
5.0 Endangered Species Act and Mitigation

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5.0 Endangered Species Act and Mitigation

Chapter Summary

- Under Section 7 of the Endangered Species Act, federal agencies are directed to use their authority to support ESA programs for the conservation of listed species and the habitats upon which these species depend.
- Recovery of species is not achieved on a project-by-project basis.
- Section 7 requires action agencies to minimize the level of *take* associated with each project by avoiding or minimizing project impacts to species and habitats.
- There is no requirement that action agencies mitigate for incidental *take*.
- For projects undergoing formal consultation, the addition of mitigation to a project cannot result in an informal consultation. If *take* will occur, the project requires formal consultation.
- The Services cannot require major changes to projects, and any suggested changes to projects should be directly associated with anticipated impacts.
- The Washington Department of Fish and Wildlife has the authority under the hydraulics code to require mitigation for the protection of fish life.
- The U.S. Army Corps of Engineers has the authority to require mitigation of wetland impacts.
- Local agencies have the authority to require mitigation of wetland and stream impacts in accordance with their critical area ordinances.

5.1 Purpose of the Endangered Species Act

The purpose of the Endangered Species Act is to provide a means whereby the ecosystems upon which threatened and endangered species depend may be conserved, and to provide a program for the conservation of such species. Under Section 7(a)(1) of the ESA, federal agencies are directed to utilize their authorities in furtherance of the purpose of this act by carrying out programs for the conservation of listed species. Table 5.1 provides a list of the major sections of the ESA.

Table 5-1. Key Provisions of the Endangered Species Act.

Provision	Description and Enforceability
Purpose and Policy; ESA Section 2 (16 U.S.C. § 1531)	To provide: "a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species."
Definition of "Take"; Section 3 (16 U.S.C. § 1532)	"Take" is broadly defined to include any actions that harm the species, including "habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering" (50 CFR § 17.3).
Listing; ESA Section 4 (16 U.S.C. § 1533(a)(1))	The listing is deemed appropriate if the continued existence of the species is jeopardized by one or more of the following factors: (1) The present or threatened destruction, modification, curtailment of the species habitat or range; (2) Over-utilization for commercial, recreational, scientific, or educational purposes; (3) Disease or predation; (4) Inadequacy of existing regulatory mechanisms; or (5) "Other factors" affecting the species continued existence (16 U.S.C. § 1533(a)(1)). Several hard deadlines for acting on listing decisions.
Critical habitat designation; ESA Sections 3 and 4 (16 U.S.C. § § 1532 (5)(A), 1533(a)(3)(A))	"Critical habitat" is defined as: (1) specific areas within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to conservation, and those features may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation. Economic factors considered in designation. Alteration of critical habitat triggers the consultation requirement. Critical habitat must be designated concurrently or within one year of decision to list the species.
Recovery Plans; ESA Section 4(f) (16 U.S.C. § 1533(f))	Recovery plans must contain: (1) objective measurable criteria for delisting the species; (2) site-specific actions; and (3) estimates of the time and cost for implementing the recovery plan.
Consultation process; ESA Section 7 (16 U.S. C. § 1536)	Requires all federal agencies to consult with the appropriate wildlife agency to ensure that their actions are not likely to jeopardize the continued existence of listed species or result in destruction or adverse modification of critical habitat. Mandatory; failure to engage in consultation legally enforceable.
Prohibition Against "Take"; ESA Section 9 (16 U.S. C. § 1540)	It is illegal to "take" a listed species (see previous definition) without a permit under Sections 7 or 10. Seldom enforced against private parties due to burden of proof issues—must show "actual injury" to listed species.
Habitat Conservation Planning and Non-essential/experimental populations; ESA Section 10 (16 § U.S.C. 1539)	Exceptions to "take" prohibition. Allows for permits for incidental take to be granted in association with the development of Habitat Conservation Plans on private lands; allows for the establishment of and maintenance of experimental populations in order to facilitate recovery.

Source: <https://www.ecologyandsociety.org/vol17/iss4/art28/table1.html>

5.2 Federal Agencies and Washington State Department of Transportation Programs to Support the Recovery of Listed Species

The Washington State Department of Transportation (WSDOT) supports a fish passage replacement program within the agency. Under this multimillion-dollar program, which has been in place for many years, numerous fish passage barriers are replaced each year. Replacements were prioritized according to their level of benefit to fish.

In 2001, twenty-one northwest Washington tribes asked the U.S. District Court to find that the State of Washington has a treaty-based duty to preserve fish runs, and sought to compel the state to repair or replace culverts that impede salmon migration.

The court ruled in favor of the tribes and declared that the right of taking fish, secured to the tribes in the Stevens Treaties, imposes a duty upon the state to refrain from building or operating culverts under state-maintained roads that hinder fish passage and thereby reduce the number of fish that would otherwise be available for tribal harvest. The court further declared that the State of Washington currently owns and operates culverts that violate this duty.

A federal court injunction, issued March 2013, requires the state to significantly increase the effort for removing state-owned culverts that block habitat for salmon and steelhead by 2030 (<https://wsdot.wa.gov/construction-planning/protecting-environment/fish-passage>).

In 2002, WSDOT established a collaborative process with Washington Department of Fish and Wildlife (WDFW) to address chronic environmental deficiencies (CED). These are locations along the state highway system where recent, frequent, and chronic maintenance and/or repairs to the state transportation infrastructure are causing impacts to fish and/or fish habitat (<https://wsdot.wa.gov/construction-planning/protecting-environment/chronic-environmental-deficiencies-ceds>). This program strives to develop long-term solutions for these problem areas.

WSDOT also actively supports research that contributes information useful to recover listed species. Among them are a statewide habitat connectivity assessment and a multi-pronged research effort to understand habitat connectivity east of Snoqualmie Pass, evaluating the effects of ferry terminal structures on fish migration, evaluating and minimizing noise impacts to aquatic species from pile installation, and establishing the fish passage requirements of juvenile salmonids. Additional information on the Environmental Research program is available at: <https://wsdot.wa.gov/about/library-research-reports/research-reports>.

FHWA has supported numerous studies, conferences, and projects focused on habitat connectivity, fish passage programs and standards, wetland restoration, and other environmental programs.

Neither agency supports recovering listed species on a project-by-project basis through Section 7 consultations.

5.3 The Section 7 Consultation Process

Under the Section 7 consultation process, the action agency is required to make an *effect determination*, that is, to determine the effect the project will have on a listed species. Section 7 requires action agencies to minimize the level of *take* associated with each project. There is no requirement that the action agency mitigate for incidental *take*. In this regard, ESA is different from other environmental regulations such as wetland regulations, which require mitigation for impacts.

However, the concepts of avoidance and minimization of impacts are important parts of project planning and implementation, playing a large role in the determination of effect. For example, if a project occurs during the sensitive nesting season and is out of sight of a spotted owl nest site or an occupied marbled murrelet nest stand but will use heavy equipment within the disturbance threshold distance of the nest site or stand, the project will result in an adverse effect on the species and therefore will require formal consultation. The same is true for a project that will complete in-water work while listed fish species are present.

However, if the project is timed to occur outside the sensitive nesting season or the migration period when fish are likely to be present, the effect determination will be *not likely to adversely affect* (NLTAA). This effect call allows the project to undergo the shorter informal consultation process. In these examples, it may not be possible to have a no effect call because the owls tend to be present year-round, murrelets may visit their nesting stand throughout the year, and both species may elect to alter their behaviors during the project.

Unfortunately, there are circumstances when an adverse effect call must be made and the project must undergo formal consultation. Examples include long-term projects (e.g., a bridge replacement) or weather-dependent projects that are unable to avoid the sensitive nesting period. This is often the case for projects that require in-water work in waters that contain rearing steelhead or Chinook and where there is suitable rearing habitat in the project area. It is not possible to mitigate an adverse effect call down to a NLTAA call. If fish will be harassed by the in-water work or caught in nets and moved out of the work area, this meets the definition of *take*, and performing mitigation (such as replanting a riparian corridor or replacing a fish passage barrier) will not prevent take (prevent fish from being harassed or possibly harmed while being moved).

5.4 What the Services Can Require

When a proposed project is determined to have an adverse effect on listed species, the Services issue a biological opinion that may include reasonable and prudent measures that are mandatory and must be carried out by the action agency. These measures serve to minimize impacts on specific individuals or habitat affected by the action. The required measures should be developed in conjunction with the action agency and the applicant to ensure that they are reasonable, will

result in only minor changes to the project, and are within the legal authority and jurisdiction of the agency to implement.

Reasonable and prudent measures may include narrowing the right-of-way to be disturbed, moving the location of temporary storage areas, or changing the scope, duration, and timing of the project.

Examples of unreasonable measures include asking a federal agency to implement a local county's riparian buffer protection ordinance, asking the applicant to make modifications to the property of another individual or agency, or asking the applicant to complete a research project on the life history and habitat utilization of a listed species.

5.5 Agencies with the Authority to Require Mitigation

WDFW has the authority under the hydraulics code to require mitigation for the protection of fish life. A hydraulic project approval (HPA) permit is required for work occurring within waters of the state (<https://wdfw.wa.gov/licenses/environmental/hpa>). The habitat biologist issuing the permit determines what the mitigation will be, and it can include the correction of fish passage barriers, revegetation of stream banks disturbed during construction, or placement of large woody debris. If an HPA is required for a project, and mitigation is required as part of the HPA, then the mitigation becomes part of the project, and the impacts of the mitigation on listed species must be addressed in the BA.

In addition, local agencies can require mitigation for wetland and stream impacts in accordance with their critical areas ordinances. The U.S. Army Corps of Engineers also can require mitigation for wetland impacts. The mitigation becomes part of the project, and the effects of completing the mitigation must be addressed in the BA. The mitigation does not occur as a requirement of ESA; rather, it occurs as part of the project.

5.6 Mitigation Under the Endangered Species Act

Sometimes agencies add mitigation to a project because of suggestions by the Services that unless the mitigation is completed, the project will need to undergo formal consultation (which is a very long process). In some cases it may be appropriate to make the suggested changes to a project, but in many cases it is not. Examples of suitable suggested changes include altering project timing to avoid or minimize impacts on species, or revegetating a stream bank that was disturbed by construction. Examples of unsuitable suggested changes include purchasing a conservation easement on a mile of stream bank to keep a riparian corridor intact, completing research on a species, or using soft structure methods to control bank or bridge scour that will result in compromising the safety of the structure or the traveling public. The Services cannot require major changes to projects, and any suggested changes to projects should be directly

associated with anticipated impacts of the project. The action agency must recognize that the consultation process, whether formal or informal, is based on the effect call for a project.

5.7 Why Action Agencies Should Help to Recover Listed Species

Agencies should do what they can to help recover listed species. While restoration and enhancement activities should not be performed as mitigation for Section 7 consultations, they should be implemented where possible as part of the project. For example, when a paving or safety improvement project crosses a stream with a culvert that is a documented fish passage barrier, that culvert should be replaced as part of the project. The rationale for completing the project this way is that the barrier needs to be removed, and while the replacement may be scheduled for a later date, it is easier to do it as part of the proposed project as the equipment is already in place, and the new pavement will not be compromised in the future. The project is submitted to the Services with the fish passage barrier replacement as part of the project, not as mitigation for the project.

