

Arizona Department of Transportation

Environmental Handbook

Endangered Species Act

This handbook provides a regulatory background for compliance with the Endangered Species Act Specifically for section 7 (Interagency Cooperation) as well as sections 9 and 10 as applicable (16 USC 1531 – 1544.)



Table of Contents

Note to Users	ii
Definitions	iii
Abbreviations and Acronyms	v
Chapter 1 - ADOT Procedure	1
Chapter 2 - Regulatory Overview.....	1
Chapter 3 - Coordination and Consultation.....	3
Chapter 4 - Section 7 Consultation Process.....	4
Chapter 5 - Documentation Requirements	7
Appendix A.....	8
RevisionHistory	8

Note to Users

The Arizona Department of Transportation (ADOT) has developed this Endangered Species Act Handbook in coordination with the Federal Highway Administration (FHWA), Arizona Division, in compliance with 16 USC 1531 – 1544.

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

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. The USFWS, which is part of the U.S. Department of the Interior, is responsible primarily for terrestrial and freshwater organisms. The NMFS, which is part of the U.S. Department of Commerce, is responsible for ocean-dependent marine species. In Arizona, the USFWS has jurisdiction over all threatened and endangered species. Section 7 of the ESA includes several distinct requirements applicable to Federal agencies.

These requirements include conservation obligations in Section 7(a)(1) as well as consultation requirements in Section 7(a)(2). The Arizona Department of Transportation (ADOT) will meet compliance obligations for the ESA by following the requirements in this handbook and appropriate laws and regulations.

Evaluation of effects of federal actions to federally listed species is required for NEPA documentation regardless of NEPA document classification type: categorical exclusion, environmental assessment (EA), or environmental impact statement (EIS).

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.

The Federal Highway Administration (FHWA) assigned ADOT the responsibilities as department delegate for ensuring compliance with the ESA for Federal-aid highway projects. As such, ADOT is the lead federal action agency for purposes of ESA compliance (23 USC 326 and 327 and a Memorandum of Understanding April 2019, has been executed by FHWA and ADOT).

Definitions

Action Area – The geographic area within which direct and indirect effects of the Federal action have the potential to occur; often extends beyond the immediate vicinity of the project

Biological Evaluation (BE) – A document that evaluates the potential effects of the proposed action on any listed and proposed species and designated and proposed critical habitat that may be present in the action area. In some instances, a Biological Evaluation Short Form (BESF), which is a checklist format may be used. The term Biological Assessment (BA) may also be used for an EIS or major construction activity

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

Discountable effects - Those effects to a species that are extremely unlikely to occur

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 throughout all or a significant portion of its range

Federal Nexus – A project involves federal funding, federal permit or approval, use of federal lands, or a federal program.

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, and breeding.

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

Insignificant effects – Relate to the size of the impact and should never reach the scale where take occurs

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

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

Major Construction Activity is a construction project (or other undertaking having similar physical impacts) which is a major Federal action significantly affecting the quality of the human environment as referred to in the National Environmental Policy Act [NEPA, 42 U.S.C. 4332(2)(C)].

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

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 Exclusion Table – A table organized taxonomically that addresses species found on the current federal and state lists – includes the scientific name, the common name, species status, a brief habitat description, an indication if suitable habitat is present within the vicinity of the proposed project, and a reason to exclude the species from further analysis. A determination of no effect is made for all species found in the exclusion table. Some species on the list may have a detailed analysis if applicable

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

Abbreviations and Acronyms

ADOT	Arizona Department of Transportation
AZGFD	Arizona Game and Fish Department
BA	Biological Assessment
BE	Biological Evaluation
BESF	Biological Evaluation Short Form
BO	Biological Opinion
CFR	Code of Federal Regulations
District	ADOT Engineering District
EA	Environmental Assessment
EIS	Environmental Impact Statement
EP	ADOT Environmental Planning
ESA	Endangered Species Act
FHWA	Federal Highway Administration
HCP	Habitat Conservation Plan
IPaC	Information, Planning, and Conservation System
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
PM	ADOT Project Manager
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service

Chapter 1 - ADOT Procedure

It is the Arizona Department of Transportation (ADOT) policy to meet its compliance obligations regarding potential project impacts by following the regulation requirements in this handbook and other biology technical guidance found at <https://www.azdot.gov/business/environmental-planning/biology>.

FHWA Assignment

Under the Memorandum of Understanding between the Federal Highway Administration (FHWA) and ADOT concerning the State of Arizona participation in the Project Delivery Program pursuant to 23 U.S.C. 326-327, FHWA assigned ADOT the responsibility for ensuring compliance with the Endangered Species Act (16 USC 1531 – 1544) for projects with FHWA as the funding agency.

Review and Approval

ADOT evaluates compliance with the federal regulations addressed in this handbook during the review of the environmental document and issues approval through the National Environmental Policy Act or NEPA process. The federal agency funding the project is responsible for ensuring compliance with these regulations. FHWA is the most common funding agency and has assigned this responsibility to ADOT.

Public Involvement

The Endangered Species Act does not require ADOT to conduct specific public involvement outside of the NEPA process.

Chapter 2 - 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 by carrying out programs for the conservation of endangered and threatened species. 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 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.

Chapter 3 - 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 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 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 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 under Section 7 of the ESA. After initiation of consultation, ADOT shall not make any irreversible or irretrievable commitments of resources (Section 7(d)). 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 ADOT documentation standard, and an informal consultation, is required. The USFWS 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 BE using the ADOT documentation standard, and a formal consultation with USFWS is required. The consultation process will conclude with the USFWS 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 ADOT 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 “may affect” a proposed species or proposed critical habitat, a conference must be conducted with USFWS. 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 ADOT 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. It is ADOT's policy to analyze proposed and candidate species and proposed critical habitat for projects where they may be affected. 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 the Endangered Species Section 7 Handbook (USFWS 1998) for specific conference requirements. A conference is required by FWS regulation. Candidate species do not require any coordination with FWS, but ADOT proactively completes an analysis for candidate species on all projects nevertheless.

Refer to the additional resources noted below and contact the ADOT Biology Team for details and guidance regarding coordination and consultation with USFWS.

Chapter 4 - Section 7 Consultation Process

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

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. Develop a map showing the action area. 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 whether listed species and/or 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.

An official species list must be requested for all projects that require a BA, BE or BESF. In addition to the USFWS IPaC, the Arizona Game and Fish Department (AZGFD) Environmental On-line tool must be used to obtain more detailed species location data. This tool is used for all ADOT projects requiring a BA, BE or BESF as well.

Note: Per 50 CFR 402.02 the requirement to obtain an official species list from the USFWS is limited to "major construction activities" but ADOT requires an official list for any project that requires completion of a biological document such as a BE or BESF. If preparation of the BE has

not begun within 90 days of receipt of the official IPaC species list and AZGFD species list the accuracy of the lists must be verified or new lists requested.

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.

A no effect determination for a proposed or listed species is appropriate when:

- 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 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 BE, BESF or 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. All consultations with USFWS must be initiated and coordinated through the ADOT Environmental Planning Biology Team. The Biology Team will coordinate directly with the Project Manager (PM) and Engineering District to verify any proposed mitigation measures are appropriate and approved by both the PM and District.

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), a Biological Evaluation long form is required. See the ADOT EP Technical Guidance webpage for format and details for a BE.

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), a BE long form must also be completed. 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 ADOT EP Biology Team finalizes a BE they will initiate either informal or formal consultation with the USFWS per 50 CFR 402.13&14.

Reinitiation

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.

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 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 ADOT projects. In most cases the ADOT Biology Team coordinates the project with the USFWS and includes measures in the project to avoid any take. Contact the ADOT EP Biology Team for additional guidance.

Additional Resources

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

- ADOT EP [NEPA Guidance for Federal Aid Projects](#), General [Biology Guidance](#), and [Biology Technical Guidance](#) Page
- USFWS [Information, Planning, and Conservation System \(IPaC\) Webpage](#), for project specific lists of threatened and endangered species
- Arizona Game and Fish Department [On-Line Environmental Review Tool](#)
- USFWS and NMFS [Endangered Species Consultation Handbook](#), released March 1998
- USFWS [Habitat Conservation Planning Handbook](#) webpage
- USFWS [ESA Compensatory Mitigation Policy](#)
- American Association of State Highway Transportation Officials Practitioners Handbook 17 [“Complying with Section 7 of the ESA for Transportation Projects”](#)

Public Involvement

Public involvement efforts regarding the ESA are not required. For public involvement requirements under NEPA, which may involve ESA related issues, see ADOT EP [NEPA Guidance for Federal Aid Projects](#).

Chapter 5 - Documentation Requirements

The following describes the necessary biological documentation required when completing either a state funded project or a federally funded project that also requires some level of NEPA documentation.

Project File Documentation

Required Documentation:

- For Categorical Exclusions, the project file must include an approved final BE, BESF or an ADOT approved memo. All document formats must contain the project number, a complete description of the project and a determination of affects for listed and proposed species. An approved BE or BESF has been signed by a qualified consultant contractor and/or ADOT biologist and have an approval stamp by the ADOT Biologist (internal reports are approved by a different ADOT biologist than the author).
- For Environmental Assessments and Environmental Impact Statements, determinations and findings regarding the outcome of ESA compliance are included in the environmental document. These projects will eventually require a BA or BE. However, a separate technical report concerning impacts to listed species may be prepared and appended to an EA or EIS if a preferred alternative has not yet been determined.
- An official species list from the USFWS IPaC website and a species list from the AZGFD environmental on-line tool for all projects documented with a BE or BESF.
- Any review letters signed by or sent to adjacent federal agencies or tribes.
- The USFWS'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 if conducted.

Environmental Review Document Content

The biology document (BA, BE or BESF) 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 the biology document should indicate if the project will have:

- No take; or
- Take.

The document also must include references to consultation with USFWS if conducted, and a discussion of how it was resolved, and any commitments that need to be fulfilled. Critical Habitat does not apply to projects without a federal nexus.

For additional guidance on Section 7 consultation process, refer to the ADOT Environmental Planning [Biology Webpage](#).

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, if conducted and issued. The ADOT Biology Team evaluates and approves ESA compliance as part of the NEPA review process.

Authorization Requirements

Any consultation under Section 7 must be completed prior to the completion of the NEPA document. For projects that are not federally funded or permitted may result in the incidental taking of listed species, a Section 10 Incidental Take Permit must be obtained from USFWS prior to beginning any construction or maintenance activity.

Appendix A

RevisionHistory

The following table shows the revision history for this handbook.

Revision History	
Effective Date Month, Year	Reason for and Description of Change

April 2019	Final Version posted to EP website
November 2017	Draft version completed.