § 774.7(c)***, (3) show the inclusion of all possible planning to minimize harm to the ***Section 4(f)*** property resulting from the transportation use, and (4) record and consider the continuing coordination and comments from the agencies such as the official with jurisdiction, U.S. DOI, USDA, and HUD, following the circulation of the ***Draft Section 4(f) Evaluation*** (see ***23 CFR § 774.5***).

Therefore, when the preferred alternative uses ***Section 4(f)*** land, the ***Final Section 4(f) Evaluation*** must contain the following items, as outlined in ***23 CFR § 774.3***:

1. All of the information from the ***Draft Section 4(f) Evaluation***.

2. A discussion of the basis for demonstrating why there is no feasible and prudent alternative to the use of the ***Section 4(f)*** land. The supporting information must demonstrate that after reasonable mitigation the avoidance alternative(s) still causes other severe problems of a magnitude that substantially outweighs the importance of protecting the ***Section 4(f)*** property. 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. When there is no feasible and prudent alternative that avoids the use of ***Section 4(f)*** land, the ***Final Section 4(f) Evaluation*** must demonstrate that the preferred alternative is the one that causes the least overall harm in accordance with ***23 CFR § 774.3(c)*** (see also, ***23 CFR § 774.7(c))***.

4. A summary of the appropriate formal coordination with the Headquarters Office of U.S. DOI (and/or appropriate agency under that Department) and, as appropriate, the offices of USDA and HUD.

5. Copies of all formal coordination comments and a summary of other relevant ***Section 4(f)*** comments received, including those of the agency official having jurisdiction over the resource, and an analysis and response to any questions raised. Where new alternatives or modifications to existing alternatives are identified and will not be given further consideration, the basis for dismissing these alternatives should be provided and supported by factual information. Where ***Section 6(f)*** land is involved, NPS's position on the land transfer should be documented.

6. The following standard statement is used for a conclusion:

> *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] and the least overall harm in light of the statute's preservation purpose resulting from such use.*

13.3.2.3.5 Submission of Final Section 4(f) Evaluation

After completion of the circulation period and the public hearing, six copies of the ***Final Section 4(f) Evaluation*** are submitted to the FHWA Division Office and one copy is forwarded to the SEMO unless FDOT/FHWA is utilizing electronic media for its submission to the U.S. DOI as outlined in the U.S. DOI's ***Environmental Review Memorandum No. ERM 13-2 (U.S. DOI, 2013)*** (see ***Figure 13-7*** for a sample transmittal letter for ***Final Section 4(f) Evaluation***). If the ***Section 4(f)*** evaluation is processed separately or as part of an EA with FONSI or an FEIS, the U.S. DOI should receive six copies of the ***Final Section 4(f) Evaluation*** for information. In addition to coordination with U.S. DOI, ***Final Section 4(f) Evaluations*** must be coordinated with the officials having jurisdiction over the ***Section 4(f)*** property, as well as the HUD and the USDA where these agencies have an interest in or jurisdiction over the affected ***Section 4(f)*** resource (***23 CFR § 774.5(a)***). The point of contact for HUD is the appropriate Regional Office and for USDA, the Forest Supervisor of the affected National Forest. One copy should be provided to the officials with jurisdiction and two copies should be submitted to HUD and USDA when coordination is required. The FHWA Division will forward the ***Final Section 4(f) Evaluation*** to the Regional Office for legal sufficiency review and approval.

For actions processed with an EIS, the FHWA will make the ***Section 4(f)*** approval either in its approval of the FEIS or in the ROD. Where the ***Section 4(f)*** approval is documented in FEIS, FHWA will summarize the basis for its ***Section 4(f)*** approval in the ROD. Actions requiring the use of ***Section 4(f)*** property, and proposed to be processed with a FONSI or classified as a Type 2 CE, cannot proceed until notified of ***Section 4(f)*** approval by FHWA. For projects processed as a FONSI, the FONSI will include a summary of the basis for its ***Section 4(f)*** approval. For projects classified as a Type 2 CE, the required approval for a ***Section 4(f)*** evaluation is documented separately. After the approval, FHWA Division Office will return one (1) signed copy to the District and one (1) signed copy to SEMO. The District will then distribute copies to the agencies that received the ***Draft Section 4(f) Evaluation*** for their review. After thirty (30) days, FHWA may grant LDCA.

13.3.2.3.6 Project File Documentation

For individual ***Section 4(f)*** evaluations, the following information must be included in the District project file either as part of the ***Section 4(f)*** evaluation or as part of the PD&E Study:

1. Applicability or non-applicability of ***Section 4(f)*** to the park, recreation, refuge or historic property proposed to be used by the project;

2. Whether or not there is a use of ***Section 4(f)*** property;
3. Activities, features, and attributes of the ***Section 4(f)*** property;
4. Analysis of the impacts to the ***Section 4(f)*** property;
5. Records of public involvement;
6. Results of coordination with the officials with jurisdiction;
7. Alternatives considered to avoid using the ***Section 4(f)*** property, including analysis of the impacts caused by avoiding the ***Section 4(f)*** property;
8. A least overall harm analysis, if appropriate;
9. All measures undertaken to minimize harm to the ***Section 4(f)*** property; and
10. Comments submitted during the coordination procedures required by ***23 CFR § 774.5*** and responses to the comments.

13.3.3 Legal Sufficiency

Legal sufficiency review is required for all individual ***Section 4(f)*** evaluations. The importance of developing legally sufficient ***Section 4(f)*** evaluations cannot be underestimated given its litigation history and potential to impact projects through issuance of injunctions. As such it is critical to develop a well-documented record to support findings of no feasible and prudent alternative, and when appropriate, the alternative having the least overall harm, and to demonstrate all possible planning to minimize harm.

FHWA policies developed as a result of court rulings require that all ***Section 4(f)*** evaluations receive legal review and concurrence by the FHWA's Chief Counsel Office.

13.3.4 Section 4(f) Following PD&E

13.3.4.1 Commitment Compliance

Project commitments, including the alternatives and design set forth in the approved Environmental Document, are carried forward into the design, ROW, and construction phases of project delivery. Any changes to overall project design or to the design in the proximity of sites protected by ***Section 4(f)*** and to locations of proposed construction-related activities must be reevaluated in accordance with ***23 CFR Part 774*** and ***Part 1, Chapter 13, Reevaluations***. The commitments and required coordination are updated per ***Part 2, Chapter 32, Commitments***, and documented in the Commitment Status section of the ***Reevaluation Form***.

Commitments developed under ***Section 4(f)*** and for all other associated federal and state laws governing the treatment or consideration of these properties must be recorded in the Environmental Document and on the ***Project Commitment Record, Form No. 700-011-***

35. The commitments are transmitted to the Design and Construction Offices to be included in the contract documents. If the commitment also occurs in the permit conditions, it will need to be addressed through that process as well. Tracking project commitments must follow ***Procedure No. 700-011-035, Project Commitment Tracking*.**

If either Design or Construction cannot meet a commitment, they must inform the District Environmental Office as soon as they are aware so that the District Environmental Office can inform the appropriate consulting parties and re-initiate the consultation. As a result, District staffs involved in all phases of project delivery must review the commitments made to avoid, minimize, and mitigate effects to ***Section 4(f)*** protected properties. This requires an understanding of the preliminary design decisions in the vicinity of properties protected by ***Section 4(f)***, as well as the commitments specific to particular activities or treatments for each of these properties considered or used by the proposed project prior to the submission of final ROW plans. A field visit with FHWA and the agency official(s) having jurisdiction over ***Section 4(f)*** protected properties, and/or other parties as appropriate, to confirm areas or impacts that must be avoided during construction, is required prior to finalizing the contract design plans if such identification is called for in the project commitments.

13.3.4.2 Reevaluations

Subsequent reevaluations must include, in their Commitment Status Sections, discussions on the implementation of commitments made in compliance with ***Section 4(f)*** of the ***U.S. Department of Transportation Act of 1966, as amended***. If there are changes to the applicability of ***Section 4(f)***, or the relationships of the proposed action to properties protected under ***Section 4(f)***, or to the commitments made to the official(s) with jurisdiction in compliance with ***Section 4(f)***, these will need to be addressed during those subsequent phases of the project development process.

The circulation of a separate ***Section 4(f)*** approval following PD&E is required when:

1. A proposed modification of the alignment or design would require the use of a ***Section 4(f)*** property after CE, FONSI, or ROD has been processed; or

2. The FHWA determines, after processing the CE, FONSI, or ROD that ***Section 4(f)*** applies to a property; or

3. A proposed modification of the alignment, design, or measure(s) to minimize harm (after the original ***Section 4(f)*** approval) would result in a substantial increase in the amount of ***Section 4(f)*** land used, a substantial increase in the adverse impacts to ***Section 4(f)*** land, or a substantial reduction in mitigation measures.

When FHWA determines that ***Section 4(f)*** is applicable after the CE, FONSI, or FEIS has been processed, the decision to prepare and circulate a ***Section 4(f)*** does not automatically mean that a new or supplemental Environmental Document must be prepared.

If a new or supplemental ***NEPA*** document is required (see ***23 CFR §130***), then it should include the documentation supporting the separate ***Section 4(f)*** approval. Where a

separate ***Section 4(f)*** approval is required, any activity not directly affected by the separate ***Section 4(f)*** approval can proceed during the analysis.

13.3.4.3 Late Designations and Late Discovery

There are times when the determinations of significance for, or designations of ***Section 4(f)*** properties occur late in project development. In these cases, FHWA must comply with the exemptions in ***23 CFR § 774.13(c)*** when determining if a ***Section 4(f)*** approval is necessary to use a late-designated property. Except for archaeological resources, including those discovered during construction (see below), a project may proceed without consideration under ***Section 4(f)*** if that land was purchased for transportation purposes prior to the designation or prior to a change in the determination of significance if an adequate effort was made to identify properties protected by ***Section 4(f)*** prior to the acquisition. The adequacy of effort made to identify properties protected by ***Section 4(f)*** should consider the requirements and standards that existed at the time of the search (See Question 26 of the ***Section 4(f) Policy Paper*** at the FDOT ***Section 4(f)*** References web page for more information).

In the case of archaeological sites discovered during construction (i.e., late discovery), construction activities in the area of the discovery must be halted and FHWA must determine if a Section approval is necessary or if an exception applies under ***23 CFR § 774.13(c)***. Where preservation in place is warranted and a ***Section 4(f)*** approval will be required, the ***Section 4(f)*** process will be expedited. In such cases, the evaluation of feasible and prudent alternatives will take into account the level of investment already made. The review process, including the consultation with other agencies should be shortened, as appropriate consistent with the process set forth in ***Section 106*** of the NHPA regulations and should include Indian tribes that may attach religious and cultural significance to sites discovered.

Discoveries may be addressed prior to construction in agreement documents that set forth procedures that plan for subsequent discoveries. When discoveries occur without prior planning, the ***Section 106*** regulation calls for reasonable efforts to avoid, minimize, or mitigate such sites and provides an expedited timeframe for interested parties to reach resolution regarding treatment of the site (see ***Part 2, Chapter 12, Historic and Archaeological Resources***). A decision to apply ***Section 4(f)***, based on the outcome of the ***Section 106*** process, to an archeological discovery during construction would trigger an expedited ***Section 4(f)*** evaluation. Because the U.S. DOI has a responsibility to review individual ***Section 4(f)*** evaluations and is not usually a party to the ***Section 106*** process, the U.S. DOI should be notified and any comments they provide considered within a shortened response period.

13.4 CONCURRENT REQUIREMENTS

There are often concurrent requirements of other federal agencies when ***Section 4(f)*** lands are involved with highway projects. Examples of such concurrent requirements include compatibility determinations for the use of lands in the National Wildlife Refuge System and the National Park System; consistency determinations for the use of public lands managed by the NPS Bureau of Land Management (BLM); determinations of direct

and adverse effects for Wild and Scenic Rivers under the jurisdiction of such agencies as the U.S. Fish and Wildlife Service (USFWS), NPS, BLM, and U.S. Forest Service (USFS); and approval of land conversions covered by the ***Federal-aid in Sport Fish Restoration Act*** and the ***Federal-Aid in Wildlife Restoration Act*** (the ***Dingell-Johnson Act*** and ***Pittman-Robertson Act***, respectively); the Recreational Demonstration Areas Program under ***Title II of the National Industrial Recovery Act (NIRA) of June 16, 1933***; the Federal Lands to Parks Program; the Historic Surplus Property Program; and ***Section 6(f)*** of the ***Land and Water Conservation Fund Act***. There also exists a host of similar such laws on the state and local levels where previous funding may have been tied to existing land function. Though these latter laws may not apply to FHWA, they may apply to FDOT or the state or local manager of the property being used.

13.4.1 Coordination of Concurrent Requirements with Section 4(f) Requirements

The avoidance, minimization, and mitigation plans developed for the project should include measures that would satisfy the requirements for these concurrent approvals and consultations as well as for ***Section 4(f)*** approval. When federal lands which are needed for highway projects are not subject to ***Section 4(f)***, there is still a need for close coordination with the federal agency that has approval authority over the conversion of land in order to develop a mitigation plan that would satisfy any other requirements for a land transfer. Any federal encumbrances or restrictions on land conversions must be met even when there is no USDOT funding or approval.

Regardless of a particular agency's role in ***Section 4(f)***, its role in the concurrent law must be included in the analysis and coordination required. In some instances concurrent requirements my involve agencies that may otherwise not be consulted directly under ***Section 4(f)***. For example, for programmatic evaluations, FHWA will not normally provide the ***Section 4(f)*** evaluation to U.S. DOI. However, if U.S. DOI must make a finding under a concurrent law, then the programmatic evaluation will be provided for their review. Timing approvals can be somewhat difficult for certain laws. Under ***Section 7*** of the ***Wild and Scenic Rivers Act***, for example, a greater level of design for the proposed project may be needed to reach a finding of no direct and adverse effects to the Outstanding River Values of the designated river than is needed to determine use under ***Section 4(f)***. For cases where there are concurrent requirements, the appropriate state or federal officials should be approached as early possible.

13.4.2 Compliance with Section 6(f) of the Land and Water Conservation Fund Act

State and local governments often obtain grants through the ***Land and Water Conservation Fund Act Land and Water Conservation Fund Act of 1965 (16 U.S.C. §§ 460l-5 through 460l-7 and 4601-11*)** to acquire or make improvements to parks and recreation 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. Furthermore, the statute directs the NPS 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)*** land are proposed for highway projects, replacement lands will be necessary. Importantly, ***Section 6(f)*** applies to all transportation projects involving such a conversion whether or not federal funding is being utilized for the project. Normally, any federally funded transportation project requiring the conversion of recreational or park land covered by ***Section 6(f)*** will also involve ***Section 4(f)***. The coordination and agreements entered into as part of completing FDOT's ***Section 6(f)*** responsibilities, therefore, should be reflected in the ***Section 4(f)*** evaluation or approval. Regardless of the mitigation proposed, the ***Section 4(f)*** evaluation or *de minimis* approval should document NPS's tentative position relative to the ***Section 6(f)*** conversion. The NPS oversees compliance with ***Section 6(f)*** through the regulations at ***36 CFR Part 59***. In addition, all ***Section 6(f)*** coordination must include the Florida Department of Environmental Protection (DEP), Land and Recreation Grants Section. This coordination, along with DEP's position regarding the ***Section 6(f)*** conversion, will be documented in the ***Section 4(f)*** evaluation.

13.4.2.1 Section 6(f) for Non-Federal-aid Transportation Improvements

For non-federal-aid projects requiring the preparation of a State Environmental Impact Report (SEIR), a ***Section 6(f) Land Replacement Plan***, as discussed below, is required if ***Land and Water Conservation Fund Act*** (LWCFA) funding was used in improving the public outdoor recreational resource. The District develops the plan in cooperation with the ***Section 6(f)*** property owner and coordinates the ***Section 6(f) Land Replacement Plan*** with the DEP for concurrence. In some cases, it may be advisable to obtain a binding agreement concerning the ***Section 6(f) Land Replacement Plan***. Once the DEP concurs with the plan, the District submits the plan directly to the National Park Service (NPS) of U.S. DOI for their concurrence. The District must work with NPS, DEP, and the ***Section 6(f)*** land owner to resolve any comments. Upon concurrence with the plan by the NPS, the District incorporates the plan into the SEIR. Be aware that ***Section 6(f)*** may also apply to projects considered as Non-major State Actions (NMSAs). For these types of projects, the ***Section 6(f)*** report will be processed as a separate document.

13.4.2.2 Section 6(f) for Federal-aid Transportation Improvements

As a part of the ***Section 4(f)*** evaluation, the District must determine ownership of the property and whether or not the ***Section 4(f)*** resource was purchased or some improvement made to the property using ***LWCFA*** funds. Once it has been determined that ***LWCFA*** funds were used to purchase or improve the property, then ***Section 6(f)*** of the Act applies.

The District, in cooperation with the local government landowner, must identify replacement land of equal value, location, and usefulness before a transfer of property under ***Section 6(f)*** can occur. Upon identification of such land(s), the District and the local government must develop a written plan as part of the ***Section 4(f)*** mitigation, which demonstrates that the ***Section 6(f)*** replacement land is acceptable to the local government entity. The plan must also include any special conditions, mutually agreed to by both parties to bring about equal value, location, and usefulness in the replacement land as required under ***Section 6(f)***.

Upon agreement with the plan by the District and the local government, the District submits the ***Section 6(f) Land Replacement Plan*** to DEP for concurrence. DEP may comment on the plan resolving any issues. Upon acceptance of the plan by DEP, a letter concurring in the ***Section 6(f) Land Replacement Plan*** will be sent by DEP to the District, with a copy to the local government. There may be times when the plan has to be approved by the NPS prior to DEP's acceptance of the plan. In those cases, the District coordinates the plan with both NPS and DEP. The District then discusses the ***Section 6(f)*** property and the plan, as mitigation, in the ***Section 4(f)*** evaluation. The plan and DEP concurrence letter should be incorporated into an Appendix of the ***Section 4(f)*** evaluation. Except in cases where NPS concurrence with the plan has been incorporated into the ***Section 4(f)*** evaluation or in a *de minimis* approval, the coordination with NPS will occur during the processing of the ***Draft and Final Section 4(f) Evaluations***.

For *de minimis* approvals, the local official and DEP, as appropriate, must concur in writing with the land replacement plan and the determination that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under ***Section 4(f)***. The *de minimis* approval by FHWA, along with the land replacement plan, should then be incorporated in the appropriate environmental decision-making document, or, as necessary, in a separate *de minimis* determination.

For programmatic ***Section 4(f)*** evaluations, the ***Section 6(f)*** issue is to be resolved prior to processing the programmatic ***Section 4(f)*** evaluation. In this case, the District works directly with NPS and FHWA to obtain concurrence in the ***Section 6(f) Land Replacement Plan***. The results of this coordination effort is documented in the appendix of the programmatic ***Section 4(f)*** evaluation and submitted to FHWA for approval. If NPS objects to the conversion or transfer of the land under ***Section 6(f)***, then an individual ***Section 4(f)*** evaluation must be prepared.

For individual ***Section 4(f)*** evaluations, the normal process is followed. The ***Draft Section 4(f) Evaluation*** is sent to U.S. DOI and NPS for review as part of the normal ***Section 4(f)*** process. At that time, NPS comments or concurs on the ***Section 6(f)*** issue as a normal part of the ***Section 4(f)*** process. The District resolves any ***Section 6(f)*** comments received on the ***Draft Section 4(f) Evaluation*** with NPS, DEP, and the local government, as required, and amends the ***Final Section 4(f) Evaluation*** accordingly. This may require modifying the ***Section 6(f) Land Replacement Plan***. Agreement among all parties is documented in the ***Final Section 4(f) Evaluation*** prior to FHWA approval. Copies of the approved ***Final Section 4(f) Evaluation*** are sent to U.S. DOI, NPS, DEP, and the local government entity for their use during ROW acquisition phase.

13.4.2.3 Section 6(f) Conversion

The conversion of the ***Section 6(f)*** land to transportation ROW and the acquisition of the replacement land occur during the ROW acquisition phase. Subsequent reevaluations must include, in their Mitigation Status and Commitment Compliance Sections, status discussions on the implementation of the ***Section 6(f) Land Replacement Plan***. Coordination with DEP and the NPS must occur to assure their cooperation in the land conversion transaction. Provide each agency with a copy of the ***Section 4(f)*** *de minimis*

approval, ***Section 4(f)*** evaluation, or the SEIR, all of which should incorporate the ***Section 6(f) Land Replacement Plan***.

DEP and NPS will not permit the conversion of ***Section 6(f)*** land to occur until the replacement property has been fully acquired and is available to serve the public outdoor recreational uses of the ***Section 6(f)*** property it is meant to replace. Therefore, the acquisition or conversion of the ***Section 6(f)*** land cannot take place until after the replacement land has been purchased and integrated into the recreational facility involved. Be aware that because the functional replacement must occur prior to the conversion of the ***Section 6(f)*** property, it is imperative to contact FDOT's ROW and Work Program offices and inform them of the requirements of ***Section 6(f)*** once it is known that ***Section 6(f)*** land is required for the project. This sequence may require an advance acquisition of the replacement land prior to opening the project's ROW phase or it may require a use of state funds for the mitigation. It is therefore important that ROW's Office participates in the development of the ***Section 6(f) Land Replacement Plan*** and the Work Program Office participates in the funds programming effort. Failure to implement the agreed upon ***Section 6(f) Land Replacement Plan*** will cause delays in subsequent project development and implementation.

13.5 REFERENCES

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13.6 HISTORY

05/22/1998

49 U.S.C. § 303. Policy on lands, wildlife and waterfowl refuges, and historic sites.

(a) It is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.

(b) The Secretary of Transportation shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with the States, in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of lands crossed by transportation activities or facilities.

(c) Approval of Programs and Projects. Subject to subsection (d), the Secretary may approve a transportation program or project (other than any project for a park road or parkway under section 204 of title 23) requiring 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 site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if:

(1) there is no prudent and feasible alternative to using that land; and

(2) 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 use.

(d) De Minimis Impacts.

(1) Requirements.

(A) Requirements for historic sites. The requirements of this section shall be considered to be satisfied with respect to an area described in paragraph (2) if the Secretary determines, in accordance with this subsection, that a transportation program or project will have a *de minimis* impact on the area.

(B) Requirements for parks, recreation areas, and wildlife or waterfowl refuges. The requirements of subsection (c)(1) shall be considered to be satisfied with respect to an area described in paragraph (3) if the Secretary determines, in accordance with this subsection, that a transportation program or project will have a *de minimis* impact on the area. The requirements of subsection (c)(2) with respect to an area described in paragraph (3) shall not include an alternatives analysis.

Figure 13-1 Title 49 U.S.C. § 303

(C) Criteria. In making any determination under this subsection, the Secretary shall consider to be part of a transportation program or project any avoidance, minimization, mitigation, or enhancement measures that are required to be implemented as a condition of approval of the transportation program or project.

(2) Historic sites. With respect to historic sites, the Secretary may make a finding of *de minimis* impact only if:

(A) the Secretary has determined, in accordance with the consultation process required under section 106 of the National Historic Preservation Act (16 U.S.C. 470(f)), that:

(i) the transportation program or project will have no adverse effect on the historic site; or

(ii) there will be no historic properties affected by the transportation program or project;

(B) the finding of the Secretary has received written concurrence from the applicable state historic preservation officer or tribal historic preservation officer (and from the Advisory Council on Historic Preservation if the Council is participating in the consultation process); and

(C) the finding of the Secretary has been developed in consultation with parties consulting as part of the process referred to in subparagraph (A).

(3) Parks, recreation areas, and wildlife or waterfowl refuges.—With respect to parks, recreation areas, or wildlife or waterfowl refuges, the Secretary may make a finding of *de minimis* impact only if

(A) the Secretary has determined, after public notice and opportunity for public review and comment, that the transportation program or project will not adversely affect the activities, features, and attributes of the park, recreation area, or wildlife or waterfowl refuge eligible for protection under this section; and

(B) the finding of the Secretary has received concurrence from the officials with jurisdiction over the park, recreation area, or wildlife or waterfowl refuge.

Figure 13-1 Title 49 U.S.C. § 303 (Page 2 of 2)

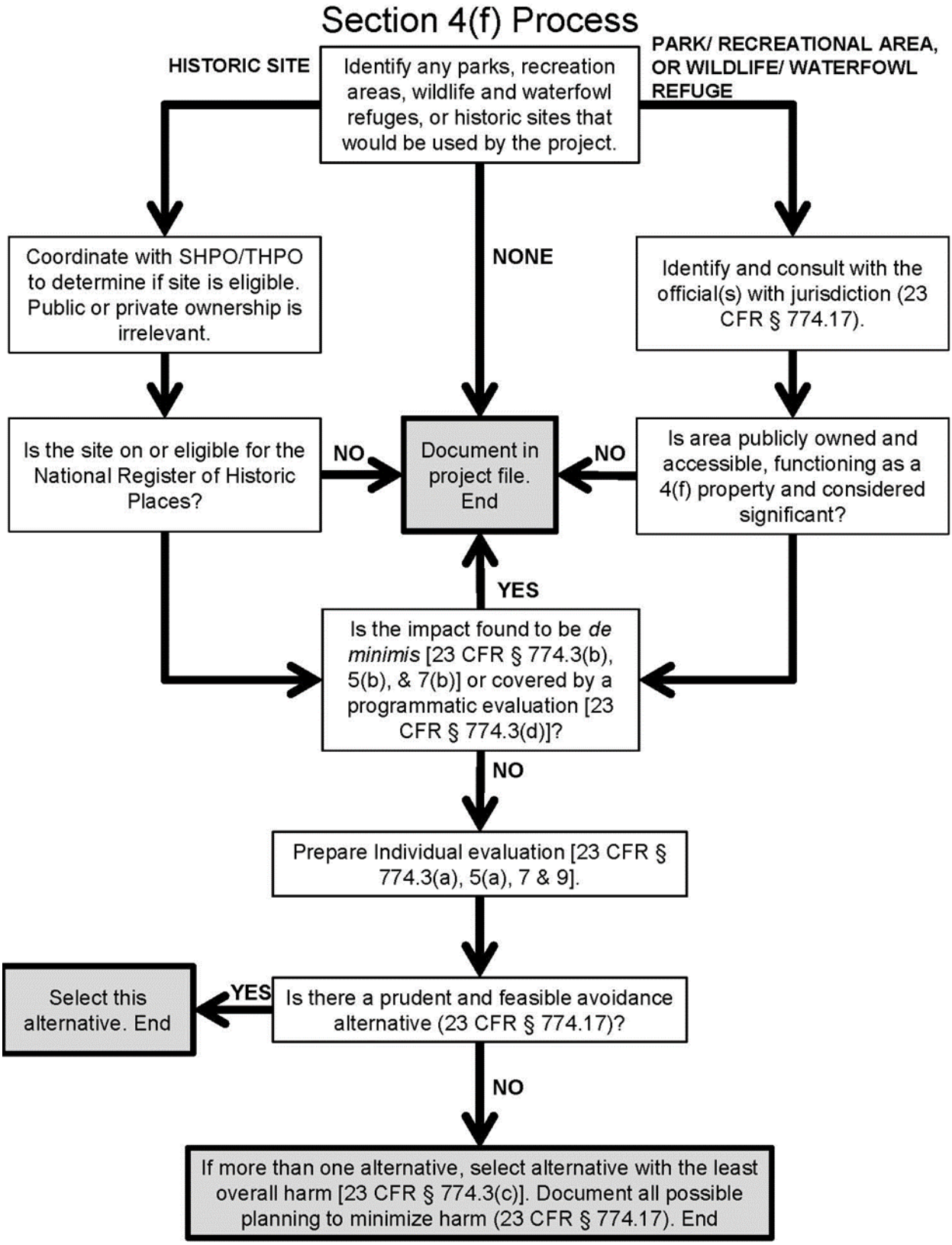

Figure 13-2 Section 4(f) Process Flow Chart

FDOT Letterhead/FHWA Letterhead (as appropriate) **and** District (if applicable)
Date
Official with Jurisdiction's Name and Title
Organization
Address
ATTN (if appropriate)
Re: Property Name
Project Designation
Request for opinion on impacts of project on property

Dear Mr./Ms.:

Explanation of project and its relationship to the protected property and the surrounding area (and other resources, as appropriate). Reference to earlier discussions concerning the matter. Discuss Section 4(f) very generally and that we are seeking to pursue a *de minimis* approval for the use of the property and what the criteria for this are (make sure to reference net impact). Reference other laws applicable to this resource and, as appropriate, surrounding resources, and related resources in the immediate area.

Description of the AFAs of the property and description of impacts to these specifically and to the property in general. Discuss measures taken to minimize and/or mitigate these impacts. Reference portions of property, if any, which have been eliminated from taking or being impacted as a result of earlier discussion or other considerations.

Discuss enhancements and improvements to the property, if any, which have been incorporated into the proposed undertaking and discuss any requests the official with jurisdiction has made for particular mitigations or enhancements as applicable. Describe the opportunity for public comment and the general results of that effort.

Provide opinion and rationale for “no adverse effects to the AFA” of the property by the proposed undertaking and request concurrence from the official with jurisdiction and state that if they (the official with jurisdiction) concurs with this finding, then FHWA may determine the impacts to be *de minimis* per 23 CFR Part 774.

Include Signature block for official with jurisdiction’s opinion/concurrence with the offered findings.

Sincerely,

Typed Name, Title

cc: FHWA
SEMO

Figure 13-3 Transmittal Letter from FDOT/FHWA to Official with Jurisdiction (for *de minimis* submittal)

FDOT Letterhead and District (if applicable)
Official, Title
Address
Date
Division Administrator
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Re: Request for a *de minimis* determination/approval
Financial Management Number: XXXXXX-X
Federal Aid Project Number: X-XXX(X)-X
Limits: Any County, Florida
Protected Property:
Official with Jurisdiction over the property:

Dear Mr./Ms:

The attached information is being submitted to request a Section 4(f) *de minimis* determination *(change determination to approval for stand-alone de minimis approvals)* for the proposed use of the PROPERTY NAME by the above referenced project. This information is being provided pursuant to 49 U.S.C. § 303 and in accordance with the provisions of 23 CFR Part 774.

THEREFORE:

Based upon considerations contained in the attached documents, it is determined that the use of the above referenced property results in only *de minimis* impacts to the protected resource.

CONCURRENCE:

(Change "Concurrence" to "Approval" for stand-alone de minimis approvals. Also, note standardized language used for de minimis approvals and determinations for when submitting a de minimis recommendation for approval with EAs, DEISs, FONSIs, or FEISs.)

By: _____

On: _____/_____/_____

Division Administrator

Federal Highway Administration

Figure 13-4 Cover/Signature Page to FHWA for *de minimis* Determination/Finding/Approval Jurisdiction

FDOT Letterhead and District (if applicable)
Official, Title
Address
Date
Division Administrator
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Attention: (FHWA Transportation Engineer)

Dear Mr./Ms.:

Subject: Programmatic Section 4(f) Evaluation

Financial Management Number: XXXXXX-X

Federal Aid Project Number: X-XXX(X)-X

Limits: Any County, Florida

Enclosed are three (3) copies of the Programmatic Section 4(f) Evaluation for the subject project as required by 23 U.S.C. § 138 and 49 U.S.C. § 303 and in partial compliance with National Environmental Policy Act of 1969, as amended (*as well as… [list any other appropriate laws as necessary as based upon the resources and impacts]).*

Please advise us of your actions so that we may proceed with the project.

Sincerely,

Name

District Environmental Management Engineer

Enclosures XX/XXX

Figure 13-5 Example Transmittal Letter to FHWA for Programmatic Section 4(f) Evaluations

FDOT Letterhead **and** District (if applicable)
DATE
Official, Title
Address
Division Administrator
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Attention: (FHWA Transportation Engineer)

Dear Mr./Ms.:

Subject: Draft Section 4(f) Evaluation

Financial Management Number: XXXXXXXX-X-XX-XX

Federal Aid Project Number: X-XXX(X)-X

Limits: Any County, Florida

Enclosed are six (6) copies of the Draft Individual Section 4(f) Evaluation for the subject project as required by 23 U.S.C. § 138 and 49 U.S.C. § 303 and in partial compliance with National Environmental Policy Act of 1969, as amended (*as well as… [list any other appropriate laws as necessary as based upon the resources and impacts]).*

Please advise us of your actions so that we may proceed with the project.

Sincerely,

Name

District Environmental Management Engineer

XX/XXX

Enclosures

cc:

Figure 13-6 Sample Transmittal Letter to FHWA for Draft Section 4(f) Evaluation

FDOT Letterhead **and** District (if applicable)
DATE
Official, Title
Address
Division Administrator
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312
Attention: (FHWA Transportation Engineer)

Dear Mr./Ms.:

Subject: Final Section 4(f) Evaluation

Financial Management Number: XXXXXXXX-X-XX-XX

Federal Aid Project Number: X-XXX(X)-X

Limits: Any County, Florida

Enclosed are six (6) copies of the Final Section 4(f) Evaluation for the subject project as 23 U.S.C. § 138 and 49 U.S.C. § 303 and in partial compliance with National Environmental Policy Act of 1969, as amended (*as well as… [list any other appropriate laws as necessary as based upon the resources and impacts]).*

Please advise us of your actions so that we may proceed with the project.

Sincerely,

Name

District Environmental Management Engineer

XX/XXX

Enclosures

cc:

Figure 13-7 Sample Transmittal Letter to FHWA for Final Section 4(f) Evaluation

PART 2, CHAPTER 15

AESTHETIC EFFECTS

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PART 2, CHAPTER 15

AESTHETIC EFFECTS

15.1 OVERVIEW

15.1.1 Purpose

This chapter contains the Florida Department of Transportation (FDOT) procedures for evaluating aesthetic effects (AE) during project delivery. Aesthetic effects can be either positive or negative and should be evaluated based on the context of the project area. The aesthetic qualities of a community or area are defined by a combination of visual resources (i.e., vistas, landscape, topography, architecture, roadways and structures) and other qualities that define the character of the community and site (i.e., sounds, vibration, and air quality).***Table 15.1*** highlights relevant areas to help identify potential AE; however, it is not intended to be all inclusive.

Transportation actions can affect communities and influence aesthetic qualities. FDOT values the consideration of AE in project development because it influences community cohesion and community values, and can enhance the travel experience. During development of a project, AE is evaluated through the Efficient Transportation Decision Making (ETDM) screening for qualifying projects (see ***Part 1, Chapter 2, Environmental Class of Action Determination***), impact evaluation during Project Development and Environment (PD&E), and through the impact review process during final design. For PD&E projects, consideration of AE is an integral component of the Sociocultural Effects Evaluation (SCE) (see ***Part 2, Chapter 9, Sociocultural Effects Evaluation*** and the SCE web page).

The purpose of the process described in this chapter is to assess the existing aesthetic context of the project area, evaluate a proposed project's aesthetic effects, and consider opportunities for enhancement within the project area while remaining consistent with federal and state aesthetic requirements (for legislative and policy references see ***Table 15.2***) by:

1. Providing aesthetically pleasing surroundings;

2. Providing compatibility of transportation facilities with the surrounding natural and/or man-made environment; and

3. Selecting materials and appropriate design approaches based upon existing and proposed scale, color, pattern, texture, form, materials and architectural style.

4. Preserving existing plants or landscape, when feasible, and considering opportunities for new landscaping and/or relocating existing plants that may be impacted by the project.

Aesthetic considerations are an integral part of FDOT's transportation projects. The evaluation of AE should address the community's aesthetic ideals while producing an affordable, biddable, constructible, and maintainable design. The AE evaluation described in this chapter ensures that the community's values and concerns related to aesthetic issues are addressed during project development. FDOT should do as much as practical and feasible to identify opportunities to improve the project aesthetics even when a project is a minor design project, or AE is not an issue. Often these improvements are integral to the design, have minimal or no cost, and add little or no time to the project schedule.

The consideration of AE begins early in the planning of a transportation project, with the necessary data collected as part of the SCE and is built upon through the PD&E process. Commitments should be carried forward as the project advances.

The completed AE evaluation delineates the magnitude of aesthetic effects as well as the aesthetic needs and desires of the community. It also prescribes community preferred opportunities to conserve or enhance the aesthetic qualities using good basic design principles.

The intent of the AE evaluation for a proposed transportation project is to meet the following objectives:

1. Identify current aesthetic resources, e.g., existing forested areas, wildflower areas, trees, landscape, community features, ponds and drainage features, bridge structures and other architectural features;

2. Analyze/categorize the aesthetic resources that could be affected;

3. Consider the value of each of these aesthetic resources to the community or area;

4. Assess the potential impacts; and

5. Identify potential avoidance, minimization, enhancement and mitigation measures, e.g., preserving architectural features, existing forested areas, wildflower areas, trees, landscape, aesthetic consideration for ponds and drainage features.

The typical considerations of an AE evaluation are summarized in ***Table 15.1***. These evaluation factors highlight relevant areas to help identify potential AE and may be used as guidance to ensure the legislative intent and compliance requirements are met.

TABLE 15.1 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; density (urban, rural); 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 context of 'fit for the transportation component' 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 'measurement' of the intensity of potential AE. 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 'name-sake' 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.

15.1.2 Legislative Authority and Policies

It is federal policy to emphasize design quality in all projects which involve public use areas or sensitive locations, utilizing art, architecture and quality engineering in the development of transportation projects. The ***USDOT Order 5610.1C*** established joint agency revised procedures for considering aesthetic and design quality impacts required to be included in the transportation projects development process. The FHWA published the ***Visual Impact Assessment for Highway Projects (USDOT, 2013)*** to increase the responsiveness of highway planning and design to the national commitment to aesthetic quality in federal projects. FDOT policies and programs such as context sensitive solutions, highway landscaping, wildflowers, scenic overlooks, scenic highways, preservation of parks and historic places, art in public spaces, screening and control of objectionable views, complete streets, and Outdoor Advertising control (federal and state requirements) all support FHWA policy.

Table 15.2 identifies the major federal and state laws, and agency rules and policies requiring the FDOT to consider AE and impacts on the community and is not meant to be all inclusive. These citations together form the basis of the agency's responsibility and intent to emphasize aesthetic design quality in all transportation projects which involve public use areas or sensitive locations.

TABLE 15.2 Legislation and Policies that include Aesthetic Effects

Title and Citation	Relevance to Aesthetic Effects (in general and/or implicit)
Federal Legislation	
National Environmental Policy Act of 1969 (NEPA) as amended (42 USC § 4331)	Requires analysis of the environmental impacts of projects using federal funds. Further, the Act declares that it is the continuous responsibility of agencies to "use all practical means to assure for all Americans safe, healthful, productive, and aesthetically pleasing surroundings." It also directs agencies to use an interdisciplinary approach to "identify and develop methods and procedures which will insure that presently un-quantified environmental amenities and values may be given appropriate consideration in decision-making."
Federal Aid Highway Act of 1970 (23 USC 109(h)	Defines specific impacts that must be considered in developing any project on any federal-aid system, including the constructed and natural environment of the area; the environmental, scenic, aesthetic, historic, community, and preservation impacts of the activity.
Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR 1500-1508)	Requires federal agencies to use all practicable means consistent with the requirements of NEPA, to avoid or minimize any possible adverse effects of their actions upon the quality of the environment.
Environmental Impact and Related Procedures (23 CFR 771)	Prescribes policies and procedures of the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) regulations for implementing the NEPA, and the Council on Environmental Quality (CEQ). Among these being, early and continuing opportunities during project development for the public to be involved in the identification of environmental impacts against a balanced consideration of the need for safe and efficient transportation; the review of the project environmental impacts related to national, state, and local environmental protection goals; and measures necessary to mitigate adverse impacts.
Guidance for Preparing and Processing Environmental and Section 4(f) Documents (TA6640.8A) FTA TOD Development	Prescribes early coordination with agencies and the public to determine the scope of issues to be addressed and to identify and focus on the proposed action's important issues. It includes specific requirements to identify the impacts to the existing visual resource; the relationship of the impacts to potential viewers of and from the project; measures to avoid, minimize, or reduce the adverse impacts; the consideration given to design quality, art, and architecture in the project planning; and final EIS requirements to identify any proposed mitigation for the preferred alternative.
1994 FHWA Environmental Policy Statement	Formal commitment to ensure that policies and investments embrace the concerns of neighborhoods, communities, and society as a whole. Additionally emphasizes design quality in all projects which involve public use areas or sensitive locations, utilizing art, architecture and quality engineering in the development of highways.
USDOT Act of 1966 , Section 4(f), 49 U.S.C. 303	Declared to be the national policy that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.

Title and Citation	Relevance to Aesthetic Effects (in general and/or implicit)
National Historic Preservation Act, Section 106, CFR 800, 2004	Establishes a basis for coordination (consultation) with appropriate parties involved in other NEPA required determinations; confirms the role of the State Historic Preservation Officer (SHPO) in these consultations; mandates public involvement as part of the required assessment of adverse effects on historic properties, including aesthetic integrity criteria; confers coordination with other required environmental documents.
US Highway Beautification Act of 1965, Section 131 of Title 23, USC	The Act called for control of outdoor advertising including removal of certain types of signs, along the nation's Interstate Highway System and the existing federal-aid highway system. It also required certain junkyards and other adverse scenery along Interstate or primary highways to be removed or screened and encouraged scenic enhancement and roadside development.
Moving Ahead for Progress in the 21st Century (MAP-21). (Includes changes throughout 23 U.S.C.)	Requires increased consideration of the environment in both statewide and metropolitan planning and public participation activities in the development of transportation projects.
State Legislation	
Article II, Section 7(A) Constitution of the State of Florida	It shall be the policy of the state to conserve and protect its natural resources and scenic beauty.
Chapter 187, F.S. - State Comprehensive Plan	Establishes statewide comprehensive plans that include goals, objectives, and strategies for the overall transportation system in Florida which must consider community effects.
Chapter 267, F.S. - Historical Resources, 2009	Establishes State Division of Historical Resources, and confers powers and duties to manage processes required by *National Historic Preservation Act* (see above), including the required assessment of adverse effects on historic properties, including aesthetic integrity criteria.
Section 334.044(26) F.S. - Department; powers and duties	Requires the Department to provide for the enhancement of environmental benefits, including conservation of the natural roadside growth and scenery; and to provide for the implementation and maintenance of roadside conservation, enhancement, landscape and stabilization programs.
Chapter 479, F.S. - Outdoor Advertising	Establishes legislative authority to regulate commercial signage in areas adjacent to state highways; assuring information of interest to the traveling public is presented safely and aesthetically; establishes special mitigation programs for beautification and aesthetic improvements.
Section 336.045 (1) F.S. - Uniform minimum standards for design, construction, and maintenance; advisory committees	Enabling legislation that required FDOT to develop and adopt uniform minimum standards and criteria for the design, construction, and maintenance of all public streets, roads, highways, bridges, sidewalks, curbs and curb ramps, crosswalks, where feasible, bicycle ways, underpasses, and overpasses used by the public for vehicular and pedestrian traffic. Specifically calls for the development of such standards and criteria to consider design approaches which provide for the compatibility of such facilities with the surrounding natural or manmade environment; the safety and security of public spaces; and the appropriate aesthetics based upon scale, color, architectural style, materials used to construct the facilities, and the landscape design and landscape materials around the facilities. The FDOT shall also annually provide funds in its tentative work program to implement the provisions of this subsection relating to aesthetic design standards.

Title and Citation	Relevance to Aesthetic Effects (in general and/or implicit)
Section 336.045 (6) F.S. - Uniform minimum standards for design, construction, and maintenance; advisory committees	Requires that if the governing body of a county or municipality has adopted a design element as part of its comprehensive plan pursuant to part II of chapter 163, FDOT shall consider such element during project development of transportation facilities. The design of transportation facilities constructed by FDOT within the boundaries of that county or municipality must be consistent with that element to the maximum extent feasible.
Section 339.155, F.S. - Florida Transportation Plan	Describes requirements of an annual Florida Transportation Plan, including procedures for public participation (subsection 6).
Section 339.175 (6)(b), F.S. Metropolitan planning organization powers; duties and responsibilities	Requires the Long Range Transportation Plan and the Transportation Improvement Program to consider the overall social, economic, energy, and environmental effect of transportation decisions, including objectives to protect and enhance the environment, promote energy conservation, and improve quality of life.
Section 334.046, F.S. FDOT mission, goals, and objectives.	The mission of FDOT of Transportation shall be to provide a safe statewide transportation system that ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities.
FDOT Policies	
Context Sensitive Solution No. 000-650-002	Establishes policy to consider the physical setting, and to enhance and conserve community defining features. Specific guidance on the CSS process can be found in Chapter 9 – Context Sensitive Solutions, FDOT Project Management Handbook, Part 1 – Issues Common to all Project Managers.
Highway Beautification No. 000-650-011	Establishes policy to conserve, protect, restore, and enhance Florida's natural resources and scenic beauty.
Environmental Policy No. 000-625-001	Establishes policy to balance quality engineering and aesthetic design principles with consideration of environmental and economic aspects of the transportation program.
Sociocultural Effects Evaluation No. 000-650-015	Establishes policy to provide effective community based solutions to transportation while addressing appropriate community concerns.
Complete Streets No. 000-625-017	Establishes policy to promote safety, quality of life, and economic development.

15.2 PROCEDURE

This section describes the suggested criteria and steps necessary to complete an AE evaluation. Consideration of aesthetics begins during planning, is updated and refined throughout the PD&E process, and continues through the Construction phase (see ***Figure 15.1***). This would include improvements related to AE that require maintenance agreements to allow implementation, which must be reviewed by the District Maintenance Office prior to execution of the agreement by the maintaining authority.

The consideration of AE typically begins with and is a component of the SCE conducted as part of the ETDM process as established in ***Part 2, Chapter 9, Sociocultural Effects Evaluation***. The evaluation, completed by the Community Liaison Coordinator (CLC) [FDOT and/or Metropolitan Planning Organization (MPO)] and other experts, provides descriptions of the existing visual resources, experiences and features that could be

affected or improved by the proposed transportation project, including forested areas, wildflower areas, trees, landscaping and other aesthetic features. The AE evaluation builds upon information gathered during the SCE, 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 the level of expertise required are dependent upon the nature and scope of the project and its potential for effects. At the end of the ETDM process, the CLC transmits this information to the Project Manager who develops the project's scope of work.

15.2.1 Determine the Level of Effort

The level of assessment and documentation during the PD&E phase depends on the potential for AE. The PD&E Project Manager and the District Environmental Office must coordinate with other functional areas, for example, Design, Drainage, Structures, and the District Landscape Architect to determine appropriate evaluation given the project context. The project area should be appropriately scoped by District personnel to ensure appropriate consideration of AE and opportunities.

Detailed evaluations are generally not warranted for transportation projects not qualifying for screening in the ETDM Environmental Screening Tool (EST) [typically Type 1 and Programmatic Categorical Exclusions (CEs) and Non-Major State Actions (NMSA)]. These projects, based on analysis, have no significant effects. They typically require a flexible approach, but due to their less complex and comprehensive nature the evaluation can be streamlined. See ***Part 1, Chapter 2, Environmental Class of Action Determination*** for clarification on projects that qualify for screening.

A higher potential for AE typically exists with transportation projects qualifying for screening [typically Type 2 Categorical Exclusion (CE), Environmental Assessment (EA), Environmental Impact Statement (EIS), or State Environmental Impact Report (SEIR)]. These project classifications may warrant a more detailed level of analysis and documentation. Most PD&E projects will have received prior consideration of AE during the ETDM process.

The results of the SCE conducted during the Programming Screen are available for review and verification in the ***Programming Screen Summary Report***. The SCE evaluation in the PD&E Study focuses on important aesthetic topics identified during the Programming Screen and through public involvement efforts. Previous efforts do not need to be repeated. If an issue was not identified or evaluated in the ***Programming Screen Summary Report***, then it must be evaluated during the PD&E phase.

The level of project assessment for AE during the PD&E phase depends on the potential for impacts, as defined by FDOT analysis during EST screening and agency comments. The analyst determines what is reasonable in the given context. If after inter-office coordination, review, and analysis no impacts are identified, documentation can be as simple as a statement such as; *"No aesthetic impacts are anticipated as a result of this*

project". If an impact is identified, it should be assessed regardless of the nature of the project. This will help ensure that all AEs are addressed prior to design thus reducing the probability that community impacts will alter the project later in production. A more extensive AE evaluation may be needed, but is not limited to transportation projects that:

1. Require large amounts of Right of Way (ROW) or would displace a large number of residences or businesses (e.g., stores, outdoor advertising, etc.)

2. Conflict with local government comprehensive plans

3. Impact aesthetic qualities of community facilities, historic resources or landmarks

4. Affect aesthetic features, such as canopy roads or scenic vistas

5. Disrupt or divide an established or cohesive neighborhood

Recent major shifts in the demographics of a region or the introduction of a community planning initiative [for example, sustainable development, community redevelopment areas (CRA), complete streets, or a Main Street program] may also indicate the need for a more extensive analysis.

The AE evaluation is intended to be flexible within the PD&E phase, as well as FDOT standard reviews for projects outside of PD&E. Since PD&E studies may result in commitments and recommendations developed to address the specific AE of a project, it is critical that appropriate internal coordination efforts within the District are completed before such commitments and/or recommendations are made.

15.2.1.1 Outdoor Advertising Considerations

It is important to consider the existing permitted outdoor advertising signs, their permit status, and their view zones which may be affected by the project, as early as possible during planning and project development. Outdoor advertising regulations are found in ***Chapter 479, Florida Statutes***, and in ***Rule Chapter 14-10 and 14-40, Florida Administrative Code***. Coordinate with the FDOT Office of Outdoor Advertising Control (OAC), as appropriate, as issues with the anticipated blocking of the view of or impacts to outdoor advertising signs are identified. Consideration of the view of or impacts to the outdoor advertising signs being affected by the proposed project should be carried throughout project implementation as summarized below:

1. **ETDM Screenings –** During the screening process, current permitted sign locations can be identified utilizing the EST, the OAC website, and confirmed by contacting the OAC, as appropriate. The District should consider the status (Planning or Programming) of the project and determine the level of effort required at that time. This early in the process, the District should consider how the view or

disposition of the permitted sign could be affected by the proposed project. Consider for example, is it a conforming or non-conforming sign (coordinate with OAC). Also note if any community preferences have been identified regarding the role of outdoor advertising in the proposed project.

2. **PD&E –** Identify or confirm the presence of existing signs and their permit status. Identify or confirm the presence of proposed signs and their permit status. Determine how each sign or its view zone is affected by the proposed project. Guidance on outdoor advertising sign impacts is provided in ***Part 2, Chapter 17, Noise***. Continue coordination with OAC, and District ROW Office as appropriate. Transfer commitments to design as applicable.

3. **Design –** The design project manager should identify or confirm existing signs and their permit status. The design project manager should also identify or confirm the presence of proposed signs and their permit status. The design project manager should initiate or continue coordination with OAC. The design project manager should update any pertinent signage related commitments as appropriate and advise the PD&E staff of the changes. Review design plans and consider view zones [see ***Chapter 9 of the Plans Preparation Manual (PPM), Topic No. 625-000-005***].

4. **Construction –** Transfer commitments as appropriate.

For projects that do not qualify for EST screening only items 3 and 4 apply. At a minimum, permitted signs should be identified and addressed during the Design phase.

15.2.1.2 Perimeter Walls

This section establishes guidelines for the consistent statewide application and inclusion of perimeter walls on department projects.

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 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 other 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 project's environmental documentation.

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 shall not exceed $25,000 per adjacent land owner. A unit cost equal to 2/3 that of a noise wall (currently $30/ft^2) shall be used for estimating and programming purposes.

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

7. A simple majority of the adjacent property owners must support the construction of the perimeter wall.

15.2.2 Transportation Projects Not Qualifying for Screening

For transportation projects not qualifying for screening in the ETDM EST, the AE evaluation consists of following the steps listed in ***Section 15.2.3.2***, in sufficient detail to ensure that the project considers AEs, and appropriately addresses each through incorporation into the final design plans. This evaluation includes the consideration of existing forested areas, wildflower areas, trees, landscaping and other aesthetic features that may be impacted by the project.

15.2.3 Transportation Projects Qualifying for Screening

Transportation projects qualifying for screening in the ETDM EST, generally are more complex. For these projects, the AE evaluation is conducted as a component of the SCE ***(Part 2, Chapter 9, Sociocultural Effects Evaluation)***. Additional sources of AE information may be in the summary of public comments and community desired features. In accordance with ***Part 1, Chapter 2, Environmental Class of Action Determination***, qualifying projects must complete the ETDM Programming Screen and may also have completed the Planning Screen. As projects advance, AE should be considered as follows:

1. **Planning Screen Evaluation** - identify flaws or controversies related to aesthetics that could prevent the project from moving forward or require significant adjustments to the project concept.

2. **Programming Screen Evaluation** - provide commentary about effects, summarize scoping recommendations, and identify public concerns to further understand the magnitude of potential aesthetic impacts and to determine methods for resolving each.

3. **PD&E Evaluation** – build upon previous evaluations by filling information gaps, focus on issues of concern identified in planning and programming screens, and based on the project and associated impacts complete the appropriate level of AE documentation. Develop necessary commitments and recommendations and document in the Environmental Document.

4. **Project Commitment Tracking** – Complete the ***Project Commitment Tracking Procedure, Topic No. 700-011-035*** and transmit to Final Design.

5. **Final Design** – incorporate any commitments and recommendations. Verify compliance in the final plans. If there are any changes or updates, they should be documented in the Reevaluation to maintain compliance. Ensure design meets federal and state regulations (e.g., ***Chapter 479, F.S. Outdoor Advertising***).

6. **Construction** – verify completion (inclusion, installation, etc.) of any aesthetic commitments. Verify compliance with federal and state regulations.

For clarification, refer to the ***Process Flow Chart*** illustrated in ***Figure 15.1***.

15.2.3.1 Project Development and Environment

15.2.3.1.1 Develop PD&E Scope

This section includes the components of the AE evaluation to be completed as projects proceed through the PD&E phase. It builds upon previous phase AE evaluation by filling information gaps, focuses on issues of concern identified in planning and programming, and completes the appropriate level of documentation. There may be additional interim re-examination procedures necessary, depending on the complexity of project aesthetic issues, and new information that would require validation of baseline data to maintain communication with the community. When existing aesthetic features or trees or other long lived plants and landscape are impacted, Landscape Architecture should be identified as one of the work types in the scope for the PD&E Study. If landscape and other aesthetic features are being proposed and included, coordinate with the District Landscape Architect or Environmental Office, or other offices as needed.

The results of the SCE evaluations (***Part 2, Chapter 9, Sociocultural Effects Evaluation***) conducted during the ETDM Planning and Programming Screens include a specific component related to aesthetics, which provides the basis of evaluation for PD&E studies. The evaluation should include input provided by the public and local planning organizations. Information from SCEs is found in the ETDM ***Programming Screen Summary Report,*** available on the ETDM EST and the ETDM Public Access Web site. The ***Programming Screen Summary Report*** should be reviewed prior to beginning PD&E. Specific consideration should be given to existing forested areas, wildflower areas, trees, landscape and other aesthetic features. The review should include, but not be limited to, Environmental Technical Advisory Team (ETAT) commentary and Summary Degrees of Effect including the SCE (e.g., Community Characteristics Inventory) and other relevant issues.

Although much AE quantitative data can be found in databases and Geographic Information System (GIS) libraries, an accurate assessment cannot be completed without checking the data through field reviews, aerial photography, and communications with data sources and the public. This process includes using AE information stored on the EST for ETDM projects, the State Highway System (SHS) Videolog, and other online tools, and suggests potential AE resources for evaluating local level and quantitative data. Professional judgment should be used to determine the level of analysis and the data needed to perform the subsequent steps of the AE evaluation.

Review AE data and comments that were generated during the Programming Screen. Determine the project's involvement with aesthetics from information included in the

Programming Screen Summary Report. Review ETAT comments for the Aesthetics issue in the report. It may be helpful to also review ETAT comments on other issues. Other sections of the report should be reviewed such as the General Project Recommendations, Community Desired Features, and Summary of Public Comments.

15.2.3.1.2 Aesthetics Effects Evaluation

The ETDM ***Programming Screen Summary Report*** should provide a starting point for AE discussion and development. The analyst should not assume that the screening has resolved any or all the aesthetic issues. If the analyst determines the evaluation completed during screening is sufficient to address aesthetic issues, then summarize this finding in the final Environmental Document. At a minimum, the analyst evaluates the AE from the screening and identifies any changes in the community since completion of the Programming Screen.

The AE evaluation should be tailored to the nature and scope of the project and its potential for aesthetic effects. The Typical Aesthetic Effects Considerations in ***Table 15.1*** should be considered during each step of the AE evaluation. For some projects the details found in the Programming Screen may provide sufficient information to complete the AE. For other projects, the PD&E AE evaluation may consist of the following steps: 1) describing existing conditions, 2) describing effects, 3) determining significance of impacts, and 4) recommending ways to resolve issues. The steps are outlined in ***Figure 15.2***. While these steps are logically sequential in nature, they are interrelated and the study approach should be integrated to balance simultaneous input and results for each.

Step 1: Describe Existing Conditions - The description of the affected environment incorporates information from the ***Programming Screen Summary Report***. Define the study area and describe the existing aesthetic characteristics, such as existing forested areas, wildflower areas, trees, and landscape that could be preserved or if impacted relocated elsewhere, decorative lighting, sidewalk treatments, etc. If the proposed project is located on a designated Scenic Highway see ***Part 2, Chapter 29, Scenic Highways***. The study area is determined by the project analyst and will vary depending on the resources involved, project impacts, and the project context. Consider the SCE and its aesthetic components, related public commentary, results of field reviews, etc. Related community stakeholder concerns must be documented and addressed.

Step 2: Describe Effects - Documenting the aesthetic effects (positive and negative) of a proposed project is necessary to ensure compliance with state and federal requirements. The Council of Environmental Quality's (CEQ) Regulations for implementing the Procedural Provisions of the ***National Environmental Policy Act of 1969 (NEPA)*** require that three general types of environmental effects, including aesthetics, be evaluated for proposed transportation and other federal projects (***CEQ, 1997***). The AE evaluation must address direct, indirect, and cumulative effects as defined in ***40 CFR 1508.7 and 1508.8***. For projects that have less than significant impacts,

indirect and cumulative impact assessments will generally not be warranted. There may be exceptions, which can be evaluated on a case-by-case basis.

Aesthetic Effects can be either positive or negative. The evaluation should clearly identify and quantify the effects a project may have on an area. Determine the project's effects on the visual resources and qualitative physical characteristics of the study area. Using the Typical Aesthetic Effects Considerations in ***Table 15.1***, assess the effects of the project on aesthetic issues. AE and SCE effects are interconnected; thus it is important that the analyst recognize the relationship. The interrelationship of effects varies with the type of transportation action and the affected community. The analyst should coordinate with appropriate program specialists (e.g., cultural resources, landscape architecture, water quality, noise, air quality) to determine how the project affects these areas from an aesthetic perspective. The analysis should describe the intensity of 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).

Step 3: Determine Significance of Impacts – Based on the analyst's knowledge of the affected area and impact analysis, the analyst must determine if the perceived AE is significant as defined by CEQ regulations (***40 CFR 1500-1508***), which is a function of both context and intensity. 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 must 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 within the context of the community's value of the aesthetic resource. The determination of each impact must be documented in the Environmental Document.

Step 4: Recommend Ways to Resolve Issues - As a project moves through the PD&E process and AE are identified, the analyst considers potential solutions to address adverse effects or enhance the aesthetic experience. The analyst actively participates in the role of problem solving through ongoing interaction with the community to ensure that an identified AE is documented and addressed in a manner consistent with community values and desires, as well as FDOT standards and requirements. In keeping with FDOT's ***Context Sensitive Solutions Policy No. 000-650-002*** and ***Complete Streets Policy No. 000-625-017***; (see ***Section 15.3*** for links to these documents), consider context sensitive solutions that would make the project "fit" the needs of the community. This is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation project that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, as appropriate, while maintaining safety and mobility. Individually and collectively, the public can provide additional input to identify ways to avoid, minimize or mitigate adverse AE or identify aesthetic enhancements through the public involvement process ***(Part 1, Chapter 11, Public Involvement)***.

Methods for resolving adverse AE of a transportation project can include: **avoidance, minimization, mitigation,** and **enhancement**, for example, the preservation of existing forested areas, wildflower areas, or relocation or preservation of trees, landscape and/or other aesthetic features. Some of the solutions will address short-term effects (during construction), and others are implemented to address long-term effects. The analyst considers the effects of these measures on the affected community and confirms that the approach supports the project purpose and need. Prior to making any commitments, potential solutions identified during PD&E must be coordinated with other FDOT disciplines. There may be engineering, financial and/or maintenance reasons that make a potential solution not feasible.

During the AE evaluation process of the PD&E phase the analyst should routinely consider aesthetic treatments that provide safe, constructible and cost-feasible enhancement beyond what is required as mitigation for impacts. The available design solutions often considered as standard practices utilized by FDOT for efficiency, cost effectiveness and safety are not exclusive of aesthetic treatments. Although standardization has advantages, it is typically the starting point for a project's design framework. The analyst should consider both standard and unique aesthetic enhancements for a specific project where deviations are possible in response to the community's input. In this way standardization in combination with such enhancements can result in a sense of unity among project elements and furthers a project's objective of developing a consistent and context sensitive theme.

Direct application of aesthetic enhancements that are to be considered on structural elements, such as bridges and sound or retaining walls, should reflect documented community desires. Other examples should meet adopted engineering standards, materials and specifications so that the enhancements provide visual significance and subtle recognition beyond the usual treatments, while still using proven and effective transportation management means. Such options that are possible on a specific project should be identified, and evaluated for safety, constructability, construction costs, maintainability and maintenance costs. Project enhancements may need to be funded and maintained by local government agencies.

The analyst should confirm project specific design guidelines for safe and aesthetically pleasing corridor treatments that avoid conflicts with permitted outdoor advertising signs and can balance the mobility needs of pedestrians, bicyclists, riders and motorists with community values specific to a project. This can serve as a guide to the final design team in developing specific design solutions in response to the community's identified aesthetic issues, and can establish a strong basis for community support of the transportation project.

15.2.3.1.3 Commitments

Adverse AE can be addressed through a variety of solutions in design, construction and maintenance. However, prior to the development of the aesthetic commitments,

coordinate with the District Design Office, and other FDOT offices as appropriate, to ensure the FDOT standards are considered. Some aesthetic enhancements may require a maintenance agreement before such commitments can be made. When preparing to make commitments, the Districts should review the ***Section 106*** Memorandum of Agreement with SHPO, if applicable. Commitments must be documented per the ***Project Commitment Tracking, Topic No. 700-011-035***.

15.2.3.1.4 Documentation

The final step in the PD&E phase is to document the AE findings. Project documentation consists of:

1. Maintaining the Administrative Record;

2. Completing the appropriate AE section of the Environmental Document;

3. Preparing AE information for future commitment compliance.

Each of these documentation components are discussed in further detail below.

1. Administrative Record – The District's Project Manager is responsible for collecting and maintaining the information gathered during the AE evaluation as part of the project file. The documentation provides information for the next project phase and contains AE commitments. All AE assessment materials (e.g., maps, analyses, public comments, survey responses, FDOT discipline comments, etc.) are contained in the project file in order to document public involvement and community outreach activities used to support the AE process. All agreements should be included.

2. Environmental Documentation - The results of the AE evaluation are documented as described below:

   Categorical Exclusions (CE) - Documentation of the AE evaluation must demonstrate the proposed project has no significant aesthetic effects. For Type 2 CEs, AE evaluation material should be briefly summarized and included in the Type 2 CE documentation. This documentation should include a summary of pertinent AE information on the selected alternative.

   Environmental Assessments (EA) and Environmental Impact Statements (EIS) - The findings of the AE evaluation are summarized for direct inclusion in the Environmental Document. This AE information and documentation is provided in the Affected Environment and Environmental Consequences sections of the EIS and the Impacts section of the EA, as well as the Comments and Coordination, and Commitments and Recommendations sections of the EA, EA with FONSI, DEIS, and FEIS document. In the Impacts section or the

Environmental Consequences section the AE summary should present the impact analysis findings and recommend avoidance, minimization, mitigation, and enhancement measures.

State Environmental Impact Report (SEIR) - The results of the AE evaluation are included in the Impact Evaluation section of the SEIR.

3. Commitment Compliance – As required by the level of AE environmental documentation indicated above, ensure clear and concise transmittal of the commitments to the subsequent project Final Design and Construction phases. Commitments related to AE made by FDOT over the course of the project study should be documented in the Commitments and Recommendations section of the Environmental Document. These should match the commitments tracked using the ***Project Commitment Tracking, Topic No. 700-011-035***. See ***Part 2, Chapter 32, Commitments and Recommendations*** for further guidance.

15.2.3.2 Design and Construction

Aesthetic commitments and recommendations established as a result of the PD&E Study must be transmitted to the Design Office to be included in contract documents. The Districts should verify commitment and regulatory compliance as the project advances through Design.

AE review during Design and compliance during Construction consists of the following steps:

1. Review Commitments specific to aesthetics.

2. Plans Received – Review for completeness; identify/confirm project limits.

3. Field Review – Conduct on-site field review(s) with appropriate project design professionals to confirm existing aesthetic resources within project limits, adjacent community resources, and roadside features (e.g., Outdoor Advertising signs, existing forested areas, wildflower areas, trees, landscape, and other aesthetic features) that are addressed in the plans.

4. Impact Review – Review plans and provide comments on AE that were identified and resolutions that should be incorporated into the contract design plans.

5. Bid Document Review - Subsequently verify that completed final design plans and specifications incorporate required AE commitments and/or considerations into the bid documents.

6. Compliance during Construction – Ensure that the Construction Office verifies compliance with aesthetic commitments as well as federal and state regulations incorporated into the final design.

7. Final Acceptance – Ensure that aesthetic features were constructed as specified in the contract plans, including modifications approved during construction. This is done by the Construction Office, but may require the Environmental Office involvement on occasion (***Construction Project Administration Manual, Topic No. 700-000-000, Chapter 12, Section 12.1***).

For projects developed through a PD&E Study the District must ensure commitment compliance and identify any changes that have occurred since the approval of the Environmental Document, and document it in the project Reevaluation per ***Part 1, Chapter 13, Reevaluations***. Applicable projects should address AE compliance according to the ***Construction Project Administration Manual, Topic No. 700-000-000, Chapter 8, Section 8.2*** and ***Project Commitment Tracking, Topic No. 700-001-035***.

15.3 REFERENCES

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15.4 HISTORY

2/15/1999, 11/14/2012, 9/30/2014

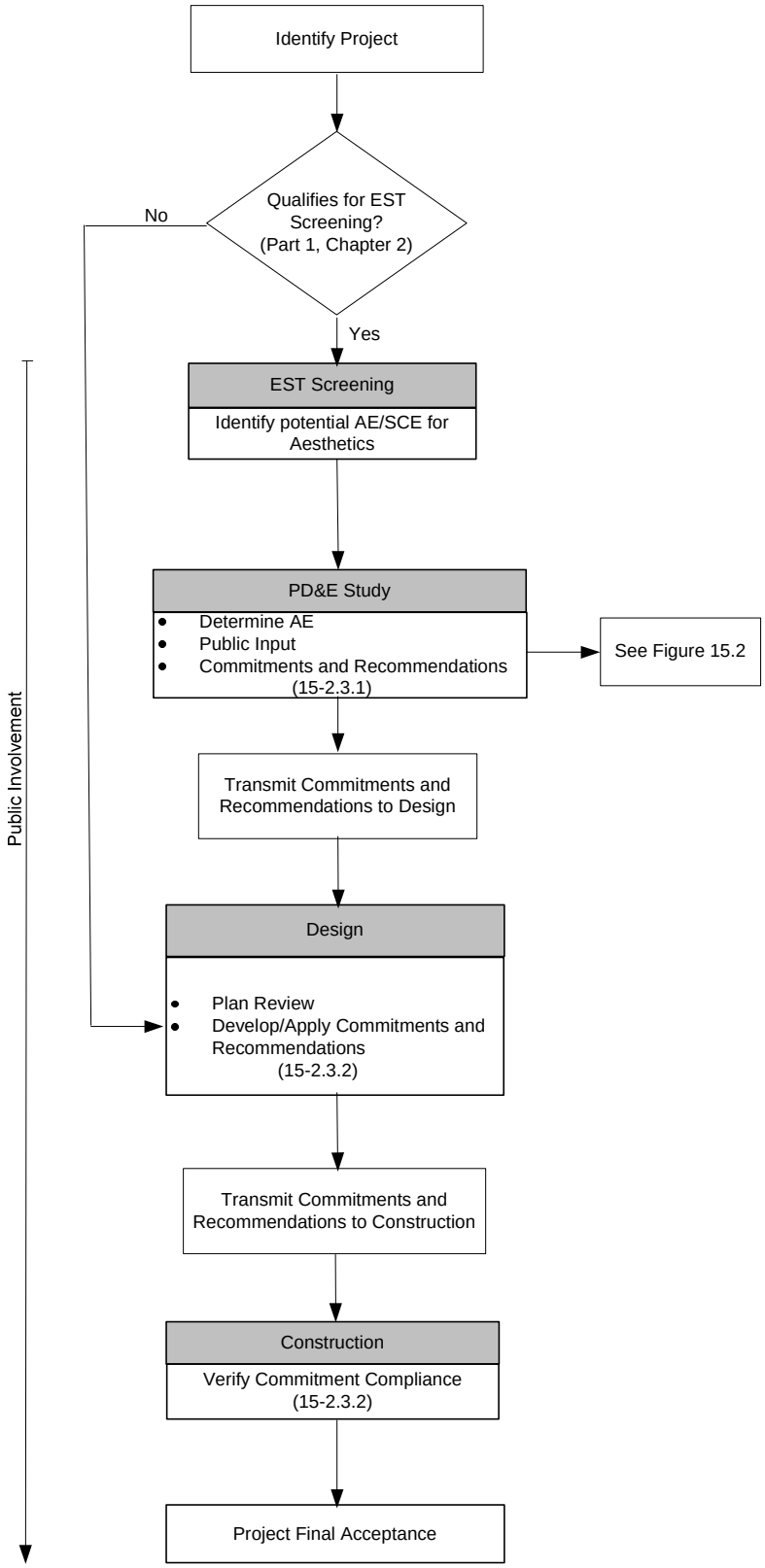

Figure 15.1 Aesthetic Effects Process Flow Chart

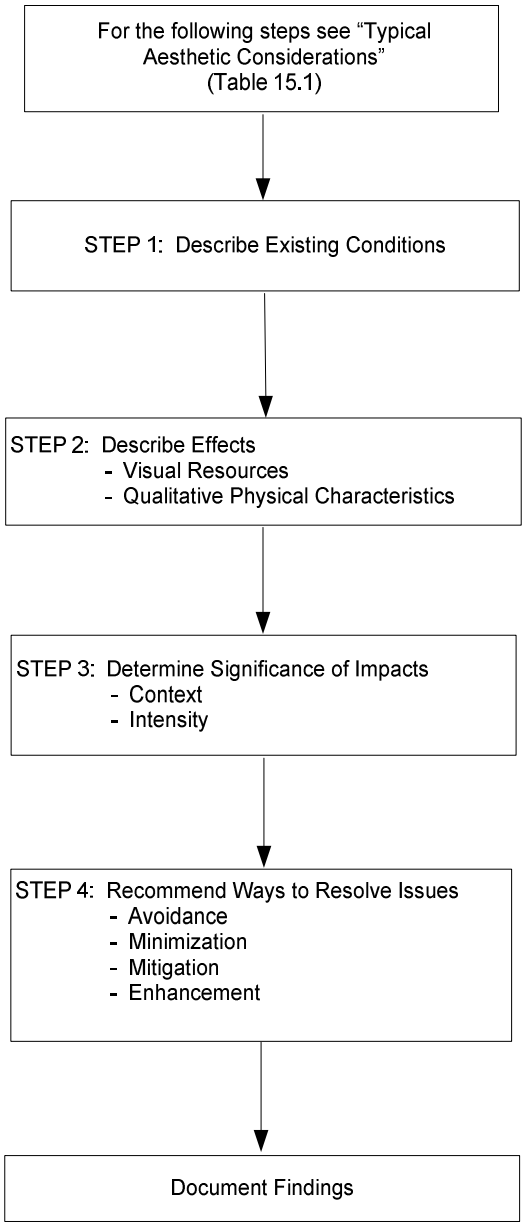

Figure 15.2 Aesthetic Effect Process Steps for PD&E

Additional references to provide further guidance for the preparation of an AE Evaluation

1. AASHTO – *Recurring Community Impacts*; September 2008
2. AASHTO – *RSDG-3-M, Roadside Design Guide, 3rd Edition*; 2002/2006
3. AASHTO - *A Guide for Achieving Flexibility in Highway Design, 1st Edition*; 2004
4. FAC - *Highway Beautification and Landscape Management, Chapter 14-40 Parts I, II & III*; February 2006
5. FDOT – *ETDM Manual, Topic No. 650-000-002*; March 2013
6. FDOT – *Florida Scenic Highways Program Manual*; October 2003
7. FDOT – *Florida Highway Landscape Guide*; April 1995
8. FDOT – *Utility Accommodation Manual* ; October 2007
9. FDOT / Project Management Handbook, Part 1 – *Chapter 9, Context Sensitive Solutions*; March 2008
10. FDOT / PPM Chapter 21 – *Transportation Design for Livable Communities*; Jan. 2015
11. FHWA – *Planning & Environment, Linkages Implementation Resource*; September 2008
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13. ITE – *Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities*; 2006
14. NEA; Project for Public Spaces – *Great Corridors, Great Communities*; 2008
15. NEA; Project for Public Spaces – *Streets as Places*; 2008
16. Nevada DOT – Aesthetic Alternatives for NDOT Design Standards, 2009

FIGURE 15.3 Additional Recommended Reference Materials

17. Scenic America – *Getting it Right in the Right-of-Way: A Citizen's Guide to Context Sensitive Solutions*; 2004

18. TRB - *NCHRP Report 500: Guidance for Implementation of the AASHTO Strategic Highway Safety Plan Transportation Research*; 1998

19. TRB – *Attributes and Amenities of Highway Systems Important to Tourists*; 2004

20. TRB - *NCHRP Report 612, Safe & Aesthetic Design of Urban Roadside Treatments*; 2008

21. TRB – *Aesthetic Initiative Measurement System, A Means to Achieve Context - Sensitive Design*; 2004

22. TRB – *Aesthetic s, Design-Build, and Workhorse Bridges*; 2007

23. US Congress - *National Environmental Policy Act (NEPA) of 1969*; January 1, 1970

24. USCEQ – *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act*; November 1978 (Reprinted)

25. USDOT - *Visual Impact Assessment for Highway Projects*; 2013 (FHWA, Office of Environmental Policy)

FIGURE 15.3 Additional Recommended Reference Materials

PART 2, CHAPTER 16

AIR QUALITY

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AIR QUALITY

16.1 OVERVIEW

16.1.1 Purpose

This chapter describes how to evaluate the air quality effects of transportation projects. The chapter explains Florida Department of Transportation's (FDOT's) process to address existing air quality conditions within the region where a project is located; how to evaluate project specific air quality effects; and, if necessary, how to address those effects.

Motor vehicle pollutant emissions from the combustion of fossil fuels have long been tied to air quality. The primary air pollutants associated with highway motor vehicles are carbon monoxide (CO), nitrogen oxides (NOX), volatile organic compounds (VOC), and to a lesser degree particulate matter (PM_{10} and $PM_{2.5}$). Emissions of NOX and VOC also contribute to the formation of ozone, the primary component of what is commonly referred to as smog. Vehicle emission standards and continued improvement in traffic flow have reduced fleet-wide pollutant emissions over the past several decades.

FDOT's analysis of air quality effects is based on the local area's attainment status for each National Ambient Air Quality Standards (NAAQS**)** as detailed in ***Section 16.2***. It is not necessary to prepare an extensive report to document potential impacts to air quality. Rather, a brief ***Air Quality Technical Memorandum*** is prepared and placed in the project file, and the results documented in the Environmental Document for the project as well.

16.1.2 Definitions

Averaging Time – the time increments over which pollutant concentrations are measured and on which pollutant standards are based. Ambient air quality standards are specified based on the concentration of a pollutant over specific time periods, such as 1-hour, 8-hour, 24-hour, or one year. The different averaging times and concentrations are designed to protect against different exposure effects.

Budget – the estimated amount of air pollution that can occur in a particular area within a specific amount of time without causing a violation of the ambient air quality standards.

Project Level (Hot Spots) Analysis – refers to a modeling analysis used to estimate localized concentrations of one or more criteria pollutants that may exceed the national ambient air quality standards.

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.

16.1.3 Clean Air Act

The ***Clean Air Act (CAA)*** as enacted in 1967, focused on technical information associated with air pollution, including research, grants, and the abatement of interstate air pollution issues. In 1970, the ***CAA*** was amended and the ***NAAQS*** were established to protect public health and welfare. The 1970 Amendments also required states to prepare and implement control plans to achieve the ***NAAQS***. In 1990, the ***CAA*** was amended to include strategies to achieve and maintain the criteria air pollutant ***NAAQS***, to reduce air pollutant and pollutant precursor emissions from mobile sources, and to provide enforcement sanctions for not achieving and maintaining the ***NAAQS***.

16.1.3.1 National Ambient Air Quality Standards

In 1970, the Environmental Protection Agency (EPA) Office of Air Quality Planning and Standards (AQPS) established primary (to protect public health) and secondary (to protect public welfare) ***NAAQS*** for six pollutants. These pollutants are referred to as the **criteria air pollutants:** ozone, nitrogen dioxide, particulate matter, sulfur oxides, carbon monoxide, and lead. The current standards are provided in ***Table 16-1***. 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. The **criteria air pollutants are** described below (see ***Section 16.4*** for more information):

16.1.3.1.1 Ozone

Ozone is not usually emitted directly into the air. At ground level, ozone is created by a chemical reaction between oxides of nitrogen and volatile organic compounds in the presence of sunlight. Motor vehicle exhaust and industrial emissions, gasoline vapors, and chemical solvents as well as natural sources emit oxides of nitrogen and volatile organic compounds. While ozone typically occurs at a regional level, no methodology currently exists to determine ozone emissions at the project level.

16.1.3.1.2 Nitrogen Dioxide

Nitrogen oxides are a group of highly reactive gases. One of these gases, nitrogen dioxide, along with particles in the air, is often seen as a reddish brown layer over urban areas. The primary sources of nitrogen oxides are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuel. Motor vehicles emit approximately 49 percent of the national level of nitrogen oxides.

16.1.3.1.3 Particulate Matter

Particulate matter is a term used to describe particles in the air including dust, dirt, soot, smoke, and liquid droplets. Sources that directly emit particulate matter include motor vehicles, construction activities, and unpaved roads. Particles that form in the air from chemical processes involving sunlight and water vapor include fuel combustion in motor vehicles and at power plants, and industrial processes. Particulate matter is of interest because diesel vehicles emit high levels of the pollutant and diesel particulate has been identified as a probable carcinogen (cancer causing substance) by the EPA.

There are two standards for particulate matter – one for "coarse" particles (those 10 microns or less in size – PM_{10}) and one for "fine" particles (those 2.5 microns or less in size – $PM_{2.5}$). Coarse particles are typically formed by earth-based materials (brake and tire wear) that contribute to particles of this size. Fine particles are a product of combustion.

16.1.3.1.4 Sulfur Dioxide

Sulfur dioxide belongs to a family of sulfur oxide gases. Approximately 65 percent of the sulfur dioxide released in to the air comes from electric utilities. Locomotives, large ships, and some non-road diesel equipment currently burn high sulfur fuel and emit sulfur dioxide. Overall, on-road motor vehicles are not considered a significant source of sulfur dioxide.

16.1.3.1.5 Carbon Monoxide

Carbon monoxide is a colorless, odorless gas that is formed when carbon in fossil fuels is not burned completely. It is a component of motor vehicle exhaust, which contributes approximately 56 percent of carbon monoxide emissions nationally.

16.1.3.1.6 Lead

Although lead is a naturally occurring metal, motor vehicles were historically the major source of lead emissions. However, due to a phase out of leaded gasoline in the 1970s, metals processing is currently the major source of lead emissions.

16.1.3.1.7 NAAQS Designations

In accordance with the ***CAA***, all areas within the United States are designated with respect to the ***NAAQS*** as being "attainment," "non-attainment," "maintenance," or "unclassifiable." An area with air quality better than the ***NAAQS*** is designated attainment; an area with air quality conditions worse than the ***NAAQS*** is designated non-attainment. Maintenance areas are non-attainment areas that have been re-designated to attainment status. As of January 2016, all areas in Florida are designated as attainment. Finally, an area may be designated unclassifiable when there is a lack of data to form a basis of attainment status (unclassifiable areas are typically treated as attainment areas when addressing transportation conformity, ***Section 16.1.3.3***). Current information on the

status of non-attainment areas with respect to the ***NAAQS*** is available within ***EPA's Green Book (U.S. Environmental Protection Agency, 2016b)***.

Table 16-1 National Ambient Air Quality Standards (NAAQS)

Pollutant		Averaging Time	Primary[e]	Secondary[f]
Ozone		8-hour[a]	0.070 ppm[g]	0.070 ppm
Nitrogen Dioxide		1-hour[b]	100 ppb[h]	NA
		Annual Arithmetic Mean	0.053 ppm	0.053 ppm
Particulate Matter	2.5 microns or less in size	24-hour	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	24-hour	150 µg/m^3	NA
Sulfur Oxides[d]		1-hour	75 ppb	NA
		3-hour	NA	0.5 ppm
		24-hour	0.14 ppm	NA
		Annual Arithmetic Mean	0.030 ppm	NA
Carbon Monoxide		1-hour[a]	35 ppm	NA
		8-hour[a]	9 ppm	NA
Lead		Calendar Quarter	1.5 µg/m^3	1.5 µg/m^3
		Rolling 3-Month Average	0.15 µg/m^3	0.15 µg/m^3

[a] The ozone standard is attained when the fourth highest 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.
[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

NA = Not applicable
ppm = parts per million
ppb = parts per billion
µg/m^3 = microgram per cubic meter

Source: United States Environmental Protection Agency, 2016a

16.1.3.2 State Implementation Plans

The control plans that States prepare to address how they will achieve the ***NAAQS*** are known as ***State Implementation Plans (SIPs)***. ***SIPs*** are prepared for all areas designated non-attainment for the ***NAAQS***. They are **not prepared** for areas **designated attainment or unclassifiable**. Maintenance plans detail how an area will maintain

ambient levels of pollutants below the ***NAAQS*** once attaining a standard. ***SIPs*** (which can include maintenance plans) for the EPA's Region 4 (in which the state of Florida is located) that are or have been designated non-attainment for any of the ***NAAQS*** can be found on the EPA's website. A web link to these documents is provided in ***Section 16.4***.

Pursuant to ***Section 176 of the CAA*** no department, agency, or instrumentality of the federal government shall engage in, support in any way or provide financial assistance for, license or permit, or approve, any activity that does not conform to an approved ***SIP***.

Conformity to a ***SIP*** means conforming to a ***SIP***'s purpose of eliminating or reducing the severity and number of violations of and achieving expeditious attainment of the ***NAAQS***. FDOT complies with the ***CAA*** and ***SIPs*** by requiring that projects meet the standards described in this chapter and EPA's transportation conformity requirements.

16.1.3.3 Transportation Conformity

In 1993, the EPA promulgated two sets of regulations to implement ***Section 176 of the CAA***. These are referred to as the ***Transportation Conformity and General Conformity Regulations***. ***The Transportation Conformity Regulations (40 CFR Part 93)*** apply to transportation (highway) plans, programs, and projects within non-attainment or maintenance areas that are developed, funded, or approved under ***Title 23 U.S.C.*** or the ***Title 49 U.S.C.*** *The* ***General Conformity Regulations*** are applicable to all other federal actions.

A transportation conformity determination shows that the estimated pollutant/precursor emissions associated with highway plans or programs are within the emission budgets specified in a ***SIP*** or Maintenance Plan. Metropolitan Planning Organizations (MPOs) typically perform and make the initial conformity determinations in metropolitan areas while state DOTs typically do so in rural areas. Conformity determinations are also made at the federal level by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

Transportation conformity determinations are made at least every three years or, when Long-Range Transportation Plans (LRTPs) and Transportation Improvement Plans (TIPs) are updated. Transportation conformity determinations are made using estimates of the regional amount of an applicable pollutant/precursor emission for a TIP (the entire transportation network within a non-attainment or maintenance area) and forecast highway/transit operating conditions (volume and speed). If the projected emissions for a TIP do not exceed the emission budget for this type of activity, the TIP can be found to conform to a ***SIP***.

In areas designated non-attainment or maintenance for carbon monoxide and/or particulate matter, additional project level (hot spot) analysis may be necessary to determine project-level conformity. These projects must also come from a currently conforming TIP. There have been no areas within the State of Florida designated non-attainment for either carbon monoxide or the current particulate matter standards (for PM_{10} or less in size or $PM_{2.5}$ or less in size).

16.1.3.4 National Environmental Policy Act (NEPA)

Project-level air quality analysis is performed as part of the ***NEPA*** process to identify project-related impacts, and to evaluate possible mitigation, if appropriate. The analysis performed as part of the environmental review process in ***NEPA*** is not required in order to determine conformance in an area designated as non-attainment or maintenance for any of the ***NAAQS***.

The main difference between the analysis performed for the ***CAA*** (conformity) and the analysis performed for ***NEPA*** is that the analysis for the ***CAA*** is based on a comparison of predicted levels (with and without proposed improvements) while the analysis for ***NEPA*** estimates pollutant emissions/concentrations in the vicinity of a proposed project for direct comparison with the ***NAAQS***.

16.2 PROCEDURE

Both the ***CAA*** and ***NEPA*** require that air quality be considered in the preparation of Environmental Documents. The ***CAA*** requires that transportation (motor vehicle-related) projects proposed in non-attainment areas that require federal participation (e.g., approval, licensing, funding) conform to a ***SIP,*** if there are provisions in the ***SIP*** for transportation conformity. Both the ***SIP*** and ***NEPA*** require that project-related (hot-spot) impacts in all areas (attainment and non-attainment) be discussed, and if applicable, mitigation measures considered.

16.2.1 ETDM Screening

Evaluation of project effects on air quality starts during the Efficient Transportation Decision Making (ETDM) screening for qualifying projects. As part of the Preliminary Environmental Discussion (PED), the Project Manager works with the District Air Quality Specialist to identify air quality issues within the project area to determine if an air quality screening will occur. During the Planning and Programming Screens of the ETDM process, the EPA, which is a Technical Advisory Team (ETAT) member, provides comments on air quality issues. The ETAT comments are summarized in the ***Programming Screen Summary Report*** for the ETDM process. For more information, refer to the FDOT's ***ETDM Manual, Topic No. 650-000-002***. The air quality screening results that are summarized in the Programming Screen help support the development of scope of air quality analysis for a Project Development and Environment (PD&E) Study.

16.2.2 Air Quality Analysis

The level of air quality analysis during the PD&E Study varies according to the size of the project, existing air quality issues, and the degree of controversy regarding the project.

16.2.2.1 Categorical Exclusions

Projects evaluated as Categorical Exclusions (CEs) are projects that do not involve significant environmental impacts. These types of projects typically have no effect on area-wide air quality levels, but may provide some air quality benefits on a local basis. As such, FHWA has indicated that an air quality analysis is generally not necessary. (See the ***FHWA Discussion Paper: Appropriate Level of Highway Air Quality Analysis for a CE, EA/FONSI, and EIS***). See ***Section 16.4*** for links to latest models (MOVES and CAL3QHC), tools, and ***NAAQS***.

If there is some question as to whether a particular project normally processed as a CE would have an air quality impact, a screening test should be performed in accordance with ***Section 16.2.2.3.1***. If the analysis indicates that the project will not create a new violation or exacerbate an existing exceedance of the carbon monoxide standard, the project may be processed as a CE.

16.2.2.2 Environmental Assessment

Environmental Assessments (EAs) are prepared when the significance of environmental impacts associated with a project are unknown. In general a simplified analysis procedure is adequate for most EA projects. Low volume roads in rural areas do not require any analysis to determine air quality impacts. Air quality analysis for EAs for other roads are done qualitatively using a knowledge of similar projects. However, if the predicted CO concentrations exceed the standard noted in ***Table 16-1***, a more detailed analysis using computer modeling techniques should be used.

If it is not certain whether there is an air quality impact on an EA, the procedures for an Environmental Impact Statement (EIS) outlined in ***Section 16.2.2.3*** should be followed.

16.2.2.3 Environmental Impact Statement

The air quality analysis in an EIS should normally include at least the results of a screening level analysis. Each alternative, including the no-build alternative, should be analyzed. In most circumstances, the build alternatives will indicate an improvement in carbon monoxide concentrations. A flow chart illustrating the project evaluation process is provided in ***Figure 16-1***.

Ozone, nitrogen dioxide, particulate matter (not associated with construction), sulfur dioxide and lead are regional pollutants. It is not possible to estimate the individual effects of a project on these regional pollutants. Therefore, project level analyses are not required for these pollutants in either attainment or non-attainment areas.

The following sections describe the type of analysis required on a project level for attainment areas and non-attainment/maintenance areas for carbon monoxide and particulate matter criteria pollutants, as appropriate.

16.2.2.3.1 Carbon Monoxide

Attainment/Non-attainment/Maintenance Areas – Levels of carbon monoxide (CO) tend to be the highest adjacent to intersections. Application of a screening test is typically not required for smaller projects with no potential to result in CO hotspots.

Figure 16-1 documents the process for determining whether carbon monoxide screening is required on a project. When a project carbon monoxide screening test is required, intersections within the project corridor should be reviewed to evaluate the potential for a violation of the carbon monoxide ***NAAQS***. At a minimum, the intersection with a combination of the highest intersection approach volume and lowest approach speed should be screened for carbon monoxide using the latest FDOT's carbon monoxide Screening Model (***CO Florida 2012***). The screening test should be performed for future (opening year and design year) conditions with and without the proposed roadway improvements. For additional information on data requirements for the carbon monoxide screening model, see ***User's Guide to CO Florida 2012*** for the screening methodology and the Environmental Office Software Download web page (See ***Section 16.4***) for a link to download the free screening model. ***Figure 16-4*** includes a sample traffic data input sheet to be used for entering traffic data in the Screening Model.

CO Florida 2012 incorporates both the EPA's emission rates model, MOVES, and dispersion model, CAL3QHC. ***CO Florida 2012*** quickly and easily screens intersections for the ambient CO ***NAAQS***. ***CO Florida 2012*** incorporates worst case conservative assumptions including peak hour traffic, January time-frame temperatures, meteorology (wind speed, stability class, and wind angle search), and close-in receptors. 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. ***CO Florida 2012*** has built in different intersection configurations that are analyzed by the screening model after certain specific inputs are entered by the user.

Should the project fail the screening test, a detailed microscale emissions rates and dispersion analysis should be performed on the intersection failing the test to insure there are no violations of the CO ***NAAQS***. The detailed microscale emissions rates and dispersion analysis should be performed using the latest versions of the EPA's MOVES and CAL3QHC models.

If the detailed microscale analysis shows that the intersection still violates the CO ***NAAQS***, mitigation should be done through changes in lanes configuration, signal timing, exclusive vehicle allowances per lane, or other techniques. Once this is done the analysis should be redone for the adjusted scenarios. Compliance with the ***NAAQS standards*** shall be achieved in order for the proposed project to proceed.

16.2.2.3.2 Particulate Matter Associated with Construction

Attainment Areas - Particulate emissions associated with construction activity (e.g. dust) should be evaluated in a project. The following statement should be included in the ***Air Quality Technical Memorandum*** for the project:

Construction activities will 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 the ***FDOT Standard Specifications for Road and Bridge Construction***.

Non-attainment/Maintenance Areas - The EPA has developed guidance describing how to perform a quantitative hot spots analysis for PM_{10} and $PM_{2.5}$ (a link can be found in ***Section 16.4***). The EPA guidance applies to new or expanded highway or transit projects with significant increases in diesel traffic. Consequently, if any area within the State of Florida is ever designated non-attainment with respect to PM_{10} or $PM_{2.5}$, then the PM_{10}/$PM_{2.5}$ guidance would apply. First, a determination would need to be made as to whether a project would significantly increase diesel traffic. If it would, then a quantitative PM_{10}/$PM_{2.5}$ analysis would be required.

16.2.2.3.3 Greenhouse Gases

No national standards have been established regarding greenhouse gases, nor has the EPA established criteria or thresholds for greenhouse gas emissions. In 2007, the U.S. Supreme Court ruled that greenhouse gases (specifically CO_2) should be considered as pollutants under the ***Clean Air Act***. The EPA is currently determining the implications to national policies and programs as a result of the U.S. Supreme Court decision.

In the interim, FHWA has encouraged the Division Offices to develop standard qualitative language related to greenhouse gases for inclusion in Environmental Documents. The FHWA Florida Division Office and FDOT developed the standard language provided in ***Figure 16-3*** to qualitatively address greenhouse gases in environmental documents.

On August 2, 2016, the Council on Environmental Quality (CEQ) issued ***Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews***, which calls for an analysis of direct and indirect greenhouse gas (GHG) emissions from proposed federal agency actions for EAs and EISs. The guidance establishes that the level of analysis should be commensurate with the quantity of projected GHG emissions. In initial response, FHWA notified its Division Offices encouraging a Planning and Environmental Linkages (PEL) approach relying on a planning level analysis ranging from a statewide level greenhouse gas analysis to an analysis at the Metropolitan Planning Organization (MPO), corridor, or subarea planning levels. ***FHWA Transmittal of CEQ Guidance on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews Memo, August 4, 2016***. Although information and technical assistance is developing, the CEQ guidance applies to new proposed federal agency actions where an EA or an EIS commences on or after August 2, 2016.

16.3 DOCUMENTATION

16.3.1 Technical Memorandum

It is not necessary to prepare an extensive report to document the status of the project with respect to air quality. Rather, a brief ***Air Quality Technical Memorandum*** should be prepared. When final, the memorandum should be placed in the project file. The ***Air Quality Technical Memorandum*** should include:

1. A brief description of the project and the area in which the project is located (i.e., is the area primarily residential, commercial, industrial, etc.).

2. A brief description of air quality conditions within the area with respect to the ***NAAQS*** [the current EPA designation (attainment, non-attainment, maintenance, or unclassifiable) for the area (for each of the criteria air pollutants)]. It may be appropriate to cite published information regarding regional or local trend data, when such data is available and relevant to the project.

3. Confirm the project was reviewed for air quality impacts consistent with the ***FHWA Discussion Paper: Appropriate Level of Highway Air Quality Analysis for a CE, EA/FONSI, and EIS*** and provide the results of the analysis for the project alternatives (Build and No-Build). See ***Section 16.2.2.3.1*** for carbon monoxide screening requirements.

4. In attainment areas: The ***Air Quality Technical Memorandum*** should include the following statements:

   > The project is located in an area which is designated attainment for all of the National Ambient Air Quality Standards under the criteria provided in the Clean Air Act. Therefore, the Clean Air Act conformity requirements do not apply to the project.

5. In non-attainment/maintenance areas: The ***Air Quality Technical Memorandum*** should identify the specific LRTP/TIP in which the project is included (i.e., Fiscal Year 2015), the project identification number, and date the conformity determination for the LRTP/TIP was approved. This and other required information can be provided by inserting the following statements in to the memorandum:

   > The project is located in an area that has been designated as non-attainment/maintenance for the averaging time National Ambient Air Quality Standard for pollutant under the criteria provided in the Clean Air Act. This project is included in the urban area's current approved conforming Transportation Improvement Plan (TIP), the area's conforming long-range plan, and the area's Conformity Determination Report. The

project's design concept and scope are the same as that which were evaluated in the conforming TIP and long-range plan.

6. Text addressing greenhouse gas emissions (see text provided in ***Figure 16-3***).

An example ***Air Quality Technical Memorandum*** is provided as ***Figure 16.2***.

16.3.2 Environmental Document

The results documented in the ***Air Quality Technical Memorandum*** are documented in the Environmental Document as described below:

1. Type 2 Categorical Exclusions - For Type 2 CEs, air quality analysis results documented in the ***Air Quality Technical Memorandum*** must be addressed in Section 6 Impact Evaluation, Item D.2 Physical/Air Quality of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11*** and demonstrate whether the proposed project's impacts are significant, not significant, none, or no involvement. The purpose of this form is to provide focused documentation. The basis of decision is documented in the referenced ***Air Quality Technical Memorandum***. Also include greenhouse gases text provided in ***Figure 16-3***.

2. Environmental Assessments - The air quality analysis results documented in the ***Air Quality Technical Memorandum*** are summarized under the Physical Impacts section of the EA, including greenhouse gases text provided in ***Figure 16-3***.

3. Environmental Impact Statements

    a. Affected Environment - A brief summary statement is provided on air quality related issues, including a statement that indicates that there will not be any violations of the ***NAAQS*** for carbon monoxide.

    b. Environmental Consequences - This section should summarize results of the air quality analysis documented in the ***Air Quality Technical Memorandum*** including the text for greenhouse gases (***Figure 16-3***).

4. State Environmental Impact Report (SEIR) – If an air quality analysis is performed, the results are included in the Environmental Analysis 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.

16.4 REFERENCES

40 Code of Federal Regulations (CFR) 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

42 United States Code (USC) 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

CO FDOT Florida 2012 (a Florida-specific, CO Screening Model for Air Quality Analyses of Transportation Projects); User's Guide and Screening Model. http://www.dot.state.fl.us/emo/software/software.shtm

Council on Environmental Quality (CEQ). Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews. August 1, 2016 Memorandum. https://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/ghg-guidance

Federal Highway Administration (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

FHWA Policies and Guidance Papers. http://www.fhwa.dot.gov/environment/air_quality/conformity/policy_and_guidance

FHWA Discussion Paper: Appropriate Level of Highway Air Quality Analysis for a CE, EA/FONSI, and EIS, March 1986. http://www.environment.fhwa.dot.gov/guidebook/vol1/doc1r.pdf

FHWA Transmittal of CEQ Guidance on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews. Memo from Gloria Shepherd, August 4, 2016. http://www.fhwa.dot.gov/environment/climate_change/adaptation/policy_and_guidance/ghgnepa.cfm

Florida Department of Environmental Protection, Air Resource Management Rules, Chapter 62-204 (Air Pollution Control – General Provisions). http://www.dep.state.fl.us/air/rules/current.htm

U.S. Environmental Protection Agency (EPA), 2015a, Tier 3 Vehicle Emission and Fuel Standards Program. http://www3.epa.gov/otaq/tier3.htm

EPA, 2015b. What Are the Six Common Air Pollutants? http://www3.epa.gov/airquality/urbanair/

EPA, 2016a. National Ambient Air Quality Standards (NAAQS). http://www3.epa.gov/ttn/naaqs/criteria.html

EPA, 2016b. The Green Book Nonattainment Areas for Criteria Pollutants.
http://www.epa.gov/airquality/greenbook/

EPA, CAL3QHC Model.
http://www3.epa.gov/ttn/scram/dispersion_prefrec.htm#cal3qhc

EPA, Guidance on Hot Spots Analysis for PM_{10} and $PM_{2.5}$.
http://www.epa.gov/otaq/stateresources/transconf/projectlevel-hotspot.htm

EPA, Motor Vehicle Emission Simulator (MOVES) Model.
http://www.epa.gov/otaq/models/moves/

Webpage links to additional information on:

Chapter 62-4 the Florida Administrative Code (FAC) – DEP's current air quality rules.
http://www.dep.state.fl.us/air/rules/current.htm

Florida Department of Environmental Protection - General Air Quality Publications.
http://www.dep.state.fl.us/air/publication/general.htm

Federal Highway Administration (FHWA) Air Quality.
http://www.fhwa.dot.gov/environment/air_quality/

Federal Highway Administration (FHWA) - Transportation conformity.
http://www.fhwa.dot.gov/environment/conform.htm

US Environmental Protection Agency (EPA) - State Implementation Plans (Region 4).
http://www3.epa.gov/region4/air/sips/

16.5 HISTORY

8/18/1999, 9/13/2006

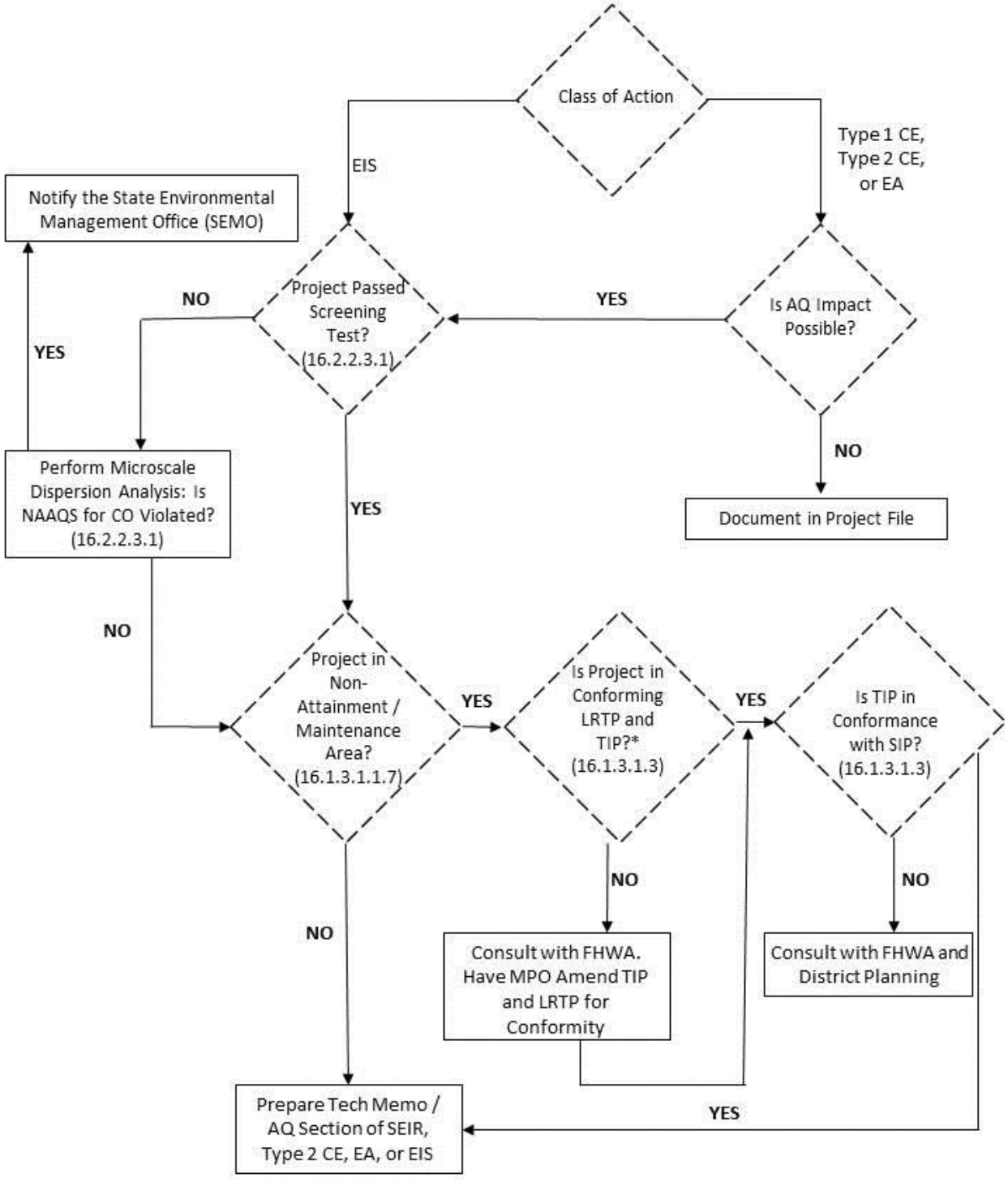

Figure 16-1 Air Quality Analysis Process (for Carbon Monoxide)

AIR QUALITY TECHNICAL MEMORANDUM

Date:
To: Name, Title

From: Name, Title

Subject: Financial Management Number(s)_____
Air Quality Screening Test
Project Description,
_____County
_____

The proposed project is located in _____ County, an area currently designated as being *attainment/non-attainment/maintenance* for the following criteria air pollutant(s) *ozone/nitrogen dioxide/particulate matter (2.5 microns in size and 10 microns in size)/sulfur dioxide/carbon monoxide/lead*.

The project alternatives were subjected to a carbon monoxide (CO) screening model that makes various conservative worst-case assumptions related to site conditions, meteorology and traffic. The Florida Department of Transportation's (FDOT's) screening model for CO 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*. 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 the screening model, 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.

[For projects in non-attainment or maintenance areas also include the following paragraph]
The project is located in an area that has been designated as non-attainment/maintenance for the averaging time **National Ambient Air Quality Standard** for pollutant under the criteria provided in the Clean Air Act. This project is included in the urban area's current approved conforming **Transportation Improvement Plan (TIP),** the area's conforming long-range plan, and the area's **Conformity Determination Report**. The project's design concept and scope are the same as that which were evaluated in the conforming **TIP** and long-range plan. A copy of FDOT's memorandum documenting conformity for the project is attached.

[Insert text from Figure 16.3 to address greenhouse gas (GHG) emissions]

Figure 16-2 Example Air Quality Technical Memorandum

Greenhouse Gases

Greenhouse gases (GHG) cause a global phenomenon in which heat is trapped in the earth's atmosphere. Because atmospheric concentration of GHGs continues to climb, our planet will continue to experience climate-related phenomena. For example, warmer global temperatures can cause changes in precipitation and sea levels. The burning of fossil fuels and other human activities are adding to the concentration of GHGs in the atmosphere. Many GHGs remain in the atmosphere for time periods ranging from decades to centuries.

To date, no national standards have been established regarding GHGs, nor has United States Environmental Protection Agency (EPA) established criteria or thresholds for ambient GHG emissions pursuant to its authority to establish motor vehicle emission standards for CO2 under the Clean Air Act. GHGs are different from other air pollutants evaluated in the federal environmental reviews because their impacts are not localized or regional due to their rapid dispersion into the global atmosphere, which is characteristic of these gases. The affected environment for CO2 and other GHG emissions is the entire planet. In addition, from a quantitative perspective, global climate change is the cumulative result of numerous and varied emissions sources (in terms of both absolute numbers and types), each of which makes a relatively small addition to global atmospheric GHG concentrations. In contrast to broad scale actions such as actions involving an entire industry sector or very large geographic areas, it is difficult to isolate and understand the GHG emissions impacts for a particular transportation project. Furthermore, presently there is no scientific methodology for attributing specific climatological changes to a particular transportation project's emissions.

Under NEPA, detailed environmental analysis should be focused on issues that are significant and meaningful to decision-making (40 CFR 1500.1(b), 1500.2(b), 1500.4(g), and 1501.7). FHWA has concluded, based on the nature of GHG emissions and the exceedingly small potential GHG impacts of the proposed action that the GHG emissions from the proposed action will not result in "reasonably foreseeable significant adverse impacts on the human environment" (40 CFR 1502.22(b)). The GHG emission from the project build alternatives will be insignificant, and will not play a meaningful role in a determination of the environmentally preferable alternative or the selection of the preferred alternative. More detailed information on GHG emissions "is not essential to a reasoned choice among reasonable alternatives" (40 CFR 1502.22(a)) or to making a decision in the best overall public interest based on a balanced consideration of transportation, economic, social, and environmental needs and impacts (23 CFR 771.105(b)).

Summary
This document does not incorporate an analysis of the GHG emissions or climate change effects of each of the alternatives because the potential change in GHG emissions is very small in the context of the affected environment. Because of the insignificance of the GHG impacts, those local impacts will not be meaningful to a decision on the environmentally preferable alternative or to a choice among alternatives.
For these reasons, no alternatives-level GHG analysis has been performed for this project.

Figure 16-3 Greenhouse Gases (GHG) Standard Text

TRAFFIC DATA FOR AIR QUALITY ANALYSIS

Date: _____ Prepared by: _____

Financial Management Number(s): _____

Federal Aid Number(s): _____

Project Description: _____

NOTE: Traffic data should be provided for the intersection that is forecast to have the highest total approach traffic volume. Notably, the intersection may not be the same for the Build and No-Build alternatives. The number of lanes should be the number of intersection approach through lanes. The traffic volumes should be representative of vehicles per hour (vph) and vehicle speeds should be representative of posted speeds if intersection cruise approach speeds are unknown. This traffic data sheet was prepared to assist in obtaining appropriate traffic data for the FDOT CO Florida 2004 Intersection Screening Model. Notably, additional traffic data is required for diamond interchanges (see User's Guide).

==========

Opening Year: _____

Intersections: Build_____ No-Build_____

Land Use: Urban_____, Suburban_____, or Rural _____

Build/ No-Build	EB			WB			NB			SB		
	No. of Lanes	VPH	Spd	No. of Lanes	VPH	Spd	No. of Lanes	VPH	Spd	No. of Lanes	VPH	Spd
Build												
No-Build												

==========

Design Year: _____

Intersections: Build_____ No-Build_____

Land Use: Urban_____, Suburban_____, or Rural _____

Build/ No-Build	EB			WB			NB			SB		
	No. of Lanes	VPH	Spd	No. of Lanes	VPH	Spd	No. of Lanes	VPH	Spd	No. of Lanes	VPH	Spd
Build												
No-Build												

Figure 16-4 Example Traffic Data Input Sheet

PART 2, CHAPTER 17

HIGHWAY TRAFFIC NOISE

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PART 2, CHAPTER 17
HIGHWAY TRAFFIC NOISE

17.1 OVERVIEW

17.1.1 Purpose

This chapter is the official Florida Department of Transportation (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 Federal Highway Administration (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 largely on the regulatory material found in ***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 United States Code (U.S.C.) § 109(1)***. Collectively, FHWA and FDOT consider that all highway projects developed in conformance with this regulation shall be deemed to be in accordance with FHWA noise standards.

17.1.2 Definitions

Approach Criteria - Approaching the criteria means within 1 decibel (dB) of the appropriate FHWA Noise Abatement Criteria (NAC) provided in ***Figure 17-1***.

Benefited Receptor - The recipient of an abatement measure that receives a noise reduction at or above the minimum threshold of 5 dB(A).

Common Noise Environment - A group of receptors within the same activity category found in ***Figure 17-1*** 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 impacted receptors that would benefit from the same noise barrier or noise barrier system (i.e., overlapping/continuous noise barriers).

Date of Public Knowledge - 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 date of the Type 1 CE or ***Non-Major State Action (NMSA) Checklist***.

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.

Impacted Receptor - A receptor with a future design year, build alternative traffic noise level that is predicted to approach, meet, or exceed the Noise Abatement Criterion (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.

Insertion Loss - The reduction in traffic noise levels as a direct result of a specific type of abatement measure.

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 17-1***.

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 - 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.

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, institutional, prior to the project's Date of Public Knowledge.

For mobile/manufactured homes, individual building permits may 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 Traffic Noise Model for existing roadway conditions.

Predicted Future Traffic Noise Level - The traffic noise level that is determined through the use of the Traffic Noise Model 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.

Receptor - A discrete or representative location of a noise sensitive area(s) for any of the land use categories listed in ***Figure 17-1***.

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, 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 in question. 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 Noise Abatement Criteria listed in ***Figure 17-1*** 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 (new location or physical alteration of existing highway) which substantially changes horizontal and vertical alignment, profile or adds number of through lanes. Specific project definitions according to ***23 CFR Part 772*** are listed in ***Section 17.1.3.1***.

Type II Projects - A federal, federal-aid, or state funded highway project for noise abatement on an existing highway. 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)***.

Type III Projects - A project that does not meet the classifications of a Type I or Type II. Type III projects do not require a noise analysis.

17.1.3 Applicability

17.1.3.1 Type I Projects

The requirements of **this policy** apply to all Type I projects authorized under ***Title 23, United States Code (U.S.C.) and Section 335.17, Florida Statutes***. Regardless of funding source all FDOT highway projects shall be developed in conformance with federal standards for noise abatement as contained in ***23 CFR Part 772***. This policy applies to any Type I highway project that:

1. Requires FHWA approval regardless of funding sources;

2. Is funded with federal-aid highway funds; or

3. Is funded for all implementation phases solely with Florida state funds.

The effective date of the revisions to ***23 CFR Part 772*** is July 13, 2011. FHWA has determined that 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 Categorical Exclusion (CE), Finding of No Significant Impact (FONSI), or Record of Decision (ROD) has been signed by the effective date of the final rule, which is July 13, 2011.

2. Design phase reevaluations for which approval has been received prior to July 13, 2011.

If approval of the Environmental Document or the design phase reevaluation 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. The original Date of Public Knowledge remains valid unless a reevaluation identifying a substantial vertical or horizontal change is completed. State funded highway projects shall be "grandfathered" and will not have to meet the ***23 CFR Part 772*** final rule if the State Environmental Impact Report (SEIR) document or ***Non-Major State Action (NMSA) Checklist*** has been signed by July 13, 2011.

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 Part 772 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 to include vegetation removal by FDOT within FDOT Right of Way (ROW)] therefore exposing the line-of-sight between the receptor and the traffic noise source. This is done by either altering the vertical alignment of the highway or by altering the topography between the highway traffic noise source and the receptor, 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, bus lane, or truck climbing lane;

4. The addition of an auxiliary lane, except for when the auxiliary lane is a turn lane;

5. The addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange;

6. Restriping existing pavement for the purpose of adding a through-traffic lane or an auxiliary lane;

7. 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).

8. If 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 17-2***.

17.1.3.2 Type II Projects

A federal, federal-aid, or state funded highway project for noise abatement on an existing highway. 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)***. **FDOT does not have or fund a Type II program**.

17.1.3.3 Type III Projects

A federal, federal-aid, or state funded 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 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***;

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; or

7. Placement of overhead gantries on a highway to collect tolls electronically that do not disrupt existing traffic patterns.

17.2 PROCEDURE

During the Efficient Transportation Decision-Making (ETDM) screening and prior to Project Development and Environment (PD&E), a preliminary review of potential noise impacts associated with a project is conducted for cost estimating and scoping purposes. 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 because predicted traffic noise levels with a build alternative approach or exceed the Noise Abatement Criterion (NAC). The review will include the assessment of land use plans, aerial photographs, field reviews, modeling, and/or similar efforts. This will allow the reviewer 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 is described in the following sections.

17.2.1 Traffic Noise

17.2.1.1 Noise Abatement Criteria Activity Categories

Figure 17-1 contains seven categories of activity/land use used to assess the impact of noise on these activities. The following is a description of each activity category and the traffic noise impact level at which abatement measures must be considered.

17.2.1.1.1 Activity Category A

Activity Category A focuses on the exterior impact criteria 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 approach NAC level for this activity category is 56 dB(A). An example of this activity category would be the Tomb of the Unknown Soldier. FDOT shall submit justification to FHWA, on a case by case basis, for approval to apply this activity category to a noise sensitive receptor.

17.2.1.1.2 Activity Category B

Activity Category B includes the exterior impact criteria for single-family (including mobile home parks) and multifamily residences. This may include units above ground level. The approach NAC level for this activity category is 66 dB(A). No NAC criteria exist for the interior areas of residential land uses.

17.2.1.1.3 Activity Category C

Activity Category C includes the exterior impact criteria for a variety of land use facilities. The approach NAC level 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)*** sites, schools, television studios, trails, and trail crossings. Note that these criteria apply only to the exterior areas of Activity Category C. Impact assessments will involve the identification of the land use through a field review and determination of whether exterior areas of frequent or potentially frequent human use occur that might be impacted by future traffic noise levels for the build condition that approach or exceed the NAC. If exterior areas of frequent human use for this NAC 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.

Where applicable, FDOT research publication ***A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations*** (***FL-ER-65-97***, updated 2009) shall be used to assess whether noise abatement is feasible and/or reasonable at Activity Category C locations.

17.2.1.1.4 Activity Category D

Activity Category D includes the interior impact criteria for a variety of land use facilities listed in Activity Category C that may have interior uses. The approach NAC level for this activity category is 51 dB(A). Examples of this activity category include 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. Note that these criteria apply only to the interior areas of this activity category, and will only be analyzed when no exterior activities are impacted by traffic noise or if exterior areas are determined to be impacted but exterior abatement measures are not feasible and reasonable. An interior analysis will only be performed after exhausting all outdoor analysis options. 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 Guidance Document*** and shown in ***Figure 17-3***;

2. Determination of the open window/closed window condition; and

3. If deemed appropriate, 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-PD-046, Measurement of Highway-Related Noise Final Report (1996)***.

Where applicable, the FDOT research publication ***A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations*** shall be used to assess whether noise abatement is feasible and/or reasonable at Activity Category D locations.

17.2.1.1.5 Activity Category E

Activity Category E includes the exterior impact criteria for developed lands that are less sensitive to highway traffic noise. The approach NAC level 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. Since these land uses are specifically excluded from Activity Category D, no analysis of interior noise levels is required. Where applicable, the FDOT research publication ***A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations*** shall be used to assess whether noise abatement is feasible and/or reasonable at Activity Category E locations.

17.2.1.1.6 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 level for this activity category since FHWA considers these land uses as not sensitive to highway traffic noise and therefore no noise analysis is required for these locations.

17.2.1.1.7 Activity Category G

Activity Category G includes undeveloped lands that are not permitted. There is no NAC level for this activity category. Although consideration of mitigation 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 17.2.6.2***.

17.2.1.2 Traffic Noise Impacts

The FHWA has established NAC that are used to determine whether a highway traffic noise impact occurs. A traffic noise impact occurs when the modeled future highway traffic noise levels for the worst case noise condition [usually Level of Service (LOS) “C”] 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 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, FDOT must evaluate both criteria (approach and substantial increase).

Design year traffic noise impacts are based on the modeled future build noise levels or the difference between the future build and existing measured or predicted traffic noise levels. If one or more noise sensitive receptors are impacted by project related traffic noise levels which 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 or if projected traffic noise levels do not substantially exceed existing noise levels, abatement measures will not be considered.

For example, if, assuming a Category B receptor, the difference between the future build and existing condition predictions shows an increase of 1 dB(A), from 66 dB(A) to 67 dB(A), then the project can be stated to have no substantial increase on highway traffic noise. However, since the predicted level approaches or exceeds the FHWA NAC noise abatement must be considered. If the predicted increase went from 42 dB(A) (existing) to 63 dB(A) (build), the project would be considered to have a substantial increase and would require abatement consideration. For 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.

17.2.1.3 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 (AC) of the NAC shown in ***Figure 17-1*** that is present in the study area. 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

17.2.1.4 Noise Model Requirements

FDOT will conduct any predictive analysis required by ***23 CFR § 772.9*** using the FHWA Traffic Noise Model (TNM) as described in FHWA's ***Traffic Noise Model (FHWA TNM©), User's Guide (Version 2.5 Addendum)***.

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 FHWA allows the use of noise contour lines 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 17.2.6.2***.

17.2.1.5 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 highest traffic volume and the highest average speed usually create the noisiest conditions. Maximum peak-hourly traffic representing 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.

17.2.1.6 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. For those properties with Activity Category D, interior areas of frequent human use should be identified. Interior predictions for Activity Category D (See ***Section 17.2.1.2.4***) should be coordinated with the District Noise Specialist to ensure proper application. Unless the area of exterior frequent human use is identified elsewhere, residential receptor sites should be placed at the edge of the dwelling unit closest to the major traffic noise source or as dictated by professional judgment.

When more than one unit is clustered together, a single receptor can be analyzed as representative of a group of noise sensitive sites. Each residence in a multifamily dwelling is counted as one receptor when determining impacted and benefited receptors. Noise sensitive receptors may also consist of parks, schools, hospitals, and other sites where quiet is important for normal activities. The location of the receptor in these cases will be dictated by the location of the noise source and the exterior activity that may be impacted, if any.

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 Specialists for guidance.

17.2.1.7 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 elects to use the Leq(h) metric.

17.2.2 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 latest version of TNM.

Subsection (b) states that in determining traffic noise impacts, a primary consideration should be given to exterior areas where frequent human use occurs.

17.2.2.1 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 ***Measurement of Highway-Related Noise*** publication. 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

Mete, 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 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 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. Specific questions regarding ambient noise field measurements should be directed to the District Noise Specialist.

17.2.2.2 Field Measurements for Model Validation

The primary purpose of field measuring existing traffic noise levels along an existing roadway alignment is to ensure that:

1. Traffic noise is the primary source of noise; and

2. To validate the TNM input values and verify that the model accurately predicts the existing traffic noise based on the current conditions.

Traffic noise monitoring is conducted in accordance with the FHWA's measurement procedures found in the FHWA document ***Measurement of Highway-Related Noise*** 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 does not result in an acceptable level of accuracy 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 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.

17.2.2.3 Computer Prediction of Existing and Future Traffic Noise Levels

Using the latest version of 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 17.2.1.6***. When non-highway transportation noise sources (e.g., airport operations, transit lines, light commuter rail) may impact the feasibility and reasonableness of noise abatement evaluated during the design phase, it is recommended that data from studies conducted in accordance with the respective regulations below be utilized in lieu of separate studies and the outcome should be noted in the ***NSR***. Assessment of the magnitude of noise from airport operation must comply with ***Airport Noise Compatibility Planning***, ***14 CFR Part 150***. 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 Federal Transit Administration (FTA) ***Transit Noise and Vibration Impact Assessment*** guidance.

17.2.3 Noise Abatement Evaluation

When traffic noise impacts are identified as part of the analysis conducted consistent with ***Section 17.2.2***, 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.

The abatement measures listed on ***23 CFR § 772.15(c)*** are eligible for federal funding. Those measures are listed in ***Section 17.2.3.1***.

At a minimum, FDOT shall consider noise abatement in the form of a noise barrier when a traffic noise impact is identified.

Noise barriers will not include absorptive treatments unless one of two conditions exists:

1. The potential of reflective noise from a noise barrier will create a traffic noise level on the opposite side of the highway that would approach or exceed the NAC for the existing AC that would not be impacted without the reflective noise;

   Or

2. The potential of reflective noise from the parallel noise barriers will degrade the overall noise reduction from one or both sides of the roadway such that the minimum noise reduction provided by the noise barrier falls below 5 dB(A).

If the use of absorptive noise barrier treatments is desired as a functional enhancement, the FDOT shall adopt a standard practice for using such absorptive treatments that is consistent and uniformly applied statewide. Contact the State Environmental Management Office (SEMO) prior to the application of absorptive surface treatment under either of the two conditions detailed above.

17.2.3.1 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)***, FHWA requires that, at a minimum, FDOT 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 impacts” where there is only one impacted receptor 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. FHWA considers 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 to also be 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 (including acquisition of property rights) that is either within or outside the highway ROW. **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 17.2.2*** above. If no impacts are identified, see ***Section 17.2.6***.

When considering noise barriers for noise abatement, the feasibility and reasonableness factors discussed in ***Sections 17.2.3.2 and 17.2.3.3*** 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 17.2.1.2.6*** and ***17.2.1.2.7***).

The document ***A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations*** should be used to ensure the reasonableness of abatement for Activity Category C, D and E land uses.

17.2.3.2 Feasibility Factors

Feasibility factors for noise abatement measures involve both acoustic (noise reduction) and engineering considerations when considering a potential abatement measure.

17.2.3.2.1 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. 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. 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 two (2) or greater.

17.2.3.2.2 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 solely to accommodate construction of a noise barrier should be included in the cost reasonableness evaluation of the noise barrier.

If a noise barrier is expected to be placed on an existing structure, such as a bridge or a Mechanically Stabilized Earth (MSE) wall, because of effectiveness or cost reasons, 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. 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 should be considered during the design phase. Issues related to crash worthiness of a proposed noise barrier within the clear recovery zone must also be addressed.

17.2.3.2.3 Safety Factors

Safety is a critical factor in determining whether a particular abatement measure is feasible. Noise barriers should be designed in accordance with ***Volume 1, Chapter 32 of the Plans Preparation Manual (PPM), Topic No. 625-000-007***. 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.

2. For noise barriers on bridge 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.

Non-crash tested noise barriers within the clear zone require shielding.

17.2.3.2.4 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.

17.2.3.2.5 Right of Way (ROW) 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. ROW needs will be determined as early in the process as possible.

17.2.3.2.6 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.

17.2.3.2.7 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.

17.2.3.2.8 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.

17.2.3.3 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;
2. Cost effectiveness of the highway traffic noise abatement measure;
3. Achievement of the FDOT noise reduction design goal; and

In addition to the above reasonable factors as listed in ***23 CFR 772.13(d)(2)(i)(ii)(iii)***, FDOT has the option to consider additional reasonableness factors as listed in ***23 CFR 772.13(d)(2)(v)***. See ***Section 17.2.3.3.4***.

17.2.3.3.1 Viewpoint of the Benefited Receptors

Through the FDOT ETDM screening process, the District Noise Specialist will have an opportunity to input into the project screening any traffic noise related concerns received from communities adjacent to the project.

During the PD&E phase, the viewpoints of potentially benefited receptors will be gathered during workshops, public hearing or through other public information mediums, such as project websites.

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 a numerical majority of the benefited residents and property owners that provide a response to the survey do not favor 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 the ***Table 17-1***.

Table 17-1 Viewpoint Weighing Factors

Property Type	Owner Occupies Property	Owner Does not Occupy Property	
		Owner	Renter
Single Family	100%	90%	10%
Multi-family (duplex, apartments, condominiums)*	100%	90%	10%
Mobile Home Park	100%	80%	20%
Offices, Businesses	100%	80%	20%

* The weighting are 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 home owner 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 of 10% of the vote of a home owner. 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.

17.2.3.3.2 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 1,400 square feet of noise barrier per benefited receptor at a reasonable cost. The lower the cost, the higher the economic benefit will be to the impacted area. Using the current unit cost of $30.00 per square foot, a reasonable cost of $42,000 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. Cost factor elements are reviewed annually by FDOT and adjusted every five (5) years. The relationship between unit costs and the upper limit for cost reasonableness will be based on maintaining a constant upper limit of 1,400 square feet of noise barrier per benefited receptor. 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;

4. Relocation of utilities when they are outside of FDOT ROW (these costs are not included in the cost effectiveness calculations for the noise barrier); and

5. 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 Global Agreement. 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.

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 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 the extent possible, to enable FDOT to make a statement of likelihood in the Environmental Document to pursue this mitigation 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 reevaluations.

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 common noise environment area. A common noise environment 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 noise barrier for each Activity Category is feasible and cost reasonable on its own. Contact the District Noise Specialist for questions related to the application of the common noise environment criteria.

In the case of RV parks that also serve as a mobile home site, noise abatement will be considered when fifty-one (51) percent of the noise impacted spaces are occupied fifty-one (51) percent of the year or more by "permanent" residents. A permanent resident would be one who occupies the dwelling unit at least fifty-one (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. As is true with all potential noise barrier locations, the noise abatement measure must be feasible and reasonable before it will be considered further.

Third-party funding will not be 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. **FDOT does not consider third party funding in the development of noise abatement measures**.

17.2.3.3.3 Noise Reduction Design Goal

FHWA states in ***23 CFR § 772.13(d)(2)(iv)*** that for an abatement measure to be considered reasonable, it must attain the FDOT noise reduction design goal. 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 impacted receptors as the noise reduction design goal. Failure to achieve the noise reduction design goal 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 noise reduction design goal of 7 dB(A) would be reasonable.

17.2.3.3.4 Antiquity

Antiquity addresses the question of who was there first, the noise sensitive site or the roadway? How long has the noise sensitive site been there relative to elevated noise levels? The application of antiquity as a reasonableness factor is optional and by itself cannot determine noise barrier reasonableness.

17.2.4 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, Florida Statutes***. 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 will 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.

FHWA has determined that the construction of business names/logos or building addresses on noise barriers would be 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.

17.2.5 Community Coordination

17.2.5.1 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.

17.2.5.2 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 contact, telephone polls, mailed survey form, public workshop).

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 the public can aid FDOT in making a decision.

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 consequences. Consultation with FHWA may be needed. When noise abatement measures are being developed during final design, such measures will not be approved without documentation (letters in the file, public hearing transcripts, survey results, etc.) that the benefited property owners or residents have been provided the opportunity to provide input into the final design. The benefited property owners or residents consist of those individuals directly affected by the project-related noise as well the abatement measure.

When noise barriers are proposed, primary emphasis is to be given to the input of the benefited property owners immediately adjacent to the noise barrier(s). If the majority of those responding to the survey do not favor abatement, FDOT will not provide the proposed abatement measure.

17.2.6 Noise Study Report

The results of the noise analyses shall be reported in a ***NSR*** and summarized in the appropriate section of the Environmental Document. All 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. All noise levels (measured or predicted) should be reported to the nearest 1/10th of a decibel. The report should focus on relevant information. TNM input/output sheets should not be included. 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 17-4*** illustrates a recommended outline for the ***NSR***.

17.2.6.1 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 17.2.6.3***).

Include an illustration similar to ***Figure 17-5*** in the ***NSR*** to assist the public in understanding how traffic noise levels relate to other sound sources.

17.2.6.2 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 in land use control once the final approval occurs. The ***NSR*** should also include a representation of the best estimate of the distances from the proposed edge of the nearest travel lane 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 17-6***.

When the ***NSR*** is finalized and following the lead agency approval, send copies to the appropriate local government officials within whose jurisdiction the highway project is located (see ***Figure 17-8*** for a sample ***NSR*** transmittal cover 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 the nearest travel lane 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 Date of Public Knowledge, FDOT is no longer responsible for providing noise abatement to new development which occurs adjacent to the proposed highway project. To encourage the local government(s) and private developers to accept responsibility for incorporating the control of traffic noise into future planning of noise sensitive activities, FDOT has established a process designed to inform these entities of the need for compatible land use control or for requiring proactive noise abatement measures.

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. A sample cover letter template is provided in ***Figure 17-7***.

17.2.6.3 PD&E Phase Commitments

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 in 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 then, the noise studies will have progressed to the stage where noise-impacted areas have been identified. At this stage, it is unlikely that exact locations, abatement types, ROW requirements, design and construction feasibility factors, can be determined, although approximate noise barrier location and height information should be determined. The second time 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 Date of Public Knowledge will be analyzed for traffic noise impacts and, if impacts are predicted, abatement considered during the design phase of the project.

For noise impacted areas requiring abatement consideration, in accordance with ***23 CFR Part 772***, 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 (table, figure, chart) contingent upon the following conditions." (Any or all of the items listed below may be selected, or, if appropriate, project specific contingencies may be created.):
>
> 1. Detailed noise analyses during the final design process support the need, feasibility and reasonableness of providing abatement;
>
> 2. Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion;
>
> 3. Community input supporting types, heights, and locations of the noise barrier(s) is provided to the District Office; and

4. Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved.

17.2.6.4 Design Phase Commitments

As noted in ***Section 17.2.3.3.3*** the FDOT noise reduction design goal is 7 dB(A) for one or more impacted receptors. A minimum insertion loss of 5 dB(A) or more is required to be considered a benefited receptor. During the final design phase, the noise abatement locations, noise barrier types, lengths and heights will be determined. The final noise abatement commitments must be documented in the environmental reevaluation and the ***Noise Study Report Addendum (NSRA)*** prior to construction advertisement, regardless of project funding sources. It is the responsibility of the District Design Project Manager to collect from the environmental staff all PD&E noise abatement commitments and other noise study information such as copies of the ***NSR***, pertinent preliminary design-related information. The Design Project Manager must work with the environmental staff to ensure that the final noise abatement commitments are reflected in the reevaluation of the Environmental Document and concurrence from FHWA or the District Secretary (or designee) is obtained as appropriate before the project moves to construction phase.

If, during the final design phase, abatement is no longer considered feasible or reasonable for a given location(s), such determination(s) will be made prior to requesting approval for construction advertisement. Commitments regarding the exact abatement measure locations, heights, and type (or approved alternatives) will be made during the final design phase and recorded on the ***Project Commitments Record (PCR), Form 700-011-035*** as required by ***Procedure No. 700-011-035, Project Commitment Tracking***.

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 appears to be no apparent solutions available to mitigate the noise impacts at the locations identified in (table, figure, chart)."

17.2.6.5 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 17-7***. 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 receivers;

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 receivers 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 excellent guidance for the prediction and mitigation of construction noise. The Roadway Construction Noise Model (RCNM), 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 of varying complexity. The use of the RCNM should be coordinated with FHWA's Division Office prior to application (as appropriate).

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/NSRA*** 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. Those construction noise and/or vibration impacts that have been identified and for which abatement measures appear to be feasible and reasonable (if any) are noted in the Statement of Likelihood of the ***NSR*** and in the Environmental Document. 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.

17.2.7 Noise Study Report Review

Once the ***NSR*** is completed, it will be reviewed by the Project Manager, District Noise Specialist and/or Environmental Administrator where the technical adequacy of the report will be determined. If necessary, a meeting and/or field review may be held to verify information and/or resolve conflicts. The ***NSR*** is to be considered complete at this point for purposes of proceeding with the preparation of the Environmental Document. It may ultimately be revised during the final design phase and subsequent reevaluations to reflect details regarding exact abatement measures, their location, and types.

When the District review of the ***NSR*** is complete, the ***NSR*** is forwarded to FHWA (as applicable) for review along with the Environmental Document, or maintained in the project file for a Type 1 CE, NMSA or SEIR.

17.2.8 Environmental Document

The type of Environmental Document produced for the project will determine the level and type of information provided relative to the noise study. The expected level of noise impacts discussion for each type of Environmental Document is provided in the sections below.

Excerpts and summaries from the ***NSR*** should be included in the Environmental Document. The 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 Location and Design Concept Acceptance (LDCA) has been received for FHWA funded projects 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 17-8*** for a sample ***NSR*** transmittal cover letter to a local planning agency

17.2.8.1 Type 2 Categorical Exclusion

For a Type 2 CE, include the following documentation in the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***:

1. If "**None**" is to be marked for noise, then a very brief summary of the ***NSR*** should be attached. Projects marked "None" relative to traffic noise indicate that no traffic noise impacts are predicted for any of the land uses adjacent to the project corridor.

2. If "**Not Significant**" is to be marked for noise, then a brief summary of the ***NSR*** should be attached with noise values presented in written form, including any noise abatement commitments.

3. If "**No Involvement"** is to be marked for noise, this would indicate that there are no noise sensitive land uses of any kind located adjacent to the project corridor.

If noise impacts occur, include noise abatement commitments in Commitments and Recommendations (Block 7) of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***. These commitments should be the same as those recorded in the ***Project Commitments Record (PCR), Form No. 700-011-35.***

17.2.8.2 Environmental Assessment (EA) with Finding of No Significant Impact (FONSI)

The Impacts section of the EA must reference and summarize the ***NSR.*** Specific references to the items discussed in ***Section 17.2.2 and 17.2.3*** are included as appropriate. Coordination which occurred during the noise study must be documented. The Comments and Coordination section shall discuss the history of the coordination that occurred and 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.

17.2.8.3 Environmental Impact Statement (EIS)

The Environmental Consequences section of an EIS should summarize the ***NSR*** and include the following information:

1. A brief description of noise sensitive areas, 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 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.

17.2.8.4 State Environmental Impact Report

The Environmental Analysis section of a SEIR should identify the anticipated traffic noise impacts and appropriately reference the basis for decision. The Commitments section should include noise abatement commitments (if any) for the impacts identified in the Environmental Analysis section.

17.2.9 Reevaluations

The reevaluation of any Environmental Document that included a ***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. Changes to the horizontal and vertical roadway alignment should follow the guidance provided in the Type I Projects Matrix provided in ***Figure 17-2***. The reevaluation may result in no change to the ***NSR*** or in a completely new ***NSR*** 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 version of TNM, for any required subsequent noise reevaluation as a result of a major design change.

Major changes to the noise regulations were made on July 13, 2010, with an effective date of July 13, 2011. Therefore, all noise reevaluations conducted after July 13, 2011

will be done in accordance with ***23 CFR Part 772*** dated July 13, 2010. Coordination with FHWA's Division Office during the reevaluation process on federal projects is required (See ***Part 1, Chapter 13, Reevaluations***).

The final noise abatement commitments must be documented in the environmental reevaluation and the ***NSRA*** prior to construction advertisement, regardless of project funding sources. If the ***NSRA*** is substantially modified from the version previously distributed to the affected local governments, a revised version should be sent out to them.

17.2.10 Design-Build Projects

When a Design-Build firm proposes an alternative technical concept to the concept included in the Request for Proposal for the Design-Build project, the District must reevaluate the noise study in conformance with the provisions of ***40 CFR § 1506.5*** and ***23 CFR § 636.109***. The design-build noise study reevaluation must follow the analysis procedures outlined in this Chapter.

17.2.11 Accelerated State Process

FDOT has developed a Statewide Acceleration and Transformation (SWAT) process to improve how projects are delivered. The SWAT process allows for an overlap of PD&E activities and design activities to streamline delivery of projects. Additionally, the SWAT process requires increased coordination between all parties involved in project development to ensure that environmental analysis and issues are properly addressed and documented.

Noise studies for projects delivered through the SWAT process 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. Projects developed under the SWAT process will still utilize a Date of Public Knowledge (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 reevaluation is warranted and documented in the ***NSRA*** before the project is advertised for construction.

17.2.12 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 State Highway System (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 17.3***). 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 SEMO, the GeoPlan Center will prepare the tri-annual report that submitted by the State Noise Program Coordinator to the FHWA Florida Division Office in the format required by ***23 CFR § 772.13(f)***.

17.3 REFERENCES

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17.4 HISTORY

10/6/2003, 4/18/2007, 5/24/2011

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 17-1 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 17-2 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

*The windows shall be considered open unless there is firm knowledge that the windows are in fact kept closed almost every day of the year.

Source: FHWA Highway Traffic Noise: Analysis and Abatement Guidance. August 11, 2010.

Figure 17-3 Building Noise Reduction Factors

EXAMPLE PD&E NOISE STUDY REPORT (NSR) TABLE OF 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 (documents noise monitoring to establish existing noise levels; usually only included for new alignment projects)
- 3.3 Predicted Noise Levels and Abatement Analysis (includes discussion of impacts and noise barrier analysis with each noise sensitive area addressed as a separate report section)

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 Noise Study Report 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 17-4 Example PD&E Noise Study Report (NSR) Outline

EXAMPLE DESIGN NOISE STUDY REPORT (NSR) ADDENDUM 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)
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 discussion of impacts and noise barrier analysis with each noise sensitive area addressed as a separate report section; 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 F.S. 479.25)

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 **TNM Modeling Files and PDF of the NSR Addendum** (on disc, including "Read Me" file)

Figure 17–5 Example Design Noise Study Report Addendum (NSRA) 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 17–6 Typical Noise Levels

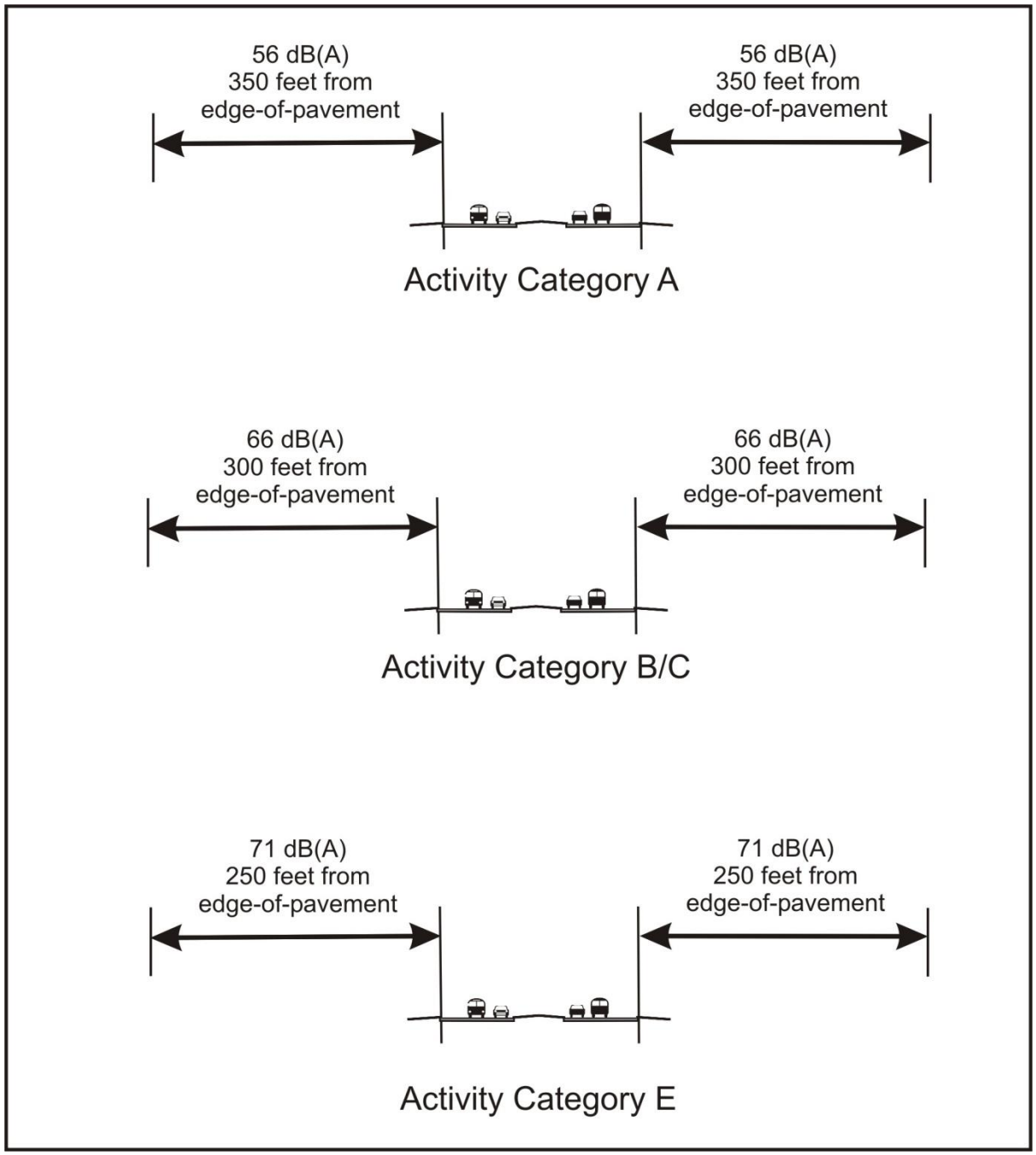

Figure 17–7 Sample Noise Contours

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/Noise Study Report Addendum (Choose one as appropriate). (**INSERT APPROPIATE 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, or DPK, 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)

Figure 17–8 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 17-9 Construction Noise and Vibration Sensitive Sites (a partial listing of potential sites)

PART 2, CHAPTER 18

WETLANDS AND OTHER SURFACE WATERS

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PART 2, CHAPTER 18

WETLANDS AND OTHER SURFACE WATERS

18.1 OVERVIEW

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

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

18.1.1 Regulation of Wetlands and other Surface Waters

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

Section 404 of the ***CWA*** also established a state regulatory authority over wetlands as they relate to water quality impacts. In Florida, state authority over activities in surface

waters and wetlands is administered by the DEP and the five WMDs. The Florida Fish and Wildlife Conservation Commission (FWC) advise the DEP and WMDs on wildlife issues as a requirement under Florida's Environmental Resource Permit (ERP) Program.

Wetlands are one of the public interest factors identified in ***33 CFR § 320.4, Public Interest Review***. If a ***Section 404*** permit is being pursued, the public interest factors relevant to each alternative should be evaluated and balanced. Relevant factors may include conservation, economics, aesthetics, wetlands, cultural values, navigation, fish and wildlife values, water supply, water quality, and any other factors judged important to the needs and welfare of the people.

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

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

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

as necessary and justified to meet national wetland policy objectives." More guidance on practicable alternatives is provided in ***40 CFR § 230.10(a)***.

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

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

1. Identify the type, quality and function of wetlands involved

2. Describe the direct and indirect impacts to the wetlands that may result from the proposed alternative(s)

3. Evaluate alternatives which would avoid wetland impacts

4. Identify practicable measures to minimize harm to wetlands

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

1. The importance of the impacted wetland(s)

    a. The primary functions of the wetlands (e.g., flood control, wildlife habitat, ground water recharge)

    b. The relative importance of these functions to the total wetland resource of the area

    c. Other factors such as uniqueness that may contribute to the wetlands importance

2. The severity of the impact

    a. The analysis should show the project's effects on the stability and quality of the wetland(s)

    b. The analysis should consider the short and long-term effects on the wetlands and the importance of any loss

FHWA's policy and procedures for the evaluation and mitigation of adverse environmental impacts to wetlands and natural habitat resulting from federal-aid projects are contained in ***23 CFR Part 777***. ***FHWA's Environmental Policy Statement (1990, amended 1994)***, provides that FHWA will "participate to the fullest extent permitted by law, in funding mitigation and enhancement activities required by Federal, State, and local statues and

regulations for project related impacts to the natural environment, neighborhoods, and communities."

Coordination with all parties, including FHWA, and documentation of all coordination and agreements must be a part of the wetland section of the ***Natural Resource Evaluation (NRE)*** and summarized in the Environmental Document. The integration of the ***National Environmental Policy Act (NEPA)*** process with ***Section 404(b)(1) Guidelines*** of the ***CWA*** is desirable ***(Section 18.2.6)***.

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

18.1.3 FDOT Wetland Evaluation Process

Involvement with wetlands and other surface waters should be evaluated regardless of whether the project is required to meet ***NEPA*** or state requirements or qualifies for Environmental Screening Tool (EST) screening. See ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination*** for project types qualifying for EST screening. ***Figure 18-1*** provides a flow chart of the wetland evaluation process. The term "wetlands" is used throughout this chapter and includes other surface waters. Other surface waters are included in the wetland evaluation.

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

Regardless of the Environmental Document to be produced, wetland involvement or impacts must be addressed in the appropriate wetland section. For the purposes of this

chapter, the term "wetland section" means the location where wetland involvement or impacts are discussed in the Environmental Document. The title of the wetland section varies with the Class of Action (see ***Section 18.2.4***). Wetland evaluations and impact analyses conducted during the PD&E phase are detailed in the Wetland Evaluation section of the ***NRE***. The ***NRE*** contains the identification and description of the potential wetland resources involved, a wetland functional assessment, and an analysis of wetland impacts for each project alternative, as appropriate. The ***NRE*** also contains an evaluation of options for wetland impact avoidance and minimization, and compensatory mitigation opportunities for unavoidable impacts. A formal "Wetlands Finding" is required for all projects processed as Type 2 Categorical Exclusions (CEs), EA with Finding of No Significant Impacts (FONSIs), and Final Environmental Impact Statements (FEISs) as described in ***Sections 18.2.4.1*** and ***18.2.4.3***. Potential wetland involvement must also be identified in the public hearing advertisement and presentation as described in ***Section 18.2.5***.

18.2 PROCEDURE

18.2.1 Advance Notification

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

Wetland information is included in the Preliminary Environmental Discussion (PED) section of the Fact Sheet and includes the District's initial 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 DEP, 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***).

18.2.2 Wetland Evaluation

The wetland evaluation is documented in the Wetland Evaluation section of the ***NRE***, which is an FDOT technical report that documents protected species and habitat, wetland, and Essential Fish Habitat issues to support the Environmental Document. Each wetland and other surface water with potential involvement is identified and evaluated. The District should consider commentary from the ETAT with wetland jurisdictional responsibility when preparing the ***NRE***. The Wetland Evaluation section of the ***NRE*** should include:

1. The identification of existing wetlands within the project area. Available site specific data should be collected and reviewed such as, but not limited to, EST screening information, Natural Resources Conservation Service (NRCS) Soil Surveys, FDOT Florida Land Use Cover Classification System (FLUCCS), USFWS National Wetland Inventory, United States Geological Survey (USGS) Topographic maps, aerial photographs (1"=100 ft.). All data sources must be documented in the ***NRE***. Include any pertinent maps identifying the wetlands in the project area.

2. The identification of surface waters in the project area. Boundaries may be identified with the aid of data sources listed in item 1 above and/or any other available data sources and be field verified. All data sources must be documented in the ***NRE***. Include maps of the surface waters in the project area.

3. A delineation of each wetland as detailed in the ***Corps of Engineers Wetland Delineation Manual, 1987***; ***Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region, 2010***; ***The Florida Wetlands Delineation Manual, 1995; and Rule 62-340, F.A.C., Delineation of the Landward Extent of Wetlands and Surface Waters*** as appropriate. Boundaries may be delineated with the aid of data sources listed in item 1 above and/or any other available data sources and be field verified. Include maps of the delineated wetlands in the project area. The USACE Jacksonville District accepts a ***Preliminary Jurisdictional Determination Form***. The District should contact the USACE to determine whether a preliminary form is appropriate for a project.

4. A description of wetlands in the project area according to the FLUCCS and the USFWS Classification System as described in ***Classification of Wetlands and Deepwater Habitats of the United States***. The FLUCCS should be to Level 3 only, unless sufficient information has been accumulated to accurately assign a Level 4 classification. The USFWS Classification should be to the subclass level only unless sufficient information has been accumulated to accurately identify dominant vegetation, water regime, water chemistry, or soil types. In using the USFWS Classification System, the analyst should note that a singular wetland may be identified as two or more wetland types, if there are major differences in vegetation or site hydrology. Include a map showing the location, boundaries, and classification (using both systems) of all wetland sites. Additionally, further coordination and evaluation may be required to adequately assess ***Endangered Species Act*** requirements.

5. An evaluation of the potential direct and indirect effects the project will have on the wetland. Wetland impacts regulated under Florida's ERP Program or USACE's ***Section 10/Section 404*** process need to be identified and evaluated. Identify any alternatives that avoid wetland impacts. Estimate the wetland impact acres by comparing wetland boundaries with each project alternative's footprint. The alternative footprint should include potential stormwater pond locations.

Determine the significance of each alternative's impact on each wetland site, including:

a. Effects on flood control, erosion control, water pollution abatement, and wildlife habitat value

b. Effect on stability and quality of the wetland system

c. Short-term vs. long-term effects

6. A discussion of the proposed project's potential contribution to cumulative impacts on the identified wetlands. Consider losses resulting from direct and indirect effects of the project as well as impacts resulting from other development activities in the vicinity. Keep in mind that cumulative effects considerations under ***NEPA*** are different than those under the ERP Program and ***Section 404*** permitting process (See FDOT's ***Cumulative Effects Evaluation Handbook***).

7. A discussion of practicable measures to minimize harm to each wetland site. Minimization could involve measures included in FDOT's ***Standard Specifications for Road and Bridge Construction***.

8. A functional assessment of the wetlands in accordance with UMAM. Use these assessments to estimate the amount of wetland mitigation needed, based on functional loss and the importance of the affected wetlands to the surrounding biological community. For large scale projects when UMAM is not practicable, the District should coordinate with the appropriate regulatory agency to determine if an alternate assessment or UMAM modification can be utilized for the project. If the District intends to advance permitting activities prior to Design, a greater level of detail will be necessary. The functional assessment will be refined and finalized during permitting.

9. A discussion of the potential mitigation options available and description of how those measures can be incorporated into the project. The mitigation discussion should provide sufficient mitigation to show that project impacts can be fully mitigated. Keep in mind that if the mitigation option being considered used a different type of functional assessment such as WRAP, the District will have to coordinate with the appropriate regulatory agencies to determine the amount of mitigation needed to offset project impacts. Document any agency coordination on those mitigation options.

10. A discussion of consultation and coordination with the USACE, USFWS, EPA, NMFS, DEP, WMDs and other appropriate federal, state, and local agencies concerning the impacts of the proposed project on wetlands. For the final ***NRE*** include the outcome of draft review and coordination. Where issues are identified, reach a resolution with each respective agency, if possible. Document resolution in the final ***NRE***.

For coordination/consultation for EAs and EISs, a draft ***NRE*** should be sent to the appropriate agencies for review before the Environmental Document is completed. The District may also request that the State Environmental Management Office (SEMO) review the draft ***NRE*** prior to agency submittal. The ***NRE*** is then updated to address comments. The final ***NRE*** is retained within the project file, distributed to FHWA and applicable agencies, and summarized in the Environmental Document.

18.2.3 Conceptual Mitigation Plan

18.2.3.1 Federal Highway Administration Policy and Participation

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

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

FDOT and FHWA have the authority to restore and enhance existing wetlands and to create new wetlands, these do not counterbalance the effects of adverse impacts to wetlands which are avoidable or satisfy USDOT policy for the "protection, preservation and enhancement of the nation's wetlands to the fullest extent practicable."

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

18.2.3.2 Wetland Mitigation

During project development, FDOT considers a project's location and design to reduce wetland impacts. The first step in mitigating for a project is to avoid wetland impacts. The next step is to minimize wetland impacts. Any remaining wetland impacts which cannot be avoided or minimized must be addressed with a conceptual mitigation plan, which discusses compensatory mitigation opportunities. The level of detail for the conceptual mitigation plan is determined through coordination with the appropriate regulatory agency(s) and is dependent upon the amount of mitigation required. These considerations should be discussed during interagency coordination and documented in the Environmental Document. During permitting, the District will coordinate with the jurisdictional 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 those 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 FHWA. Early agreements may substantially reduce delays during the permitting process and should be documented in the Comments and Coordination section of EAs and EISs.

FDOT documents commitments to provide compensatory mitigation for unavoidable impacts through the use of standard statements (see ***Section 18.2.4***). If additional

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

The Environmental Document must describe the proposed mitigation opportunities considered and demonstrate that mitigation is available to offset impacts to wetlands. FDOT District's should review mitigation information available on DEP, WMD and USACE websites (***Figure 18-2***). This information is documented in the wetland section of the Environmental Document. District staff should coordinate with the District Permit Coordinator when considering mitigation opportunities.

18.2.4 Documentation

The Environmental Document includes a summary of the ***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 6, Engineering Analysis)***.

18.2.4.1 Categorical Exclusions

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

Wetland involvement may be identified for projects that do not require EST screening and immediately advance to the Design phase. For these projects, provide a summary of wetland impacts, agency coordination, and mitigation (as appropriate) as supporting information to the ***Type 1 Categorical Exclusion Checklist, Form No. 650-050-12*** ***(Part 1, Chapter 2, Federal Highway Administration Class of Action Determination)***. Should this analysis indicate a significant impact, the project cannot be processed as a CE.

For Type 2 CE projects, documentation must include a concise summary of wetland impacts, agency coordination, the UMAM or other functional assessment, and if applicable, the mitigation commitment standard statement and a "Wetlands Finding." This information should be added to the wetland section (***Section 6.C.1***) of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***.

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

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

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

1. The proposed project will have no significant short-term or long-term adverse impacts to wetlands,

2. There is no practicable alternative to construction in wetlands, and

3. Measures have been taken to minimize harm to wetlands.

This finding should be concisely summarized in the wetland section (Section 6.C.1. Wetlands) of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11*** with detailed information contained in the project file.

18.2.4.2 Environmental Assessment and Environmental Impact Statement

18.2.4.2.1 Affected Environment Section of Environmental Impact Statement

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

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

18.2.4.2.2 Impacts / Environmental Consequences Sections of Environmental Assessment or Environmental Impact Statement

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

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

2. A discussion of the importance of the wetlands impacted by the proposed project alternative to the surrounding biological community. This includes consideration of:

    a. Primary functions of the wetlands (e.g., flood control, wildlife habitat, erosion control)

    b. Relative importance of these functions to the total wetland resources of the area

    c. Other factors, such as uniqueness, that may contribute to the wetland's importance

3. A description of the impacts of each alternative on the wetlands identified, including the area impacted per site (both directly affected by dredge and fill and indirectly affected by project activities) and the potential loss of wetland function. This includes evaluation of:

    a. Effects on the stability and quality of the wetlands

    b. Short-term and long-term effects on the wetlands

    c. Significance of any wetland loss on primary functions and values

4. An identification and evaluation of alternatives which would avoid wetland impacts

5. An identification of all practicable measures used to minimize wetland impacts

6. Maps showing the location of wetlands identified in relation to each alternative under consideration including alternatives to avoid construction in wetlands

7. A discussion of conceptual mitigation efforts necessary to compensate for unavoidable impacts to wetlands, based on the results of the UMAM or other functional assessment. Mitigation measures which should be considered include:

    a. Compensatory mitigation pursuant to ***Section 373.4137, F.S.*** and as appropriate, ***33 CFR § 332***

    b. Creation of new wetlands from upland areas

    c. Acquisition of private wetlands for preservation, restoration or enhancement

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

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

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

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

18.2.4.3 Finding of No Significant Impact and Final Environmental Impact Statement

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

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

1. A reference to ***EO 11990***

2. A discussion of the basis for the determination that there are no practicable alternatives to the proposed action

3. A discussion of the basis of the determination that the proposed action includes all practicable measures to minimize harm to wetlands

4. A standard concluding statement as follows:

> *Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.*

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

> *The proposed improvements do not take any wetlands, and, therefore,*

Executive Order 11990 does not apply.

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

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

18.2.4.4 State Environmental Impact Report

SEIRs follow the same process for wetland evaluation as federal projects. The results of the wetland evaluation and relevant elements of the ***NRE***, including the UMAM or other functional assessment and conceptual mitigation, are summarized in the wetland section (***Block 6.C.1. Wetlands and Other Surface Waters***) of the ***FDOT Project Evaluation Form (Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery)***.

18.2.5 Public Notice of Wetland Involvement

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

18.2.6 Merging the FHWA NEPA Process and Section 404 of CWA

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

The common elements are:

1. Project Need
2. Wetlands Identification, Delineation (as coordinated with USACE or WMD), and Classification
3. Wetlands Impact Assessment

4. Alternatives Analysis

5. Avoidance and Minimization Analysis

6. Conceptual Mitigation

7. Coordination

18.2.6.1 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 regulatory requirements in accordance with the ***Section 404(b)(1)*** Guidelines. The ***NRE***, including the UMAM or other functional assessment, will be contained in the project file. Based on the information in the ***NRE*** a "Wetlands Finding" is included in the ***NEPA*** document. The ***NRE*** also documents all coordination activities with other agencies on critical elements such as concurrence or the need for additional coordination. The common elements documented in the ***NRE*** which are relevant to both ***NEPA*** and ***Section 404(b)(1)*** Guidelines are detailed below:

1. **Project Need** - The project need will typically contain capacity information, system linkage, transportation demand, modal interrelationships, safety information, and roadway deficiencies as supporting evidence for the project.

2. **Wetlands Identification, Delineation, and Classification** - The identification, delineation, and classification will be developed according to the procedures described in ***Section 18.2.2 Wetland Evaluation***. The USACE Jacksonville District has a process for preparing preliminary jurisdictional determinations.

3. **Wetlands Impact Assessment** - The assessment of potential impacts to wetland functions will be developed using the information obtained in the identification and delineation procedure, and utilizing UMAM or WRAP.

4. **Alternatives Analyses** - Each alternative, including the No-Action alternative, will be analyzed for wetland involvement.

5. **Avoidance and Minimization Analysis** - The analysis will document practicable measures considered to avoid and/or minimize wetland impacts. The Environmental Document should clearly indicate the steps taken for avoidance and minimization of impacts in order to eliminate the need to reassess and justify project design during the permitting phase.

6. **Conceptual Mitigation Plan** - A conceptual mitigation plan for unavoidable wetland impacts is developed in the PD&E phase and refined during the permitting process. The conceptual mitigation plan should identify the amount of mitigation necessary to replace the loss of wetland functions as identified by UMAM or other

functional assessment. It should also identify mitigation opportunities that FDOT will implement to off-set adverse impacts such as the purchase of mitigation credits from a permitted mitigation bank, payment to DEP/WMD for mitigation services, development of its own mitigation site, or any other option that meets state and federal requirements. Appropriate regulatory agency coordination regarding the conceptual mitigation plan is necessary.

7. **Coordination** - Coordination on the elements contained in the ***NRE*** will be documented. Coordination with federal, state and local regulatory agencies is necessary to the point that the environmental permits are achievable.

18.2.7 Permits for Wetland Impacts

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

18.2.8 Reevaluation

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

18.2.9 Design and Construction

Wetland commitments established during the PD&E Study and/or agency coordination must be documented in the Environmental Document through the ***Project Commitments Record (PCR), Form No. 700-011-35*** and transmitted to the Design and Construction Offices to be included in contract documents or be addressed through the permitting process. Follow FDOT ***Procedure No. 700-011-035, Project Commitment Tracking***. Wetland commitments may be permit conditions, or actions/activities required to advance the project and/or require action from the contractor to implement. Wetland review during Design and compliance during Construction consists of the following:

1. Review Commitments and Recommendations specific to wetlands - Coordinate with appropriate environmental staff to ensure wetland commitments are addressed.

2. Plans Received – Review for completeness; identify/confirm project limits.

3. Field Review – Conduct on-site field review(s) with appropriate professionals to confirm existing wetland resources within project limits that are addressed in the plans.

4. Regulatory Agency Coordination and Permitting –The District coordinates with regulatory agencies.

5. Impact Review – Review plans and provide comments on wetlands that were identified and resolutions that should be coordinated with appropriate regulatory agencies or incorporated into the contract design plans.

6. Bid Document Review - Verify that completed final design plans and specifications incorporate required mitigation into the bid documents.

7. Compliance during Construction – Ensure that the Construction Office verifies compliance with wetland commitments, permit conditions and other commitments, as appropriate have been incorporated into the final design.

8. Construction Final Acceptance – Ensure that the wetland commitments (different from permit conditions) were addressed as specified in the contract plans, including modifications approved during construction. This is done by the Construction Office, but may require the Environmental Office involvement (***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 commitment and regulatory compliance as the project advances. It should be noted that additional minimization actions can be conducted during the project Design phase. These additional actions may need to be included in the environmental permit applications. See ***Part 2, Chapter 32, Commitments*** for additional guidance.

18.3 REFERENCES

33 Code of Federal Regulations (CFR) Part 325, Processing of Department of the Army Permits

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

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

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

40 CFR § 423.11, Specialized Definitions

33 CFR § 320.4, Public Interest Review

40 CFR § 1508.20, Terminology and Index

Clean Water Act of 1972

Cowardin *et. al*., U.S. Department of Interior - Fish and Wildlife Service. Classification of Wetlands and Deepwater Habitats of the United States. USFWS/OBS-79/31, December 1979

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

Federal Highway Administration (FHWA). Environmental Policy Statement. Thomas D. Larson, April 20, 1990, amended 1994

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

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

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

FDOT. Cumulative Effects Evaluation Handbook, 2012

FDOT. Standard Specifications for Road and Bridge Construction, Current Version

FDOT. Project Commitment Tracking Procedure. Topic No. 700-011-035-a

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

FDOT. Efficient Transportation Decision Making (ETDM) Manual, Topic No. 650-000-002

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

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

Rivers and Harbors Act of 1899

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

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

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

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

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

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

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

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

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

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

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

18.4 HISTORY

04/14/1999, 11/20/2009, 4/24/2013

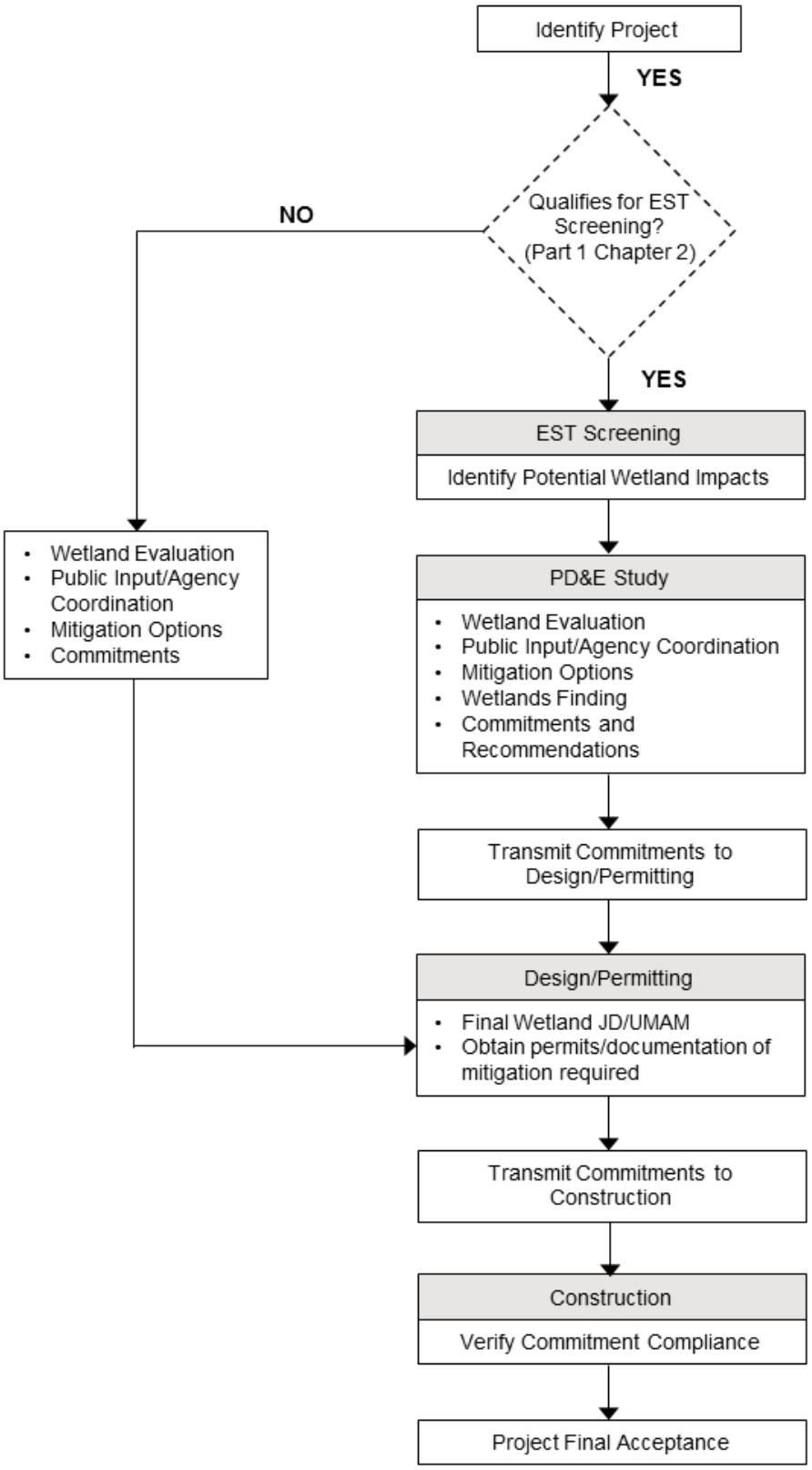

Figure 18-1 Wetland Evaluation Process

Florida Department of Environmental Protection:

http://www.dep.state.fl.us/water/wetlands/mitigation/mitbanks.htm

Water Management Districts:

Northwest Florida
http://nwfwmdwetlands.com/

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

St. Johns River
http://webapub.sjrwmd.com/agws10/mt/Default.htm

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

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

United States Army Corps of Engineers:

http://geo.usace.army.mil/ribits/index.html

Figure 18-2 DEP, WMDs and USACE Mitigation Information

PART 2, CHAPTER 19

AQUATIC PRESERVES AND OUTSTANDING FLORIDA WATERS

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PART 2, CHAPTER 19

AQUATIC PRESERVES AND OUTSTANDING FLORIDA WATERS

19.1 OVERVIEW

The Florida Department of Transportation (FDOT) is required to assess potential project impacts on aquatic preserves and Outstanding Florida Waters. This chapter provides guidance and procedures on how these assessments are completed, coordinated and documented during project development.

19.1.1 Aquatic Preserves

An aquatic preserve is defined as "an exceptional area of submerged lands and its associated waters set aside for being maintained essentially in its natural or existing condition," ***Section 258.37, Florida Statutes (F.S)***. 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 Florida Department of Environmental Protection (DEP) 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, Florida Administrative Code (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 Outstanding Florida Waters (OFWs) under ***Rule 62-302.700(2)(f), F.A.C.*** (***Section 19.1.2***).

19.1.2 Outstanding Florida Waters

Section 403.061(27), F.S., grants DEP rulemaking authority to establish a special category of water bodies within the State, to be designated as OFWs, which shall be worthy of special protection because of their natural attributes. Most OFWs are open water areas managed by the state or federal government as parks, including wildlife refuges, preserves, marine sanctuaries, estuarine research reserves, certain waters within state or national forests, scenic and wild rivers, Special Waters OFWs, or aquatic preserves.

19.2 PROCEDURE

19.2.1 Determine Involvement with Aquatic Preserves and/or Outstanding Florida Waters

It is the responsibility of the District to determine whether a project is located in, over, or adjacent to a designated Aquatic Preserve and/or OFW.

If the project was not screened in the Efficient Transportation Decision Making (ETDM) Environmental Screening Tool (EST) ***(ETDM Manual, Topic No. 050-000-002)***, the location of aquatic preserves and OFWs in relation to the project may be determined by referring to:

1. A list of Aquatic Preserves and a link to a map of their locations provided in ***Figure 19-1***. 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, 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. Aquatic Preserve or OFW data layers as stored in the Florida Geographic Data Library through the EST independent of running an ETDM screening event.

If further assistance is needed, the District should contact the DEP Environmental Technical Advisory Team (ETAT) member.

For projects that were screened in the EST, aquatic preserve and OFW data as well as ETAT comments are provided in the Special Designations section of the ***Programming Screen Summary Report (ETDM Manual, Topic No. 050-000-002)***. This includes Geographic Information System (GIS) data and applicable maps that identify the proximity of the proposed action to aquatic preserves or OFWs. ETAT comments on the Special Designations issue should identify any potential impact to the resources. Comments by DEP are especially important. It may also be helpful to review ETAT comments on other issues such as Wetlands and Surface Waters and Water Quality and Quantity.

19.2.1.1 Projects not in an Aquatic Preserve or Outstanding Florida Water

When a project is not located in, over, or adjacent to an aquatic preserve or OFW, it should be documented as follows:

Type 2 Categorical Exclusion (Type 2 CE): “NoInv” should be marked in the appropriate issue in Section 6.C. of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***.

Environmental Assessment (EA) and Environmental Impact Statement (EIS): The Aquatic Preserve and Outstanding Florida Waters section of an EA or EIS should state that the project is not in an aquatic preserve or OFW.

State Environmental Impact Report (SEIR): "NoInv" should be marked in the appropriate issue in the SEIR. A note should be included on the Basis for Decision line that states "The project is not in an aquatic preserve or Outstanding Florida Water."

19.2.1.2 Projects in Aquatic Preserves

Coordination with DEP 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, aerials depicting alternatives with ROW located within the boundary of an aquatic preserve should be submitted to DEP for review and comment. They should be addressed to:

Director, Florida Coastal Office
Florida Department of Environmental Protection
3900 Commonwealth Blvd.
Mail Station 235
Tallahassee, FL 32399-3000

A letter requesting a DEP response within a period of thirty days should accompany the aerials. If a determination is made that the project will have no impact after coordination with DEP, provide documentation according to ***Section 19.2.1.2.1***. If there is an impact, document according to ***Section 19.2.1.2.2***.

Projects that are located in an aquatic preserve must also be identified in the ***Water Quality Impact Evaluation (WQIE) Checklist*** according to ***Part 2, Chapter 20, Water Quality Impact Evaluation***.

19.2.1.2.1 Documentation of Projects Without Impacts

For Type 1 CE projects located in an aquatic preserve, which will have no impact on the aquatic preserve, a copy of the DEP coordination letter(s) should be placed in the project file, or the issue is addressed during the acquisition of the Environmental Resource Permit (ERP) ***(Section 19.2.2)***.

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 included in the (Name of Aquatic Preserve). After coordination with the 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 DEP should be discussed in the Environmental Document and coordination letters should be referenced in the document and included in the project file.

Type 2 CE: "None" should be marked in Section 6.C.2, Impact Evaluation, of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***. The standard statement above should be included in the Aquatic Preserves section of the document. The DEP coordination letter(s) should also be referenced in this section and 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. Discussion of coordination with DEP in the Comments and Coordination section should be consistent with the Aquatic Preserve and Outstanding Florida Waters section and a copy of DEP coordination letter(s) should be placed in the Appendix.

SEIR: Place an "X" in the "No" column in the Environmental Analysis section of the SEIR. Include the above standard statement in the Aquatic Preserves section of the document. Provide justification of the decision in the Basis for Decision column and supplement with attachments as necessary to substantiate the impact determination. Correspondence with DEP should be referenced in the SEIR and included in the project file.

19.2.1.2.2 Documentation of Projects with Impacts

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 Aquatic Preserves and Outstanding Florida Waters section of 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 outside 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 any ETAT comments.

Type 2 CE: In Section 6.C.2, Impact Evaluation, of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***, place an "X" in the appropriate column

indicating the level of impact. Provide supplemental information listed above in an attachment to the form. Coordination letter(s) should be referenced in the supplemental information and included in the project file.

EA and EIS: A copy of the DEP coordination letter(s) and any other correspondence should be placed in the Appendix. In addition, discussion of coordination with DEP in the Comments and Coordination section should be consistent with the Aquatic Preserve section.

SEIR: In the Environmental Analysis section of the SEIR, place an "X" in the appropriate column indicating the level of impact. If an issue exists but the project will alter it in a positive manner, mark the column indicating “ENHANCE.” If there is a potential impact, mark the column “YES”. Provide justification of decision in the Basis for Decision column and supplement with attachments as necessary to substantiate the impact determination. Correspondence with DEP should be referenced in the SEIR and included in the project file.

19.2.1.2.3 Section 4(f) Applicability

The Districts should determine ***Section 4(f)*** applicability for projects located in aquatic preserves if the project is federally funded. ***Section 4(f)*** may also apply to OFWs because of other designations (State Park, Aquatic Preserve, National Park). ***Section 4(f)*** applies to the portions of aquatic preserves which are designated on an approved land management plan for use as or are actively being used as a park, recreational area, wildlife or waterfowl refuge, or is an historic site or property. ***Section 4(f)*** is not applicable unless specific land uses, as identified in ***Section 4(f)***, exist on those portions of the land needed for highway purposes. See ***Part 2, Chapter 13, Section 4(f) Resources*** for more information on ***Section 4(f)*** applicability. Designation as an aquatic preserve does not in itself invoke ***Section 4(f)*** in the absence of specific ***Section 4(f)*** land use categories. Such land uses are often delineated in a preserve’s management plan. Coordination with the official with jurisdiction is needed to prepare ***Section 4(f)*** documentation; however, the Federal Highway Administration (FHWA) has sole responsibility for determining ***Section 4(f)*** applicability.

19.2.1.3 Projects in an Outstanding Florida Water

For Type 1 CE projects located in an OFW, a copy of the DEP coordination letter(s) should be placed in the project file, or the issue is addressed during acquisition of the ERP.

For Type 2 CE, EA, EIS, and SEIR projects located in an OFW, the following should be assessed and included in the Aquatic Preserves and Outstanding Florida Waters section of the Environmental Document.

1. Identify the OFW and provide a map or figure showing how it relates to the project

2. Address any ETAT comments

3. Identify potential impacts to OFWs that can be evaluated prior to permitting, including potential alternative and treatment strategies.

Type 2 CE: In Section 6.C.4, Impact Evaluation, of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***, place an "X" in the appropriate column indicating the level of impact. Provide supplemental information listed above in an attachment to the form. Correspondence with DEP should also be referenced in the supplemental information and included in the project file.

EA and EIS: Include any correspondence with DEP in the Appendix. In addition, discussion of coordination with DEP in the Comments and Coordination section should be consistent with the Aquatic Preserves and Outstanding Florida Waters section.

SEIR: In Section B.1, Environmental Analysis, of the SEIR place an "X" in the appropriate column indicating the level of impact. If an issue exists but the project will alter it in a positive manner, mark the column indicating “ENHANCE.” If an issue exists but there is little or no impact, mark the column indicating “NO.” If there is a potential impact, mark the column “YES”. Provide justification of decision in the Basis for Decision column and supplement with attachments as necessary to substantiate the impact determination. Correspondence with DEP should be referenced in the SEIR and included in the project file.

Projects that are located in an OFW must also be identified in the ***WQIE Checklist***, according to ***Part 2, Chapter 20, Water Quality Impact Evaluation***.

19.2.2 Project Permitting

Generally, DEP and the Water Management Districts cannot issue permits for direct pollutant discharges to OFWs, which would lower ambient (existing) water quality, significantly degrading OFWs (Anti-degradation Requirement).

Pursuant to ***Rule 62-4.242 F.A.C.***:

(2)(a.) No Department permit or water quality certification shall be issued for any proposed activity or discharge within an Outstanding Florida Waters, or which significantly degrades, either alone or in combination with other stationary installations, any Outstanding Florida Waters, unless the applicant affirmatively demonstrates that:

(2)(a)1. [*does not apply to FDOT projects*]

(2)(a) 2. The proposed activity of discharge is clearly in the public interest, and either

a. A Department permit for the activity has been issued or an application for such permit was complete on the effective date of the Outstanding Florida Water designation; or

b. The existing ambient water quality within Outstanding Florida Waters will not be lowered as a result of the proposed activity or discharge, except on a

temporary basis during construction for a period not to exceed thirty days; lowered water quality would occur only within a restricted mixing zone approved by the Department; and, water quality criteria would not be violated outside the restricted mixing zone. The Department may allow an extension of the thirty-day time limit on a construction-caused degradation for a period demonstrated by the applicant to be unavoidable and where suitable management practices and technology approved by the Department are employed to minimize any degradation of water quality.

Projects located in OFWs receive a greater level of scrutiny by the state environmental regulatory agencies during ERP permitting. Where project impacts are proposed within an OFW, the applicant must provide reasonable assurance that the project is "clearly in the public interest." (***Section 373.414, F.S.***) This is determined by balancing each of the following criteria as listed in ***Rule 62-330.302, F.A.C.***:

1. Whether the activities will adversely affect public health, safety or welfare or the property of others;

2. Whether the activities will adversely affect the conservation of fish and wildlife, including endangered or threatened species or their habitats [will not result in harm to named listed wildlife species [***Rule 62-330.302(1), F.A.C.***].

3. Whether the activities will adversely affect navigation or flow of water or cause harmful erosion or shoaling;

4. Whether the activities will adversely affect the fishing or recreational values or marine productivity in the vicinity of the activity;

5. Whether the activities will be of a temporary or permanent nature;

6. Whether the activities will adversely affect or will enhance significant historical and archaeological resources (under provisions of ***Section 267.061, F.S.***); and

7. The current condition and relative value of functions being performed by areas affected by the proposed activities.

In order to meet permitting requirements, there is generally a greater emphasis on minimization and avoidance of jurisdictional areas designated as OFWs. Commitments and commitment monitoring are addressed in ***Part 2, Chapter 32, Commitments***.

19.3 REFERENCES

Chapter 258, Part II, Florida Statutes (F.S.), Aquatic Preserves

Florida Administrative Code (FAC), Chapter 18-20, Florida Aquatic Preserves

FAC, Chapter 62-25 Regulation of Stormwater Discharge

FAC, Rule 62-302.700, Special Protection, Outstanding Florida Waters, Outstanding National Resource Waters

FAC, Chapter 62-330, Environmental Resource Permitting

FAC, Chapter 62-4.242, Antidegradation Permitting Requirements; Outstanding Florida Waters; Outstanding National Resource Waters; Equitable Abatement

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

Florida Statutes, Section 403.061, Subsection (27)

19.4 HISTORY

Part 2, Chapter 19, Aquatic Preserves: 3/15/2004, 11/08/2007, 1/11/2011

Part 2, Chapter 21, Outstanding Florida Waters: 03/15/2004, 11/8/2007, 01/11/2011

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 – Cape Florida to Monroe County Line
12. North Fork: St. Lucie
13. Yellow River Marsh
14. Fort Pickens State Park
15. Rocky Bayou State Park
16. St. Andrews State Park
17. St. Joseph Bay
18. Apalachicola Bay
19. Alligator Harbor
20. St. Martins Marsh
21. Matlacha Pass
22. Pine Island Sound
23. Cape Romano - Ten Thousand Islands
24. Lignumvitae Key
25. Coupon Bight
26. Lake Jackson
27. Pinellas County
28. Estero Bay
29. Cape Haze
30. Wekiva River
31. Rookery Bay
32. Cockroach Bay
33. Gasparilla Sound - Charlotte Harbor
34. Terra Ceia
35. Guana River Marsh
36. Big Bend Seagrasses
37. Boca Ciega Bay
38. Rainbow Springs
39. Lemon Bay
40. Oklawaha River

Map showing locations of Aquatic Preserves:
http://www.dep.state.fl.us/COASTAL/SITES/

Figure 19-1 Aquatic Preserves

PART 2, CHAPTER 20

WATER QUALITY IMPACT EVALUATION

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PART 2, CHAPTER 20

WATER QUALITY IMPACT EVALUATION

20.1 OVERVIEW

20.1.1 Purpose and Use

Roadway stormwater runoff may result in impacts to surface water and groundwater, if not adequately treated. All Florida Department of Transportation (FDOT) projects are designed to avoid or minimize stormwater impacts and include stormwater management systems that are designed to meet the requirements of appropriate regulatory agencies.

The purpose of this chapter is to provide guidance for assessing and documenting potential water quality impacts to water resources from transportation projects, and to ensure compliance with the federal ***Clean Water Act (CWA)*** as well as state regulatory requirements. This chapter provides guidance on documenting water resource information, coordinating with water resource agencies and other stakeholders, and developing related commitments in the Environmental Document through completion of a ***Water Quality Impact Evaluation (WQIE)***. The level of documentation for the ***WQIE*** depends upon the extent of potential impacts of a proposed project on surface and/or groundwater resources. Specifically, the impacts are related to direct and indirect stormwater discharges from transportation projects into surface water (other than wetlands) and/or groundwater. The chapter does not cover impacts to wetlands and other surface water impacts not related to stormwater. See ***Part 2, Chapter 18, Wetlands and Other Surface Waters***, for wetland evaluation procedures.

This chapter also describes the Environmental Look Around (ELA), a process of proactively looking for opportunities for joint stormwater treatment projects with agencies or stakeholders and obtaining the most current water resource information required to complete the ***WQIE Checklist***. This chapter focuses on both surface water and ground water resources. The term “water resources” is used throughout this chapter and includes both surface and ground water.

20.1.2 Definitions

Aquatic Preserve – established under the ***Aquatic Preserve Act***, means an exceptional area of submerged lands and its associated waters set aside for being maintained essentially in its natural or existing condition.

Basin Management Action Plan (BMAP) – is a comprehensive plan, coordinated by the Florida Department of Environmental Protection, of regulatory and non-regulatory actions to meet the Total Maximum Daily Load (TMDL) for a given watershed. BMAPs

are designed to implement restoration strategies reducing 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.

Environmental Look Around – a process of proactively looking for opportunities for joint stormwater treatment projects with agencies or stakeholders and obtaining the most current water resource information. .**DEP Group Number** – The number and name assigned by DEP, based on watershed 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, the Florida Department of Environmental Protection has verified many waterbodies as impaired. 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 required 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 The waterbody does not meet applicable criteria, but no pollutant can be identified; therefore, a TMDL will not be developed at this time.

4e Impaired, but recently completed or on-going restorative activities are underway to restore the designated uses of the waterbody

5 Water quality standards are not attained and a TMDL is required

Municipal Separate Storm Sewer System (MS4) - is a publically-owned conveyance or system of conveyances, such as roads with stormwater systems, municipal streets, catch basins, that is designed or used for collecting or conveying stormwater that discharges to surface waters of the state.

Numeric Nutrient Criteria (NNC) – are statewide numeric nutrient standards for Florida's waters established under ***Rules 62-302.531, F.A.C. (Lakes, Streams and Spring Vents) and 62-302.532, F.A.C. (Estuaries and Costal Segments)***.

Outstanding Florida Water (OFW) – established under ***Rule 62-302.700, F.A.C.***, is a water designated by the Environmental Regulation Commission as worthy of special protection because of its natural attributes.

Outstanding National Resource Water (ONRW) – established under ***Rule 62-302.700(10), F.A.C.***, is a water that is of such exceptional recreational or ecological significance that the water quality should be maintained under all circumstances other than allowed by Section 316 of the ***Clean Water Act***.

Reasonable Assurance Plan (RAP or 4b plans) - waterbody restoration plans for waterbodies that are impaired, but with control programs already being implemented to reduce pollutant loadings.

Site Specific Alternative Criteria (SSAC) – is an alternative surface water quality standard and 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.

Sole Source Aquifer (SSA) – The Environmental Protection Agency (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. 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. For convenience, all designated sole or principal source aquifers are referred to as "sole source aquifers" (SSAs). For Florida, the EPA has identified two SSAs: the Volusian-Floridan, and the Biscayne Aquifers. [***1424(e) of the Safe Drinking Water Act of 1974 (Public Law 93-523, 42 U.S.C. § 300 et seq.***]

Special Waters – established under ***Rule 62-302.700, F.A.C.***, is a water that is of exceptional recreational or ecological significance.

Surface Water Improvement and Management Program (SWIM) Area – established in 1987 as one mechanism to address nonpoint source pollution. SWIM was the first major state program to address a waterbody's needs as a system of connected resources rather than isolated wetlands or waterbodies. The water management districts 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 water body can absorb and still meet the water quality standards that protect human health and aquatic life. The DEP 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, found in ***Chapter 62-302, F.A.C.*** for surface waters.

Waterbody Classification – for surface water the classifications are established by ***Rule 62-302.400, F.A.C.***, and are as follows:

Class I	Potable Water Supplies
Class II	Shellfish Harvesting or Propagation
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 Number) - There are six Florida Department of Environmental Protection Districts in Florida that have been divided into five Groups based on regional basins. Each regional basin is divided into smaller basins, each identified by a water body identification number (WBID). Most projects will be located in more than one WBID.

Wild and Scenic River – a designation under the National Wild and Scenic Rivers System created by Congress in 1968, to preserve rivers with outstanding natural, cultural, and recreational values in a free-flowing condition.

20.1.3 Federal and State Regulations

All FDOT projects must adhere to federal and state regulations. It is the project manager's responsibility to become familiar with the rules and regulations that may affect the project. This section summarizes some of those rules as well as programs designed to aid in increasing water quality.

20.1.3.1 Clean Water Act

Water quality regulations began in earnest with the adoption of the ***CWA*** in 1972. ***Section 402*** of the ***CWA*** established the National Pollutant Discharge Elimination System (NPDES) permit program by regulating sources of pollution that discharge into waters of the U.S. This section also directed the Administrator of the U.S. Environmental Protection Agency (EPA) to approve state NPDES programs that comply with the ***CWA***. The 1987 amendments to the ***CWA*** established the NPDES stormwater permitting program. The NPDES stormwater program regulates point source discharges of stormwater into surface waters of the state from certain municipal, industrial, and construction activities.

In October 2000, the EPA authorized the Florida Department of Environmental Protection (DEP) to implement the NPDES stormwater permitting program in the State of Florida (in all areas except sovereign tribal lands). DEP's authority to administer the NPDES program is set forth in ***Section 403.0885, Florida Statutes.***

In addition to the ***CWA***, at the state level, Florida enacted the ***Water Resources Act of 1972*** which defines the policies for the conservation, allocation and enhancement of state water resources. This act also lead to the development of water quality standards by DEP in ***Chapter 62-302, F.A.C.***, regulations for determining whether a water body is impaired, as required by the section 303(d) of the ***CWA***, ***Chapter 62-303, F.A.C.***, and establishment of total maximum daily loads, ***Chapter 62-304, F.A.C.***, as discussed below.

20.1.3.2 Total Maximum Daily Loads

Total Maximum Daily Loads (TMDLs) are established under the ***Florida Watershed Restoration Act*** in accordance with ***Section 403.067, Florida Statutes.*** TMDLs are adopted for waters identified as impaired by DEP in accordance with ***Chapter 62-303, F.A.C.***, also known as the Impaired Waters Rule (IWR).

In accordance with EPA requirements under the ***CWA***, Florida prioritizes waters verified as impaired and establishes a TMDL for each one. Under the authority of ***Section 303(d) of the CWA***, EPA requires that TMDLs be developed where technology-based effluent limitations or other legally required pollution control mechanisms are not stringent enough to protect water quality. Florida has hundreds of impaired water bodies or water body segments being addressed through the development and implementation of TMDLs. TMDLs are adopted by law in ***Chapter 62-304, F.A.C.*** TMDLs may be implemented through Basin Management Action Plans (BMAPs), NPDES permits, or through other mechanisms. The list of adopted TMDLs can be found on DEP website which is updated regularly and should be checked periodically throughout the life of the project by the project manager.

20.1.3.3 Basin Management Action Plan

A ***Basin Management Action Plan (BMAP)*** is the implementation of a TMDL for restoring impaired waters by reducing pollutant loadings to meet the allowable loadings

for the basin established in a TMDL. BMAPs represent a comprehensive set of strategies—permit limits on wastewater facilities, urban and agricultural best management practices, stormwater best management practices, conservation programs, financial assistance and revenue generating activities designed to implement the pollutant reductions established by the TMDL. These broad-based plans are developed under ***Section 403.067, F.S.***, with local stakeholders, including FDOT, and they rely on local input and local commitments. The list of adopted BMAPs can be found on the DEP website which is updated regularly.

20.1.3.4 Reasonable Assurance Plans

Reasonable Assurance Plans (RAPs) are waterbody restoration plans for waterbodies that are impaired, but with control programs already being implemented to reduce pollutant loadings. Like the BMAP process, the RAP process is largely a stakeholder driven process designed to restore water bodies to meet their designated uses, and may involve participation by FDOT. Statewide the DEP is working with local stakeholders to develop plans at the earliest practical time to restore waters not meeting state water quality standards. The ***Florida Watershed Restoration Act, Section 403.067(4), F.S.***, explicitly allows DEP to not list impaired waters if they already have control programs (RAPs) in place that will assure that water quality standards will be restored, thus alleviating the need to establish a TMDL. The list of adopted RAPs can be found on the DEP website which updated regularly.

20.1.3.5 Sole Source Aquifers and the Safe Drinking Water Act

Sole Source Aquifers (SSA) are regulated pursuant to ***Section 1424(e) of the Safe Drinking Water Act (SDWA) (Pub. Law 93-523)***, whereby the EPA has designated the Volusia, Floridan and Biscayne Aquifers, including their respective recharge and streamflow source zones, as SSA or principal sources of drinking water for public supply systems and individual wells in designated areas of Florida. Once an area is designated, no subsequent commitments of federal financial assistance may be made to projects that the EPA Administrator determines may contaminate the aquifer so as to create a significant hazard to public health. Any level of contaminant which causes or may cause the aquifer to exceed any maximum contaminant level set forth in any promulgated National Primary Drinking Water Standard at any point where the water may be used for drinking purposes or which may otherwise adversely affect the health of persons, or which may require a public water system to install additional treatment to prevent such adverse effect may be determined by EPA to create a significant hazard to public health.

A ***Memorandum of Understanding (MOU)*** was executed on January 25, 1999, among EPA, FDOT and Federal Highway Administration (FHWA). The ***MOU*** outlines the procedures to be followed by EPA, FHWA and FDOT in evaluating and commenting on proposed activities. The ***MOU*** contains maps showing boundaries of SSA designated areas, and a complete listing of the types of projects which will be subject to review and comment by EPA. The ***MOU***, excluding SSA boundary maps and accompanying narrative boundary descriptions, is available for download from the EPA's website. This only

applies to federally funded projects. The ***MOU*** can be seen at: http://www.dot.state.fl.us/emo/publications.shtm.

20.1.4 Environmental Look Around

The Environmental Look Around (ELA provides a process for assessing and utilizing options for FDOT to partner in regional stormwater facilities. In 2012, the benefits of regional stormwater facilities were recognized by the Florida legislature through ***House Bill 599***, which authorized revisions to ***Section 373.413, F.S.***, encouraging, among other things, the creation of offsite regional stormwater management facilities. This authorization encourages partnerships, and could specifically be used for cooperative regional projects. After stormwater management requirements have been determined for a project, the project manager should schedule a coordination meeting with stakeholders to explore watershed wide stormwater needs. This should be completed before any right of way acquisitions are identified.

Section 5.3 of the ***FDOT Drainage Manual, Topic No. 625-040-002*** describes the ELA process in more detail and identifies participants of the coordination meeting.

20.2 PROCEDURE

Project impacts to water resources must be evaluated regardless of whether the project is required to meet federal [i.e., ***National Environmental Policy Act (NEPA)***], or state requirements. The water quality evaluation should provide the information necessary to produce designs that are in compliance with the goals and requirements of the ***CWA***, as amended, ***Pub. Law 92-500***, ***Chapter 373, F. S.***, and ***Chapter 403, F.S.***

20.2.1 Agency and Stakeholder Coordination

The management of water quality impacts associated with transportation projects can be enhanced through engaging various state and federal agencies, and other local and regional stakeholders in the ELA process detailed in Section 5.3 of the ***FDOT Drainage Manual, Topic No. 625-040-002***. When project managers routinely adhere to the three elements of successful collaboration—early, continual, and strategic coordination—there will be a greater probability of identifying regulatory and regional issues and opportunities for cooperative solutions concerning stormwater quality. Joint/regional projects can not only provide long term, cost-effective solutions for stormwater treatment and storage, they can also provide FDOT the opportunity to be good stewards of water resources.

> **Early coordination:** Engagement with regulatory agencies and stakeholders should occur as early in the project as appropriate and practicable. For projects screened through the Efficient Transportation Decision Making (ETDM) process, official agency engagement may occur during the Planning Screen, or more commonly during the Programming Screen (see Chapter 4 of the ***ETDM Manual, Topic No. 650-000-002***). The overall goal of early coordination is to proactively

identify potential water quality and quantity requirements and concerns on the project's alternative alignments, and then actively coordinate with stakeholders and agencies to explore opportunities for joint projects that can address those issues. Early coordination provides an important opportunity for stakeholders and agencies to review any data and analyses that have been developed previously, and to discuss the steps for advancing water resources coordination for the Project Development and Environment (PD&E) Study.

Strategic coordination: Each project possesses unique circumstances and need for coordination with local stakeholders and regulatory agencies; therefore, strategic coordination involves thoughtful consideration of an overall plan for addressing water resource issues throughout Planning, PD&E, Design, Construction, and Operation.

The advantages of developing a strategic approach include:

1. Recognizing early potential water resource issues.
2. Allowing sufficient time to evaluate potential partnering opportunities, to include preliminary details regarding funding, schedules and joint participation agreements.
3. Avoiding or /minimizing potential impacts.
4. Aiding in the development of alternatives.
5. Decreasing timeframes for regulatory agency approvals.
6. Initiating short or long term research studies which may be required.
7. Completing documentation for the project record.
8. Seamless transferring of information and commitments into the Design and Construction phases.

Continual coordination: Continual engagement with stakeholders and agencies involves communication as needed to determine the level of assessment and documentation required; confirm which water resources are likely to be affected by the project; and decide whether cooperative or regional water resource projects are a viable option for the project. Continual coordination promotes an ongoing dialogue between FDOT, local stakeholders and the regulatory agencies, minimizing the chances of overlooking opportunities for regional water resource projects.

20.2.2 Determine Level of Effort

The level of assessment and documentation during the PD&E phase depends on the complexity of the water resources characteristics and criteria in the project area. The ***WQIE*** is a method to identify potential water quality impacts and track water quality

coordination throughout the project. The ***WQIE*** should be updated and modified throughout the PD&E, Design and Construction phases of a project.

Detailed evaluations are generally not warranted for transportation projects not qualifying for screening in the Environmental Screening Tool (EST) [typically Type 1 Categorical Exclusions (CEs) and Non-Major State Actions (NMSA)]. These projects have no significant effects, and therefore may require minimal water quality evaluation. See ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination*** for clarification of projects that qualify for screening.

A higher potential for water resources impacts typically exists with transportation projects qualifying for screening. Most PD&E projects receive prior consideration of water resources issues during the ETDM process. The results of the Programming Screen are documented in a ***Programming Screen Summary Report***. The water resources evaluation in the PD&E Study focuses on important issues identified during the Programming Screen.

The level of project assessment for water resources during the PD&E phase depends on water resource involvement, potential impacts, the potential for implementing non-traditional water quality improvements, or impacts to SSAs.

20.2.2.1 Projects Not Qualifying for Screening

Water quality issues may be identified for projects that do not require EST screening and advance straight to the Design phase. For transportation projects not qualifying for EST screening, the ***WQIE*** should have sufficient detail to reflect consideration of water quality issues, including the ELA, see ***Section 20.1.4***. If coordination with regulatory agencies or other stakeholders is needed, additional documentation in the form of a technical memo will suffice. ***WQIE*** results should be documented in the project file, and appropriately addressed in the final design plans. Documentation should be provided as follows:

1. **Type 1 Categorical Exclusions** –Documentation must demonstrate the proposed project has no significant effect on water quality. For these projects, check “No” next to the question on water quality on the ***Type 1 Categorical Exclusion Checklist, Form No. 650-050-12*** (***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination***) .

2. **Non-Major State Actions** - For a NMSA mark “No” next to the question on water quality on the ***Non-Major State Action Checklist*** to document when there are no water quality resources affected by the project (***Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery***).

3. **Type 2 Categorical Exclusions** – Some Type 2 CEs may not require screening through the EST. For these projects, water quality resource impacts are documented on the ***Type 2 Categorical Exclusion Determination Form, Form***

No. 650-050-11, and in the project file. See ***Section 20.2.3.5.1*** for guidance on documenting Type 2 CEs.

20.2.2.2 Projects Qualifying for Screening

Transportation projects qualifying for EST screening generally are more complex. In accordance with ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination***, qualifying projects must complete the ETDM Programming Screen and may also have completed the Planning Screen. The following items should be addressed in each phase as the projects advances and more information is discovered:

1. **Planning Screen Evaluation** –In the Preliminary Environmental Discussion (PED), the District lead will provide a discussion about known potential project involvement with surface water bodies and groundwater and their designations in accordance with ***Part 1, Chapter 3 Preliminary Environmental Discussion and Advance Notification***. Specific information identified during the screening may include:

    a. Surface Water

        1. Identification of surface water body to which the stormwater ultimately discharges.
        2. Any special designations of receiving water bodies (Outstanding Florida Water (OFW), Aquatic Preserve, etc.).
        3. Whether the project is within a permitted MS4.
        4. Waterbody Identification Number(s) (WBIDs) in which the project is located, and associated DEP Group Number and Name.
        5. Water Management District (WMD) in which the project is located.
        6. Water Control District.
        7. Waterbody Class (ex: Class I, II, III, etc.).
        8. Listing status - whether the WBID is identified as impaired, has a TMDL and/or is in a BMAP or RAP.
        9. The appropriate numeric nutrient criteria waterbody classification and related numeric nutrient limits (TMDL, Lakes, Spring Vents, Streams, Estuaries, etc.) if applicable.
        10. If project discharges to a waterbody identified as impaired, identify 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 sole source aquifers.
4. Potentially affected springsheds.
5. Whether the potentially affected spring has a BMAP or RAP plan.

2. **Programming Screen Evaluation** – Include discussion about potential project involvement with surface and ground water resources (based on the District familiarity with the project area) in the PED of the Advance Notification (AN). List all surface and groundwater resources located within the project area using online resources maintained by the DEP and WMDs, as well as other data sources. Identify if the project is located within a SSA, and provide the name of the aquifer. Based on the potential effect of the project on water resources, state in the PED whether a detailed ***WQIE*** is required.

   Coordinate as needed with the ETAT and other stakeholders throughout the ETDM screening process. Coordination may also include FDOT staff such as District Drainage Engineer, Permit Coordinator, and others who will be involved with the project in subsequent phases.

   After screening, review the ***Programming Screen Summary Report***, which includes ETAT comments related to water resource issues. While reviewing the report, pay close attention to any list of potential water resource focus areas that warrant further review. Review comments about potential effects and use this information to determine the level of potential water resources impacts and how they may be evaluated in the next phase of the project. Begin to prepare existing conditions for use in the Environmental Document.

3. **PD&E Evaluation** – Review the ***Programming Screen Summary Report*** for ETAT comments for the Water Quality issues as well as ETAT comments on other issues such as “Coastal and Marine,” “Wetlands and other Surface Waters,” and “Floodplains.” Determine the project’s involvement with project specific or regional water resource issues from resource agency comments. Use information from the EST screening to determine water resources assessment and ***WQIE*** activities that can be included in the scope of services.

   Perform a ***WQIE*** for each alternative and prepare a ***WQIE Checklist*** (see ***Section 20.2.3.3***). Complete the appropriate drainage evaluation, based on the level of Engineering design detail in the PD&E Study (***Part 1, Chapter 4, Project Development Process***) to determine the anticipated quantity of stormwater requiring treatment and storage.

Determine appropriate stakeholders to be engaged in the ELA coordination meetings to explore watershed wide stormwater needs and alternative permitting approaches. Convene ELA meetings only when stormwater management requirements for the project are determined and before stormwater management decisions are made. The ELA should address project water resources issues, stakeholders' issues and project permitting issues.

Complete the appropriate level of documentation based on the project and associated impacts and outcome of ELA meetings. Commitments should be documented in the Environmental Document and the ***Project Commitment Record (PCR), Form No. 700-011-35***.

4. **Final Design** – incorporate any commitments made in the PD&E phase. Update the ***PCR*** with status of existing and listing new commitment and verify all commitments are included in final documents. If there are any changes or updates made from the PD&E proposal, document in the Reevaluation to maintain compliance. Ensure the project meets federal and state regulations. During permitting, re-initiate coordination as necessary.

5. **Construction** – verify completion of any water resource commitments and update the ***PCR***. Verify that all water resource permit conditions are met and compliance with federal and state regulations. See ***Part 1 Chapter 12, Environmental Permits***.

20.2.3 Water Quality Impact Evaluation

The purpose of the ***WQIE*** is to identify and characterize existing water resources in a project area, assess project's potential impacts to water resources, determine and evaluate mitigation measures, if necessary, and to document coordination throughout the project. Project scope, regulatory requirements, and context of the project may affect the scale of ***WQIE***. Since water quality requirements and basin parameters affect pond size requirements and drainage criteria, the ***WQIE*** should be completed prior to finalizing pond siting efforts. See ***Part 2, Chapter 24, Drainage and Floodplains*** for guidance on pond siting analysis.

The following sections outline the ***WQIE*** approach. A ***WQIE*** is needed for all Type 2 CE, EA, EIS, or State Environmental Impact Report (SEIR) projects. Those projects having no involvement with water resources are documented as such on the ***WQIE Checklist*** and saved in the project file.

20.2.3.1 Existing Conditions

At the beginning of the PD&E Study, coordinate with the ETAT to discuss their comments provided in the ***Programming Screen Summary Report***. This helps to verify that potential water resources issues and environmental concerns they identified have not

changed since the screening. Using the results of the Programing Screen, the District can begin to document the existing water resources that may be affected by the proposed project. This documentation can start before PD&E is initiated.

20.2.3.1.1 Identify Water Resources

Delineate water resource basins or watershed boundaries where the project may have a direct impact on water quality. Identify water resource characteristics within the basin boundaries. Existence of a cooperative project or coordination may necessitate expansion of project impacts beyond the project's immediate hydrologic basin boundaries. Coordination with the ETAT is needed to identify these potentially expanded areas of the project's influence.

20.2.3.1.2 Collect Data and Estimate Impacts

Collect data from various sources to determine the potential water resource issues within the project area. Sources may include the DEP and WMD websites, GIS water resource data, county and city water atlases, regional stormwater master plans, and flood studies.

Use the ***Memorandum of Understanding (MOU)***, executed among EPA, FDOT and FHWA to identify SSA information within the project area.

Complete a drainage inventory for each alternative including drainage areas and flow patterns, floodplains and any existing stormwater management or conveyance systems. Determine the anticipated quantity of stormwater requiring treatment and storage, based on level of engineering detail in the PD&E Study. Coordinate with the Drainage Office at this time to determine any additional areas associated with pond siting, water storage, hydrologic restoration, recharge or treatment.

20.2.3.2 Coordinate with Agencies and Stakeholders

Engage stakeholders early in the project development process and continue to coordinate with them throughout the process. Such coordination can help to proactively identify potential water quality and quantity issues and formulate strategies and responses that address those issues. Coordination with agencies that regulate water resources, such as EPA, DEP, and WMDs, is important to understand permit requirements and any unique characteristics of the water resources. Therefore, continuous coordination should occur with the ETAT members and other appropriate regulatory staff as well as appropriate FDOT staff including NPDES MS4 Environmental Administrator, Permit Coordinator, Drainage Engineer). The District NPDES MS4 Coordinators will identify areas where pollutant load reduction efforts are needed. Consider comments from agencies and stakeholders and consult with them when necessary when preparing the ***WQIE Checklist***.

Coordination with any BMAP and RAP stakeholders in the project vicinity is also important in understanding DEP and local concerns and in identifying the level of evaluation that

may be needed, the agencies and stakeholders with whom FDOT should collaborate, and whether any potential regional water resource improvement opportunities in the project area exist.

It is important at this stage to collaborate with appropriate agencies and stakeholders to identify possible joint or regional stormwater management project opportunities through ELA coordination meetings.

20.2.3.3 Water Quality Impact Evaluation Documentation

The water quality evaluation is accomplished through the completion of the ***WQIE Checklist (Figure 20-1)***. The ***WQIE Checklist*** is a template to document water resources in the vicinity of the project, water quality criteria that must be addressed in the project design, coordination that has occurred, and potential regional water resource projects that may provide solutions for regional water resource issues. Surface water characteristics and impacts are documented on the ***WQIE Checklist***. The ***WQIE Checklist*** should document coordination efforts, regional water resource improvement opportunities, and an analysis of water resource impacts for each project alternative analyzed in detail in PD&E, as appropriate. The detailed results of data collection efforts and continued coordination with agencies and stakeholders are documented in the ***WQIE Checklist*** and summarized in the Environmental Document. If more than one alternative is proposed, a ***WQIE Checklist*** is performed for each alternative, the results of each alternative are then compared and documented in the Environmental Document. In cases where the project's alternatives are located in the same drainage basin(s), one WQIE may be used. The PM should coordinate with the District's NPDES Coordinator and the District Drainage Engineer for the agency/stakeholder coordination and information required to fill out this checklist.

The ***WQIE Checklist (Figure 20-1)*** includes the following information:

General Information:

This section includes general project identification:

1. Project Name

2. County

3. FM Number

4. Federal-Aid Project Number

5. Brief project description including the location and identification of water resources within the project area that are potentially affected. The description of the proposed project should include all activities related to construction and emphasize both long-term and short-term anticipated impacts on identified water

resources. Project and design alternatives (including construction methods) should also be addressed.

Part 1 - Determination of WQIE Scope:

Determine if the project:

1. Discharges to surface or ground water,

2. Alters the drainage system, or

3. Is located within a permitted MS4.

    a. If yes, name the Phase I or Phase II MS4. Lists of permitted Phase I and Phase II MS4 facilities can be found on DEP's website, see link in ***Section 20.3***. (***Figure 20-1, Part 1***)

Part 2 - Project Basin and Receiving Water Characteristics

Provide the following information:

1. Name(s) of receiving waterbody(ies) names (or closed basin)

2. Water Management District(s) in which the basin is located

3. Water Control Districts with jurisdiction in area in which the basin is located

4. Coordination Meetings – Attach meeting minutes to Checklist

5. Is the project within a springshed or recharge area

6. Identification of any sole source aquifer in proximity to the project

7. Identification of any other aquifers

8. Identification of any spring vents

9. Identification of any well head protection area

10. Identification of groundwater recharge

11. Date of notification of any Basin Characteristics to the District Drainage Engineer

Part 3- Water Quality Criteria

1. Determine if the receiving water body has a special designation including identification and evaluation of the water resources, water resource characteristics, and regulatory agencies involved. Provide this information in Table 1 as described below:

    a. Receiving waterbody (water segment) name (or closed basin)
    b. DEP Group Number
    c. DEP Basin (Group Name)
    d. Waterbody Identification (WBID) number(s)
    e. Water body classification(s)
    f. Special Basin Designations (***Part 2, Chapter 19, Aquatic Preserves and Outstanding Florida Waters***; and ***Part 2, Chapter 23, Wild and Scenic Rivers***).
    g. Appropriate numeric nutrient limits (i.e., Lakes, Spring vents, Streams, Estuaries)
    h. Impairment status - whether the WBID(s) identified is impaired, or has a TMDL
    i. Pollutant(s) of concern and numeric criteria or TMDL criteria
    j. Whether project is in a basin that has a BMAP, SSAC or RAP plan

2. Mark boxes accordingly and include information on Table 2.

    Table 2 summarizes the of coordination efforts with federal, state and local agencies, local stakeholders, and BMAP or RAP stakeholders. Documentation should indicate if additional coordination is recommended after the PD&E phase.

3. Attach documentation of regional project opportunities identified in the Environmental Look Around.

4. Describe any direct effects associated with project construction and operation. Direct effects are those that occur in direct association with the construction or operation of the project, such as:

    a. turbidity
    b. sedimentation
    c. runoff
    d. reduction in water quality
    e. improvement of water quality based on enhanced conditions

f. More stringent water quality criteria such as for OFWs or aquatic preserves should be documented for the purposes of sediment and erosion control planning for construction.

g. See Chapter 5 of the ***FDOT Drainage Manual, Topic No. 625-040-002*** for determining the water quantity/quality impacts and mitigation requirements.

5. Discuss any other relevant water quality information

Part 4: WQIE Documentation

Mark boxes as appropriate, and attached supporting documentation.

It is important to update the ***WQIE Checklist*** throughout the life of the project, because the status of water resources impairments is updated frequently. The DEP TMDL website is updated with new information and should be checked periodically. See ***Section 20.3*** for a link to DEP's website.

20.2.3.4 Environmental Document

Regardless of the Environmental Document to be produced, water resource involvement or impacts must be addressed in the appropriate water quality section. For the purposes of this chapter, the term "water quality section" means the location where water resource involvement or impacts are discussed in the Environmental Document. The ***WQIE Checklist*** is maintained in the project file.

20.2.3.4.1 Federal Projects

The ***WQIE*** developed during the PD&E Study provides technical information on the water quality impact evaluation that supports the ***NEPA*** decision making process. Major elements of the ***WQIE*** are summarized in the ***NEPA*** document. The results of any meetings should be documented in the Comments and Coordination Section of an EA or DEIS and, when applicable, the Commitments Section of an EA with Finding of No Significant Impact (FONSI) or Environmental Impact Statement (EIS).

Use the procedures outlined in the ***MOU*** between EPA, FDOT, and FHWA to document compliance with ***Section 1424(e)*** of the ***SDWA***. Comments by EPA may contain issues which should be addressed during project development. The EPA will provide copies to the FHWA, Florida Division, Tallahassee Office, of all correspondence sent to the FDOT regarding the SSA review. All issues raised by EPA should be addressed in the Impacts Section (Type 2 CE or EA), or Environmental Consequences Section of an EIS. If coordination or a meeting is required with EPA, the FDOT should initiate all activities and arrange all meetings through the FHWA. The results of any meetings should be documented in the Comments and Coordination Section of an EA or DEIS and, when applicable, the Commitments Section of an EA with FONSI or Final Environmental Impact Statement (FEIS). Routinely, a DEIS is circulated to EPA (***Part 1, Chapter 6, Environmental Assessment***). For Type 2 CEs and EAs, a copy is sent to EPA by the FDOT when warranted by coordination and/or requested by the FHWA. The EPA, upon

review of a Type 2 CE, EA, or DEIS, should provide concurrence with the FDOT's measures to protect the aquifer. All coordination and review of the documents with EPA should be conducted as early as possible to facilitate concurrence prior to the FHWA approval of the document. The concurrence from EPA should also state that the FDOT has met its obligation under ***Section 1424(e) of the SDWA***. This is referenced in the text and included in the Appendix of the EA or EIS, and is included in the project file for Type 2 CEs.

20.2.3.4.2 State Funded Projects

For SEIRs, include the ***WQIE*** results in Section B.1, Environmental Analysis, of the ***SEIR*** by placing an "X" in the appropriate column indicating the level of impact. If a water quality is not in any way involved with the project, mark the column indicating “NOINV.” If an issue exists but the project will improve water quality, mark the column indicating “ENHANCE.” If an issue exists but there is little or no impact, mark the column indicating “NO.” If there is a potential impact, mark the column “YES”. Provide justification of decision in the Basis for Decision column and supplement with attachments as necessary to support the impact determination. All commitments made through coordination efforts should be documented in the Commitments section of the ***SEIR***. Include a technical memo, if it was prepared, and the ***WQIE Checklist***.

20.2.3.4.3 Commitments

Water resource commitments may be permit conditions, BMAP/RAP commitments, ELA commitments, or actions/activities required to advance the project and/or require action from the Contractor to implement. Commitments may include the retrofitting of structures to increase water quality treatment; the building of or contributing to water quality improvement, hydrologic enhancement, recharge or reuse projects; or continued coordination with water resource agencies or other stakeholders. Commitments must be coordinated with other FDOT offices to ensure they are feasible.

Commitments related to water resource issues made by the FDOT throughout project development should be documented on the ***Project Commitment Record, Form No. 700-011-35*** and transmitted to the Design and Construction Offices to be included in contract documents or be addressed through the permitting process. These commitments should also be included in the Commitments section of the Environmental Document. As required by the level of environmental documentation, ensure clear and concise transmittal of the commitments to the subsequent project phases Final Design and Construction.

20.2.4 Reevaluation

Any change to the project which may affect water quality impacts after approval of the Environmental Document must be documented in a Reevaluation consistent with ***Part 1, Chapter 13, Reevaluations***. Commitments and coordination as well as the status of any

water quality permits should be contained in the Water Quality and Mitigation Status and Commitment Compliance section of the ***Reevaluation Form***.

20.2.5 Commitment Compliance

The FDOT Project Manager of each subsequent phase should verify commitments, recommendations and regulatory compliance as the project advances. It should be noted that additional water resource improvement actions can be implemented during the Design phase. Water resource review during Design and compliance during Construction consists of the following:

1. Commitments– Review those specific to water resources. Coordinate with appropriate environmental, drainage and permitting staff to ensure water resource commitments are addressed.
2. Regulatory Review – Conduct review(s) of the impairment/TMDL status of the receiving waters through DEP's Watershed Assessment section, and the associated assessment lists. Confirm the current listing status of the waterbody. Verify that design criteria has not changed due to changes in listing status.
3. Stakeholder Coordination – Review previous coordination efforts and recommendations for joint or regional projects that could be implemented during design.
4. Regulatory Agency Coordination and Permitting –Coordinate with regulatory agencies throughout the permitting process to identify and update regulatory requirements from both the permitting and NPDES perspective.
5. Impact Review – Review plans and provide comments on water resources that were identified and resolutions that should be coordinated with appropriate regulatory agencies or incorporated into the contract design plans.
6. Bid Document Review - Subsequently verify that completed final design plans and specifications incorporate required water resource resolutions and permit conditions into the bid documents.
7. Construction Plans – Review for completeness; identify/confirm project limits.
8. Compliance During Construction – Ensure that the Construction Office verifies compliance with water resource commitments and permit conditions as well as federal and state regulations incorporated into the final design and bid documents
9. Construction Final Acceptance – Ensure that the water resource commitments were addressed as specified in the contract plans, including modifications approved during construction, bid documents or as otherwise handed off to the Construction staff. This is done by the Construction Office, but may require the Environmental Office involvement on occasion (***Construction Project Administration Manual, Topic No. 700-000-000***, Chapter 12, Section 12.1). Transfer of permits to the operation and maintenance phase is completed through

a separate process with the regulatory agency. See ***Part 1, Chapter 12, Environmental Permits*** for more information regarding this procedure.

20.2.6 Permits

It is important to understand FDOT's responsibility to comply with federal and state requirements regulating surface and ground water quality and quantity early in the project development phase. Refer to ***Part 1, Chapter 12, Environmental Permits*** for more information regarding FDOT procedures for obtaining environmental permits. The following are the major water quality permits required in the State of Florida.

20.2.6.1 NPDES MS4 Permit

A MS4 is a publicly-owned conveyance or system of conveyances (i.e., ditches, curbs, catch basins, underground pipes) that is designed or used for collecting or conveying stormwater and that discharges to surface waters of the State. An MS4 can be operated by municipalities, counties, drainage districts, colleges, military bases, or prisons, to name a few examples. The FDOT is a regulated MS4 operator under federal and state rules.

As implemented by ***Chapter 62-624, F.A.C.***, Phase I of the MS4 program addresses discharges of stormwater runoff from "medium" and "large" MS4s (i.e., those MS4s located in areas with populations of 100,000 or greater). Under Phase II, the MS4 program regulates discharges from certain MS4s not regulated under Phase I, that meet designation criteria set forth in ***Chapter 62-624, F.A.C.*** Regulated MS4 operators must obtain an NPDES stormwater permit and implement a comprehensive stormwater management program (SWMP) to reduce the contamination of stormwater runoff and prohibit illicit discharges to the MS4.

Generally, Phase I MS4s are covered by individual permits, and Phase II MS4s are covered by a general permit. There are individual MS4 permits issued to several counties in Florida, and FDOT is a co-permittee in each of those permits. There are also numerous general permits issued to FDOT for various Phase II designated areas. Each regulated MS4 is required to develop and implement a SWMP to reduce the contamination of stormwater runoff and prohibit illicit discharges.

FDOT has an approved Statewide Stormwater Management Plan (SSWMP) that describes the activities to be conducted, methods to be used, and procedures to be followed by FDOT to reduce the discharge of pollutants from its MS4s to the Maximum Extent Practicable (MEP). NPDES MS4 permits address the quality of stormwater discharged to surface waters of the state and Waters of the United States. See the current ***SSWMP*** for additional information.

20.2.6.2 Environmental Resource Permits

Environmental Resource Permits (ERPs) benefit Florida by preventing pollution in stormwater from entering Florida's rivers, lakes and streams, and helping to provide flood

protection. The ERP program regulates the management and storage of surface waters, and provides protection for the vital functions of wetlands and other surface waters. ERPs are required for many types of work within those waters, such as dredging or filling, providing stormwater containment and treatment, site grading, construction of dams, impoundments, docks or other structures, as well as the construction of stormwater management systems that discharge to those waters.

20.2.6.3 NPDES Generic Permit for Stormwater Discharge

Stormwater runoff from construction activities can have a significant impact on water quality by contributing sediment and other pollutants to waterbodies. The NPDES stormwater program requires construction site operators engaged in clearing, grading, and excavating activities that disturb one or more acres of land to obtain coverage under the Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP) for their stormwater discharges. Operators are also required to implement appropriate pollution prevention techniques to minimize erosion and sedimentation and properly manage stormwater. Coverage is obtained by submitting a Notice of Intent (NOI) to use the Generic Permit prior to construction commencement. The Notice of Intent can be obtained from DEP's website. FDOT requires its contractors to obtain CGPs.

The following construction activities are subject to NPDES stormwater permitting, as set forth in ***Section 403.0885, Florida Statutes.***

1. Contribution of stormwater discharges to surface waters of the state or into a municipal separate storm sewer system (MS4); and

2. Disturbance of one or more acres of land. Less than one acre also is included if the activity is part of a larger common plan of development or sale that will exceed the one-acre threshold. Disturbance includes clearing, grading and excavating.

The CGP permit was recently revised to cover the discharge of produced groundwater (i.e., dewatering system) from any non-contaminated site activity that discharges by a point source to surface waters of the state. This replaces the need to obtain separate coverage under ***Rule 62-621.300(2), F.A.C.*** for dewatering activities from non-contaminated sites.

Coverage for generic permits is valid for no more than five years from the date of coverage or a Notice of Termination is submitted. If construction activities extend beyond five years, the applicant must re-apply and pay additional permit fees for continued coverage.

20.3 REFERENCES

Chapter 62-302, FAC. https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-302. Florida Administrative Code

Chapter 62-303, FAC. https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-303. Florida Administrative Code

Chapter 62-304, FAC. https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-304. Florida Administrative Code

Chapter 62-621, FAC. https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-621. Florida Administrative Code

Chapter 62-624, FAC. https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-624. Florida Administrative Code

Chapter 373, F.S. http://www.leg.state.fl.us/Statutes/

Chapter 403, F.S. http://www.leg.state.fl.us/Statutes/

Clean Water Act of 1972, as amended. http://www.fws.gov/laws/lawsdigest/fwatrpo.html

Environmental Protection Agency (EPA), Safe Drinking Water Act, Section 1424(e), 1976. https://ceq.doe.gov/nepa/regs/sdwa.html

Florida Department of Environmental Protection (DEP), Guidance on Developing Restoration Plans and Alternatives to TMDLs – Assessment Category 4b and 4e Plans, June 2015. https://www.dep.state.fl.us/water/watersheds/assessment/docs/4b4ePlansGuidance.pdf

Florida Department of Environmental Protection (DEP), Wastewater Facility Information, http://dep.state.fl.us/water/wastewater/facinfo.htm

Florida Department of Transportation (FDOT), Drainage Manual, Topic No. 625-040-002. http://www.dot.state.fl.us/rddesign/Drainage/files/DrainageManual.pdf on 12/14/2015

FDOT, Efficient Transportation Decision Making Manual, 2015. http://www.dot.state.fl.us/emo/pubs/etdm/etdmmanual.shtm

FDOT, Statewide Stormwater Management Plan, 2012. http://www.dot.state.fl.us/statemaintenanceoffice/FDOTStormWaterMgmtPlan2012.pdf

Memorandum of Understanding, EPA, FDOT and FHWA, executed on January 25, 1999

20.4 HISTORY

2/25/2004

WQIE CHECKLIST

Project Name:	
County:	
FM Number:	
Federal Aid Project No:	
Brief Project Description:	

PART 1: DETERMINATION OF WQIE SCOPE

Does project discharge to surface or ground water? □ 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 2 and 3, and then complete the WQIE by checking Box A in Part 4.

PART 2: PROJECT BASIN AND RECEIVING WATER CHARACTERISTICS

Surface Water
Receiving water(s) names:

Water Management District:

Coordination meeting date:
Attach meeting minutes to the checklist.

Water Control District Name (list all that apply):

Is the project located within a springshed or recharge area? □ Yes □ No

Ground Water
Sole Source Aquifer (SSA)? □ Yes □ No Name_____
If yes, complete Part 4, D.

Aquifer? □ Yes □ No Name_____

Springs vents? □ Yes □ No Name_____

Well head protection area? □ Yes □ No Name_____

Figure 20-1 Water Quality Impact Evaluation Checklist

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, FAC.

Date of notification:

PART 3: 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 is dynamic, and must be updated regularly, at a minimum during each Reevaluation.

Note: If BMAP or RAP has been identified in **Table 1**, **Table 2** must also be completed.

EST recommendations confirmed with agencies? □ Yes □ No

BMAP Stakeholders contacted: □ Yes □ No

TMDL program contacted: □ Yes □ No

RAP Stakeholders contacted: □ Yes □ No

Were regional water quality projects identified in the Environmental Look Around?
□ Yes □ No

If yes, describe:

Were any direct effects associated with project construction and/or operation identified?
□ Yes □ No

If yes, describe:

Discuss any other relevant information related to water quality.

Figure 20-1 Water Quality Impact Evaluation Checklist (Page 2 of 5)

PART 4: 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 quantity 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

Evaluator Name (print):	
Title:	
Signature:	Date:

Figure 20-1 Water Quality Impact Evaluation Checklist (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)	Parameter(s) 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 20-1 Water Quality Impact Evaluation Checklist (Page 4 of 5)

TABLE 2: AGENCIES/STAKEHOLDERS CONTACTED

Receiving Water Name (list all that apply)	Contact and Title	Date Contacted	Follow-up Required (Y/N)	Comments

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PART 2, CHAPTER 22

CONTAMINATION

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PART 2, CHAPTER 22

CONTAMINATION

22.1 OVERVIEW

22.1.1 Purpose

This chapter provides guidance on the identification, evaluation, and remediation of potential contamination issues associated with Florida Department of Transportation (FDOT) projects in the Planning, Project Development and Environmental (PD&E), Design, and Construction phases. For this chapter, contamination is defined by the presence of any regulated material or chemical within soils, waters, or structures. Contamination on, or adjacent to, FDOT property has the potential for liability and may require assessment, remediation, or special handling.

Contamination in soil, groundwater, surface water and structures may have the following impacts to an FDOT project: i) human exposure, ii) potential or actual human health concerns, iii) exacerbation of the contamination by FDOT construction activities, iv) design modifications or special construction provisions for work within contaminated areas, and v) requirements for the proper handling and disposal of contaminated material. FDOT must consider the potential for encountering contamination within the limits of every project, including proposed storm water management sites and other off-site activities. Addressing contamination issues properly can reduce costs and risks to FDOT. FDOT must utilize the best available information to identify and evaluate the potential contamination impacts early in the project development process to reduce potential costs and risks.

If areas with the potential for contamination are identified within or adjacent to a FDOT project, the Project Manager (PM) and District Contamination Impact Coordinator (DCIC) must work together to determine what actions, if any, need to be taken regarding these locations. The PM and DCIC shall ensure this information is provided in a timely and proactive manner to management and appropriate technical offices [such as Right of Way (ROW), Design, Construction, etc.] to allow for project-related decisions to be made.

22.1.2 Definitions

Asbestos - Includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that have been chemically treated and/or altered. For purposes of this definition "asbestos" includes Presumed Asbestos Containing Materials (PACM) and Regulated Asbestos Containing Materials (RACM).

Asbestos Containing Materials (ACM) - Means any material containing more than one percent (1%) asbestos as defined in ***29 CFR § 1926.1101, Occupational Health & Safety Administration (OSHA)***.

Brownfield – As per ***Section 376.79(3), Florida Statutes***, Brownfield means real property, the expansion, redevelopment or reuse of which may be complicated by actual or perceived environmental contamination.

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 and source removal services and other environmental services as required by the contract.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) - CERCLA, as amended by the ***Superfund Amendments and Reauthorization Act of 1986 (SARA)***, governs the Environmental Protection Agency's (EPA's) responses to releases of hazardous substances into the environment, along with EPA's cleanup of inactive hazardous waste disposal sites. EPA must designate which substances are to be considered hazardous and must set the minimum quantities for reporting releases.

Contamination - The presence of any regulated material or chemical contained within the soil, surface water or groundwater on or adjacent to FDOT property, or proposed property, that may require assessment, remediation, or special handling, or that has a potential for liability. These materials would include, but not be limited to, those substances normally referred to as petroleum or petroleum products, solvents, organic and inorganic substances, metals, hazardous materials or substances.

Contamination Screening Buffer – A contamination screening buffer is an area within and adjacent to the project site that should be evaluated for possible additional assessment. Current National Pollutant Discharge Elimination System permitting procedure requires that a 500 foot distance from petroleum and non-petroleum contamination sources should be evaluated as part of the permit application process.

Contamination Source - The place of origin or major concentration of contaminants from which contamination migrates to surrounding areas through the soil or groundwater.

Design Build (DB) - A method of construction combining the design and construction phases of a project into a single Contract.

Hazardous Material - All materials and substances which are now designated or defined as hazardous by federal or state law of this state or federal law or by the rules or regulations of this state or any federal agency.

Hazardous Waste as defined by the U.S. Environmental Protection Agency (EPA) - Under the ***Resource Conservation Recovery Act (RCRA)***, the statutory definition of a hazardous waste is: a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may

1. Cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

2. Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

A waste is a hazardous waste if it is not excluded by regulation (***40 CFR § 261.4***) and if it is listed as a hazardous waste (***40 CFR § 261.30***).

Hazardous wastes can also be a mixture of one or more listed hazardous wastes, or exhibits one or more characteristics of hazardous waste (***40 CRF §§ 261.21-261.24***), which are:

1. Ignitability

2. Corrosivity

3. Reactivity

4. Toxicity

A “characteristic” waste remains hazardous only as long as it exhibits a hazardous characteristic, which is determined by sampling of the material.

Hazardous Waste Site - A site at which wastes as defined in ***Rule Chapter 62-730, Florida Administrative Code***, and ***40 CFR §§ 260-272***, have been disposed, treated, or stored.

Lead-based Paint - Paint or other surface coatings as defined in ***Section 381.983, Florida Statutes*** 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 within FDOT, use the following definitions:

1. **Level I** - A Level I assessment will be the contamination screening evaluation.

2. **Level II** - A Level II assessment is an assessment of areas with suspected contamination impacts to construction, including physical sampling and laboratory analytical testing to determine the presence or absence of contamination. This investigation will also detail the concentrations of the existing contaminants, and make recommendations to support construction efforts, accordingly.

3. **Level III** - A Level III remediation is a development and implementation of a contamination Remedial Action Plan (RAP) based on Level II recommendations.

Metal-Based Coatings (MBC) – Surface coatings containing metals that could be considered hazardous including; Cadmium, arsenic, lead, zinc and hexavalent chromium.

Modified Special Provision (MSP) - A specification, prepared, signed, and sealed in accordance with ***Sections 471, 481, or 481 Part 2, 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 storm water 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 (POTW).

Non-Petroleum Contaminated Parcel - A parcel which has non-petroleum contaminants (e.g. heavy metals, solvents, pesticides, herbicides, arsenic) in the soil or groundwater in quantities or levels in excess of the allowable maximum contaminant levels or risk based criteria established by rule or law. If both non-petroleum and petroleum contaminants are present, the parcel will be treated as a non-petroleum contaminated parcel.

National Pollutant Discharge Elimination System (NPDES) - the NPDES Stormwater Program is a comprehensive two-phased national program (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 washed by stormwater runoff into local water bodies.

Petroleum Contaminant - Any petroleum or petroleum product as defined in ***Sections 376.301 (32) and (33), Florida Statutes.***

Petroleum Contaminated Parcel - A parcel which has only petroleum contaminants in the soil or groundwater in levels in excess of established guidelines.

Presumed Asbestos Containing Material (PACM) - Thermal system insulation and surfacing material found in buildings 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.

Resource Conservation and Recovery Act (**RCRA**) - the public law that creates the framework for the proper management of hazardous and non-hazardous solid waste. The law describes the waste management program mandated by Congress that gave EPA authority to develop the RCRA program.

Remediation - Those activities necessary to remove, treat, or otherwise reduce contamination to a level acceptable to the regulatory agency having jurisdiction in accordance with ***62-780 FAC***.

Regulated Asbestos Containing Material (RACM) – According to EPA, RACM is (a) friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II nonfriable 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.

Reasonably Ascertainable - The information is publicly available, is obtainable within a reasonable time and cost constraints, and the information is practically reviewable.

Significant Contamination - The presence of any contamination that would meet the definition of "hazardous substance", “hazardous material” or "hazardous waste" and be regulated under ***Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)*** or ***Resource Conservation Recovery Act (RCRA)***. Petroleum contamination from underground storage tanks is not regulated by ***CERCLA*** or ***RCRA***. Petroleum contamination from underground storage tanks may be a significant contamination issue, but is not considered “significant contamination” as it is not hazardous.

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***.”

State-Wide Acceleration and Transformation (SWAT) team – FDOT cross-functional team including Work Program, Intermodal Systems Development (ISD)/Planning, Design, and Environmental Management Office (EMO). Each District SWAT team is responsible for achieving time savings through the state pre-construction process by assisting in efficiently scoping and scheduling projects. A key consideration of SWAT is determining the level of overlap between project development and design which can accelerate the process. ***See Part 1, Chapters 4 and 10***.

Superfund Site - A site on the National Priorities List as adopted by the United States Environmental Protection Agency.

Technical Special Provisions (TSPs) - Specifications of a technical nature, prepared, signed, and sealed in accordance with ***Sections 471, 481, or 481 Part 2, F.S.***, that are made part of the contract as an attachment to the contract documents. TSPs describe

work that is not covered by the ***Standard Specifications*** or Workbook and are included as Appendices in a Specifications Package.

22.2 PROCEDURE

The DCIC is the District level contact for all issues related to contamination impacts within FDOT ROW. The DCIC is responsible for administration of the Districts contamination program, which includes management of the Contamination Assessment and Remediation (CAR) contract(s); coordination of contamination activities between all phases of the project development [i.e., Planning, Project Development and Environment (PD&E), Design and Construction]; maintenance and retention of documentation for all contamination work performed within the District; and coordination of hazardous materials and petroleum compliance issues with appropriate personnel for FDOT facilities and maintenance yards.

In support of environmental review and project delivery, an evaluation for contamination impacts begins during the earliest phase of the project development process and continues through construction. The evaluations degree of detail increases as the project moves from planning phase to construction phase.

FDOT's procedures to address contamination impacts in the Planning, PD&E, Design, and Construction phases of a project are outlined below.

Level of Assessment - To standardize contamination evaluations within FDOT, the Districts should follow the level of assessment guidelines as outlined below:

1. **Level I** - A Level I Assessment, should consist of initial site reconnaissance, photographic documentation of current conditions, and review of historical records to evaluate potential impacts to the proposed project. Level I Assessment is completed during PD&E phase or at 30% design plans for those projects which do not require a PD&E Study. The documentation of the Level I Assessment will be a ***Contamination Screening Evaluation Report (CSER)*** for PD&E projects***,*** and for projects that do not require a PD&E Study a ***Level I Assessment Report*** or, Technical Memorandum is prepared.

2. **Level II** - A Level II Assessment consists of the collection of samples for laboratory analysis from suspected locations of contamination, for sites listed as 'Medium' or 'High' in the Level I Assessment as needed in accordance with design and proposed construction activities. The DCIC may assign sites for Level II Assessment to the CAR Contractor. This is common during the Planning Phase of Minor Projects. The CAR Contractor's final submittal is an 'Impact to Construction Assessment' (ICA). Sites that may impact design or construction must be reevaluated if there is a design change.

3. **Level III** - A Level III remediation effort consists of a detailed plan for the removal and disposal of contaminated soil and groundwater that may directly impact construction activities. Level III remediation activities do not only take place during

construction they can also be performed during right-of-way acquisition or prior to construction to avoid construction delays. This should be based directly on the ICA investigation results or other information developed or received during design. When previously unidentified contamination is found, the CAR Contractor and will assess the potentially contaminated area and, with the DCIC, determine the course of action to resolve the issue, pursuant to the ***Standard Specifications, Section 120-1***. Sites with existing regulatory agency involvement should be coordinated with the state or local agency that is the project lead.

22.2.1 Determine Level of Effort

The assessment and documentation of contamination impacts during the PD&E phase depends on the complexity of the potential contamination issues within the project limits. Depending on the nature of the project, it may go through the Efficient Transportation Decision Making (ETDM) screening process using the Environmental Screening Tool (EST).

Detailed ***Level I Evaluation Reports*** are generally not warranted for transportation projects not qualifying for screening in the EST [typically Type 1 Categorical Exclusions (CEs) and Non-Major State Actions (NMSA)]. See ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination*** for clarification on projects that qualify for screening.

Projects qualifying for EST screening [typically Type 2 CE, Environmental Assessment (EA), Environmental Impact Statement (EIS), or State Environmental Impact Report (SEIR)] may warrant a more detailed level of analysis and documentation. Most PD&E projects will have received prior consideration of contamination impacts during the ETDM process. The results of the Programming Screen are available in a ***Programming Screen Summary Report***.

All new projects will now run through the State-Wide Acceleration and Transformation (SWAT) process. For accelerated projects, the Level I and Level II assessments may be combined. Level I and Level II Assessment results should be shared and coordinated with the project's ROW agent and design PM as appropriate.

22.2.1.1 Projects Not Qualifying for EST Screening

Contamination issues may be identified for projects that do not require EST screening and advance to the Design phase without a PD&E Study. A Level I Assessment is completed early in the Design phase for these projects. The Level I Assessment should sufficiently document any contamination in a ***Level I Assessment Report*** or technical memorandum. Contamination impacts will be documented in the project file and appropriately addressed into the final design plans. In cases where potential contamination involvement is identified, the anticipated coordination, assessment and/or remediation activities required to address each issue should be stated in the document for subsequent implementation.

Documentation in the Environmental Document is as follows:

1. **Type 1 Categorical Exclusions (CEs) –** Type 1 CEs may involve contamination as long as the documentation demonstrates the proposed project has no significant effect on a known area of contamination or existing contamination does not have a potential significant impact to the project. When no potential significant involvement with contamination is determined for these projects, check "No" next to the question on contamination the ***Type 1 Categorical Exclusion Checklist, Form No. 650-050-12*** ***(Part 1, Chapter 2, Federal Highway Administration Class of Action Determination)*** and reference the ***Level I Assessment Report*** or Technical Memorandum as supporting information.

2. **Non Major State Actions (NMSAs) –**For a NMSA mark "No" if no contamination involvement next to the question on contamination on the ***Non-Major State Action Checklist*** to document that there are no contamination impacts on the project ***(Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery)***. Mark "Yes" if there is involvement and provide an explanation or description of how the involvement is addressed. For these projects include the ***Level I Assessment Report*** or Technical Memorandum as supporting information.

3. **Type 2 Categorical Exclusions (CEs) –** Some Type 2 CEs may not require EST screening. For these projects, contamination impacts are documented on the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***. A Type 2 CE may not require evaluation of multiple alternatives and supporting documentation may be either a ***CSER***, Technical Memorandum or other assessment reports as appropriate for the project.

22.2.1.2 Project Qualifying for EST Screening

In accordance with ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination***, qualifying projects must complete the ETDM Programming Screen and may also have completed the Planning Screen. This is the first opportunity to inform the Environmental Technical Advisory Team (ETAT) and/or receive comments from them regarding potential project contamination issues; the DCIC should be engaged in this process.

As projects advance, the PM should ensure the following is considered:

1. **Planning Screen Evaluation** – Specific information identified in the EST screening includes information about known contaminated sites located in the project buffer areas for proposed alternatives. This is an opportunity to begin coordination with the DEP for potential assessment or remediation of petroleum contaminated facilities adjacent to or within future project ROW,

pursuant to the ***July 2014 MOU between FDEP and FDOT*** (discussed in ***Section 22.3)***.

2. **Programming Screen Evaluation** – Include discussion about known potential project involvement with contamination (based on the District familiarity with the project area and anticipated project activities, features or scope) in the Preliminary Environmental Discussion (PED) of the Advance Notification (AN). List all potential contamination concerns identified within the project area using online resources maintained by the DEP, local agencies and water management districts, as well as other data sources. Based on the effect of the project, state in the PED whether a Level I Assessment is anticipated. This is another opportunity to begin coordination or update status of coordination with the DEP on potential assessment or remediation of petroleum contaminated facilities adjacent to or within future project ROW, pursuant to the ***July 2014 MOU between FDEP and FDOT***.

   Coordinate with the ETAT and other appropriate stakeholders throughout the ETDM screening process. Coordination may include the District Drainage Engineer, Permit Coordinator, District Design Engineer, Design PM, the State Environmental Management Office (SEMO), DEP and others who may be involved in the project following the screening.

   After EST screening, review the ***Programming Screen Summary Report***, which includes ETAT comments related to contamination issues. While reviewing the report, pay close attention to any list of potential contamination sources that warrant further review. Review comments about potential effects and use this information to determine the level of potential contamination impacts and how they may be evaluated in the next phase of the project. Begin to prepare existing conditions for use in the Environmental Document.

3. **PD&E Evaluation** – Review the ***Programming Screen Summary Report*** for ETAT comments regarding contamination issues. Use information from the ETDM screening to determine what contamination assessment activities can be included in the scope of services.

   Determine appropriate stakeholders to be engaged and coordinate with them through the PD&E phase. Determine and evaluate avoidance alternatives.

   Complete the appropriate level of documentation based on the project and associated contamination impacts. Commitments should be documented in the Environmental Document and the ***Project Commitment Record, Form No. 700-011-35***.

   The Level I Assessment is the primary method to identify potential contamination impacts throughout the project that is more complex. The Level I Assessment is intended to be updated and modified throughout the PD&E phase, as well as for FDOT standard reviews for projects outside of PD&E.

4. **Final Design** – Incorporate any commitments made in the PD&E phase. Conduct Level II Assessments as warranted 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 the status of known or identified sites undergoing regulatory review or remedial action for baseline information. Consider if design modifications can be implemented to avoid or minimize involvement with contamination. Consider inclusion of plume identification, dewatering or proper contamination notes will be included in the contract plans when appropriate, or if Special Provisions for the project are needed. As warranted, update contamination status and location information; this may be supported by Level II activities or by activities conducted by DEP under the ***FDEP/FDOT MOU***. Verify all commitments are included in the final documents if design occurs during PD&E following ***Procedure No. 700-011-035, Project Commitment Tracking***. Coordinate with regulatory agencies as necessary, such as coordination with DEP concerning projects under the ***FDEP/FDOT MOU,*** or projects requiring dewatering permits. For design activities following PD&E, if there are any changes or updates made from the PD&E proposed project concept, document them in the project Reevaluation. The Reevaluation includes update of contamination status and commitments; these should reflect how contamination issues identified for the project have been resolved. Ensure the project meets federal and state regulations.

5. **Construction** – Verify completion of any contamination assessment activities and commitments made. Complete description of contamination-related project issues and how they were resolved. Verify compliance with federal and state regulations. For projects with identified contamination, 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, required activities, avoidance measures or further coordination needed.

22.2.2 Planning Phase

In the Planning phase, qualifying projects should have an environmental screening and interagency review through the ETDM process. The ETDM process streamlines and supplements the planning, environmental review and permitting process of transportation projects by soliciting regulatory agency comments on qualifying projects. Additionally, this process provides stakeholders the opportunity for early input, involvement, and coordination. The ETDM process is described in the ***ETDM Manual, Topic No. 650-000-002***.

During the Planning phase, the DCIC should also begin coordination with the DEP for petroleum sites that are covered under the ***Memorandum of Understanding (MOU) between FDEP and FDOT, executed on June 16, 2014***. The details of this ***MOU*** are discussed in ***Section 22.3***, and can be found at http://www.dot.state.fl.us/emo/pubs/June%202014%20MOU.pdf

22.2.3 Project Development and Environmental (PD&E) Phase

Preliminary information on potential contamination issues can begin to be identified in the ETDM process prior to PD&E, but the majority of the identification of potential impacts occurs during PD&E. At the start of the PD&E phase, in coordination with the District SWAT Team, the PM develops a scope of work detailing activities necessary to complete the PD&E Study. The Project Manager must work with the DCIC to identify the assessment needs and the level of evaluation effort for the project. The PM must review contamination issues identified and summarized in the ***Programming Screen Summary Report*** and include them in the scope of services for the PD&E Study. A thorough scope of services is important to ensure all contamination issues are identified early.

To support development of the PD&E Environmental Document (Type 2 CE, EA, EIS, or SEIR) a documented contamination evaluation will be prepared, typically in the form of a ***CSER***. This evaluation documents potential sites of concern and potential for project involvement for various alternatives considered. Initial site identification may draw from multiple sources, including ETDM Screening Summary Reports, field review, and regulatory agency records review. (see ***Section 22.2.31)***. Once potential sites of concern have been identified they are evaluated for impacts to the project and assigned a risk rating. Based on the risk rating assigned and the scope of work in the areas of potential contamination, the PM and the DCIC will coordinate on future actions that must be taken to best address the contamination issue. This may include determining if the ***MOU*** applies to any sites (if not yet completed), conducting Level II activities or recommending Level III or remedial activities, notes to the plans, design modifications and/or special provisions prior to or during construction. In some instances, remedial activities are identified to best occur prior to construction. These activities require coordination for appropriate contracting communication prior to construction letting. In certain cases, the PM, in coordination with the DCIC, may implement changes to the original Design to avoid or limit actions within contaminated areas. If contamination concerns are identified in the PD&E phase, commitments may be made to continue to evaluate potential contaminated sites of concern, or those assigned higher risk ratings. The DCIC will need to ensure that issue resolutions are documented in the project Construction phase Reevaluation.

22.2.3.1 Data Collection

All projects will be assessed for identification of potentially contaminated sites within or adjacent to the existing and proposed ROW. The extent of each assessment is based on the current phase of the project and the expected inclusion of subsurface activities (e.g., drainage structures, mast arms bases, ponds, buried utilities). This should include records, desktop and/or field reviews for contamination screening. Desktop reviews can be done by FDOT staff in the early stages of the project to provide a baseline for the evaluation and the level of assessment in the field review phase. Before starting any field assessment, the PM and DCIC should meet and discuss any specific project, site or design considerations.

Records Review/Desktop Review

The purpose of this review is to identify potential contaminated sites and to evaluate the potential for encountering contamination from current and previous land uses where that information is reasonably ascertainable. Some of the data elements are available by using the EST, while other data may need to be collected from publicly available sources or private environmental data service companies.

Databases maintained by federal, state, or local governments or regulatory agencies are the most reliable sources of data.

The following items are considered to be the "minimum effort" data elements required for evaluation of contamination on a project.

1. DEP OCULUS database,
2. DEP Map Direct Geographic Information Services (GIS) Application,
3. DEP Contamination Locator Map,
4. DEP Institutional Control Registry,
5. Historical/Current Aerial Photos, such as Google Maps,
6. FDOT ROW map notes, and,
7. Other state and local data resources that may be applicable and available.

At this point, the DCIC should inform the State Contamination Impact Coordinator (SCIC), of those sites that may qualify for the ***FDOT/FDEP MOU*** process. The SCIC will coordinate with DEP and ensure that DEP -tracked properties are properly noted and a current status of the assessment or remediation is available.

Field Review/Site Reconnaissance

A field review or site reconnaissance is required during the PD&E phase to identify or verify potentially contaminated sites. The field review should also be used as an opportunity to verify the locations of potential sites of concern identified during the desktop review. The EST contamination data layer and comparisons of old and new aerial photographs may assist in identifying any land-filling or other earth disturbing activities, past agricultural uses, trucking facilities, possible cattle ranching activities, and heavy industrial uses (e.g. ship yards).

The DCIC or representative should participate in the field reviews. It is important to note that a ***Property Access Agreement*** may be needed to access some properties that have not been acquired or that have tenants currently occupying them. The District Office of

General Counsel, District Right of Way Office and PM should be contacted for coordination of a ***Property Access Agreement***.

For parcels that have structures that might be purchased as part of the ROW (either whole or partial-take), it is important to also view building interiors, if possible. This should include a search for the potential for Asbestos Containing Materials (ACM) (if not addressed by a separate District ROW contract), hazardous materials storage, staining, or other conditions that may indicate that contamination is or may be present. If contamination concerns are identified, the DCIC should coordinate with the District ROW Office and provide any information required for the appraisal of the property.

Field observations to determine potential contamination can include observations of apparent changes in topography such as depressions or mounds indicative of subsurface concerns. Additionally, visual indications of surface spills, surface staining, areas of suspect liquids, tanks, suspicious odors, apparent sink holes, distressed vegetation, ventilation pipes, drums, or chemical storage containers can be used to screen potentially contaminated media. Photographs should be taken of each site that warrants additional assessment, as well as any specific areas of concern noted during the site visit.

As part of this process, a determination should be made whether survey or abatement actions are required for facilities or structures that have or may have ACM.

The lack of visual characteristics for contamination does not imply the media is not contaminated. It may be necessary to collect and analyze samples of soil, groundwater or surface water samples during the field review because some types of contamination may require environmental testing. The notification requirements to enter the property of others to conduct a survey, drill a test well, and collect samples is contained in ***Section 337.274, Florida Statutes.*** Any testing should be conducted in accordance with existing ***FDEP Standard Operating Procedures*** contained in ***Chapter 62-160, F.A.C***.

For projects involving existing bridge structures and existing or abandoned utilities (which will be moved or destroyed), physical samples may be collected to determine the presence and quantities of potentially ACM or Metal Based Coating (MBC) coatings containing lead, cadmium, chromium, or other hazardous substances. These conditions require coordination with the District Structures Engineer, District Maintenance Engineer or District Bridge Engineer. The DCIC should also be involved to determine District preferences for the extent and timing of the sampling.

The District Structures Engineer, District Bridge Engineer or the District Facilities Engineer may have additional information acquired during bridge surveys or previous maintenance activities regarding ACM and MBC on structures/bridges within the corridor. The District Maintenance Office and District Construction Office may also have information about existing contamination from previous projects along the corridor. 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 must occur 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 paint surveys must be conducted according the ***Right of Way Procedures Manual, Topic No. 575-000-000***

This data collection effort should result in information for inclusion in the ***CSER*** or ***Level I Assessment Report.***

22.2.3.2 Determination of Risk Rating

A clear determination of potential contamination impacts must be made for each suspected site or property within or adjacent to all proposed ROW limits of each project alternative. Such determination is documented in the ***CSER or Level I Assessment Report*** or Technical Memorandum. Further information on evaluation considerations are outlined in ***Section 22.2.3.1***.

A rating system is used by FDOT to evaluate the relative degree of concern that contamination may have on the project's design, construction, or schedule. For example, known contamination issues do not always mean that a "high" risk is present if that contamination does not impact the planned construction, or the scope of work in the area(s) of potential contamination may not cause direct contact with the contaminated media. A regulatory agency may also be performing corrective actions to known contamination issues which may fully remediate or substantially reduce contamination prior to project construction.

Each property is evaluated for potential contamination-related impacts to the project, and assigned a contamination rating. These ratings are as follows:

1. **No** - A review of available information on the property and a review of the design plans indicates there is no potential for contamination to impact the project. It is possible that contaminants had been handled on the property. However, all information (assessment reports, monitoring well abandonments, results of recent soil and groundwater sampling, etc.) indicate that contamination impacts are not expected.

2. **Low** - A review of available information indicates that former or current activities on the property have an ongoing contamination concern, has a hazardous waste generator identification (ID) number, or handles hazardous materials in some capacity. However, based on all available information and current design plans, it is not likely that there would be any contamination impacts related to this project.

3. **Medium** - After a review of all available information, the potential contamination has been identified. This may include known soil and/or groundwater contamination that may not require remediation, is currently being remediated, or that is currently in the monitoring only phase. The complete status of remediation is important to determine what FDOT must do if the property were to be acquired. If there is insufficient reliable information (such as regulatory records or site historical documents) to make a determination as to the potential for

contamination, and there is reasonable suspicion that contamination may exist, the property should be rated at least as a “Medium”.

A recommendation should be made for each property in this category based on whether it would be within the proposed project, what additional assessment or remedial actions might be required if the property is acquired, and the possible requirements for additional actions if there is a need to avoid the property.

This ranking is the lowest possible rating a currently operating petroleum fueling or storage facility can receive in an assessment document, based on its distance to the ROW, contamination type, need for dewatering in the area, etc.

4. **High** - After a review of all available information and current conceptual or design plans, there is a reasonable potential for contamination impacts during construction. Once the Design Alternative has been selected, sites rated with high contamination potential require further assessment to confirm and delineate potential contaminants and to determine if remediation or special construction provisions will be needed during construction.

   The recommendation for this rating should include a listing of the parameters of concern and media to be assessed, and if known, what construction activities will occur within or adjacent to the contaminated media. Properties used historically as gasoline stations and which have not been evaluated or assessed would likely receive this rating.

After the Level I Assessment is completed, properties identified as having a “Medium” or “High” ranking, may require further assessment to verify or determine the extent of contamination concerns depending upon the proposed construction. The Level I may have to be reviewed and revised based on changes during the design phase.

Planned ROW acquisition and project features should be considered in determining the potential for contamination. There may be instances when contamination involvement can be avoided with minor design changes; for example, moving drainage structures or changing installation of French drains to reinforced concrete pipe in areas identified as having potential for soil or groundwater contamination.

Documentation to the file, which may be in the form of a Technical Memorandum, demonstrates that contamination involvement was considered and addressed as appropriate.

22.2.3.3 Contamination Screening Evaluation/Level I Assessment Report

The documentation of the Level I Assessment can be reported in three ways. For a Level I Assessment completed for a PD&E study, the results are reported in a ***CSER***. If the Level I Assessment is completed during the Design phase the report is titled ***Level I Assessment Report***. Both of these reports are prepared as described in this section.

When the Level I Assessment finds no contamination impacts associated with the project, a Technical Memorandum may be used as documentation in lieu of a ***CSER*** or ***Level I Assessment Report***.

The ***CSER or Level I Assessment Report*** should be a concise document that provides details on the desktop and field reviews of potential contamination impacts detailed in ***Section 22.2.3.1***, including: data reviewed, findings, previous remedial actions, risk ratings and conclusions with recommendations for additional assessment actions.

The cover page should always include the 7-digit Work Program Item Segment Number (WPI Segment No.) or the 11 digit Financial Management Number (FM).

The sections detailed below discuss the information that should be included in the ***CSER*** or ***Level I Assessment Report***:

1. **Introduction** - The introduction should be a brief overview statement explaining the purpose of the report and provide details on the basics of the project. A summary of the purpose and need used in the final environmental document should be included. An example introduction could be:

   "The purpose of this report is to present the findings of a contamination screening evaluation for the proposed roadway project. This report identifies and evaluates known or potential contamination problems, issues, presents testing or remedial recommendations concerning these problems, and discusses possible project impacts or impacts to the proposed project."

2. **Project Description** - This section should briefly describe the proposed improvements and define the project limits. The description should note if the project is anticipated to include ROW acquisition. A summary of the project description for improvements from the Environmental Document should be included. An example of a project description would be:

   "The Florida Department of Transportation is proposing improvements to _____ miles of _____ Road to accommodate present and future traffic demands. These improvements include widening the existing two-lane road to five lanes configured as four traffic lanes and a center two-way continuous left-turn lane. The project begins at _____ Street and terminates at _____ Highway. Beyond the traffic lanes, improvements include shallow swales for surface drainage, grass side strips, and sidewalks."

3. **Alternative Corridors or Alignments** - In this section, a brief description of each viable alternative considered in the project should be provided. Maps or other figures should be used to illustrate the alternatives. An evaluation matrix, as outlined in 14 (b), should be included as part of this section or as a separate table.

4. **Land Uses** - This section should contain a brief description of the existing land uses within the project area and provide a summary of planned future land uses.

Land use information is important to understand the nature of potential contaminants, for example, the contamination issues will be vastly different for a project in an industrialized area versus one going through a rural area. 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 legal owner and previous land use of every suspect property on each alignment (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.

5. **Hydrologic Features** - This section should include a very brief description 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:

   "This County 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, etc.) 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."

6. **Methodology** - This section should include a brief description of the processes used to complete the contamination impact assessment. An example for a preliminary ***CSER or Level I Assessment Report*** may be:

   "A preliminary evaluation of _____ Road was conducted to determine 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 FDOT DCIC, FDOT PM, local government agencies, WMDs, etc.).

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, etc., 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. A summary of field observations performed to verify information provided and to identify other potential sources within the vicinity of the project. Clearly state the number of sites evaluated within the proposed project limits and the results of the evaluation.

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.

7. **Project Impacts** - This section should be a narrative presentation of the potential contamination impacts identified for each alternative (detailed in ***Section 22.2.3.2***). The narrative should 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, etc.

   b. Permit or ID numbers - Include DEP program identification numbers or other permit numbers.

   c. Type of Contamination Impact - List each hazardous material or potential hazard.

   d. List of storage tanks - 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.

   e. Distance - Of known contamination plumes (or storage tank) from ROW (existing and/or proposed). DEP's dewatering permits now include a 500 foot rule for dewatering for both petroleum and non-petroleum sites, as per ***Chapter 62-621.300 F.A.C***.

   f. Identify the contamination risk rating (per ***Section 22.2.3.***) for each site and alternative.

8. **Contaminants:** Evaluation of potential contaminants and sources normally associated with the type of business that is, or has been, conducted on the property that would impact construction. For example:

   a. Landfills.

b. Agricultural sites (cattle dip vats and disposal areas), petroleum storage, pesticides, fungicides, fertilizers.

c. Dry cleaning solvent sites.

d. Junkyards, waste recycling facilities or gasoline, oil, solvents, and UST's at gasoline service stations.

e. Surfaces coated with potentially hazardous substances, such as ACM or MBC.

f. Floor drains, hydraulic lifts or other potential contamination sources that will be difficult to sample prior to construction or demolition.

This list should not be considered to be a complete list of potential contaminant sources. Any observed potential contamination issue may require further assessment.

Pathways for contamination to enter the ground should also be considered. For example, an auto repair shop that uses a floor drain connected to a septic tank rather than public sewer may have a greater opportunity to impact the property.

9. **Regulatory Status of Sites** - This section should describe 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. If applicable, this section should also discuss any pertinent comments from the ETAT during ETDM, as well as any coordination with the agencies in PD&E.

   The purpose of the records review is to determine, through a review of reasonably ascertainable public records, the potential for contamination impacts to the transportation project and to FDOT. Obtain from federal, state and local regulatory agencies any reasonably ascertainable information concerning past or present assessment, remediation or closure actions that could impact the proposed project. Useful records in regulatory agency files include compliance inspection reports, enforcement notices, contamination assessment reports, remedial action plans, initial remedial action reports, source removal reports, etc.

   Many county environmental agencies may have additional information available. Because each county is different, the evaluator must determine what information is available and useful and use it in the appropriate evaluation.

10. **Historical Information -** This section should include a brief description of historical information that has been gathered for each site along each alternative. This section should indicate any historic land uses that may have resulted in contamination impacts to the subject properties.

Obtain aerial photos of the area as applicable to determine the history of the potentially impacted sites. Comparison of historical records from different time periods provides valuable information about changes in land use or previous uses which may be dischargers of contamination. Historical documents are available on the EST, through FDOT's and DEP's websites and, also, through online map collections.

The evaluation of aerial photos, city directories, plat maps, and Sanborn Insurance Maps can identify potential problem areas (because of scale-large depressions or overgrowth), which are often overlooked on the ground. Additionally, these images may be the only resource to identify the location of older demolished buildings or abandoned solid waste disposal sites.

Evaluation of historical aerial photography and historical facility photos can assist with the identification of sources of potential contamination such as landfills, lagoons, storage areas, drums, tanks, landscaping, and even spill-related ground staining from spills. City directories, historic maps and other reference material can provide specific historic land uses that may reveal potential contamination concerns within or near the project.

Photographs of each potentially impacted site 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, the photographer position and camera direction.

11. **Interviews** - Interviewing site owners, utility personnel, local officials or current and long-time residents may be necessary to determine any present or past issues that could indicate contamination concerns. Examples of officials and utility personnel that should be interviewed include, but are not limited to, the following:

    a. City / County engineers.

    b. WMD personnel.

    c. Fire department staff.

    d. Telephone, cable, other utility and waste management company personnel.

    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).

12. **Recommendations** - This section should discuss the potential contamination issues identified for each alternative. This should include recommendations for further assessment that may be required for each site or property within the proposed project corridor and each alternative as warranted. When ascertainable, this section should note if the contamination issues identified relate to ROW acquisition as well as potential involvement with construction. Unusual or notable issues, such as ***CERCLA*** sites should be noted. Pertinent agency or stakeholder comment, 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 needs for specialized construction methods, e.g., dewatering permits.

    This section should also include a very brief discussion of estimated costs for assessment and remediation, if known.

13. **Figures**

    a. Project Location Map: An area map (region, county, state, etc.) showing the general location of the proposed project, including project limits with a detailed map of the immediate project area.

    b. 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, etc.).

    c. Contamination Site Location Map: A detailed map of the proposed project, including project limits, showing the locations of all potential contamination sites for each alternative.

    d. The scale of all maps must be appropriate 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.

14. **Tables**

    a. Potential Contamination Sites: This table should present information on each contaminated site or property that was evaluated as part of this document.

b. Potential Contamination Sites per Alternative: This table should present the number of contaminated sites or properties with risk rating for each of the alternatives being considered. An example of this table would be:

Alternative	Contamination Risk			
	No	Low	Medium	High
A	X	X	X	X
B	X	X	X	X
C	X	X	X	X

X = number of sites per rating and per alignment

15. **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

16. **Pond Clearances** - The potential pond sites, floodplain compensation (FPC) areas should be evaluated during the Level I assessment. Additionally, drainage structures and drainage easements should be investigated if there is a potential for contamination impacts to construction. Plan revisions must be monitored by the DCIC to ensure that facilities and structures are assessed properly.

22.2.3.4 Environmental Documents

The findings of the Level I Assessment are summarized into the appropriate Environmental Document prepared for each project.

Type 2 Categorical Exclusions (CEs)

Projects which are Type 2 CEs may have an involvement with contamination so long as the involvement is determined not to be significant. The determination of significance should be agreed upon by the DCIC, District Environmental Administrator, and the PM following the guidance in ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination***. If the project is determined to be a Type 2 CE, based on item 6.D.4 being identified as "Sig" or "Non-Sig", a Level I Assessment must be completed. The documentation of the Level 1 Assessment may be a ***CSER*** or, if there are no contamination impacts or anticipated minimal involvement with contamination, a Technical Memorandum. It is unlikely that a "significant" contamination impact would be encountered for the first time on a design project. Potential significant impacts should be identified during the ETDM Screening events for qualifying projects, project scoping, work program development, and/or SWAT Planning or Kick-off meetings as well as through the PD&E contamination evaluation (***CSER*** or technical memorandum) prepared during the preliminary engineering phase.

For a Type 2 CE, check ***Section 6.D.4*** of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11*** with the applicable impact determination. The ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11*** should indicate where a copy of the ***CSER*** is available for Public Review.

1. If there are no contamination issues on the recommended alternative, "NoInv" is marked for contamination, a technical memorandum that supports that determination should be attached.

2. If "NONE" is marked for contamination then contamination may be located within the recommended alternative but not impacted by the project, a brief summary of the Level I Assessment or technical memorandum should be attached and referenced in the Basis for Decision line.

3. If "NotSig" is marked for contamination, then a brief summary of the ***Level I Assessment Report*** should be attached and referenced in the Basis for Decision line. Any supporting documentation and the ***CSER*** should be included in the project file.

Environmental Assessment (EA) / Environmental Impact Statement (EIS)

For EAs and EISs the PM's responsibility is to document project related contamination impacts in a Level I Assessment with conclusions and recommendations summarized in the project's Environmental Document and the ***Preliminary Engineering Report (PER)***.

The discussion of contamination in the Affected Environment and Environmental Consequences sections of an EIS or the Impacts section of an EA is generally limited to an overall summary of the Level I Assessment. Where applicable, the following statement should be provided:

> *"The State of Florida has evaluated the proposed right-of-way 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 Environmental Consequences section of an EIS or Impacts section of an EA must include a Contamination sub-section that summarizes and references the Level I Assessment. Specific references to the items discussed in the Level I Assessment are included as appropriate. A summary table of impacts for each alternative should also be provided. Coordination which occurred during the contamination impact assessment must be discussed in this section. The Comments and Coordination section should discuss and append letters from agencies expressing comments on the Level I Assessment. Resolution of comments shall also be documented in this section.

For an EA with FONSI, the document will include a brief statement indicating the effect of the project. The availability of the CSER/Level I Assessment in the District Office should be noted.

State Environmental Impact Reports (SEIRs)

For SEIRs, include the results of the coordination in the Environmental Analysis section of the ***FDOT Project Evaluation Form*** by placing an "X" in the appropriate column indicating the level of impact. If there are no contaminated sites within the project area, mark the column indicating “NOINV.” If the project will be a benefit to the contaminated site by required clean up, mark the column indicating “ENHANCE”. If there is contamination in the area but there is little or no impact, mark the column indicating “NO.” If there is a potential impact, mark the column “YES”. Provide justification of decision in the Basis for Decision column and supplement with attachments as necessary to substantiate the impact determination. A ***CSER*** or Technical Memorandum should be prepared as appropriate to reflect the evaluation conducted and support the contamination issue identification, recommendations and conclusions summarized in the SEIR. All commitments made through coordination efforts should be documented in the Commitments section of the ***FDOT Project Evaluation Form***.

22.2.4 Design Phase

During the Design phase, site assessment should be performed early to evaluate the potential contamination impact to construction activities on the project. For projects that had a PD&E Study, this may include an update to the Level I Assessment, as appropriate, or performing a Level II Assessment. For projects that did not have a PD&E Study, a Level I Assessment with a ***Level I Assessment Report*** (see ***Section 22.2.3.3***) or technical memorandum should be completed, followed by a Level II Assessment.

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. Contamination-related impacts to a project's schedule must also be considered if a project is advanced in Design or if there is a long period of time between the PD&E and Design phases.

The level of effort related to contamination impact assessment during the Design phase depends on the potential for contamination impacts and the type of construction contracting method for the project. DB and P3 contracting methods often have an increased level of up front assessment effort, to ensure contamination issues are given full consideration in the DB or P3 process. For these projects, the FDOT has the authority to adjust the assessment requirements based on additional information and the plans that are made available for review during the process. All identified impacts should be assessed, regardless of the nature of the project.

Any change to contamination impacts after approval of the Environmental Document must be documented in the appropriate Reevaluation consistent with ***Part 1, Chapter 13, Reevaluations***. Updates to contamination status anticipated activities to resolve next steps, etc., and coordination should be contained in the Section 2.D.4 Contamination of the ***Reevaluation Form***. A Construction Advertisement Reevaluation should reflect resolution of previously identified contamination issues; resolution may include a description of how the issue will be handled if it is best addressed just prior to or during construction.

22.2.4.1 Level II Assessment

Medium to High ranked contamination sites with potential to impact the project, identified during the Level I Assessment, must be verified by a Level II Assessment. A Level II Assessment should normally be prepared only on projects identified for property acquisition or construction in FDOT's 5-year work program.

A Level II Assessment is performed during the Design phase of a project to identify and assess contamination. Typically, this assessment is completed prior to, or during, the ROW phase. In some instances, a limited Level II Assessment may be performed during the PD&E phase to help determine a preferred alternative or a Level I and Level II Assessment may be combined for an accelerated project.

It is important to note that a Property Access Agreement may be needed to access some properties that have not been acquired or that have tenants currently occupying them. The District Office of General Counsel and District Right of Way Office should be contacted for coordination of a Property Access Agreement.

The assessment methodology should first be discussed with and agreed upon by the DCIC to ensure that District preferences and protocols are met before performing any project related assessment. For guidance on assessment methods and cleanup target levels, refer to the DEP's website as well as ***Chapters 62-780 and 62-777***, ***F.A.C.***, and if necessary consult with DEP.

A Level II Assessment, should consist of site access, installation of soil borings and monitor wells, and collection of soil and groundwater samples for sites listed as “Medium” or “High” in the Level I Assessment that may impact construction, unless otherwise directed by the DCIC. In addition, depending on the results of the Level I Assessment and project concerns, specialized sampling may be required for asbestos, metal based coatings, air quality.

If the Level II Assessment indicates that the sites identified in the Level I Assessment have no contamination present, no further assessment should be required unless additional discharges of a contaminant occur.

If the Level II Assessment indicates that contamination is present at a site listed in the Level I Assessment, further assessment may be necessary to define the contamination impacts to construction. This may not necessarily require a full delineation of contamination, and should only be completed to the extent necessary to determine the area of construction impacts.

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 ROW acquisition phase, to allow sufficient time for contamination remediation and meet the production schedule. Coordination with each office is required to insure that where contamination is identified, and is likely to affect construction, appropriate steps are taken to:

1. Avoid the contamination by design or alternative changes,

2. Minimize potential for worker exposure through various engineering controls, or

3. Remediate contamination prior to construction activity at that location by the CAR Contractor in coordination with DCIC.

Contaminants in the soil or groundwater, within or near the ROW, may require the adjustment of the schedules for acquisition and project construction to allow sufficient time for FDOT to complete remediation activities required for construction to occur.

When appropriate, coordination between FDOT, any appropriate regulatory agency, the current tenants, or current property owners will be necessary to ensure that the assessment is completed 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. Where 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 in advance of, or concurrent with, construction. A final report related to the type and level of assessment or remediation that was conducted should be provided once the work has been completed. Interim

reports or other report types may also be requested, based on the project needs or situation.

22.2.4.2 Project Note Development

Contamination-related project impacts must be provided to the project design team through technical (or modified) special provisions (TSPs or MSPs), contamination memos, plan notes, and/or other documentation. The information should include details of the contaminant levels and locations, as well as an outline of anticipated CAR Contractor actions to support construction efforts. The DCIC should coordinate with the Design PM, and the District Specifications Engineer regarding the schedule and protocol for development of these project notes.

22.2.4.3 Areas of Unidentified Contamination

Unidentified Areas of Contamination should be handled in accordance with ***Section 120-1.2 of the Standard Specifications for Road and Bridge Construction***.

22.2.5 Construction Phase

22.2.5.1 Level III Remediation

When contamination impacts are identified on a project, and there is a potential for handling contaminated media during construction activities, precaution is required to protect construction personnel and ensure the construction activities will not exacerbate or spread existing contamination.

Each site with construction contamination impacts should have a clearly defined scope of work, which conforms to the requirements of the appropriate regulatory agency as appropriate. Generally, the provisions published by the DEP for assessment and remediation of contaminated sites will be adequate for most regulatory agencies. The liability provisions in ***Section 337.27, F.S.***, should always be considered when identifying the need for regulatory involvement.

The Level III scope of work should include a summary of the Level II Assessment with recommendations on the limits of contamination and required remediation. If soil or groundwater remediation is necessary, the procedures should follow applicable standards of the appropriate regulatory agency.

Based on the ***MOU between FDOT and FDEP***, the DEP may conduct cleanup or provide funding to assist with cleanup activities for petroleum contamination sites. Any remedial action or actions should consider the provisions outlined within the ***MOU***.

If an EPA ***CERCLA*** or abandoned Superfund site has contamination within the project limit, the Office of General Counsel must be contacted if the contamination has the potential to be exacerbated by project activities. The EPA (and/or DEP if they have been

given delegation) must be involved with any remedial action decisions that are made for that site.

If avoidance of contamination is not possible, steps must be taken to remove or render safe the contamination materials prior to construction activity in the contaminated area. Project notes, special provisions or other appropriate notation should be included within the construction contract to address any known areas of contamination that will be encountered during construction. These should address contaminated soils and groundwater, as well as other contaminated liquids, sludge and solids.

If an ACM or MBC survey has not been conducted previously, the DCIC should insure that a survey has been performed on all bridge structures prior to demolition. If possible, perform any required abatement prior to construction.

For coastal bridge replacement projects, consideration may be given to using clean bridge debris material for use as an artificial reef. This determination must be made as part of the coordination and consultation process with the regulatory and resource agencies as well as other stakeholders once it has been determined that demolition is the preferred alternative. This work should be coordinated between the Design PM and the DCIC and should occur as early in the design phase as possible. Consideration will include, but will not be limited to, management, testing, storage, cost and/or transport of the material as well as permitting and agreements that may be necessary.

22.2.5.2 Dewatering During Construction

In cases where a high water table is present, dewatering may be necessary. Often, dewatering operations must obtain a NPDES Generic Permit for Petroleum Contaminated Sites and, if necessary, treat the produced groundwater to limits set by the NPDES permit. Many sites have insufficient retention, drainage, or ROW spaces to accommodate storage or recovery of contaminated groundwater. The prime roadway contractor, remediation contractor (as a sub to the prime contractor) or CAR Contractor may need to discharge effluent into FDOT's Municipal Separate Storm Sewer System (MS-4) system. As part of the process for obtaining a DEP National Pollutant Discharge Elimination System (NPDES) Generic Permit for Discharge of Groundwater from Dewatering Operations, an evaluation of potential contamination impacts to the dewatering operations must be completed. See **Part 1, Chapter 12, Environmental Permits** and **Part 2, Chapter 20, Water Quality Impact Evaluation** for guidance on NPDES permitting. This evaluation should include sampling for the contaminants of concern to determine if groundwater treatment is necessary prior to discharge and defining the extent of the contamination within the ROW, if possible. When dewatering treatment is required, requisite sampling and reporting is required per the associated permit(s).

22.3 FDEP/FDOT MEMORANDUM OF UNDERSTANDING

DEP and FDOT entered into an ***MOU*** addressing discharges of petroleum pollutants from off-site source properties to the state transportation facilities on June 16, 2014. A copy of the ***MOU*** is available on the ***SEMO website***.

The ***MOU*** allows and encourages cooperation between the FDOT and DEP to identify, assess, and remediate petroleum contamination within FDOT's ROW or property that may impact transportation projects.

The process outlined in the ***MOU*** has been developed to better locate, assess, plan for and remediate petroleum contaminated sites that potentially impact FDOT projects identified as "economically significant" transportation projects or other significant projects of mutual agreement. Generally the ***MOU*** covers sites that are either Petroleum Trust Fund Eligible projects or the result of a petroleum spill or release by a third party within FDOT ROW.

Once a determination is made of ***MOU*** eligibility, FDOT can request the DEP to prioritize assessment and remediation of the site, regardless of the site score. FDOT also has the option to move forward with assessment and remediation and then seek reimbursement for the eligible discharge. A flowchart of this ***MOU*** provision is provided in the ***Figure 22-2.***

Additionally, the ***MOU*** provides for contamination that has migrated to the ROW and is determined to not be a threat to human health, public safety or the environment (or cannot be feasibly remediated), the discharger may request a No Further Action (NFA) or Site Rehabilitation Completion Order (SRCO) from DEP once the following information has been provided:

1. A Map Note on DOT ROW maps that clearly outlines the site.
2. A summary of all soil and groundwater data.
3. A legal description of the location of the Map Note.
4. A Specific Purpose Survey, Boundary Survey or Sketch of the site tied to FDOT bearing base or GPS coordinates.
5. Draft language for future property conveyance.
6. An indemnification agreement.
7. Other information, as required.

22.4 INITIAL CONTAMINATION EVALUATION OVERVIEW

There are several considerations related to contamination impacts on projects, which the DCIC and PM must take into account. Below are examples of issues or questions that must be answered or coordinated for a successful project. Since contamination issues can vary with projects, the DCIC and PM should be both flexible and innovative in addressing them.

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 DEP 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 or potential involvement?

    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 DEP and/or is it eligible for remediation in accordance with the 2014 ***MOU***?

2. USTs in the ROW

    a. Are there known or suspected USTs within the existing or proposed ROW that could impact construction?

    b. Are there known or suspected USTs 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 ***FDEP/FDOT MOU***?

3. Impacts to the Design

    a. How will the known or suspected contamination impact the design?

    b. Is there a viable avoidance alternative, design modification or notation?

    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?

4. Impacts to Construction

    a. How will the known or suspected contamination impact the planned construction?

b. Has the design and construction PM been advised and coordinated with?

c. What notifications need to be made to the construction contractor?

d. Will remediation or removal be complete prior to construction?

e. Are there anticipated additional time or costs to construction?

f. How will impacts to the construction contractors planned activities be minimized?

5. Exacerbation Potential

a. The DCIC must ensure that the known or suspected contamination is not exacerbated, or made worse, by the FDOT project through activities such as dewatering, stockpiling, etc.

b. What actions need to be taken to ensure this?

c. Will dewatering exacerbate a ground water contamination plume?

d. Consider proximity to ***Comprehensive Environmental Response Compensation Liability Act (CERCLA)***/Superfund sites (see below)

6. ***CERCLA***/Superfund 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. Is contractor exposure and health & safety a concern

a. Do the contamination impacts pose an exposure or health & safety concern for the construction contractor?

b. How will FDOT address these issues?

8. Site Contamination Removal and Remediation

a. If removed, how will contaminant be transported?

b. What type of documents will be required for transporting waste from the site?

c. What is the status of current site assessment and remediation on the DEP's OCULUS website? (see ***Section 22.5*** for link to website)

d. Have contractual and funding mechanisms and funds been established for costs of remediation and disposal?

22.5 REFERENCES

23 Code of Federal Regulations (CFR) Part 771

33 CFR §§ 1341–1344

40 CFR §§ 230-300

40 CFR §§ 1500-1508

42 CFR Part 300

42 CFR Part 4321

49 CFR §§ 171 and 172

Chapter 62-520, Florida Administrative Code (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., Underground Storage Tank Systems

Chapter 62-761, F.A.C., Contaminated Site Cleanup Criteria

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

Department of Environmental Protection's (DEP) OCULUS website. http://depedms.dep.state.fl.us/Oculus/servlet/login

Federal Highway Administration, Technical Advisory T6640.8A, "Guidance for Preparing and Processing Environmental and Section 4(f) Documents," October 30, 1987.Florida Administrative Code, Chapter 62-302, Surface Water Quality Standards

Florida Department of Transportation (FDOT), Efficient Transportation Decision Making (ETDM) Manual, Topic No. 650-000-002

FDOT, Local Agency Program Manual, Topic No. 525-010-300

FDOT, Right-of-Way Procedures Manual, Topic No. 575-000-000

FDOT, Standard Specifications for Road and Bridge Construction, Section 120

FDOT, Statewide Stormwater Management Plan, September 2012

Section 334.27, Florida Statutes (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

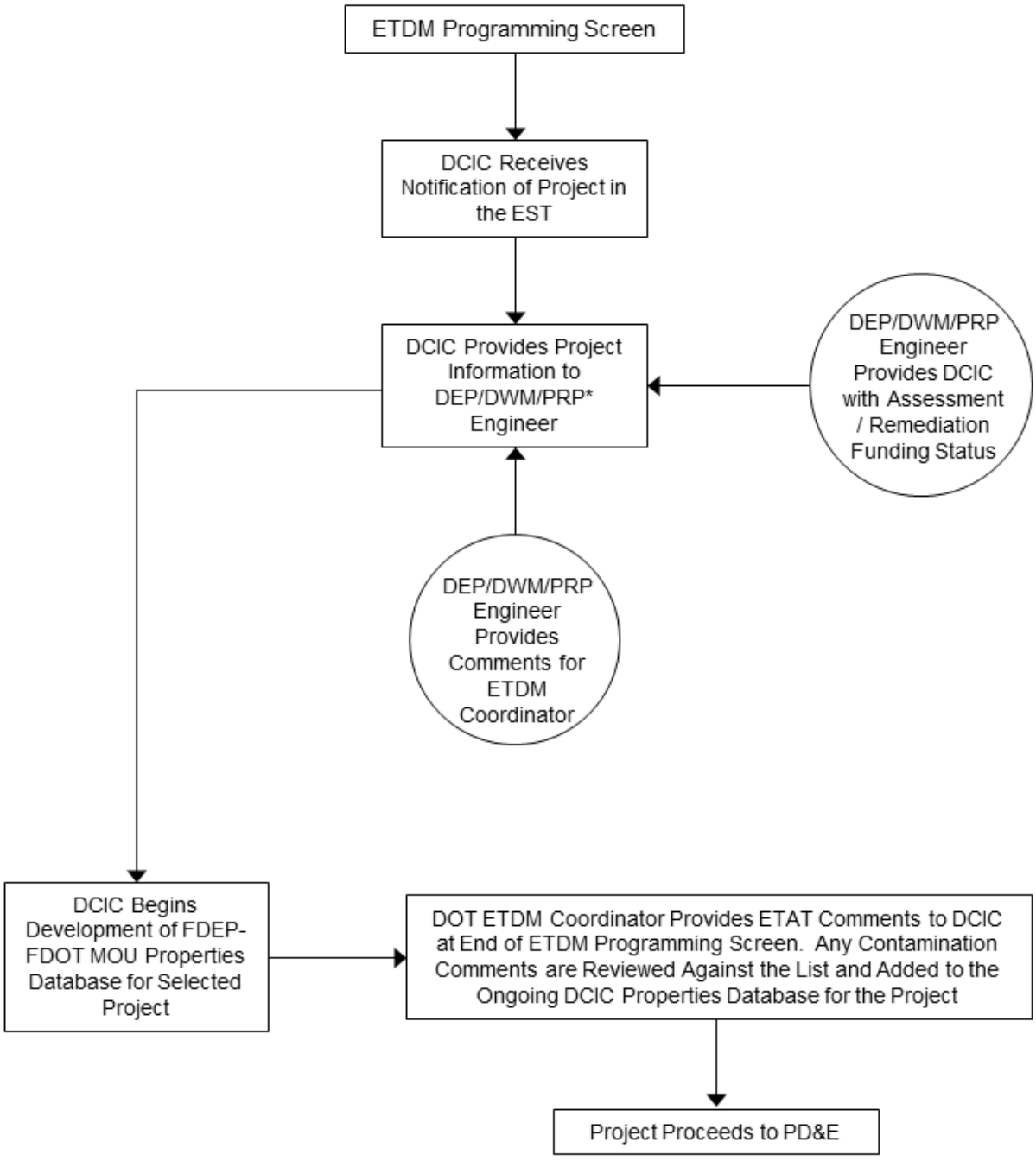
Section 403.031, F.S., Definitions

Title 29 United States Code §§ 1910 and 1926, U.S. Department of Labor, Occupational Health and Safety Administration (OSHA)

Memorandum of Understanding between FDOT and FDEP, June 16, 2014

22.6 HISTORY

12/10/2003



*** DEP/DWM/PRP = DEP, Division of Waste Management, Petroleum Restoration Program**

Figure 22-1 FDEP-FDOT MOU Petroleum Cleanup Flow Chart

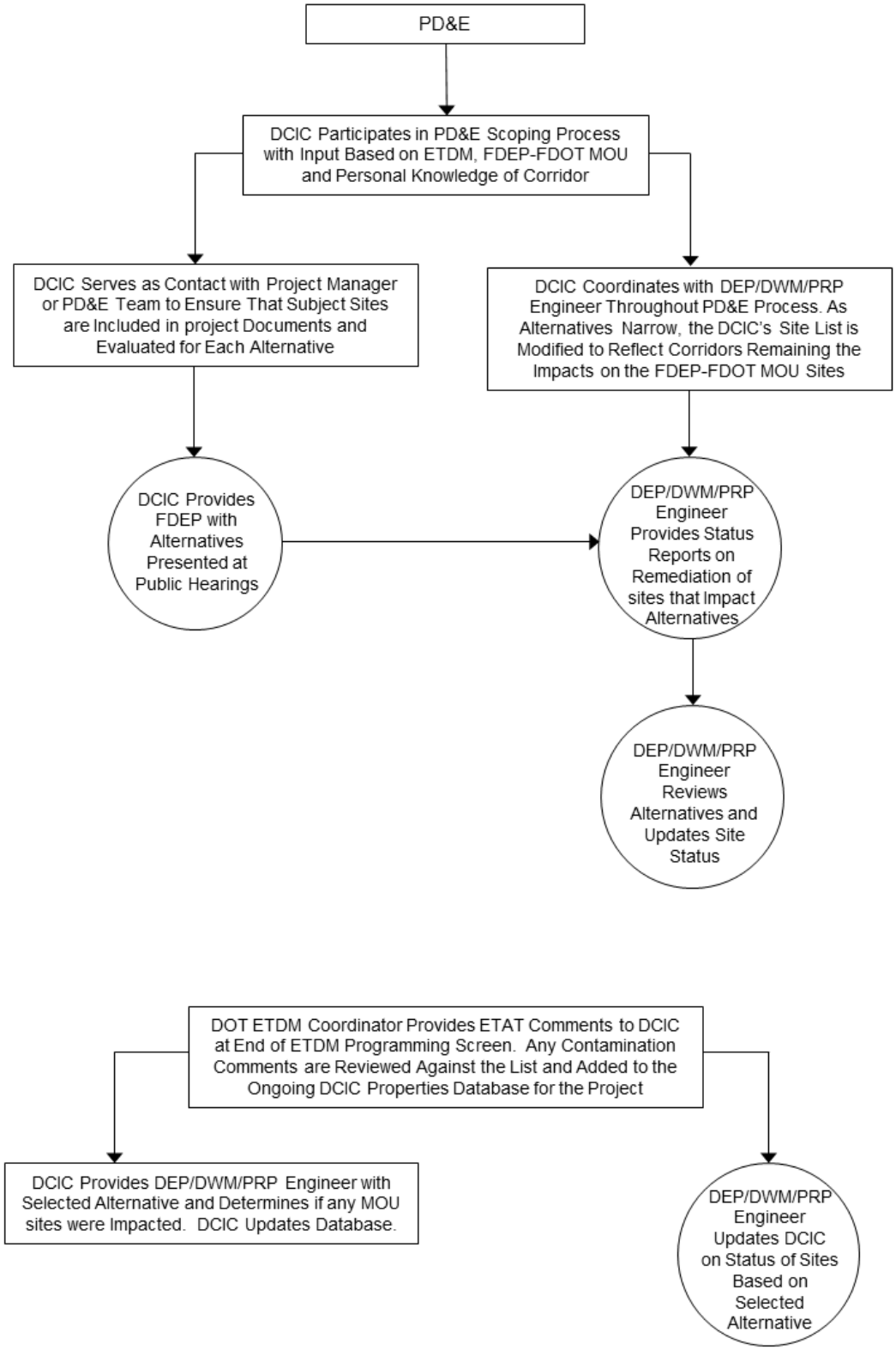


Figure 22-1 FDEP-FDOT MOU Petroleum Cleanup Flow Chart (Page 2 of 3)

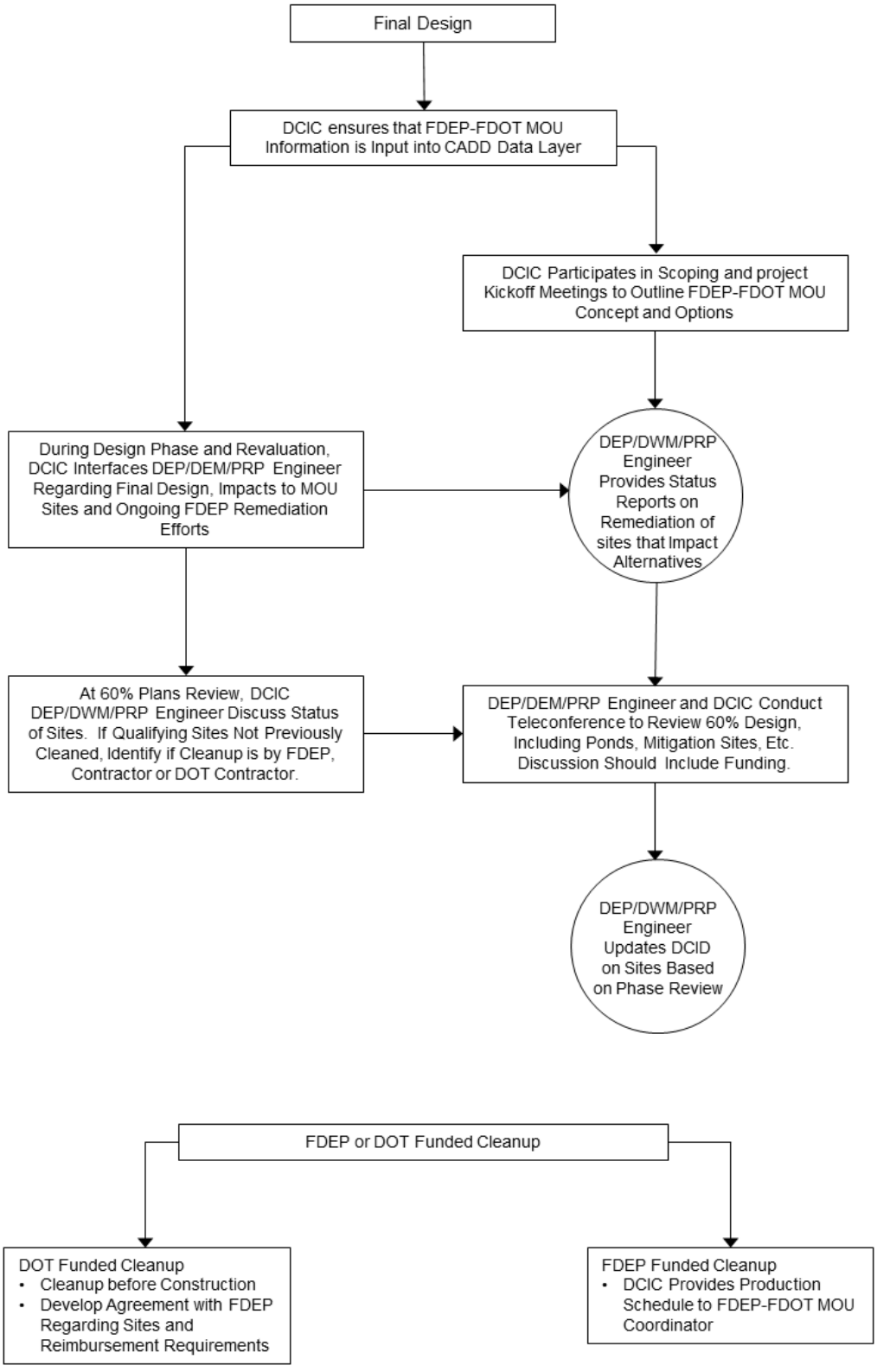


Figure 22-1 FDEP-FDOT MOU Petroleum Cleanup Flow Chart (Page 3 of 3)

PART 2, CHAPTER 23

WILD AND SCENIC RIVERS

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PART 2, CHAPTER 23

WILD AND SCENIC RIVERS

23.1 OVERVIEW

This chapter provides procedures for evaluating and documenting potential effects of federal projects on Wild and Scenic Rivers and certain designated study rivers. The Florida Department of Transportation (FDOT) is responsible for determining whether a federal transportation project impacts a designated Wild and Scenic River or a congressionally designated study river and for consulting with the National Park Service (NPS) or other appropriate River Administering Agency (RAA) to avoid direct and adverse effects to these resources.

This chapter provides guidance on complying with the following:

1. Presidential Directive dated August 2, 1979, ***Wild and Scenic Rivers and National Trails***;

2. Council of Environmental Quality Memorandum dated August 10, 1980, ***Interagency Consultation to Avoid or Mitigate Adverse Effects of Rivers in the Nationwide Inventory***;

3. ***Federal Register (FR), Volume 47, Number 173*** dated September 7, 1982, ***National Wild and Scenic Rivers System-Final Revised Guidelines for Eligibility, Classification, and Management of River Areas***;

4. ***The Wild and Scenic Rivers Act of 1968 (WSRA), as amended, 16 U.S.C. Chapter 28 § 1278, Wild and Scenic Rivers, Restrictions on Water Resources Projects***; and

5. ***36 Code of Federal Regulations (CFR), Part 297, Wild and Scenic Rivers***, July 2012.

The ***WSRA*** 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.” ***Section 7*** of this ***Act***, along with the implementing rules, requires that no federal license, permit, or other authorization be issued for a project which would affect the free flowing characteristics, the water quality, or the outstandingly remarkable values of a Wild and Scenic River or a river under study for designation as a Wild and Scenic River (study river). Therefore, prior to issuing such a project license, permit, authorization, or federal funding to a project which is within, alongside, above or below the boundaries of these resources, the federal agency must (1) provide notice to the Secretary responsible for administering the river and (2) consult

with the NPS and/or any other appropriate federal agency administering the river to reach a determination that the project will not have a direct and adverse effect on the outstanding remarkable values that provide the basis for the segment's designation as a Wild and Scenic River or study river.

The following are the two designations of rivers assessed in federal Environmental Documents:

1. **Nationwide Rivers Inventory** - Includes the river segments designated in the ***WSRA*** for further study in order to determine if they should be included in the National Wild and Scenic Rivers System (study rivers) as well as the river segments which have been formally designated as Wild and Scenic Rivers.

2. **Wild and Scenic Rivers** - Those rivers with free-flowing conditions approved by the Secretary of the U.S. Department of Interior (DOI) being classified, designated, and administered as one of the following:

    a. 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.

    b. 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.

    c. 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.

It is the responsibility of the FDOT District to determine whether a project is located within, across, or adjacent to the boundaries of a river listed in the ***Nationwide Rivers Inventory (NRI)***, as early as possible in the planning or project development process. To obtain the most current list of the ***NRI***, contact the NPS. See ***Section 23.3*** for a link to the NPS website.

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.

2. **Wekiva River:**
   Consists of 41.6 total miles. The Wekiva River from its confluence with the St. Johns River to Wekiwa 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

23.2 PROCEDURE

23.2.1 Determination of Involvement

Each river has specific segments that meet qualifications for inclusion in the ***NRI*** or for Wild and Scenic River designation. In cases where the project is in, across, or adjacent to a study river or listed Wild and Scenic River, the project, at minimum, will be a Type 2 Categorical Exclusion (CE).

There are two ways ***Section 7*** of the ***WSRA*** can apply to federally funded or approved transportation projects. The first is when a project is located within the boundaries of a designated or study river and the second is when a project is alongside the boundaries, or which requires construction activity upstream, downstream or on a tributary of the designated or study river.

Section 7 establishes three (3) procedural findings that apply to projects involving river segments identified in the ***NRI***. These findings are related to the nature of the project's relationship to the river segment and, in the case of the last two procedural findings, whether the river segment involved is a designated Wild and Scenic River or a study river. Furthermore, the analysis for these findings must be coordinated with the river managing agency and/or the NPS, as appropriate.

1. Direct and adverse impacts to the river - This evaluation occurs for all river segments identified in the ***NRI*** (that is, both study and designated Wild and Scenic Rivers). It applies to projects which are located inside the river which may alter the free-flowing conditions, water quality and/or the outstanding river values (ORVs).

2. Invade the area or unreasonably diminish the values of the river - This evaluation applies to projects outside the designated wild and scenic rivers corridor which may impact the river or its ORVs.

3. Invade the area or diminish the values of the river - This evaluation applies to projects outside the designated study river corridor which may impact the river or its ORVs.

The ORVs are defined in the ***WSRA*** as those resources within a river corridor worthy of special protection. The District will determine if the project is within, across, or adjacent to any rivers listed in the ***NRI***. This determination may have been made during the Efficient Transportation Decision Making (ETDM) process where qualifying projects are entered into the Environmental Screening Tool (EST) by the ETDM Coordinator. (See the ***ETDM Manual, Topic No. 650-000-002***)

During PD&E, 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 Quality and Quantity.” Comments by the NPS are especially important.

For projects not qualifying for ETDM screening, the District Project Manager determines if the project is located within, across, or adjacent to the boundaries of a river segment listed on the ***NRI***. These river segments are delineated and identified in the geographic layers used by the EST and can be accessed for locational data for projects which do not qualify for ETDM. If there is no involvement with any rivers listed in the ***NRI*** the project may proceed without further involvement with the ***WSRA***. The finding of no involvement should be recorded in the project file and in the appropriate Environmental Document.

23.2.1.1 Rivers Not Listed on the Nationwide Rivers Inventory

If the project is not within, across, or adjacent to the boundaries of a river segment listed in the ***NRI***, then no further action is required in regard to compliance with legislation governing the consideration of designated Wild and Scenic River or study river segments. Documentation is required in the Environmental Document according to ***Section 23.2.3.1***.

23.2.1.2 Rivers Listed on the Nationwide Rivers Inventory

If the project is within, across, or adjacent to the boundaries of a river segment listed in the inventory, proceed with coordination in ***Section 23.2.2*** and documentation in accordance with ***Sections 23.2.3.2*** and ***23.2.3.3***.

23.2.2 Coordination

For projects involving either a study river or a river designated as a Wild and Scenic River, consultations with the managing entity of the river and the appropriate RAA must be conducted in accordance with ***Section 7*** of the ***WSRA*** (see the guidance provided in ***Interagency Wild and Scenic Rivers Coordinating Council: Wild and Scenic Rivers Act, 2004*** in ***Section 23.3***). When the project involves either a study river or a designated river and the project development process reaches the stage when alternative right of way (ROW) requirements have been conceptually defined, aerials depicting alternatives with conceptual ROW limits will be submitted for review and comment to the appropriate RAA for designated rivers and, for Study Rivers, to the NPS at:

Florida Field Office
National Park Service-RTCA Program
665 S. Orange Ave.
Sarasota, FL 34236

The NPS (or other appropriate agency) will respond within a period of thirty (30) days to the request. Any responses or comments received should be resolved. There are times when this may require close coordination with the RAA or the NPS for certain projects where there may be either a physical or visual intrusion of the proposed project on the river. In all cases, however, the responses, comments and resolutions are included and discussed in the Wild and Scenic Rivers section of the Type 2 CE, Environmental Assessment (EA), or Environmental Impact Statement (EIS), as appropriate. For EAs

and EISs, a copy of the letters and resolutions should be included in the Appendix and the discussion of coordination with NPS and/or the other managing agencies and, as appropriate, governing bodies in the Comments and Coordination section should complement what is written in the Wild and Scenic Rivers section of the document. For a Type 2 CE, appropriate letter(s), meeting minutes and resolutions should be referenced in the Type 2 CE documentation and placed in the project file.

When the project involves a designated Wild and Scenic River, coordination and consultation includes the appropriate RAA. If the river is managed by a federal agency other than the NPS (these include the U.S. Forest Service, the Bureau of Land Management and the U.S. Fish and Wildlife Service), the coordination must include that agency. For state-managed Wild and Scenic Rivers, the coordination must always include the NPS and the governing council of the specific river.

23.2.3 Documentation

As appropriate, the Type 2 CE, EA, or EIS will contain one of the standard statements set forth in the next three sections regarding the designation or involvement with a Wild and Scenic or study river. The statement must be supported by appropriate documentation in the Wild and Scenic Rivers section of the Environmental Document (see ***Part 1, Chapter 5, Type 2 Categorical Exclusion***, ***Part 1, Chapter 6, Environmental Assessment***, and ***Part 1, Chapter 8, Draft Environmental Impact Statement***).

23.2.3.1 Rivers Not Listed on the Nationwide Rivers Inventory

For Type 2 CE projects involving rivers not included on the ***NRI***, a standard statement is not required. It is sufficient to mark the box (No Inv) for no involvement on 6.C.5. Wild and Scenic Rivers of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***. If needed, this determination can be explained in the "Basis for Decision" section of the form (***Part 1, Chapter 5, Type 2 Categorical Exclusions***).

For EA or EIS projects involving rivers not included on the ***NRI***, the following standard statement is included in the Wild and Scenic Rivers section of the EA or EIS. As appropriate, cite the ***WSRA***

> *The (Name of River) is not listed in the National Park Service's Nationwide Rivers Inventory and is not designated as a Wild and Scenic River and, therefore, the coordination requirement for the Wild and Scenic Rivers Act does not apply to this project.*

23.2.3.2 Rivers Listed on the Nationwide Rivers Inventory Without Impacts

For projects involving rivers included on the ***NRI*** which have no impacts on the river, the following standard statement is included in Wild and Scenic Rivers section of the Type 2 CE (in the "Basis for Decision" section), EA, or EIS.

The (Name of River) is listed in the National Park Service's Nationwide Rivers Inventory (or is a designated Wild and Scenic River). After coordination with the National Park Service, or other appropriate River Administrating Agency, it has been determined that the project will not directly affect, invade or (unreasonably) diminish the outstanding river values of (Name of River).

The "unreasonably" diminish statement applies to designated Wild and Scenic Rivers only; for study rivers, the higher threshold of just "diminish" applies.

In addition, for EA and EIS documents, the RAA and NPS letters of no direct or adverse effects to ORVs should be included in the Appendix along with appropriate information in the Comments and Coordination section. For a Type 2 CE, the NPS letter should be referenced in the Type 2 CE documentation and placed in the project file.

23.2.3.3 Rivers Listed on the Nationwide Rivers Inventory with Impacts

For projects involving potential impacts to rivers listed on the ***NRI***, including those river segments listed as designated Wild and Scenic Rivers, the following areas should be assessed and included in the Wild and Scenic Rivers sections of the Type 2 CE, EA, or EIS.

1. State the name and description of the inventory river;

2. Note whether the river is a designated Wild and Scenic River or a study river.

3. Describe the surrounding environment and setting of the river;

4. Describe the river's usage;

5. Identify any adverse impacts on natural, cultural, and recreational values [the ORVs including any scenic values] within and on each side of the river from the river bank inland one-fourth of a mile. Examples of adverse impacts would be:

    a. Alteration of free-flowing nature of river,

    b. Alteration of the setting, and

    c. Deterioration of water quality.

6. Address comments submitted by NPS and other appropriate agencies with letters included in the Appendix (for EA or EIS only);

7. Reference the NPS and other agency letters in the Type 2 CE documentation (for Type 2 CE only);

8. State alternatives and designs considered that can avoid or minimize harm;

9. Address measures to mitigate harm;

10. Determine if the project's impacts will preclude or downgrade the wild and scenic designation of the river; and

11. Adopt and summarize a monitoring and enforcement program as developed in consultation with the RAA and, as applicable, the managing board or committee, where applicable, for any mitigation listed in the Environmental Document.

If a determination is made that a project will have no impact on a either a study river or a designated Wild and Scenic River after coordination with NPS or other appropriate agency, then the standard statement in ***Section 23.2.3.2*** should be provided in the Wild and Scenic Rivers section of the environmental document.

23.2.4 Section 4(f) Applicability

Publicly-owned waters of designated Wild and Scenic Rivers, as well as study rivers, may be protected by ***Section 4(f)*** based upon their designated functions. Publicly-owned lands in the immediate proximity of such rivers may also be protected by ***Section 4(f)***, depending on the manner in which they are administered by the federal, state, or local government which manages the land. Designation under the ***WSRA*** does not in itself create a ***Section 4(f)*** resource. However, ORVs often include consideration of surrounding areas 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 designed or designated as public parks, recreation areas, wildlife and waterfowl refuges, and historic and archaeological sites. Therefore, during the consultations with the RAA or NPS for projects which are alongside, across or within rivers 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, the consultations with the official of the agency having jurisdiction over the property in question, the NPS and other appropriate agencies to resolve these potential adverse impacts will need to be coordinated carefully. This is because 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 13, Section 4(f) Resources***, or Questions 21 B,C and D contained in the ***July 20, 2012 Section 4(f) Policy Paper*** located at the FDOT Section 4(f) References web page for more information.

23.3 REFERENCES

16 U.S. Code § 1278 - Restrictions on water resources projects.
http://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title16-section1278&num=0&edition=prelim

36 Code of Federal Regulations (CFR) Part 297. Wild and Scenic Rivers. https://www.gpo.gov/fdsys/pkg/CFR-2012-title36-vol2/pdf/CFR-2012-title36-vol2-part297.pdf

Council on Environmental Quality Memorandum, Interagency Consultation to Avoid or Mitigate Adverse Effects on Rivers in the Nationwide Inventory, August 10, 1980

Federal Highway Administration, 2012. Section 4(f) Policy Paper. July 20, 2012. https://www.environment.fhwa.dot.gov/4f/4fpolicy.asp

Florida Department of Transportation (FDOT). Efficient Transportation Decision Making Manual (ETDM), Topic No. 650-000-002

Interagency Wild and Scenic Rivers Coordinating Council. Wild and Scenic Rivers Act: Section 7. October 2004. http://www.rivers.gov/documents/section-7.pdf

National Park Service (NPS). http://www.nps.gov/ncrc/programs/rtca/nri/index.html

National Wild and Scenic Rivers Systems; Final Revised Guidelines for Eligibility, Classification and Management for River Areas, Federal Register, Vol. 47, No. 173, September 7, 1982

Presidential Directive, Wild and Scenic Rivers and National Trails, August 2, 1979

The Wild and Scenic Rivers Act, P.L. 90-542

The Wild and Scenic River Study Process, Technical Report for the Interagency Wild and Scenic Rivers Coordination Council, December 1999

Wekiva River Rock Spring Run & Seminole Creek Wild and Scenic River Study. Southeast Support Office, National Park Service, U.S. Department of the Interior (DOI), June 1999

23.4 HISTORY

03/15/2004, 01/08/2008

PART 2, CHAPTER 24

DRAINAGE AND FLOODPLAINS

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PART 2, CHAPTER 24

DRAINAGE AND FLOODPLAINS

24.1 OVERVIEW

The purpose of this chapter is to outline the procedure for drainage analysis and the evaluation of project impacts on floodplains during project development, and provide guidance on how to document floodplain analysis in the Environmental Document. Protection of floodplains and floodways is required by ***Executive Order 11988***, ***Floodplain Management; USDOT Order 5650.2, Floodplain Management and Protection;*** and ***Federal-Aid Policy Guide 23 CFR § 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 100-year (base) floodplains. Where encroachment is unavoidable, the regulations require the Florida Department of Transportation (FDOT) to take appropriate measures to minimize impacts. Further guidance for implementation of ***Executive Order 11988*** can be found in the ***Guidelines for Implementing Executive Order 11988, Floodplain Management***.

This chapter, along with the ***Federal Highway Administration's (FHWA) Technical Advisory T6640.8A, Guidance for Preparation and Processing Environmental and Section 4(f) Documents***, provide guidelines for assessing highway impacts on base floodplains and regulatory floodways to comply with ***23 CFR Part 771*** and the regulations cited above. The District Drainage Engineer or designee is responsible for assessing project impacts on base floodplains and regulatory floodways, and incorporating that evaluation into the Environmental Document and the ***Location Hydraulics Report (LHR)***.

The drainage analysis conducted during the Project Development and Environment (PD&E) Study is dependent on the level of engineering and design analyses required for the PD&E project. At a minimum, the PD&E Study should estimate the approximate size and potential locations of stormwater management facilities that meet the requirements of the ***FDOT Drainage Manual, Topic No. 625-040-002***.

24.1.1 Definitions

Base Flood - The flood or tide having a 1% chance of being equaled or exceeded in any given year (commonly known as a 100-year flood).

Base Floodplain - The area subject to flooding by the base flood.

Encroachment - activities or construction within the floodplain including fill, new construction, substantial improvements, and other development.

Direct Effects – Impacts which occur as a direct result of an action and occur at the same time and place as the action.

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.

Indirect Effects – Impacts which are reasonably foreseeable effects that occur as a result of an action but occur later in time or are removed from the action location.

Impact - The effect of an encroachment upon the human, natural or physical environment.

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.

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].

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 (highway).

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.

24.2 PROCEDURE

Drainage requirements and potential floodplain impacts should be assessed for all FDOT projects. If a project has multiple alternatives, the potential floodplain impact needs to be determined for each alternative.

24.2.1 Determine Level of Effort

The level of drainage analysis needed in the PD&E phase is dependent on the level of engineering detail required for a particular project. If the project will have advanced

design activities the drainage analysis will be completed in accordance with the ***FDOT Drainage Manual, Topic No. 625-040-002***.

The level of assessment and documentation for floodplains during the PD&E phase depends on if there is a floodplain impact and its significance, as defined in ***Section 24.2.3.*** The scope of the floodplain analysis will vary depending 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. See ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination*** and ***Chapter 2, ETDM Process*** of the ***ETDM Manual, Topic No. 650-000-002*** for clarification on projects that qualify for screening.

24.2.1.1 Projects Not Qualifying for Screening

Floodplain issues may be identified for projects that do not qualify for EST screening and advance straight to the Design phase. For transportation projects not qualifying for EST screening, documentation in the Environmental Document is as follows:

1. **Type 1 Categorical Exclusions** - For these projects, check "No" next to the question on floodplain encroachment in the ***Type 1 Categorical Exclusion Checklist, Form No. 650-050-12*** (See ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination***) and document that there are no floodplain impacts.

2. **Non-Major State Actions** - For a NMSA mark "No" on the appropriate section of the ***Non-Major State Action Checklist (***see ***Part 1 Chapter 10, State, Local or Privately funded Project Delivery)*** to document that there are no floodplain impacts.

3. **Type 2 Categorical Exclusions -** Some Type 2 CEs may not require screening through the EST. For these projects, floodplain impacts are documented on the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***, and in the project file. See ***Section 24.2.5.1*** for guidance on documenting Type 2 CEs.

24.2.1.2 Projects Qualifying for Screening

Transportation projects qualifying for EST screening generally are more complex. In accordance with ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination***, qualifying projects must complete the ETDM Programming Screen and may also have completed the Planning Screen.

1. **Planning Screen Evaluation** - In the Preliminary Environmental Discussion (PED), provide a discussion about known potential project involvement with floodplains, identification of drainage basins and receiving water bodies and their

designations in accordance with ***Part 1, Chapter 3, Preliminary Environmental Discussion and Advance Notification***.

Review information available in the Planning Screen regarding the location of floodplains as identified by the Federal Emergency Management Agency (FEMA) and ***Flood Insurance Rate Maps (FIRM),*** and the locations of Special Flood Hazard Areas (SFHA). 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 with floodplains, 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, if separate, the Advance Notification (AN).

   Coordinate continuously with the ETAT and other stakeholders throughout the Programming Screen process. Coordination may include FDOT staff such as District Drainage Engineer, District Permit Coordinator, District Environmental Management Office staff, and others who may be involved in the project following the screening.

   After screening is completed, review ETAT comments related to floodplains from the ***Programming Screen Summary Report.*** The report will contain the floodplain PEDs, ETAT comments related to floodplains, as well the District's Summary Degree of Effect (SDOEs), which should identify potential effects. Use this information to determine the level of potential floodplain impacts and how they may be evaluated and mitigated in the next phase of the project. 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) may have reference to a recent drainage study as being the best available information, which may supersede existing floodplain maps. Comments from the WMDs are especially important for this issue.

   Complete the appropriate level of analysis and documentation based on the project context, anticipated impacts, and outcome of any resource agency meetings. Document floodplain commitments in the Environmental Document and the ***Project Commitment Record, Form No. 700-011-35***. (See ***Part 2, Chapter 32, Commitments***). See ***Section 24.2.5.3*** for documentation of floodplain impacts in the Environmental Document.

24.2.2 Drainage Analysis

This section highlights the required drainage analysis in a PD&E Study.

24.2.2.1 Existing Drainage Conditions

For each alternative being considered the existing drainage conditions should be identified as follows:

1. General drainage patterns in the vicinity of 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 water bodies, their classifications (Class I through V), their special designations if appropriate (e.g., Outstanding Florida Waters, Wild and Scenic River) and if they are verified impaired through the Florida Department of Environmental Protection's (DEP's) Total Maximum Daily Load Program.

4. The WMDs with jurisdiction over the project (for a list of the WMDs and their jurisdiction see DEP's website).

5. Base flood elevation as determined.

6. The land use within the project area.

7. History of flooding.

8. The soil types within the project area.

9. For projects on existing alignments, provide the description of existing stormwater systems and management facilities including:

    a. Ditches

    b. Storm drains

    c. Location and size of cross drains

    d. Location and description of bridges

    e. Location and size of ponds

    f. Other stormwater facilities

    g. Any previous permit information

This information is documented in the ***Preliminary Engineering Report (PER)***, ***Pond Siting Report***, and summarized in the Affected Environment section of an Environmental Impact Statement (EIS), or the Impacts section of an Environmental Assessment (EA).

24.2.2.2 Proposed Drainage Conditions

For each alternative being considered, build upon the information gathered on existing drainage conditions (***Section 24.2.2.1***) and provide preliminary drainage concepts including:

1. Description of the drainage basins with their respective outfall
2. The water quality treatment requirements of the WMD and the rate (or volume) discharge requirements of the WMD's and FDOT requirements
3. The required floodplain compensation and acre-feet of storage volume required
4. General discussion of the preliminary proposed drainage (ditched, piped, ponds, etc.)
5. Approximate size and potential locations of Stormwater Management Facilities
6. Approximate location and size of cross drains (new or existing)
7. Treatment of existing cross drains (e.g., lengthened, type of end treatment, replaced, plugged)
8. Proposed new bridge structures
9. Modifications to existing bridge structures

This information is documented in the ***PER***, ***Pond Siting Report***, **LHR** and summarized the Environmental Consequences section of an EIS or the Impacts section of an EA.

24.2.2.3 Environmental Look Around

After the stormwater management requirements are estimated and before stormwater management design decisions are planned, the project manager should explore watershed wide stormwater needs and approaches to meeting permit requirements by convening Environmental Look Around (ELA) meeting(s) with regional stakeholders. The ELA should explore the following opportunities:

1. WMD/DEP Issues - Wetland rehydration, water supply needs, minimum flows and levels, flooding, Total Maximum Daily Load (TMDL) requirements, acquisition of fill from DEP/WMD lands
2. City / County Issues - Stormwater re-use, flooding, discharge to golf courses or parks, National Pollutant Discharge Elimination System (NPDES) needs, and water supply needs

3. FDOT Project Permitting - Regional treatment, stormwater re-use, and joint use facilities

Potential participants from FDOT include the Design Engineer, Drainage Engineer, Permit Coordinator and NPDES Coordinator. Potential stakeholders from the City/County include the City Engineer, Public Works Director and Stormwater Engineer. Other stakeholders might include WMD/DEP staff involved in reviewing permits and water quality issues. Areas of potential cooperation are documented in the project reports for future follow up as the project development process moves forward. ***Section 5.3*** of the ***FDOT Drainage Manual, Topic No. 625-040-002*** describes this process in more detail.

24.2.2.4 Pond Siting Evaluation

Identifying size and potential location of stormwater management facilities (ponds) is a requirement in the PD&E phase. For all ponds requiring right of way (ROW) acquisition, a pond siting evaluation is required during PD&E. The ***FDOT Drainage Manual, Topic No. 625-040-002*** lists the information required to be in the pond siting evaluation.

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 be consistent with the ***Highway Beautification Policy, Topic No. 000-650-011*** and integrated with existing and proposed landscaping and adjoining land uses.

24.2.3 Location Hydraulic Studies and Report

FDOT requires a ***LHR*** to be prepared for any Type 2 CE, EA, EIS, or State Environmental Impact Report (SEIR) project that may have a potential to encroach on the base floodplain, pursuant to ***23 CFR Part 650A***. The ***LHR*** describe the types of construction activities as well as a description of the measures to avoid or minimize floodplain impacts associated with the project. The District Drainage Engineer or the designee must review the ***LHR*** and verify that all base floodplains are identified and the location hydraulic study 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 floodplains.

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. These studies include discussion of the following:

1. The practicability of alternatives to any longitudinal encroachments.

2. The risks associated with implementation of the action.

3. The impacts on natural and beneficial floodplain values.

4. The potential for the project to support or encourage incompatible floodplain development.

5. The measures to minimize floodplain impacts.

6. The measures to restore and preserve the natural and beneficial floodplain values impacted.

The information contained in the ***LHR*** is site specific, but the level of effort and engineering detail involved 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. The encroachment types are listed below:

1. **No Involvement** - No involvement means that there are no floodplains in the vicinity of the proposed alternatives.

2. **None** - When encroachments are classified as "none," this means that there are floodplains in the vicinity of the proposed alternatives, but there is no floodplain encroachment.

3. **Minimal Encroachments** - Minimal encroachments on a floodplain occur when there is a 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 the 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

    If the conditions are such that, even after following the standards and procedures, flood elevations and or flood limits are predicted to significantly change, a risk evaluation including an assessment comparing capital costs and risks associated with the proposed improvements must be done.

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***.

24.2.3.1 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 appropriately 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 developed in accordance with the FDOT's drainage standards and procedures, and therefore no adverse impacts to floodplains are anticipated as a result of this project.

The expected change in flood elevations due to a project must be estimated to aid in performing the appropriate level of risk evaluation, see ***Section 24.2.3.3***. Alternatives to avoid the longitudinal encroachment of the floodplain will include evaluation and discussion of the practicality of the alternatives. New alignment alternatives usually require a preliminary evaluation to determine hydraulic capacity. When new alignments include longitudinal encroachments, they should be analyzed to determine any increase in flood height. On existing alignments the possibility of decreased hydraulic performance of existing structures requires an evaluation to determine the resultant change in flood heights 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 considered to 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 an evaluation of the floodplain to determine any increase in the number of flood receptors and the increase in damage to present flood receptors that will result from any increase in flood elevations. If necessary, consultation with local natural resource and floodplain management agencies should be initiated to adequately assess flood impacts.

Whenever it is determined that the proposed project will involve a regulatory floodway, the District Drainage Engineer, or designee, must work with local agencies and the 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 (i.e., flora, fauna, open space, water quality, etc.), 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 24-1*** 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***.

24.2.3.2 Only Practicable Alternative

Alternatives to avoid the longitudinal encroachment of the floodplain will include evaluation and discussion of the practicality of the alternatives. 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 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.

24.2.3.3 Risk Evaluation

Once project impacts have been identified, the District Drainage Engineer or designee must perform a risk assessment or a risk analysis based on engineering information and professional judgment.

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 usually more appropriate for small structures, or for structures whose size is not influenced by hydraulic constraints.

Risk analysis encompasses 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. The cost and effort required for a risk analysis is considerably higher than for a risk assessment. Selection of the process to be used should be based on the size of the project and potential risk involved. Risk evaluation must be documented in the ***LHR***.

Based on the data presented in the ***LHR,*** the District Drainage Engineer, in consultation with the Project Manager, will determine if the floodplain encroachment is significant. In reaching this determination, the factors discussed in ***23 CFR Part 650A*** concerning significant encroachments must be considered. These are:

1. Does the proposed project's encroachments create:

    a. A significant potential for interruption or termination of a transportation facility which is needed for emergency vehicles or provides a community's only evacuation route?;

    b. A significant flood risk?; or

    c. A significant adverse impact on natural and beneficial floodplain values?

2. The impacts evaluated to determine the significance of each encroachment should include both direct and indirect impacts. The analyst must keep in mind that in evaluating risk, that risk is related to the potential for property loss and hazard to life. It must include consideration of:

    a. Risks to transportation infrastructure

    b. Risks to highway users - loss of life, service disruption.

    c. Risks to residents – damages, service disruption, property loss.

3. Finally, in assessing the significance of each encroachment on natural floodplain values, the District Drainage Engineer in coordination with the Project Manager, and in consultation with District Environmental Office staff, must evaluate the potential for loss or gain to beneficial values as a result of project impacts. Some of these values include:

    a. Natural moderation of floods

    b. Water quality maintenance

    c. Groundwater recharge

    d. Fish and wildlife habitat

    e. Plants

    f. Open space and natural beauty

    g. Recreation

h. Agriculture and Aquaculture

i. Forestry

24.2.3.4 Location Hydraulic Report

As defined in ***Section 24.2.3***, there are four categories of encroachments as they pertain to base floodplain involvement; no involvement, none, minimal and significant. As a result of early field and document reviews, a preliminary determination of impact is made as to the level of significance of the encroachment. This preliminary determination is made by the Project Manager in coordination with the District Drainage Engineer. Based on the preliminary determination, the type of documentation necessary for the ***LHR*** is determined. The following describes the requirements necessary for the completion of the ***LHR*** for each level of significance of encroachment.

1. **None or No Involvement** - For projects where the level of significance for the floodplain encroachment is "none" or "no involvement", a location hydraulic study is not required and the review of the project alternatives is documented in the Environmental Document and the ***PER***.

2. **Minimal Encroachments** - If a project has minimal impacts due to floodplain encroachments the report should describe the types of floodplain construction activities and include a commitment to perform drainage design during the project's Design phase in accordance with ***FDOT Drainage Manual, Topic No. 625-040-002*** and ***FDOT Design Standards***. Commitments should be documented in the Environmental Document and the ***Project Commitment Record, Form No. 700-011-35***.

   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 risks:

   a. General description of the project including: location, length, existing and proposed typical sections, drainage basins, cross drains;

   b. Determination of whether the proposed action is in the base (100-year) 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 proposed project on emergency services and evacuation;

g. Impacts of the proposed project on the base flood, likelihood of flood risk, overtopping, location of overtopping, backwater, etc.;

h. Determination of the impact of the proposed 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 proposed project with the local floodplain development plan or the land use elements in the Local Comprehensive Plan, and the potential of encouraging development in the base floodplain;

k. A map showing project, location, and impacted floodplains. A ***FIRM Map*** should be used if available. If not, other maps (e.g., USGS, U.S. Army Corps of Engineers, Soil Conservation Service, 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

l. Results of any risk assessments performed.

3. **Significant Encroachments** - In addition to the items listed in the requirements for minimal encroachments the following additional 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 proposed project;

    f. Drainage problems which would result from extending or replacing existing structures;

g. Estimate both the existing floodplain volume (capacity) and the volume of the encroachment (this information can be estimated based on United States Geological Survey (USGS) Maps, ***FIRM Maps***, existing drainage maps, or best available information from the WMDs, etc.);

h. Flooding impacts to private property;

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.

3. Preliminary clearances both vertically and horizontally.

Once the ***LHR*** is complete, the information contained in it is summarized in the Environmental Document according to ***Section 24.2.5.***

24.2.4 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 cross drains, then the requirements of the ***LHR*** must be included in the draft ***BHR***.

24.2.5 Environmental Document

24.2.5.1 Type 2 Categorical Exclusion

For a Type 2 CE, section C6 of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11*** ***(***See ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination)*** should be checked:

1. **NoInv** is marked if there are no floodplains in the vicinity of the proposed alternatives.

2. **None** is marked when there are floodplains in the vicinity but there are no floodplain encroachment impacts from the recommended alternative.

3. **NotSig** is marked when there are impacts due to floodplain encroachments. The supporting documentation should describe the types of floodplain, construction activities and a commitment to perform drainage design during the project's design phase in accordance with FDOT's drainage design standards.

If there is regulatory floodway involvement then the supporting documentation to the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11*** must address the project's consistency with the regulatory floodway and demonstrate coordination with the FEMA and local floodway management agencies on the consistency issue.

24.2.5.2 State Environmental Impact Report

For SEIRs, include the results of the coordination in the Environmental Analysis section of the SEIR by placing an "X" in the appropriate column indicating the level of impact. ***(***See ***Part 1, Chapter 10, State, Local Agency and Private Projects Delivery)***

1. **NoInv** is marked if there are no floodplains in the vicinity of the proposed alternatives.

2. **Enhance** is marked if the project will be a benefit to the floodplain, such as by providing improved hydraulic opening on a bridge.

3. **No** is marked when there are floodplains in the vicinity but there are no floodplain encroachment impacts from the recommended alternative.

4. **Yes** is marked if there is a potential floodplains impact. Provide justification of decision in the Basis for Decision column and supplement with attachments as necessary to substantiate the impact determination (See ***Section 24.2.5.3***)

24.2.5.3 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 or not the proposed action will encroach upon the base floodplain through the use of 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., U.S. Army Corps of Engineers, Soil Conservation Service, 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 24-1*** for sample statements).

4. If the proposed 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 direct effects or indirect effects in the support of development in the base floodplain, see ***FDOT Cumulative Effects Evaluation Handbook*** .

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***. It 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 eliminate such involvements.

If a particular alternative encroaches upon a regulatory floodway, the following questions must be addressed in the EA and 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 proposed 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 permit the consistency evaluation and identify impacts. Coordination with FEMA and appropriate state and local governmental agencies should be undertaken for each regulatory floodway encroachment.

24.2.5.4 Finding Of No Significant Impact and Final Environmental Impact Statement

If the preferred alternative includes significant encroachments that significantly affect the human environment, the Environmental Impact 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 ***Executive Order 11988.*** When the preferred alternative includes significant encroachments but the human environment is not significantly affected, the finding must be provided in the Floodplain Findings paragraph in a Finding of No Significant Impact (FONSI).

The only practicable alternative finding should:

1. Reference ***Executive Order 11988*** and ***Federal-Aid Policy Guide, 23 CFR § 650 A***;

2. State the reasons why the proposed action must be located in the floodplain;

3. Discuss the alternatives considered and why they were not practicable; and

4. Provide a statement indicating whether or not the action conforms to applicable State or local floodplain protection standards.

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.

24.2.6 Public Involvement

In accordance with ***Executive Order 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.

24.3 REFERENCES

Federal-Aid Policy Guide 23 CFR § 650A.
http://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0650a.htm

Federal Highway Administration's (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#flood

Florida Department of Environmental Protection (DEP) website
www.dep.state.fl.us/

Florida Department of Transportation (FDOT), Efficient Transportation Decision Making (ETDM) Manual, Topic No. 650-000-002.
http://www.dot.state.fl.us/emo/pubs/etdm/etdmman.htm

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

FDOT Drainage Manual, Topic No. 625-040-002
http://www.dot.state.fl.us/rddesign/Drainage/files/DrainageManual.pdf

FDOT Design Standards
http://www.dot.state.fl.us/rddesign/DS/17/STDs.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. October 8, 2015.
http://www.fema.gov/media-library/assets/documents/110377

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-

U.S. Department of Transportation (USDOT), Federal Highway Administration, October 30, 1987. Guidance for Preparing and Processing Environmental and Section 4(f) Documents, FHWA Technical Advisory T6640.8A.
https://www.environment.fhwa.dot.gov/projdev/impta6640.asp

24.4 HISTORY

01/07/2008

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 can and should be modified to fit in the summary of the Location Hydraulics Report and the Environmental Document, whenever possible, to summarize the findings of the location hydraulic studies for the appropriate construction activities and project conditions. These should be modified to "fit" specific base floodplain involvements.

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 improvement will not involve any work below the 100-year flood elevation.

Although this project involves work within the horizontal limits of the 100-year floodplain, no work is being performed below the 100-year flood elevation and, as a result, 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. As a result, this project will not affect flood heights or base floodplain limits. It 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 crossdrains, 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 24-1 Floodplain Statements

The modifications to drainage structures included in this project will result in an insignificant change in their capacity to carry floodwater. This change will cause minimal increases in flood heights and flood limits. These minimal increases 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 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.

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 reduce 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. As a result, 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. 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 in this category since it defeats the project purpose 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 totally eradicate flood impacts or even reduce them in any significant amount, existing flooding will continue, but not be increased.

Figure 24-1 Floodplain Statements (Page 2 of 3)

The proposed structure will be hydraulically equivalent to or greater than the existing structure, and backwater surface elevations are not expected to increase. As a result, 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. Therefore, it has been determined that this encroachment is not significant.

6- PROJECTS ON NEW ALIGNMENT, AND PROJECTS ON EXISTING ALIGNMENT WITH POTENTIALLY SIGNIFICANT CHANGES IN 100 YEAR FLOOD ELEVATIONS

Work on this type of project will cause changes in flood stage and flood limits.

The construction of the drainage structure(s) proposed for this project will cause changes in flood stage and flood limits. These changes will not result in any significant adverse impacts on the natural and beneficial floodplain values or any significant changes in flood risk or damage. These changes have been reviewed by the appropriate regulatory authorities who have concurred with the determination that there will be no significant impacts. There will not be 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.

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 proposed project and that the project will not support base floodplain development that is incompatible with existing floodplain management programs.

Figure 24-1 Floodplain Statements (Page 3 of 3)

PART 2, CHAPTER 25

COASTAL ZONE CONSISTENCY

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PART 2, CHAPTER 25

COASTAL ZONE CONSISTENCY

25.1 OVERVIEW

In an effort 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 of Ocean and Coastal Resource 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 CFR 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, F.S.)*** authorized the state to develop a comprehensive state coastal management program based on existing ***Florida Statutes*** and rules. The Florida Coastal Management Program (FCMP) received federal approval on September 24, 1981.

The FCMP consists of a network of twenty-four ***Florida 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 25-1*** provides a list of ***Florida Statutes (F.S.)*** included in the FCMP. ***Figure 25-2*** lists the participating state agencies.

The State of Florida's review of federal activities for consistency with the ***CZMA*** is coordinated by the Department of Environmental Protection (DEP), which serves as the lead agency for the FCMP. DEP uses the State Clearinghouse (SCH), which is located within DEP, 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 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 DEP 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.

25.1.1 Federal Consistency

As a member of the FCMP network, the Florida Department of Transportation (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. 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 analogous state permits are included in ***Section 373.428, F.S.***

25.2 PROCEDURE

25.2.1 Projects Requiring a Consistency Review

Projects that require a Federal Consistency Determination are those with federal funding and/or projects that will require a federal action (i.e., federal license or permit). Projects must undergo a consistency review if federal funds are to be used in any phase of the project implementation. Federally-funded Environmental Assessment (EA) and Environmental Impact Statement (EIS) projects are always, and Type 2 Categorical Exclusions (CEs) are usually subject to consistency review. State Environment Impact Reports (SEIRs) do not require a Federal Consistency Determination during Project Development and Environment (PD&E) unless a federal license or permit is required. Type 1 CE projects are exempt from consistency review until permitting.

25.2.2 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 ***Chapter 4, Programming Screen*** of the ***ETDM Manual, Topic No. 650-000-002***. The AN can occur during the Programming Screen or be processed separately before the 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 Environmental Screening Tool (EST) can be found in ***Chapter 4, Programming Screen*** of 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, discussion and receipt 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 or not 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 them, and indicates a determination of the project's consistency with the FCMP in the EST. This consistency decision is based on the consistency findings 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 dispute resolution ***(Section 25.2.4.1)*** until the review is complete. The District shall not proceed with further project development before receiving a consistency determination.

The finding of consistency is included in the ***Final Programming Screen Summary Report***, in the Appendix of the EA or EIS, or referenced in the Type 2 CE and the following standard statement is placed in the Coastal Zone portion of the Type 2 CE, EA, or EIS:

> *"The State of Florida has determined that this project is consistent with the Florida Coastal Zone Management Plan."*

For an EA or EIS, reference the location of the finding in the Appendix. For example, add "See Final Programming Summary Report" after the standard statement.

Whenever a project is determined to be inconsistent with the FCMP, a letter of inconsistency will be issued by the DEP 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. Prior to actually 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 dispute resolution process ***(Chapter 4, Programming Screen*** of the ***ETDM Manual, Topic No. 650-000-002)***. If an inconsistency letter is received, it is uploaded to the EST to support documentation for the project diary.

If significant concerns are identified during the AN review, the District will be advised by DEP 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 ***National Environmental Policy Act (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.

25.2.3 Subsequent Consistency Review

During development of the Type 2 CE, EA, or EIS, the consistency determination made with the AN may be modified if after the review of the document, an FCMP agency determines that the project is no longer consistent. Changes in a determination can come at any stage of project development.

25.2.4 Mediation of Determinations of Inconsistency

25.2.4.1 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 ***Chapter 2, ETDM Process*** of 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.

25.2.4.2 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 DEP 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 DEP, the lead coastal management agency.

If DEP receives a state agency objection or notice of a pending objection; FDOT will be advised of the basis for the objection. DEP 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 DEP will provide FDOT; FHWA (or other Lead Federal Agency), and the NOAA Office of Ocean and Coastal Resource Management with a state consistency objection letter in accordance with ***15 CFR 930***.

When FDOT receives a ***Letter of Inconsistency*** from DEP, 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 DEP 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 DEP mediation, an objecting agency continues to deem the project to be inconsistent, FDOT and/or the DEP may seek Gubernatorial mediation in accordance with ***Section 380.23(2)(b), F.S*.**

In the event of a disagreement between DEP and FHWA (or other Lead Federal Agency) regarding whether or not a federal assistance activity is subject to consistency review, the Lead Federal Agency 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.

25.3 REFERENCES

Code of Federal Regulations (CFR) Title 15 § 930 (15 CFR 930). Federal Consistency with Approved Coastal Management Programs.

Florida Department of Environmental Protection (FDEP), Florida Coastal Management Program State Clearinghouse Manual.
http://www.dep.state.fl.us/secretary/oip/state_clearinghouse/manual2.htm

FDEP, A Guide to the Federally Approved Florida Coastal Management Program.
http://www.dep.state.fl.us/cmp/publications/2013_updated_FCMP_Guide.pdf

Florida Department of Transportation (FDOT), Efficient Transportation Decision Making (ETDM) Manual, Topic No. 650-000-002.

FDOT, Environmental Screening Tool (EST) Handbook.

Florida Statutes, Chapter 380, Part II, Coastal Planning and Management.

Florida Statutes, Section 334, 339, and 373.428.

25.4 HISTORY

8/18/1999, 4/12/2011

The enforceable policies of the Florida Coastal Management Program, Florida's federally approved management program, consist of the following Florida Statutes and their implementing regulations. 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 25-1 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 25-2 Florida Coastal Management Program Agencies

PART 2, CHAPTER 26

COASTAL BARRIER RESOURCES

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PART 2, CHAPTER 26

COASTAL BARRIER RESOURCES

26.1 OVERVIEW

This chapter contains the procedures to determine whether a Florida Department of Transportation (FDOT) project is subject to the provisions of the ***Coastal Barrier Resources Act of 1982 (CBRA)*** and the ***Coastal Barrier Improvement Act (CBIA) of 1990***, collectively "the Acts". 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)***, 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. However, the ***CBRA*** contains exceptions, described in ***Section 26.1.2.1***, 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 designated coastal barriers;

2. Reduce wasteful expenditure of federal resources; and,

3. Protect the natural resources associated with coastal barriers.

26.1.1 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; landform composed of unconsolidated shifting sand or other sedimentary material which is generally long and narrow and entirely or almost entirely surrounded by water.

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 lands 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 U.S. Fish and Wildlife Service (USFWS) issues maps identifying the boundaries of CBRS units and OPAs. These maps can be found on the USFWS website (see ***Section 26.3*** for website).

26.1.2 Federal Funding Prohibitions

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*** 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, or boat landing facility within a unit;

3. Construction of a bridge or causeway leading to any system unit; and,

4. Assistance for erosion control or stabilization of any inlet, shoreline, or inshore area, except in certain emergencies

26.1.2.1 Exceptions to Federal Funding Prohibitions

Exceptions to the prohibition on financial assistance are provided in ***Section 6*** of the ***CBRA***. Listed below are summaries of the exceptions that may be applicable to FDOT:

1. 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 that are essential links to a larger network or system [the Federal Highway Administration (FHWA) has determined that all highways on the federal network are essential links in a larger network or system];

2. Construction, operation, maintenance, and rehabilitation of U.S. Coast Guard (USCG) facilities and access to them;

3. Maintenance or construction of improvements to existing federal navigation channels and related structures, including disposal of dredge materials;

4. Expenditures related to conservation, navigation, recreation, scientific research, disaster relief, roads, and shoreline stabilization, providing that the expenditures are consistent with the purpose of ***CBRA*** (See ***Section 6 (6) (A)-(G)*** for specific details);

5. Federal expenditure or financial assistance that was provided by Congressional appropriation prior to October 18, 1982.

26.1.3 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 ***Federal Register (FR, 45664, 08/06/1983)*** 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 26.2***).

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 26-1***.

26.2 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, Federal Highway Administration Class of Action Determination)***.

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.650-000-001)*** and should be discussed during any Statewide Acceleration and Transformation (SWAT) team meetings where the Acts may apply.

26.2.1 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***) and review the results of the Geographical Information System (GIS) analysis for the ***CBRA*** data layer. The unit type on ***CBRA*** data layer's metadata should identify whether the area is an OPA or CBRS unit. 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 to the project file indicating that the coastal barrier resource data layer or maps were reviewed and no resources were identified within the project area.

For Type 2 CEs with no CBRS involvement, mark the box "NoInv" in ***Section 6.C.8*** on the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***.

For EAs and EISs along coastal areas where the provisions of the ***CBRA*** could apply but the appropriate review has taken place and it has been determined that there is no CBRS involvement, add the following or similar statement to the Impact section accordingly:

> 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 EAs and EISs that are not along coastal areas, the Environmental Document does not require a statement in this regard.

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 ***Section26.2.2***. Documentation of this coordination is included in the environmental document according to ***Section 26.2.3***. Consultation with USFWS is not required for projects designated as OPA units.

26.2.2 Consultation Requirements

The District is responsible for preparing the following:

1. A transmittal letter
2. A description of the proposed action.
3. A map showing the project location, the ***CBRA*** unit(s), and a reference to the appropriate CBRS unit map (see link under ***Section 26.3***).

This information is sent to the local field office of the USFWS with a copy to the District's USFWS ETAT representative. See ***Figure 26-2*** 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.

26.2.3 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 and included in the Type 2 CE documentation. Mark the box "NotSig" in ***Section 6.C.8*** on the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11*** as appropriate based on the outcome of the consultation. The correspondence and other documents developed during the consultation process should be contained in the project file and referenced in Type 2 CE documentation.

For an EA – The consultation process and final determination should be summarized in the Coastal Barrier Resources section of the Impact section of the EA. The correspondence and other documents developed during the consultation process should be referenced in the EA and contained in the Appendix of the EA.

For an EIS – The consultation process and final determination should be summarized in the Coastal Barrier Resources section of the Environmental Consequences section of the EIS. The correspondence and other documents developed during the consultation process should be referenced in the EIS and contained in the Appendix of the EIS.

26.3 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

Federal Register (FR), 1982. Coastal Barrier Resources Act; Delineation Criteria. FR Vol. 47, No. 158

FR, 45664, 08/06/1983

United States Fish and Wildlife Service (USFWS) website link to CBRS unit maps: http://www.fws.gov/ecological-services/habitat-conservation/cbra/Maps/index.html

26.4 HISTORY

08/18/2000, 02/01/2011

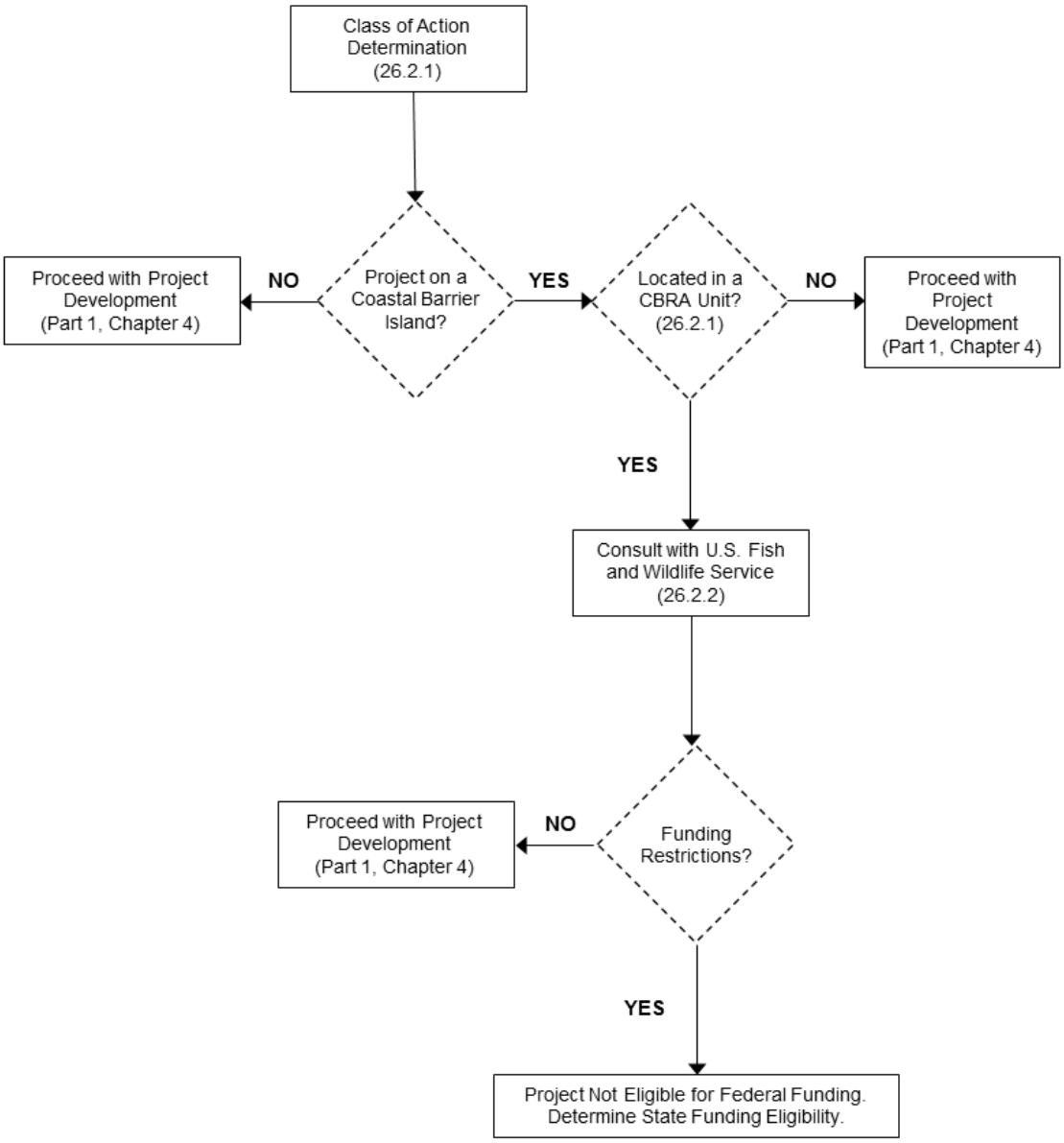

Figure 26-1 Coastal Barrier Resources Act Consultation Process United States Fish and Wildlife Service (USFWS)

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
http://www.fws.gov/verobeach/

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
http://www.fws.gov/panamacity/

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
http://www.fws.gov/northflorida/

Figure 26-2 United States Fish and Wildlife Service Contacts

PART 2, CHAPTER 27

PROTECTED SPECIES AND HABITAT

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PART 2, CHAPTER 27

PROTECTED SPECIES AND HABITAT

27.1 OVERVIEW

27.1.1 Purpose and Use

This chapter provides procedures for determining protected species and habitat impacts for transportation projects. 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***. 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 in the Environmental Document [Categorical Exclusion (CE), Environmental Assessment (EA) or Environmental Impact Statement (EIS), State Environmental Impact Report (SEIR)] and accompanying technical memo or ***Natural Resources Evaluation (NRE)***. Guidance on consultation with natural resource agencies, documentation, and procedures during Design (permitting) and Construction phases, as well as emergency consultation with resource agencies is also provided.

27.1.2 Definitions

The definitions below are summarized descriptions from federal and state regulations of key terms used throughout the chapter relating to protected species and habitat terminology.

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 CFR § 402.02***).

Adverse modification (or destruction) of critical habitat - Activities that may destroy or adversely modify critical habitat by altering the physical or biological features to an extent that appreciably reduces the conservation value of critical habitat for the target (listed) species.

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" (Proper grammatical usage).

Biological Assessment (*BA*) - Information prepared by, or under the direction of, a 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." (See ***50 CFR § 402.02***). 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 or not 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. 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 FR 7596-7613 (February 28, 1996)***].

Compensatory Mitigation - Serves to compensate for an unavoidable impact 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 ***Endangered Species Act (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)' 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) include suggestions on how an action agency can assist species conservation as part of their action and in furtherance of their authorities under ***Section 7(a)(1)*** of the ***ESA; 50 CFR § 402.02***.

Constituent elements - As prescribed by ***50 CFR § 424.12(b)*** are 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 .

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***.

Environmental baseline - 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 (***50 CFR § 402***). The environmental baseline does not include the effects of the action under review in the consultation (***USFWS and NMFS, 1998***).

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 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 of Florida) - 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), F.A.C.***)

Incidental Take Statement (federal definition) - 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 USFWSs or NMFSs 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. 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 of Florida) - Animal species listed as state-designated threatened or of special concern 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 ***National Environmental Policy Act (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 on listed species or designated critical habitat. When the federal agency proposing the action determines that a "may affect" situation exists, then they must either initiate formal consultation or seek written concurrence from USFWS or NMFS that the action "may affect, is not likely to adversely affect" listed species as defined below. 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*) - A Florida Department of Transportation (FDOT) technical report that provides documentation of protected species and habitat, wetland,

and Essential Fish Habitat issues to supplement the Environmental Document. The Protected Species and Habitat section of the FDOT ***NRE*** may be sent to USFWS or NMFS to serve as a ***BA*** when necessary, but also includes information on state listed species and protected species and habitat. This section of the ***NRE*** may also be submitted to FWC separately.

No effect - The appropriate conclusion when the action agency determines its proposed action will not affect a listed species or designated critical habitat. Concurrence from USFWS or NMFS is not required (***USFWS and NMFS, 1998***).

Proposed critical habitat - Habitat proposed in the ***Federal Register (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***, ***Florida Statutes***, ***Florida Administrative Code***, etc.

Reasonable and prudent alternatives - Recommended 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)' 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 actions 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 of Florida) - 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 memo - A brief memorandum documenting coordination between FDOT and the Service(s) or FWC concerning protected species and habitat issues.

27.1.3 Legislative Authority

Section 7(a)(2) of the ***ESA (16 U.S.C. § 1536)*** requires federal agencies to consult the United States Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (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 is specific geographic areas that contain features essential to the conservation of a threatened or endangered species and that 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, for example, marine sea turtles and the anadromous Gulf sturgeon, which may be present in different habitats depending on the season or their life cycle stage. See ***Section 27.2.2.1*** for guidance on ***ESA*** consultation.

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***) to comply with the changes. These procedures allow federal agencies to consolidate ***Section 7*** requirements with interagency cooperation procedures that are required by other statutes, such as the ***National Environmental Policy Act (NEPA; 42 USC 4321 et seq.)***. For Florida Federal Highway Administration (FHWA) projects, the ***Section 7*** requirements are met through the ***NEPA*** and environmental permitting processes. ***NEPA*** requires evidence-based analyses of project impacts, alternatives, and avoidance, while prescribing procedures for interagency cooperation, public involvement, and a thorough documentation of the project-related ***NEPA*** process.

Title 50 CFR § 402.08 allows federal agencies to delegate informal consultation and preparation of ***Biological Assessments (BAs)*** to a non-federal representative. See ***Section 27.3.2.5*** for information on ***BAs***. FHWA has designated the Florida Department of Transportation (FDOT) as the non-federal action agency representative for ***Section 7*** informal consultation and has authorized FDOT to prepare ***BAs*** on FHWA projects in Florida ***(FHWA, 2003a and 2003b)***. However, ***Section 7*** formal consultation with the Services must be carried out by the FHWA Division Office or other Lead Federal Agency.

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. 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 wetland impacts to adversely affect federally listed species and their habitat needs. See ***Section 27.3.3.4*** for more information on permitting.

Like FHWA, USACE is required to prepare ***NEPA*** documents and will often participate as a cooperating agency on a transportation project. As a cooperating agency, USACE can adopt the FDOT ***NEPA*** document for projects for which they provide ***Section 404*** permits. Pursuant to ***40 CFR § 1506.3*** "a cooperating agency may adopt without recirculation of the environmental impact statement of a lead agency when, after an independent review of the statement, the cooperating agency concludes that its comments and suggestions have been satisfied." This provision is particularly important to permitting agencies, such as the USACE, who, as cooperating agencies, routinely adopt the U.S. Department of Transportation (USDOT) Environmental Documents.

Just as the federal agencies oversee the protection of certain species and resources, the Florida Constitution establishes the Florida Fish and Wildlife Conservation Commission (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 ***Florida Administrative Code, Chapter 68***.

27.1.4 Protected Species and Habitat Evaluation Process Summary

Figure 27-1 provides a flow chart of the protected species and habitat evaluation process. Involvement with protected species and wildlife habitat should be evaluated regardless of whether the project is required to meet ***NEPA*** or state requirements. Similarly, this evaluation should take place regardless of whether the project qualifies for screening through the Efficient Transportation Decision Making (ETDM) process. See ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination***, for project types qualifying for ETDM screening. ***Section 27.3.1.1*** 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 Programming Screen as explained in ***Part 1, Chapter 3, Preliminary Environmental Discussion and Advance Notification***. As part of adding information to the Preliminary Environmental Discussion (PED), the District requests an official species list from the Service(s) Environmental Technical Advisory Team (ETAT) members and a list from the Florida Fish and Wildlife Conservation Commission (FWC) ETAT members for state listed, or other protected species. If the Advance Notification (AN) is sent separately from the Programming Screen, the PED should request an update to the species list from the ETAT.

The District first reviews information from the ***Programming Screen Summary Report***, then gathers information from various sources to aid in the determination of involvement with a federally listed threatened or endangered species, proposed threatened or endangered species, or designated or proposed critical habitat (***Section 27.3.1.2.1***). Information should also be collected on state listed species, habitat connectivity, areas that are ecologically important, and species that are otherwise protected by regulation. All information on protected species and habitats is compiled into a FDOT technical memo or ***NRE***.

If federally listed species or critical habitat are present within the action area, then consultation with the Service(s) is necessary. Consultation may be as simple as a brief informal consultation or more in depth formal consultation (***Section 27.2.2.1***). In addition, if state listed species are present or expected to be present within the action area, then coordination with FWC is recommended.

A project requires an official federal document, called a ***BA,*** if federally listed species or critical habitat may be present in the action area that is subject to an EIS (***50 CFR § 402.12***). A FDOT ***NRE*** can be submitted to the Services for use as a ***BA***. A ***BA*** is not typically required for CEs and EAs; however, if federally listed species or critical habitat involvement exists, information must be provided to the Services in the form of a technical memo to support the effects determination. See ***Section 27.1.2*** for definitions of the different effect determinations.

If the project is given a determination of “may affect, is likely to adversely affect” listed species or is designated critical habitat, FDOT will request FHWA initiate formal consultation under ***Section 7*** of the ***ESA*** (***Section 27.2.2.1***). 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).

The starting point for an effect determination is the environmental baseline (see ***Section 27.1.2*** 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 critical habitat, and any other existing/proposed private, local, state, or federal actions that are contemporaneous with FDOT's proposed action.

Information on state listed species and valuable natural habitats should also be collected for the project. In Florida, state listed species are regulated by the FWC for listed wildlife, and the Florida Department of Agriculture and Consumer Services (FDACS) for listed plants. 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 species (endangered, threatened, or species of special concern) or natural areas such as Strategic Habitat Conservation Areas (SHCAs) or Florida Natural Areas Inventory (FNAI) rare natural communities should be addressed and issues worked out through coordination with appropriate state resource agencies. Impacts to these species and habitats should also be addressed in the Environmental Document. Fragmentation effects of the project to listed species habitat and/or wildlife corridors may need to be analyzed during project development.

For off-project activities associated with construction of the project (including, but not necessarily limited to borrow pits, concrete or asphalt plant sites, disposal sites, field offices, and material or equipment storage sites), the District follows the same procedures for identifying possible involvement with federally listed species or critical habitat for the project (***Section 27.3.3.6***). During construction, contractor activities are regulated by ***Section 7*** of the ***Florida Department of Transportation Standard Specifications for Road and Bridge Construction***. This ensures ***ESA*** requirements are met. If it is determined that there is no involvement, the District notifies the contractor in writing that the activity may proceed. If it is determined that there may be involvement, coordination with the Service(s) is required and a ***NRE*** may need to be prepared. The consultation procedure is the same as in the Project Development and Environment (PD&E) phase of the project (***Section 27.2.1***), except that no ***NEPA*** document is prepared. No off-project activities are exempt from the requirements of ***Section 7*** of the ***ESA***. The results of the process are provided to the contractor for compliance. Off-project activities involving state listed species or other state protected species, is determined by using the same process as was used for the project to create a technical memo or ***NRE***.

27.1.5 Key Points for Protected Species and Habitat Evaluation Process

1. Engage in early, continual, and strategic coordination with resource agencies (USFWS, NMFS, FWC, USACE).

2. 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 are completed before such commitments are made.

3. 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.

4. Projects with protected species and habitat issues need to be evaluated and addressed regardless of Class of Action (COA).

5. Consultation will 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 on "may affect, not likely to adversely affect" determinations and document in the Type 2 CE documentation, EA with Finding of No Significant Impact (FONSI), or Final Environmental Impact Statement (FEIS).

7. As required by the level of environmental documentation, ensure clear and concise transmittal of the commitments from the PD&E phase to the subsequent project Design and Construction phases using ***Procedure No. 700-011-035, Project Commitment Tracking***.

8. If an issue is identified during consultation that could affect completion of the consultation process, the District must inform the State Environmental Management Office (SEMO) and jointly coordinate with the Service and the Lead Federal Agency to determine the appropriate course of action.

27.2 REGULATORY AGENCY PROCESS

27.2.1 Coordination/Consultation/Engagement with Agencies

The effective management of protected species and habitat issues for transportation projects is reliant on the process of engaging the various state and federal regulatory agencies. When project managers routinely adhere to the three generalized coordination principles outlined below, there is a high probability of successful resolution of potential or actual protected species and habitat issues throughout the project's development. The key elements of successful agency coordination can be summarized as follows: **"Early, continual, and strategic coordination."**

Early coordination - Engagement with state and federal wildlife agencies should occur as early in the project as appropriate and practicable. 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 27.3.1.2.1***). The overall goal of early engagement during the PD&E phase is to be **proactive** in identifying potentially protected species and habitat issues, and then **actively coordinating** with wildlife and other agencies to formulate strategies and responses that address those

issues. Early coordination with wildlife agencies provides an important opportunity for the agencies to review any 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 other future phases.

Continual coordination - Continual engagement with agencies involves communication as needed, in order to (among other things): determine the level of assessment and documentation required; confirm which species and/or habitats are likely to be affected by the project; decide whether ***Section 7*** informal consultation or formal consultation is required; and obtain wildlife agency confirmation for effect determinations, as appropriate. Continual coordination promotes an **ongoing dialogue** between FDOT and the regulatory agencies, minimizing the chances of miscommunication, misunderstandings, and "surprises" that could needlessly 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 issues throughout Planning, PD&E, Design, and Construction and Maintenance.

The advantages of developing a strategic approach include:

1. Early awareness of potential protected species/habitat issues;

2. Avoidance/minimization of potential impacts;

3. Aids in the development of alternatives;

4. A decrease in timeframes for wildlife agency approvals;

5. Initiating 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.

If PD&E Project Managers maintain an emphasis on the broad goals of **"early, continual, and strategic coordination"** for interacting with the wildlife agencies and other regulatory agencies, the act of following and implementing the step-by-step procedures (***Section 27.3***) becomes more consistent and effective.

27.2.2 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. All data collected on federally listed species and critical habitats should be included in a ***NRE*** or technical memo, and all meeting minutes of conversations, commitments, and consultation with the Services should be documented in the Environmental Document (***Section 27.3.2.6.2***).

It is highly recommended that the District obtain and reference the ***Endangered Species Consultation Handbook (USFWS and NMFS, 1998)***, if involvement with a federally listed species is possible.

Regardless of whether the project is federally funded, the Districts **must** coordinate with the Service(s) if the project may impact federally listed species or critical habitat. For non-federal projects, such as SEIRs, 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 federal funding is needed at a later time, or to avoid any unnecessary delays when subsequently requesting permits from federal agencies (such as the USACE).

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) requiring submittal of Habitat Conservation Plan(s), may apply to the project. District staff should coordinate closely with SEMO if no apparent federal nexus exists to determine if ***Section 10*** consultation may be necessary, as these consultation are usually lengthy and more complex than ***Section 7***. SEMO will coordinate with the Service(s) to determine the process.

27.2.2.1 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 therefore **essential** that action agencies (e.g., FDOT, FHWA) evaluate and summarize project effects in a logical, objective and scientific manner that clearly supports the ultimate effect determinations and consultation conclusions. For example, technical reports, such as technical memos and ***NREs***, should not only include appropriate effect determinations, but should also include sufficient supporting evidence and rationale to adequately justify these determinations.

Coordination with the Service(s) involves much 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.

It is imperative to understand that the coordination/consultation process must be performed for **each** listed species and/or **each** type of critical habitat within the action area. For example, if there are six federally listed species present, there will be six separate effect determinations. If out of those determinations only two are "may affect, likely to adversely affect" determinations, then only those species or critical habitat(s) will require formal consultation. The level of federal coordination required (no consultation, informal consultation, or formal consultation) will be determined by each effect determination. ***Table 27-1*** provides a step by step process to follow for each effect determination. Species and/or critical habitat receiving a "no effect" determination are not subject to consultation, but are addressed in the appropriate documentation as described in ***Section 27.2.2.1.1***. Species and/or critical habitat(s) subject to a "may affect, not likely to adversely affect" determination are handled via informal consultation (***Section 27.2.2.1.3***). Formal consultation occurs when a "may affect, likely to adversely affect" determination is made for listed species and/or critical habitat (***Section 27.2.2.1.4***), and must be initiated through the FHWA for federal projects.

Figure 27-2 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 recently updated the procedures for action agencies to submit ***Section 7*** consultation requests (***NMFS, 2013***). This procedure is provided in ***Figure 27-3***. Consultation requests are submitted electronically to NMFS and 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 27-4***).

All coordination with the Service(s) should be documented in the project file and included in the final Environmental Document according to ***Section 27.3.2.6.2***.

Re-initiation of consultation may be requested by FDOT, FHWA, or the Service(s) after initial consultation has been completed in response to changes in scope or design of the project, discovery of the presence of previously unknown listed species, or the listing of new species or designation of critical habitat.

27.2.2.1.1 "No Effect" Determinations

FHWA designated FDOT as a non-federal representative to conduct informal endangered species consultations with the Services on behalf of FHWA (***Section 27.1.3***). Consistent with this authority, where FDOT determines that an action will have "no effect" on a listed species or critical habitat (see ***Section 27.1.2***), consultation with the Service(s) is not required. Note that 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. Results and any coordination with the Service(s) (e.g., ETAT comments, communications) should be documented in the final Environmental Document as described in ***Section 27.3.2.6.2***.

27.2.2.1.2 Section 7 Consultation

When federally listed species and/or critical habitat occur within the action area and a "may affect" determination applies, 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 a proposed action "may affect, is likely to adversely affect" listed species or designated critical habitat.

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."

The interaction between effect determinations and consultation procedures are primarily dictated by existing conditions (e.g., presence of wildlife corridors, listed species presence), combined with the project scope and viable alternatives. 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 critical habitat for a relatively long distance. However, in other cases, avoidance and minimization efforts can limit impacts to listed species and/or critical habitat to a degree that may change an initial "may affect, is likely to adversely affect" determination (formal consultation) to a "may affect, not likely to adversely affect" determination that triggers informal consultation. If compensatory mitigation can be identified or agreed upon during consultation, it should be documented.

Note that an effect determination must be reached for each listed species and/or each 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. These considerations are examples of the

benefits of the "early, continual, and strategic coordination" paradigm described in ***Section 27.2.1***.

27.2.2.1.3 Informal Consultation

Informal consultation is the vehicle for determining the potential for adverse effects on a listed species or critical habitat, identifying ways to avoid them [such as Best Management Practices (BMPs) and conservation activities], and resolving project conflicts or misunderstandings. Informal consultation can provide FDOT the opportunity to implement project scope revisions or conservation activities prior to project implementation. Informal consultation may require an official species list (***Section 27.3.2.1.2***) and/or the completion of a technical memo or ***NRE (Section 27.3.2.5)***.

The Districts initiate informal consultation with USFWS by contacting the local office (***Figure 27-4***) when listed species are potentially present within the project's action area and may be affected by the action. Informal consultation with the NMFS is initiated by following the guidance provided in ***Figure 27-3***. Coordination with the Lead Federal Agency may occur as necessary.

If listed species and/or critical habitat are present, FDOT must determine if the action may affect them. A "may affect" determination includes those actions that are "not likely to adversely affect" as well as "likely to adversely affect" federally listed species. 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 particular listed species.

FDOT may reach an effect determination that the action "may affect, is not likely to adversely affect" listed species or designated critical habitat (i.e. the effects are beneficial, insignificant, or discountable). FDOT should submit a copy of the technical memo or ***NRE*** to the Service(s) for review along with a letter requesting concurrence on the effect determination. FHWA should also be copied. This information should include reasons supporting the determination, any modifications to the project and/or commitments to reduce impacts, and compensatory mitigation that were agreed upon during informal consultation. If the Service agrees with the effect determination, they 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. Then FDOT must either 1) request that FHWA initiate formal consultation, or 2) modify the project to avoid adverse impacts. Either option should assist FDOT in obtaining a "no effect" or "may affect, not likely to adversely affect" determination and require continued coordination with the Service(s).

In rare instances, one of the Services may not have enough information (or project details may not yet be available that are necessary) to concur with (or not concur with) an FDOT effect determination. In this situation, the Districts should coordinate with SEMO.

Together SEMO, the District, and FHWA will determine the appropriate course of action to advance the project. The Environmental Document should include a summary of the consultation and the reasons why it cannot be completed as described in the Service(s) letter. Commitments made during this coordination should be included in the Commitments section of the Environmental Document and recorded in the ***Project Commitment Record, Form No. 700-011-35***. An update to the commitment(s) must be provided in subsequent project Reevaluations.

27.2.2.1.4 Formal Consultation

Formal consultation can be required for any Environmental Document type, including Type 2 CEs. FHWA, 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 FHWA must initiate formal consultation, FDOT works closely with FHWA 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 FHWA rather than FDOT;

3. Has prescribed timeframes; and

4. 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. If FDOT determines that the action "**may affect, is likely to adversely affect**" listed species or designated critical habitat, then formal consultation must be initiated. The District must request that FHWA as the federal action agency initiate formal consultation. FHWA sends a written request to the Service(s). The written request, prepared with assistance from FDOT, includes an initiation package that describes 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(c)]***. The Service strives to issue the ***BO*** during the formal consultation period, but in any case 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)]***. 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, 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 critical habitat.

In contrast to "**may affect**" determinations, where individual members of listed species are the focus, jeopardy is determined 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, 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. 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(o)(2)*** of the ***ESA*** to apply (***USFWS and NMFS, 1998, 4-49 and 4-53***).

In formal consultations, the key to reaching non-jeopardy opinions is to focus on the avoidance and minimization of project impacts, not compensation strategies: "Section 7 requires minimization of the level of take. It is not appropriate to require mitigation for the impacts of incidental take" (***USFWS and NMFS, 1998, 4-53***).

If the ***BO*** reaches a jeopardy or adverse modification conclusion, it will 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. FHWA in coordination with 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*** FHWA/FDOT believes that such action satisfies ***Section 7(a)(2)***.

FHWA in consultation with FDOT must notify the Service(s) of its final decision on any proposed action that receives a jeopardy or adverse modification biological opinion.

27.2.2.1.5 Proposed and Candidate Species

Proposed species are those that are proposed in the ***Federal Register*** 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 FHWA 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. An ***Incidental Take Statement*** issued with a conference opinion does not become effective unless the Services adopt the conference opinion as the ***BO*** (***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***).

27.2.3 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***. 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*** 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 1,500 feet of an active bald eagle nest during the nesting season. See ***Part 1, Chapter 12, Environmental Permits***, for guidance on permits for American bald eagle, Florida burrowing owl, and osprey.

27.2.4 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 27-5*** 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., bald eagle, 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 27.3.1.2***). 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 27.3.1.2.1***).

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 decisions are documented via correspondence and/or memos. The FWC typically requests that effect determinations, similar to those made for federally listed species (***Section 27.2.2.1***), 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.

Decisions made during coordination and FDOT commitments to FWC should be documented throughout the process to facilitate the transfer of information and commitments to subsequent project phases (Design and Construction). Any assumptions (e.g., road alignments) and/or conditions (e.g., species-specific surveys) that are associated with FDOT's commitments to FWC must be included in the Environmental Document. Some of these commitments may become part of a permit, or permit conditions in future phases.

27.2.5 Listed Plant Species

Under federal law, activities that may impact federally-listed plant species are subject to regulation under the ***ESA***. However, 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 (see ***Section 27.3.2.1***). Coordination with the appropriate agencies for federally listed plant species should always be included as part of the federal consultation process outlined in ***Section 27.2.2.1***, if any listed plant species are potentially present. Should federally listed plant species be identified within the action area, they should 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 moved to suitable habitats in order to avoid direct impacts.

The only federally listed marine plant species, Johnson's seagrass (*Halophila johnsonii*), requires coordination with NMFS when a project may cause direct or indirect impacts. Johnson's seagrass occurs only in coastal environments of southeast Florida, between Sebastian Inlet and central Biscayne Bay. Critical habitat for this species has been designated in 10 distinct locations within its range (***50 CFR § 226.213***). For projects potentially impacting these areas coordination with NMFS should occur under the general federal consultation process outlined in ***Section 27.2.2.1***.

State listed plant species are regulated by the FDACS, but state regulation only addresses the harvesting, transport, and/or sale of listed plant species. The plant species listed by the state as Endangered, Threatened, or Commercially Exploited is 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 should also apply to projects impacting these plant species. In cases where known occurrences of state listed plant species will be unavoidably impacted by project activities, the impacted plants may be transplanted to appropriate habitats nearby as a minimization/conservation measure. FDOT notifies FDACS and the Endangered Plant Advisory Council when bids for construction projects are first advertised according to ***Chapter 5B-40, F.A.C***.

27.3 PROCEDURE

27.3.1 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 protected species and habitat evaluation is intended to be flexible within the PD&E phase, as well as FDOT standard reviews for projects outside of PD&E.

Detailed evaluations are generally not warranted for transportation projects not qualifying for screening in the ETDM Environmental Screening Tool (EST) [typically Type 1 and Programmatic CEs and Non-Major State Actions (NMSAs)]. See ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination*** for clarification on projects that qualify for screening. Projects that do not require screening, based on analysis, have no significant effects. They typically require a flexible approach, but due to their less complex and comprehensive nature the evaluation can be streamlined.

A higher potential for protected species and habitat involvement typically exists with transportation projects qualifying for screening (typically Type 2 CE, 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 for review and verification in a ***Final Programming Screen Summary Report***. The protected species and habitat evaluation in the PD&E Study focuses on important issues identified during the Programming Screen.

The level of project assessment for protected species and habitat during the PD&E phase depends on the potential for impacts. FDOT determines what is reasonable in the given context. If an impact is identified, it should be assessed regardless of the nature of the project.

27.3.1.1 Projects Not Qualifying for Screening

Protected species and habitat involvement may be identified for projects that do not require EST screening and advance straight to the Design phase. For transportation 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. For these projects FDOT typically makes a "No Effect" or a "May affect, not likely to adversely affect" determination. Sometimes species-specific conditions may be required in order to make this decision. If coordination is needed with the Service(s), additional documentation in the form of a technical memo will suffice, and a ***NRE*** is typically not necessary (***Section 27.3.2.4***). If during this coordination it is determined that formal consultation may be needed, the project may need to be developed through the Minor Categorical Exclusion (MiCE) process and coordinated with FHWA (***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination***). 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** - Type 1 CEs may involve listed species and habitat as long as the documentation demonstrates the proposed project has no significant effects on them. For these projects, include a summary of listed species and habitat impacts, agency coordination and compensation for impacts (as appropriate) in the project file as supporting information to the ***Type 1 Categorical Exclusion Checklist, Form No. 650-050-12*** ***(Part 1, Chapter 2, Federal Highway Administration Class of Action Determination)***. If a technical memo was prepared, it should be referenced in the checklist and included in the project file. If this analysis indicates a significant impact, the project cannot be processed as a CE. Agency coordination letters (e.g., concurrence letter) should also be included in the project file.

2. **Non-Major State Actions** - 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 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 was prepared it should be referenced and included 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 27.3.2.6.2*** for guidance on documenting Type 2 CEs.

27.3.1.2 Projects Qualifying for Screening

Transportation projects qualifying for EST screening are generally more complex. In accordance with ***Part 1, Chapter 2, Federal Highway Administration Class of Action***

Determination, 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 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. **Final Design** - Incorporate any commitments made in the ***Project Commitment Record, Form No. 700-011-35***. If there are changes or updates identified during a review of the final plans, they should be documented in a design Reevaluation. Ensure the project meets federal and state regulations. During permitting re-initiate consultation if necessary.

5. **Construction** - Verify implementation of any protected species and habitat commitments (e.g., avoidance, inclusion, installation). Verify compliance with federal and state regulations.

27.3.1.2.1 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 AN package may be distributed as part of the Programming Screen in the EST and includes a 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 consideration 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 as identified in their agency's ***Agency Operating and Funding Agreements*** with Florida FHWA, and FDOT (***FDOT, 2008a, 2011, 2012b***).

The EST reports and stores the ETAT review in the ***Programming Screen Summary Report***, which includes comments related to protected species and habitat issues. This report provides a foundation for project managers to coordinate directly with the Services and FWC. For example, the ETAT should provide a list of potential listed species and/or habitats that warrant further review with the Services and/or FWC, as well as information on otherwise protected species. The EST reports can also provide an informed basis for formulating strategies to address potential protected species and habitat issues throughout the project life cycle (i.e., strategic coordination).

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*** and other information collected as part of the efforts described in ***Section 27.3.2.1***. The Districts should review ETAT comments and Degree of Effect (DOE) determinations for the "Wildlife 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 Quality and Quantity." FDOT should focus on comments from the Services and FWC as regulatory and resource experts. The ***Programming Screen Summary Report*** may identify a ***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 Services or FWC comments should identify specific protected species or critical habitat that should be considered/analyzed during the PD&E Study. The Districts should use this list of species as a starting point for preparing the existing conditions for the ***NRE*** (see ***Section 27.3.2.1.2***). Comments on the ETDM screening may also identify listed species habitats of concern or wildlife connectivity issues. As stated earlier, agency comments from screening can help define the PD&E scope of services. However, the associated DOE from the agencies is not a finding.

Coordination with the Services and other resource agencies should be continuous throughout the ETDM process. However, listed species and habitat impact assessment

and informal or formal consultation with the Services are not initiated until the PD&E phase. 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.

27.3.2 PD&E Phase

27.3.2.1 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.

27.3.2.1.1 Define 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 should be 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., staging areas) that may need to be included in the action area.

27.3.2.1.2 Identify Protected Species and Critical Habitat that May Occur in the Action Area

In developing the PED, the Districts use available information including their familiarity with the project area to identify protected species (federal, state, and otherwise protected) and/or critical habitat that may be affected by the project. The Service(s) online species lists, available data sources, current literature, and species specialists may also be consulted to help narrow down what federally listed species may be in the action area. Species and critical habitats “proposed” for federal listing, as well as federal “candidate” species, should be included on the list. Federally designated critical habitat within the action area should also 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 27-6***).

Subsequently, 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.

27.3.2.1.3 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, studies or surveys conducted by the FHWA or FDOT, 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.

27.3.2.1.4 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 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.

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. These species-specific surveys are typically not conducted until after the PD&E phase and closer to Construction and may be tied to project permitting (***Section 27.3.3.4***). 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 32, Commitments)***.

27.3.2.2 Continue Discussions/Correspondence with Agencies

When federally listed species and/or critical habitat may occur within the action area, informal consultation or formal consultation will be needed with the applicable Service (***Section 27.2.2.1***). Coordination with the Service(s) ETAT members via phone calls, emails and meetings throughout consultation should be ongoing, clearly documented, and kept 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 27.2.3***). Early coordination with FWC is advantageous to assess potential impacts to these natural resources. Coordination may save time later in the design phase of project development 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 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 State Highway System (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 SEMO 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.

27.3.2.3 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 27.3.2.1***), 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 27.1.2*** for definitions). It is also important to consider potential project impacts related to habitat connectivity for all 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 impacts 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 a technical memo or ***NRE*** and summarized in the Environmental Document. If more than one alternative is proposed, each alternative is then compared based on impacts to listed 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 may have been modified by actions considered in earlier ***BOs***.

1. Those ***BOs*** should be consulted 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.

27.3.2.4 Technical Memo

In the case of projects involving minimal involvement with protected species and habitat, a technical memo may be substituted for a full-scale ***NRE***. In this instance, an abbreviated report in the form of a brief technical memo may be completed and provided to the Service(s) and/or FWC. The technical memo should address the likely effects of the project and document coordination with the Service(s) during informal consultation. Technical memos should briefly discuss potential involvement with protected species or habitat and discuss how this involvement is not significant.

27.3.2.5 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 in ***Section 27.1.2*** as major federal projects significantly affecting the environment; therefore all EIS's 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*** may be requested by the Services for an EA, but is usually not requested for CEs. If a ***BA*** is required or requested by the Service(s), the District should prepare a protected species and habitat section of a ***NRE*** to be submitted to the Service(s) as a ***BA***. If a ***BA*** is not required by the Service(s), and ***NRE*** components can fit into the Environmental Document, then the report is not necessary. The ***NRE*** should include information on listed, proposed, and candidate species, and associated critical or proposed critical habitat.

A ***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***.

27.3.2.5.1 Content of the Natural Resources Evaluation

If applicable, the ***NRE*** should include the assessment of impacts to protected species and habitat, wetlands, and EFH as separate sections. The protected species and habitat evaluation should be the first section titled "Protected Species and Habitat." If the project proposes impacts to wetlands add a section titled "Wetland Evaluation." Guidance on preparing the wetland evaluation section is in ***Part 2, Chapter 18, Wetlands and Other Surface Waters***. If the project requires an ***EFH Assessment***, include a section titled "Essential Fish Habitat Assessment." Guidance on preparing this section is provided in ***Part 2, Chapter 11, Essential Fish Habitat***.

The "Protected Species and Habitat" section of the ***NRE*** should include 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 ***Section 27.3.2.1*** should be used to prepare the ***NRE***.

The content of a ***BA*** is described in ***50 CFR § 402.12(f)***. For examples of ***BA*** templates and instructions see links in ***Figure 27-6***. Any of these templates may be used for the Protected Species and Habitat section of the ***NRE***.

When the Protected Species and Habitat section of the ***NRE*** is to be submitted to the Services as a ***BA*** the following information should be included:

1. Describe the proposed project, including project location, and emphasize those activities occurring within the project area inhabited by a federally listed species, and define the action area. The description of the proposed project should include all activities related to construction and emphasize both long-term and short-term anticipated impacts on identified 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, such as purpose and need and project details.

2. 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 27.3.2.1***). 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.

3. Describe the methods used to determine involvement of federally listed species and critical habitat within the action area.

4. Discuss the results of the comprehensive field survey of the project area (***Section 27.3.2.1.4***), describe the 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, 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.

5. 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.

6. 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.

7. Direct, indirect, and cumulative impacts should be evaluated.

    a. The ***NRE*** should describe:

        1. Direct impacts associated with project construction and operation. Direct effects are those that occur in direct association with the construction or operation of the project, such as noise, dust, sedimentation/runoff, wetland disturbance/destruction, reduction in water quality, and changes to vegetative cover/composition.

        2. Indirect impacts resulting from project activities, such as development. Indirect effects are “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)***.

3. 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" ***(USFWS and NMFS 1998)***. Note: this definition of cumulative effects is different than the Council on Environmental Quality (CEQ) definition. Guidance on evaluation of cumulative impacts to satisfy ***NEPA*** is provided in FDOT's ***Cumulative Effects Evaluation Handbook***.

8. Discuss efforts that will be taken to avoid, reduce, or compensate for any adverse impacts to a federally listed species or critical habitat. This should include precautionary measures, construction design, 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)***.

9. Conclusions of the Services, including recommendations regarding further studies. The final step is to draw conclusions on the significance of impacts to federally listed species and critical habitat within the action area.

10. Any other relevant information.

The above information is used by FDOT to come to an "effect" determination for each federally listed species or designated critical habitat to be included in the ***NRE***. Determinations are "no effect", "may affect, not likely to adversely affect" (which includes beneficial, insignificant or discountable effects), and "may affect, is likely to adversely affect" (See definitions in ***Section 27.1.2***). For proposed species or proposed critical habitat, a determination of "is likely to jeopardize/adversely modify proposed species/critical habitat" is possible. See ***Section 27.2.2*** for more detail on effect determinations.

The ***NRE*** should also discuss potential impacts to state listed species and include effect determinations for those species. The report should include information on state listed species and 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 should be included in the ***NRE*** and summarized in the Environmental Document.

27.3.2.5.2 Review by Resource Agencies

It is recommended that the ***NRE*** be provided to the Services before submission of an EA or DEIS for public availability when feasible, especially if they are a Cooperating Agency(ies). Before submitting to the Services, the District should provide a quality

control review of the document. The ***NRE*** can be distributed to the Cooperating Agencies for review.

After the District has received the Service(s)' comments on the ***NRE***, the document should be updated to include agency comments and FDOT responses (if applicable). An addendum addressing the changes that have been made to the project in response to agency comments can be prepared as an alternative. The Environmental Document should also be updated to include the input from the Services.

For projects with "may affect, not likely to adversely affect" determinations, the District must send a letter to the applicable Service requesting concurrence on federal species effect determinations (***Section 27.2.2.1***). The Service(s) response letter should be documented in the Environmental Document according to ***Section 27.3.2.6***. The Environmental Document and ***NRE*** should be updated accordingly. For final Environmental Documents these effect determinations are used to state the FHWA findings on listed species and habitat issues.

27.3.2.6 PD&E Documentation

Project documentation consists of maintaining the Administrative Record, completing the appropriate protected species and habitat section of the Environmental Document, and preparing protected species and habitat information for future commitment compliance.

27.3.2.6.1 Administrative Record

The District's Project Manager is responsible for collecting and maintaining the information gathered during the protected species and habitat evaluation as part of the project file. The documentation provides information for the next project phase and contains protected species and habitat commitments. All assessment materials (e.g., maps, analyses, survey reports, FDOT District staff comments) are contained in the project file. All technical reports (***NRE***, technical memo), agreements, and agency coordination should also be included.

27.3.2.6.2 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 -** Evaluation material should be briefly summarized and included in the Type 2 CE documentation. Documentation includes a concise summary of protected species and habitat impacts and agency coordination. This information should be added to the wildlife and habitat section (Section 6.C.9) of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11*** (***Part 1, Chapter 5, Type 2 Categorical Exclusion***). Any protected species and habitat related commitments should be included in the Commitments and Recommendation section of the form (Section 7). The technical memo or ***NRE*** should be summarized, referenced, and placed in the project file. If

a concurrence letter was needed from the Services, it should also be referenced in the Type 2 CE documentation and included in the project file. FHWA findings should be included in the final Type 2 CE documentation.

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 technical memo or ***NRE*** are summarized for direct inclusion 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 2, Chapter 3, EIS Executive Summary/FONSI***. 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 FHWA, that the project, as proposed, will have no effect on any threatened or endangered species.

      If disagreements exist they should be identified in the Unresolved Issues and Areas of Controversy section of the FEIS Executive Summary (***Part 2, Chapter 3, EIS Executive Summary/FONSI***).

   b. EIS Affected Environment Section - The discussion of protected species and habitat in the Affected Environment section is generally limited to 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 does not include an evaluation of the potential impacts of the project on these species or habitats, but introduces the existing conditions. See ***Part 2, Chapter 7, Affected Environment*** for more detail on how to prepare this section of the EIS.

   c. Environmental Analysis - Most of the protected species and habitat information and documentation is provided in the environmental analysis section of an EIS (Environmental Consequences) or EA (Impacts). These sections should summarize the Protected Species and Habitat section of the ***NRE*** and present the results of the impact assessment, effect determinations, and recommend 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 6, 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.*
>
> Any technical memos or the ***NRE*** should be summarized, referenced, and placed in the project file. See ***Part 2, Chapter 8, Environmental Consequences or Impacts*** for more detail on how to prepare these sections of the EIS or EA.

d. Comments and Coordination - Correspondence with USFWS, NMFS, FWC, or other resource 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 project file. See ***Part 2, Chapter 31, Comments and Coordination*** for more detail on how to prepare these sections of the EIS or EA.

e. Commitments - Protected species and habitat commitments are documented in the Commitments section of an EA or EIS (see ***Section 27-3.2.6.3***). See ***Part 2, Chapter 32, Commitments*** for more detail on how to

prepare this section of the EIS or EA.

The ***NRE*** or technical memo is sent to FHWA along with the Environmental Document, and is added to the project file.

3. **EA with FONSI** - Protected species and habitat information must be updated in an EA after the public hearing, and if there was a question of significance for impacts to federally listed species, the **findings** are documented in a FONSI according to ***Part 1, Chapter 7, Finding of No Significant Impact*** and ***Part 2, Chapter 3, EIS Executive Summary/FONSI***.

4. **State Environmental Impact Report (SEIR)** - The results of the protected species and habitat evaluation are included in the Environmental Analysis Section (Section B 1.C.7) of the ***FDOT Project Evaluation Form***. 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.

5. **Consultation Completion** - Regardless of the COA, there may be rare 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 a justification must be provided in the Protected Species and Habitat section of the Environmental Document. This justification is provided by the Service in their response letter (see ***Section 27.2.2.1.3***). Associated commitments must also be provided in the Commitments section of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***, EA or EIS. In these instances the following statement should be 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 reevaluations.*

27.3.2.6.3 Commitments

Protected species and habitat commitments may be permit conditions, ***Incidental Take Statement*** commitments, or actions/activities required to advance the project and/or require action from the Contractor to implement. Commitments may include the 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. Commitments must be coordinated with other FDOT offices to ensure the commitment is feasible.

Commitments related to protected species and habitat made by FDOT over the course of the project study should be documented on the ***Project Commitment Record*, *Form No. 700-011-35*** according to FDOT ***Procedure No. 700-011-035, Project Commitment Tracking***. See ***Part 2, Chapter 32, Commitments*** for more information. These commitments should also be included in the Commitments section of the Environmental Document. Ensure clear and concise transmittal of the commitments to the subsequent project phases, including Final Design and Construction.

At the conclusion of consultation, the Services may include conservation recommendations, which are non-binding (discretionary) suggestions that are provided separately from a ***BO*** or ***Incidental Take Statement*** (***USFWS and NMFS, 1998, 4-62***). The District should consult with District management prior to making conservation recommendations a commitment.

27.3.3 Design and Construction Phase

27.3.3.1 Reevaluation

Any change of protected species and listed species or habitat impacts or compensatory mitigation strategies after approval of the Environmental Document must be documented in the appropriate phase reevaluation or design change reevaluation as per ***Part 1, Chapter 13, Reevaluations***. Commitments and coordination should be updated and documented in the Commitment Status section of the ***Reevaluation Form***.

27.3.3.2 Commitments

Protected species and habitat commitments established as a result of the PD&E Study and/or agency coordination must be documented in the Environmental Document and the ***Project Commitment Record*, *Form No. 700-011-35*** and transmitted to the Design and Construction Offices to be included in contract documents or be addressed through the permitting process. Follow FDOT ***Procedure No. 700-011-035, Project Commitment Tracking*** and ***Part 2, Chapter 32, Commitments***.

Protected species and habitat review during Design and commitment implementation during Construction consists of the following:

1. Review commitments specific to protected species and habitat.

2. Plans Received - Review for completeness; identify/confirm project limits.

3. Field Review - Conduct on-site field review(s) with appropriate professionals to confirm existing protected species and habitat resources within project limits that are addressed in the plans. Coordinate with regulatory agencies to assess the

need for any species specific surveys and or most up to date species survey protocols.

4. Regulatory Agency Coordination and Permitting - The District coordinates with regulatory agencies.

5. Impact Review - Review plans and provides comments on protected species and habitat resources that were identified and resolutions that should be coordinated with appropriate regulatory agencies or incorporated into the contract design plans.

6. Bid Document Review - Subsequently verify that completed final design plans and specifications incorporate required protected species and habitat resolutions into the bid documents or the request for proposals document.

7. Compliance during Construction - Ensure that the Construction Office verifies compliance with protected species and habitat commitments as well as federal and state regulations incorporated into the final design.

8. Construction Final Acceptance - Ensure that the protected species and habitat commitments (different from permit conditions) were addressed as specified in the contract plans, including modifications approved during construction. This is done by the Construction Office, but may require the Environmental Office involvement on occasion (***Construction Project Administration Manual (CPAM), Chapter 12, Section 12.1***).

9. Coordination with Maintenance Office - In cases where there are long term maintenance requirements (e.g., no-mow zones, weed control) coordinate with the District Maintenance Office. Depending on the nature and scope, a maintenance agreement may be necessary.

The District should verify commitment and regulatory compliance as the project advances. Additional minimization actions can be conducted during the project Design phase.

27.3.3.3 Design Considerations

Project commitments may include construction conditions for protected species, specific design specifications (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, plan notes may need to be considered. Plan notes must only be used when they are project-specific and do not repeat specifications, permit conditions and/or design standards.

27.3.3.4 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. Through the ETDM process and involvement of ETAT representatives from the wildlife agencies (for projects that were screened in the EST), species lists and potential issues should have been identified and communicated early in the project. 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 wildlife 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 regulates the discharge of dredged and fill material into waters of the United States, including wetlands, under ***Section 404*** of the ***CWA***. The United States Coast Guard (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.

Regardless of whether the USACE and/or USCG function as lead or cooperating agencies for a given federal action, the issuance of federal permits requires coordination with USFWS and/or NMFS as a cooperating agency. USFWS or NMFS works with the permit applicant and the permitting agency to evaluate potential impacts to federally listed species and habitats, following the ***ESA Section 7*** consultation process outlined previously in ***Section 27.2.2.1***.

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 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 Lead Federal Agency, USFWS, and/or NMFS. This active coordination can be the difference between an efficient federal permitting process and significant permitting delays.

Issuance of a state general, individual, or conceptual Environmental Resource Permit (ERP) from the Florida Department of Environmental Protection (DEP) 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.***). FDOT projects generally require a general or individual ERP. As part of the state permitting procedure for the ERPs, the WMD sends the permit application to the USACE and 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 DEP or the WMD as part of the state permit application process.

2.3.3.4.1 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. These species also may be federally listed.

Species such as the American Bald Eagle, Florida burrowing owl, osprey 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 ***Part 1, Chapter 12 Environmental Permits***.

27.3.3.5 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. 700-011-035, 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. These requirements should be provided to the Construction Project Administrator (CPA), Consultant Construction Engineering and Inspection (CCEI), Contractor, Project Manager, and Field Superintendents 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***.

27.3.3.6 Off-project Activities

Off-project activities performed by FDOT or Contractor may 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 should be performed by District environmental personnel 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 27.3.2.1.4*** also apply to off-project locations. A ***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.

27.3.3.6.1 Procedure

At the preconstruction 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 Contractor and Resident Engineer of their scheduled arrival (date, time) for the evaluation of the site.

Upon completion of the field evaluation, if no species issues identified, the District will send a written notice to the Contractor stating that they may proceed with the project. The CPA, District Materials Engineer, and Resident Engineer should be copied. A sample letter is provided in ***Figure 27-7*** The District should notify the Contractor 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.

If formal consultation is necessary, FDOT will coordinate with FHWA and it will be conducted in accordance with ***Section 27.2.2.1.4***. Upon completion of the consultation process, FHWA will provide written record of the resulting determination and its intent to the District Environmental Office, CPA, and the Resident Engineer. The Contractor shall comply with the determination.

If state listed species, or otherwise protected species are identified in the off-project area, the District must coordinate with FWC because state regulations must be addressed and state compliance is required.

27.3.3.7 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 27.3.3.5***) 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
5. Tree/shrub trimming in mangrove areas

A field survey should be performed by District environmental personnel 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 27.3.2.1.4*** apply to off-project locations as well as the project area. A ***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.

27.4 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***). An emergency is defined by USFWS as a situation involving an act of God, disasters, casualties, national defense or security emergencies, etc., 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)' 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 27-4*** for Florida county map and USFWS contact information. Initial emergency consultation procedures are as follows:

1. The District should initiate consultation by telephoning or faxing 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 27-8***) 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 27-9*** 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 FHWA.

If FHWA must initiate formal consultation after an emergency, the District should request FHWA 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 should include 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 SEMO website or the Service(s)' websites.

Coordination with FWC in cases where emergency actions may affect state listed and/or protected species is recommended.

27.5 REFERENCES

23 Code of Federal Regulations (CFR) Part 771. Environmental Impact and Related Procedures. 1987. http://www.environment.fhwa.dot.gov/projdev/pd2implement.asp

40 CFR §§ 1500-1508. Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act. 1978. http://energy.gov/sites/prod/files/NEPA-40CFR1500_1508.pdf

50 CFR Part 402. Interagency Coordination-Endangered Species Act of 1973, as amended; Final Rule, FR 19926-19963, June 3, 1986. http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&tpl=/ecfrbrowse/Title50/50cfr402_main_02.tpl

Chapters 68A-27, Florida Administrative Code (F.A.C.), Rules Relating to Endangered or Threatened Species. https://www.flrules.org/gateway/ChapterHome.asp?Chapter=68a-27

Chapter 163 Part II, Florida Statutes (F.S.), Growth policy; County and Municipal Planning; Land Development Regulation. http://www.leg.state.fl.us/Statutes/

Chapter 379, F.S., Fish and Wildlife Conservation. http://www.leg.state.fl.us/Statutes/

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FDOT, Most current, Florida Department of Transportation Wildlife Crossing Guidelines. http://www.dot.state.fl.us/emo/pubs/APPROVED-Wildlife%20Crossing%20Guidelines3-13.pdf

FDOT, Current. Standard Specifications for Road and Bridge Construction, Florida Department of Transportation, Section 7-1.4. http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks/default.shtm

Florida Highway Administration (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, 2003a. 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, 2003b. 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

Fish and Wildlife Coordination Act of 1934, as amended. http://www.law.cornell.edu/uscode/text/16/chapter-5A/subchapter-I

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Marine Mammal Protection Act of 1972, as amended. http://www.nmfs.noaa.gov/pr/laws/mmpa/text.htm

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27.6 HISTORY

10/01/1991

Table 27-1 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 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 FHWA, requesting initiation of formal consultation. The request includes an "initiation package" that describes the project and potential impacts.
3.	**Process complete**.	FDOT reaches determination of "May Affect, Not Likely to Adversely Affect."	FHWA initiates formal consultation with the Service(s).
4.		FDOT 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, FDOT documents the concurrence and any associated commitments in the Environmental Document. **Process complete**.	FHWA, FDOT, 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, FDOT must either a) request that FHWA 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 (FHWA) within 45 days after conclusion of formal consultation.
		If Service does not have enough information to concur or not concur; the Service will provide justification. FDOT discloses justification and provides a commitment in the Environmental Document.	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. FHWA must notify the Service of its final decision for proceeding with the project.

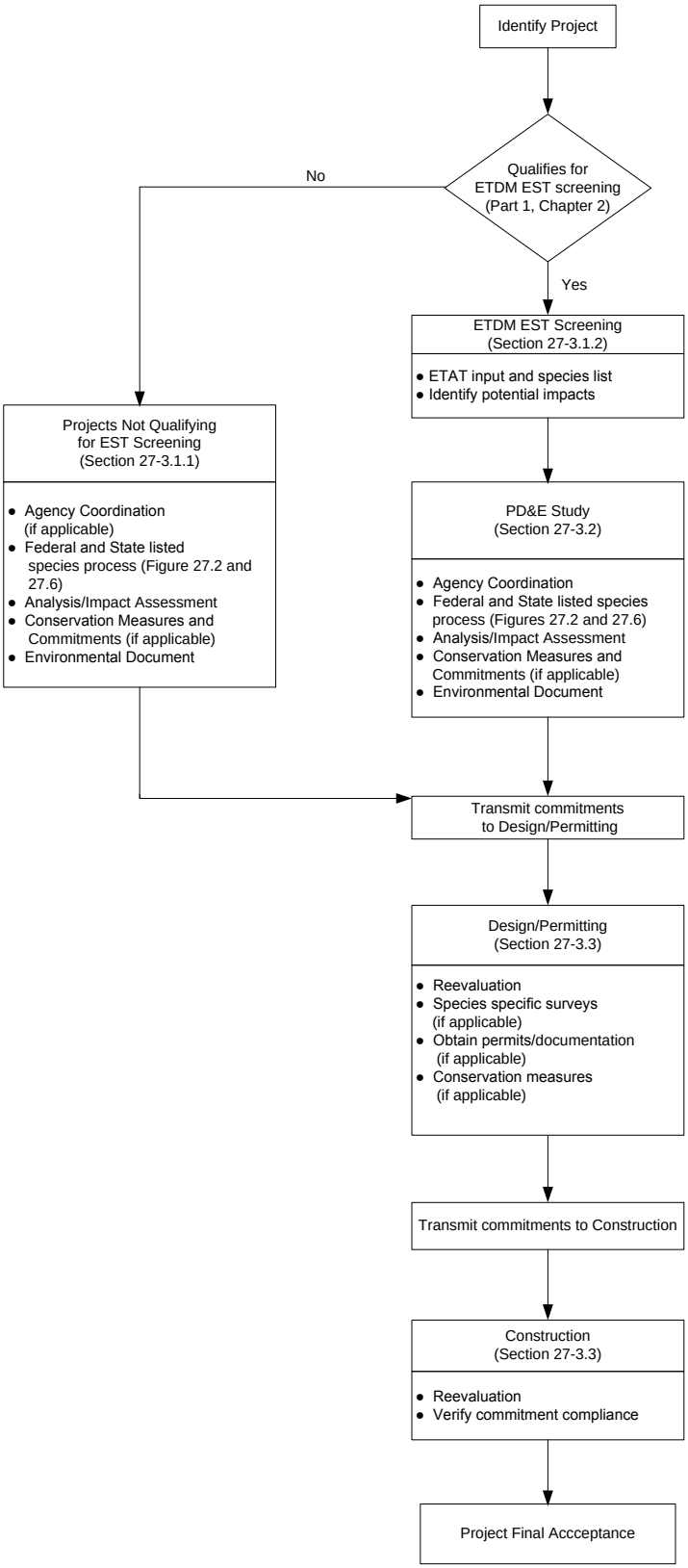


Figure 27-1 Protected Species and Habitat Evaluation Process

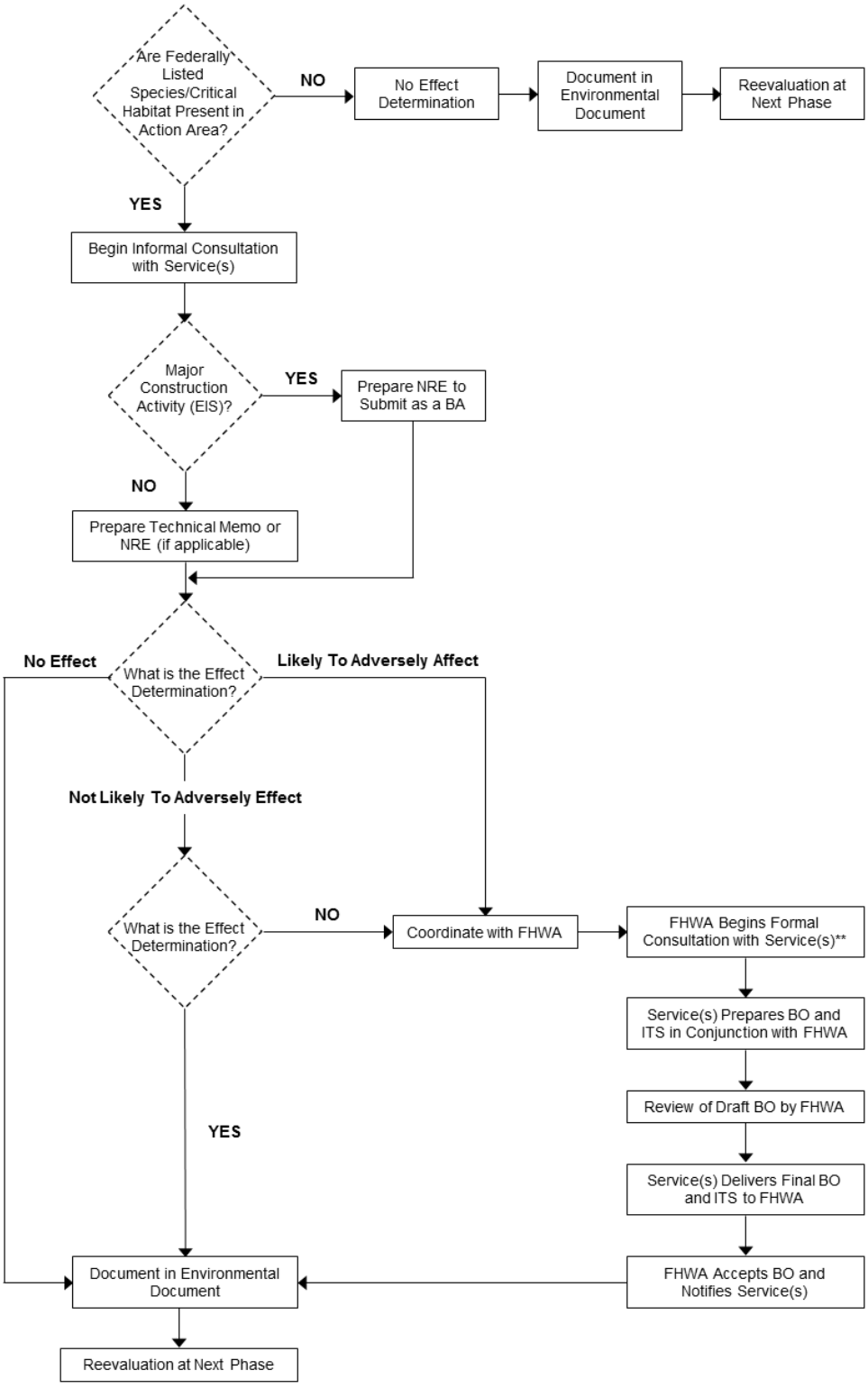


Figure 27-2 Federally Listed Species Process

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 27-3 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 27-3 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

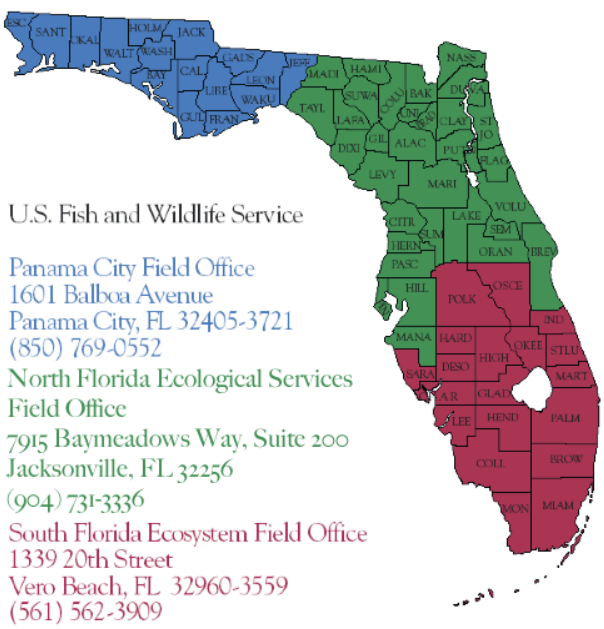
Figure 27-3 National Marine Fisheries Service Memorandum for Distribution (Page 3 of 3)

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
http://verobeach.fws.gov/

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
http://panamacity.fws.gov

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
http://northflorida.fws.gov/



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 27-4 Offices Responsible for "Section 7" Consultation

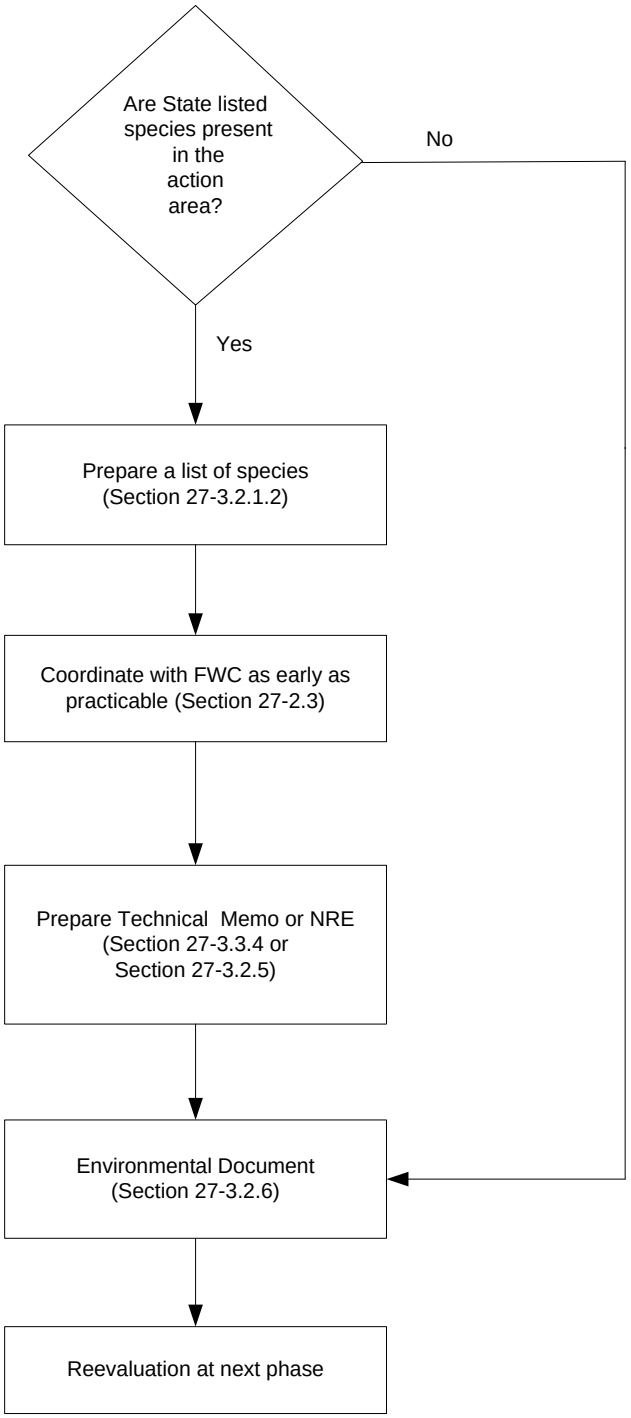


Figure 27-5 State Listed Species Process

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 - http://verobeach.fws.gov/
    - Panama City - http://panamacity.fws.gov/
    - Jacksonville - http://northflorida.fws.gov/
  - Contact the applicable USFWS Field Office directly (Figure 27.4) Also available online at: http://www.fws.gov/endangered/index.html
- 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 27.4)
- 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 27-6 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: http://myfwc.com/media/1515251/threatened_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: http://www.myfwc.com/wildlifehabitats/imperiled/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/notice_Files.asp?ID=987089
- 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 http://www.fnai.org/trackinglist.cfm
- Species and Natural Community Summaries

The following are links to BA templates 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

USFWS: www.fws.gov/endangered/esa-library/pdf/attatchment-4.pdf

USFWS Pacific Islands: www.fws.gov/pacificislands/publications/templateforba-be.doc

Figure 27-6 Listed Species Information Sources (Page 2 of 5)

NMFS:
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 multi-agency forest management manual provides comprehensive and useful information for preparing Biological Assessments. :
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&ved=0CCwQFjAA&url=http%3A%2F%2Fwww.blm.gov%2For%2Fesa%2Freports%2FAnalytical_Process_110504.doc&ei=Ze_OUrn5Ga3LsQSlwYH4Cw&usg=AFQjCNHlF0GUC_5XUcwO7FkXt-u-8cKIIg&bvm=bv.59026428,d.eW0

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 http://www.dot.state.fl.us/surveyingandmapping/documentsandpubs/flucmanual1999.pdf

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 terrestrial resources and listed species: http://ocean.floridamarine.org/CSA/Ancillary/Terrestrial.htm
- 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: http://ocean.floridamarine.org/CSA/Ancillary/Freshwater.htm

Figure 27-6 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
http://myfwc.com/research/about/programs/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 http://www.fnai.org/gisdata.cfm
- 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 : http://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=FL

Figure 27-6 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/
http://endangered.fws.gov/

- Jacksonville ES Office contacts: http://www.fws.gov/northflorida/Staff3.htm
- Vero Beach ES office contacts: http://www.fws.gov/verobeach/StaffDirectory.html
- Panama City ES Office contacts: http://www.fws.gov/panamacity/stafflist.html

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/

Figure 27-6 Listed Species Information Sources (Page 5 of 5)

(Date)

Contractor (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. You 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 :
Construction Project Administrator
District Materials Engineer
Resident Engineer

Figure 27-7 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 27-8 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 27-8 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 27-9 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 27-9 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 27-9 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

9/29/04

Figure 27-9 Example of Emergency Consultation (Page 4 of 4)

PART 2, CHAPTER 28

FARMLAND

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PART 2, CHAPTER 28

FARMLAND

28.1 OVERVIEW

28.1.1 Purpose

The purpose of this chapter is to outline the procedure for evaluating project impacts on farmland. See ***Figure 28-1***. The ***Farmland Protection Policy Act (FPPA) of 1981, 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 local importance. "Farmland" does not include land already in or committed to urban development or water storage.

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 water or urban built-up land.

Potential effects on farmlands may be identified in the Planning or Programming Screens during the Efficient Transportation Decision Making (ETDM) process (Chapters 3 and 4 of 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 or technical 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.

28.1.2 Authority

Table 28-1 provides a summary of the relevant legislation, rules, and policies that govern the protection of farmland.

TABLE 28.1 Federal Legislation and Policies Related to Farmland

Title and Citation	Relevance
National Environmental Policy Act of 1969 (NEPA) as amended (42 USC § 4321)	NEPA 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. The level of required NEPA compliance and documentation depends largely upon the nature and degree of project impacts, which determine a "class of action" [Categorical Exclusion (CE), Environmental Assessment (EA), or Environmental Impact Statement (EIS)].
Farmland Protection Policy Act (FPPA) of 1981 as amended (7 CFR § 658)	The purpose of the FPPA is to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of important farmland to nonagricultural uses. FPPA applies only to federally funded activities that would convert important farmland to nonagricultural uses.
Part 523 of the Farmland Protection Policy Act Manual	Outlines the requirements of the FPPA of 1981

28.2 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 and degree of effect determinations 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 28-1 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 ***Form NRCS-CPA-106;*** other projects, such as parking areas, buildings, rest areas, require use of ***Form AD-1006.***

During the PD&E Study, the District must follow the steps listed below:

1. Projects excluded from coordination with NRCS as discussed in ***Section 28.2.1***; and

2. Provide documentation of projects excluded from coordination with NRCS as discussed in ***Section 28.2.2***; or

3. Complete the Farmland Conversion Impact Rating Form for projects requiring coordination with NRCS as discussed in ***Section 28.2.4***; and

4. 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 28.2.5***.

The ***Farmland Conversion Impact Rating for Corridor Type Projects Form NRCS-CPA-106*** is completed for linear or corridor type projects that convert farmland into nonagricultural use. It is anticipated that most projects will use this form. ***Form AD 1006, Farmland Conversion Impact Rating,*** 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 28.3*** for a link to these forms which can be populated online; copies are also provided in ***Figure 28-2*** and ***Figure 28-3,*** 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 save the Form in the project file, 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 significance level of farmlands involved.

28.2.1 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. Projects beyond the planning stage or constructed prior to August 4, 1984 ***[FPPA, 7 CFR § 658.2(c)(1)(ii)]***;

    d. Project construction is within an existing ROW acquired on or before August 4, 1984; and,

e. Small acreages (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 with approved comprehensive land use maps which have boundaries approved by the Federal Highway Administration (FHWA) **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 28-2***.

Table 28-2 Urbanized Areas in Florida Alphabetically

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

U.S. Census Bureau 2010 Urbanized Areas

If the comprehensive land use maps show agricultural land use adjacent to the project corridor then coordination with NRCS is required, refer to ***Section 28.2.4***. 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).

28.2.2 Documentation of Projects Excluded From Coordination with NRCS

Projects are excluded from coordination with NRCS if they fall within the categories listed in ***Section 28.2.1***. However, documentation is still required in the applicable Environmental Document for:

1. Type 1 Categorical Exclusions -

   Provide a statement that the provisions of the ***FPPA*** do not apply to this project and provide documentation of the reason why it is not applicable (e.g., no farmlands are involved, no federal assistance, etc.).

2. Type 2 Categorical Exclusions -

   For Type 2 CEs, a standard statement is not required. It is sufficient to mark the box "NoInv" for "no involvement" for category A.8 on the ***Type 2 Categorical Exclusion Determination Form, No. 650-050-11***.

3. Environmental Assessments and Environmental Impact Statements

   The following standard statements will be included in the Farmland section of the EA or EIS:

   a. Projects Not Subject to Provisions of ***FPPA***

      "This project is not subject to the provisions of the Farmland Protection Policy Act of 1981."

      Also provide documentation of the reason why it is not applicable (e.g., no farmlands are involved, no federal assistance, etc.)

   b. Urbanized areas approved by FHWA

      "Through coordination with the Natural Resources Conservation Service (NCRS), 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 § 658. Therefore, the provisions of the Farmland Protection Policy Act of 1981 do not apply to this project."

28.2.3 Projects Requiring Coordination with NRCS

The following projects require the completion of ***Form NRCS-CPA-106*** as specified in ***Section 28.2.5***, and coordination with the NRCS.

1. Projects situated **entirely** within urbanized areas with maps which have boundaries approved by FHWA **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 28-2***.

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.

28.2.4 Completion of the Farmland Conversion Impact Rating Form

For projects which are not excluded from coordination with the NRCS per ***Section 28.2.1***, the District will complete ***Form NRCS-CPA-106*** or ***Form AD-1006*** after ROW needs have been conceptually defined during the project development.

28.2.4.1 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 providing 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:

Date of Land Evaluation Request:

Provide the month, day, and year when Parts I and III are completed.

Federal Agency Involved:

Enter Federal Highway Administration, or other Lead Federal Agency.

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 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.

28.2.4.2 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 shape files of project boundaries and alternatives) to:

State Soil Scientist
USDA - Natural Resources Conservation Service
2614 NW 43rd Street
P.O. Box 141510
Gainesville, FL 32614-1510
(352) 338-9535

The NRCS prefers to receive these forms by email. The Soil Scientist's email address may be obtained by calling the phone number above.

NRCS will either complete Parts II, IV, and V (Part V will contain a value rating of between 0 and 100, with the higher the rating the greater the impact) or mark a NO in Part II indicating that no farmlands are involved. NRCS will respond within 10 days of receipt except where a site visit or land evaluation system design is needed, which gives them 30 days. Where NRCS fails to provide its response within the required period, the proposed project can proceed as though the site were not farmland, if further delay would interfere with construction activities, ***FPPA, 7 CFR § 658.4(a).*** 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 and the project is located in an urbanized area or non-urbanized area, then provide the appropriate documentation in the Environmental Document as shown in ***Sections 28.2.2*** and ***28.2.3***, respectively.

If farmland involvement is indicated on the form, then refer to ***Section 28.2.4.3*** 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.

28.2.4.3 Second Evaluation - Completion of Parts VI and VII

PART VI

Part VI contains corridor-type site 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.

28.2.4.4 Actions Taken After Completion of Parts VI and VII

The total number of points indicated in Part VII is used to determine the level of significance given to farmland involvement as stated below:

1. Corridors receiving a total score of **less than 160** points need not be given further protection consideration and no additional corridors need to be evaluated.

2. Corridors receiving a total score of **160 points or more** require stronger consideration for protection of farmland. Consider the following options:

a. Use of existing structures or land that is not farmland;

b. Use alternative corridors and designs that would meet the project purpose and need but convert either fewer acres of farmland or other farmland that has a relative lower value; or,

c. Siting requirements of the project purpose and need and the extent to which an alternative site fails to satisfy the siting requirements as well as the originally selected site.

For corridor-type projects, the alternative with the lowest number of points should be selected. In the event this alternative is not selected, the Environmental Document shall discuss the reason this alternative was not selected.

28.2.5 Documentation of Projects Requiring Coordination with NRCS

Documentation of the assessment of farmland in an EA or 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 involvement.

28.2.5.1 Projects With No Farmland Involvement

1. Type 2 Categorical Exclusion: For Type 2 CEs with no farmland involvement for either urbanized or non-urbanized areas, mark the box "NoInv" for “no involvement” for category A.8 on the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***. Coordination documents with NRCS or ***Form NRCS-CPA-106 or Form AD-1006,*** indicating no involvement, should be referenced in the Type 2 CE documentation and included in the project file

2. Environmental Assessment and Environmental Impact Statement:

   a. In urbanized areas:

   The following standard statement will be written in the EA or EIS as follows:

   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 § 658. Therefore, the provisions of the Farmland Protection Policy Act of 1981 do not apply to this project.

   b. In non-urbanized areas:

   The following standard statement will be written in the EA or EIS as follows:

Through coordination with the Natural Resources Conservation Service, it has been determined that no farmlands as defined by 7 CFR § 658 are located in the project vicinity.

28.2.5.2 Projects With Farmland Involvement

The following information is to be discussed in the Farmland section of the Environmental Document, regardless of whether the projects 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 issues/concerns 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.

28.3 REFERENCES

Florida Department of Transportation, 2015. Efficient Transportation Decision Making (ETDM) Manual. Topic No. 650-000-002

U.S. Census Bureau, Florida 2010, 2010 Census of Population and Housing, Pgs 29-33, issued September 2012

NRCS Farmland Conversion Impact Rating Form (AD-1006), http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1045394.pdf

NRCS Farmland Conversion Impact Rating Form for Corridor Type Projects (NRCS-CPA-106), http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1045395.pdf

NRCS, Farmland Protection Policy Act Manual, http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1097009.pdf. http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/

USDA, Farmland Protection Policy Act, 7 CFR § 658

28.4 HISTORY

06/26/2000, 09/14/2005, 05/11/2010

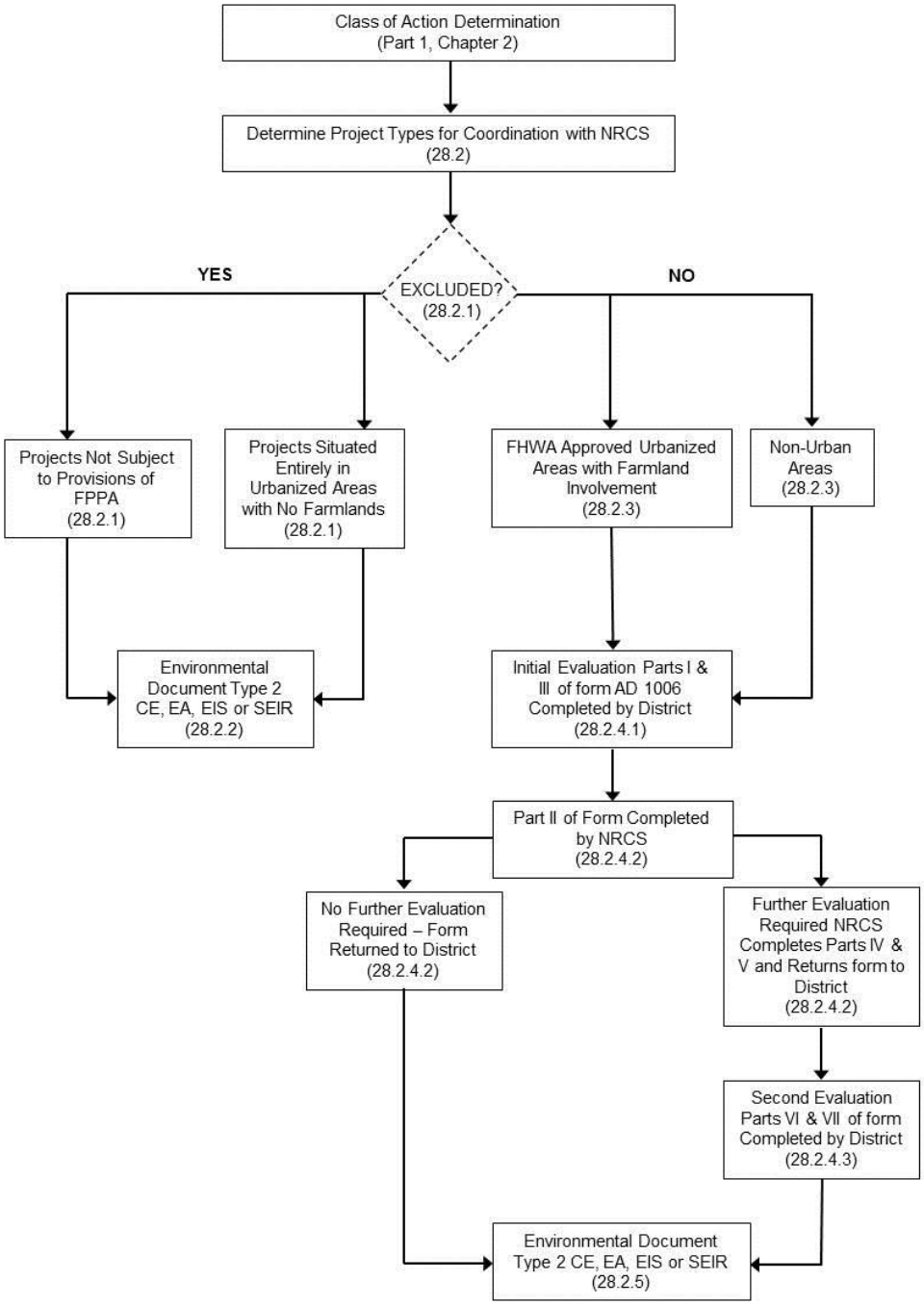

Figure 28-1 Farmland Evaluation Process

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 28-2 Form NRCS-CPA-106 (Page 1 of 2)

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 28-2 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 28-3 Form AD-1006 (Page 1 of 2)

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:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \times 160 = 144 \text{ points for Site A}$$

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 28-3 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.

Natural Resources Conservation Service (NRCS) Web Soil Survey, http://websoilsurvey.nrcs.usda.gov/app/

US Census Bureau Mapper, http://tigerweb.geo.census.gov/tigerweb/

U.S. Department of Agriculture (USDA), 1993. Agricultural Handbook 18, Soil Survey Manual, http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/planners/?cid=nrcs142p2_054261

USDA NRCS National Soil Survey Handbook, http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/?cid=nrcs142p2_054242

Figure 28-4 Additional Resource Information

PART 2, CHAPTER 29

SCENIC HIGHWAYS

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PART 2, CHAPTER 29

SCENIC HIGHWAYS

29.1 OVERVIEW

29.1.1 Purpose

This chapter details the Florida Department of Transportation's (FDOT) procedure for evaluating potential project impacts to designated scenic highways during project development. There are three types of scenic highways designations: local, state and national. Each designation may have different levels of protection, preservation, and public involvement.

Transportation actions can affect intrinsic qualities of scenic highway corridors. These intrinsic qualities represent cultural, historical, archaeological, recreational, natural, and scenic features that are considered representative, unique, irreplaceable, or distinctly characteristic of an area. ***Section 335.093, Florida Statutes (F.S.)*** allows FDOT to designate scenic highways on any public road after consultation with other state agencies and local governments. ***Rule 14-15.016, Florida Administrative Code (F.A.C),*** established the Florida Scenic Highways Program (FSHP) in accordance with ***Section 335.093, Florida Statutes***. The intent of the FSHP is to promote awareness of scenic resources that are valued by Florida's residents and tourists.

FDOT considers scenic highways during project development because a scenic highway preserves scenic and community values of an area. Additionally, scenic highways can enhance travel experiences and foster tourism. To determine a project's potential impacts to a designated scenic highway corridor, the project manager must contact the District Scenic Highway Coordinator (DSHC). The DSHC's role is to serve as an interface between federal, state, regional agencies, local agencies, Byway Organizations, and private interest groups to ensure that impacts to a designated scenic highway corridor are fully considered during the project development process.

During the development of a project, potential impacts to scenic highways are evaluated through the Efficient Transportation Decision Making (ETDM) process for projects that qualify (see ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination*** and the ***ETDM Manual, Topic No. 650-000-002***), impact evaluation during Project Development and Environment (PD&E), and through the impact review process during final design. Any commitments concerning scenic highways made during PD&E are carried over to the next phases of the project through ***Procedure No. 700-011-035, Project Commitment Tracking*** and ***Project Commitment Record (PCR), Form 700-011-35***.

The evaluation of potential project impacts to 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 them while remaining consistent with federal and state requirements (for legislative and policy references, see ***Table 29-1***). The evaluation also considers community preferred opportunities to conserve or enhance the scenic highway qualities using design principles such as ***Context Sensitive Solutions, Topic No. 000-650-002***.

Context sensitive solutions can allow integration of a vision for a scenic highway into the project as they promote collaboration of the project team with Byways Organizations and corridor stakeholders to consider competing project goals. FDOT 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 appropriate flexibility in highway design and design exceptions.

Federal regulations emphasize design quality in all projects which involve public use areas or sensitive locations, utilizing art, architecture and quality engineering in the development of transportation projects. The ***Intermodal Surface Transportation Efficiency Act (ISTEA)*** legislation of 1991 authorized funding for State transportation improvements and establishment of the National Scenic Byways Program (NSBP) which was administered by the FHWA. The NSBP is intended to recognize and promote corridors that have outstanding qualities by designating them as National Scenic Byways or All-American Roads. ***Moving Ahead for Progress in the 21st Century (MAP-21)*** legislation of 2012 did not reauthorize funding for the NSBP. However, the implementing program language remains in federal law.

29.2 PROCEDURE

This section describes the process to complete an evaluation of potential project impacts to designated scenic highways. Consideration of impacts begins during Planning phase, is updated and refined throughout the PD&E process, and continues through the Construction phase. This includes coordination with the DSHC and local Byway Organizations. Additionally, mitigation strategies that may need maintenance agreements require coordination with the District Maintenance Office.

29.2.1 Evaluation Process

The level of evaluation and documentation during the PD&E phase depends on the scope/complexity of the project and the extent of the project within the designated scenic highway corridor. During scoping of the project, the PD&E Project Manager and the District Environmental Office must coordinate with the DSHC to determine the appropriate level of evaluation effort.

Type 1 Categorical Exclusions (CEs) and Non-Major State Actions (NMSA) projects do not qualify for screening in the ETDM Environmental Screening Tool (EST). See ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination*** and the ***ETDM Manual, Topic No. 650-000-002*** for clarification on projects that qualify for

screening. Although the DSHC should be notified when these types of projects are proposed for a scenic highway, they do not typically require detailed evaluations. Project analysts can use the area of interest (AOI) tool to perform the desktop review and bolster the project documentation supporting the Type 1 CE or NMSA determination.

A higher potential for impacts typically exists with transportation projects qualifying for screening; i.e., a higher class of action (COA) [typically Type 2 CE, Environmental Assessment (EA), Environmental Impact Statement (EIS), or State Environmental Impact Report (SEIR)]. These project classifications generally warrant a more detailed level of analysis and documentation.

For projects that qualify for ETDM screening, the level of effort for scenic highway evaluation during the PD&E phase depends on the potential for impacts to the corridor's resources, as indicated in "Special Designations" section of the ***Programming Screen Summary Report***. If after coordination with the DSHC and the ETDM screening review, no impacts are identified, or if no scenic highways are within the project area, documentation in the Environmental Document can be as simple as a statement such as:

> *No impacts to designated scenic highways are anticipated as a result of this project.*

If an impact to a scenic highway is identified, it should be evaluated and documented regardless of the COA for the project.

29.2.2 Transportation Projects Qualifying for Screening

For projects that qualify for screening in the EST, project managers should determine the project's involvement with scenic highways from information included in the Planning and Programming Screen summary reports and discussions with the DSHC. As projects advance through the project development process, impacts to scenic highways should be considered as follows:

1. **Planning Screen** – Identify and discuss scenic highways on the corridor that may be impacted by the project in the Preliminary Environmental Discussion (PED). Consider the scope of the project and recommend measures to avoid impacting the scenic highway.

2. **Programming Screen** – As part of the PED, provide a brief description of the scenic highway corridor along with its termini and designation status. Review comments on potential effects from the ***Programming Screen Summary Report***, summarize scoping recommendations, and identify stakeholder concerns to further understand the magnitude of potential impacts to scenic resources and determine an approach for resolving the impacts.

3. **PD&E Evaluation** – Build upon previous evaluations by filling information gaps, focus on issues of concern identified in planning and programming screens,

and based on the project and associated impacts, complete the appropriate level of documentation. This documentation should include measures to avoid, or minimize impacting the scenic highway. Coordinate with DSHC. Document commitments in the Environmental Document and ***PCR***.

4. **Project Commitment Tracking** – Complete the ***Project Commitment Tracking Procedure, Topic No. 700-011-035*** and transmit to Final Design.

5. **Final Design** – Assess changes in the proposed project to verify they do not adversely affect the designated scenic highway and/or implementation of their BMP/Annual Work Plan (AWP). Complete the appropriate level of documentation for any changes or updates in the Reevaluation to maintain compliance. Coordinate with the DSHC throughout the process.

6. **Construction** – verify any scenic highways commitments. Verify compliance with federal and state regulations.

29.2.3 Scenic Highway Evaluation

The purpose of the scenic highway evaluation is to determine the effect that a proposed project will have on the sustainability of a designated scenic highway corridor as it relates to the quality of its resources. The evaluation of the impacts to scenic highways should be tailored to the context and scope of the project. For some projects, the Programming Screen information may be sufficient to complete the evaluation. For other projects, a scenic highway evaluation may consist of the following steps:

1. Review the ***FDOT, Legislatively Designated Scenic & Historic Highways Report*** which shows all scenic and historic corridors designated in the state of Florida by special legislation, including their restrictions. Use ***Part 2, Chapter 12, Archaeological and Historical Resources*** procedure to evaluate historic corridors designated by special legislations.

2. Contact the DSHC for identification of designated scenic highways and any corridors that have been determined eligible for designation within the District. The DSHC should examine the applicable Local Government Comprehensive Plan (LGCP) for public policy pertaining to locally designated corridors. This policy may include land use regulations, special zoning ordinances, and other local commitments to preserve, protect, maintain, or enhance the corridor.

3. Examine the documents prepared for a state or nationally designated scenic highway. These documents may include applications for designation as a FSHP, BMP for FSHP and NSBP, AWP, any plans for Federally Designated Scenic Highways, corridor master plans, etc. The project team, in coordination with the DSHC should become familiar with the priorities and plans for a designated scenic highway, or for a corridor determined to be eligible for designation. Based on a review of scenic highway documentation, the project team will be able to evaluate

the impact of the project on the designated or eligible corridor and take into consideration direct, indirect and cumulative impacts on the corridor's intrinsic qualities for EAs and EISs.

4. Review the project setting to determine which scenic highway intrinsic qualities exist and analyze field data to determine potential impacts. If the project will simultaneously implement BMP or AWP action items, the opportunity to obtain strong local support for both efforts and ensure compatibility among actions should be evaluated and addressed. This is essential to understanding proposed project concepts in relation to the BMP/AWP action items that are being implemented over time along the corridor. The scenic highway evaluation should include assessment of potential opportunities for FDOT to help fulfill a commitment in the BMP/AWP 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.

5. Discuss in the Environmental Document whether the project has the potential to affect the scenic highway based on the outcome of step 4. Documenting the impacts of a proposed project to the intrinsic qualities of a designated scenic highway is necessary to ensure project compliance with state and federal requirements.

6. If the project impacts the scenic resources of a scenic highway, identify practical opportunities to enhance the resources through a context sensitive solutions approach. Determine the strategies that can be included in the project to avoid impacting scenic resources. If impact(s) to scenic highway is unavoidable, determine mitigation strategies along the corridor. Mitigation of impacts to a scenic highway and its intrinsic qualities may encompass a wide variety of measures, including landscaping, resource enhancement, screening, vegetation removal, incorporation of engineering and architectural features, selective clearing, addition of kiosks, and other innovative measures to offset impacts and enhance the corridor. Mitigation strategies should consider community concerns about accomplishing the Byways Organization's vision, goals and objectives as outlined in the BMP without compromising FDOT standards and requirements. In addressing mitigation strategies, consider ***FDOT's Policy No. 000-650-002, Context Sensitive Solutions***, to collaboratively identify, preserve, maintain, or enhance the intrinsic qualities or resources while maintaining safety and mobility. Individually and collectively, the public can provide additional input to identify ways to avoid, minimize or mitigate adverse impacts or identify aesthetic enhancements through the public involvement process (***Part 1, Chapter 11, Public Involvement***).

29.2.4 Public Involvement and Intergovernmental Coordination

Coordination with scenic highway stakeholders must follow the guidance set forth in ***Part 1, Chapter 11, Public Involvement***. A successful public involvement plan should include

residents, appropriate scenic highway organizations, and other local interested groups and individuals. Specifically, public involvement activities for proposed projects involving a Florida or nationally designated scenic highway must include the Byways Organization. Close coordination with the DSHC and the Byways Organization during project development and all subsequent phases is essential to inform the community on the project's impacts and explore opportunities to accommodate certain BMP/AWP action items in the development of project alternatives.

29.2.5 Documentation

Documentation for scenic highways is required only when the project impacts a designated scenic highway. The environmental analysis section of the Environmental Document should discuss the effects of the proposed project on the scenic highway corridor and its intrinsic qualities. When potential impacts to a scenic highway corridor's intrinsic qualities exist, the Type 2 CE, EA, or EIS should contain a detailed discussion on the potential impacts involved with each alternative under consideration.

For scenic highways, the impact analysis should contain, at a minimum, the following information:

1. Sufficient information to briefly describe the corridor and its intrinsic qualities.

2. A brief discussion on the Byways Organization and local community supporters that have an interest in the project.

3. A description of the potential impacts the project may have on the corridor, its intrinsic qualities and the community. For EAs and EISs, consideration should be given to direct and indirect impacts resulting from the project.

4. A discussion on available measures to avoid, minimize, or mitigate impacts to the scenic highway corridor and its intrinsic qualities.

The results of the scenic highways evaluation are documented as described below:

Type 2 Categorical Exclusions (Type 2 CE) - Documentation of the evaluation must demonstrate the proposed project has no significant impacts to scenic highways. The evaluation results should be briefly summarized in the Type 2 CE documentation. When a potential impact to a scenic highway corridor's intrinsic qualities exists, detailed evaluation may also be attached to the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11*** according to ***Part 2, Chapter 5, Type 2 Categorical Exclusion***.

Environmental Assessments (EA) and Environmental Impact Statements (EIS) - The findings of the scenic highways evaluation are summarized for direct inclusion in the environmental analysis section of the Environmental Document. The documentation is provided in the Affected Environment and Environmental Consequences section of an

EIS or the Impacts section of an EA, as well as the Comments and Coordination, and Commitments sections of the EA, EA with Finding of No Significant Impact (FONSI), Draft Environmental Impact Statement (DEIS), or Final Environmental Impact Statement (FEIS) document. In the Impacts section of an EA, or the Environmental Consequences section of an EIS, the scenic highways summary should present the impact analysis findings and recommend avoidance, minimization, mitigation, and enhancement measures, as applicable.

In general, the Environmental Consequences section of an EIS or the Impacts section of an EA should discuss the project's direct effects on the scenic resources along the designated corridor and the significance of these effects. Similarly, the project's indirect effects and their significance should also be documented, especially in light of the BMP for the corridor. The discussion should include the effects of all reasonable project alternatives and provide impact comparisons between them, as well as the potential for conservation, enhancement, and mitigation. Also, urban quality, historic and cultural resources, and the design of the built environment, including the conservation potential of various alternatives and the means to mitigate adverse environmental impacts should be discussed.

Project commitments related to fulfilling BMP or minimizing scenic highway impacts are documented in the Commitments section of the Environmental Document. Such commitments are tracked using ***Project Commitment Record (PCR), Form 700-011-35***.

Reevaluations – Document any impacts to scenic highways or implementation of their BMP/AWP as the result of changes in the proposed project in accordance with ***Part 1, Chapter 13, Reevaluations***.

29.3 REFERENCES

Council on Environmental Quality, Executive Office of the President, 1978. Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, 43 CFR §§ 55978-56007 and 40 CFR §§ 1500-1508

Florida Department of Transportation (FDOT), Environmental Management Office, June 2009. “Florida Scenic Highways Program Manual”

FDOT, June 2009. Florida Scenic Highway Program, Topic Number 650-050-005

FDOT, March 2013. Efficient Transportation Decision Making (ETDM) Manual, Topic No. 650-000-002

FDOT, Environmental Management Office, “Legislatively Designated Scenic Highways”

FDOT, Environmental Policy for State Transportation Facilities, Topic Number 000-625-001-I

FDOT, Context Sensitive Solutions Policy, Topic No. 000-650-002-a

FDOT. November 2012. Project Commitment Tracking, Topic No. 700-011-035

FDOT. September 2014. Complete Streets, Topic No. 000-625-017

Moving Ahead for Progress in the 21st Century (MAP-21)

U.S. Department of Transportation (USDOT), Federal Highway Administration, October 30, 1987. Guidance for Preparing and Processing Environmental and Section 4(f) Documents, FHWA Technical Advisory T 6640.8A. https://www.environment.fhwa.dot.gov/projdev/impta6640.asp

USDOT, Federal Highway Administration. January 2015. Visual Impact Assessment for Highway Projects, Washington D.C., Publication No. FHWA-HEP-15-029. https://www.environment.fhwa.dot.gov/guidebook/documents/VIA_Guidelines_for_Highway_Projects.asp

USDOT, Federal Highway Administration. June 1997. Flexibility in Highway Design, Publication No. FHWA-PD-97-062; HEP-30/7-97(10M)E. http://www.fhwa.dot.gov/environment/publications/flexibility/

29.4 HISTORY

10/13/1998

PART 2, CHAPTER 31

COMMENTS AND COORDINATION

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PART 2, CHAPTER 31

COMMENTS AND COORDINATION

31.1 OVERVIEW

A Comments and Coordination section is included in both an Environmental Assessment (EA) and an Environmental Impact Statement (EIS). Its purpose is to summarize the public and interagency coordination involved in developing the project and the Environmental Document. This includes documentation of meetings and coordination with government leaders, government agencies, community groups and individual citizens. This also includes documentation of the early coordination process for EAs and scoping for an EIS.

31.2 PROCEDURE

31.2.1 Draft Environmental Documents

The content of the Comments and Coordination section of the EA or Draft EIS (DEIS) is composed of a summary of comments, suggestions, and recommendations received during the development of the Environmental Document.

31.2.1.1 Discussion of Efficient Transportation Decision Making Screening Events

The comments received by the District during the Efficient Transportation Decision Making (ETDM) Programming Screen and/or Advance Notification (AN) should be referenced, or summarized in a subsection of the Comments and Coordination section of the draft Environmental Document. This subsection must include the following information:

1. The date of the AN distribution;

2. A list of federal, state, local agencies and other interested parties that provided comments;

3. A reference to each agency's comments on the project and Florida Department of Transportation’s (FDOT) responses. Reference the appropriate section where the agency comments/FDOT responses can be located.

31.2.1.2 Discussion of Scoping Process for Environmental Impact Statements

This subsection describes the scoping process for the EIS and includes the following information:

1. Dates and locations of any EIS scoping meetings (if held);

2. Agencies participating in the scoping process;

3. A summary of meetings, discussions, and correspondence pertinent to the scoping process.

31.2.1.3 Coordination and Consultation

This subsection summarizes the coordination and consultation which occurred with agencies, the public, and other interested parties during preparation of the Environmental Document. This should include a chronology of meetings, events, attendees, comments received, and FDOT responses. This information can be exhibited in tabular form.

31.2.1.4 Concluding Statement in Draft Document

Since the draft document is subject to modification, place the following statement as the concluding statement for the Comments and Coordination section.

> *FDOT will not make a final decision on the proposed action or any alternative until a public hearing has been held on this project and comments received have been taken into consideration.*

31.2.2 Final Environmental Documents

After the public hearing (***Part 1, Chapter 11, Public Involvement***) and the document review period [***Part 1, Chapter 7, Finding of No Significant Impact (FONSI)*** and ***Part 1, Chapter 9, Final Environmental Impact Statement (FEIS)***] are completed, the Comments and Coordination section is revised in the FEIS or EA with FONSI. This includes adding a new subsection on the public hearing, its content, and outcome.

This new section should include the following data:

1. The date, time, and place of the hearing;

2. The type of hearing held and the start and end time;

3. The number of attendees;

4. The number of public speakers and the number of people who made statements to court reporters, ***Part 1, Chapter 11, Public Involvement***;

5. The number of written statements received during the public comment period;

6. Summary of each speaker's comments on the proposed actions, and FDOT's response to those comments;

7. Analysis and conclusion of the hearing;

8. A reference to comment letters and hearing transcripts that are included in the document’s Appendix.

The Comments and Coordination section should also be updated to include a summary of comments along with a response to each substantive comment received during the document review period (public availability). This should also include documentation of subsequent coordination and consultation.

When Federal Highway Administration (FHWA) comments on draft Environmental Documents (EIS or EA), the comments are that of the Lead Federal Agency and a preparer; therefore, FHWA comments are not included in the draft or final Environmental Document. Comments solicited directly from the U.S. Department of Transportation (USDOT) on publicly available documents are considered official comments and are included in the FEIS along with responses as appropriate.

Environmental issues should be addressed, to the extent possible, prior to the submission of the FEIS or EA with FONSI. Where this is not possible, the Comments and Coordination section of the FEIS or EA with FONSI should clearly identify any remaining unresolved issues and the efforts taken to resolve the issues.

31.3 REFERENCES

Council on Environmental Quality, 1978. Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA), 43 FR 55978-56007 and 40 CFR §§ 1500-1508

Federal Register (FR), August 28, 1987. Environmental Impact and Related Procedures, FR Vol. 52, No. 167

Florida Department of Transportation (FDOT), ETDM Manual, Topic No. 650-000-001. http://www.dot.state.fl.us/emo/pubs/etdm/etdmmanual.shtm

U.S. Department of Transportation (USDOT), Federal Highway Administration (FHWA), October 30, 1987. Guidance for Preparing and Processing Environmental and Section 4(f) Documents, FHWA Technical Advisory TA6640.8A. https://www.environment.fhwa.dot.gov/projdev/impTA6640.asp

31.4 HISTORY

4/5/2000, 5/18/2010

PART 2, CHAPTER 32

COMMITMENTS

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PART 2, CHAPTER 32

COMMITMENTS

32.1 OVERVIEW

Commitments are a critical component of a transportation project as they provide assurance to agencies and other stakeholders that identified issues will be appropriately addressed in a future phase of project delivery. The primary purpose of this chapter is to provide guidance to Florida Department of Transportation (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 have coordination between staff from PD&E through Operation and Maintenance phases to ensure the appropriate documentation and tracking of commitments are accomplished until commitments are completed.

FDOT requires that all commitments are tracked through ***Procedure No. 700-011-035, FDOT Commitment Tracking*** and reviewed and documented in subsequent reevaluations. This procedure provides guidance on tracking and documenting project commitments throughout Project Development, Design, Right of Way, Construction, and Operation and Maintenance phases. Commitments must be recorded on the ***Project Commitment Record (PCR), Form No. 700-011-35***. See ***Section 32.2.3.1*** for guidance on how to document and track commitments.

Commitments established as a result of the PD&E Study and/or agency coordination must be documented in the Environmental Document [Categorical Exclusion (CE), Environmental Assessment (EA), Environmental Impact Statement (EIS), or State Environmental Impact Report (SEIR)], and included in the project file.

32.1.1 Project Commitments

An FDOT commitment is an obligation to an external stakeholder to provide a feature, or perform an action, related to a project. 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 the Construction phase, such as implementation of best management practices (BMPs), to minimize potential impacts on resources

Project commitments may be established at any time during the PD&E, Design, Right of Way, Construction, and Operation and Maintenance phases of a project. Commitments are rarely established during the Planning phase of a project, due to inherent uncertainties in the evolution of a given project.

A PD&E phase commitment can be made as a result of coordination/consultation with agencies, the local community, or other stakeholders on social, cultural, physical, natural or engineering issues. These commitments may also help satisfy ***National Environmental Policy Act (NEPA)*** requirements. A ***NEPA*** commitment is an obligation identified and documented in the PD&E phase and subsequent Reevaluations, and is a binding commitment to avoid, minimize or mitigate project impacts.

FDOT may make commitments to the local community during PD&E, which could include context-sensitive solutions or design features like lighting, benches, bicycle or pedestrian facilities, aesthetic treatments, landscaping. Commitments may also be made during PD&E to support federal and/or state permitting. During the Design/Permitting phase, these commitments may become permit conditions at the discretion of the applicable regulatory agency. For example, commitments regarding wetland and other surface water or protected species impacts are included in the permit at the discretion of the Florida Department of Environmental Protection (DEP), Water Management District (WMD) or the U.S. Army Corps of Engineers (USACE). ***Section 32.1.1.2*** provides additional information on 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, Right of Way Office, or Maintenance Office.

Before making a commitment, the action involved must be coordinated between each of the project phases. The project manager for each phase ensures that the action involved is 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:

1. Ensure that commitments are clear and concise;

2. Ensure commitment language is coordinated with the appropriate subject matter expert;

3. Ensure that commitments do not contradict other commitments;

4. Consider the practical impact of the commitments on future project phases; and

5. Ensure the source of and reason for the commitment is fully documented in the project file.

Project managers should be mindful of whether statewide precedence is being created when employing new or unique commitments, as well as making any long term obligations, procedural mechanisms or dedication of state resources needed to uphold commitments. For example, proposed preservation of FDOT Right of Way for a non-transportation related purpose, or monitoring in perpetuity should prompt further discussion within the District and Central Office prior to making the commitment. The approval of a commitment is at the discretion of each District and is evaluated based upon the magnitude of impact it has on FDOT resources.

Project Managers must coordinate with appropriate District personnel prior to agreeing to a commitment that would obligate significant 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 and obtain approval. A wildlife crossing could potentially obligate a significant amount of cost, 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, it is not necessary for FDOT to make a commitment to follow the ***Standard Specifications for Road and Bridge Construction***.

32.1.1.1 Local Agency Program Commitments

The FDOT is statutorily empowered to contract with other Local Agencies to plan, develop, design, acquire right of way, and construct transportation facilities through the Local Agency Program (LAP). The FDOT reimburses these Local Agencies for services provided to the public. When the FDOT contracts with any Local Agency for reimbursement using federal funds administered by the FHWA, the FDOT must ensure Local Agencies comply with all applicable federal statutes, rules, and regulations.

When applicable, the Local Agency should maintain a commitment file with a summary of commitments made during the development of the project. The Local Agency should review the file to ensure that the commitments are incorporated into the Plans Specifications and Estimates.

The FDOT 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. See ***Local Agency Program Manual, Topic No. 525-010-300*** for more information on LAP projects and LAP commitments.

32.1.1.2 Permitting and Commitments

Commitments regarding wetland and other surface water impacts, listed species, and/or habitat that were identified during the PD&E phase may later be included as permit conditions. Permit conditions are those commitments that must be met in order to comply with an environmental permit. Permit conditions are developed in coordination with the applicable regulatory agency. These are typically 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 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 and included in the project file. See ***Part 1, Chapter 12, Environmental Permits***, for more information on environmental permitting.

An example of a project commitment made during the PD&E phase that may be included as a permit condition is when FDOT makes a commitment to provide compensatory mitigation to offset unavoidable wetland and surface water impacts. This commitment is typically included in a federal permit from the USACE or a state permit from the DEP or WMD.

Commitments made in coordination with regulatory agencies for species Conservation Measures may also become permit conditions. Examples of species-specific commitments made during PD&E include:

- Re-initiate 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

- Protect a species during construction (such as the Florida manatee, eastern indigo snake, and small-tooth sawfish)

Commitments may also be made 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 historical archaeological site. This type of commitment would be made during the PD&E phase and coordinated with the appropriate regulatory agency. The commitment would then be made into a permit condition, at the discretion of the lead permitting agency during Design/permitting.

32.1.2 FDOT Commitment Tracking

Guidance and procedures for documenting and tracking project commitments are in ***Procedure No. 700-011-035, Project Commitment Tracking***. As noted in the procedure, "It is imperative that any commitments made by the Department are sufficiently documented so they can be tracked throughout the life of the project, fulfilled during the appropriate time, and reviewed and documented for their completeness prior to final acceptance of the project."

Commitments made by FDOT over the course of the project must be documented on the ***Project Commitment Record (PCR), Form No. 700-011-035*** included in ***Figure 32.1***. The ***PCR*** is the standard form for documenting, transmitting, and tracking project commitments. Commitments identified in the PD&E phase must be recorded in the ***PCR*** for transmittal to the Project Manager during the Design phase, as well as documented in the Commitments section of the Environmental Document ***(Section 32.2.3.1)***.

32.2 PROCEDURE

Some projects may qualify for Efficient Transportation Decision Making (ETDM) screening in the Environmental Screening Tool (EST). ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination*** 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.

32.2.1 Projects Not Qualifying for Screening

For transportation projects not qualifying for EST screening, commitments are documented as a part of 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. Documentation in the Environmental Document is as follows:

1. **Type 1 Categorical Exclusions–** For these projects, complete a ***Type 1 Categorical Exclusion Checklist, Form No. 650-050-12*** according to ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination***. Include project commitments in the project file.

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.

3. **Type 2 Categorical Exclusions–** 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, Form No. 650-050-11*** as if the project was screened. See ***Sections 32.2.3.1*** for guidance on documenting Type 2 CEs.

32.2.2 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***. This screening initiates 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 to the PD&E phase.

32.2.3 Project Development and Environment Phase

During PD&E, FDOT should review the ***Programming Screen Summary Report*** to consider any ETAT member recommendations. The Project Manager is responsible for collecting and maintaining correspondence with agencies/organizations (e.g., letters, emails), documenting coordination on project commitments as part of the project file, and adding commitments to the ***PCR***. This documentation provides information for the next project phase.

Any recommendations made during ETDM screening should have been entered into the "General Project Recommendations" section of the ***Programming Screen Summary***

Report. If recommendations were made, 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, and discussing 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 stakeholders in order to address social, cultural, physical natural or engineering issues and advance the project. See ***Section 32.1.1*** 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, Right of Way Office, or Maintenance Office to ensure the feasibility/viability of the commitment, and for obtaining approval on the commitment.

32.2.3.1 Documenting Commitments

Commitments established as a result of the PD&E Study and/or agency coordination must be documented in the ***PCR,*** the Environmental Document, and the project file. Commitments are documented in the ***PCR*** in accordance with ***Section 32.1.2*** and are transmitted to the Design and Construction Offices according to ***Procedure No. 700-011-035, Project Commitment Tracking***. The PD&E phase Project Manager must provide the ***PCR*** to the Design phase Project Manager.

Project commitments are documented in the Environmental Document and/or project file depending on the Class of Action. Project commitments are documented in the Commitments section of the ***Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11***, Environmental Assessment (EA), Environmental Impact Statement (EIS), or State Environmental Impact Report (SEIR). This section of the Environmental Document addresses all commitments which FDOT has entered into over the course of the PD&E Study. All commitments are listed verbatim as found in the body of the Environmental Document, accompanying technical reports, and as recorded on the ***PCR***. Appropriate sections of the Environmental Document should be referenced in the Commitments section to provide context in which each commitment was made.

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, as well as any validated recommendations identified in the ETDM screening events.

Commitments may also be listed in associated technical reports (e.g., ***Natural Resource Evaluation***, ***Noise Study Report***, ***Memorandum of Agreement***). These commitments should be included verbatim in the Commitments section of the Environmental Document and recorded on the ***PCR***.

The project file should include additional information elaborating upon the commitment such as how it was arrived at, who the commitment is made to, and why it is necessary.

32.2.4 Reevaluation

Any changes after approval of the Environmental Document must be documented in a Reevaluation as per ***Part 1, Chapter 13, Reevaluations***. Reevaluations prepared through this process should provide a status update of the project commitments in the "Mitigation Status and Commitment Compliance" section of the ***Reevaluation Form (Part 1, Chapter 13, Reevaluations)***. Any new commitments arising from subsequent agency negotiations or permit requirements, along with any other commitments or considerations arising from public involvement activities, etc., are also listed, updated, and discussed.

32.2.5 Design Phase

During Design, the Design Project Manager is responsible for reviewing the ***PCR*** for project commitments made during the PD&E phase. The Design Project Manager should consult 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 those commitments impacting a project's design are accurately incorporated in the project plan, contract documents and/or determine if special provisions will be required. The Design Project Manager should also coordinate with the Permit Coordinator to ensure commitments related to permit conditions (e.g., wetland mitigation) are addressed.

Some examples of PD&E commitments that can be included in the project plan or contract documents during Design phase include:

- Additional design features and details
- Renewed consultation with state and/or federal regulatory agencies
- Pre-construction species-specific wildlife surveys
- Construction requirements and/or restrictions
- Design changes
- Project specific plan notes

The Design Project Manager must update the ***PCR*** to document that PD&E project commitments were reviewed and included in the project design plans and/or contract documents as appropriate. The Design Project Manager should ensure that the updated ***PCR*** is transmitted to the Right of Way or Construction Project Manager, as appropriate.

Prior to advancing the project to Right of Way or Construction phases, the Environmental Administrator completes the appropriate Status of Environmental Certification Form***,*** ***Status of Environmental Certification for Federal Project, Form No. 650-050-13*** or ***Status of Environmental Certification for State Funded Project, Form No. 650-050-14***.

32.2.6 Right of Way Phase

During the Right of Way phase, the Project Manager is responsible for reviewing the ***PCR*** for PD&E project commitments that may impact project right of way. It is the Project Manager's responsibility to coordinate with previous phase managers as appropriate to ensure that project commitments are understood. An example of a PD&E commitment that may be implemented during Right of Way phase is a commitment to have an archaeological monitor on site during right of way demolition activities.

32.2.7 Construction Phase

The Project Manager in the Construction phase is responsible for reviewing the ***PCR*** for project commitments made during the PD&E phase, to ensure that they have been included in the project's contract documents and/or plan set and will be constructed. 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 of 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 PD&E commitments as needed during construction. The District should establish a commitment tracking and monitoring protocol such as the use of a commitment compliance tracking consultant or in-house staff specifically assigned for this purpose.

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 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***).

32.2.8 Operation and Maintenance Phase

During the Operation and Maintenance phase, the Project Manager is responsible for reviewing the ***PCR*** for project commitments that may impact maintenance of the project. It is the Project Manager's responsibility to coordinate with previous phase managers as appropriate to ensure that project commitments are understood. An example of a PD&E commitment that could impact the Operation and Maintenance phase is a commitment to maintain landscaping at a higher standard than FDOT Maintenance requirements.

32.3 REFERENCES

American Association of State Highway and Transportation Officials. 2006. Practitioner's Handbook. Tracking Compliance with Environmental Commitments/ Use of Environmental Monitors.

FDOT. 2012a. Project Commitment Record Form, Topic No. 700-011-35. Accessed at http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/700011035.pdf on 12/4/2015.

FDOT. 2012b. Project Commitment Tracking, Topic No. 700-011-035. Accessed at http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/700011035.pdf on 12/4/2015.

FDOT. 2013a. Efficient Transportation Decision Making Manual, Topic No. 650-000-002. Accessed at http://www.dot.state.fl.us/emo/pubs/etdm/etdmmanual.shtm on 3/5/2014.

FDOT. 2013b. Standard Specifications for Road and Bridge Construction, Florida Department of Transportation. Accessed at http://www.dot.state.fl.us/programmanagement/Specs.shtm on 9/28/2015.

FDOT. 2015. Plans Preparation Manual, Topic No. 625-000-007. Accessed at http://www.dot.state.fl.us/rddesign/PPMManual/2015PPM.shtm on 9/28/2015.

FDOT. Current Version. Construction Project Administration Manual, Topic No. 700-000-000. Accessed at http://www.dot.state.fl.us/construction/manuals/cpam/CPAMManual.shtm on 9/28/2015.

FDOT. Current Version. Local Agency Program Manual, Topic No. 525-010-300 Accessed at http://www.dot.state.fl.us/programmanagement/LAP/LAP_TOC.shtm on 9/8/15.

32.4 HISTORY

1/12/2000, 1/5/2009

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION **Project Commitments Record**							700-011-35 Construction 11/12
Document information: **Date:** **Project Name:**			**Project Limits:** **Original PD&E FAP#:** **Document Type:**			**FM#:** **ETDM #:** **Document Status:**	
Project Segment #	Description	To	Approval	Implementation Phase	Status	Comments	Completion Date
Project Development & Environment Commitments							
Design Commitments							
Right-of-Way Commitments							
Construction Commitments							
Operations & Maintenance Commitments							

Figure 32-1 Project Commitment Record

PART 2, CHAPTER 33

LIST OF PREPARERS

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PART 2, CHAPTER 33

LIST OF PREPARERS

33.1 OVERVIEW AND PROCEDURE

A list of preparers is required for Environmental Impact Statements (EISs) in accordance with the Regulation for Implementing the Procedural Provisions of the ***National Environmental Policy Act (NEPA)*** established by the Council on Environmental Quality (CEQ) ***(Section 1502.17)***.

The list includes federal, state, or local agency personnel, including consultants, who were primarily responsible for preparing the EIS or associated technical studies. To make it easy to locate a specific individual, the list should be organized in order of federal, state, consultant, or other participants and describe the educational and professional experience of each preparer. It is also suggested that individuals listed for each given agency, organization, etc., be listed in alphabetical order.

An example list of preparers is shown in ***Figure 33-1***.

In preparing the List of Preparers each person should be contacted to verify educational and professional experience and the number of years employed in their field.

33.2 REFERENCES

Council on Environmental Quality, 1978. Regulation for Implementing the Procedural Provisions of the National Environmental Policy Act, 40 CFR §§ 1500-1508

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

33.3 HISTORY

10/9/2001, 12/12/2007

SECTION 7. LIST OF PREPARERS

FEDERAL HIGHWAY ADMINISTRATION

Mr./Ms. (Name) Transportation Supervisor	B.S. degree in Civil Engineering and ___ years experience in highway engineering.

FLORIDA DEPARTMENT OF TRANSPORTATION

Mr./Ms. (Name) Transportation Policy Analyst	B.S. degree in Geography and ___ years experience in environmental analysis and environmental document preparation.
Mr./Ms. (Name) Archaeologist	M.S. degree in Anthropology and ___ years experience in site surveys, analysis and documentation.
Mr./Ms. (Name) Historian	M.S. degree in History and ___ years experience in site surveys, analysis and documentation.
Mr./Ms. (Name) Air Quality	B.S. degree in Public Air Quality Health with _____ years experience in environmental and air quality analysis and environmental document preparation.
Mr./Ms. (Name) Noise	M.S. in Environmental Science with years experience in environmental analysis and environmental document preparation.
Mr./Ms. (Name) Natural Resources Administrator	M.S. degree in Systems Ecology with ____ years experience in environmental analysis and environmental document preparation.

(CONSULTANT NAME)

Mr./Ms. (Name)	B.S. Degree in .....

Figure 33-1 Example List of Preparers

PART 2, CHAPTER 34

LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS TO WHOM COPIES OF THE STATEMENT ARE SENT

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PART 2, CHAPTER 34

LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS TO WHOM COPIES OF THE STATEMENT ARE SENT

34.1 OVERVIEW AND PROCEDURE

Draft Environmental Impact Statements (DEISs) and Final Environmental Impact Statements/Record of Decisions (FEIS/RODs) are circulated for comment to resource and regulatory agencies, non-governmental organizations, elected officials, and other interested parties. This circulation is in accordance with the Council on Environmental Quality implementing regulation, ***40 CFR §§ 1500-1508***. The Environmental Impact Statement (EIS) must include a section that provides a list of entities which have or will receive the DEIS and FEIS/ROD. This section is titled “List of Agencies, Organizations, and Persons to Whom Copies of the Statement Are Sent" (***Part 1, Chapter 8, Draft Environmental Impact Statement***).

The list of entities is typically based on those that were sent the Advance Notification (AN), including those that participated in the EIS scoping process. ***Part 1, Chapter 3, Preliminary Environmental Discussion and Advance Notification***, provides a transmittal list and contact information for ANs. For FEIS/RODs, this list will also include those who submitted comments on the DEIS.

34.2 REFERENCE

40 CFR §§ 1500-1508. Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act

34.3 HISTORY

9/10/2003

PART 2, CHAPTER 35

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PART 2, CHAPTER 35

INDEX

35.1 OVERVIEW

An index is included in all Environmental Impact Statements (EISs) (***Part 2, Chapter 1, Document Format and Table of Contents***). The purpose of the Index is to provide a detailed listing of major subject areas (especially areas of significant impact) so that a reviewer does not have to read the entire EIS to obtain information on a specific subject.

35.2 PROCEDURE

35.2.1 Content of Index

The Index is provided for the convenience of the reader. It is an alphabetical listing of major subjects covered in the EIS. Areas of community concern and areas which have a significant impact on the surrounding environment should also be listed in the Index.

Provided below is an illustration of the typical content of an index.

INDEX

Aesthetics 10
Air Quality 12, 25, 33
Alternatives 43
    No-Action 44, 55
    Alternative 1 ..... 45, 56, 62
    Alternative 2 ..... 47, 58, 65
Bicycle Facility 13, 72
Visual Impacts 68
Wetlands 64, 80
Wild and Scenic Rivers 46, 55, 70, 88

35.3 REFERENCE

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

35.4 HISTORY

1/12/2000, 12/12/2007

PART 2, CHAPTER 36

APPENDIX

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PART 2, CHAPTER 36

APPENDIX

36.1 OVERVIEW

An Appendix is included in both the Draft and Final Environmental Documents of Environment Assessments (EA) and Environmental Impact Statements (EIS). It is the final section of an EA and EIS ***(Part 2, Chapter 1, Document Format and Table of Contents)***. The Appendix contains correspondence with agencies and other stakeholders (letters, emails, memos, etc.) during the PD&E Study. The Appendix should contain support material pertinent to the project study. This may include small reports, listings (e.g., wildlife species common to the project area), letters of agreement, Memorandums of Understanding, Referendums, etc.

The material found in the Appendix should provide a sense of order and logic to the project development process.

The Appendix **does not** contain any letters between the Florida Department of Transportation (FDOT) and the Federal Highway Administration (FHWA), internal FDOT memos, or letters between FDOT and its consultant.

36.2 PROCEDURE

36.2.1 Appendix Divider Page

On the Appendix divider page, a listing should be provided of all correspondence and other document support material contained within. If the Appendix can be broken down into Pre-hearing, and Post-hearing type correspondence then this should be done. Material contained in the Appendix must be numbered for ease in referencing. The segregation of letters, into federal, state, and local groupings, or by chronological order, or some other category, is up to the analyst.

Provided below is a sample of the type of listing generally found on the divider page.

Appendix

A-1	Department of Environmental Protection (Letter)	1-2-16
A-2	Department of Community Affairs (Letter)	1-6-16
A-3	United States Coast Guard (Letter)	1-6-16
A-4	Any County Commission (Resolution)	1-10-16

36.2.2 Correspondence Contained in the Appendix

The following is a list of correspondence that is generally found in the Appendix:

1. Letters from state agencies
2. Letters from state elected or appointed officials
3. Letters from local agencies and officials
4. Letters from statewide and regional clearinghouses
5. Letters from federal agencies
6. Letters from federal elected or appointed officials
7. Letters from cooperating agencies
8. Letters from citizens groups
9. Letters from private interest groups
10. Letters from U.S. Department of Transportation

36.2.3 Types of Correspondence Not Included in Appendix

The following list of correspondence is **not to be included** in the Appendix of an Environment Document.

1. FDOT internal comments on environmental documents
2. FDOT internal comments on engineering documents
3. FDOT internal comments on document support data
4. FDOT internal transmittal memorandums
5. FDOT transmittal letters to external agencies
6. FDOT transmittal letters to FHWA
7. FHWA comments on environmental and engineering documents
8. FHWA internal comments on environmental documents
9. FHWA (Region and Washington) comments on environmental documents

10. FHWA internal comments on engineering documents

11. FHWA internal comments on document support data

12. FHWA transmittal letters

13. Planning or Programming Screen Summary Reports

36.2.4 Types of Support Material Usually Found in Appendix

The following is a list of the types of document support data usually incorporated into the Appendix of an Environmental Document. The analyst should note that this list is not all inclusive.

1. Lists (i.e., Lists of species, meeting attendees)

2. Resolutions

3. Letters of Agreement

4. Memoranda of Understanding (i.e., ***Section 106 - Historic Preservation Act***)

5. Special Reports

    a. Material prepared in connection with the environmental document which substantiates an analysis and is not contained under separate cover;

    b. Material which is analytical and is relevant to the decision to be made and is not contained under separate cover; and

    c. Material which, due to its nature, should be circulated with the environmental document.

Items 5a through 5c are rarely used since most, if not all, of the support data and analysis developed for an Environmental Document is contained under separate cover and incorporated in the document by reference.

36.2.5 Types of Support Material Not Included in Appendix

The following is an example of the types of technical reports or memoranda which are **not to be included** in the Environmental Document, but are referenced in the Environmental Document and included in the project record.

1. ***Noise Study Report***

2. ***Natural Resource Evaluation***

3. ***Contamination Screening Evaluation Report***

4. ***Conceptual Stage Relocation Plan***

5. ***Preliminary Engineering Report***

6. ***Traffic Report*** or Technical Memorandum

7. ***Location Hydraulics Report***

36.2.6 Material Incorporated by Reference

Material contained under separate cover should be referenced in the Environmental Document. Reports and studies referred to in the Environmental Document must be readily available for public review at the District office. An exception to this is during the public availability period of the document, when the document and support documentation are placed in other locations for public availability ***(Part 1, Chapter 11, Public Involvement)***.

36.3 REFERENCE

40 CFR §1502.18, Appendix

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

36.4 HISTORY

1/12/2000, 8/26/2008, 9/19/2009