Environmental Handbook

Preparing an Environmental Assessment

This Handbook conveys TxDOT’s primary expectations on how an EA must be prepared and the appropriate level of content and analysis.
# Preparing an Environmental Assessment

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1.0 Introduction

The Texas Department of Transportation (TxDOT) relies on TxDOT districts and local governments to prepare environmental assessments (EAs) for transportation projects. Those entities, in turn, rely on consultants and other environmental practitioners to assist with this work. The purpose of this Handbook is to convey TxDOT’s primary expectations of how an EA must be prepared and the appropriate level of content and analysis, with the ultimate goal being a high level of consistency and quality and short review times.

The intended audiences of this Handbook are the districts and local governments who prepare EAs, and the consultants and other environmental practitioners who assist them. This Handbook covers the most important aspects of EA preparation. However, keep in mind that it is not possible to answer in a single guidance document every question and address every possible issue that may arise. Also, the information in this Handbook is not intended to revise or replace any statute, rule or Federal Highway Administration (FHWA) policy that may apply. Specifically, the National Environmental Policy Act (NEPA),\(^1\) the Council on Environmental Quality’s (CEQ’s) rules,\(^2\) FHWA’s environmental review rules,\(^3\) and TxDOT’s environmental review rules\(^4\) take precedence over this Handbook in the event of a conflict.

This Handbook applies to any project for which an EA will be prepared for TxDOT’s approval either under TxDOT’s environmental review rules, or under the NEPA assignment memorandum of understanding (MOU) with FHWA. Projects for which an EA is prepared under the NEPA assignment MOU are referred to throughout this Handbook as “FHWA projects.” This Handbook is not applicable to a project with a lead federal agency other than FHWA.

2.0 Purpose of an Environmental Assessment

The primary purpose of an EA is to help TxDOT determine whether or not an environmental impact statement (EIS) is needed. Therefore, an EA is prepared when a project cannot be processed as a categorical exclusion (CE) and does not clearly require the preparation of an EIS or when an EA would assist in determining the need for an EIS.\(^5\) The end result of an EA is either a finding of no significant impact (FONSI) or a recommendation that an EIS must be prepared.

3.0 Overview of TxDOT’s Process for Preparing an EA

The following is a broad overview of TxDOT’s process for developing an EA. This process is designed to comply with Transportation Code Chapter 201, Subchapter I-1, enacted in 2011. Subchapter I-1 established requirements for project scoping, administrative completeness review, technical review, and review deadlines for different categories of projects, among other requirements.

The concepts outlined below are further discussed in TxDOT’s rules implementing Subchapter I-1, which are codified at 43 TAC Chapter 2, Subchapter C, and in ENV’s Public Involvement and NEPA and Project Development toolkits.

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\(^1\) 42 USC 4321, et seq.
\(^2\) 40 CFR Parts 1500-1508
\(^3\) 23 CFR Part 771
\(^4\) 43 TAC Chapter 2
\(^5\) See 23 CFR 771.119(a)
3.1 Roles of Project Sponsor and Department Delegate

Every project has a “project sponsor” and a “department delegate.” The project sponsor is the entity responsible for preparing the EA and performing related tasks. Its responsibilities include performing all appropriate analyses, drafting the EA, preparing all required documentation, conducting public involvement, ensuring that any required coordination with resource agencies is completed, managing the project schedule, and ensuring the project file is sufficient and complete.

For most projects, the project sponsor is the TxDOT district in which the project is located. However, it is possible for some local governments to be designated as the project sponsor. The types of local governments who may be designated as the project sponsor are municipalities, counties, groups of adjoining counties, regional tollway authorities, regional mobility authorities, local government corporations, and transportation corporations. Private entities may not be project sponsors.

Each project also has a department delegate, which is the entity that approves the project scope (discussed below), performs various reviews of the EA and its component parts, and ultimately approves the EA on behalf of TxDOT. For EAs, the department delegate is TxDOT’s Environmental Affairs Division (ENV).

3.2 Scoping

Project environmental review work begins with scoping (note that this type of scoping is different from the scoping that is required at the commencement of an EIS under federal law). Scoping is a process in which the project sponsor and ENV agree on the project work plan. The work plan essentially consists of a schedule for the completion of the environmental review work and the tasks to be performed, including technical studies, coordination, and public involvement. Scoping is done in ECOS using the information entered into the WPD Section I – Project Definition and WPD Section II – Work Plan Development screens. The project scope or “work plan” is documented on the WPD Section III – Project Work Plan screen. For projects for which a local government is the official project sponsor, the work plan is documented using a paper scope form available on the NEPA and Project Development Toolkit.

3.3 Classification

FHWA’s rules, at 23 CFR 771.115(a), identify four project types that normally require an EIS: (1) a new controlled access freeway, (2) a highway project of four or more lanes on a new location, (3) construction or extension of a fixed transit facility that will not be located within an existing transportation right-of-way (ROW), and (4) new construction or extension of a separate roadway for buses or high occupancy vehicles not located within an existing highway facility. When an EA is proposed for a project that would normally require an EIS under this rule, the project sponsor must prepare a written justification for preparing an EA and ENV must formally concur that the project can proceed as an EA.

Additionally, for projects with local government project sponsors, the scoping process will include agreement on classification of the project as an EA.

3.4 Public Meeting(s)

Public meetings are intended to present information to, and/or solicit feedback from, the general public. The decision to hold a public meeting must be based on the project’s type, complexity, and level of public concern.
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There is no specific time frame for conducting public meetings, except that they are generally conducted prior to the public hearing/opportunity for public hearing phase discussed below.

For more information about these forms of public involvement and the respective documentation requirements, refer to ENV’s Environmental Handbook on Public Involvement.

3.5 Technical Reports

Technical reports are used to support information and conclusions contained in the body of the EA. They are intended to enhance the conciseness and readability of the EA. Detailed technical data or field survey findings are appropriate material for technical reports. Specific examples would include a traffic noise study, a cumulative impacts analysis, a historic resources survey, or a traffic analysis. Information about how to prepare technical reports for specific subject areas can be found in ENV’s Environmental Compliance Toolkits. For some subject areas, ENV’s Toolkits provide a specific format for a technical report (e.g., the Documentation Standard for a Hot-Spot Analysis Technical Report). The project sponsor and ENV shall discuss and agree on which subject areas will likely require separate technical reports during the scoping process. It is suggested that project sponsors submit technical reports to ENV for review as they are prepared, which must be prior to submittal of the draft EA to ENV.

3.6 Agency Coordination

Coordination with resource agencies such as the Texas Parks and Wildlife Department (TPWD) and the Texas Historical Commission (THC) may be required under TxDOT’s respective MOUs with those agencies, depending on project-specific facts. Under the department’s MOU with the Texas Commission on Environmental Quality (TCEQ), EAs are always coordinated with TCEQ by providing TCEQ with a notice of availability of the draft EA. The project sponsor emails the notice of availability to TCEQ at the following email address: NEPA@tceq.texas.gov. It may be appropriate to also coordinate the project with other resource agencies and governmental bodies, either because it is legally required (e.g., Section 7 consultation with the United States Fish and Wildlife Service (USFWS) under the Endangered Species Act), or because the entity has been identified as having an interest in the project in accordance with 43 TAC 2.83(c).

The project sponsor shall, at the earliest appropriate time, begin consultation with interested agencies and others to advise them of the scope of the project and to determine which aspects of the proposed action have potential for social, economic, or environmental impacts; identify alternatives and measures which might mitigate adverse environmental impacts; and identify other environmental review and consultation requirements which must be performed concurrently with the EA.⁶

In the scoping process for the project, the project sponsor and ENV must agree upon those agencies and governmental bodies for which coordination is appropriate, and how and when this coordination will be initiated.

3.7 Draft EA and Approval for Circulation

The draft EA is submitted to ENV for approval for circulation. The draft EA must include the required content as set forth in Section V of this Handbook, including a statement on the intent to hold a public hearing or to afford the opportunity for a public hearing. The draft EA will be approved for public

⁶ See 23 CFR 771.119(b), 43 TAC 2.83(c).
review after it is determined administratively complete and has been reviewed for readiness (i.e. technical review).

3.8 Notice of Availability and Public Hearing/Opportunity for Public Hearing

Once ENV approves the draft EA for public review, the project sponsor issues a notice of availability (NOA) and either schedules a public hearing or affords the opportunity for a public hearing. The NOA and the notice of public hearing or opportunity for a public hearing are usually combined into a single notice.

TxDOT’s requirements for issuing an NOA and noticing, conducting, and documenting a public hearing or affording an opportunity for public hearing, are set forth in ENV’s Environmental Handbook on Public Involvement. That Handbook also explains how to determine whether a public hearing or an opportunity for public hearing is needed.

Note that it is also possible that a hearing will be required under Transportation Code 203.021 (regarding projects that bypass a municipality or county), or Texas Parks and Wildlife Code Chapter 26 (regarding the taking of public land designated and used as a park, recreation area, wildlife refuge, historic site, or scientific area). A hearing held on a project under TxDOT’s environmental review process may also satisfy the hearing requirement in those statutes. If these circumstances exist, consultation with ENV is recommended to ensure that the hearing is properly noticed and held to satisfy both TxDOT’s environmental review rules and the respective statutory requirements.

3.9 Project File

The project sponsor will maintain the documentation showing work completed in the course of developing the EA, as directed by ENV. If the project sponsor is a local government, that local government will forward the project file to TxDOT, as directed by ENV, prior to approval of the final EA.

3.10 Final EA and FONSI

After the public hearing phase, the project sponsor must revise the EA as appropriate to address any public comments and reflect the status of any additional agency coordination. If the EA concludes that there will be no significant impacts on the environment, the project sponsor then prepares a written FONSI for ENV approval and issuance. Refer to Section VI of this Handbook for more information about preparation and issuance of a FONSI.

3.11 Section 139(l)

For an FHWA project, ENV will publish a Section 139(l) notice in the Federal Register. Section 139(l) refers to a federal statute, 23 USC 139(l), which sets a 150-day statute of limitations period on challenging the EA/FONSI in court, provided that a notice is properly published. Under the terms of TxDOT’s NEPA assignment MOU with FHWA, any Section 139(l) notice must undergo legal sufficiency review before publication.

4.0 EA Style and Length

According to FHWA guidance, an EA should generally be no longer than 15 pages in length (not including appendices). It has been TxDOT’s experience that, for most projects, it is not possible to cover all required content in 15 pages and an EA must never omit any important information for the sole purpose of producing a shorter document. However, FHWA’s target of 15 pages is a useful reference point and
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reminder that an EA must be written in a concise, straightforward, clear style. Repetitive descriptions of the project or other subjects must be avoided. For many of the individual subheadings in an EA, it may be appropriate to cover the respective issue in a paragraph or two.

The body of the EA must contain enough information so that the reader can understand the details of the project and the associated impacts on each affected resource. Any lengthy technical analysis or data display must be moved to separate technical reports. As explained in more detail below, the EA must contain a list of all technical reports prepared as part of the environmental review, and explain how and where the technical reports may be inspected and copied upon request (usually the TxDOT district or area office).

5.0 Required Content

Each EA must follow the outline set forth in the Environmental Assessment (EA) Outline (available on ENV's NEPA and Project Development Toolkit). Some preparers prefer to write the EA in a question-and-answer format. In such cases, the outline headings may be re-worded as questions, but the overall structure of the EA must match the outline set forth in Environmental Assessment (EA) Outline. Below is an overview of the required content for each section of the EA.

Cover Sheet

The cover sheet for the EA must be prepared using the Environmental Assessment (EA) Cover Page provided (available on ENV's NEPA and Project Development Toolkit). For an FHWA project, the cover sheet must contain the following language:

“The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 USC 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.”

Note that this language is included on the template cover page provided by ENV on the toolkit reference above. If the project does not involve FHWA funding or approval, this language must be removed from the cover sheet.

Table of Contents

The EA must have a table of contents.

List of Acronyms

The EA must have a list of acronyms used in the EA (e.g., FHWA, NEPA, etc.), with corresponding full names of the agencies, statutes, or phrases for which acronyms are used.

Introduction (EA Section 1.0)

This section of the EA must concisely state who is proposing to do what and where. Additionally, it must explain that the purpose of the EA is to study the potential environmental consequences of the proposed project and determine whether such consequences warrant preparation of an EIS. Explain whether the EA is prepared to comply with just TxDOT’s environmental review rules (for a state project), or whether it is prepared to comply with both TxDOT’s environmental review rules and NEPA (for an FHWA project). For the draft EA, explain that the EA will be made available for public review and that following the comment period TxDOT will consider any comments submitted. For the final EA, explain that the EA was made available for public review and that TxDOT considered any comments received (if any were
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submitted). For both the draft and final EA, explain that if TxDOT determines that there are no significant adverse effects, it will prepare and sign a FONSI, which will be made available to the public.

**Project Description (EA Section 2.0)**

This section of the EA must consist of two components: (1) Existing Facility and (2) Proposed Facility.

**Existing Facility (EA Section 2.1)**

Describe the existing facility that will be modified by the project. Include details such as the number of existing lanes, whether the roadway is divided, the width of existing lanes, the shoulder width, and the total ROW width. Include a description of any bicycle or pedestrian facilities, detention ponds or other facilities related to the roadway. Include references to a typical section drawing or drawings and photos of the existing facility, which must be included in Appendices B and D to the EA.

**Proposed Facility (EA Section 2.2)**

Describe the changes that will be made by the proposed project (i.e., the preferred alternative). Include the same types of details used to describe the existing facility (e.g., bicycle or pedestrian facilities, detention ponds, etc.). Identify the project limits and use distances from reference points, as applicable, to describe the project. Make sure that the project limits encompass the entire length of the project in which construction will take place. For linear projects (e.g., widenings and new location roadways), explain how the project limits were selected. For safety improvement projects, precisely state the project limits, which should be chosen to correspond to the area in which the safety improvement is needed. Do not select the nearest intersection, county road, county line, etc., unless such point is truly where the safety need ends. The same instruction applies to projects where capacity changes are proposed. If a road is being widened from two to four lanes, a logical terminus is where the lane width changes, not the nearest intersection, county road, or county line, etc.

Describe the logical termini for the proposed project. For an FHWA project only, the following introductory language must be included:

“Federal regulations require that federally funded transportation projects have logical termini. 23 CFR 771.111(f)(1). Simply stated, this means that a project must have rational beginning and end points. Those end points may not be created simply to avoid proper analysis of environmental impacts.”

For an FHWA or state project, state the proposed project limits and indicate why they were chosen (e.g., major traffic generation points, major crossroads, population center) and provide support (e.g., if these are major traffic generation points, cite the technical documentation such as traffic studies and ADT).

Explain how the proposed project has independent utility. For an FHWA project only, the following introductory language must be included:

“Federal regulations require that a project have independent utility and be a reasonable expenditure even if no other transportation improvements are made in the area. 23 CFR 771.111(f)(2). This means a project must be able to provide benefit by itself, and that the project not compel further expenditures to make the project useful. Stated another way, a project must be able to satisfy its purpose and need with no other projects being built.”

For an FHWA or state project, state why the proposed project can stand on its own without the implementation of other traffic improvements (e.g., the project provides congestion relief between two major traffic generation points by adding a lane in each direction, which satisfies the project's need, and this would be true even if no other roads were built nearby). Explain why the proposed project is not an irretrievable commitment of federal funds - this may be as simple as stating that, because the project...
stands alone, it cannot and does not irretrievably commit federal funds for other future transportation projects.

Finally, explain how the proposed project does not restrict consideration of alternatives. For an FHWA project only, the following introductory language must be included:

“Federal law prohibits a project from restricting consideration of alternatives for other reasonably foreseeable transportation improvements. 23 CFR 771.111(f)(3). This means that a project must not dictate or restrict any future roadway alternatives.”

For an FHWA or state project, state why the proposed project would not restrict the consideration of alternatives for other foreseeable transportation improvements.

Include references to a project map or maps, schematics showing the proposed facility, and a typical section drawing or drawings, all of which must be included in Appendices A, C and D to the EA. Include the estimated total project cost and expected sources of funding.

Also explain how the project is consistent with applicable transportation plans and programs (e.g., the metropolitan transportation plan and the state-wide transportation improvement program). Specifically identify the plan and program that list the project and reference excerpts from the plan and program, which must be provided in Appendix E to the EA.

Purpose and Need (EA Section 3.0)

This section of the EA must consist of three components: 3.1 Need, 3.2 Supporting Facts and/or Data, and 3.3 Purpose. TxDOT’s requirements for preparing each of these three components are set forth in ENV’s Guidance on Preparing a Purpose and Need Statement.

Alternatives (EA Section 4.0)

This section of the EA must consist of three components: (1) Build Alternative(s), (2) No-Build Alternative, and (3) Preliminary Alternatives Considered but Eliminated from Further Consideration, each of which is discussed separately below.

Build Alternative(s) (EA Section 4.1)

In a sentence or two, explain how the build alternative described in Section 2.2 of the EA is expected to meet the purpose and need for the project.

For most EAs, there will be only one build alternative. However, for controversial or complex projects, or if more than one reasonable and feasible build alternative has been identified, then the EA should evaluate more than one build alternative. If more than one build alternative is evaluated, then describe each build alternative using the same level of detail.

If more than one build alternative is identified, it is permissible to select a single build alternative as the preferred alternative, subject to public review and comment. If this is the case, explain why the preferred alternative was selected. This explanation may be based on a variety of factors. Each build alternative discussed in this section will be evaluated throughout the EA using the same level of detail, however, the preferred alternative may be developed to a higher level of detail to (1) facilitate the development of mitigation measures or (2) facilitate concurrent compliance with other applicable laws.7 If more than one build alternative will be evaluated throughout the EA, but one of them is preferred and developed to a higher level of detail, the EA must explain that the preferred alternative is being developed to a higher level of detail.

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level of detail to (1) facilitate the development of mitigation measures or (2) facilitate concurrent compliance with other applicable laws, but that the development of such higher level of detail will not prevent TxDOT from making an impartial decision as to whether to accept another build alternative that is being considered in the EA.

No-Build Alternative (EA Section 4.2)

The EA must also identify and evaluate the no-build alternative. Explain the expected consequences of the no-build alternative. This will normally include an explanation of how the purpose and need would not be met by the no-build alternative, and a statement that the build alternative is, therefore, the preferred alternative. Explain that the no-build alternative is evaluated throughout the EA for comparison purposes.

Preliminary Alternatives Considered but Eliminated from Further Consideration (EA Section 4.3)

The EA must briefly describe any alternatives to the preferred alternative that were considered or proposed, but eliminated from further consideration. For example, if a different alignment or lane configuration would have lesser environmental impacts, but is infeasible or unreasonable for some reason, the rejected alignment or configuration and its reason(s) for rejection must be briefly described in this section. Rejected alternatives are not further evaluated in the EA.

Affected Environment and Environmental Consequences (EA Section 5.0)

Section 5 may be considered the “meat” of the EA. For each project alternative being considered, including the no-build alternative, this section of the EA must discuss any social, economic, and environmental impacts.

Begin Section 5 by describing in a bulleted list all technical reports that were prepared, as follows:

“In support of this EA, the following technical reports were prepared:

- Air Quality Technical Report
- Traffic Noise Technical Report

Explain how and where the technical reports may be inspected and copied upon request (usually the TxDOT district or area office). As explained earlier, any in-depth technical analysis of any subject area must be documented in a separate technical report, not in the body of the EA. If a technical report is prepared, the discussion in the EA must refer to the report and summarize its findings, rather than repeating any lengthy technical analysis.

For each resource category addressed in a separate subsection under Section 5 (e.g., “Section 5.3, Farmlands,” “Section 5.7, Visual/Aesthetic Impacts,” etc.), address the following topics:

- Environmental consequences – Describe the impact of the project on the important features of the natural or human environment relevant to the respective resource category. In other words, describe how the features are expected to change as a result of the project. Include only reasonably foreseeable consequences. Extremely unlikely consequences need not be included.

- Encroachment-alteration effects – Describe any encroachment-alteration effects of the project relevant to the respective resource category. Encroachment-alteration effects are changes in the environment that occur as a result of the project but are removed in time or distance from the direct effects. For more information about encroachment-alteration effects, see ENV’s Indirect Impacts Analysis Guidance.

Because the phrase, “encroachment-alteration effects” is a technical term that may be confusing to the public, it is generally preferable to describe such effects in layperson’s terms, or as “indirect
effects,” rather than as “encroachment-alteration effects.” Again, include only those encroachment-alteration effects that are reasonably foreseeable.

If no encroachment-alteration effects are anticipated with respect to a particular resource category, then there is no need to discuss encroachment-alteration effects under that resource category. However, if no encroachment-alteration effects are identified for any of the resource categories covered by the EA, then include a short negative declaration regarding encroachment-alteration effects for the entire project under Section 5.0, Affected Environment and Environmental Consequences, prior to the start of the individual resource category headings.

- Mitigation – Describe any avoidance, minimization, or compensatory mitigation features or mitigations that are proposed for the project.

- Compliance with applicable laws and Executive Orders -- Reference and document compliance with any applicable laws or Executive Orders relevant to the respective resource category. Documenting compliance includes discussing permits and/or outstanding studies that may be needed, however due to the lack of final design or right-of-entry; those issues require resolution after a NEPA decision has occurred. In order to properly document compliance with such requirements, the EA must identify the specific actions that have to occur prior to construction and explain that construction will not begin until those actions are completed.

If the issue is of a type that is normally addressed prior to NEPA approval, but cannot be for some reason, the EA must provide “reasonable assurance” that the applicable requirements can be met. This may be based on prior experience with similar projects or any other pertinent information.

It is not necessary to separately label or delineate “environmental consequences,” “encroachment-alteration effects,” “mitigation,” and “compliance with applicable laws and Executive Orders” under each resource category subheading, so long as any information relevant to each topic is adequately conveyed in the text under each resource category. Also, these four topics must be addressed in a level of detail appropriate to the magnitude of the respective impact. For resource categories for which there are only relatively minor impacts, these topics may be covered in a paragraph or two, total.

For resource categories for which the preparer determined through scoping that the project would have no impact, state the following under the respective resource category subheading:

“Based on a project scoping analysis, it was determined that neither the build nor the no-build alternative would have an impact on this resource category or subject matter.”

It is important to use this language only for those resource categories for which there truly is no impact and no need for further environmental compliance actions (e.g., permitting or coordination with resource agencies). If there is a potential for some impact or need for further environmental compliance actions, the issue or resource category must instead be addressed as described above.

Below is a brief overview of each resource category that must be addressed in Section 5. For each resource category, remember to address each alternative that is being considered, including the no-build alternative. Keep in mind that it is possible for the no-build alternative to have an impact as compared to the build alternative in the sense that it will allow an existing situation to continue unmitigated.

**Right-of-Way/Displacements (EA Section 5.1)**

This section of the EA must identify the acreage and location of any additional ROW or easements that would be needed, with references to schematics included in Appendix C to the EA. This section of the EA must also identify any households, businesses, or other activities or developments that
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would be potentially displaced subject to final design considerations. Explain that relocation assistance will be provided. For FHWA projects, explain that ROW acquisition and relocation would be conducted in accordance with the Federal Uniform Relocation and Real Property Acquisition Policies Act of 1970 (Uniform Act).

If ROW was acquired for the project in advance of the FONSI, disclose the advance acquisition, and explain that it did not influence the environmental review or selection of alternatives.

**Land Use (EA Section 5.2)**

This section of the EA must describe the impacts on land use. For example, characterize the existing land use in the area (e.g., residential, commercial, industrial, vacant, etc.), and explain whether and how such use is expected to change as a result of the project (e.g., conversion from existing land use to highway ROW). Note that any induced growth impacts are addressed not in this section, but in Section 5.15, Induced Growth, as discussed below.

**Farmlands (EA Section 5.3)**

This section of the EA must describe the impacts to farmlands. For an FHWA project, explain how the project complies with the Federal Farmland Protection Policy Act of 1981 (FPPA), including the results of any Farmland Conservation Impact Rating analysis and coordination with the Natural Resources Conservation Service. For more information on complying with the FPPA, refer to ENV’s Environmental Handbook on the Farmland Protection Policy Act.

**Utilities/Emergency Services (EA Section 5.4)**

This section of the EA must explain whether any underground or overhead utilities would need to be relocated. If it is unknown whether utilities would need to be relocated, explain that utilities may need to be relocated, that the location of utilities would be determined at the detailed design phase, and that coordination with utility owners would take place at that time.

Note that when displaced utilities are relocated within TxDOT ROW, the relocation of those utilities is included as part of the transportation project for purposes of environmental review. However, when displaced utilities are relocated outside of TxDOT ROW, the relocation of those utilities is not included as part of the transportation project for purposes of environmental review. Therefore, only include in the EA impacts resulting from the relocation of utilities if relocation within TxDOT ROW is reasonably foreseeable when the EA is prepared. The removal of utilities from their current location within the ROW is always addressed as part of the EA.

This section of the EA must also explain the effects, if any, on the provision of emergency services in the area. For example, identify any local fire or police stations and hospitals and explain whether and how vehicles travelling to and from those locations would be affected.

**Bicycle and Pedestrian Facilities (EA Section 5.5)**

This section of the EA must describe the impacts on bicycle and pedestrian facilities, and explain whether the project would accommodate bicyclists and pedestrians. Explain whether the project will comply with TxDOT’s policy for bicycle and pedestrian accommodation, and for FHWA projects, the U.S. Department of Transportation Policy Statement on Bicycle and Pedestrian Accommodation (March 11, 2010). For more information on these policies, refer to ENV’s Environmental Handbook on Bicycle and Pedestrian Accommodation.
**Community Impacts (EA Section 5.6)**

This section of the EA must describe the impacts on local and regional economies, access, travel, traffic patterns, neighborhood connectivity or cohesion, and any other socioeconomic impacts on the local community. For more information on how to identify and address community impacts, refer to ENV’s *Environmental Handbook on Community Impacts, Environmental Justice, Limited English Proficiency and Title VI Compliance*.

**Environmental Justice (EA Section 5.6.1)**

This section of the EA must identify and assess impacts on any minority or low-income populations or concentrations of the elderly, children, or persons with disabilities affected by the project, in compliance with FHWA’s Title VI program and Executive Order 12898. For more information on how to identify and address impacts on these populations, refer to ENV’s *Environmental Handbook on Community Impacts, Environmental Justice, Limited English Proficiency and Title VI Compliance*.

**Limited English Proficiency (EA Section 5.6.2)**

This section of the EA must identify any limited English proficiency (LEP) populations and explain accommodations made for communication in language(s) other than English, in compliance with Executive Order 13166. For more information on how to address LEP populations, refer to ENV’s *Environmental Handbook on Community Impacts, Environmental Justice, Limited English Proficiency and Title VI Compliance*.

**Visual/Aesthetic Impacts (EA Section 5.7)**

This section of the EA must describe visual or aesthetic project impacts. For projects with grade separation or other vertical structures, describe how the project would affect sight lines in the area, including any views that would be blocked. Include a description of any lighting that will be installed, if known, and how it may change the aesthetics of the area. Also describe any existing landscaping, decorative, or other features that may be impacted, and describe aesthetic treatments that would be included with the project to address the aesthetics of the area.

**Cultural Resources (EA Section 5.8)**

This section of the EA must explain that evaluation of impacts to cultural resources has been conducted in accordance with TxDOT’s Memorandum of Understanding (MOU) with the THC or the Programmatic Agreement among FHWA, TxDOT, the Texas State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings, depending on whether the project is a state or FHWA project. It must consist of two subsections: (1) Archeology and (2) Historic Properties. For FHWA projects, these sections must specifically reference evaluation of project impacts under Section 106 of the National Historic Preservation Act (NHPA).

**Archeology (EA Section 5.8.1)**

ENV maintains a List of Projects that Do Not Require Review or Coordination for Archeological Compliance. If the project is of a type included on that list, then refer to the list and explain that the project is of a type that has been determined to have no potential to cause effects to archeological sites. If the project is of a type that is not included on that list, then it will be necessary for ENV’s Cultural Resources Management (ENV-CRM) staff to determine what level of review and coordination is required.
This section of the EA must summarize any archaeological review that was performed, the results of any such review, and any anticipated impacts to archaeological resources. For example, if ENV-CRM makes a finding of no effect on archaeological historic properties, then the EA must reference that finding and date that it was made. Also, summarize any coordination with the SHPO/THC, federally-recognized Indian tribes and other entities, including any consultation under Section 106 of the NHPA or the Texas Antiquities Code. For information regarding review of impacts to archaeological sites, refer to ENV’s Environmental Handbook on Archeological Sites and Cemeteries. Additionally, address any impact on cemeteries, which are discussed in the same ENV handbook.

**Historic Properties (EA Section 5.8.2)**

ENV also maintains a guidance document on Undertakings with no potential to cause effects on Non-Archeological Historic Properties. However, because the project types listed in that guidance are ones that normally qualify as categorical exclusions, it would be unusual for an EA project to be of a type on this list. Therefore, it is normally necessary for the project sponsor to prepare a Project Coordination Request for Historical Studies and submit it to ENV-CRM staff for review.

This section of the EA must summarize any review performed for impacts to historically significant non-archaeological resources, such as structures listed or eligible for listing on the National Register of Historic Places and designated as Recorded Texas Historic Landmarks, the results of any such review, and any impacts to historically significant non-archaeological resources. For example, if ENV-CRM makes a finding of no effect on non-archaeological historically significant resources, then the EA must reference that finding and the date that it was made. Also, summarize any coordination with the SHPO/THC and other entities, including any consultation under Section 106 of the NHPA or the Texas Antiquities Code. For information regarding review of impacts to non-archaeological historically significant resources, refer to ENV’s Environmental Handbook for Historic Properties.

**DOT Act Sect. 4(f), LWCF Act Sect. 6(f), and PWC Chapter 26 (EA Section 5.9)**

For an FHWA project, this section of the EA must explain whether the project will use any lands protected by Section 4(f) of the U.S. Department of Transportation Act (DOT), Section 6(f) of the Land and Water Conservation Fund (LWCF) Act or, Parks and Wildlife Code (PWC) Chapter 26.

Section 4(f) protects publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state or local significance, and any land from an historic site of national, state, or local significance. For information regarding Section 4(f), refer to ENV’s Environmental Handbook for U.S. Department of Transportation Act: Section 4(f). The procedures set forth in that Handbook for preparing a Section 4(f) determination must be followed.

Section 6(f) protects parks and recreation areas improved by Land and Water Conservation Funds. For more information regarding Section 6(f), refer to ENV’s Environmental Handbook for Section 6(f) Land and Water Conservation Fund Act Compliance. The procedures set forth in that Handbook for preparing a Section 6(f) determination must be followed.

If it was determined in scoping that no Section 4(f)/Section 6(f) resources are present within the project area, then this subheading must include the following affirmative statement:

“There are no Section 4(f) or Section 6(f) properties present in the project area.”

If there are Section 4(f) or Section 6(f) properties present in the project area, then additional analyses must be performed and determinations made before the project may proceed, as explained in ENV’s Section 4(f) and Section 6(f) handbooks cited above. Such analyses and determinations must be documented in the EA. While it is permissible to document the details of the analyses in a referenced
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technical report or checklist, this section of the EA must set forth the key determinations required by statute and rule.

Unlike technical reports on other subjects, any technical report, checklist, coordination exchanges or other documentation demonstrating compliance with Section 4(f) must be included as Appendix H to the EA. Also, any individual Section 4(f) determination (excluding programmatic and de minimis) must undergo legal sufficiency review by an attorney in TxDOT’s General Counsel Division before being finalized.

Texas state law contains a statute that is analogous to Section 4(f), Chapter 26 of the Parks and Wildlife Code. Chapter 26 applies to any project that requires the use or taking of any public land designated and used prior to the arrangement of the project as a park, recreation area, scientific area, wildlife refuge, or historic site. There are several differences between Section 4(f) and Chapter 26, as explained in ENV’s Environmental Handbook on Parks and Wildlife Code Chapter 26. If Chapter 26 applies to a project, this section of the EA must also document the procedures followed to comply with Chapter 26, including when and how a Chapter 26 hearing was held, and documentation of the determinations required by the statute.

**Water Resources (EA Section 5.10)**

This section of the EA must identify any wetlands, surface water or groundwater resources within the project limits, or outside the project limits but with a potential to be affected by the project, including which water resources qualify as “waters of the United States” under the federal Clean Water Act. Describe how the project will affect any water resources identified.

Explain project features and best management practices (BMPs) that will be incorporated to minimize impacts to any wetlands, surface water or groundwater resources.

Compliance with specific water-related laws must be addressed in the separate subsections detailed below.

**Clean Water Act Section 404 (EA Section 5.10.1)**

This section of the EA must explain whether the project will require a “dredge and fill” permit under Section 404 of the federal Clean Water Act. If a Section 404 permit will be required, include the type(s) of waters of the U.S., a quantification of impacts, the type of permit that would be needed, the results of any coordination with the United States Army Corps of Engineers (USACE), the status of permit(s), and anticipated or known mitigation requirements and plan for compliance, if applicable.

If the project will require an individual permit under Section 404, this section of the EA must also demonstrate compliance with EPA’s Section 404(b)(1) Guidelines, which are codified at 40 CFR Part 230. These guidelines allow the discharge of dredged or fill material only if there is no practicable alternative that would have less adverse effects on the aquatic ecosystem. An alternative is practicable if it is “available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.” The Guidelines allow for rejection of alternatives that may be practicable, but that have other significant adverse environmental consequences. Discuss whether there is any practicable alternative to the impact(s) being proposed.

Compliance with Section 14 of the Rivers and Harbors Act (commonly referred to as Section 408 because it is codified in USC Title 33, Chapter 9, Subchapter I, Section 408) applies to any TxDOT...

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8 40 CFR 230.10(a)(2)
9 40 CFR 220.10(a)
activity that involves alterations to, or temporarily or permanently occupies or uses, any USACE federally authorized civil works project (e.g., sea walls, bulkheads, reservoirs, levees, wharfs, or other federal civil works projects, or associated federal land [fee simple] or easements). If Section 408 applies to the project, state that compliance with Section 408 will be confirmed prior to construction of the project.

Clean Water Act Section 401 (EA Section 5.10.2)

If the project will require a permit from the USACE under Section 404 of the federal Clean Water Act or Section 10 of the Rivers and Harbors Act, or a permit from the U.S. Coast Guard under the General Bridge Act/Section 9 of the Rivers and Harbors Act, then the project must also comply with TCEQ's Water Quality Certification Program, established under Section 401 of the federal Clean Water Act. The purpose of this program is for TCEQ to determine that a proposed discharge will comply with state water quality standards. This section of the EA must explain how the project will comply with TCEQ's Water Quality Certification requirements, either by confirming the use of BMPs required by TCEQ for Tier I projects, by submitting a Tier II Certification Questionnaire and Alternative Analysis Checklist, or by confirming compliance with conditions set by TCEQ for projects authorized by certain nationwide permits.

Specifically list any BMPs that will be used to comply with TCEQ's Water Quality Certification requirements, if known.

Executive Order 11990 Wetlands (EA Section 5.10.3)

For an FHWA project, this section of the EA must explain how the project complies with Executive Order 11990, Protection of Wetlands. Executive Order 11990 prohibits new construction in wetlands unless (1) there is no practicable alternative to such construction, and (2) the project includes all practicable measures to minimize harm to wetlands. The EA must affirmatively make each of these determinations and provide reasoned justification for each. For the first determination, the EA may refer back to the explanation provided for the Section 404(b)(1) Guidelines. Note that, in making both determinations, economic, environmental and other pertinent factors may be taken into consideration.

For a state project, simply state that this Executive Order 11990 does not apply.

Rivers and Harbors Act (EA Section 5.10.4)

This section of the EA must explain whether the project will require a permit, navigational lighting authorization, or exemption from the United States Coast Guard under Section 9 of the Rivers and Harbors Act, which outlines the requirements for approval to construct dams, dikes, bridges, or causeways in or over a navigable waterway. This section of the EA must also explain whether the project will require a permit from the USACE under Section 10 of the Rivers and Harbors Act, which outlines the requirements for approval to construct smaller structures in a navigable waterway. If a Section 9 or Section 10 permit will be required, identify the specific impact or impacts that will require authorization. Also, explain the specific type of permit, the status of that permit, the results of any coordination with the USCG or USACE thus far and any resulting commitments, and coordination/documentation requirements anticipated.

Clean Water Act Section 303(d) (EA Section 5.10.5)

This section of the EA must explain whether the project is located within five linear miles (not stream miles) of, is within the watershed of, and drains to, an impaired assessment unit under Section 303(d) of the federal Clean Water Act (include a reference to the date of the Section 303(d) list consulted). If not, there is no further discussion needed in this section of the EA. If so, this section of the EA must
include the table below with the information filled-in for any impaired assessment units within five miles of the project and within the same watershed as the project:

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Additionally, if the project is located within five miles and within the same watershed of an impaired assessment unit, include the following statement:

“To date, TCEQ has not identified (through either a total maximum daily load (TMDL) or the review of projects under the TCEQ MOU) a need to implement control measures beyond those required by the construction general permit (CGP) on road construction projects. Therefore, compliance with the project’s CGP, along with coordination under the TCEQ MOU for certain transportation projects, collectively meets the need to address impaired waters during the environmental review process. As required by the CGP, the project and associated activities will be implemented, operated, and maintained using best management practices to control the discharge of pollutants from the project site.”

Clean Water Act Section 402 (EA Section 5.10.6)

Section 402 of the Clean Water Act sets forth the National Pollutant Discharge Elimination System (NPDES) program, which, in Texas, is administered by TCEQ under the Texas Pollutant Discharge Elimination System (TPDES) program. TCEQ has issued a TPDES General Permit for Construction Storm Water Discharges.

This section of the EA must consist of the following statement:

“Since TPDES Construction General Permit (CGP) authorization and compliance (and the associated documentation) occur outside of the environmental clearance process, compliance is ensured by the policies and procedures that govern the design and construction phases of the project. The Project Development Process Manual and the Plans, Specifications, and Estimates (PS&E) Preparation Manual require a storm water pollution prevention plan (SWP3) be included in the plans of all projects that disturb one or more acres. The Construction Contract Administration Manual requires that the appropriate CGP authorization documents (notice of intent or site notice) be completed, posted, and submitted, when required by the CGP, to TCEQ and the municipal separate storm sewer system (MS4) operator. It also requires that projects be inspected to ensure compliance with the CGP.

The PS&E Preparation Manual requires that all projects include Standard Specification Item 506 (Temporary Erosion, Sedimentation, and Environmental Controls), and the “Required Specification Checklists” require Special Provision 506-003 on all projects that need authorization under the CGP. These documents require the project contractor to comply with the CGP and SWP3, and to complete the appropriate authorization documents.”

Floodplains (EA Section 5.10.7)
State whether the project would occur within a floodplain. If specific location studies are available, summarize the specific location studies. Additionally, if the project is federally funded, include the following statement:

“This project is subject to and will comply with federal Executive Order 11988 on Floodplain Management. The department implements this Executive Order on a programmatic basis through its Hydraulic Design Manual. Design of this project will be conducted in accordance with the department’s Hydraulic Design Manual. Adherence to the TxDOT Hydraulic Design Manual ensures that this project will not result in a “significant encroachment” as defined by FHWA’s rules implementing Executive Order 11988 at 23 CFR 650.105(q).”

If the project is not federally funded, include the following statement:

“This project is not subject to Executive Order 11988 because it is not a federally funded undertaking. Design will be conducted in accordance with the department’s Hydraulic Design Manual.”

Wild and Scenic Rivers (EA Section 5.10.8)

Texas has just one river segment that is designated as wild or scenic under the federal Wild and Scenic Rivers Act. It is the segment of the Rio Grande on the U.S. side of the river, from river mile 842.3 above Mariscal Canyon, downstream to river mile 651.1 at the Terrell-Val Verde County line. For any project that will potentially impact this segment of the Rio Grande, this section of the EA must explain how the project will comply with the Wild and Scenic Rivers Act.

Coastal Barrier Resources (EA Section 5.10.9)

If the project is an FHWA project, and will take place in whole or in part within Jefferson, Chambers, Galveston, Brazoria, Matagorda, Calhoun, Aransas, Nueces, Kleberg, Kenedy, Willacy or Cameron County, then this section of the EA must demonstrate compliance with the federal Coastal Barrier Resources Act of 1982 (CBRA).

The CBRA was enacted in 1982 to discourage development in certain coastal areas that are vulnerable to hurricane damage and that are host to valuable natural resources. The act designated certain undeveloped coastal areas as part of the Coastal Barrier Resources System (CBRS), and made those areas ineligible for most new federal expenditures and financial assistance. There are, however, two types of exceptions that may allow an FHWA maintenance, replacement, reconstruction, or repair project to proceed even within the CBRS. They are the “essential link exception,” and the “CBRA consistent exception.” Coordination with USFWS is required prior to determining that a project is covered by one of these exceptions. This section of the EA must refer to the written coordination exchanges, which must be included in Appendix G to the EA. For more information about determining and demonstrating compliance with the CBRA, refer to ENV’s Environmental Handbook on Coastal Barrier Resources Act.

Coastal Zone Management (EA Section 5.10.10)

If the project is within the Texas Coastal Management Program (CMP) coastal zone management boundary, 31 TAC 505.30 requires one of two consistency determinations, as identified below. The appropriate finding statement and any resulting commitments must be included in the EA.

If the project is located within the Texas CMP coastal zone management boundary but would avoid and not have a direct and significant adverse effect on a coastal natural resource area (CNRA), the following finding statement must be included in the EA:
“The Texas Department of Transportation reviewed this proposed action for consistency with the Texas Coastal Management Program (Texas CMP) goals and policies in accordance with the regulations of the Coastal Coordination Advisory Council and determined that the proposed action will not have a direct and significant adverse effect on the coastal natural resource areas (CNRAs) identified in the applicable policies (31 TAC 505.30(b)(2)).”

If the project is located within the Texas CMP coastal zone management boundary and would have a direct and significant adverse effect on a CNRA, but the project is otherwise consistent with Texas CMP goals and policies, the following finding statement must be included in the EA:

“The Texas Department of Transportation reviewed this proposed action for consistency with the Texas Coastal Management Program (Texas CMP) goals and policies in accordance with the regulations of the Coastal Coordination Advisory Council and determined that the proposed action is consistent with the applicable CMP goals and policies (31 TAC 501.31(a)(1)).”

If the project is located within one of the counties occupied by a portion of the area covered by the Texas Coastal Management Program, but is not actually within the boundaries of the area covered by the Texas Coastal Management Program, then include an explanation to that effect in this section of the EA.

Edwards Aquifer (EA Section 5.10.11)

If the project will be constructed over the recharge or contributing zones of the Edwards Aquifer (which are located in portions of Medina, Bexar, Comal, Kinney, Uvalde, Hays, Travis and Williamson Counties), then this section of the EA must explain whether the project is subject to regulation under TCEQ’s Edwards Aquifer rules. If subject to the rules, include an explanation of whether the project is subject to the rules governing the recharge zone,\(^{10}\) the rules governing the contributing zone,\(^{11}\) or both. Also, include a discussion of the primary actions that will be taken to comply with the Edwards Aquifer rules, such as preparation of a water pollution abatement plan or contributing zone plan, as applicable. If the project is in one of the counties listed above, but does not require authorization under TCEQ’s Edwards Aquifer rules, explain why authorization is not required.

If the project is located in the recharge, transition, or contributing zones of the Edwards Aquifer, in accordance with the TCEQ MOU, provide the location of the project within the Edwards Aquifer, and include a statement that the project and associated activities undertaken by TxDOT are to be implemented, operated, and maintained in a manner that complies with the Edwards Aquifer rules and any applicable TCEQ guidance documents in effect to implement the rules.

For FHWA projects, explain whether coordination with EPA Region 6 is triggered under the Memorandum of Understanding between the Environmental Protection Agency Region 6 and the Texas Department of Transportation Regarding EPA’s Review of Projects Potentially Affecting the Edwards Aquifer. If so, explain that EPA Region 6 will be (draft EA) or was (final EA) provided with the notice of availability of the draft EA and an electronic copy of the draft EA as required by that MOU.

International Boundary and Water Commission (EA Section 5.10.12)

A license is required from the United States Section of the International Boundary and Water Commission (USIBWC) for any proposed activities crossing or encroaching upon the floodplains of

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\(^{10}\) 30 TAC Chapter 213, Subchapter A

\(^{11}\) 30 TAC Chapter 213, Subchapter B
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USIBWC flood control projects or right-of-way. If the project will require a license from the USIBWC, this section must explain why such a license is needed, and confirm that the project will not proceed without obtaining such license.

**Drinking Water Systems (EA Section 5.10.13)**

This section of the EA must consist of the following statement:

“In accordance with TxDOT’s Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges (Item 103, Disposal of Wells), any drinking water wells would need to be properly removed and disposed of during construction of the project.”

**Biological Resources (EA Section 5.11)**

This section of the EA must address potential impacts to biological resources under the various subheadings below. Include references to any separate technical reports regarding biological resources.

**Texas Parks and Wildlife Coordination (EA Section 5.11.1)**

This section of the EA must explain whether coordination with TPWD was required under the TxDOT-TPWD MOU, and if so, reference the written coordination exchanges, which must be included in Appendix G to the EA.

**Impacts to Vegetation (EA Section 5.11.2)**

This section of the EA must describe project impacts to vegetation, and any BMPs or mitigation strategies that will be used to avoid or minimize impacts to trees, shrubs and other vegetation. Include descriptions of any unusual vegetation features or special habitat features identified during field investigations, and any noteworthy trees that will be removed or trimmed as part of the project.

**Executive Order 13112 on Invasive Species (EA Section 5.11.3)**

If the project is an FHWA project, this section of the EA must consist of the following statement:

“This project is subject to and will comply with federal Executive Order 13112 on Invasive Species. The department implements this Executive Order on a programmatic basis through its Roadside Vegetation Management Manual and Landscape and Aesthetics Design Manual.”

If the project is not an FHWA project, this section of the EA must consist of the following statement:

“This project is not subject to Executive Order 13112 because it is not a federally funded undertaking. Landscaping will be conducted in accordance with the department’s Roadside Vegetation Management Manual and Landscape and Aesthetics Design Manual.”

**Executive Memorandum on Environmentally and Economically Beneficial Landscaping (EA Section 5.11.4)**

If the project is an FHWA project, this section of the EA must consist of the following statement:

“This project is subject to and will comply with the federal Executive Memorandum on Environmentally and Economically Beneficial Landscaping, effective April 26, 1994. The department implements this Executive Memorandum on a programmatic basis through its Roadside Vegetation Management Manual and Landscape and Aesthetics Design Manual.”

If the project is not an FHWA project, this section of the EA must consist of the following statement:
“This project is not subject to this Executive Memorandum because it is not a federally funded undertaking. Landscaping will be conducted in accordance with the department’s Roadside Vegetation Management Manual and Landscape and Aesthetics Design Manual.”

Impacts to Wildlife (EA Section 5.11.5)

This section of the EA must identify wildlife species typical to the project area, and explain any sightings made during any field investigations. Describe any habitat noted during field investigations as being particularly suitable for any specific wildlife species or group of species. Describe project impacts to wildlife or habitat, and any BMPs or mitigation strategies that will be used to avoid or minimize impacts to wildlife and habitat.

Migratory Bird Protections (EA Section 5.11.6)

This section of the EA must consist of the following statement:

“This project will comply with applicable provisions of the Migratory Bird Treaty Act (MBTA) and Texas Parks and Wildlife Code Title 5, Subtitle B, Chapter 64, Birds. It is the department’s policy to avoid removal and destruction of active bird nests except through federal or state approved options. In addition it is the department’s policy to, where appropriate and practicable:

- use measures to prevent or discourage birds from building nests on man-made structures within portions of the project area planned for construction, and
- schedule construction activities outside the typical nesting season.”

For more information, refer to ENV’s Environmental Handbook on Ecological Resources and ENV’s Guidance: Complying with Laws Protecting Birds and Managing Potential Violations.

Fish and Wildlife Coordination Act (EA Section 5.11.7)

If the project is an FHWA project, and may require an individual permit issued by the USACE, then this section of the EA must include a statement acknowledging the Fish and Wildlife Coordination Act and explaining how the project will comply with the act. If applicable, include references to coordination with USFWS, NMFS, and TPWD in the document.

If the project is not an FHWA project, or would not require an individual permit issued by the USACE, then this section of the EA must include a statement(s) to that effect.

For more information, refer to ENV’s Environmental Handbook on Ecological Resources.

Bald and Golden Eagle Protection Act of 2007 (EA Section 5.11.8)

This section of the EA must include a statement acknowledging the Bald and Golden Eagle Protection Act of 2007 (BGEPA) and explaining whether or not the project is within the range and suitable habitat for Bald or Golden Eagles. If the project is within the range and suitable habitat for Bald or Golden Eagles but will not result in an incidental taking, the environmental document must include a statement that the project will comply with the National Bald Eagle Management Guidelines of 2007. If the project will result in the incidental taking of Bald or Golden Eagles, the environmental document must include an assessment of impacts as outlined in the Non-Purposeful Take Permit. Additionally, the document must reference coordination with USFWS and TPWD if applicable.

For more information, refer to ENV’s Environmental Handbook on Ecological Resources.

Magnuson-Stevens Fishery Conservation Management Act (EA Section 5.11.9)

If the project is an FHWA project, and is located in a coastal county, then this section of the EA must include a statement acknowledging the Magnuson-Stevens Fishery Conservation Management Act.
noting that the project is within a county with tidally-influenced waters. The statement also must explain whether or not essential fish habitat (EFH) is in the vicinity of the project and if the EFH will or will not be affected or adversely affected by the project and include justification for effect determinations. For projects that will affect or adversely affect EFH, the document must reference the EFH assessment and summarize coordination results with the National Marine Fisheries Service (NMFS), if applicable.

If the project is not an FHWA project or not located in a coastal county, then this section of the EA must include a statement to that effect.

For more information, refer to ENV’s Environmental Handbook on Ecological Resources.

**Marine Mammal Protection Act (EA Section 5.11.10)**

If the project will have the potential to affect marine mammals, then this section of the EA must include a statement acknowledging the Marine Mammal Protection Act and a detailed assessment of the action in relation to marine mammals and their habitat. If conducted, the document must reference and/or summarize coordination with NMFS and/or USFWS.

If the project will not have the potential to affect marine mammals, then this section of the EA must include a statement to that effect.

For more information, refer to ENV’s Environmental Handbook on Ecological Resources.

**Threatened, Endangered, and Candidate Species (EA Section 5.11.11)**

This section of the EA must identify and discuss any state- or federally-listed threatened, endangered or candidate plant or animal species that may be affected by the project. For any such species, explain how the project is likely to affect the species, and whether any “take” of a listed species will occur (note that the federal Endangered Species Act and Texas law applicable to state-listed species define “take” differently). Also, explain whether the project would impact critical habitat for any federally listed threatened or endangered species as designated by USFWS. Describe any BMPs or mitigation strategies that will be used to avoid or minimize impacts to any listed species.

For an FHWA project that may affect a federally listed species, at least an informal, and possibly a formal consultation with USFWS under Section 7 of the Endangered Species Act is required. This section of the EA must discuss the coordination, including how it was resolved, and any commitments that need to be fulfilled as a result of the coordination. Include reference to the written coordination exchanges, which must be included in Appendix G to the EA.

For a state transportation project, there is no consultation with USFWS under Section 7. If a state transportation project will cause a “take” of a federally listed species, an incidental take permit under Section 10 must first be secured. In this instance, this section of the EA must explain that the project will not be built without first securing the incidental take permit.

For more information, refer to ENV’s Environmental Handbook: Endangered Species Act.

**Air Quality (EA Section 5.12)**

The air quality analysis in an EA is based largely on specific regulatory requirements, and must address five components: (1) transportation conformity including, potentially, a hot-spot analysis; (2) carbon monoxide traffic air quality analysis (CO TAQA); (3) mobile source air toxics (MSAT); (4) Congestion Management Process (CMP); and (5) construction air emissions. ENV maintains a Standard Operating Procedure for Preparing Air Quality Statements. For each of these five components, this Standard Operating Procedure provides specific statements that must be copied
verbatim into this section of the EA, based on project specific factors. Alternatively, these specific statements may be included in a separate technical report, and summarized in layperson’s terms in this section of the EA. For more information about air quality requirements, refer to ENV’s Environmental Handbook on Air Quality.

If a hot-spot analysis was required (El Paso projects only), explain how the public involvement requirements for hot-spot analyses were satisfied.

**Hazardous Materials (EA Section 5.13)**

This section of the EA must provide sufficient evidence that the project was adequately investigated for known or possibly unknown hazardous material contamination within the proposed project limits. ENV maintains an Environmental Handbook on Hazardous Materials. Section 6.0 of that handbook sets forth general guidelines for hazardous materials statements in an environmental review document. These guidelines must be followed in preparing this section of the EA. Include references to any separate technical reports regarding hazardous materials, and specifically, the Hazardous Materials Initial Site Assessment (ISA) form, which is required for most EA projects.

**Traffic Noise (EA Section 5.14)**

This section of the EA must explain any noise analysis conducted, and the results of such analysis. If noise walls will be proposed, explain that it appears that noise walls are reasonable; however, installation of any wall(s) is dependent on detailed design and input from adjacent property owners. Explain the proposed location and height of the noise walls with reference to exhibits depicting the proposed location, which must be provided as appendices to the EA. In areas near residences or other receivers at which no noise walls will be proposed, explain why no noise walls will be proposed at those locations.

ENV maintains a guidance document entitled, Examples of Recommended Text for Documenting Traffic Noise Analyses. Use of this sample language in the body of the EA is encouraged.

For more information about how traffic noise is evaluated for TxDOT projects refer to ENV’s Environmental Handbook for Traffic Noise and Guidelines for Analysis and Abatement of Highway Traffic Noise, the latter of which has been approved by FHWA.

**Induced Growth (EA Section 5.15)**

This section of the EA must present an analysis of induced growth impacts in accordance with ENV’s Guidance on Indirect Impacts Analysis. The explanation of the induced growth impacts analysis must be broken into the six steps set forth in ENV’s Guidance, with separate subheadings for each of the six steps. As with other subject areas, if a separate technical report is prepared for this subject area, the discussion in the EA may be limited to a summary of the conclusions of the separate technical report.

**Cumulative Impacts (EA Section 5.16)**

This section of the EA must present an analysis of cumulative impacts in accordance with ENV’s Cumulative Impacts Analysis Guidelines. The explanation of the cumulative impacts analysis must be broken into the five steps set forth in ENV’s guidelines, with separate subheadings for each of the five steps (again, unless a separate technical report is prepared for this subject area).
**Construction Phase Impacts (EA Section 5.17)**

This section of the EA must identify and explain any impacts associated with construction activities. This includes noise, dust or light pollution; impacts associated with physical construction activity, temporary lane, road or bridge closures (including detours); and other traffic disruptions. Include the expected duration of any construction impacts, and explain any BMPs or other strategies that will be used to mitigate such impacts. Also, include a specific internal reference to the discussion of construction-related air emissions in Section 5.12 of the EA.

**Agency Coordination (EA Section 6.0)**

This section of the EA must indicate any agency coordination conducted for the project, including coordination with TCEQ, TPWD or THC under TxDOT’s respective MOUs with those agencies, or any other coordination or consultation with any agency, governmental body or other entity. Include references to written coordination exchanges, which must be included in Appendix G to the EA. For any agency to which the department only provided a notice of availability of the draft EA, and for which the department received no response, it is not necessary to provide a copy of the NOA in Appendix G, as it will be included in the Opportunity for Public Hearing or Public Hearing Documentation.

**Public Involvement (EA Section 7.0)**

This section of the EA must briefly summarize any public involvement activities conducted for the project, and the results of any such activities, including any changes to the project that were made as a result of public involvement. Explain how and when the notice of availability for the draft EA was provided. If one or more public meetings were held, generally describe them and any public concerns or issues raised. If a notice of opportunity for public hearing was provided, explain how and when it was noticed and whether any responses were received. (Note that public meetings and opportunities for public hearing have their own documentation requirements, which are set forth in ENV’s Environmental Handbook on Public Involvement.)

If a hearing was held, explain where and when the hearing was held and summarize any public input received. Explain where the Public Meeting/Public Hearing Documentation may be inspected and copied upon request (usually the TxDOT district or area office). The comment/response matrix may be included as Appendix I to the EA at the preparer’s discretion. If the comment/response matrix is included as an appendix, include a reference to it in this section of the EA.

Also, if any hearing was held under Transportation Code 203.021 (regarding projects that bypass a municipality or county), or Texas Parks and Wildlife Code Chapter 26 (regarding the taking of public land designated and used as a park, recreation area, wildlife refuge, historic site, or scientific area), explain where and when the hearing was held and any public input received or determinations made.

If the project involves added capacity or construction of a highway on a new location, explain that a notice of impending construction will be provided to owners of adjoining property and affected local governments and public officials. Also explain that the notice may be provided via a sign or signs posted in the ROW, mailed notice, printed notice distributed by hand, or notice via website when the recipient has previously been informed of the relevant website address. This notice must be provided after the environmental decision (i.e., FONSI or recommendation to prepare an EIS), but before earthmoving or other activities requiring the use of heavy equipment begin.
Post-Environmental Clearance Activities and Contractor Communications (EA Section 8.0)

This section of the EA is comprised of two sections, Post-Environmental Clearance Activities (Section 8.1) and Contractor Communications (Section 8.2). The post-environmental clearance activities and contractor communications in Sections 8.1 and 8.2 of the EA will normally have been described in context, and usually in greater detail, under the respective resource categories in Section 5. It is not necessary to repeat any of the context or detailed descriptions in Sections 8.1 and 8.2. Rather, Sections 8.1 and 8.2 must consist of a cumulative list of all post-environmental clearance activities and contractor communications.

Post-Environmental Clearance Activities (EA Section 8.1)

This section of the EA must succinctly list any unresolved environmental activities for which the project sponsor will be responsible such as conducting surveys that could not be done prior to issuance of a FONSI, obtaining environmental permits (e.g., Section 404 permits), or performing compensatory mitigation. Separately number each post-environmental clearance activity and indicate whether the activity is anticipated to be completed prior to letter of authority, prior to construction, during construction, or post-construction.

Contractor Communications (EA Section 8.2)

This section of the EA must succinctly list any project-specific avoidance measures or special instructions that will be conveyed to the design or construction contractor as a result of the department’s environmental review of the project. Separately number each contractor communication.

Conclusion (EA Section 9.0)

If the project would not result in a significant impact on the human or natural environment, then this section of the EA will consist of the following statement:

“Implementation of the proposed project would not result in a significant impact on the human or natural environment. Therefore, a finding of no significant impact is recommended.”

If the project would result in a significant impact on the human or natural environment, then this section of the EA will consist of the following statement:

“Implementation of the proposed project would result in a significant impact on the human or natural environment. Therefore, preparation of an environmental impact statement is recommended.”

As explained by CEQ in its rules, “significance” as used in NEPA requires considerations of both context and intensity. Mitigation and commitments described in the EA, such as noise walls and avoidance of migratory bird nests, may be taken into account in determining whether impacts are significant.

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12 See 40 CFR 1508.27
References (EA Section 10.0)

Provide a list of any references used to support any statement in the EA. Include full citations for each reference, including title, author, and date. For referenced documents that are publicly available online, include the relevant internet address. A pdf of any reference(s) that is not publicly available online must be kept in the project file.

Appendices (EA Section 11.0)

For each of the appendices below, include a cover page with the title of the appendix and a list of the appendix contents if more than one document is contained in the appendix.

Appendix A – Project Location Map

Appendix A must contain a project location map indicating the project limits in relation to other area roads.

Appendix B – Project Photos

Appendix B must contain ground-level photographs of representative sections of the existing facility and locations of the proposed facility. Also include photographs of any important environmental features such as wetlands, historic sites, etc. All photographs must be labeled with the date of the photograph, a description of the location from which the photograph was taken, and the direction the photographer was facing.

Appendix C – Schematics

Appendix C must contain overhead schematics showing the existing and proposed facilities against the backdrop of aerial photographs. The schematics must show all physical aspects of the proposed facility including existing and proposed ROW boundaries, edge of pavement, lanes, and if known, detention ponds.

Appendix D – Typical Sections

Appendix D must contain figures depicting typical sections of both the existing roadway and the proposed roadway. If the project will be built in phases, include figures depicting typical sections for each phase. If there will be multiple configurations throughout the project (e.g. frontage roads in one section but none in another, turn lanes in specific sections, etc.), provide figures depicting typical sections for each configuration.

Appendix E – Plan and Program Excerpts

Appendix E must contain copies of pages from any transportation plan or program relied upon to demonstrate planning and programming consistency. It is not necessary to include the entire plan or program document. Include only the specific pages that discuss the project and any additional pages needed to identify the plan/program and date.

Appendix F – Resource-specific Maps

Appendix F must contain maps showing environmental constraints such as historic structures, cemeteries, wetlands, parks or other existing features that are relevant to the environmental evaluation of the project. It is also recommended to include a map showing the location of any proposed noise walls. The maps in Appendix F must be depicted on aerial photographs with an overlay of the project schematic if possible. For visual clarity, multiple sets of maps may be provided for different types or categories of resources (e.g., human-made vs. natural features).
Maps showing the locations of archeological sites or listed species must not be included in the interest of protecting those resources.

**Appendix G – Resource Agency Coordination**

Appendix G must contain all letters and other correspondence (with attachments) sent to or from any resource agency, governmental body or other entity regarding the environmental review of the project. For any agency to which the department only provided a notice of availability of the draft EA, and for which the department received no response, it is not necessary to provide a copy of the NOA in Appendix G, as it will be included in the Opportunity for Public Hearing or Public Hearing Documentation.

**Appendix H – Section 4(f) Documentation (if applicable)**

Appendix H must contain all documentation related to any Section 4(f) determination, including any Section 4(f)-related correspondence and any documentation prepared in accordance with Environmental Handbook for U.S. Department of Transportation Act: Section 4(f).

**Appendix I – Comment and Response Matrix from Public Meeting/Public Hearing (optional)**

If the preparer determines to include the comment and response matrix from any public meeting or public hearing held on the project, include the matrix as Appendix I.

### 6.0 Finding of No Significant Impact

If the EA concludes that the project will have no significant impacts, then a FONSI document must be prepared using the Finding of No Significant Impact for State or FHWA Project which is available on ENV’s NEPA and Project Development Toolkit. The only individuals authorized to sign a FONSI are the ENV Director, Deputy Directors, Section Directors and Deputy Section Directors.

After ENV issues the FONSI, the project sponsor issues an NOA of the final EA and the FONSI. TxDOT’s requirements for issuing an NOA are set forth in ENV’s Environmental Handbook on Public Involvement.

For an FHWA project, if the project is of one of the four types that normally require an EIS under 23 CFR 771.115(a), then the final EA must be made available for public review for a minimum of 30 days prior to final issuance of the FONSI, and the public availability must be announced by a notice similar to a public hearing notice. For more information about this requirement, see ENV’s Environmental Handbook on Public Involvement.

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13 *See 23 CFR 771.119(h).*
### 7.0 Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>BMP</td>
<td>Best Management Practice</td>
</tr>
<tr>
<td>CBRA</td>
<td>Coastal Barrier Resources Act of 1982</td>
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<tr>
<td>CBRS</td>
<td>Coastal Barrier Resources System</td>
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<tr>
<td>CE</td>
<td>Categorical Exclusion</td>
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<tr>
<td>CEQ</td>
<td>Council of Environmental Quality</td>
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<td>CFR</td>
<td>Code of Federal Regulations</td>
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<tr>
<td>CGP</td>
<td>Construction General Permit</td>
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<tr>
<td>CMP</td>
<td>Congestion Management Process</td>
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<tr>
<td>CNRA</td>
<td>Coastal Natural Resource Area</td>
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<tr>
<td>CO TAQA</td>
<td>Carbon Monoxide Traffic Air Quality Analysis</td>
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<tr>
<td>EA</td>
<td>Environmental Assessment</td>
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<tr>
<td>EIS</td>
<td>Environmental Impact Statement</td>
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<tr>
<td>ENV</td>
<td>Texas Department of Transportation’s Environmental Affairs Division</td>
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<tr>
<td>ENV-CRM</td>
<td>Texas Department of Transportation’s Cultural Resources Management Section</td>
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<tr>
<td>FONSI</td>
<td>Finding of No Significant Impact</td>
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<td>FHWA</td>
<td>Federal Highway Administration</td>
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<tr>
<td>ISA</td>
<td>Initial Site Assessment</td>
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<tr>
<td>LEP</td>
<td>Limited English Proficiency</td>
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<tr>
<td>MAPO</td>
<td>Meeting with Affected Property Owners</td>
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<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
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<tr>
<td>MS4</td>
<td>Municipal Separate Storm Sewer System</td>
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<td>MSAT</td>
<td>Mobile Source Air Toxics</td>
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<tr>
<td>NEPA</td>
<td>National Environmental Policy Act</td>
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<tr>
<td>NHPA</td>
<td>National Historic Preservation Act</td>
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<tr>
<td>NMFS</td>
<td>National Marine Fisheries Service</td>
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<tr>
<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
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<tr>
<td>NOA</td>
<td>Notice of Availability</td>
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<tr>
<td>PS&amp;E</td>
<td>Plans, Specifications, and Estimates</td>
</tr>
<tr>
<td>ROW</td>
<td>Right-of-Way</td>
</tr>
<tr>
<td>SHPO</td>
<td>State Historic Preservation Officer</td>
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<tr>
<td>SWP3</td>
<td>Storm Water Pollution Prevention Plan</td>
</tr>
<tr>
<td>TCEQ</td>
<td>Texas Commission on Environmental Quality</td>
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<tr>
<td>THC</td>
<td>Texas Historical Commission</td>
</tr>
<tr>
<td>TMDL</td>
<td>Total Maximum Daily Load</td>
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</table>
Preparing an Environmental Assessment

TPDES  Texas Pollutant Discharge Elimination System
TPWD  Texas Parks and Wildlife Department
USACE  United States Army Corps of Engineers
USC  United States Code
USFWS  United States Fish and Wildlife Service
USIBWC  United States Section, International Boundary and Water Commission
# Appendix A Document Revision History

The following table shows the revision history for this guidance document.

<table>
<thead>
<tr>
<th>Effective Date Month, Year</th>
<th>Reason for and Description of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 2019</td>
<td>Version 9 was released.</td>
</tr>
<tr>
<td></td>
<td>- Updated throughout to reflect new MOU with TCEQ.</td>
</tr>
<tr>
<td></td>
<td>- Revised discussion of Section 1.0 of the EA (&quot;Introduction&quot;) to clarify that both the Introduction for both the draft EA and final EA must explain that if TxDOT determines that there are no significant effects it will prepare a FONSI.</td>
</tr>
<tr>
<td></td>
<td>- Revised discussion of Section 2.2. of the EA (&quot;Proposed Facility&quot;) to instruct not to include references to CFR for a state project.</td>
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<td></td>
<td>- Revised discussion of Section 5.10.7 of the EA (&quot;Floodplains&quot;) to remove unnecessary instructions.</td>
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<tr>
<td></td>
<td>- Revised discussion of Section 5.10.13 of the EA (&quot;Drinking Water Systems&quot;) to require the section to consist of a statement referencing TxDOT’s Standard Specifications.</td>
</tr>
<tr>
<td></td>
<td>- Revised discussion of Section 9.0 of the EA (&quot;Conclusion&quot;) to require the section to consist of specific language, depending on whether the project would or would not result in a significant impact.</td>
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<tr>
<td>January 2019</td>
<td>Version 8 was released.</td>
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<tr>
<td></td>
<td>Various updates and revisions, including:</td>
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<tr>
<td></td>
<td>- Updated description of scoping process to reflect that scoping is done in ECOS for TxDOT-sponsored projects.</td>
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<tr>
<td></td>
<td>- Removed MAPO references.</td>
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<tr>
<td></td>
<td>- Fixed standard language about the project not irretrievably committing federal funds for other future transportation projects.</td>
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<tr>
<td></td>
<td>- Added a reminder that, if there are multiple build alternatives being evaluated, the preferred alternative may be developed to a higher level detail to (1) facilitate the development of mitigation measures or (2) facilitate concurrent compliance with other applicable laws.</td>
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<tr>
<td></td>
<td>- Clarified that discussion of displacements in EA is subject to final design considerations.</td>
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<tr>
<td></td>
<td>- Various changes to description of Water Resources EA content, including new standard language for floodplains and an added reference to the new MOU with EPA regarding the Edwards Aquifer.</td>
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<tr>
<td></td>
<td>- Revised MBTA section of the EA to reflect new standard language and new subheading title, “Migratory Bird Protections.”</td>
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<td></td>
<td>- Clarified that if a notice of availability of the draft EA is provided to an agency, and no response is received, there’s no need to include a copy of the notice of availability in Appendix G of the EA.</td>
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<tr>
<td>Effective Date</td>
<td>Reason for and Description of Change</td>
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<tr>
<td><strong>July 2018</strong></td>
<td>- Removed references to “Environmental Permits, Issues and Commitments,” and revised Section 8.0 of the EA to instead refer to “Post-Environmental Clearance Activities and Contractor Communications,” with each being addressed under separate subheadings 8.1 and 8.2 in the EA.</td>
</tr>
<tr>
<td><strong>February 2018</strong></td>
<td>Version 7 was released. Revised Section 5.1. Removed the requirement to obtain a letter from a local government confirming that it followed the Federal Uniform Relocation and Real Property Acquisition Policies Act of 1970 (“Uniform Act”) in making an advance acquisition of right-of-way. ENV has determined that this is not needed as part of the environmental review process, as the ROW Division has its own processes for confirming Uniform Act compliance for a given project.</td>
</tr>
<tr>
<td><strong>October 2017</strong></td>
<td>Version 6 was released. Revised Section 6.0 to indicate that, if project is one of the four types that normally require an EIS, just the final EA, and not also the draft FONSI, must be made available for public review 30 days prior to issuance of the FONSI.</td>
</tr>
<tr>
<td><strong>October 2017</strong></td>
<td>Version 5 was released. Revised Section 5.10 (Water Resources) to be consistent with TxDOT’s Environmental Handbook on Water Resources.</td>
</tr>
<tr>
<td><strong>October 2017</strong></td>
<td>Version 4 was released. Revised Section 2.2 (Proposed Facility) to require specific discussion of logical termini. Revised discussion of EA Section 5.0 (Affected Environment and Environmental Consequences) to explain how to handle situations in which no encroachment-alteration effects are identified.</td>
</tr>
<tr>
<td><strong>June 2017</strong></td>
<td>Version 3 was released. Revised Section 5.11, Biological Resources, to break-out various biology-related laws and executive orders into separate subheadings, and add explanations of multiple biology-related laws and executive orders. Removed Section 5.15, Greenhouse Gas Emissions, and revised Section 5.17, Cumulative Impacts, in response to the Council on Environmental Quality’s April 5, 2017 withdrawal of its August 1, 2016 final guidance on greenhouse gas emissions and climate change. Re-numbered affected EA sections. Revised “should” to “must” or “shall” throughout.</td>
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</tbody>
</table>
| **October 2016** | Version 2 was released. Added Section 5.15, Greenhouse Gas Emissions in response to the Council on
## Revision History

<table>
<thead>
<tr>
<th>Effective Date Month, Year</th>
<th>Reason for and Description of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Quality’s August 1, 2016 final guidance on greenhouse gas emissions and climate change. Also revised discussions on Clean Water Act Section 401, Clean Water Act Section 303(d), Coastal Zone Management, and Edwards Aquifer to improve accuracy and completeness. Also added EA Section 5.10.14, Drinking Water Systems.</td>
<td></td>
</tr>
<tr>
<td>June 2016</td>
<td>Version 1 was released.</td>
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</table>