



Environmental Handbook

Endangered Species Act

This handbook provides a regulatory background for compliance with the Endangered Species Act (16 USC 1531 - 1544.)

Table of Contents

1.0 Introduction..... 2

 1.1 TxDOT Policy 2

 1.2 Responsible Party 2

 1.3 FHWA Assignment..... 2

 1.4 Applicable Project Types..... 2

2.0 Regulatory Overview 3

3.0 Coordination and Consultation..... 4

4.0 Section 7 Consultation Process 5

5.0 Section 10 Permitting for Non-Federal Projects 6

6.0 Additional Resources 6

7.0 Public Involvement..... 7

8.0 Documentation Requirements..... 7

 8.1 Project File Documentation..... 7

 8.2 Environmental Review Document Content 8

9.0 Review and Approval Process 8

10.0 Pre-Letter of Authorization Requirements 8

11.0 Glossary..... 8

12.0 Abbreviations and Acronyms 10

Appendix A: Revision History..... 11

1.0 Introduction

This handbook provides a high-level overview of the requirements necessary to comply with the Endangered Species Act (ESA) for federal and non-federal transportation projects, and how ESA considerations fit with the National Environmental Policy Act (NEPA) process. Project sponsors may use the handbook to identify what ESA compliance obligations may be triggered by their project in order to scope them appropriately.

At the federal level, the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) are the regulatory and enforcement agencies for ESA requirements. USFWS has jurisdiction over threatened and endangered terrestrial species, the manatee, and nesting sea turtles, while the NMFS has jurisdiction over all other threatened or endangered marine wildlife, including seaward sea turtles. Under the ESA, federal agencies are required to ensure their actions are not likely to jeopardize the continued existence of listed species or adversely modify or destroy critical habitat. Evaluation of effects of federal actions to federally listed species is required for NEPA documentation regardless of classification type: categorical exclusion, environmental assessment (EA), or environmental impact statement (EIS).

1.1 TxDOT Policy

Texas Department of Transportation (TxDOT) shall meet compliance obligations for the ESA by following the requirements in this handbook and appropriate laws and regulations. For federal aid projects, related guidance, procedures and policies apply.

1.2 Responsible Party

Various documentation, compliance, coordination, and approval responsibilities are assigned to the project sponsor and the department delegate for each project. Refer to the project scope for assignment of these roles and responsibilities.

The project sponsor may be a TxDOT district or division or local public agency and is responsible for pursuing approval of the project and for providing material for and managing the project file.

The department delegate may be a TxDOT district or the TxDOT Environmental Affairs Division (ENV). ENV is responsible for conducting consultation with USFWS and/or NMFS.

1.3 FHWA Assignment

Under Section 3.2.1 of the [Memorandum of Understanding between the Federal Highway Administration and the Texas Department of Transportation Concerning State of Texas' Participation in the Project Delivery Program Pursuant to 23 U.S.C. 327](#), the Federal Highway Administration (FHWA) assigned TxDOT the responsibilities of the department delegate for ensuring compliance with the ESA for projects with FHWA as the funding agency. As such, TxDOT is the federal action agency for purposes of ESA compliance.

1.4 Applicable Project Types

Compliance with the ESA is required for any federal project that has the potential to affect federally listed threatened or endangered species or designated critical habitat, and for any non-federal project that has the potential to take federally listed threatened or endangered species.

2.0 Regulatory Overview

The ESA was enacted in 1973 to provide a program for the conservation of threatened and endangered species and the ecosystems upon which these species depend. The ESA is codified at [16 USC 1531 – 1544](#).

[Section 7\(a\)\(1\)](#) (16 USC 1536) of the ESA directs all federal agencies to work to conserve endangered and threatened species and to use their authorities to further the purposes of the Act. [Section 7\(a\)\(2\)](#) requires federal agencies to consult with USFWS and/or NMFS to ensure that any federal action authorized, funded, or carried out is not likely to jeopardize the continued existence of any threatened or endangered species or result in the destruction or adverse modification of critical habitat, unless granted an exemption for such action. In fulfilling [Section 7\(a\)\(2\)](#) obligations, federal agencies shall use the best scientific and commercial data available. The Code of Federal Regulations (CFR) at [50 CFR 402](#) provides the implementing regulations for interagency cooperation with respect to [Section 7](#).

[Section 9](#) ([16 USC 1538](#)) of the ESA defines prohibited actions, including the take of animal species listed as federally endangered. For species listed as threatened, the full protections of [Section 9](#) of the ESA are extended by regulation (50 CFR 17.21), unless the Services issue a special regulation pursuant to [Section 4\(d\)](#) of the ESA. [Section 9](#) defines prohibited acts with respect to federally-listed fish and wildlife species, declaring it unlawful for any person subject to the jurisdiction of the United States to conduct any of the following actions.

- Import or export any such species into or from the United States;
- Take any such species within the United States or the territorial sea of the United States;
- Take any such species upon the high seas;
- Possess, sell, deliver, carry, transport, or ship, by any means whatsoever, any such species taken in violation of the 2nd and 3rd bullets above;
- Deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of a commercial activity, any such species;
- Sell or offer for sale in interstate or foreign commerce any such species; and
- Violate any regulation pertaining to such species or to any threatened species of fish or wildlife listed pursuant to [Section 4](#) ([16 USC 1533](#)) of the ESA.

[Section 9](#) also defines prohibited acts with respect to federally-listed plant species, declaring it unlawful for any person subject to the jurisdiction of the United States to conduct any of the following actions.

- Import or export any such species into or from the United States;
- Remove and reduce to possession any such species from areas under federal jurisdiction; maliciously damage or destroy any such species on any such area; or remove, cut, dig up, damage, or destroy any such species on any other area in knowing violation of any law or regulation of any state or in the course of any violation of a state criminal trespass law;
- Deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of a commercial activity, any such species;
- Sell or offer for sale in interstate or foreign commerce any such species; and
- Violate any regulation pertaining to such species or to any threatened species of fish or wildlife listed pursuant to [Section 4](#) of the ESA.

Section 10 ([16 USC 1539](#)) of the ESA defines exceptions and allows for permits to authorize takings that would otherwise be prohibited by Section 9. This section establishes a species protection process for non-federal actions. An incidental take permit may be issued for non-federal actions when the “taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.” Applications for incidental take permits must be accompanied by a Habitat Conservation Plan (HCP) that describes how the effects of a proposed action would be adequately minimized and mitigated.

3.0 Coordination and Consultation

If the project has the potential to affect federally listed threatened or endangered species, or designated critical habitat, early coordination with USFWS and/or NMFS is recommended to best assess avoidance measures or alternatives to the project, potential permitting requirements, and potential mitigation for unavoidable impacts. Early coordination is an informal process involving early discussions, site visits, review of plans, et cetera, with USFWS and/or NMFS staff to receive their initial input on potential ESA issues. Early coordination can also make the consultation process go more efficiently because input from USFWS and/or NMFS can be incorporated into the consultation packages at the initial draft.

For projects that are federally authorized or approved, and where project actions may affect a listed species or critical habitat in any way (even beneficially), consultation must be conducted with USFWS and/or NMFS, under Section 7 of the ESA. If the project actions are not a major construction activity (i.e. Environmental Impact Statement (EIS)), or likely to adversely affect species or critical habitat, the development of a biological evaluation (BE), using the TxDOT documentation standard, and an informal consultation, is required. USFWS and/or NMFS will issue concurrence, if their assessment agrees with the “not likely to adversely affect” determination. If an adverse effect to species or critical habitat, or take of a species, is expected to occur, the development of a biological assessment (BA) using the TxDOT documentation standard, and a formal consultation with USFWS and/or NMFS, is required. The consultation process will conclude with the USFWS and/or NMFS issuing a Biological Opinion (BO) and an incidental take statement (if take is expected), so long as the action is not likely to jeopardize the species’ continued existence or destroy or adversely modify critical habitat.

Section 7 consultation timeframes vary from 30 days for informal consultations, to 135 days for formal consultations, not including early coordination and development of the BE or BA. The timeframes could be longer if the consultation package submitted by TxDOT does not provide sufficient detail and has not thoroughly considered best available science and the effects of the action.

If a federally authorized or approved project is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat, a conference must be conducted with USFWS and/or NMFS. If there are also listed species or designated critical habitat that is expected to be affected by the action, the conference is included as part of the informal or formal consultation. If proposed and candidate species are fully considered in the consultation, and conservation measures are included, it can help ensure TxDOT actions do not increase the probability of a species being listed. It can also accelerate obtaining USFWS concurrence or opinion if the species were ultimately listed or critical habitat designated. In cases where the only effect may be to proposed species or proposed critical habitat see Section 7(a)(4) (16 USC 1536) of the ESA and contact ENV-Natural Resources Management Section for assistance with conferencing.

Refer to the additional resources noted below and the [TxDOT Ecological Resources Toolkit](#), or contact ENV-Natural Resources Management Section, for details and guidance regarding coordination and consultation with USFWS and/or NMFS.

4.0 Section 7 Consultation Process

This section provides the major steps that need to be conducted for Section 7(a)(2) considerations.

Step One: Define action area – develop a project description, defining the project actions in sufficient detail to understand the potential effects to species and habitat and where those effects might occur on the landscape, including actions that might extend beyond, below, and/or above the immediate project area, to determine the action area under consideration. The analysis of the project’s effects must include direct and indirect effects of the project itself and any interrelated or interdependent actions. This step may be iterative, as project elements change.

Step Two: Obtain species list – access the USFWS [Information for Planning and Conservation \(IPaC\) system](#) to determine what species and critical habitat may occur in the project action area. IPaC provides informal information on what species and resources may be impacted by the project that fall under USFWS jurisdiction. It also provides an opportunity to request an official species list, which provides a consultation code. An official list can also be obtained by contacting the appropriate USFWS Ecological Services Field Office. For species that fall solely under the jurisdiction of NMFS, contact NMFS directly for a species list. An official species list is required when¹:

- The environmental document being prepared is an Environmental Impact Statement (EIS); or
- The project will require consultation with the USFWS under Section 7 of the ESA.

Note: If preparation of the BE or BA has not begun within 90 days of receipt of the species list, the accuracy of the list must be verified with USFWS and/or NMFS.

Step Three: Determine if the action “may affect” a listed species or designated critical habitat – assess the potential for the project to affect, in any way, a listed species or designated critical habitat. This includes beneficial effects and effects of interrelated and interdependent actions. Special considerations may be necessary for certain actions, depending on the species or critical habitat that may be affected by the project actions, such as those with potential downstream effects or in karst topography.

A no effect determination is appropriate when:

- For proposed or listed species
 - the action area is not within the range of any federally listed species, or
 - the action area is within the range of a federally listed species but there is no suitable habitat within the action area, or
 - the action area is within the range of a federally listed species and there is suitable habitat within the action area, but there is not a plausible, reasonably foreseeable path of effect that could elicit a response from a protected species (if the path of effect would require a series of exceedingly rare events to occur in a particular sequence in order to impact individuals of a protected species then it should not be considered plausible and reasonably foreseeable).
- For critical habitat

¹ Per 50 CFR 402.12 the requirement to obtain an official species list from the USFWS is limited to “major construction activities” but TxDOT requires an official list for any project that requires a consultation and requires documentation of the date the species list was checked in IPaC for projects that do not require a consultation.

- the action area is not within designated critical habitat, or
- the action area is within designated critical habitat, but there is not a plausible, reasonably foreseeable path of effect that could elicit a response from the critical habitat (if the path of effect would require a series of exceedingly rare events to occur in a particular sequence in order to impact critical habitat then it should not be considered plausible and reasonably foreseeable).

If a “no effect” was determined, provide documentation in the project file per the Documentation section below, and the process is complete. If a “may effect “ is appropriate, proceed to next step.

Step Four: Consult with USFWS and/or NMFS – All consultations with USFWS and/or NMFS must be initiated and coordinated through TxDOT ENV. ENV and the District will conduct early coordination, as appropriate.

If a project “may affect but is not likely to adversely affect” a listed species or designated critical habitat, and is not defined as a major construction activity (i.e. EIS), prepare a Biological Evaluation, per TxDOT’s BE/BA template (link provided in Additional Resources section below), and submit to ENV for review. This determination is appropriate if effects on listed species or designated critical habitat are expected to be discountable, insignificant, or completely beneficial.

If a project “may affect and is likely to adversely affect” a listed species or designated critical habitat, or is a major construction activity (i.e. EIS), prepare a BA, per TxDOT’s BE/BA template and submit to ENV for review. This determination is appropriate if effects on listed species or designated critical habitat are not discountable, insignificant, or completely beneficial, or if take is anticipated to occur as a result of the action.

Once the District and ENV determine the BE/BA is complete, ENV will initiate either informal or formal consultation with the USFWS and/or NMFS, per 50 CFR 402.13&14.

Note: Reinitiation of consultation is required if new information reveals that effects of the action may affect listed species or critical habitat in a way not previously considered, if the action is modified in such a way that causes an effect to listed species or critical habitat not previously considered, or if a new species is listed or critical habitat is designated that may be affected by the action.

5.0 Section 10 Permitting for Non-Federal Projects

For projects that are not federally authorized or approved and would result in the incidental taking of listed species, an application must be prepared for an Incidental Take Permit from USFWS and/or NMFS, under Section 10 of the ESA. The application packet requires the participation in, or development and submittal of, a HCP. If a HCP must be developed, the process can take several years, and must be obtained prior to initiation of project activities that could result in take. Use of Section 10 is not common for TxDOT projects. Contact ENV-NRM for additional guidance.

6.0 Additional Resources

For additional background information and guidance regarding the ESA, refer to the following.

- TxDOT Process for [District and ENV Interactions Related to ESA Section 7 Obligations](#) available in the [Ecological Resources Toolkit](#)
- USFWS [Information, Planning, and Conservation System \(IPaC\) Webpage](#), for county lists of threatened and endangered species and project specific official species lists

- TxDOT [Documentation Standard for a Biological Evaluation or Assessment](#) available in the Ecological Resources Toolkit
- Texas Parks and Wildlife Department (TPWD) [Texas Natural Diversity Database \(TXNDD\) Webpage](#)
- USFWS and NMFS [Endangered Species Consultation Handbook](#), released March 1998
- USFWS [Habitat Conservation Planning Handbook](#) webpage
- USFWS [ESA Compensatory Mitigation Policy](#)

7.0 Public Involvement

Public involvement efforts regarding the ESA are not required. For public involvement requirements under NEPA, which may involve ESA related issues, see Environmental Handbook for Public Involvement in the Environmental Toolkit.

8.0 Documentation Requirements

8.1 Project File Documentation

Required Documentation:

- For Categorical Exclusions, the project file must include a completed Work Plan Development section in ECOS, or other pertinent sections of ECOS, which documents consideration of ESA and describes required compliance activities, if applicable.
- For Environmental Assessments and Environmental Impact Statements, determinations and findings regarding the outcome of ESA compliance are included in the environmental document. For some projects, a separate technical report concerning impacts to listed species may be prepared and appended. This is usually done when there is a substantial amount of technical information supporting the conclusions in the EA or EIS;
- An official species list from the USFWS [Information for Planning and Conservation \(IPaC\) system](#) if consultation conducted or if the project requires an EIS. If no consultation was conducted, the date the IPaC system was consulted to view the species list should be in the project file;
- A BA or a BE, if prepared;
- The USFWS's and/or NMFS's concurrence on a Not Likely to Adversely Affect or the BO and associated Incidental Take Statement (if applicable); and
- Any other official documentation or records resulting from consultation with USFWS and/or NMFS if conducted.

Recommended Documentation:

- Any USFWS and TPWD maintained lists of threatened and endangered species known to occur in the county within which the project is located that were used;
- A Species Impact Table or similar analysis, demonstrating that each potentially occurring listed species and critical habitats has been analyzed for potential effects;
- The topographic, National Wetland Inventory, soils, geology, and vegetation maps used for habitat analyses if appropriate for documenting habitat or impacts analysis; and

- Any technical report, detailing the conditions and potential impacts of the project on protected resources.

8.2 Environmental Review Document Content

The environmental review document (i.e. EA/EIS) must include an assessment of any protected resources affected by the proposed project, including federally listed or proposed threatened or endangered species and critical habitats, and species that are candidates for federal listing. Though candidate and proposed species and proposed critical habitats do not receive the protection of listed threatened and endangered species, it is useful to use the standard federal effect language when evaluating a species with any federal status.

It must also include one of the following determinations for each applicable species or critical habitat and a statement explaining the rationale for the determination.

For projects with a federal nexus:

- No effect;
- May affect, not likely to adversely affect; or
- May affect, likely to adversely affect.

For projects without a federal nexus:

- No take; or
- Take.

The document also must include references to consultation with USFWS and/or NMFS, if conducted, and a discussion of how it was resolved, and any commitments that need to be fulfilled.

For additional guidance on Section 7 consultation process, refer to the [TxDOT Ecological Resource Toolkit](#). For NMFS coordination contact ENV-NRM for guidance.

9.0 Review and Approval Process

Compliance with the ESA is achieved by following regulatory requirements for ESA, and documenting any consultation and concurrence with or from USFWS and/or NMFS, if conducted and issued. The department delegate evaluates and approves ESA compliance as part of the NEPA review process.

10.0 Pre-Letter of Authorization Requirements

Any consultation under Section 7 must be completed prior to the receipt of the Letter of Authorization (LOA). For projects that are not federally funded or permitted and result in the incidental taking of listed species, a Section 10 Incidental Take Permit must be obtained from USFWS and/or NMFS prior to the receipt of the LOA.

11.0 Glossary

Action Area – All areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action

Environmental Handbook: Endangered Species Act

Critical Habitat – An area with physical or biological features considered essential to the conservation of the species and designated by rule in the Federal Register

Effects of the action – In reference to Section 7, refers to direct or indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action.

Endangered Species – A species in danger of extinction within the foreseeable future throughout all or a significant portion of its range

Fish and Wildlife – Any member of the animal kingdom – including without limitation any mammal; fish; bird, including any migratory, non-migratory, or endangered bird for which protection is also afforded by treaty or other international agreement; amphibian; reptile; mollusk; crustacean; arthropod or other invertebrate – and any part, product, egg, or offspring thereof, or the dead body or parts thereof

Harass – in the definition of “take”, means an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding or sheltering.

Harm – In the definition of “take”, means an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including, breeding, spawning*, rearing*, migrating*, feeding or sheltering. (*NMFS specific)

Indirect effects – As related to “effects of the action”, those effects that are caused by the proposed action and are later in time, but are still reasonably certain to occur

Interdependent Actions – As related to “effects of the action”, those actions that have no independent utility apart from the action under consideration.

Interrelated Actions – As related to “effects of the action”, those actions that are part of the larger action and depend on the larger action for their justification.

Invasive Species – An alien species likely to cause economic or environmental harm or harm to human health when introduced

Listed Species – Any species, subspecies, or distinct vertebrate population segment added to the Federal Lists of Endangered and Threatened Wildlife and Plants in [50 CFR 17.11](#) and [17.12](#)

May Affect Likely to Adversely Affect – The appropriate conclusion when any adverse effect may occur as a direct or indirect result of a proposed action or its interrelated or interdependent actions on listed species or designated critical habitat, and the effect is not discountable, insignificant, or completely beneficial

May Affect Not Likely to Adversely Affect – The appropriate conclusion when the effects of a proposed action on listed species or designated critical habitat are expected to be discountable, insignificant, or completely beneficial

Native Plant – A plant species that occurs naturally in a particular region, ecosystem, and/or habitat without direct or indirect human actions

No Effect – The appropriate conclusion when the proposed action will not affect a listed species or designated critical habitat

Practicable – Available and capable of being done after taking into consideration existing technology, cost, and logistics in light of the overall purpose of the activity

Species Impact Table – A table organized taxonomically that addresses species found on the current federal and state county lists – includes the scientific name, the common name, the protection status, a brief habitat description, an indication if suitable habitat is present within the vicinity of the proposed project, and an effect determination of the proposed project on the species

Take – To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct

Threatened Species – A species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range

12.0 Abbreviations and Acronyms

BA	Biological Assessment
BE	Biological Evaluation
CFR	Code of Federal Regulations
ENV	Environmental Affairs Division
ESA	Endangered Species Act
FHWA	Federal Highway Administration
HCP	Habitat Conservation Plan
IPaC	Information, Planning, and Conservation System
LOA	Letter of Authorization
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
TPWD	Texas Parks and Wildlife
TxDOT	Texas Department of Transportation
TXNDD	Texas Natural Diversity Database
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service

Appendix A: Revision History

The following table shows the revision history for this handbook.

Revision History	
Effective Date Month, Year	Reason for and Description of Change
April 2017	In Version 3, content was updated to enhance guidance on the Section 7 consultation process and reflect new documentation guidance due to updates to ECOS.
August 2015	In Version 2, content was updated to reflect NEPA assignment. The project file documentation requirements were updated to reflect final requirements determined for FHWA assignment. Content was updated to reflect current USFWS guidance on using the IPaC webpage.
January 2014	Version 1 is released.